University of the Philippines Manila
College of Arts and Sciences
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Health Application for Natural Products Information System for Plants (HANAPIN-SP)

A special problem in partial fulfillment
of the requirements for the degree of
Bachelor of Science in Computer Science

Submitted by:

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ACCEPTANCE SHEET

The special problem entitled "*Health Application for Natural Products Information – System for Plants*" prepared and submitted by *Custodio Gerard Joseph Abella* in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science has been examined and is recommended for acceptance.

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Abstract

Research on plant natural products is a fast growing field of research among scientists in the Philippines. As to any research would agree, compiling and storing different types of files is a hard task. Health Application for Plant Natural Products – System for plants, HANAPIN-SP, caters to most problems researchers of natural products might encounter regarding storing, sharing and compiling data sources.

The system constructed in this study provides researchers with an interactive system keeping them updated all the time about their projects. The system also provides researchers a mean of sharing their researches to the research community. The system allowed researchers to store important references under their projects. References are important especially for other researchers wanting to understand the work of other researchers. With the help of the search functionalities, users can search for other projects and therefor lessen the probability of doing duplicate work. HANAPIN-SP was able to provide researchers a repository of their research projects which is secured and intellective.

To keep data organized and easy to understand, the system used a Plant Ontology. The ontology served as guide, or a format, for data stored inside the system. In HANAPIN-SP, ontology played a major part for the data fields of each active compound. Each active compound is the output of an experiment and therefore should always be presented as complete and as organized as possible. HANAPIN-SP is a system wherein various researchers can collaborate with other researchers towards the development of ground-breaking and unique researches.

Keywords: Ontology, Natural Product, Plant Natural Product

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I. INTRODUCTION

A. Background of the Study

A natural product is a chemical compound or substance produced by a living organism – found in nature that usually has a pharmacological or biological activity for use in pharmaceutical drug discovery and drug design. Natural Products are also known as phytochemicals or secondary metabolites.[1] In fact, in some therapeutic areas, as for example, oncology, infections and immunomodulation targets, many of the currently available drugs are derived from natural products.[2] Due to the diverse natural resources of the Philippines, research about such natural products is ever growing.

Most of the time, researchers deal with a lot of information. And it is due to this fact that many problem arise. Not only are the researchers distracted by the volume of information or papers held, there are also certain types of data they should consider in keeping the records. Such types of information are experimental data and published literature. Today in the Philippines, there are many researches about natural products. However, these researches are not readily available for the public or for other researchers. It is due to this that there is failure of publication resulting to duplication of works by researchers. If ever the researchers would like to find out about other researches out there, it would be very hard for them. It is because of the fact that there is no centralized repository for all the researches being done for the given field. Even though soft copies or researches or studies are available, researchers would still have to know each other personally in order to get information about the other groups' research work. Because of the aforementioned factors, problems in manipulating, sharing, searching and comparing data is inevitable. A proposed solution to this problem is the use of Ontology and Information systems.

B. Statement of the Problem

Information systems pertaining to plant natural products are rare here in the Philippines. There are only a handful of documents supporting natural products information research here in the Philippines with the use of information systems. This scenario makes it difficult for researchers to conduct their study. Due to this, researchers tend to find hard copies of researches which are very rare and scarce. Although soft copies of researches are available, the researchers should know each other personally before one can get a copy of the other's research. Sharing within various researchers is tedious and very difficult.

A problem that arises from the previous scenario is the duplication of work. Since the researchers don't have a clear or general view of what researches have been already done, they might accidentally reconstruct a previously done experiment. This problem could cause researchers their efforts and resources.

Another scenario which is happening today is that researchers hold a significantly large amount of data. These data could also be of different types which would make them hard to organize. More often than not, natural product researches do not follow standards, thereby making the format of one research data different from other research data. Since data from different researches are not of the same standard, databases holding research information is not interoperable with one another. This is another problem researchers have to deal with.

With the given scenarios and handful of problems, this research would aim to develop an information system using an ontology that would help researches share their researches to the community, help them publish their work and help them store and standardize various information important for their research.

C. Objectives

The aim of the study is to produce an information system in which various researchers of plant active compounds can share and publish their works. HANAPIN-SP provides services for 6 levels of users.

1. **Level 0** or the unregistered users are the normal visitors of the site having no HANAPIN-SP account yet. Level 0 users are able to:
    a. View the basic information of the system
    b. View news and updates about the system
    c. View the frequently asked question page
    d. Apply for HANAPIN-SP account
2. **Level 1** or the registered users is a system-wide level. Users having a HANAPIN-SP account belong to this level. Aside from the functionalities of level 0 users, users at this level are able to:
    a. Edit account information
    b. View HANAPIN-SP plants and their basic description
    c. View the basic description of a project under a specific plant
    d. View the plant source information of a project
    e. Download or view publicly available active compounds under a project
    f. Download or view publicly available references or published works under a project
    g. Apply membership for a certain project
    h. Use the search functionality of HANAPIN. Users will be given a list of projects from which the given search items are found. Users will be able to search using the following data:

i. Users can search by project details
ii. Users can search by active compounds
iii. Users can search by plant source information

3. **Level 2** users or the project viewers, is an access level for each project in the system. Level 1 user has to apply for this level for a specific project. Aside from the functionalities given to level 1 users, level 2 users can:
    a. Download or view non-publicly available active compounds under a project.
    b. Download or view non-publicly available references or published works under a project.
    c. Apply for an upgrade of position in the project
    d. Leave the project. Leaving a project is not feasible if the user is the only level 4 user of the project.
4. **Level 3**, or the project managers, is an access level for each project in the system. Level 1 or level 2 users can apply for this position. Alongside with the functionalities of level 2 users, level 3 users can:
    a. Add or edit plant source information of the project. Users at this level will be able to input the following fields from the ontology for the plant source information:
        i. Location from which the source were acquired
        ii. Availability of the plant source
        iii. Habitat
        iv. Plant Part Source and its Traditional User
    b. Add, edit or delete active compounds. Users at this level will be able to input fields for an active compound from the ontology such as:

i. Natural Product Name
ii. IUPAC Name
iii. Molecular Formula
iv. SMILES
v. InChi
vi. InChi Key
vii. Structural Type
viii. Dosage Formulation
ix. Molecular Function
x. Drug Target
xi. Disease Target

c. Add, edit or delete references or published works. There are nine types of references that the user can access. These are namely:

i. Articles
ii. Books
iii. Booklets
iv. Incollection
v. Inbook
vi. Manual
vii. Technical Report
viii. Thesis
ix. Unpublished Work

5. **Level 4**, or the project administrators, is an access level for each project. Level 1, level 2 or level 3 users has to apply for this position. With the functionalities of level 3 users, level 4 users can:
    a. Approve/disapprove project membership requests
    b. Add a project viewer, a project manager or another project administrator directly. If the chosen person is already in the project with a higher position than what will be assigned to him, he is downgraded. For the contrary situation, the person's position is upgraded.
    c. Remove a user from the project.
6. **Level 5**, or system administrators, is a system wide access level. Level 5 users are considered level 2 users to projects they are not involved. Users at this level is able to do the following management functionalities:
    a. Edit other user account
    b. Disable user accounts. Disablement will not be feasible if the user to be disabled is the only level 4 user of a certain project.
    c. Approve/disapprove user account requests
    d. Add another level 5 user
    e. Add, edit or delete links in the external links
    f. Add, edit or delete frequently asked questions
    g. Add, edit or delete system news and updates
    h. Edit email functionalities of the system

i. Add, edit or delete projects. Upon the creation of the project, the level 5 user is to assign initial level 4 user/s for the project. The basic information needed for the project are:
    i. Project Name
    ii. Project Acronym, or also called the project code
    iii. Project Description

j. Add, edit and delete plants from the system. Deletion of the plant will not be feasible if there are projects under that specific plant. Information needed for the creation of the plant are as follows:
    i. Plant Scientific Name
    ii. Plant Local Name
    iii. Plant Synonyms
    iv. Plant Common Names
    v. Plant Image
    vi. Plant Description

D. Significance of the Study

HANAPIN-SP is an Information System that caters to common and advanced needs of Natural Products Researchers. It supports input and output of research data in an efficient and standard manner. HANAPIN-SP serves as a site where various researchers in the Philippines can collaborate regarding their experiments and their studies.

A researcher can have more than one research group. The purpose of developing notifications for each user is that user can become updated about a current research work even if

he/she is away. HANAPIN-SP also contains news and updates in which users will be updated about the system

HANAPIN-SP implements high level of security among projects of the system. The system follows strict levelling of users within the system. Researchers are able to specify which data should be kept private or public to the users of the system. The researchers are assured that their data is secured within the system. This way, researchers are able to share important details about their researchers without compromising their ownership of the research.

HANAPIN-SP projects also serve as repository for the large amount of data each project would be needing. More than just being a repository, HANAPIN-SP stores and display this data in a standard manner. This is done by using the ontology, wherein the fields of each data item in an experiment is fixed and of standard format. HANAPIN-SP is also interoperable with different databases since the format of data is standard.

The system also supports searching through all the projects in the database. The integrated search module helps researchers find other research projects thus eliminating the possibility of doing duplicate research work.

E. Scope and Limitations

HANAPIN-SP functionalities is limited to the following:

1. HANAPIN-SP is limited to the researches done in the Philippines.
2. Active compounds and plant source information fields are limited to the current ontology HANAPIN-SP is using.
3. Reference types uploaded for each project is limited to the types supported by the system.

4. Each reference can only upload one file per entry. It is responsibility of the level 3 and level 4 users to make sure that the softcopy of the reference uploaded, if there is one, do not violate any copyright of intellectual property.
5. Verification of plant scientific name is only done by checking in one external website namely, catalogueoflife.org. It is still at the discretion of the level 5 user if after failing the verification, the plant would still be added to the system.
6. Account notifications and other notifications can only be viewed in email or in system and by no other means.
7. Each plant only have one corresponding image file. It is the responsibility of the level 5 user who uploaded the image file to make sure that the uploading of the image do not violate any copyright or intellectual property.
8. Search only includes entries inside the system and does not include any external database.
9. Searching is done by normal text search. No data extraction or other advanced means of pattern matching will be used.

II. REVIEW OF RELATED LITERATURE

An ontology is basically a collection of terms, their description, and their relationships with one another, defined in the context of a particular subject domain. An ontology defines a common vocabulary for researchers who need to share information in a domain. It includes machine-interpretable definitions of basic concepts in the domain and relations among them. Since ontologies are designed to be machine-understandable, it is possible for computer applications to make use of them for the automation of menial tasks. One successful collaborative effort for the development of ontologies is the Plant Ontology Consortium. The Plant Ontology Consortium (POC, http://www.plantontology.org) is a collaborative effort among model plant genome databases and plant researchers that aim to create, maintain and facilitate the use of a controlled vocabulary (ontology) for plants [3]. The ontology allows users to ascribe attributes of plant structure (anatomy and morphology) and developmental stages to data types, such as genes and phenotypes, to provide a semantic framework to make meaningful cross-species and database comparisons. A primary goal of the POC is to develop simple yet robust and extensible controlled vocabularies that accurately reflect the biology of plant structures and developmental stages. These provide a network of vocabularies linked by relationships (ontology) to facilitate queries that cut across datasets within a database or between multiple databases [4]. The POC builds upon groundbreaking work by the Gene Ontology Consortium (GOC) by adopting and extending the GOC's principles, existing software and database structure [3]. The Consortium has implemented new functionalities to facilitate the application of PO in genomic research and updated the website to keep the contents current.

The plant ontology consortium implements a DAG (Directed Acyclic Graphs) structure for the ontology. DAG’s are good especially for ontologies whose information is incomplete.

Under DAG model, a node can have two or more parents. DAGs are able to represent biological relationships more readily than typical hierarchical structures. Under POC, there are two main onotologies being developed, the plant ontology itself and the trait ontology [5]. Within the Traits Ontology will be included the following domains: agronomic traits, mutant phenotypes, phenotypes, traits, and QTL (quantitative trait loci). Genetic traits (map locations of loci of genes for each chromosome of the taxon in question) may be associated with the traits ontology. The plant ontology would consist of two sub domains, namely Plant Development Ontology and Anatomy. PDO would include published growth stage descriptors while the Anatomy ontology would include data such as cell types and tissue types in the plant body, their anatomical structure, function and location in the plant body [5].

There have been many databases created for natural products and compounds that can prove helpful for HANAPIN-SP and the development of an ontology. An example is the Dictionary of Natural Products. The Dictionary of Natural Products (DMP) is a rich database of natural products developed as a subset of the Chapman and Hall/CRC Chemical Database. It is the only comprehensive and fully-edited database on natural products. The Chapman and Hall/CRC Chemical Database is a structured database holding information on chemical substances. It includes descriptive and numerical data on chemical, physical and biological properties of compounds; systematic and common names of compounds; literature references; structure diagrams and their associated connection tables [6].

The DNP has a subset called the Dictionary of Marine Natural Products (DMNP), which focuses on natural products derive from marine organisms. For the DMNP project, the subset of DNP entries referring to marine natural products were carefully checked and reviewed and enhanced with a considerable amount of additional information relating to their natural

occurrence. Several careful reviews were also carried out to ensure that the coverage of marine natural products in the finished publication was as complete as possible [7].

Another listing of natural products can be obtained from MarinLit. MarinLit is a database of marine natural products literature. It contains bibliographic, chemical and taxonomic data. Bibliographic data in MarinLit covers around 22,000 references from 1,200 journals and books with data for around 21,000 compounds. Chemical information on the compounds includes trivial names, structures, formulae, molecular mass, functional groups and UV data. Taxonomic data permit exploration of relationships at different levels such as genus, family or order. All of these data can be searched individually or in various logical combinations [8]. MarinLit uses for tagging entries an extensive collection of keywords which cover biological activities, chemistry, culturing, ecology, extraction methods, functional groups, geographic and sea regions and pharmacology [1].

NAPRALERT is also a database of natural products. NAPRALERT is a relational database of natural products including ethnomedical information, pharmacological and biochemical information of extracts of organisms in vitro, in situ, in vivo, in humans and clinical studies [9]. It contains bibliographic, taxonomic, chemical and pharmacological data. NAPARALERT provides a listing of pharmacological or biological activities, classified into major types such as central nervous system effects, chemotherapeutic effects, cardiovascular effects and others [10]. This classification system can be adapted to the ontology being developed.

Another database of natural products is PLANT. PLANT is a bibliographic database. It has been constructed since 1999 and was designed to retrieve data about medicinal plants published in the Brazilian Bibliography. The objective is to contribute with drug development,

since it contains data normally not accessible and important for research development in the fields of pharmacognosy, natural product chemistry, botany, biochemistry, pharmacology and other areas correlated with the studies of plants [11]. The database has more than 2000 articles indexed which were published from 1920 until nowadays in 22 Brazilian periodicals. Indexing and retrieval of information is done through the use of strong identifiers and keywords that provide ease for searching published works. These keywords can be used as basis for the ontology being developed.

An example of a database for natural compounds is ChEBI. Chemical Entities of Biological Interest (ChEBI) is a non-proprietary dictionary of molecular entities focused on small chemical compounds. The molecular entities in question are either natural products or synthetic products used to intervene in the processes of living organisms [12]. ChEBI provides information on biochemical compounds which are classified according to their structure, physic-chemical properties or biological function. The project to develop ChEBI, which was started at the European Bioinformatics Institute, aims to provide a high quality, thoroughly annotated controlled vocabulary to promote the correct and consistent use of unambiguous biochemical terminology throughout the molecular biology databases at the European Bioinformatics Institute [12]. With that goal in mind, a database and ontology is developed. The database contains information such as ChEBI name, IUPAC inChi, SMILES and other identifiers. ChEBI ontology consists of four sub-ontologies namely the molecular structure, biological role, application and subatomic particle.

Different from the previous databases, SuperNatural is a structure-based database of natural compounds. SuperNatural Database is the first public resource containing 3d structures and conformers of 45917 natural compounds, derivatives and analogues purchasable from

different suppliers [13]. Data from this database basically comes from the suppliers. The suppliers would give the 2d models of the compounds, and then the system would extract a 3d structure of the compound and be able to formulate information about that certain compound. In the database, you could search via Known Compounds, Templates, Supplier/ID, Similar Drugs or Cellular Effects.

Like SuperNatural, NAPROC-13 stores and organizes information on natural compounds through their chemical structures. NAPROC-13 is a suitable tool that deals with complex chemical problems such as structure elucidation, which necessitates the joint efforts of information science and chemistry experts. NAPROC-13 significantly enhances the search of spectroscopic information on the Web by integrating structure-based and numerical shift searches [2]. The molecular structures in the databases are stored in SMILES format. It allows for flexible searches by chemical substructures, spectral features, chemical shifts and multiplicities. Just like in HANAPIN-SP, we would also use conventions for chemical structures such as SMILES, IUPAC inchi and other structure identifiers.

Reference management on the other hand involves the collection, annotation, and citation of the bibliographic information. And with the use of reference management software, these tasks were simplified. Management and sharing of bibliographic information are practical benefits for members belonging to a research organization and so it is important that they provide tool for it. An example of a reference management tool is the Clock Library which is part of the EUCLOCK System. EUCLOCK is a project that aims to investigate the circadian clocks in model organisms such as flies, mice, and humans [14]. As part of the EUCLOCK system, Clock library provides researchers access to a central reference repository, which serves as a virtual venue for collaboration.

III. THEORETICAL FRAMEWORK

A. Plant Natural Products

A natural product is a chemical compound or substance produced by a living organism - found in nature that usually has a pharmacological or biological activity for use in pharmaceutical drug discovery and drug design. These small molecules provide the source of inspiration for the majority of FDA-approved agents and continue to be one of the major sources of inspiration for drug discovery. In particular, these compounds are important in the treatment of life-threatening conditions [15].

1 Plant Natural Products

Plants contain complex and highly varied chemical compounds that are used for variety of purposes, most notably for defense against animals or insects that may try to eat them. These compounds are commonly referred as plant natural products. These compounds are often tested for various applications such as therapeutic uses. Some compounds have been shown to be effective in treating various diseases, for example, morphine and quinine. An example of compounds used for synthetic drugs are the local anaesthetics developed from cocaine. Clinically useful drugs which have been recently isolated from plants include the anticancer agent paclitaxel (Taxol) from the yew tree, and the antimalarial agent artemisinin from Artemisia annua[16].

B. Compound Naming

1. IUPAC Naming

The IUPAC nomenclature(from the International Union of Pure and Applied Chemistry) involves picking out the longest continuous chain of carbon atoms, then identifying what groups are attached to that chain and indicating where they are attached. Here are some basic rules in IUPAC Naming:

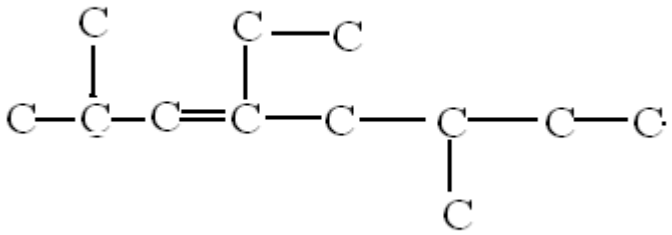


Figure 1. 5-ethyl 2,6-dimethyl 3-octene

1. Find the longest chain. As for this example, the longest chain is 8. Refer to figure 2 for the name to give for the longest chain.
2. Find double or triple bonds. Since the longest chain is 8, there is a double bond, indicating that it is an –ene (hydrocarbon with at least one double bond), the double bond is at the third carbon, the name should comprise of 3-octene.
3. Look at substituent groups. In the example, there are two groups of ethyl and one group of methyl. The ethyl is connected at carbon 5, therefore indicating there is a 5-ethyl in the compound's name. The methyl groups are connected at carbons 2 and 6, therefore producing 2,6-dimethyl.
4. If there is a cycle, they go at the start of the name.

5. Put the pieces together. Producing “5-ethyl 2,6-dimethyl 3-octene”.

For complete guidelines on basic IUPAC naming of organics, refer to [17].

No. of C atoms in the longest cont. chain	Root Word	Primary Suffixes		
		Alkane -ane	Alkene -ene	Alkyne -yne
1	Meth-	Methane		
2	Eth-	ethane	ethene	Ethyne
3	Prop-			
4	But-			
5	Pent-			
6	Hex-			
7	Hept-			
8	Oct-			
9	Non-			
10	Dec-			
11	Undec-			
12	Dodec-			
13	Tridec-			
20	Eicos-			
21	Heneicos-			
22	Docos-			
23	Tricos-			
30	Triacont-			
31	Hentriacont-			
40	Tetracont-			
50	Pentacont-			
60	Hexacont-			
70	Heptacont-			
80	Octacont-			
90	Nonacont-			
100	Hect-			

(1)

Figure 2. Prefixes for carbon chains [18].

For each and every function groups, it has a unique convention or guidelines used. Ketones and aldehydes are very widespread in natural products [19]. Both aldehydes and ketones are often referred to as carbonyl compounds. The difference between aldehydes and ketones, however, lies in the atoms or groups to which the carbon of the carbonyl group is bonded. In aldehydes, at least one of the bonds is connected to a hydrogen atom,

while in ketones neither bond is connected directly to hydrogen, but both are connected to carbon atoms. Here are some guidelines on naming the given function groups:

Ketones

1. Identify the parent chain, it must include the carbonyl group. The parent chain to figure 3 is hexane.
2. Number the parent chain starting from the end closest to the carbonyl location. The carbonyl location is at carbon 4, so we will use number 3.
3. Identify the various branching groups attached to this continuous chain of carbons by name. There are no other groups in the chain.
4. Change the "e" ending and replace it with -one.
5. Summing up, we get 3-hexanone.

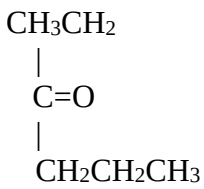


Figure 3. 3-hexanone

Aldehydes

Aldehydes and Ketones have almost the same method of naming. The last “e” should be replaced by “al”. But there is one additional step for naming aldehydes. That is to name the carbon chain where the carbonyl carbon is always number 1.

Please refer to [20] and [21] for a full reference about IUPAC nomenclature.

2. IUPAC InChI

IUPAC InChI(International Chemical Identifier) is a unique label which is a non-proprietary identifier for chemical substances that could be used in printed and electronic data sources thus enabling easier linking of diverse data compilations [22]. Features derived from [23] are as follows:

- Derived directly from structure

  No registration authority is required to assign a compound an InChI. As counterweight of this advantage, the need to accommodate all the possible compounds forces the length of the InChI string to be proportional to the structure size.

- Unique

  The InChI format is cleverly designed to assign the same InChI to a compound regardless of the way it is drawn. This ensures that InChI generated for one compound by different users with different drawing habits will be the same.

- Layered

  For different purposes different levels of detail of chemical structure description are required. InChI approaches this problem by splitting the information contained within the identifier into several layers describing different features of the structure. There is for instance the connectivity layer, the charge layer, isotopic layer etc.

  This approach has several advantages. It means that structures may be compared on different levels and that information irrelevant to the problem at hand may be safely ignored by the processing software. Thus it is for instance

possible to search for InChI of lactic acid without specifying the stereochemistry, or, when needed, for the specific stereoisomer. The InChI of the stereoisomers will differ only in the stereochemical layer.

- Tautomer friendly

  There are many compounds that may be drawn in different tautomeric forms, dependent on the outside conditions or the habit of the person drawing them. Because InChI tries to describe the same compound by the same InChI it does also have to take care of these cases. Even though there are some limitations to this, it does a pretty good job in detection of possible tautomeric forms and makes use of the information to describe them all with one InChI.

- Forgetful

  As was already mentioned, the InChI software tries hard to assign only one InChI to each possible drawing of the same compound. To do it, it has to forget some details of the original structure. InChI does for instance not contain information about atom coordinates or even bond orders. The bond orders are indirectly encoded in the hydrogen count for each atom. Also the positioning of charge is not specified in the InChI.

Every InChI starts with the string "InChI=" followed by the version number, currently 1. The remaining information is structured as a sequence of layers and sub-layers, with each layer providing one specific type of information. The layers and sub-layers are separated by the delimiter "/" and start with a characteristic prefix letter (except

for the chemical formula sub-layer of the main layer). The six layers with important sublayers are:

1. Main layer

- Chemical formula (no prefix). This is the only sublayer that must occur in every InChI.
- Atom connections (prefix: "c"). The atoms in the chemical formula (except for hydrogens) are numbered in sequence; this sublayer describes which atoms are connected by bonds to which other ones.
- Hydrogen atoms (prefix: "h"). Describes how many hydrogen atoms are connected to each of the other atoms.

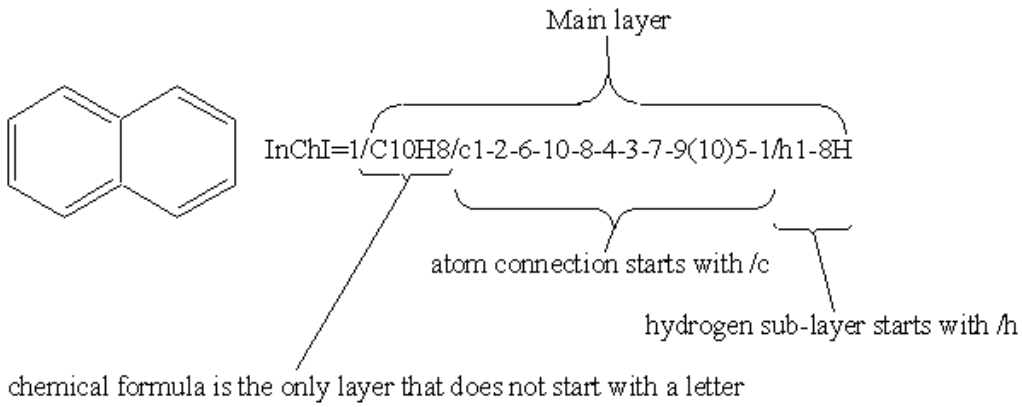


Figure 4. InChI Main Layer

2. Charge layer indicates the charge of the compound. The charge is written after the appropriate prefix given below.

- positive charge sublayer (prefix: "p")
- negative charge sublayer (prefix: "q")

3. Stereochemical layer indicates the spatial representation of the compound.

4. Isotopic layer indicates if an isotope is present. (prefix: "i")

5. Fixed-H layer indicates the fixed Hydrogen bonds in the given compounds. It indicates which atoms are connected to a given hydrogen. (prefix: "/f/h")

6. Reconnected Layer is an optional layer of the InChI. For compounds of symmetric structures, shortcuts can be used such as putting 2* after each prefix to indicate that there are two structures taken into consideration. Reconnected Layer treats the whole compound as one whole structure. (prefix: “r”)

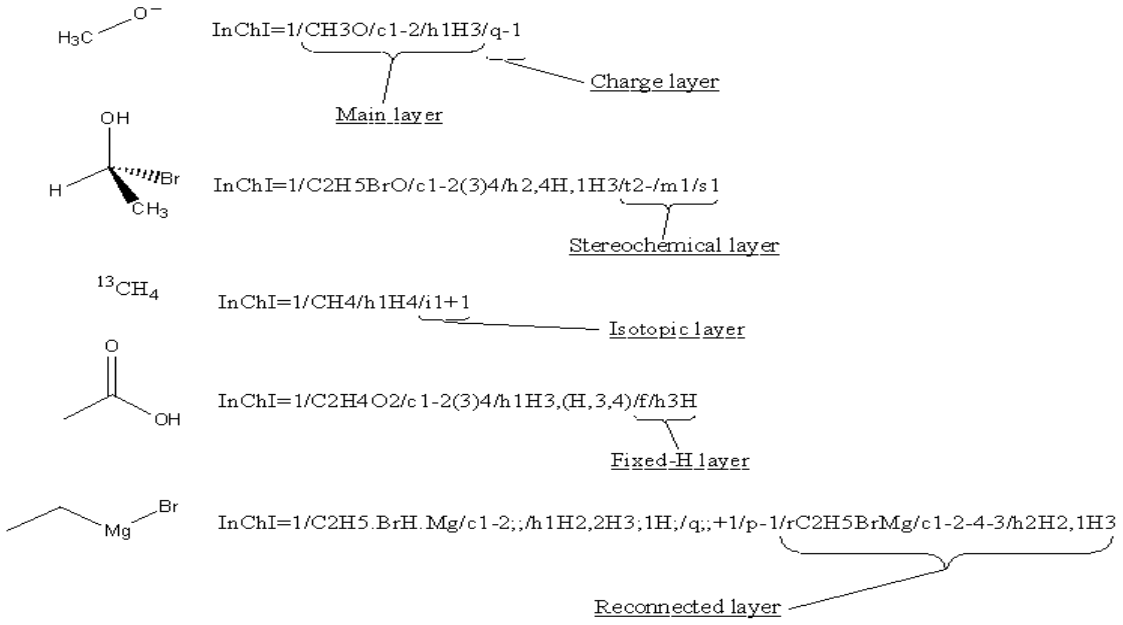
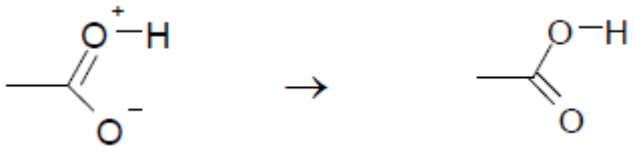


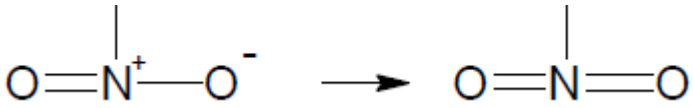
Figure 5. Other layers of InChI

For complete reference and description of InChi, refer to [24] and [25].

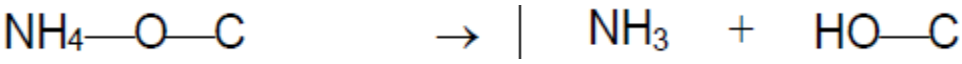
There are three main steps in generating InChi's. They are namely normalization, canonicalization and InChi string formation [22]. Normalization step basically adds regularity to the input structure. There are many ways of normalizing chemical structures. An example of normalizing technique is altering the input structure.



The transformation above is an example of normalizing a structure by altering it. The transformation normalizes the charges of the atoms. The result structure must always be equivalent to the previous structure. Another method is replacing ion pairs with increased number of bonds.

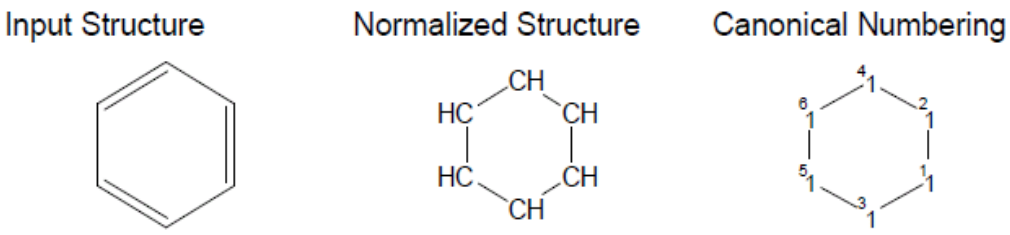


Since N is positive and O is negative, another bond between them is feasible. This leads to more order of bonds but results in the same structure. Another method is removing salts.

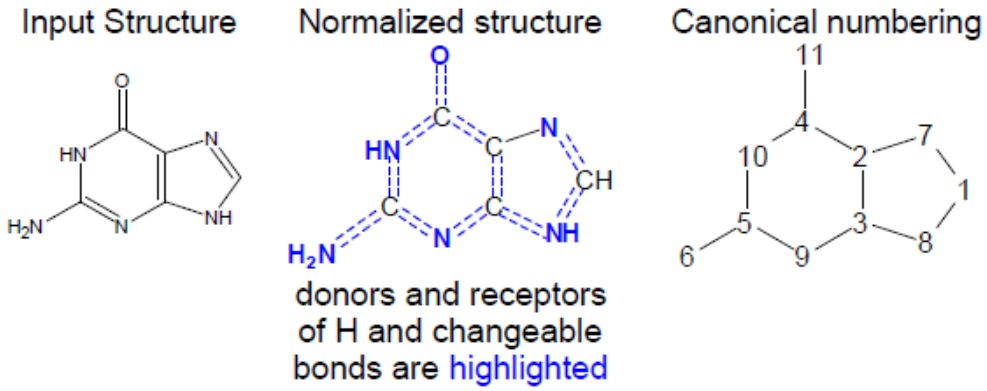


The transformation above simply disconnects NH3 to the structure. This is done so that structures with salts will have regularity and standardized for InChi generation.

Canonicalization is a generating of a set of atom labels that do not depend on how the structure was initially drawn.



The figure above shows canonical numbering. The 1's means they are of the same atoms while the 1-6 labels indicate that there are 6 atoms in the structure. The last step in InChi generation would be filling up the layers whose information is available in the structure.



Guanine normalization and canonical numbering

InChI=1/C5H5N5O/c6-5-9-3-2(4(11)10-5)7-1-8-3/h1H,(H4,6,7,8,9,10,11)/f/h8,10H,6H2

The figure above shows the normalization, canonical numbering and InChi string of Guanine. The 1 in the start depicts one atom. C5H5N5O is the molecular formula of Guanine. The next set of characters shows the connections of the atom. The string 2(4(11)10-5)7 means that from 2, it branches to the structure inside the parenthesis and to 7. The (4(11)10-5) means that from 4, it branches to 11 and 10 wherein 10 is connected to 5. The next set of characters would indicate hydrogen sharing. 1H,(H4,6,7,8,9,10,11) means atom number 1 has one H, 4 atoms H are shared by atoms 6,7,8,9,10, and 11. All

the aforementioned are contained in the main layer. In the next set of strings, namely the fixed H-Layer, “8,10H,6H2” means atom 6 has 2H, atom 8 has 1H, atom 10 has 1H. Note that Fixed H-layer and reconnected layer is optional.

3 SMILES

The simplified molecular input line entry specification or SMILES is a specification for unambiguously describing the structure of chemical molecules using short ASCII strings. SMILES strings can be imported by most molecule editors for conversion back into two-dimensional drawings or three-dimensional models of the molecules. Some features offered by SMILES are being compact machine and human-readable, canonicalizable, comprehensive and is up to date and well documented [26]. Discussed below are certain rules followed in the formation of SMILES.

Atoms and Bonds

SMILES supports all elements in the periodic table. An atom is represented using its respective atomic symbol. Upper case letters refer to non-aromatic atoms; lower case letters refer to aromatic atoms. If the atomic symbol has more than one letter the second letter must be lower case.

Bonds are denoted as shown below:

- `-` Single bond
- `=` Double bond
- `#` Triple bond
- `*` Aromatic bond
- `.` Disconnected structures

Simple Chains

By combining atomic symbols and bond symbols simple chain structures can be represented. The structures that are entered using **SMILES** are hydrogen-suppressed, that is to say that the molecules are represented without hydrogen. It is automatically assumed that the other connections are satisfied by H bonds.

Some examples:

CC	CH_3CH_3	Ethane
C=C	CH_2CH_2	Ethene
CBr	CH_3Br	Bromomethane

Branches

A branch from a chain is specified by placing the **SMILES** symbol(s) for the branch between parenthesis. The string in parentheses is placed directly after the symbol for the atom to which it is connected. If it is connected by a double or triple bond, the bond symbol immediately follows the left parenthesis. An example is acetic acid. It has a SMILES of CC(=O)O. Figure 4 shows the structure of acetic acid. The first C depicts the upper left Carbon of the acid in the figure. The second C is the Carbon at the middle of the structure. A parenthesis is used to show branching to a double bonded O and a single bonded O. The last O is not depicted as OH because of the previous rule.

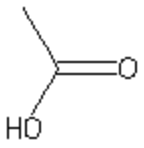


Figure 6. Acetic Acid

Rings

SMILES allows a user to identify ring structures by using numbers to identify the opening and closing ring atom. We first identify a starting point in the ring. We then traverse the cycle in such a way we should return to the atom closest to the starting atom that would complete the cycle. An example is decalin. It has a SMILES of C1CC2CCCCC2CC1. The string C2....C2 depicts one cycle. The cycle starts from C1 then reaches the first instance of C2. After reaching C2, the next goal is to reach the second C2. And then reaching the second C1, completing the cycle of decalin.

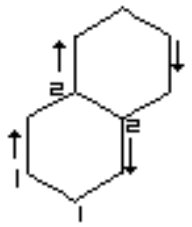


Figure 7. Decalin

For complete reference of SMILES generation, refer to [26] and [27].

C. Ontology

Ontologies are structured controlled vocabularies; generally they are graph-theoretic structures consisting of ‘terms’, which form the nodes of the graphs, linked by ‘relations’, which form the edges between the nodes [12]. Ontologies are generally organized as directed acyclic graphs, i.e. any child term may have one or more parent terms.

It can also be defined as a formal explicit description of concepts in a domain of discourse (classes, sometimes called concepts), properties of each concept describing various features and attributes of the concept (slots, sometimes called roles or properties), and restrictions on slots (facets, sometimes called role restrictions) [28].

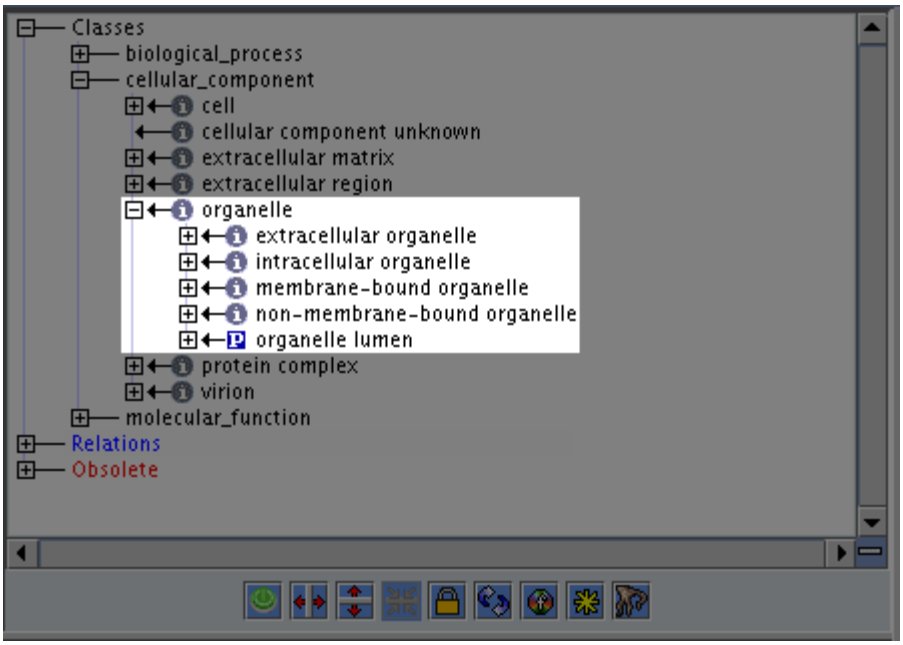


Figure 8. Ontology representation using OBO-EDIT

The highlighed section means:

- extracellular organelle **is_a** organelle
- intracellular organelle **is_a** organelle
- membrane-bound organelle **is_a** organelle
- non-membrance-bound organelle **is_a** organelle
- organelle lumen **part_of** organelle
- organelle **is_a** cellular component

In HANAPIN-SP, ontologies can help in organizing the presentation of internal data of the system. With the use of ontologies, data fields inputs could be restricted as to what the ontologies contain. This way, data is standardized. The system could also be made compatible to other systems using the same ontology. The ontology could also help and ease the burden of searching through the system because data is organized and standardized. As of now, the ontologies that is used by HANAPIN-SP should provide information on structural type of a given natural product, its role, its sources, and its biological activities. Another aspect of which HANAPIN-SP would use an ontology is on the phases of the experiments being recorded in the system. This way, projects could have a definite way and methodology in finishing their tasks. The advantage of this would be that even if there are changes in the methodology or categories of certain projects, there would be no more coding. It is due to the fact that the system is reliant to the ontology being used. Since ontologies are extensible, this makes the system extensible too.

In HANAPIN-SP, we incorporate ontologies through the obo files with the use of the OBO-Edit application.

D. Access Control

Access Control is defined as a process by which users are assigned privileges inside a system or resources. There are three common types of access control. These are: Discretionary Access Control (DAC), Mandatory Access Control (MAC) and Role-Based Access Control (RBAC).

Under the DAC model, a user has complete control over the objects, methods and resources that he/she own. As for MAC, the administrator defines a rule or policy that the users cannot alter or modify. While for the RBAC model, administrators define a set of roles and

assign them to the users. These roles are given to users that have appropriate skill over them. For HANAPIN-SP, the best candidate for a type of access control is the RBAC since the users of the system are researchers. Their skill determines what roles they could have in the system.

The RBAC consists of three components namely **users**, **roles** and **access rights**. Some of the RBAC concepts include [29]:

- With role-based access control, access decisions are based on the roles that individual users have as part of an organization. Users take on assigned roles (such as doctor, nurse, teller, manager). The process of defining roles should be based on a thorough analysis of how an organization operates and should include input from a wide spectrum of users in an organization.
- Access rights are grouped by role name, and the use of resources is restricted to individuals authorized to assume the associated role. For example, within a hospital system the role of doctor can include operations to perform diagnosis, prescribe medication, and order laboratory tests; and the role of researcher can be limited to gathering anonymous clinical information for studies.
- The use of roles to control access can be an effective means for developing and enforcing enterprise-specific security policies, and for streamlining the security management process.
-

Examples of Implementation of RBAC:

- A healthcare provider may decide that the role of clinician must be constrained to post only the results of certain tests but not to distribute them where routing and human errors could violate a patient's right to privacy.

- A teller and an accounting supervisor in a bank.
    - Teller: read/write access to records.
    - Supervisor: perform correction (also need read/write access).
    - Rules #1: Supervisor cannot initiate deposits or withdrawals, but can only perform corrections after the fact.
    - Rule #2: Teller can only initiate deposits or withdrawals, but cannot perform corrections once the transaction has been completed.
- Operations can also be specified in a manner that can be used in the demonstration and enforcement of laws or regulations.
    - For example, a pharmacist can be provided with operations to dispense, but not to prescribe, medication.

E. Information System

The term information system is frequently used to refer to the interaction between people, processes, data and technology. In this sense, the term is used to refer not only to the information and communication technology (ICT) an organization uses, but also to the way in which people interact with this technology in support of business processes [30]. Information systems are different from business processes because information systems help to control the performance of business processes [31].

IV. DESIGN AND IMPLEMENTATION

A. Use Case Diagram

1. HANAPIN-SP Registered User Services

This module enables registered users to login, logout, access plant natural product data, search HANAPIN-SP data. It enables unregistered users to register for a HANAPIN-SP account. For administrators of the system, they are able to do system management.

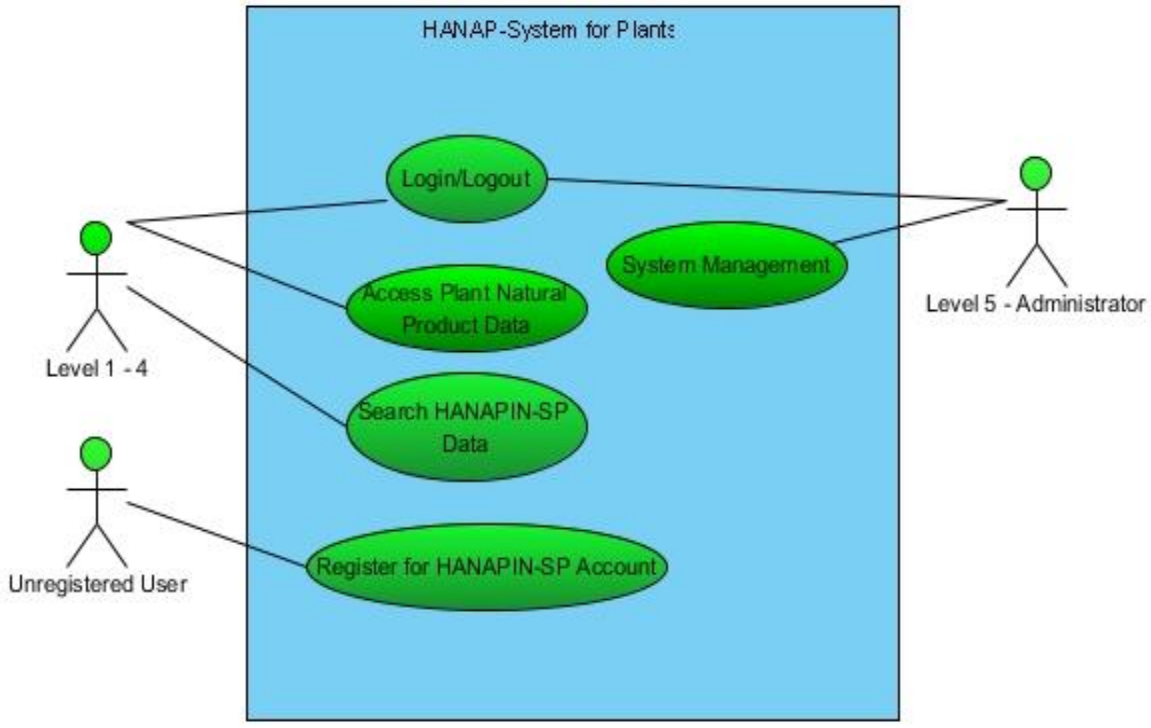


Figure 9. HANAPIN-SP Registered User Services Use Case

a. System Management Use Case

Under system management, administrators are entitled to manage user accounts, plants and research projects.

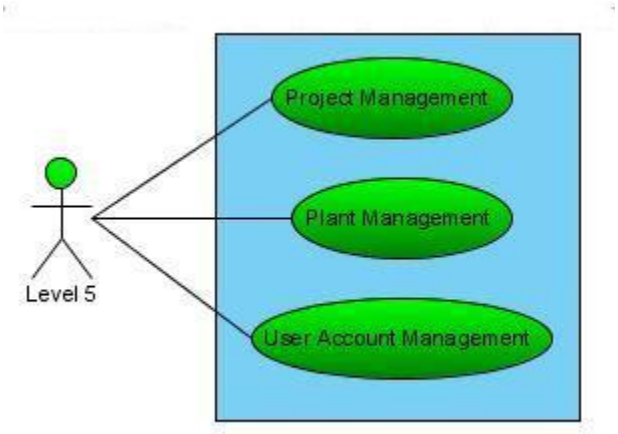


Figure 10. System Management Use Case

i. Project Management Use Case

Administrators are able to add and delete projects under certain plants.

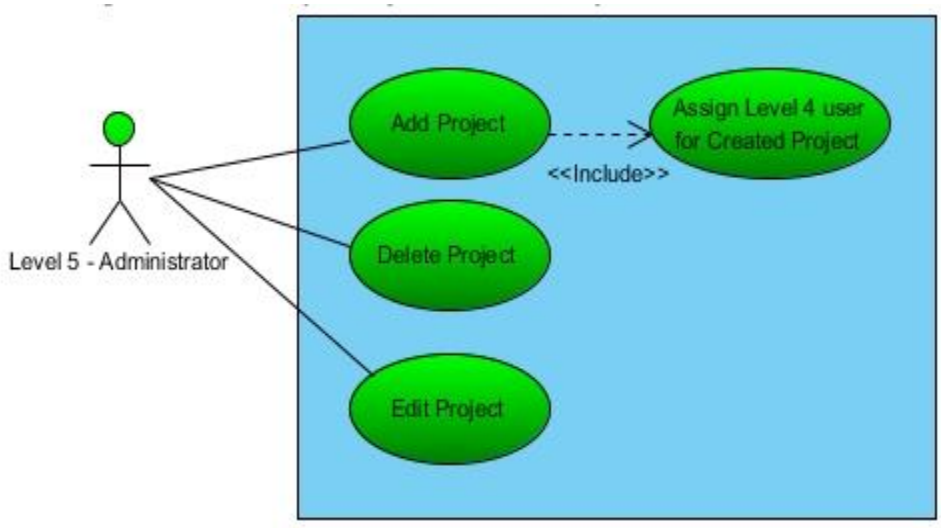


Figure 11. Project Management Use Case

Use Case: Add Project **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None Precondition: The Level 5 user is available **Primary Scenario**: 1. The level 5 user fills information about the new project. 2. The level 5 user assigns a level 4 user for the new project. 3. The level 5 user saves the project. This ends the scenario P0. **Postcondition**: P0: The project was created and the level user was assigned.	**Variants**: **Data Needed**: None **Exception**:

Table 1. Add Project Use Case Specification

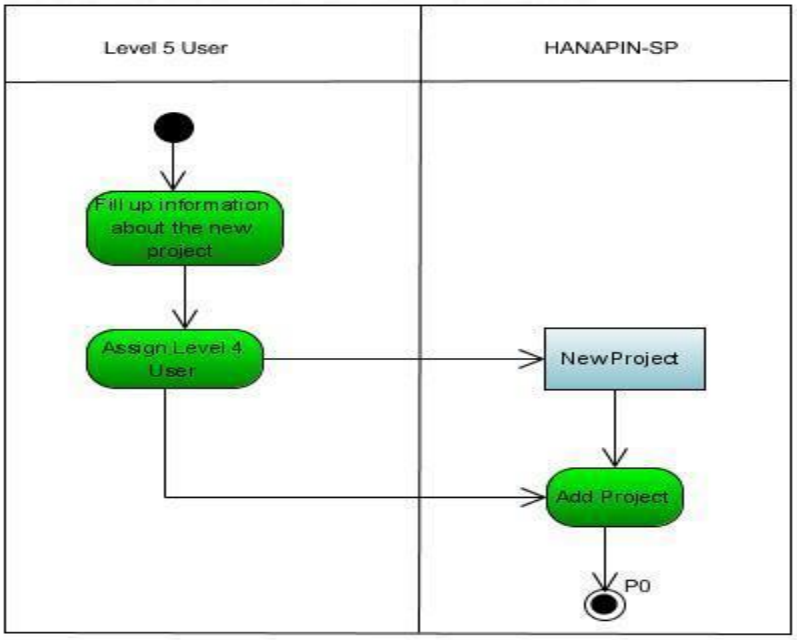


Figure 12. Add Project Activity Diagram

Use Case: Delete Project **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary Scenario**: 1. The level 5 user chooses a project to delete. 2. The user is given a warning message for confirmation of deletion. 3. The user confirms the deletion of the project. This ends the scenario P0. **Postcondition**: P0: The project was deleted. P1: The project was not deleted.	**Variants**: 3a: The Level 5 user, after seeing the warning message, cancels deleting the project. This ends the scenario P1. **Data Needed**: None **Exception**:

Table 2. Delete Project Use Case Specification

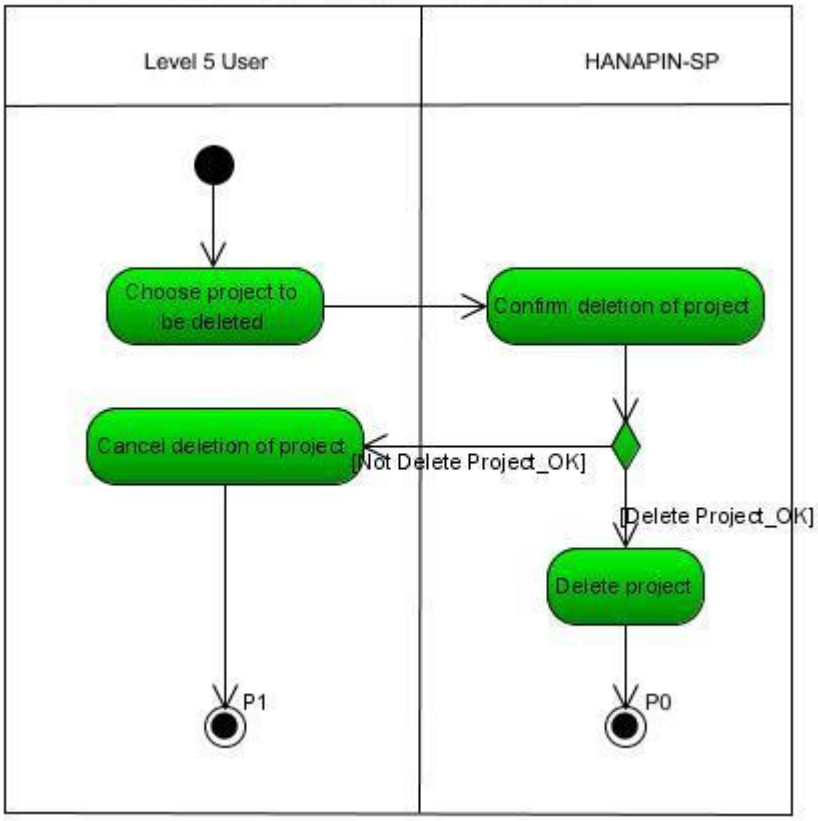


Figure 13. Delete Project Activity Diagram

Use Case: Edit Project **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary** Scenario: 1. The level 5 user browses the projects list. 2. The level 5 user selects a project to be edited. 3. The level 5 user edits the general information about the project. 4. The level 5 user saves the changes done. That ends the scenario P0. **Postcondition**: P0: The general information about the selected project is edited.	**Variants**: **Data Needed**: None **Exception**:

Table 3. Edit Project Use Case Specification

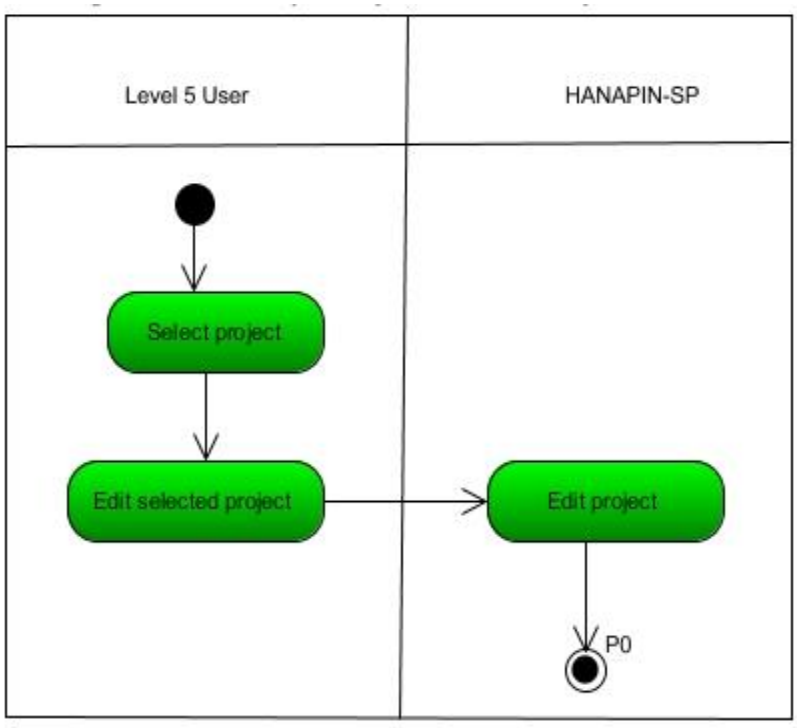


Figure 14. Edit Project Activity Diagram

ii. Plant Management Use Case

Under plant management, administrators can add plant, edit plant information and delete plant.

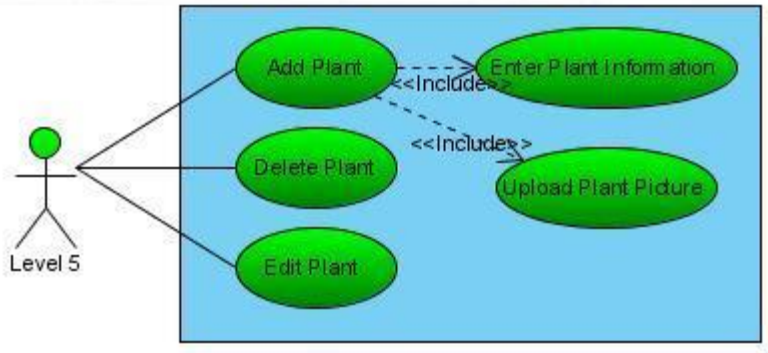


Figure 15. Plant Management Use Case

Use Case: Add Plant **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary Scenario**: 1. The level 5 user adds general information about the plant. 2. The level 5 user uploads the picture of the plant. 3. The level 5 user saves the information. That ends the scenario P0. **Postcondition**: P0: The plant and general information about it was stored in the system.	**Variants**: **Data Needed**: None **Exception**:

Table 4. Add Plant Use Case Specification

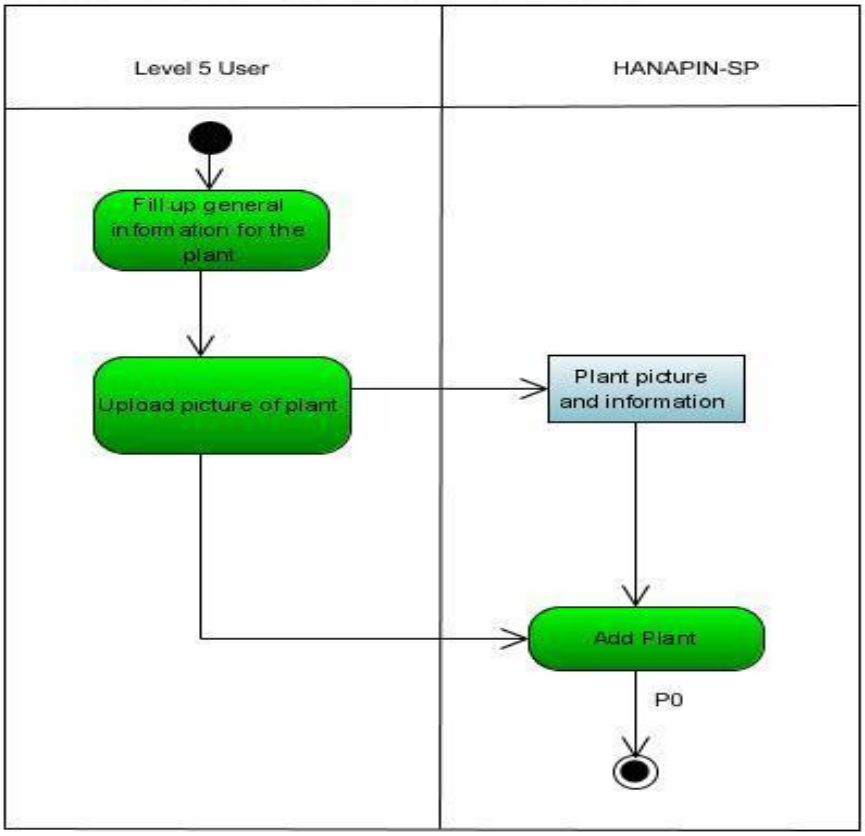


Figure 16. Add Plant Activity Diagram

Use Case: Edit Plant **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary** Scenario: 1. The level 5 user browses the plants list. 2. The level 5 user selects a plant to be edited. 3. The level 5 user edits the general information about the selected plant. 4. The level 5 user saves the changes done. That ends the scenario P0. **Postcondition**: P0: The general information about the selected plant is edited.	**Variants**: **Data Needed**: None **Exception**:

Table 5. Edit Plant Use Case Specification

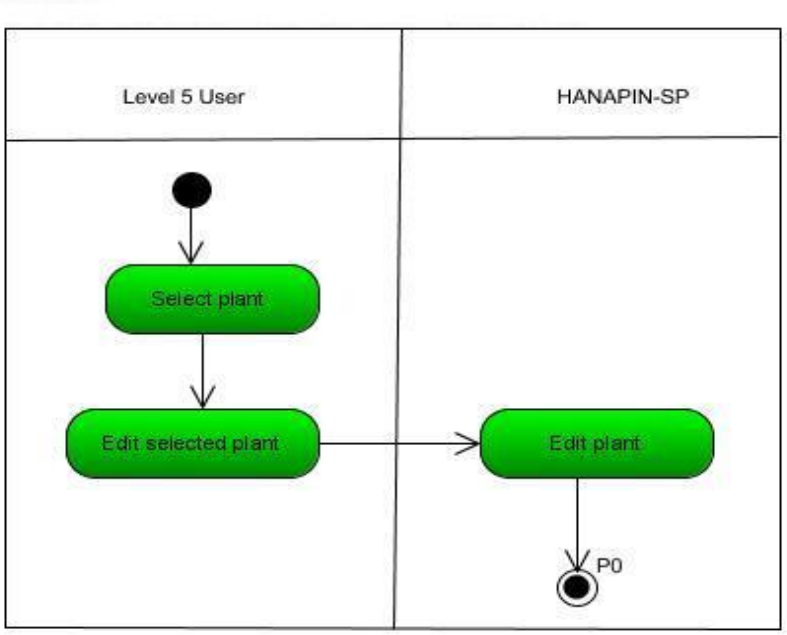


Figure 17. Edit Plant Activity Diagram

Use Case: Delete Plant **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary Scenario**: 1. The level 5 user browses all plants in the system. 2. The level 5 user chooses to delete a plant along with the projects under it 3. The level 5 is shown a warning sign to confirm deletion. 4. The level 5 user confirms the deletion. That ends the scenario P0. **Postcondition**: P0: The selected plant is deleted along with the projects under it. P1: The selected plant and projects under it is not deleted	**Variants**: 4a: The Level 5 user, after seeing the warning message, cancels deleting the plant. This ends the scenario P1. **Data Needed**: None **Exception**:

Table 6. Delete Plant Use Case Specification

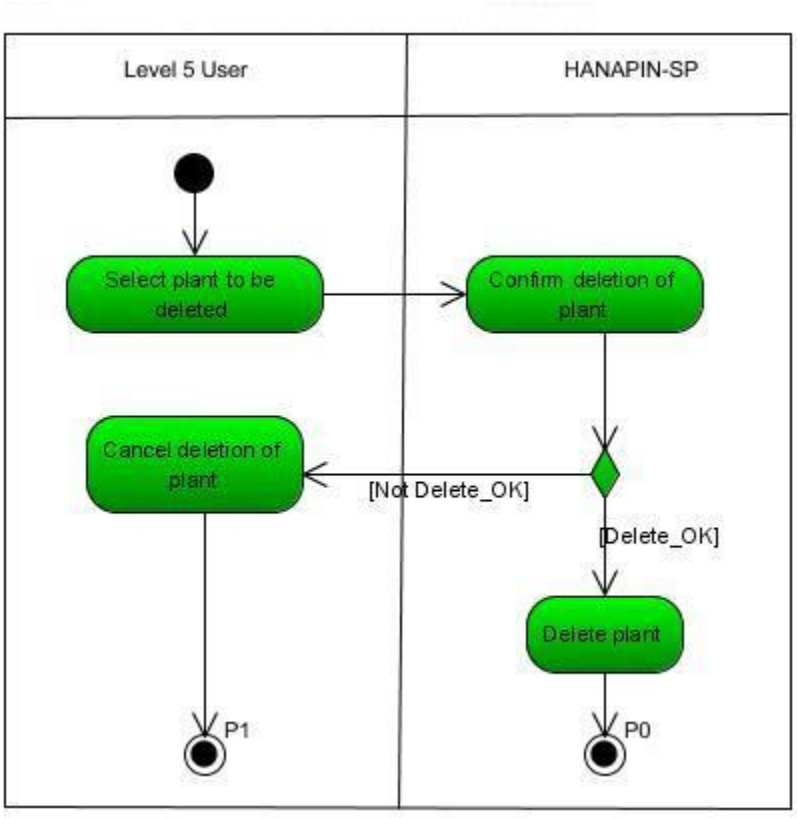


Figure 18. Delete Plant Activity Diagram

iii. User Account Management

Under user account management, administrators can approve user account requests, add level 5 users and enable or disable user.

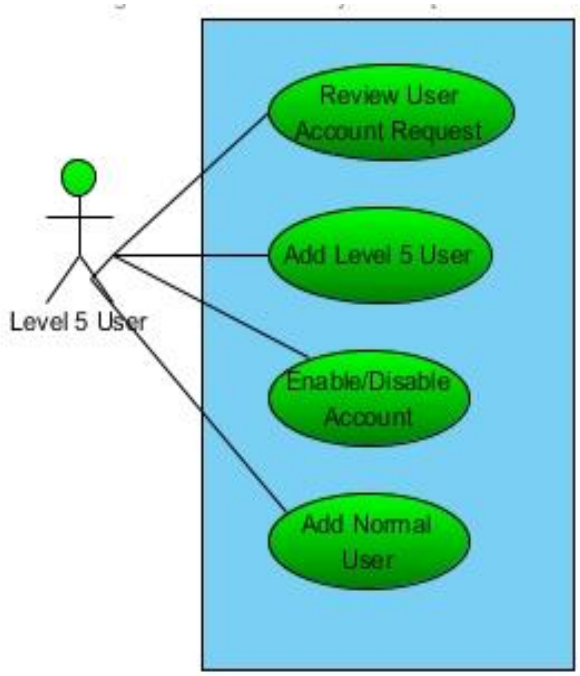


Figure 19. User Account Management Use Case

Use Case: Add Level 5 **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary Scenario**: 1. The level 5 user inputs account information for a new Level 5 user. 2. The level 5 user adds a Level 5 user with the given account information. That ends the scenario P0. **Postcondition**: P0: The new Level 5 account was created.	**Variants**: **Data Needed**: None **Exception**:

Table 7. Add Level 5 user Use Case Specification

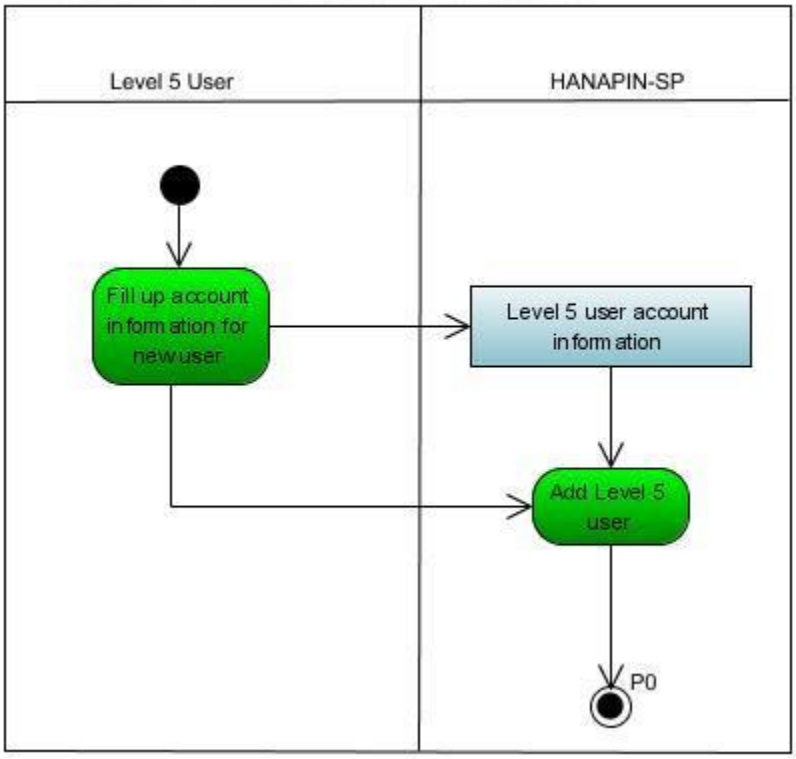


Figure 20. Add Level 5 User Account Activity Diagram

Use Case: Review User Account Request **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary Scenario**: 1. The level 5 user browses all user account requests. 2. The level 5 user reviews the user account request. 3. The level 5 user approves the request. That ends the scenario P0. **Postcondition**: P0: The User account request was approved and the new user account is created. P1: The User account request was rejected.	**Variants**: 3a: The request was disapproved. That ends the scenario P1. **Data Needed**: None **Exception**:

Table 8. Review User Account Request Use Case Specification

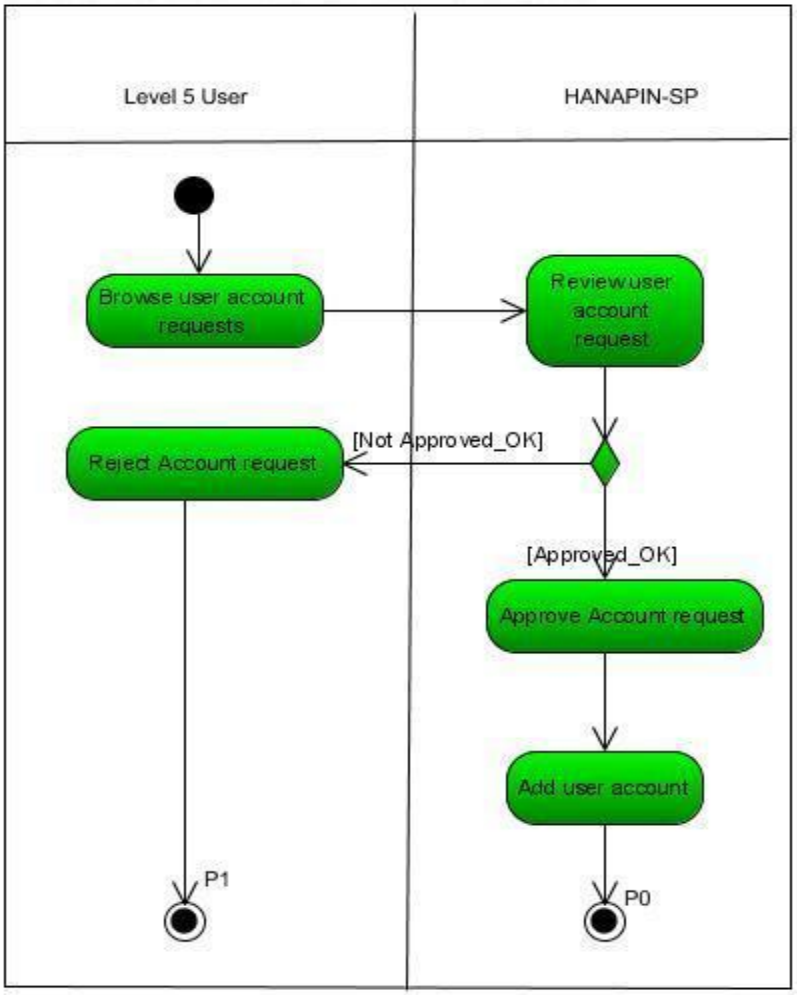


Figure 21. Review User Account Request Activity Diagram

Use Case: Disable Account **Primary** Act**o**r(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary Scenario**: 1. The level 5 user chooses the account to be disabled 2. A warning sign is shown to the user for confirmation. 3. The level 5 user confirms to disable the account. That ends the scenario P0. **Postcondition**: P0: The account was disabled. P1: The account was not disabled.	**Variants**: 3a: The user cancels disabling the chosen account. That ends the scenario P1. 3b: The user is the only administrator of a project. That ends the scenario P1. **Data Needed**: None **Exception**:

Table 9. Disable User Account Use Case Specification

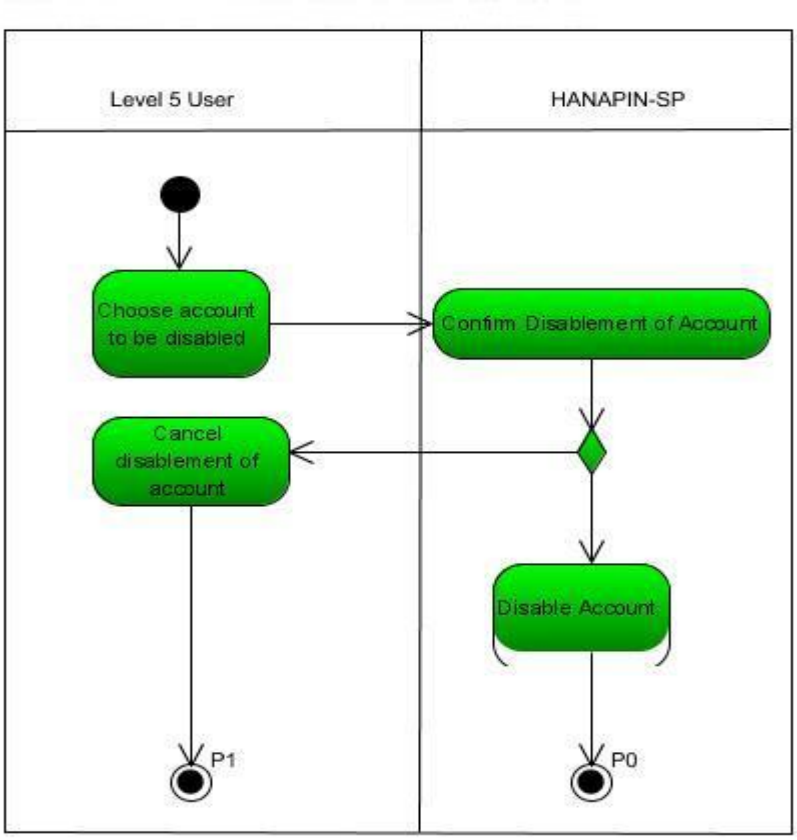


Figure 22. Disable User Account Activity Diagram

Use Case: Enable Account **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary Scenario**: 1. The level 5 user browses the list of disabled account. 2. The level 5 user chooses an account from the list. 3. The level 5 user enables the disabled account. That ends the scenario P0. **Postcondition**: P0: The new Level 5 account was created.	**Variants**: **Data Needed**: None **Exception**:

Table 10. Enable User Account Use Case Specification

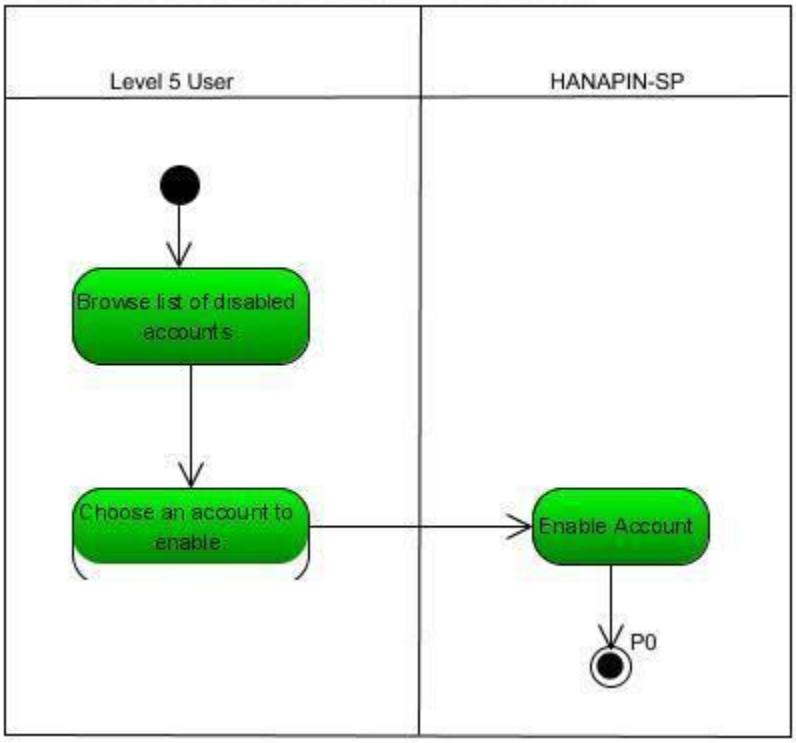


Figure 23. Enable User Account Activity Diagram

Use Case: Add Normal User **Primary Actor**(**and Initiator**): Level 5 user **Supporting Actor**: None **Precondition**: The Level 5 user is available **Primary Scenario**: 1. The level 5 user inputs account information for a new user. 2. The level 5 user adds a user with the given account information. That ends the scenario P0. **Postcondition**: P0: The new account was created.	**Variants**: **Data Needed**: None **Exception**:

Table 11. Add Normal User Account Use Case Specification

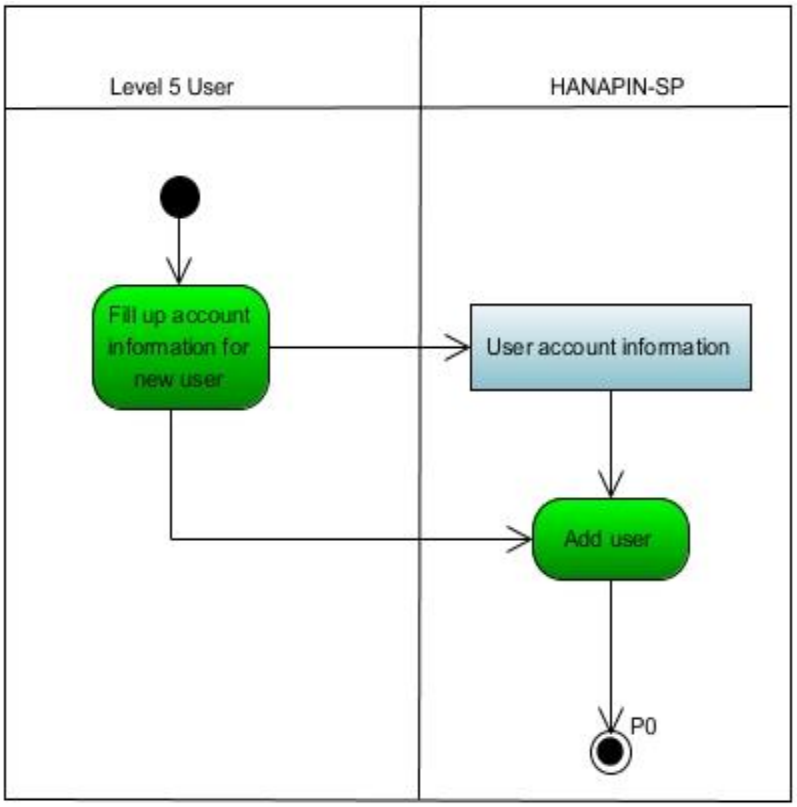


Figure 24. Add Normal User Account Activity Diagram

2. HANAPIN-SP References

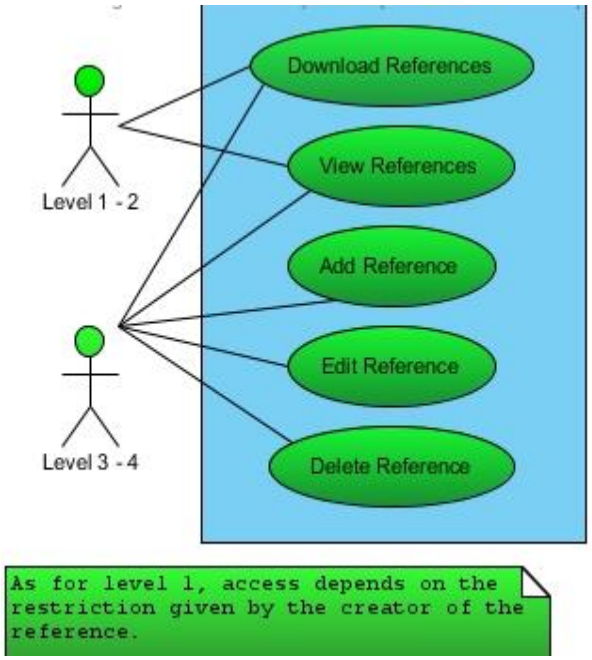


Figure 25. HANAPIN-SP References Use Case

The module allows users view or download references. Level 1 users cannot see the references if it is set to private. This module allows level 3 and level 4 users to add, edit and delete references for a certain project.

Use Case: View References **Primary Actor(and Initiator)**: Level 1/2/3/4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected project. **Primary Scenario**: 1. The level 1/2/3/4 user clicks on reference tab under a research project at the side menu. 2. The level 1/2/3/4 user views the list of references available. That ends the scenario P0. **Postcondition**: P0: The list of references was displayed.	**Variants**: **Data Needed**: None **Exception**:

Table 12. View References Use Case Specification

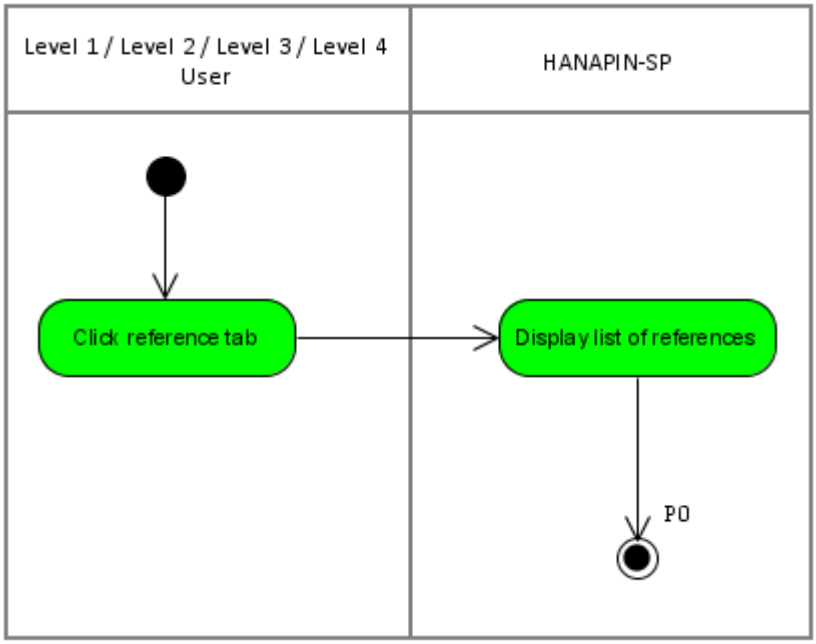


Figure 26. View References Activity Diagram

Use Case: Download Reference **Primary Actor(and Initiator)**: Level 1/2/3/4 user **Supporting Actor**: None **Precondition**: For Level 1 users, assume reference is publicly available. **Primary Scenario**: 1. The level 1/2/3/4 user selects which reference/s to download. 2. The level 1/2/3/4 user downloads the reference/s selected. That ends the scenario P0. **Postcondition**: P0: The reference was successfully downloaded.	**Variants**: **Data Needed**: None **Exception**:

Table 13. Download Reference Use Case Specification

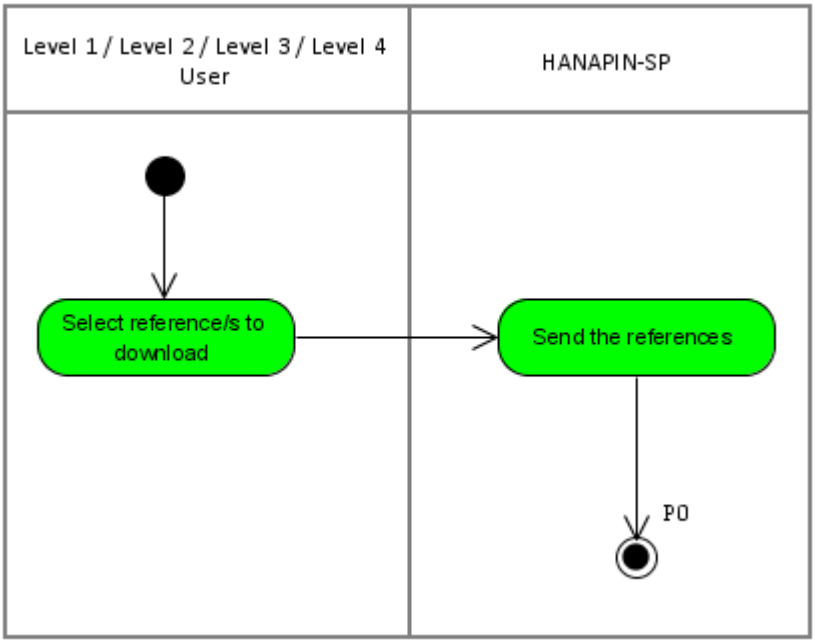


Figure 27. Download Reference Activity Diagram

Use Case: Add Reference **Primary Actor**(**and Initiator**): Level 3 or level 4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected project **Primary Scenario**: 1. The level 3/level 4 user fills up the forms required for a successful entry of a reference. 2. The level 3/level 4 user submits the forms and saves the data. That ends the scenario P0. **Postcondition**: P0: The data from the forms are saved as new reference of a certain project.	**Variants:** 1a: The user inputs wrong values in the fields of the form or no value for fields that require an input. Prompt the user and return to step 1. **Data Needed:** None **Exception:**

Table 14. Add Reference Use Case Specification

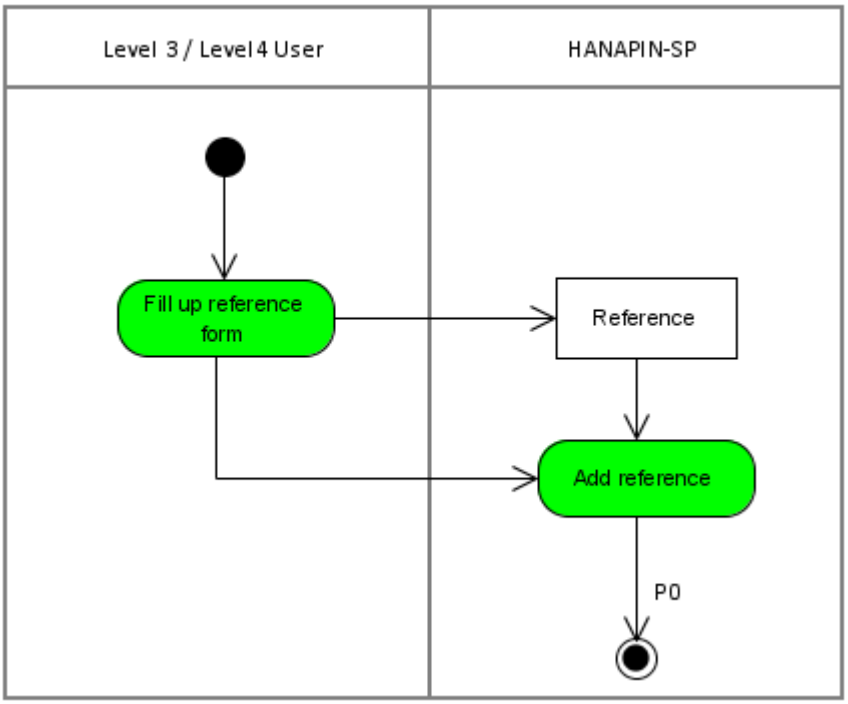


Figure 28. Add Reference Activity Diagram

Use Case: Edit Reference **Primary Actor**(**and Initiator**): Level 3 or level 4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected project **Primary Scenario**: 1. The level 3/level 4 user chooses the reference to be edited. 2. The level 3/level 4 user edits the reference information. 3. The level 3/level 4 user saves the changes to the reference. That ends the scenario P0. **Postcondition**: P0: The data of the reference is successfully edited and saved.	**Variants:** 2a: The user inputs wrong values in the fields of the form or no value for fields that require an input. Prompt the user and return to step 2. **Data Needed:** None **Exception:**

Table 15. Edit Reference Use Case Specification

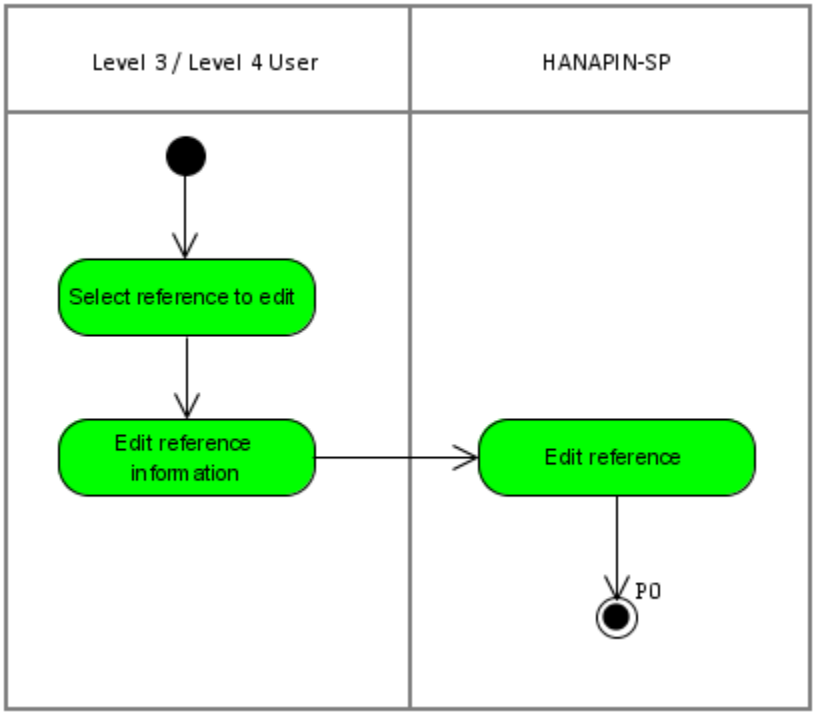


Figure 29. Edit Reference Activity Diagram

Use Case: Delete Reference **Primary Actor**(**and Initiator**): Level 3 or level 4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected project **Primary Scenario**: 1. The level 3/level 4 user chooses the reference to be deleted 2. The level 3/level 4 user is shown a warning message to confirm deletion. . 3. The level 3/level 4 user confirms the deletion of the reference. That ends the scenario P0. **Postcondition**: P0: The reference is deleted. P1: The reference is not deleted.	**Variants:** 3a: The Level 3/level 4 user, after seeing the warning message, cancels the deletion. This ends the scenario P1. **Data Needed:** None **Exception:**

Table 16. Delete Reference Use Case Specification

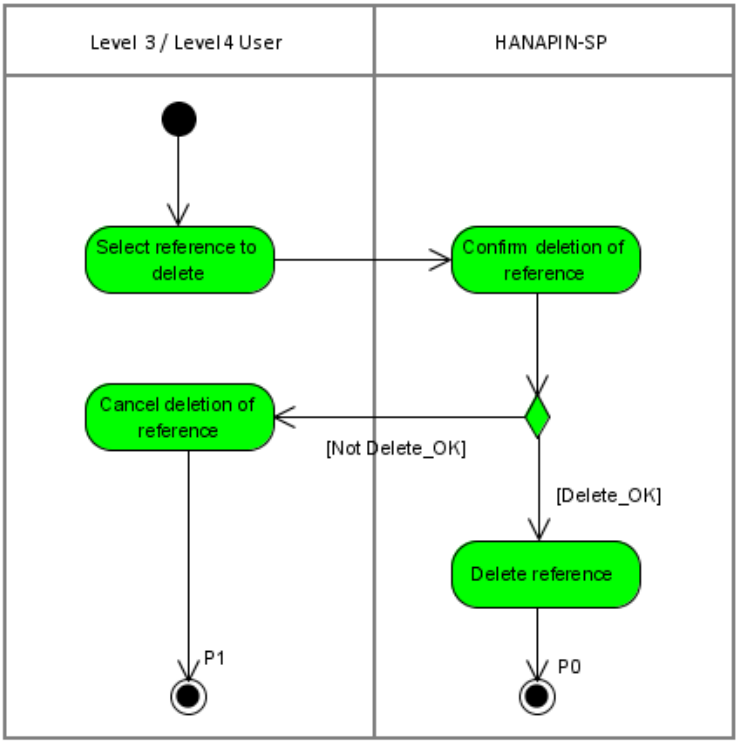


Figure 30. Delete Reference Activity Diagram

3. HANAPIN-SP Active Compounds

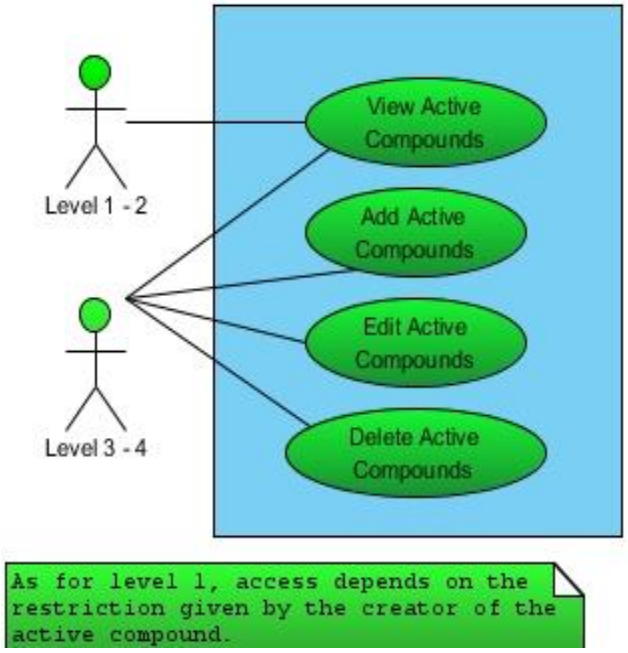


Figure 31. HANAPIN-SP Active Compounds Use Case

HANAPIN-SP Active Compounds lets users view active compounds available in a certain projects. Level 1 users can only see publicly available active compounds Level 3 and level 4 users are able to add, edit and delete active compounds in a certain project.

Use Case: View Active Compounds **Primary Actor**(**and Initiator**): Level 1/2/3/4 user **Supporting Actor**: None **Precondition**: For Level 1 users, assume active compound is publicly available **Primary Scenario**: 1. The level 1/2/3/4 user selects active compound to be viewed. 2. The level 1/2/3/4 user viewed the active compound selected. That ends the scenario P0. **Postcondition**: P0: The active compound is successfully viewed by the user.	**Variants**: **Data Needed**: None **Exception**:

Table 17. View Active Compounds Use Case Specification

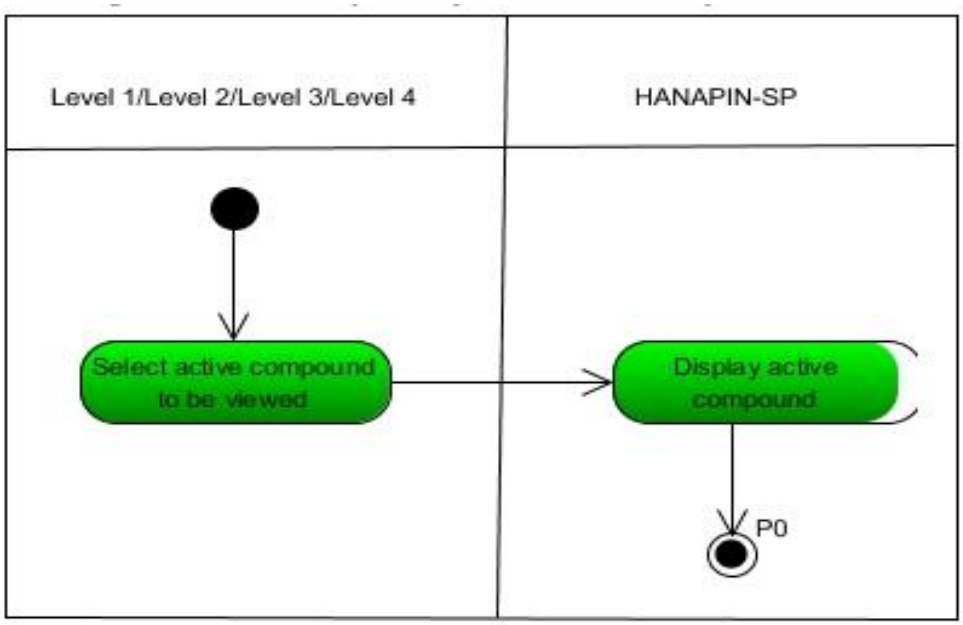


Figure 32. View Active Compounds Activity Diagram

Use Case: Add Active Compound **Primary Actor**(**and Initiator**): Level 3 or level 4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected research project **Primary Scenario**: 1. The level 3/level 4 user fills up the form to add active compound 2. The level 3/level 4 user saves the active compound. That ends the scenario P0. **Postcondition**: P0: The data in the active compound form is successfully saved.	**Variants**: 1a: The user inputs wrong or invalid values for the active compound. Prompt the user and return to step 1. **Data Needed**: None **Exception**:

Table 18. Add Active Compound Use Case Specification

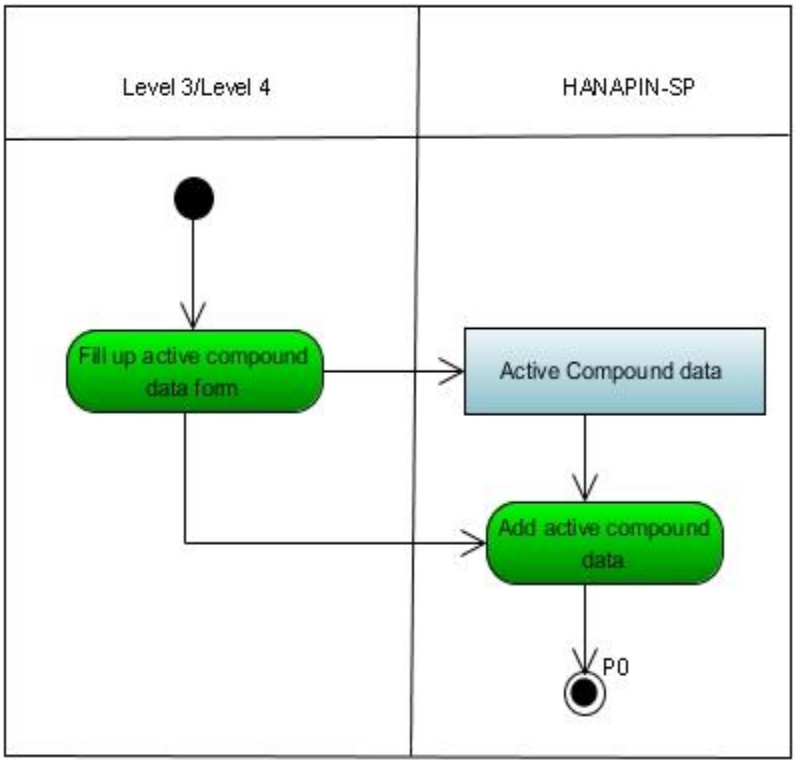


Figure 33. Add Active Compound Activity Diagram

Use Case: Edit Active Compound **Primary Actor**(**and Initiator**): Level 3 or level 4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected research project **Primary Scenario**: 1. The level 3/level 4 user chooses the active compound to be edited. 2. The level 3/level 4 user edits the active compound. 3. The level 3/level 4 user saves the changes to the active compound. That ends the scenario P0. **Postcondition**: P0: The data in the active compound form is successfully edited and saved.	**Variants**: 2a: The user inputs wrong or invalid values for the active compounnd. Prompt the user and return to step 2. **Data Needed**: None **Exception**:

Table 19. Edit Active Compound Use Case Specification

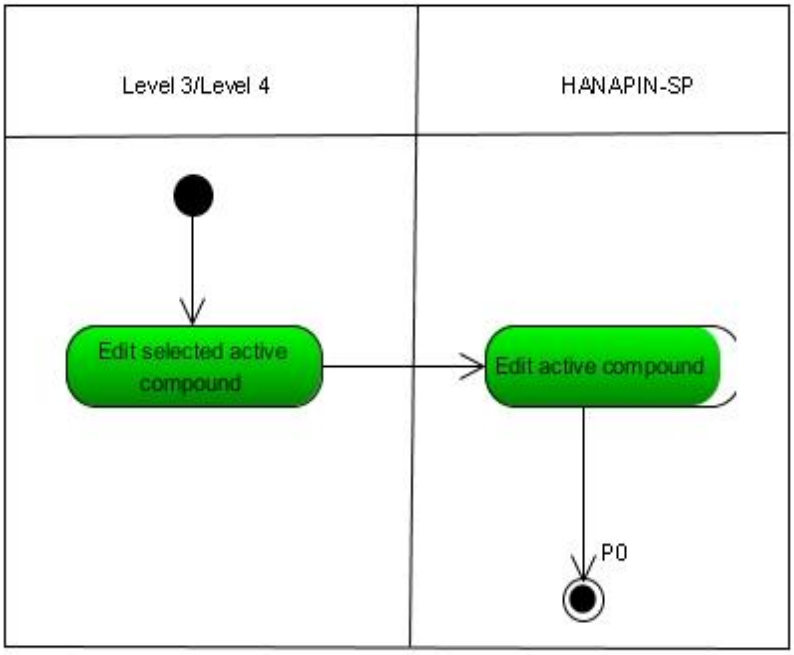


Figure 34. Edit Active Compound Activity Diagram

Use Case: Delete Active Compound **Primary Actor**(**and Initiator**): Level 3 or level 4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected research project **Primary Scenario**: 1. The level 3/level 4 user chooses the active compound to be deleted. 2. The level 3/level 4 user is shown a warning sign for confirmation of deletion. 3. The level 3/level 4 user confirms the deletion of the active compound. That ends the scenario P0. **Postcondition**: P0: The active compound is deleted. P1: The active compound is not deleted	**Variants**: 3a: The Level 3/level 4 user, after seeing the warning message, cancels deleting the active compound. This ends the scenario P1. **Data Needed**: None **Exception**:

Table 20. Delete Active Compound Use Case Specification

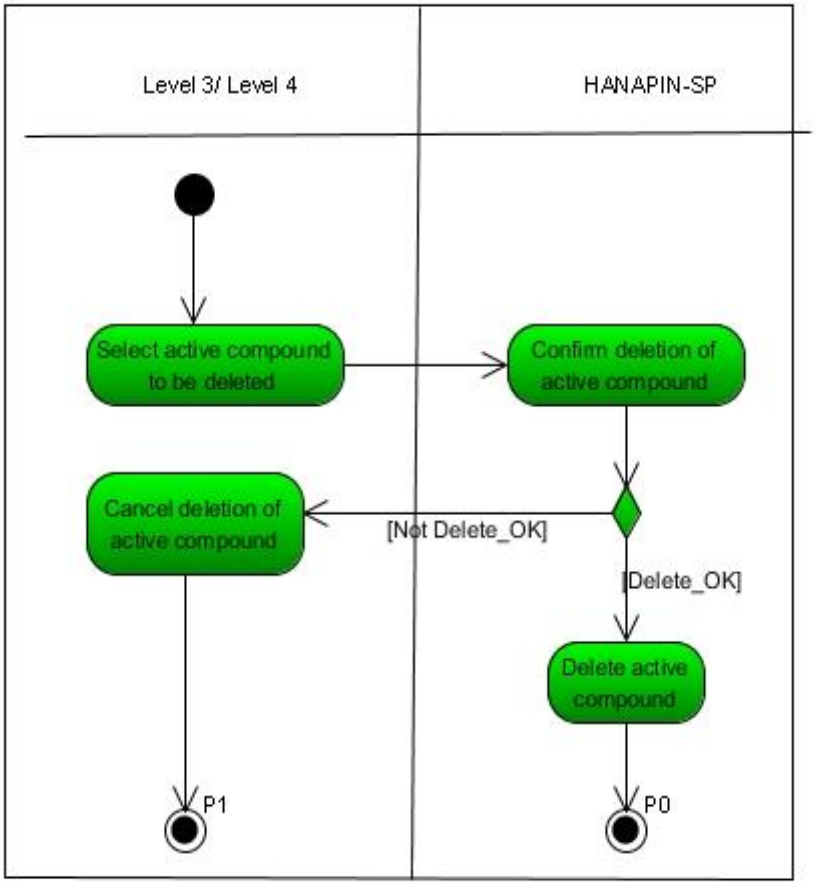


Figure 35. Delete Active Compound Activity Diagram

4. HANAPIN-SP Plant Source

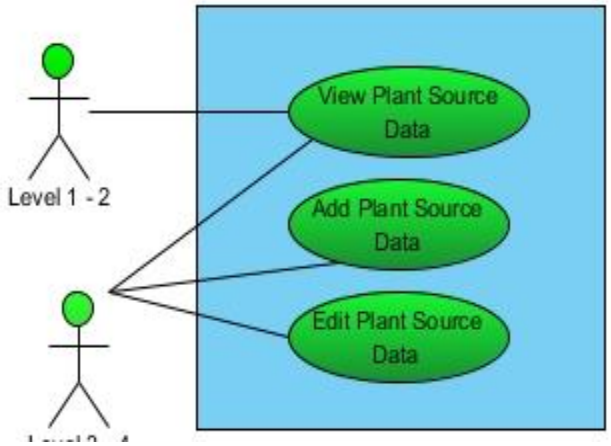


Figure 36. HANAPIN-SP Plant Source Use Case

This module lets users view plant source information of a project. This module gives level 3 and level 4 users of a certain project to add or edit plant source information to their project.

Use Case: View Plant Source Data **Primary Actor**(**and Initiator**): Level 1/2/3/4 user **Supporting Actor**: None **Precondition**: None **Primary Scenario**: 1. The level 1/2/3/4 user selects which project to be viewed. 2. The level 1/2/3/4 user viewed the project data alongside with the plant source information of the project. That ends the scenario P0. **Postcondition**: P0: The plant source data is successfully viewed by the user.	**Variants**: **Data Needed**: None **Exception**:

Table 21. View Plant Source Data Use Case Specification

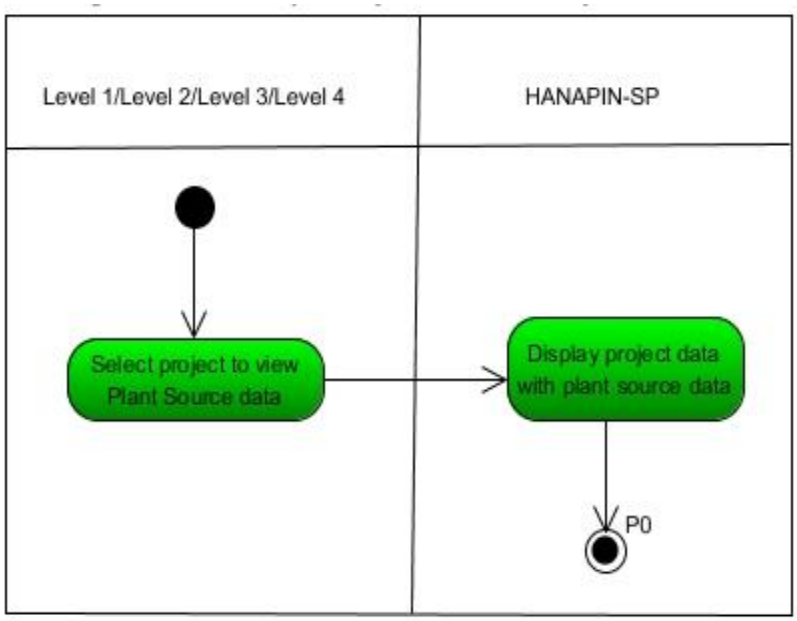


Figure 37. View Plant Source Activity Diagram

Use Case: Add Plant Source Data **Primary Actor**(**and Initiator**): Level 3 or level 4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected research project **Primary Scenario**: 1. The level 3/level 4 user fills up the forms required for a successful plant source data entry. 2. The level 3/level 4 user submits the forms and saves the data. That ends the scenario P0. **Postcondition**: P0: The data from the forms are saved as plant source data for that certain research project.	**Variants**: 1a: The user inputs wrong values in the fields of the form (valid inputs are based on the ontology database). Prompt the user and return to step 1. **Data Needed**: None **Exception**:

Table 22. Add Plant Source Data Use Case Specification

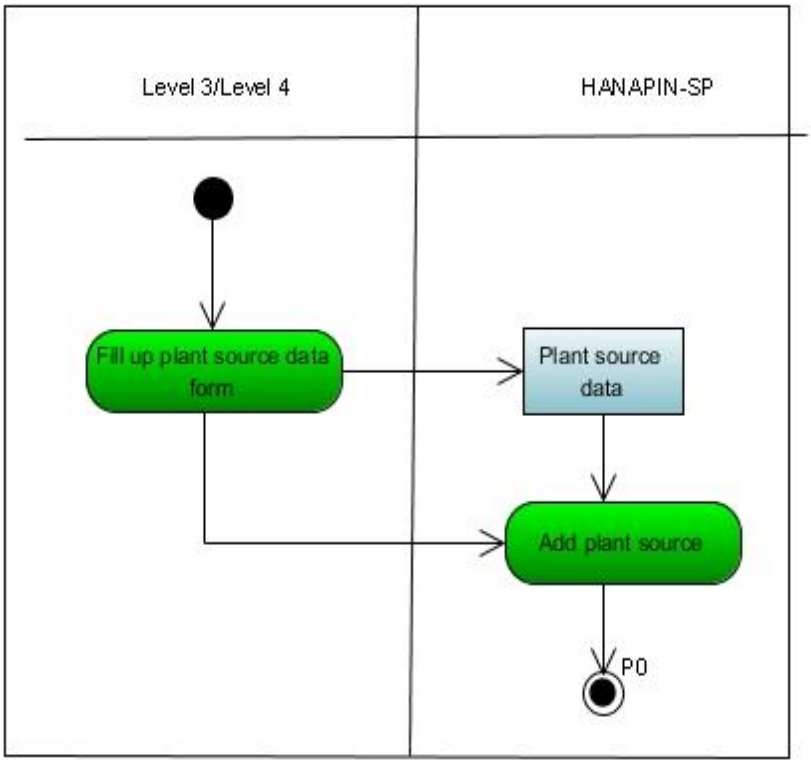


Figure 38. Add Plant Source Activity Diagram

Use Case: Edit Plant Source Data **Primary Actor**(**and Initiator**): Level 3 or level 4 user **Supporting Actor**: None **Precondition**: The user belongs or is registered to the selected research project **Primary Scenario**: 1. The level 3/level 4 user chooses the project to which the plant source data is to be edited. 2. The level 3/level 4 user edits the plant source data. 3. The level 3/level 4 user saves the changes to the plant source data. That ends the scenario P0. **Postcondition**: P0: The data in the plant source data is successfully edited and saved.	**Variants**: 2a: The user inputs wrong or invalid values for the plant source data. Prompt the user and return to step 2. **Data Needed**: None **Exception**:

Table 23. Edit Plant Source Data Use Case Specification

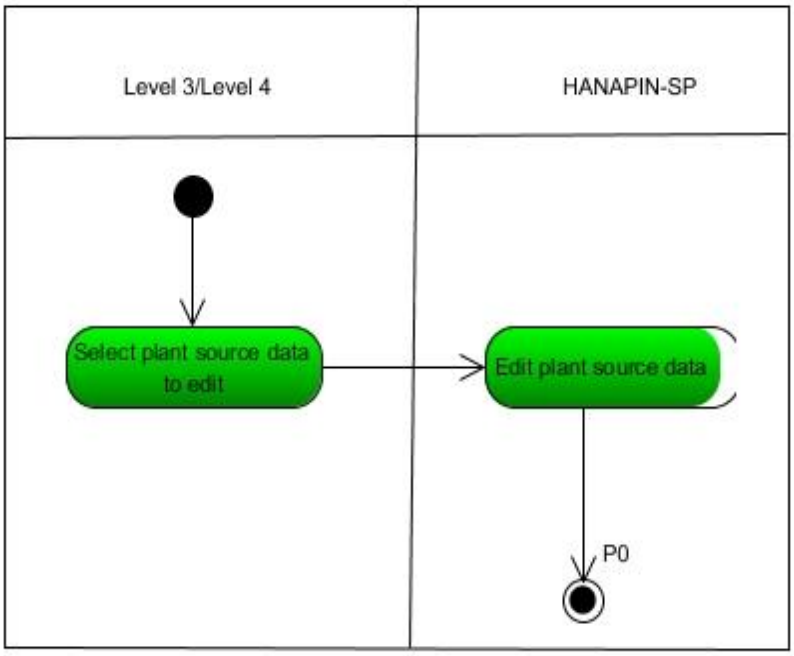


Figure 39. Edit Plant Source Activity Diagram

B. System Architecture Overview

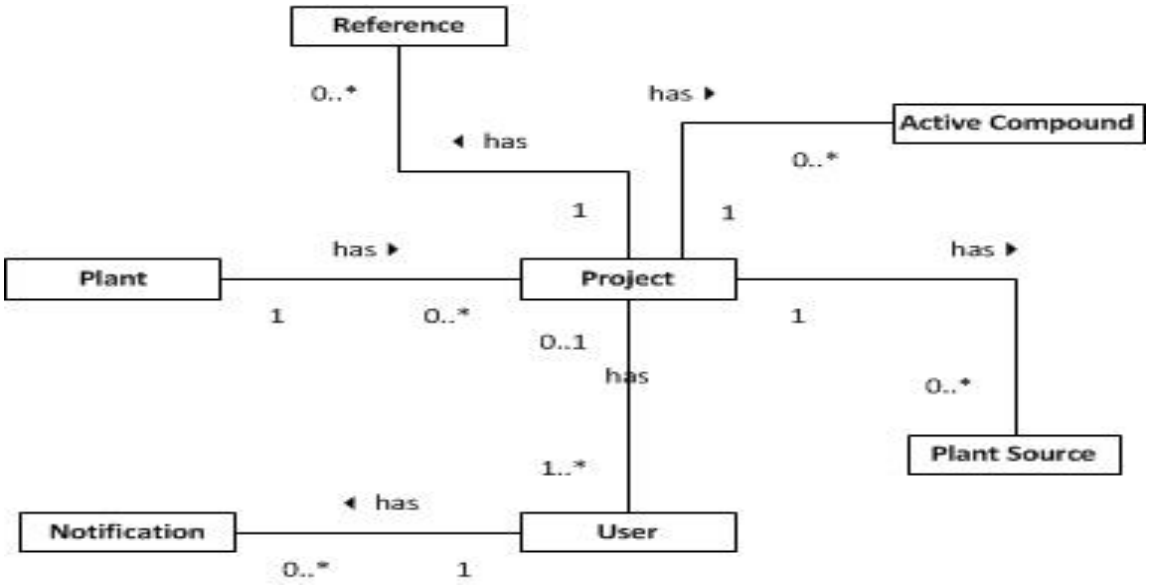


Figure 40. System Architecture Overview

The top level class of HANAPIN-SP is the Plant Class. The plant class basically contains projects that were done under that certain plant. Each project in the system contains references, active compounds and plant source information. Each user has a set of notifications from various projects from which updates were done. Each user can have many projects, and a project can also have many users.

1. Class Diagrams

a. Plants Detailed Class Diagram

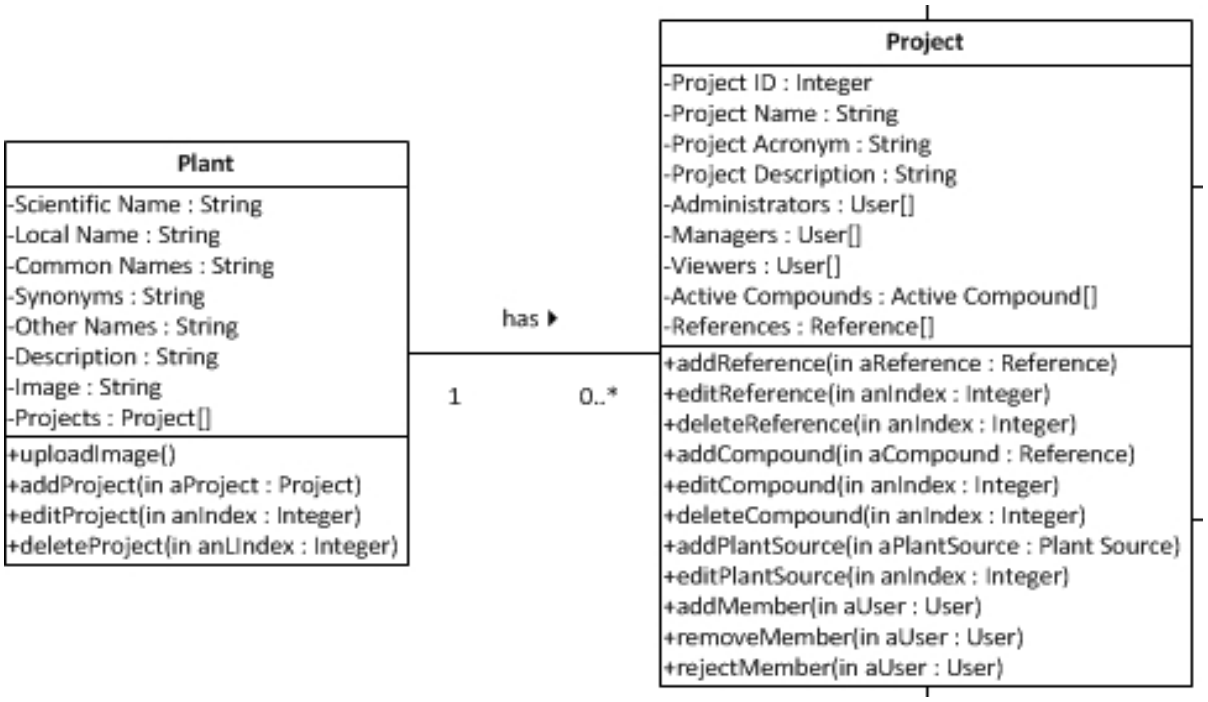


Figure 41. Plants Detailed Class Diagram

A project in the system is placed under a specific plant. For ease of access, every plant in the system contains a list of projects associated with it. Every plant class also has the functionality of adding another project under it, editing and deleting an existing project.

b. References Detailed Class Diagram

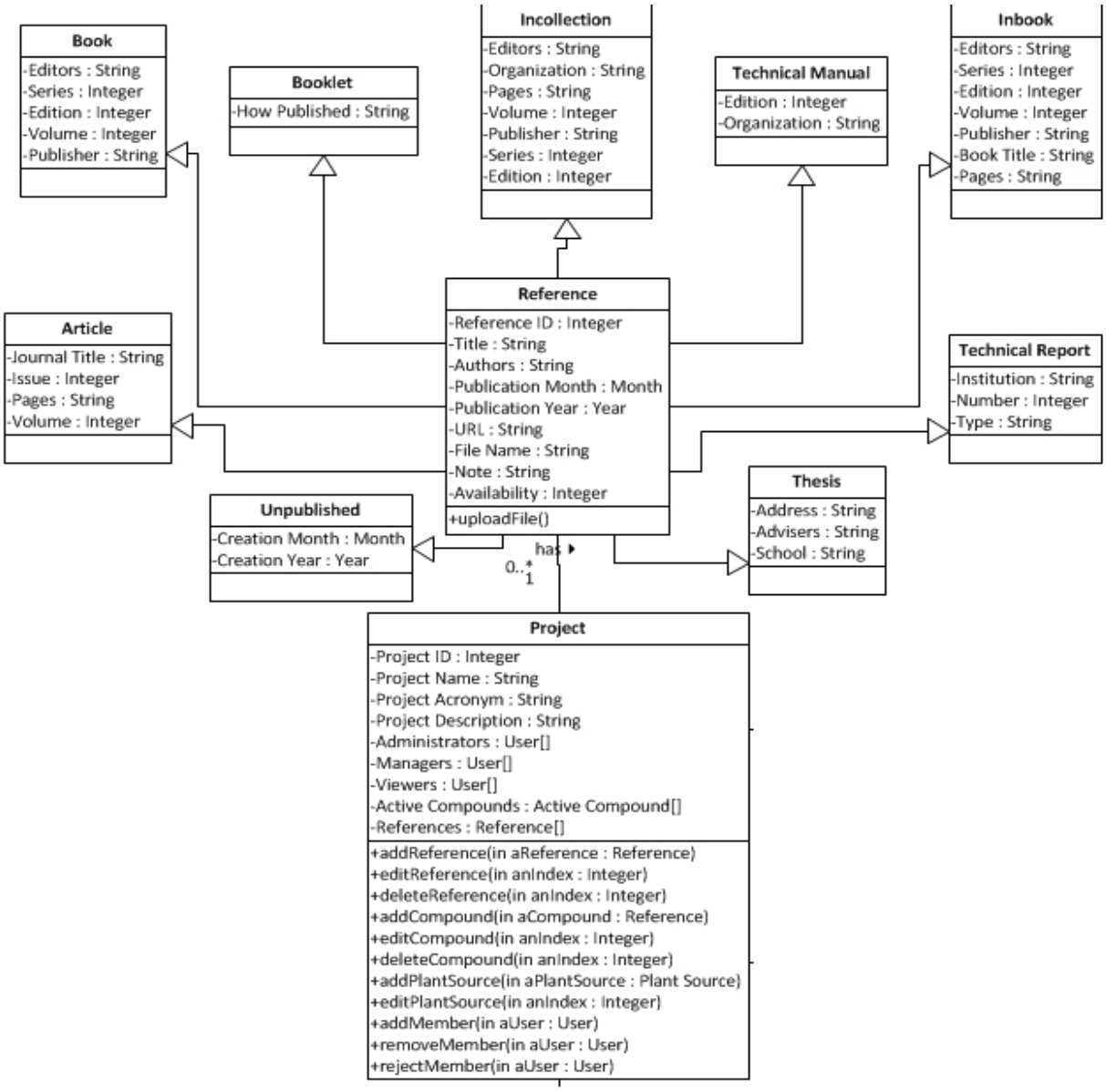


Figure 42. References Detailed Class Diagram

As depicted in the architecture view, a project can have many references. These references can be a book, article, booklet, incollection, inbook, technical manual, technical report, thesis or an unpublished work. Each reference can upload a file associated to their data.

The project class typically contains a list of references. This makes access for the said references easier of the project class. The project class can add, edit or delete references under it.

c. Users Detailed Class Diagram

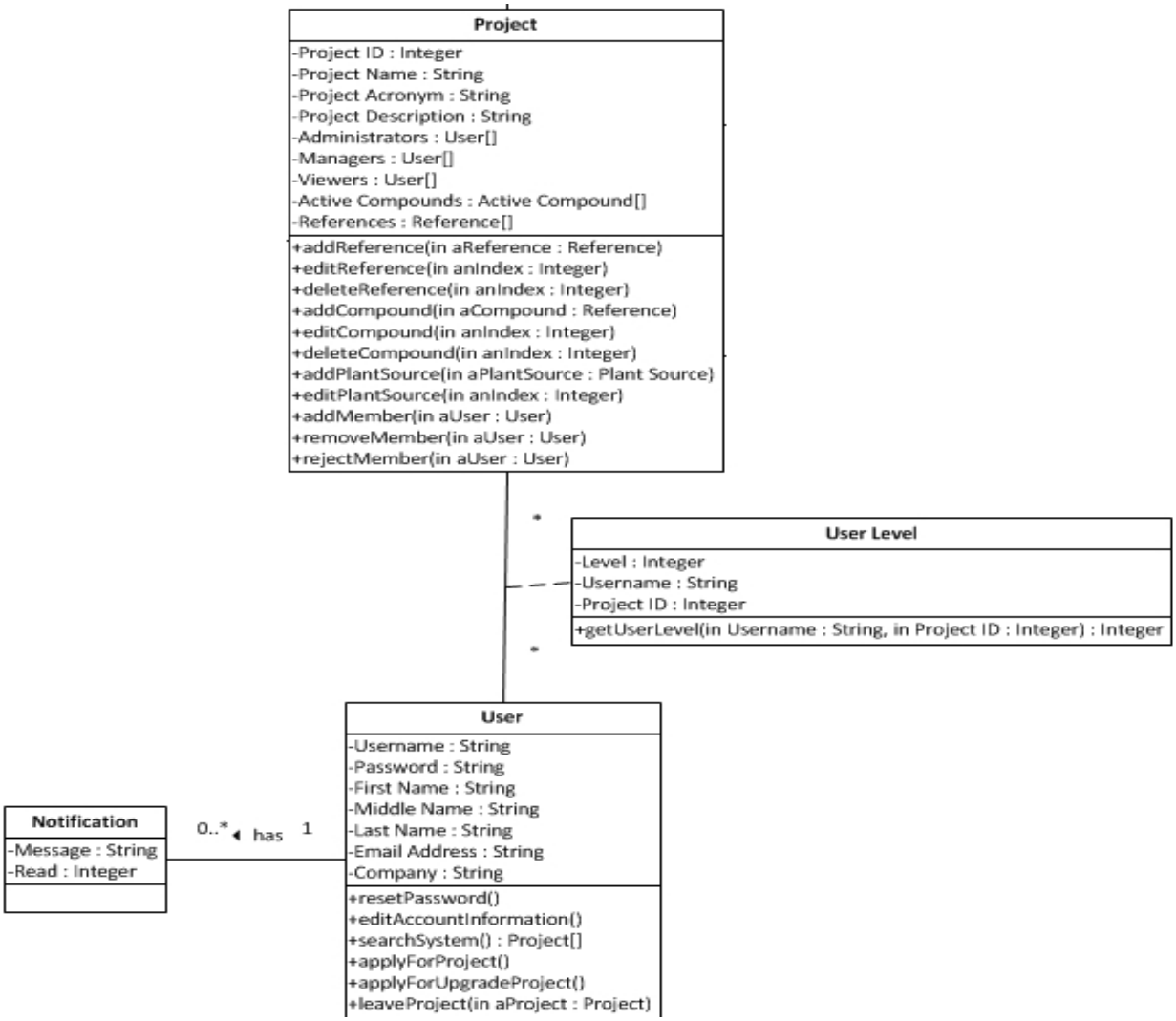


Figure 43. User Services Detailed Class Diagram

One important functionality of the system is providing users with notifications. Each user has a set of notifications regarding which projects were recently updated. In the figure above, we were able to derive an association class diagram since each user can have many projects and vice versa. User Level class would contain the project level or a certain user under a certain project. The project class has the functionality of managing members such as, approving, rejecting,

removing or adding project members. A certain user can ask to be member of a project, to leave a project or to ask for an upgrade of position in a certain project.

d. Active Compounds and Plant Source Detailed Class Diagrams

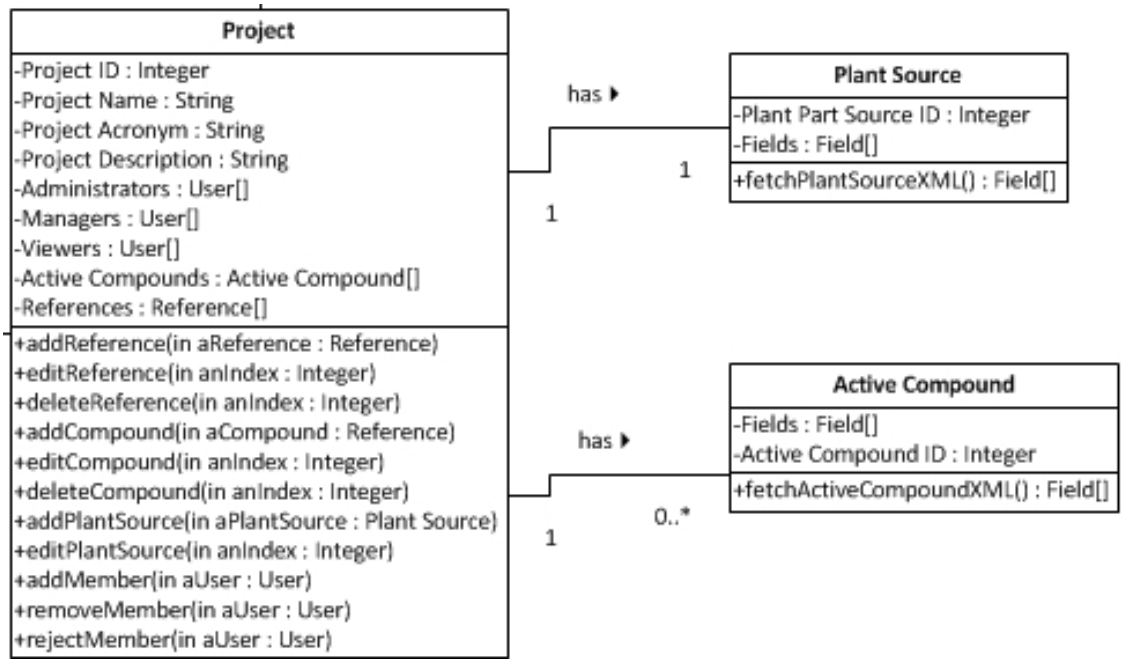


Figure 44. Active Compounds And Plant Source Class Diagram

Each project contains a list of active compound discovered or studied for that project. The fields required for input for an active compound is drawn from the working xml derived from an ontology the system is using. Active compound class is able to get these fields using its fetch command. The active compound class have a list of this fields for ease of access and reference. As for the plant source, each project would only have one set of plant source information. Like the active compounds, each plant source field is drawn from the xml derived from an ontology the system is using. Like also the active compound class, plant source class can get its fields by using the fetch command. It also has a list of the read fields for reference. Each project can add, edit or delete compounds under it and can add or edit plant source information associated with it.

2. JSF Framework

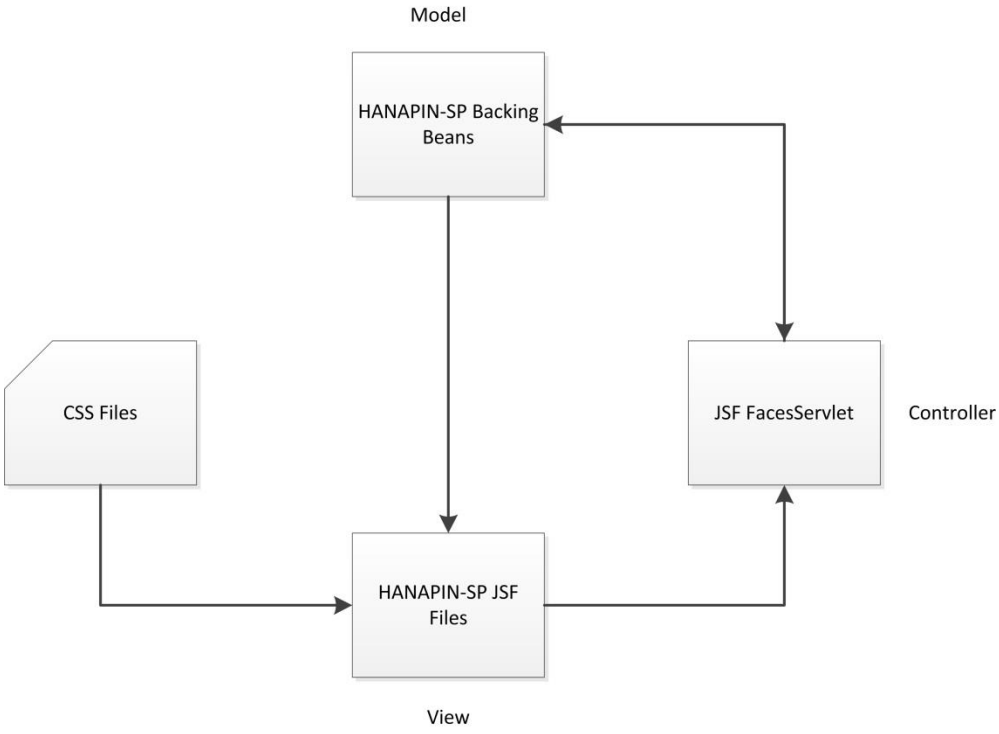


Figure 45. MVC Model of JSF

JSF Framework strictly complies with the MVC model. Here we can see that the model is in charge of what the view will display. The controller catches all the events done in the view page then sends it to the model so that the desired output for the event will be rendered. Model is also in charge of querying to the database. The business layer is also contained in the model. Here, backing beans can do business logic needed by the system. The advantage of using this model is that all functionalities are separated thus promoting modularity.

C. Entity Relationship Diagram

1. HANAPIN-SP References

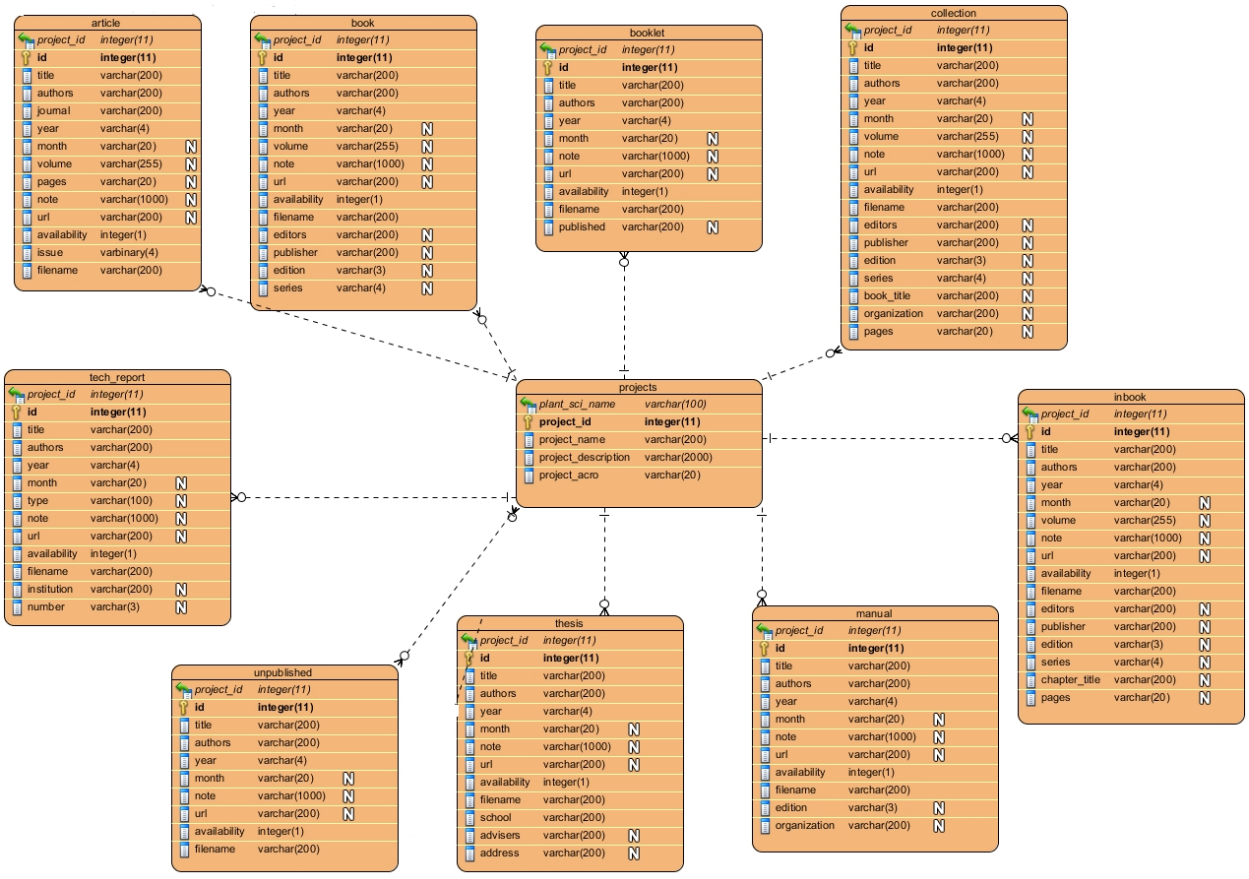


Figure 46. References Entity Relationship Diagram

2.HANAPIN-SP Registered Users Services

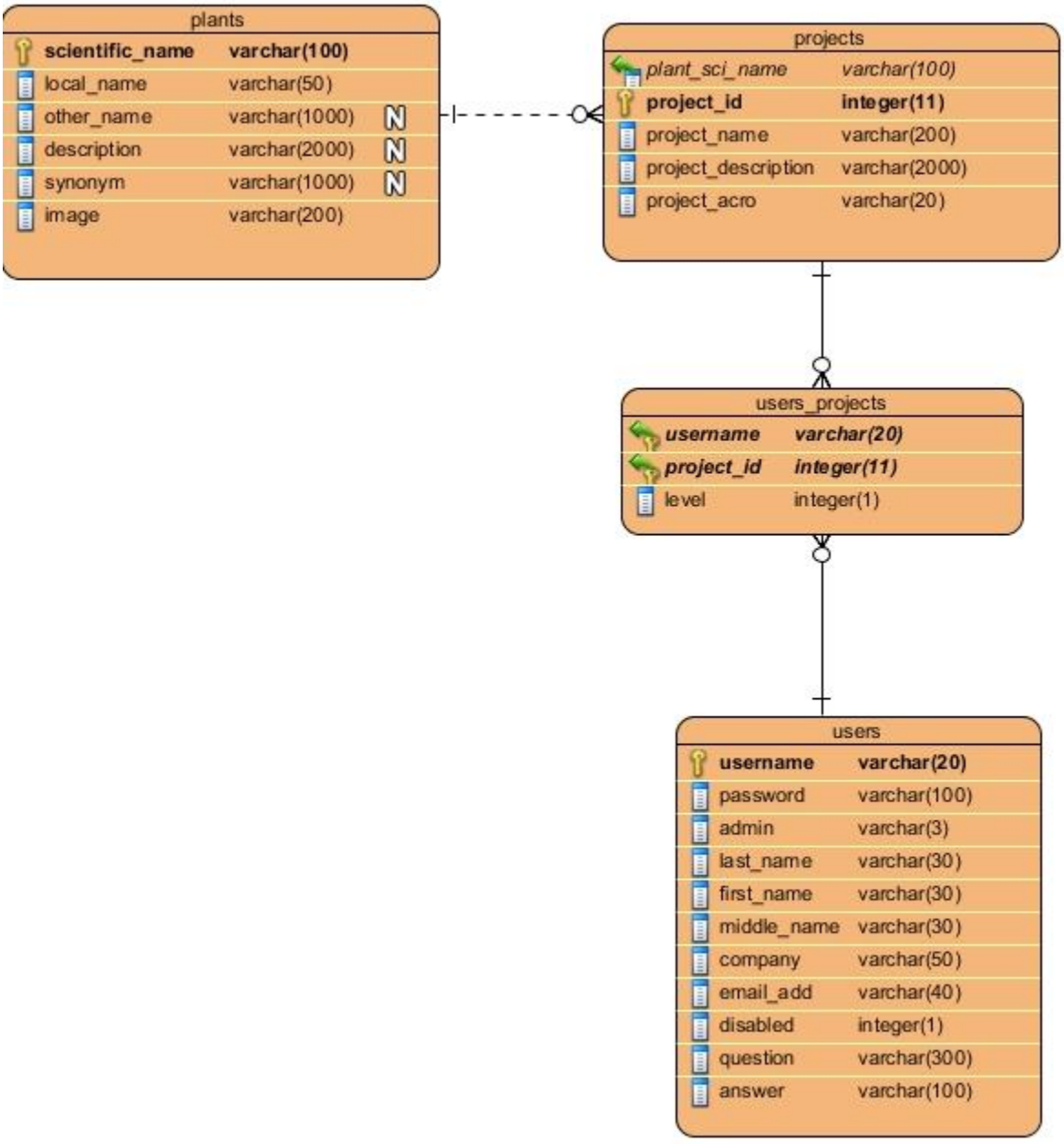


Figure 47. Registered User Services Entity Relationship Diagram

3. HANAPIN-SP Active Compounds and Plant Source Information

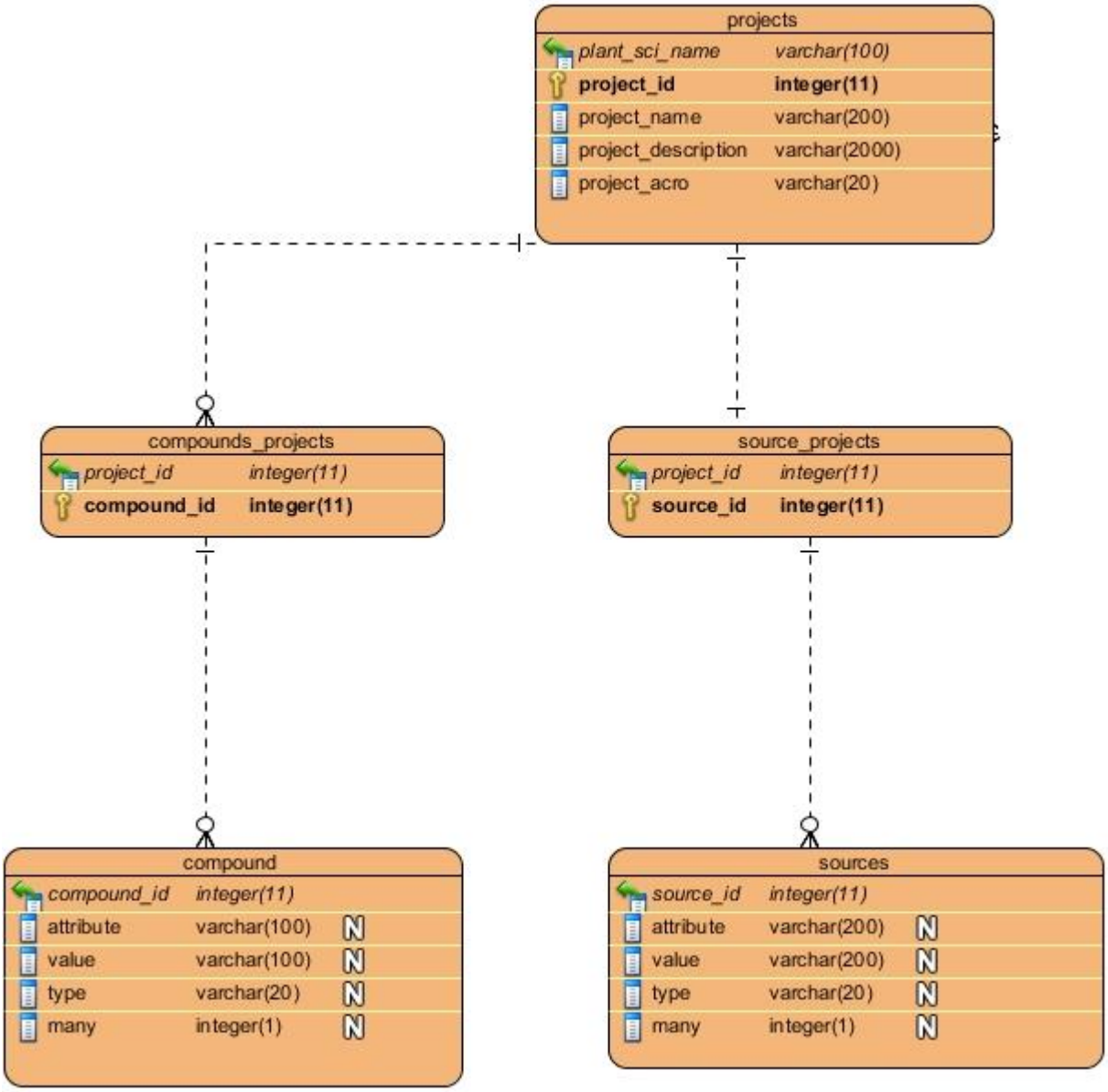


Figure 48. Active Compounds and Plant Source ERD

D. Data Dictionary

Field	Type	Description
from_name	varchar(30)	The from field of the email settings
screen_name	varchar(30)	The display name of the email of the system
net_address	varchar(40)	The address the email will be using

Table 24. **Admin Table.** This table includes values for the system's use only such as email settings.

Field	Type	Description
Id	int(11), AUTO	ID of the article
title	varchar(200)	Title of the article
authors	varchar(200)	Authors of the article
journal	varchar(200)	Journal title of the article
year	varchar(4)	Year of publication
month	varchar(20)	Month of publication
volume	varchar(3)	Volume of the journal
pages	varchar(20)	Pages of the article
note	varchar(1000)	Notes for the entry
url	varchar(200)	Url of the article
project_id	varchar(200)	Project ID where in the article belongs
availability	int(1)	Availability of the article
issue	varchar(4)	Issue number of the journal
filename	varchar(100)	Filename of the article that is uploaded

Table 25**. Article Table.** This table contains articles saved per project in the system.

Field	Type	Description
Id	int(11) , AUTO	ID of the book
title	varchar(200)	Title of the book
authors	varchar(200)	Authors of the book
editors	varchar(200)	Editors of the book
publisher	varchar(200)	Publisher of the book
year	varchar(4)	Year of publication
month	varchar(20)	Month of publication
note	varchar(1000)	Notes for the entry
series	varchar(3)	Series number of the book
edition	varchar(3)	Edition number of the book
volume	varchar(3)	Volume number of the book
url	varchar(200)	Url of the book
project_id	varchar(200)	Project ID wherein the book belongs

availability	int(1)	Availability of the book
filename	varchar(100)	Filename of the uploaded book

Table 26**. Book Table.** This table contains books saved per project in the system

Field	Type	Description
Id	int(11) , AUTO	ID of the booklet
title	varchar(200)	Title of the booklet
authors	varchar(200)	Authors of the booklet
published	varchar(200)	How the booklet was published
year	varchar(4)	Year of publication
month	varchar(20)	Month of publication
note	varchar(1000)	Note for the entry
url	varchar(200)	Url of the booklet
project_id	varchar(200)	Project ID wherein the booklet belongs
availability	int(1)	Availability of the booklet
filename	varchar(100)	Filename of the uploaded booklet

Table 27**. Booklet table.** This table contains booklets saved per project in the system.

Field	Type	Description
Id	int(11) , AUTO	ID of the incollection
title	varchar(200)	Title of the incollection
authors	varchar(200)	Authors of the book
book_title	varchar(200)	Title of the collection
editors	varchar(200)	Editors of the collection
organization	varchar(200)	Organization of the collection
pages	varchar(20)	Pages of the referenced part of the collection
year	varchar(4)	Year of publication
month	varchar(20)	Month of publication
publisher	varchar(200)	Publisher of the collection
note	varchar(1000)	Note for the entry
url	varchar(200)	url of the incollection
volume	varchar(3)	Volume number of the collection
series	varchar(3)	Series number of the collection
edition	varchar(3)	Edition number of the collection
project_id	varchar(200)	Project ID wherein the incollection belongs
availability	int(1)	Availability of the incollection
filename	varchar(100)	Filename of the uploaded incollection

Table 28**. Collection table.** This table contains the incollections saved per project in the system.

Field	Type	Description
compound_id	int(20) , AUTO	Compound ID of a certain compound
attribute	varchar(100)	A certain attribute of a compound
value	varchar(100)	The value of the corresponding attribute
type	varchar(20)	The type of data the entry is holding
many	int(1)	Indicator if there is many instances of the certain attribute

Table 29**. Compounds table.** This table contains attributes with corresponding values of compounds in the system.

Field	Type	Description
compound_id	int(11) , AUTO	Compound ID of a certain compound
project_id	int(11)	Project ID wherein the certain compound belongs to
availability	int(1)	Availability of the compound

Table 30**. Compounds_project table.** This is the association table between projects and compounds. This table contains a pair of compound and project id.

Field	Type	Description
question	varchar(500)	A certain question in the FAQS
answer	varchar(4000)	Answer to the question
Id	int(1)	ID of the paired question and answer

Table 31**. Faqs table.** This table contains the faqs of the system.

Field	Type	Description
username	varchar(20)	Username of a person trying to reset his/her password
security_key	varchar(50)	Key generated by the system for verification
month	varchar(5)	Month of submission of request
date	varchar(5)	Date of submission of request
year	varchar(5)	Year of submission of request

Table 32**. Forget_passwords table.** This table contains the registrations of various users for a reset of password

Field	Type	Description
Id	int(11) , AUTO	ID of the inbook
book_title	varchar(200)	Book title wherein the entry belongs
authors	varchar(200)	Authors of the book

publisher	varchar(200)	Publisher of the book
pages	varchar(20)	Pages of the inbook
year	varchar(4)	Year of publication
month	varchar(20)	Month of publication
volume	varchar(3)	Volume number of the book
note	varchar(1000)	Notes for the entry
series	varchar(3)	Series number of the book
edition	varchar(3)	Edition number of the book
url	varchar(200)	Url of the inbook
chapter_title	varchar(200)	Chapter title of the inbook
editors	varchar(200)	Editors of the book
project_id	varchar(200)	Project ID wherein the inbook belongs to
availability	int(1)	Availability of the inbook
filename	varchar(100)	Filename of the uploaded inbook

Table 33**. Inbook table.** This table contains the inbooks saved per project in the system.

Field	**Type**	**Description**
link_name	varchar(30)	Link display name
link_addr	varchar(100)	Link address
Id	int(1)	Link ID

Table 34**. Links table.** This table contains the links in the external links part of the page of the system.

Field	**Type**	**Description**
Id	int(11) , AUTO	ID of the manual
title	varchar(200)	Title of the manual
authors	varchar(200)	Authors of the manual
organization	varchar(200)	Organization from which the manual came from
year	varchar(4)	Year of publication
month	varchar(20)	Month of publication
note	varchar(1000)	Notes for the entry
edition	varchar(3)	Edition of the manual
url	varchar(200)	Url of the manual
project_id	varchar(200)	Project ID wherein the manual belongs to
availability	int(1)	Availability of the manual
filename	varchar(100)	Filename of the uploaded manual

Table 35**. Manual table.** This table contains the manuals saved per project in the system.

Field	Type	Description
news_id	int(11) , AUTO	ID of a certain news in the system
news_title	varchar(200)	Title of the news
news_text	varchar(4000)	Text of the news
add_month	varchar(20)	Month added
add_date	varchar(20)	Date added
add_year	varchar(20)	Year added
edit_month	varchar(20)	Month last edited
edit_date	varchar(20)	Date last edited
edit_year	varchar(20)	Year last edited

Table 36. **News table.** This table contains the news of the system.

Field	Type	Description
local_name	varchar(50)	Local name of the plant
scientific_name	varchar(100)	Scientific name of the plant
other_name	varchar(1000)	Other names of the plant
description	varchar(2000)	Description of the plant
synonym	varchar(1000)	Synonyms of the plant
image	varchar(100)	Image filename of the plant

Table 37**. Plants table.** This table contains the list of plants available in the system.

Field	Type	Description
plant_sci_name	varchar(200)	Plant scientific name wherein the project is under
project_id	int(11) , AUTO	ID of the project
project_name	varchar(200)	Project Name
project_description	varchar(2000)	Project description
acro	varchar(20)	Project acronym

Table 38. **Project table.** This table contains the projects in the system.

Field	Type	Description
source_id	varchar(20) , AUTO	ID of the plant source
attribute	varchar(40)	Attribute of the plant source
value	varchar(100)	The value corresponding to the value
type	varchar(20)	Type of data the entry if holding
many	int(1)	Flag variable that states if there are many instances of the certain attribute

Table 39. **Sources table.** This table contains the plant source information used by each project.

Field	Type	Description
project_id	int(20) , AUTO	Project ID wherein a certain plant source belongs to
source_id	int(11) , AUTO	Plant Source ID under a certain project

Table 40. **Source_projects table.** This tables stores what plant source information belong to a certain project.

Field	Type	Description
Id	int(11) , AUTO	ID of the technical report
Title	varchar(200)	Title of the technical report
Authors	varchar(200)	Authors of the technical report
Institution	varchar(200)	Institution wherein the technical report came from
Type	varchar(100)	Type of technical report
Year	varchar(4)	Year of publication
Month	varchar(20)	Month of publication
Note	varchar(1000)	Notes for the entry
Number	varchar(3)	Number of the technical report
url	varchar(200)	Url of the technical report
project_id	varchar(200)	Project ID wherein the technical report belongs to
availability	int(1)	Availability of the report
Filename	varchar(100)	Filename of the uploaded technical report

Table 41. **Tech_report table.** This table stores technical reports saved per project in the system.

Field	Type	Description
Id	int(11) , AUTO	ID of the thesis
title	varchar(200)	Title of the thesis
authors	varchar(200)	Authors of the thesis
school	varchar(200)	School of the authors of the thesis
year	varchar(4)	Year of publication
month	varchar(20)	Month of publication
note	varchar(1000)	Notes for the entry
url	varchar(200)	Url of the thesis
address	varchar(200)	Address of the school
project_id	varchar(200)	Project ID wherein the thesis belongs to
availability	int(1)	Availability of the thesis
advisers	varchar(200)	Advisers of the thesis authors
filename	varchar(100)	Filename of the uploaded thesis

Table 42. **Thesis table.** This table contains the list of thesis used by certain projects

Field	Type	Description
Id	int(11) , AUTO	ID of the unpublished work
title	varchar(200)	Title of the unpublished work
authors	varchar(200)	Authors of the unpublished work
year	varchar(4)	Year of publication
month	varchar(20)	Month of publication
note	varchar(1000)	Notes for the entry
url	varchar(200)	Url of the unpublished
project_id	varchar(200)	Project ID wherein the unpublished work belongs to
availability	int(1)	Availability of the unpublished work
filename	varchar(100)	Filename of the uploaded unpublished work

Table 43. **Unpublished table.** This table contains the list of unpublished works used by certain projects in the system.

Field	Type	Description
reg_username	varchar(20)	Username being registered for
reg_password	varchar(10)	Password being registered for
last_name	varchar(30)	Last name of the applicant
middle_name	varchar(30)	Middle name of the applicant
first_name	varchar(30)	First name of the applicant
email_add	varchar(40)	Email Address of the applicant
company	varchar(50)	Company of the applicant
question	varchar(300)	Secret question of the applicant
answer	varchar(100)	Answer to the secret question

Table 44. **Unregistered_users table.** This table contains the list of applicants for membership

Field	Type	Description
username	varchar(20)	Username of a person trying to apply or upgrade position in a project
project_id	varchar(200)	Project ID of the project being applied for
level	int(1)	Level being applied or updated to
update_flag	int(1)	Type of application. Could be upgrade or membership

Table 45. **Unreg_users_projects table.** This table contains users registering for certain positions in certain projects.

Field	Type	Description
username	varchar(20)	Username owning the current instance of the notification
project_id	int(20)	Project ID of the notification
update_message	varchar(200)	Message of the notification
read_stat	int(1)	Status whether the notification is already read or not
save_date	varchar(20)	The date when the notification is made by the system
update_type	int(1)	The type of update. Could be reference, compound or project details update

Table 46. **Updates table.** Table containing notifications for each user and each project.

Field	Type	Description
username	varchar(20)	Username of a certain registered user
password	varchar(100)	Password of the user
admin	varchar(3)	Indicates whether the user is admin or not
last_name	varchar(30)	Last name of the user
middle_name	varchar(30)	Middle name of the user
first_name	varchar(30)	First name of the user
company	varchar(50)	Company of the user
email_add	varchar(40)	Email Address of the user
disabled	int(1)	Indicates whether a user is disabled or not
question	varchar(300)	Secret question of the user
answer	varchar(100)	Answer to secret question of the user

Table 47. **Users table.** Table containing all the users of the system.

Field	Type	Description
username	varchar(20)	Username of a member of a certain project
project_id	varchar(200)	Project ID wherein the username belongs to
level	varchar(1)	The level of the user in a certain projec

Table 48. **Users_projects table.** Table containing list of users and their corresponding projects.

E. XML Schema for Information Exchange

HANAPIN-SP is using an ontology for the standardization of data and for providing different views for different users. The main use of the ontology is to provide fields for the Active Compounds and for the Plant Source Information of different projects. The main form of exchange between the system and the ontology is with the use of a well-defined xml schema.

Figure 49 shows the basic overview of what the system is receiving from the ontology. Every entry pertains to a required field in the active compounds and plant source information of a certain project. The tag <many> is a flag in which the system could know if the field can have more than one value. A value of "0" would mean that the field is singular while a value of "1" means the field can have more than one instance. The tag <name> basically contains the name of the field. A blank name tag is not rendered by the system. The tag <type> indicates what type of data a certain field is. As of now, HANAPIN-SP accepts text, select and formula data types. If the type is select, the system would automatically find the <values> tag. Each text enclosed by the <value> tag will be rendered as a possible value (as a select list in HTML). One also important tag is the <paired> tag. This tag is like a flag indicating if the field is paired with another field. HANAPIN-SP, as of now supports paired fields with both of the select type. If the value of the <paired> tag is "1", then it is paired. If it is paired, the system automatically finds for two <name> tags, one <values> tag and one <nextvalues> tag. All the received fields from the ontology is displayed as html input tags.

```
<entries>
        <entry>
                <many>0</many>
                <name>InChi Key</name>
                <type>text</type>
        </entry>
```

```
<entry>
        <many>0</many>
        <name>Structural Type</name>
        <type>select</type>
        <values>
                <value>berbaman</value>
                <value>chelidonine</value>
                <value>cyclic peptide</value>
                .
                .
        </values>
</entry>
<entry>
        <paired>1</paired>
        <many>1</many>
        <name>Plant Part Source</name>
        <type>select</type>
        <values>
                <value>leaves</value>
                <value>root</value>
                <value>flower</value>
                .
                .
        </values>
        <name>Traditional Use</name>
        <type>select</type>
        <nextvalues>
                <nextvalue>rodenticide</nextvalue>
                <nextvalue>fragrance</nextvalue>
                <nextvalue>antibiotic</nextvalue>
                .
                .
        </nextvalues>
</entry>
.
.
.
</entries>
```

Figure 49. Sample XML From Ontology

Figure 50 shows what the ontology module would receive from the system after having the fields filled up. The structure is basically the same. Some of the tags are omitted for single

valued fields, there are just two tags, namely the name tag and the value tag. The value tag holds the value of the field. For multiple valued fields, there is a <values> tag which would contain one or more <value> tags. These value tags hold the values the field has.

```
<entries>
        <entry>
                <name>Structural Type</name>
                <value>berbaman</value>
        </entry>
        <entry>
                <name>Plant Part Source</name>
                <values>
                        <value>leaves</value>
                        <value>root</value>
                <values>
                <name>Traditional Use</name>
                <values>
                        <value>fragrance</value>
                        <value>antibiotic</value>
                <values>
        </entry>
        .
        .
        .
</entries>
```

Figure 50. Sample XML to Ontology

V. RESULTS

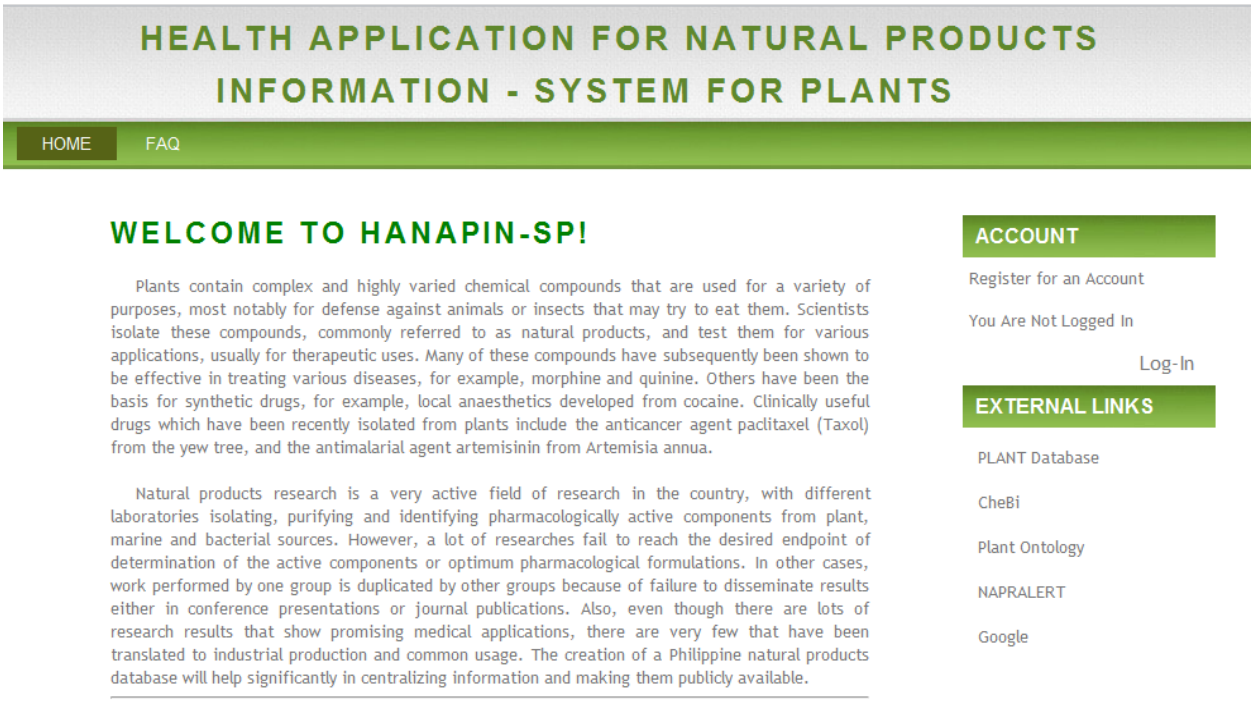


Figure 51. Home Page

The system is able to produce a user-friendly home page for the users. It is composed of the FAQ link and the basic description of the system. External Links are also available in all pages of the system

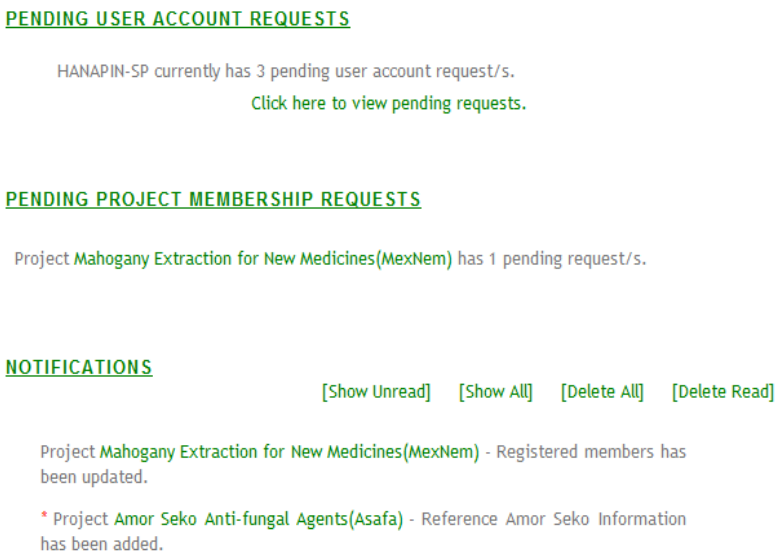


Figure 52. User Home Page

In figure 52, the user logged in is an administrator. The administrator has a part of the page wherein he can approve or disapprove user pending requests. The system also provides links for project administrators to approve requests and notifications for all the users regarding their projects

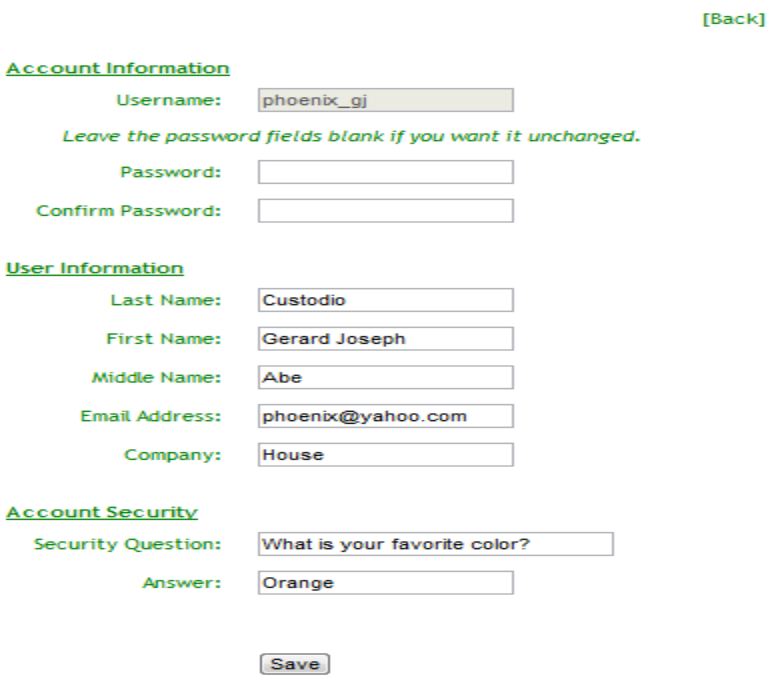


Figure 53. Edit Account Information

The system was able to provide an interface wherein the users can edit their account information or change their passwords.

[Back to Plants List]

PLANT INFORMATION

Scientific Name: Carapa Guianensis

Local Name: Mahogany

Synonyms:

Other Names:
andiroba, andiroba-saruba, bastard mahogany, Brazilian mahogany, iandirova, carapa, carapá, cedro macho, crabwood, figueroa, krapa, nandiroba, requia, tangare, y-andiroba

Description:
Andiroba is a tall rainforest tree that grows up to 40 m high. It is in the same family as mahogany, and it has been called Brazilian mahogany or bastard mahogany due to their similarity. It can be found growing wild throughout the Amazon rainforest, usually on rich soils, in swamps, and in the alluvial flats, marshes, and uplands of the Amazon Basin. It can also be found wild or under cultivation in Brazil in the Islands region, Tocantins, Rio Solimoes, and near the seaside. It is one of the large-leafed trees of the rainforest and can be identified by its large and distinctively textured leaves.

Figure 54. Plant Information Page

The system is able to produce a page for each plant with their corresponding picture, local name, synonyms, other names and description. Alongside with the plant data is the list of projects under it.

PROJECT INFORMATION

Plant Name: Desmodium Coeruleum
Project Name: Amor Seko Anti-fungal Agents
Project Acronym: Asafa
Project Description: Asafa aims to extract new anti-fungal compounds from the said plant. The project would also like to continue previous works regarding this field

PLANT SOURCE INFORMATION

Location: Philippines
Availability: Rare
Habitat: tundra

Plant Part Source and Traditional Use

Plant Part Source: leaves
Traditional Use: fragrance

Figure 55. Project Information Page

The system provides a home page for every project wherein users can see basic information about the system and the plant source information used in the project.

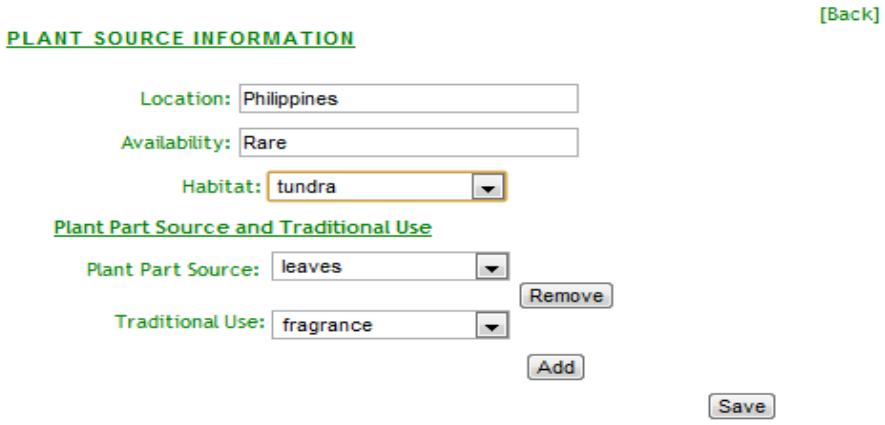


Figure 56. Edit Plant Source Information

If a user is a project manager or a project administrator, he/she can add or edit plant source information of the project.

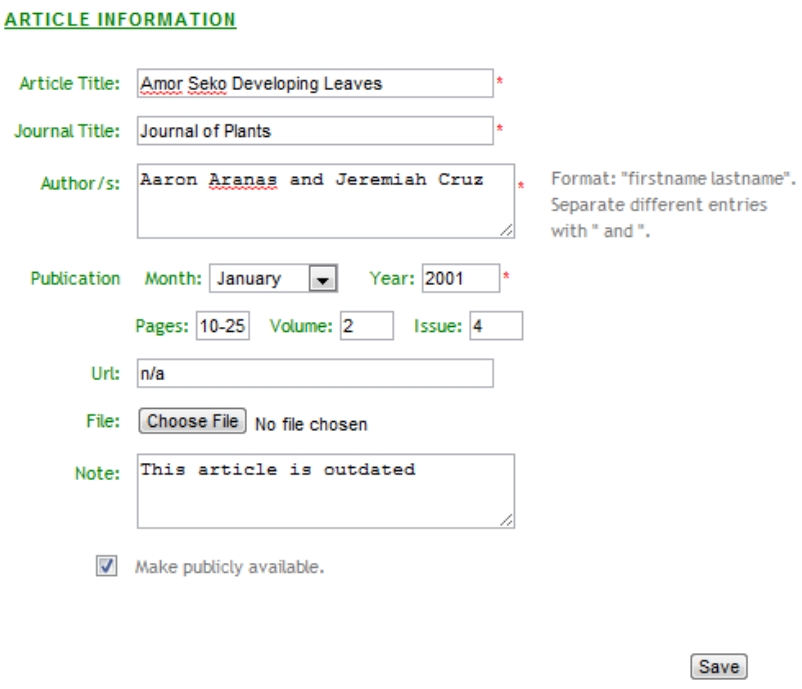


Figure 57. Add Article Information

If a user is a project manager or a project administrator, he/she can add, edit or delete references. Figure 57 shows an example of adding an article information.

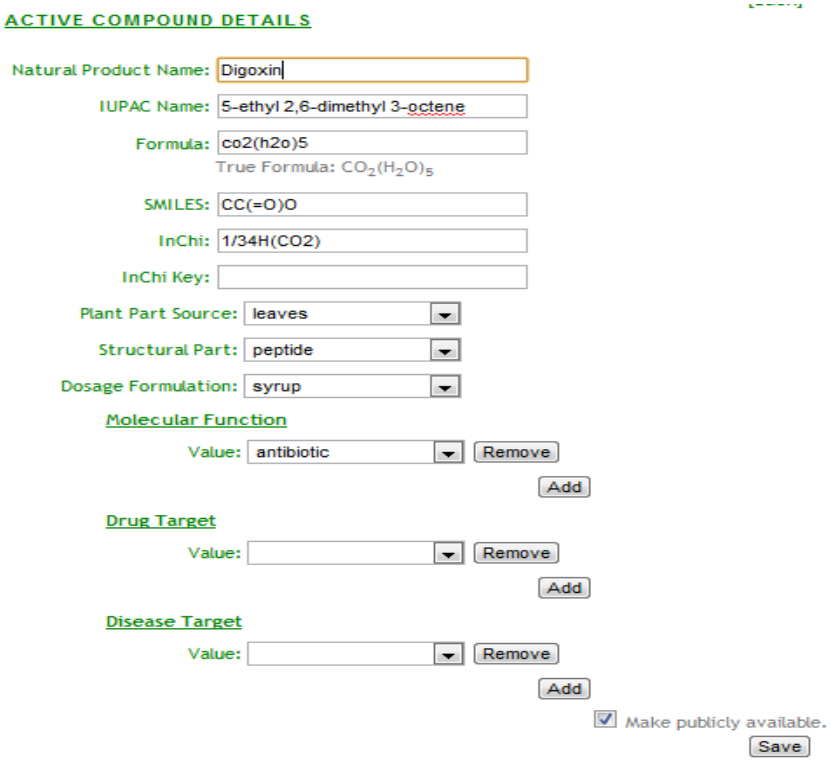


Figure 58. Add Active Compounds Details

If a user is a project manager or a project administrator, he/she can add, edit or delete active compounds. If the user is not a member of the project, the user cannot view private active compounds.

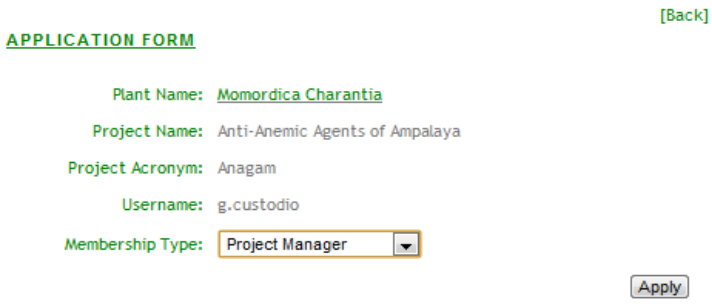


Figure 59. Apply for Project Membership

The system lets user apply for positions in projects in the system. The user can apply for viewer, manager or administrator positions.

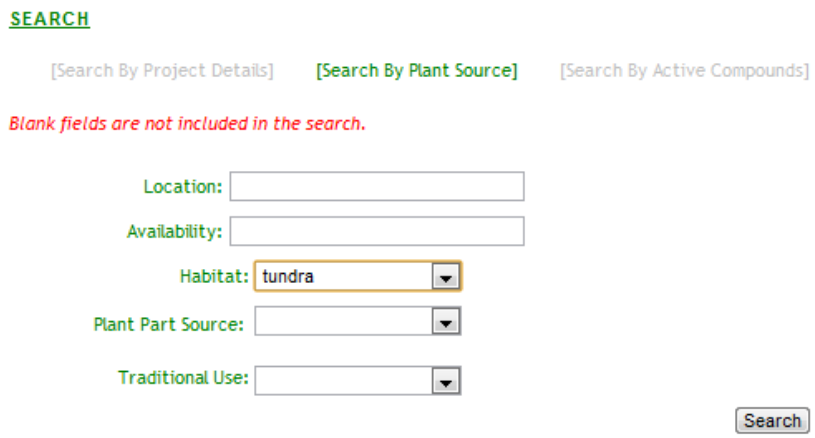


Figure 60. Search System

The system lets user search the system by project details, plant source or active compounds. Figure 60 shows an example of search by plant source. The user chose to search for projects containing tundra in their plant source information.

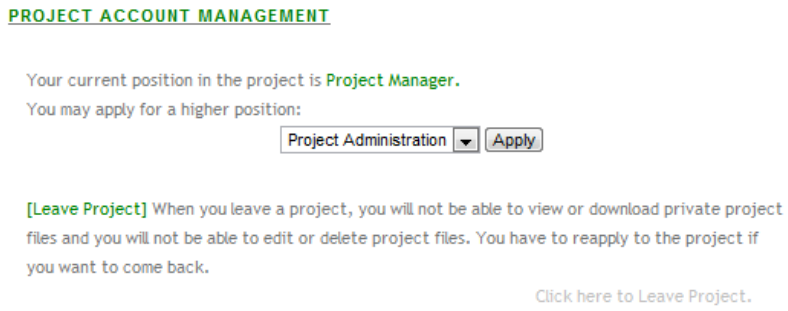


Figure 61. Project Account Management

The system lets members of the users to apply for a higher position in a project or the user can choose to leave the project. When the user leaves a project, the user must re-apply to become a member again.

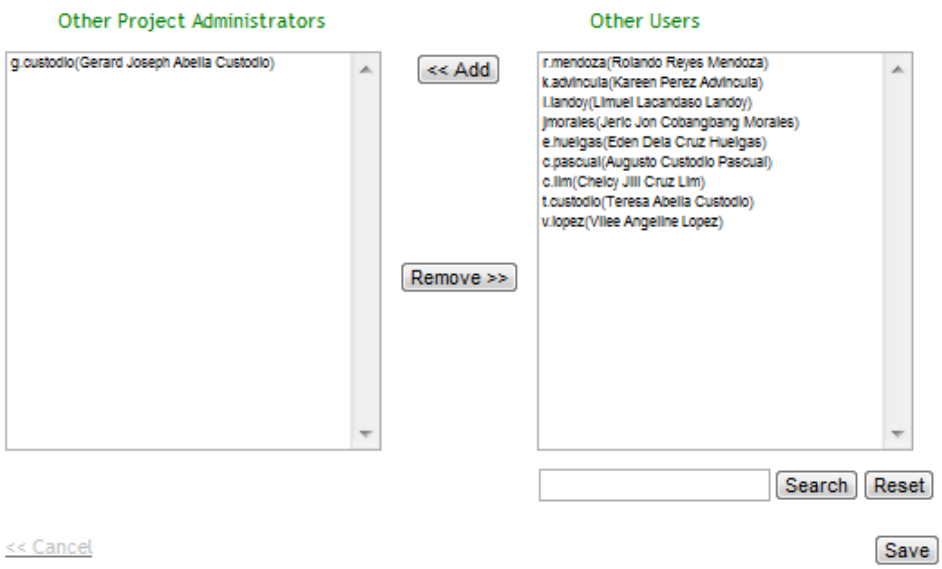


Figure 62. Project Users Management

Project Administrators can manage the members of the projects. They can upgrade or downgrade the positions of their members or directly add users of a certain position to their projects.

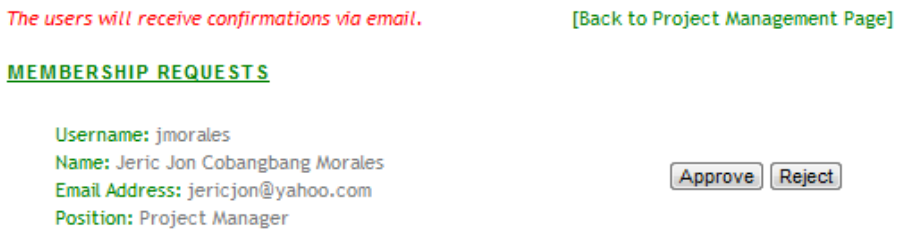


Figure 63. Approve or Reject Project Membership Requests

Project Administrators are able to approve or reject users wanting access to their projects. Users will receive email confirmations about the status of their requests.

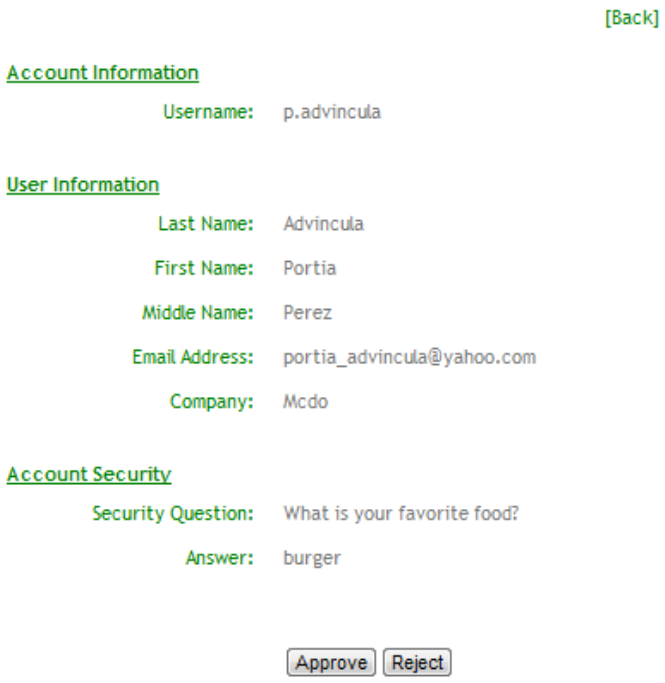


Figure 64. Approve User Account Request

System administrators can approve or reject user account requests. The users can receive email confirmations about their status.

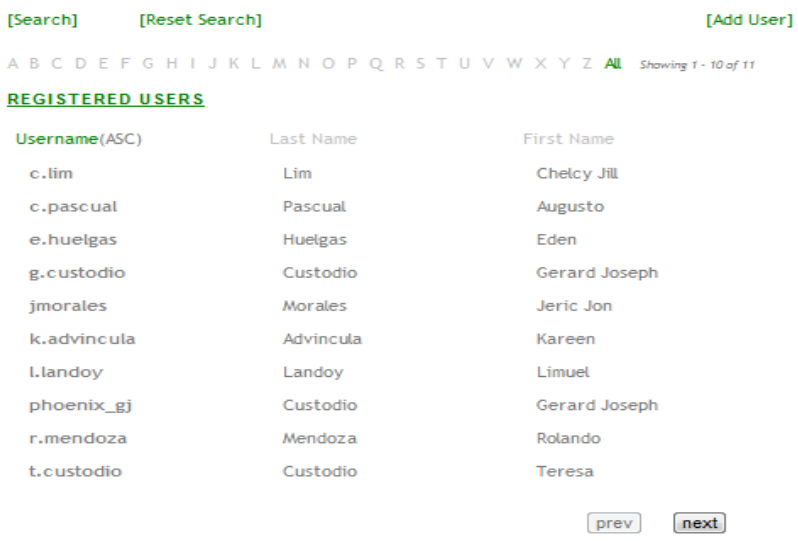


Figure 65. HANAPIN-SP Users List

System Administrators can view all users of the system. They may try to use the embedded search function in the user list page or use paginations for ease of access.

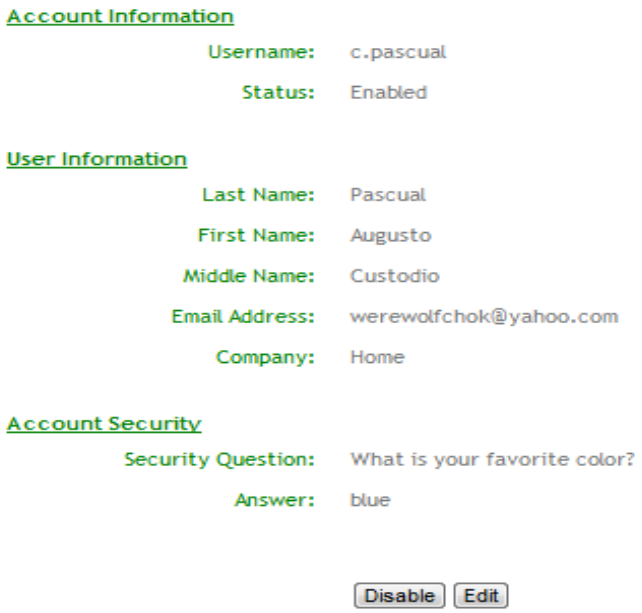


Figure 66. View User Account Information

System administrators can view user accounts. They are also able to edit information about the user. They can also disable the account removing the right of the user to login to the system.

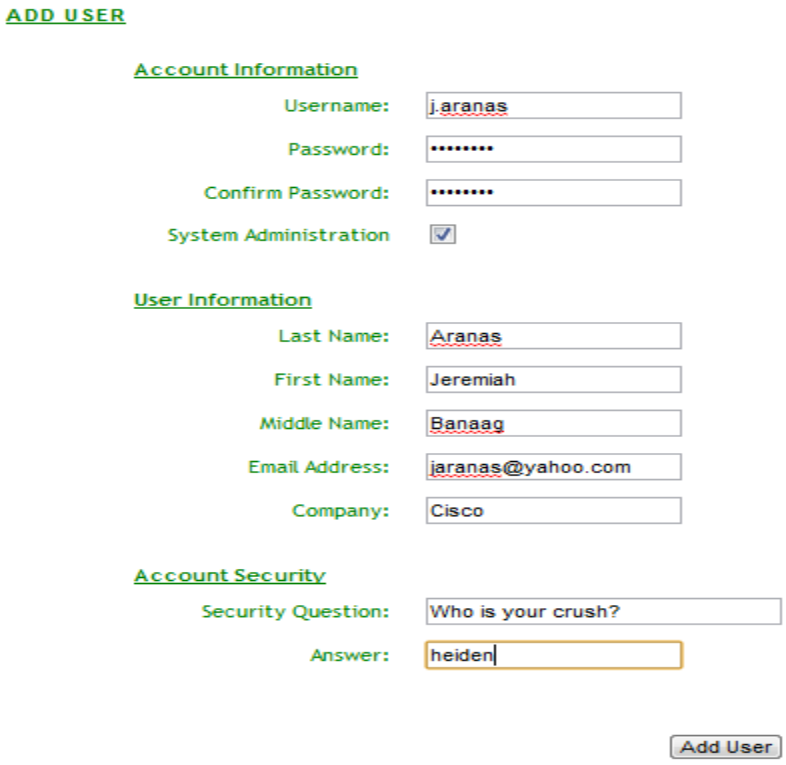


Figure 67. Add User

The system allows the system administrator to add a regular user or another system administrator

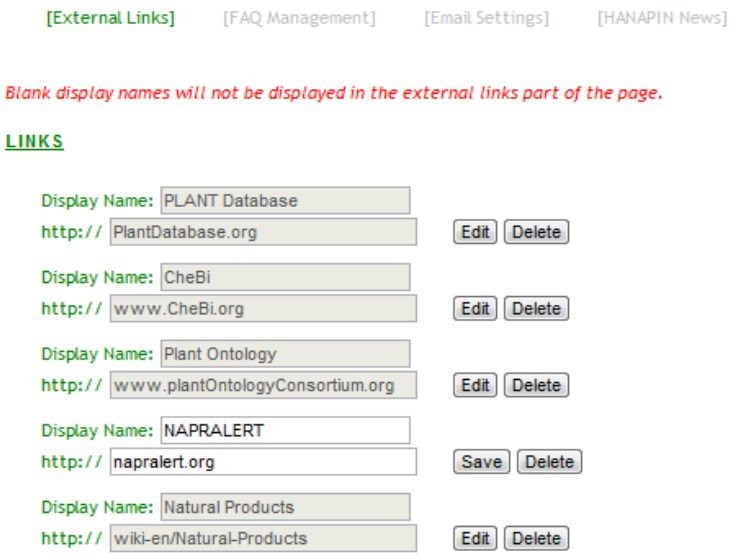


Figure 68. External Link Management

The system allows the system administrator to add, edit or delete external links of the system. The links are limited to five links.

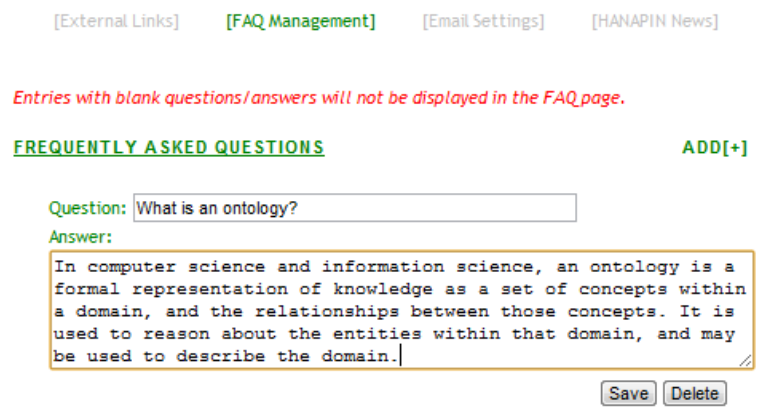


Figure 69. FAQ Management

The system allows the system administrator to add, edit or delete FAQ's of the system. These are shown in the faq page of the system.

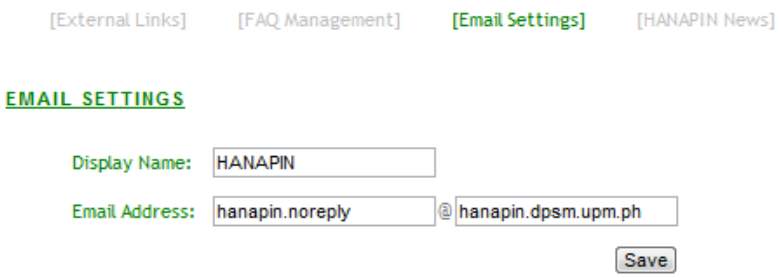


Figure 70. Email Settings

The system allows the system administrators to edit email settings. These settings are used when the system sends email notifications to its users.

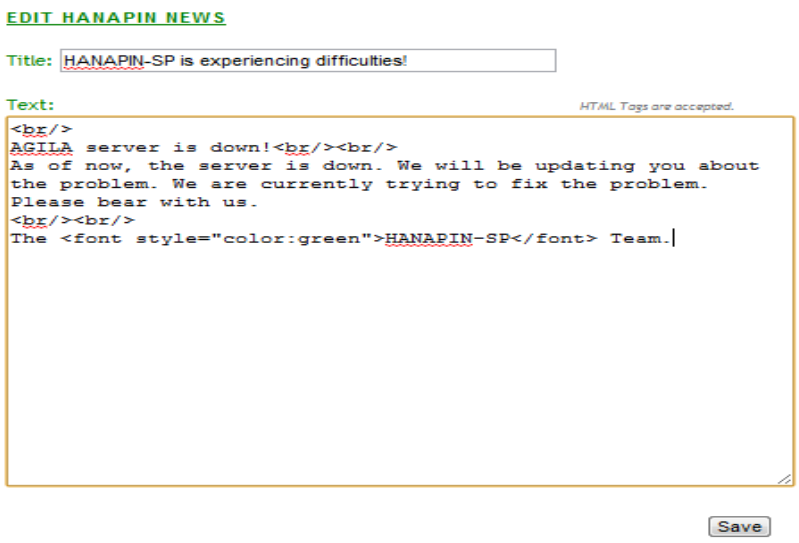


Figure 71. HANAPIN News and Updates Management

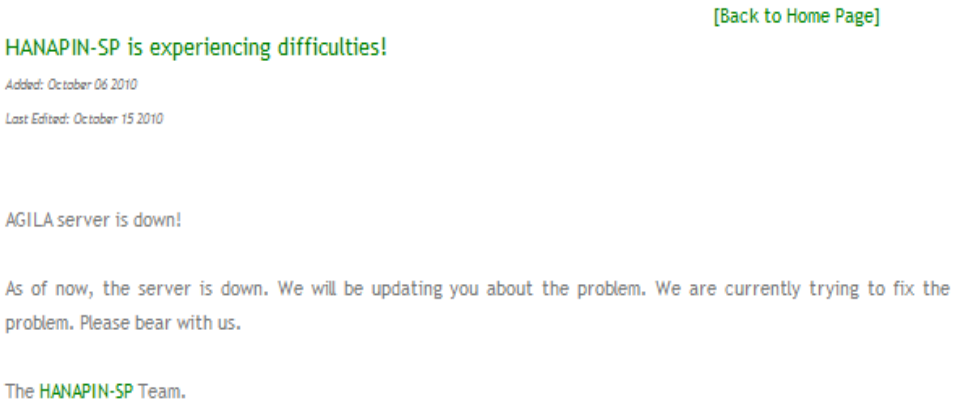


Figure 72. HANAPIN News and Updates

The system allows the system administrators to add, edit or delete news and updates about the system. These news and updates are available in the home page of the system.

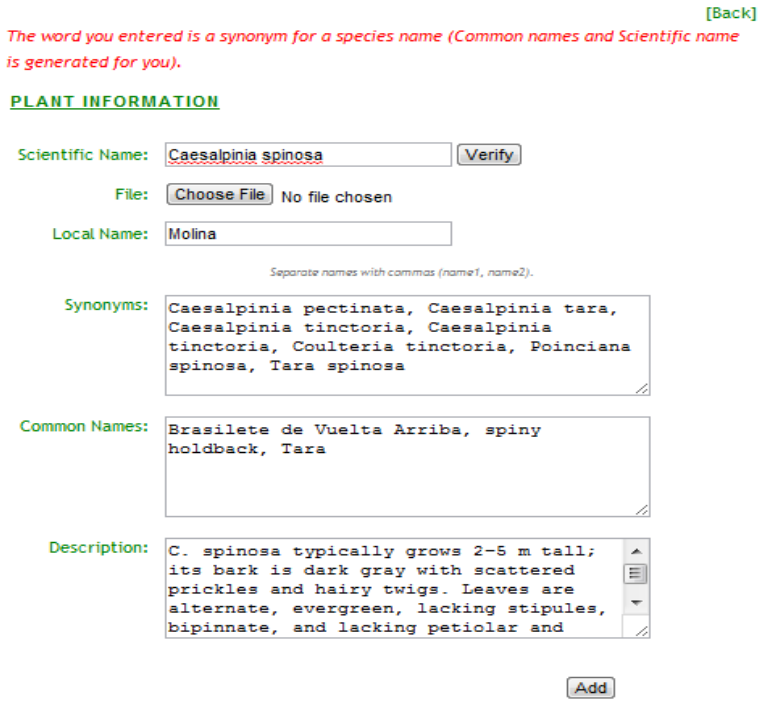


Figure 73. Add Plant Information

System administrators are able to add plants to the system. The system provides one mean of internal verification for the plant being added. It connects to an external database and tries to verify the plant. If the plant is not verified, the administrator still can add the plant.

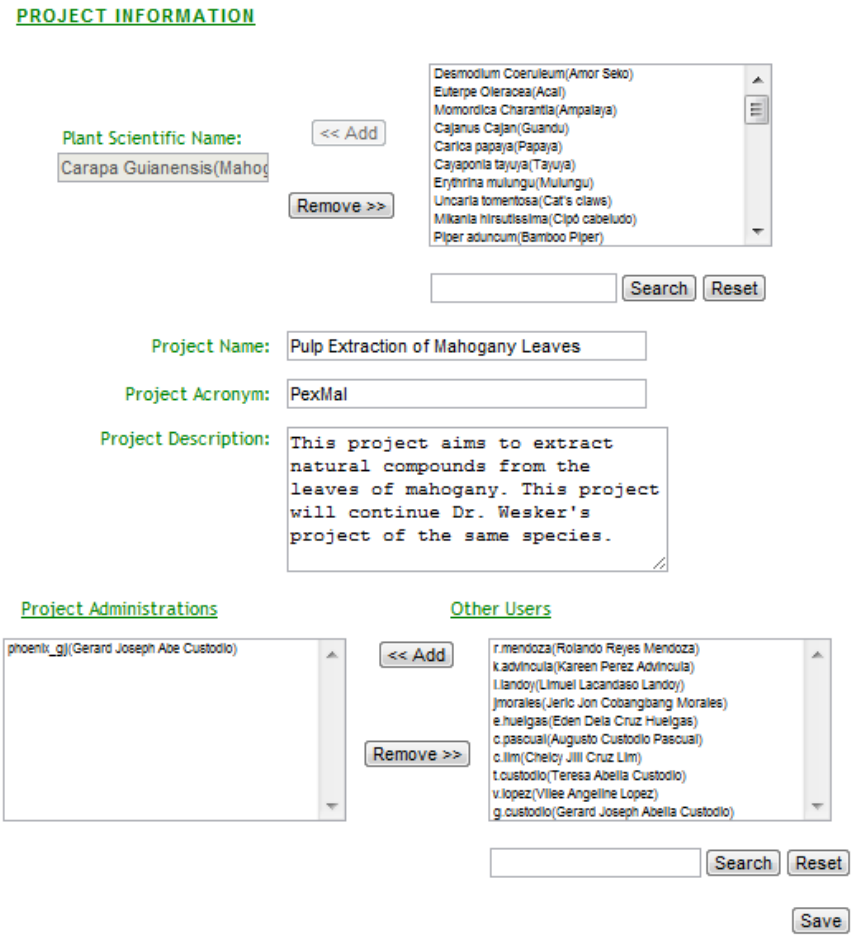


Figure 74. Add Project

The system allows system administrators to add projects under certain plants of the system. The administrator must put at least one administrator of the project.

VI. DISCUSSION

As a web-based system, HANAPIN-SP was able to give service to its different types of users. For unregistered users, the system was able to let them see the basic description of the system, the news, FAQs and register for an account. Another type of users is the registered users. The system was able to provide them internal search that helps them browse data in the system. They could search through project or plant description. They could also include in their search details regarding an active compound. The system also provided the users customizable HANAPIN accounts. Registered Users are also given right to apply membership for a certain project and view public files.

Project viewers are type of users that are member to at least one project. These users, compared to normal registered users were provided with the capability of downloading or viewing files restricted to the project that they are a member of. Any user that is member of a project was also able to leave the project if wanted. The upgraded version of project viewer is the project manager. The system provided these users with the functionalities of updating and managing data of a certain project. They could add, edit or delete data to their project. The highest type of user for a certain project is the project administrator. They were provided with the capability to do user management alongside with all the functionalities of the project manager.

For HANAPIN-SP, there is a global user type, which is the System Administrator. System Administrators were able to edit email settings, update news, update the external links and to manage FAQs. They were also given the responsibility of accepting/rejecting user account requests. System Administrators were also able to manage plants which are very crucial for the system. Administrators were also responsible for project creation.

By providing registered user services, the system is able to send emails to its users about updates regarding their projects or accounts. The service also rendered functionalities like password reset and username retrieval. This service was also responsible for account customization.

Another service that was provided by the system is the project management services. Using this service, project creation and maintenance was made possible. This service was also responsible for integrating the references, active compounds and user list of projects. The references service provided the system with the functionality of managing references for each project. It provided user interface for viewing and downloading references. Active compounds service provided users with the functionality of managing active compounds for a certain project. This service communicates with the ontology service.

The ontology service provided the system with fixed and defined terms for proper input fields for an active compound. The system was able to extract, a one-level tree structure from the ontology provided by the service. This helped organized data under each active compounds.

VII. CONCLUSION

HANAPIN-SP is a web-based system that can be a useful tool for plant natural products researchers especially for those who seek researches of other experiment groups. HANAPIN-SP helps researchers share their research information without compromising ownership of the information. It also helps greatly research teams who are apart from each other. The system serves as repository of their data wherever they are, whenever they want it.

The system is also useful for those who want to start their research. Using the system, they could search all the projects done and see if a similar work has been done, thus, eliminating the chance of duplication of work. HANAPIN-SP also provides security for the users. They are able to choose information they want to share in public.

The system serves as a systematic repository for the researches. With the help of ontology, certain fields and information in the system are standardized. Also, broadening or expanding the ontology being used, the users can broaden the information they want to share or to search. In general, the ontology helps the system become more dynamic and address the changes needed for plant natural products researches.

VIII. RECOMMENDATION

HANAPIN-SP is a web-based system that is capable of storing project information regarding a certain plant. What lacks in the project information are more data that can fully describe the project results. In HANAPIN-SP, the output results of projects are the active compounds themselves. It would help researchers or normal viewers more if details regarding project results and project processes are shown.

Another service that could have been helpful in HANAPIN-SP is an image repository service. A project might need images to fully explain their results or images that are used as part of the experiment process. This would help more describe a project in the system. Providing more than one image for a plant might also serve useful. As we know, plant appearance in a picture can be affected by lighting or image quality. More images for a certain plant may help users distinguish a plant to another or to help them get a good and complete look about a certain plant.

As of now, HANAPIN-SP only has one external database to query on regarding a plant scientific name. It would be helpful if the system will be able to check to other databases for better accuracy of plants list. External search could also be implemented so that users will have information not only available in the system, but also from other compatible databases.

The ontology service is a crucial part for providing interface for managing active compounds. The ontology service as of today can only display terms and vocabularies in a one level tree structure. Expanding to more than one level can provide users with a user interface capable of displaying more detailed information about active compounds. Another miscellaneous function that can be considered is by having a messaging service inside the system. This way, users can be able to communicate with each other using the system.

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X. APPENDIX

A. JSF Framework

JavaServer Faces technology is a framework for building user interfaces for web applications. JSF is based from the MVC(Model View Controller) framework. MVC helps separate logic and from presentation.

One advantage of using JSF framework is that it is easy to use. Since JSF framework separates logic from presentation, several users, from web-page designers to component developers, can come and develop systems using JSF. Since the framework is modular, division of labor can also be achieved nicely.

Standardization is also another advantage in using JSF framework. Since JSF is now being widely used, many developers are trying to develop and provide useful documentations to how to use JSF in a standard manner. In this case, code written in JSF would be highly readable even for not programmers. Another advantage of JSF is that it is platform independent. This means that written code will run as long as the developer provide a right server and an updated JVM.

HANAPIN-SP used this framework so that the system will be highly modularized and coordinated. HANAPIN-SP contains various modules that must communicate with each other. Since it is also based in MVC model, HANAPIN-SP will have an elegant code and other developers can continue to work on the system. New modules are also easy to develop because other developers would have a basic idea on the structure and how the system was made. The team also used Java based web development rather than other platforms because the team believes that Java is more secured and more efficient when it comes to using resources.

B. JSP Files

addCompound.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
<c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
<html xmlns="http://www.w3.org/1999/xhtml">

  <head>
            <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
            <script type="text/javascript"
  src="../javascript/jquery.js"></script>
            <script type="text/javascript"
  src="../javascript/dialog.js"></script>
            <script type="text/javascript"
  src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {padding: 2px}
            </style>
            <script type="text/javascript"
  src="../javascript/compound.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
  Products </a></h1>

            <h1><a>      In
  formation - System for Plants</a></h1>
            </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                    <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                                <h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                                    </li>
                        </ul>
            </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
            <!-- Content Pane -->
            <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                    <h:form id="myform">
                                    <h:commandLink
  value="[Back]" style="color: green; margin-left: 75%"
  action="compProject"/>
                                    <h3 style="color: green; margin-
  left: 2%"><u>Active Compound Details</u></h3>
                                    <br />
                                    <h:dataTable
  value="#{compoundBean.entries}" var="entry" border="0"
  id="comptable">
                                                <h:column>

            <h:panelGroup rendered="#{entry.type == 'text'}">

            <h:panelGroup rendered="#{entry.many == 0 &&
  entry.label != 'Formula'}">

            <table>

                        <tr>

                                    <td style="width: 150px; text-
  align: right; color: green"><h:outputText value="#{entry.label}"
  /><h:outputText value=": " /></td>

                                    <td><h:inputText
  value="#{entry.value}" size="30"/></td>

                        </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 0 &&
  entry.label == 'Formula'}">

            <table>

                        <tr>

                                    <td style="width: 150px; text-
  align: right; color: green; vertical-align: top; padding-top:
  5px"><h:outputText value="#{entry.label}" /><h:outputText
  value=": " /></td>

                                    <td><h:inputText
  value="#{entry.value}" size="30" id="formula"
  onkeyup="changeVal(this.value)"/><br /><span id="trueval">True
  Formula:</span></td>

                        </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">
```

```
</h:panelGroup>

</h:panelGroup>

<h:panelGroup rendered="#{entry.type == 'select'}">

<h:panelGroup rendered="#{entry.many == 0}">

<table>

<tr>

<td style="width: 170px; text-
align: right; color: green;"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

<td>

<h:selectOneMenu
value="#{entry.value}"  style="width: 150px">

<f:selectItems value="#{entry.values}"/>

</h:selectOneMenu>

</td>

</tr>

</table>

</h:panelGroup>

<h:panelGroup rendered="#{entry.many == 1}">

<h:dataTable value="#{entry.manyVals}" var="val">

<f:facet name="header">

<h:outputText style="color:
green; margin-left: 20%; text-decoration: underline"
value="#{entry.label}" />

</f:facet>

<h:column>

<table>

<tr>

<td
style="width: 170px; text-align: right; color: green"><h:outputText
value="Value" /><h:outputText value=": " /></td>

<td>

<h:selectOneMenu value="#{val.value}"  style="width:
150px">

<f:selectItems value="#{entry.values}"/>

</h:selectOneMenu>

</td>

<td>

<h:commandButton value="Remove"
actionListener="#{compoundBean.removeVal}">

<f:param value="#{entry.index}" id="entryIndex" />

<f:param value="#{val.index}" id="valueIndex" />

</h:commandButton>

</td>

</tr>

</table>

</h:column>

<f:facet name="footer">

<h:commandButton
style="margin-left: 95%" value="Add"
actionListener="#{compoundBean.addVal}">

<f:param
value="#{entry.index}" id="addEntryIndex" />

</h:commandButton>

</f:facet>

</h:dataTable>

</h:panelGroup>

</h:panelGroup>

</h:column>
</h:dataTable>
<h:selectBooleanCheckbox
value="#{compoundBean.avail}" style="margin-left: 60%"/>Make
publicly available.<br />
<h:commandButton
value="Save" style="margin-left: 75%"
actionListener="#{compoundBean.addCompound}"
action="viewCompound"><f:param
value="#{projectBean.projectId}"
id="projectId"/></h:commandButton>
</h:form>
</div>
</div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>

<h2>Administration</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
```

```
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                                </li>
                                    </h:panelGroup>
                                    <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                    </li>
                                    <li>
                                                <h2>External
Links</h2>
                                                <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                                </ul>
                                    </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>
  </html>
</f:view>
```

editCompound.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
            <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
            <script type="text/javascript"
  src="../javascript/jquery.js"></script>
            <script type="text/javascript"
  src="../javascript/dialog.js"></script>
            <script type="text/javascript"
  src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {padding: 2px}
            </style>
            <script type="text/javascript"
  src="../javascript/compound.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
  Products </a></h1>

            <h1><a>      In
  formation - System for Plants</a></h1>
            </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                    <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                                    </li>
```

```
                    </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                    <h:form>
                                    <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="viewCompound"/>
                                    <h3 style="color: green; margin-
left: 2%"><u>Active Compound Details</u></h3>
                                    <br />
                                    <h:dataTable
value="#{compoundBean.entries}" var="entry" border="0">
                                                <h:column>

            <h:panelGroup rendered="#{entry.type == 'text'}">

            <h:panelGroup rendered="#{entry.many == 0 &&
entry.label != 'Formula'}">

            <table>

                        <tr>

                                    <td style="width: 150px; text-
align: right; color: green"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                                    <td><h:inputText
value="#{entry.value}" size="30"/></td>

                        </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 0 &&
entry.label == 'Formula'}">

            <table>

                        <tr>

                                    <td style="width: 150px; text-
align: right; color: green; vertical-align: top; padding-top:
5px"><h:outputText value="#{entry.label}" /><h:outputText
value=": " /></td>

                                    <td><h:inputText
value="#{entry.value}" size="30" id="formula"
onkeyup="changeVal(this.value)"/><br /><span id="trueval">True
Formula:</span></td>

                        </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

            </h:panelGroup>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.type == 'select'}">

            <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                        <tr>

                                    <td style="width: 170px; text-
align: right; color: green;"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                                    <td>

                                                <h:selectOneMenu
value="#{entry.value}"  style="width: 150px">


            <f:selectItems value="#{entry.values}"/>

                                                </h:selectOneMenu>

                                    </td>

                        </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

            <h:dataTable value="#{entry.manyVals}" var="val">

                        <f:facet name="header">

                                    <h:outputText style="color:
green; margin-left: 20%; text-decoration: underline"
value="#{entry.label}" />

                        </f:facet>

                        <h:column>

                                    <table>

                                                <tr>

                                                            <td
style="width: 170px; text-align: right; color: green"><h:outputText
value="Value" /><h:outputText value=": " /></td>

                                                            <td>


            <h:selectOneMenu value="#{val.value}"  style="width:
150px">


            <f:selectItems value="#{entry.values}"/>


            </h:selectOneMenu>

                                                            </td>

                                                            <td>
```

```
                <h:commandButton value="Remove"
actionListener="#{compoundBean.removeVal}">

                <f:param value="#{entry.index}" id="entryIndex" />

                <f:param value="#{val.index}" id="valueIndex" />

                </h:commandButton>
                                                        </td>
                                                </tr>
                                        </table>
                                </h:column>
                                <f:facet name="footer">
                                        <h:commandButton
style="margin-left: 95%" value="Add"
actionListener="#{compoundBean.addVal}">
                                                <f:param
value="#{entry.index}" id="addEntryIndex" />
                                        </h:commandButton>
                                </f:facet>
                </h:dataTable>
                </h:panelGroup>
                </h:panelGroup>
                                                </h:column>
                                        </h:dataTable>
                                        <h:selectBooleanCheckbox
value="#{compoundBean.avail}" style="margin-left: 60%"/>Make
publicly available.<br />
                                        <h:commandButton
value="Save" style="margin-left: 75%"
actionListener="#{compoundBean.editCompound}"
action="viewCompound"></h:commandButton>
                                        </h:form>
                                </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                        <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                                </ul>
                                </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

viewCompound.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
		<c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
		<title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
		<script type="text/javascript"
   src="../javascript/jquery.js"></script>
		<script type="text/javascript"
   src="../javascript/dialog.js"></script>
		<script type="text/javascript"
   src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {padding: 2px}
		</style>
		<script type="text/javascript"
   src="../javascript/compound.js"></script>
   </head>

   <body onload="changeformula()">

   <!-- Logo Pane -->
   <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
   Products </a></h1>

		<h1><a>      In
   formation - System for Plants</a></h1>
		</div>
   </div>

   <!-- Menu Pane -->
   <h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
   action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
   action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
   action="logout"
   actionListener="#{userBean.destroySession}">Logout</h:comma
   ndLink>
				</li>
			</ul>
		</div>
   </h:form>

   <!-- Main Page -->
   <div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<h:form id="myform">
				<h:commandLink
   value="[Back]" style="color: green; margin-left: 75%"
   action="compProject"
   actionListener="#{projectBean.initCompounds}"/>
				<h3 style="color: green; margin-
   left: 2%"><u>Active Compound Details</u></h3>
				<br />
				<h:dataTable
   value="#{compoundBean.entries}" var="entry" border="0"
   id="comptable">
					<h:column>

		<h:panelGroup rendered="#{entry.type == 'text'}">

		<h:panelGroup rendered="#{entry.many == 0 &&
   entry.label != 'Formula'}">

		<table>

			<tr>

				<td style="width: 150px; text-
   align: right; color: green"><h:outputText value="#{entry.label}"
   /><h:outputText value=": " /></td>

				<td><h:outputText
   value="#{entry.value}" /></td>

			</tr>

		</table>

		</h:panelGroup>

		<h:panelGroup rendered="#{entry.many == 0 &&
   entry.label == 'Formula'}">

		<table>

			<tr>

				<td style="width: 150px; text-
   align: right; color: green; padding-top: 5px"><h:outputText
   value="#{entry.label}" /><h:outputText value=": " /></td>

				<td><h:outputText
   value="#{entry.value}" id="formula"/><br /></td>

			</tr>

			<tr>

				<td colspan="2">

					<span id="trueval"
   style="margin-left: 80px">True Formula:</span>

				</td>

			</tr>

		</table>

		</h:panelGroup>
```

```
<h:panelGroup rendered="#{entry.many == 1}">

</h:panelGroup>

</h:panelGroup>

<h:panelGroup rendered="#{entry.type == 'select'}">

<h:panelGroup rendered="#{entry.many == 0}">

<table>

<tr>

<td style="width: 170px; text-
align: right; color: green;"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

<td>

<h:outputText
value="#{entry.value}" />

</td>

</tr>

</table>

</h:panelGroup>

<h:panelGroup rendered="#{entry.many == 1}">

<h:dataTable value="#{entry.manyVals}" var="val">

<f:facet name="header">

<h:outputText style="color:
green; margin-left: 20%; text-decoration: underline"
value="#{entry.label}" />

</f:facet>

<h:column>

<table>

<tr>

<td
style="width: 170px; text-align: right; color: green"><h:outputText
value="Value" /><h:outputText value=": " /></td>

<td>

<h:outputText value="#{val.value}" />

</td>

</tr>

</table>

</h:column>

</h:dataTable>

</h:panelGroup>

</h:panelGroup>
</h:column>
</h:dataTable>
<h:panelGroup
rendered="#{projectBean.level >= 3}">
<h:commandButton value="Edit"
style="margin-left: 65%"
action="editCompound"></h:commandButton>
<h:commandButton
value="Delete"
actionListener="#{compoundBean.deleteCompound}"
action="compProject"></h:commandButton>
</h:panelGroup>
</h:form>
</div>
</div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>

<h2>Administration</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
</li>
</h:panelGroup>
<li>
<h2>Menu</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
<h3> </h3>
</li>
<li>
```

```
                                        <h2>External
Links</h2>
                                        <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                        </ul>
                                    </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>

</html>
</f:view>
```

accountOptions.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {min-width: 100px}
            </style>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
Products </a></h1>

            <h1><a>      In
formation - System for Plants</a></h1>
            </div>
</div>

<!-- Menu Pane -->
<h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                    <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                    </li>
                        </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                    <h:form>
                                    <br />
                                    <h:commandLink style="margin-
left: 2%;" value="[Project Home]" action="projectDetails"/>
                                    <h:commandLink style="margin-
left: 2%" value="[Active Compounds]"  action="compProject"/>
                                    <h:commandLink style="margin-
left: 2%" value="[References]" action="refProject"/>
                                    <h:commandLink style="margin-
left: 2%; color: green" rendered="#{projectBean.level != 1}"
value=" [Project Account]" action="accountOptions"
actionListener="#{projectBean.initErrorMessage}" />
                                    <h:commandLink style="margin-
left: 2%" rendered="#{projectBean.level == 4}" value="[Project
Management] "  action="projectManage"/>
                                    <br /><br />
                                    <p><u><h3 style="color:green;
margin-left: 2%">Project Account Management</h3></u></p>
                                    <br />
                                    <h:panelGroup
rendered="#{projectBean.level != 4}">
                                                <p style="margin-left:
4%">
                                                <h:panelGroup
rendered="#{projectBean.changeProgress}">
                                                <h:outputText
value="You currently have a pending request."
styleClass="errorMessage"
rendered="#{projectBean.changeProgress}" />
                                                <br />
```

```
                                        </h:panelGroup>
                                        Your current position
in the project is
                                        <h:outputText
rendered="#{projectBean.level == 2}" style="color:green"
value="Project Viewer. "></h:outputText>
                                        <h:outputText
rendered="#{projectBean.level == 3}" style="color:green"
value="Project Manager. "></h:outputText>
                                        <br />You may apply
for a higher position:<br />

            <h:selectOneMenu rendered="#{projectBean.level ==
2}" style="margin-left: 200px"
value="#{projectBean.chosenLevel}">

<f:selectItem itemValue="3" itemLabel="Project Manager"/>

<f:selectItem itemValue="4" itemLabel="Project
Administration"/>

            </h:selectOneMenu>

            <h:selectOneMenu rendered="#{projectBean.level ==
3}" style="margin-left: 200px"
value="#{projectBean.chosenLevel}">

<f:selectItem itemValue="4" itemLabel="Project
Administration"/>

            </h:selectOneMenu>

            <h:commandButton
disabled="#{projectBean.changeProgress}" value="Apply"
actionListener="#{projectBean.applyChangeLevel}" />
                                        </p>
                                        <br />
                                    </h:panelGroup>
                                    <h:outputText style="margin-
left: 4%" rendered="#{projectBean.errorLeave}"
styleClass="errorMessage" value="Sorry but you are the only
Administration of this project. You cannot leave this project." />
                                    <p style="margin-left:
4%"><h:outputText style="color:green" value="[Leave Project]
"></h:outputText> When you leave a project, you will not be able
to view or download private project <br /> files and you will not be
able to edit or delete project files. You have to reapply to the
project if <br /> you want to come back.
                                        <br />
                                        <h:commandLink
style="margin-left: 400px" value="Click here to Leave Project."
actionListener="#{projectBean.leaveProject}"
action="#{projectBean.getToGoLeave}"/>
                                    </p>
                                    <br /><br /><br /><br /><br
/><br /><br /><br />
                                    </h:form>
                        </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                        <ul>
                                    <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

            <h2>Administration</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                        </li>
                                    </h:panelGroup>
                                    <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                    </li>
                                    <li>
                                        <h2>External
Links</h2>
                                        <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                        </ul>
                                    </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>
```

```
</body>

</html>
</f:view>
```

addProject.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
        <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
        <c:redirect url="/services/plantHome.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title><h:outputText
  value="#{projectBean.projectPlantName}" /> - HANAPIN-
  SP</title>
        <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
        <script type="text/javascript"
  src="../javascript/jquery.js"></script>
        <script type="text/javascript"
  src="../javascript/dialog.js"></script>
        <script type="text/javascript"
  src="../javascript/ajax.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
  Products </a></h1>

        <h1><a>      In
  formation - System for Plants</a></h1>
        </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                        <br />
                        <h:form>
                        <h:commandLink style="margin-
left: 550px; color: green" value="[Back]"
action="showPlantDetails"/>
                        <h:panelGroup
rendered="#{projectBean.addError}">
                                <p><h:outputText
styleClass="errorMessage" style="margin-left: 2%; margin-
bottom: 4%"
value="#{projectBean.addErrorMess}"></h:outputText></p>
                        </h:panelGroup>
                                <table  border="0"
width="600" style="margin-left:2%">
                                        <tr>

        <th colspan="2"><u><h3>Project
Information</h3></u><br /></th>
                                        </tr>
                                        <tr>

        <td style="text-align: right; color: green">Plant
Name:</td>

        <td>

        <h:inputText
value="#{projectBean.projectPlantName}"
disabled="true"></h:inputText>

        </td>
                                        </tr>
                                        <tr>

        <td style="text-align: right; color: green">Project
Name:</td>

        <td>

        <h:inputText value="#{projectBean.projectName}"
size="38"></h:inputText>

        </td>
                                        </tr>
                                        <tr>

        <td style="text-align: right; color: green">Project
Acronym:</td>

        <td>

        <h:inputText value="#{projectBean.projectCode}"
size="38"></h:inputText>

        </td>
                                        </tr>
                                        <tr>
```

```
<td style="text-align: right; color: green">Project
Description:</td>

<td rowspan="2">

<h:inputTextarea rows="6" cols="30"
value="#{projectBean.projectDescription}"></h:inputTextarea>

</td>
                                                    </tr>
                                                    <tr>

<td></td>
                                                    </tr>
                                                    <tr>

<td style=" color: green"><u>Project
Administrators</u></td>

<td style=" color: green"><u style="margin-left:
160px">Other Users</u></td>
                                                    </tr>
                                                </table>
                                                <table border="0">
                                                    <tr>

<td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentExpel}" size="10"
styleClass="force">

                    <f:selectItems
value="#{projectBean.projectAdmins}" />

</h:selectOneListbox></td>

<td style="text-align: center"><h:commandButton
value="<< Add"
actionListener="#{projectBean.addToAdmin}"></h:commandButt
on></td>

<td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentUserName}" size="10"
styleClass="force">

                    <f:selectItems
value="#{projectBean.allUsers}" />

</h:selectOneListbox>

<br />



</td>
                                                    </tr>
                                                    <tr>

<td><h:commandButton value="Remove >>"
actionListener="#{projectBean.removeAdmin}"></h:commandBut
ton></td>
                                                    </tr>
                                                    <tr>

<td><br></br><br></br></td>

<td></td>

<td>

<h:inputText
value="#{projectBean.searchUser}"/><h:commandButton
value="Search"
actionListener="#{projectBean.searchUsers}"><f:param
id="mode" value="1" /></h:commandButton><h:commandButton
value="Reset" actionListener="#{projectBean.reInitForSearch}"
><f:param id="mode2" value="1" /></h:commandButton>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right"
colspan="3"><h:commandButton value="Save"
action="#{projectBean.getGoToCreate}"
actionListener="#{projectBean.addProject}"><f:param id="user"
value="#{userBean.username}" /></h:commandButton></td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
                                    </div>
                                    <!-- Side Bar -->
                                    <div id="sidebar">
                                    <h:form>
                                        <ul>
                                            <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

<h2>Administration</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
                                                </li>
                                            </h:panelGroup>
                                            <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
```

```
                                        <ul><span
  style="margin-left: 20px"><h:commandLink value="Search"
  action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                    </li>
                                    <li>
                                        <h2>External
  Links</h2>
                                        <ul>

            <h:dataTable value="#{linksListBean.links}"
  var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                        </ul>
                                    </li>
                                </ul>
                                </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

addSource.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
            <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
            <script type="text/javascript"
  src="../javascript/jquery.js"></script>
            <script type="text/javascript"
  src="../javascript/dialog.js"></script>
            <script type="text/javascript"
  src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {padding: 2px}
            </style>
  </head>
<body>

<!-- Logo Pane -->
<div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
Products </a></h1>

            <h1><a>      In
formation - System for Plants</a></h1>
            </div>
</div>

<!-- Menu Pane -->
<h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                    <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                    </li>
                        </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                    <h:form>
                                    <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="projectDetails"/>
                                    <h3 style="color: green; margin-
left: 2%"><u>Plant Source Information</u></h3>
                                    <br />
                                    <h:dataTable
value="#{projectBean.entries}" var="entry" border="0">
                                                <h:column>

            <h:panelGroup rendered="#{entry.type == 'text'}">

            <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                        <tr>

                                    <td style="width: 150px; text-
align: right; color: green"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                                    <td><h:inputText
value="#{entry.value}" size="30"/></td>
```

```
                </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

            </h:panelGroup>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.type == 'select'}">

            <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                <tr>

                    <td style="width: 170px; text-
align: right; color: green;"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                    <td>

                        <h:selectOneMenu
value="#{entry.value}"  style="width: 150px">

            <f:selectItems value="#{entry.values}"/>

                        </h:selectOneMenu>

                    </td>

                </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

            <h:dataTable value="#{entry.manyVals}" var="val"
rendered="#{entry.paired}">

                <f:facet name="header">

                    <h:outputText style="color:
green; margin-left: 10%; text-decoration: underline"
value="#{entry.label} and #{entry.label2} " />

                </f:facet>

                <h:column>

                    <table style="margin-left: 10%">

                        <tr>

                            <td
style="width: 170px; color: green; text-align: right"><h:outputText
value="#{entry.label}" /><h:outputText value=": " />

                            <br /><br
/>

            <h:outputText value="#{entry.label2}"
/><h:outputText value=": " />

                            </td>

                            <td>

            <h:selectOneMenu value="#{val.value}"  style="width:
150px">

            <f:selectItems value="#{entry.values}"/>

            </h:selectOneMenu><br /><br />

            <h:selectOneMenu value="#{val.value2}"
style="width: 150px">

            <f:selectItems value="#{entry.values2}"/>

            </h:selectOneMenu>

                            </td>

                            <td>

            <h:commandButton value="Remove"
actionListener="#{projectBean.removeVal}">

            <f:param value="#{entry.index}" id="entryIndex" />

            <f:param value="#{val.index}" id="valueIndex" />

            </h:commandButton>

                            </td>

                        </tr>

                    </table>

                </h:column>

                <f:facet name="footer">

                    <h:commandButton
style="margin-left: 85%" value="Add"
actionListener="#{projectBean.addVal}">

                        <f:param
value="#{entry.index}" id="addEntryIndex" />

                    </h:commandButton>

                </f:facet>

            </h:dataTable>

            </h:panelGroup>

            </h:panelGroup>
```

```
                                        </h:column>
                                    </h:dataTable>
                                    <h:commandButton
value="Save" style="margin-left: 65%"
actionListener="#{projectBean.addSource}"
action="projectDetails"></h:commandButton>
                                    </h:form>
                            </div>
                    </div>
                    <!-- Side Bar -->
                    <div id="sidebar">
                    <h:form>
                            <ul>
                                    <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                    <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                    <h3> </h3>
                                        </li>
                                    </h:panelGroup>
                                    <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                    </li>
                                    <li>
                                        <h2>External
Links</h2>
                                        <ul>

                    <h:dataTable value="#{linksListBean.links}"
var="link">

                    <li><h:column>
                    <h:outputLink value="#{link.addr}" target="_blank">

                            <h:outputText value="#{link.name}" />

                    </h:outputLink>

                    </h:column></li>

                    </h:dataTable>
                                                    </ul>
                                            </li>
                            </ul>
                            </h:form>
                    </div>
                    <!-- Filler -->
                    <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>

    </body>

    </html>
</f:view>
```

compProject.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
            <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
            <script type="text/javascript"
    src="../javascript/jquery.js"></script>
            <script type="text/javascript"
    src="../javascript/dialog.js"></script>
            <script type="text/javascript"
    src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {padding: 2px}
            </style>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
            <div id="logo">
                    <h1><a>Health Application for Natural
    Products </a></h1>

            <h1><a>      In
    formation - System for Plants</a></h1>
            </div>
    </div>

    <!-- Menu Pane -->
```

```
<h:form>
	<div id="menu">
		<ul id="menulist">
			<li><h:commandLink
action="toHome">Home</h:commandLink></li>
			<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
		</ul>
		<ul style="margin-left: 75%">
			<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
				</h:commandLink>
			</li>
			<li>
				<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
			</li>
		</ul>
	</div>
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<h:inputHidden
value="#{projectBean.hidden}" />
		<div class="post">
			<h:form><br />

			<h:commandLink style="margin-
left: 2%" value="[Project Home]" action="projectDetails"/>
			<h:commandLink style="margin-
left: 2%; color:green" value="[Active Compounds]" />
			<h:commandLink style="margin-
left: 2%" value="[References]" action="refProject"/>
			<h:commandLink style="margin-
left: 2%" rendered="#{projectBean.level != 1}" value=" [Project
Account]" action="accountOptions"
actionListener="#{projectBean.initErrorMessage}" />
			<h:commandLink style="margin-
left: 2%" rendered="#{projectBean.level == 4}" value="[Project
Management] "  action="projectManage"/>
			<br /><br />
			<h:panelGroup
rendered="#{projectBean.level >= 3}">
			<h:commandButton value="Add
Compound" action="addCompound" style="margin-left: 70%"
actionListener="#{compoundBean.initComp}"/>
			</h:panelGroup>
			<h3 style="color: green; margin-
left: 20px"><u>Active Compounds</u></h3><br />
			<h:dataTable
value="#{projectBean.compList}" var="comp" style="margin-left:
30px">
				<h:column>

	<h:outputText style="color: green" value="Natural
Product Name: " />

	<h:commandLink value="#{comp.name}"
action="viewCompound"
actionListener="#{compoundBean.getCompound}"><f:param
value="#{comp.id}" id="compId" /></h:commandLink>
				<br/><br/>
				</h:column>
			</h:dataTable>
			</h:form>



		</div>
	</div>
	<!-- Side Bar -->
	<div id="sidebar">
	<h:form>
		<ul>
			<h:panelGroup
rendered="#{userBean.admin}">
			<li>

	<h2>Administration</h2>
				<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

	<h3> </h3>
			</li>
			</h:panelGroup>
			<li>
				<h2>Menu</h2>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
				<h3> </h3>
			</li>
			<li>
				<h2>External
Links</h2>
				<ul>

	<h:dataTable value="#{linksListBean.links}"
var="link">

	<li><h:column>

	<h:outputLink value="#{link.addr}" target="_blank">
```

```
                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>

    </body>

    </html>
</f:view>
```

deleteProject.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
                <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
                <script type="text/javascript"
    src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 100px}
                </style>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

                <h1><a>      In
    formation - System for Plants</a></h1>
                </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <h:form>
                                <br />
                                <h:commandLink style="margin-
left: 450px; color: green" action="projectDetails" value="[Back to
Project Main Page]" />
                                <br />
                                <p><u><h3 style="color:green;
margin-left: 2%">Project Deletion</h3></u></p>
                                <br />
                                <h:outputText style="margin-
left: 4%" styleClass="errorMessage" value="Warning: this process
cannot be reversed." />
                                <p style="margin-left:
4%"><h:outputText style="color:green" value="[Delete Project]
"></h:outputText>When you delete a project, you will delete all
information connected to the project<br /> permanently. This
would include all Project Details, Plant Source Information, Active
Compounds<br /> and References.
                                                <br />
                                                <h:commandLink
style="margin-left: 420px; color: red" value="Click here to Delete
Project" actionListener="#{projectBean.deleteProject}"
action="toHome"/>
                                </p>
                                <br /><br /><br /><br /><br
/><br /><br /><br />
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
```

```
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                        </li>
                                        </h:panelGroup>
                                        <li>
                                                        <h2>Menu</h2>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                        <h3> </h3>
                                        </li>
                                        <li>
                                                        <h2>External
Links</h2>
                                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                                <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                        </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>
```

```
  </body>

  </html>
</f:view>
```

editProject.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
                <c:redirect url="/services/plantHome.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
                <script type="text/javascript"
  src="../javascript/ajax.js"></script>

  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                                <h1><a>Health Application for Natural
  Products </a></h1>

                <h1><a>      In
  formation - System for Plants</a></h1>
                </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
                <div id="menu">
                                <ul id="menulist">
                                                <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                                                <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                                </ul>
                                <ul style="margin-left: 75%">
                                                <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                                                </h:commandLink>
                                                </li>
                                                <li>
                                                                <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                                                </li>
```

```
                    </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                    <h:form>
                                    <br />
                                    <h:commandLink style="color:
green; margin-left: 80%" value="[Back]"
action="projectDetails"/>
                                    <h:panelGroup
rendered="#{projectBean.updateError}">
                                                <p><h:outputText
styleClass="errorMessage" style="margin-left: 2%; margin-
bottom: 4%"
value="#{projectBean.updateErrorMess}"></h:outputText></p>
                                    </h:panelGroup>

                                                <table  border="0"
width="600" style="margin-left:2%">
                                                            <tr>

            <th colspan="2"><u><h3>Project
Information</h3></u><br /></th>
                                                            </tr>
                                                            <tr>

            <td style="text-align: right; color: green">Plant
Name:</td>

            <td>

            <h:outputText
value="#{projectBean.projectPlantName}"></h:outputText>

            </td>
                                                            </tr>
                                                            <tr>

            <td style="text-align: right; color: green">Project
Name:</td>

            <td>

            <h:inputText value="#{projectBean.projectName}"
size="38"></h:inputText>

            </td>
                                                            </tr>
                                                            <tr>


            <td style="text-align: right; color: green">Project
Acronym:</td>

            <td>

            <h:outputText
value="#{projectBean.projectCode}"></h:outputText>

            </td>
                                                            </tr>
                                                            <tr>

            <td style="text-align: right; color: green; position:
absolute; padding-left: 80px">Project Description:</td>

            <td>

            <h:inputTextarea rows="6" cols="30"
value="#{projectBean.projectDescription}"></h:inputTextarea>

            </td>
                                                                        </tr>
                                                                        <tr>


            <td style=" color: green"><u><h:outputText
value="Other Project Administrators"
rendered="#{projectBean.level >= 3}"/><h:outputText
value="Project Administrators"  rendered="#{projectBean.level <=
2}"/></u></td>

            <td style=" color: green"><u style="margin-left:
160px">Other Users</u></td>
                                                                        </tr>
                                                            </table>
                                                            <table border="0">
                                                                        <tr>


            <td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentExpel}" size="10"
styleClass="force">

                        <f:selectItems
value="#{projectBean.projectAdmins}" />

            </h:selectOneListbox></td>

            <td style="text-align: center"><h:commandButton
value="<< Add"
actionListener="#{projectBean.addToAdmin}"></h:commandButt
on></td>

            <td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentUserName}" size="10"
styleClass="force">

                        <f:selectItems
value="#{projectBean.allUsers}" />

            </h:selectOneListbox></td>
                                                                        </tr>
                                                                        <tr>

            <td><h:commandButton value="Remove >>"
actionListener="#{projectBean.removeAdmin}"></h:commandBut
ton></td>
                                                                        </tr>
                                                                        <tr>


            <td><br></br><br></br><u></u></td>

            <td></td>

            <td style="text-align: right"><h:inputText
value="#{projectBean.searchUser}"/><h:commandButton
value="Search"
actionListener="#{projectBean.searchUsers}"><f:param
id="mode" value="1" /></h:commandButton><h:commandButton
value="Reset" actionListener="#{projectBean.reInitForSearch}"
><f:param id="mode2" value="1" /></h:commandButton><br
/><br />

            <h:commandButton value="Save"
action="#{projectBean.getGoToUpdate}"
actionListener="#{projectBean.updateProject}"><f:param
```

```
value="#{userBean.username}" id="username"
/></h:commandButton></td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">
                                <h:outputText value="#{link.name}" />
                        </h:outputLink>

                        </h:column></li>

                        </h:dataTable>
                                                        </ul>
                                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

editSource.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
                <title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
                <script type="text/javascript"
   src="../javascript/jquery.js"></script>
                <script type="text/javascript"
   src="../javascript/dialog.js"></script>
                <script type="text/javascript"
   src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {padding: 2px}
                </style>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
   Products </a></h1>

                <h1><a>      In
   formation - System for Plants</a></h1>
                </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
                <div id="menu">
```

```
                    <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                    </ul>
                    <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                            </h:commandLink>
                        </li>
                        <li>
                            <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                    </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                    <!-- Post Pane -->
                    <div class="post">
                        <h:form>
                        <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="projectDetails"/>
                        <h3 style="color: green; margin-
left: 2%"><u>Plant Source Information</u></h3>
                        <br />
                        <h:dataTable
value="#{projectBean.entries}" var="entry" border="0">
                            <h:column>

            <h:panelGroup rendered="#{entry.type == 'text'}">

            <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                    <tr>

                        <td style="width: 150px; text-
align: right; color: green"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                        <td><h:inputText
value="#{entry.value}" size="30"/></td>

                    </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

            </h:panelGroup>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.type == 'select'}">

            <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                    <tr>

                        <td style="width: 170px; text-
align: right; color: green;"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                        <td>

                            <h:selectOneMenu
value="#{entry.value}"  style="width: 150px">

            <f:selectItems value="#{entry.values}"/>

                            </h:selectOneMenu>

                        </td>

                    </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

            <h:dataTable value="#{entry.manyVals}" var="val"
rendered="#{entry.paired}">

                    <f:facet name="header">

                        <h:outputText style="color:
green; margin-left: 10%; text-decoration: underline"
value="#{entry.label} and #{entry.label2} " />

                    </f:facet>

                    <h:column>

                        <table style="margin-left: 10%">

                            <tr>

                                <td
style="width: 170px; color: green; text-align: right"><h:outputText
value="#{entry.label}" /><h:outputText value=": " />

                                <br /><br
/>

            <h:outputText value="#{entry.label2}"
/><h:outputText value=": " />

                                </td>

                                <td>

            <h:selectOneMenu value="#{val.value}"  style="width:
150px">

            <f:selectItems value="#{entry.values}"/>

            </h:selectOneMenu><br /><br />
```

```
<h:selectOneMenu value="#{val.value2}"
style="width: 150px">

<f:selectItems value="#{entry.values2}"/>

</h:selectOneMenu>
                                                </td>
                                                <td>

<h:commandButton value="Remove"
actionListener="#{projectBean.removeVal}">

<f:param value="#{entry.index}" id="entryIndex" />

<f:param value="#{val.index}" id="valueIndex" />

</h:commandButton>
                                                </td>
                                        </tr>
                                </table>
                        </h:column>

                        <f:facet name="footer">
                                <h:commandButton
style="margin-left: 85%" value="Add"
actionListener="#{projectBean.addVal}">
                                        <f:param
value="#{entry.index}" id="addEntryIndex" />
                                </h:commandButton>
                        </f:facet>

                </h:dataTable>

                </h:panelGroup>

                </h:panelGroup>
                                        </h:column>
                                </h:dataTable>
                                <h:commandButton
value="Save" style="margin-left: 65%"
actionListener="#{projectBean.editSource}"
action="projectDetails"></h:commandButton>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>
                                                <h2>Administration</h2>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
```

```
   </div>

   <!-- Footer -->
   <div id="footer"></div>

   </body>

   </html>
</f:view>
```

projAdmin.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>

<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/ajax.js"></script>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                     <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                     <ul id="menulist">
                              <li><h:commandLink
   action="toHome">Home</h:commandLink></li>
                              <li><h:commandLink
   action="faq">FAQ</h:commandLink></li>
                     </ul>
                     <ul style="margin-left: 75%">
                              <li><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
                                                        </h:commandLink>
                              </li>
                              <li>
                                                        <h:commandLink
   action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                                        </li>
                     </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                     <!-- Post Pane -->
                     <div class="post">
                              <br />
                              <h:form>
                                                        <table border="0">
                                                                  <tr>

            <td style="color:green; padding-left: 40px">

            Other Project Administrators

            </td>

            <td>

            </td>

            <td style="color:green; padding-left: 40px">

            Other Users

            </td>
                                                                  </tr>
                                                                  <tr>

            <td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentExpelAdmin}" size="20"
styleClass="force">

                     <f:selectItems
value="#{projectBean.projectAdmins}" />

            </h:selectOneListbox></td>

            <td style="text-align: center"><h:commandButton
value="<< Add"
actionListener="#{projectBean.addAdmins}"></h:commandButto
n></td>

            <td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentAddAdmin}" size="20"
styleClass="force">

                     <f:selectItems
value="#{projectBean.allUsers}" />

            </h:selectOneListbox></td>
                                                                  </tr>
                                                                  <tr>

            <td><h:commandButton value="Remove >>"
actionListener="#{projectBean.removeAdmins}"></h:commandB
utton></td>
                                                                  </tr>
                                                                  <tr>

            <td><br></br><br></br><u><h:commandLink
value="<< Cancel" action="projectManage"/></u></td>
```

```
		<td></td>

		<td style="text-align: right"><h:inputText
value="#{projectBean.searchUser}"/><h:commandButton
value="Search"
actionListener="#{projectBean.searchUsers}"><f:param
id="mode" value="1" /></h:commandButton><h:commandButton
value="Reset" actionListener="#{projectBean.reInitForSearch}"
><f:param id="mode2" value="1" /></h:commandButton>

		<br /><br />

		<h:commandButton value="Save"
action="projectManage"
actionListener="#{projectBean.updateAdmins}"/></td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

		<h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>

	</body>

	</html>
</f:view>
```

projectCreate.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
		<c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
		<c:redirect url="/services/plantHome.jsf" />
</c:if>
<f:view>
	<html xmlns="http://www.w3.org/1999/xhtml">

	<head>
		<title>Insert title here</title>
		<link href="../css/style.css" rel="stylesheet"
	type="text/css" media="screen" />
		<script type="text/javascript"
	src="../javascript/jquery.js"></script>
		<script type="text/javascript"
	src="../javascript/dialog.js"></script>
		<script type="text/javascript"
	src="../javascript/ajax.js"></script>

	</head>

	<body>

	<!-- Logo Pane -->
```

```
<div id="header">
	<div id="logo">
		<h1><a>Health Application for Natural
Products </a></h1>

	<h1><a>      In
formation - System for Plants</a></h1>
	</div>
</div>

<!-- Menu Pane -->
<h:form>
	<div id="menu">
		<ul id="menulist">
			<li><h:commandLink
action="toHome">Home</h:commandLink></li>

	<li><h:commandLink>FAQ</h:commandLink></li>
		</ul>
		<ul style="margin-left: 75%">
			<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
				</h:commandLink>
			</li>
			<li>
				<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
			</li>
		</ul>
	</div>
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<div class="post">
			<br />
			<h:form>
				<table  border="0"
width="600" style="margin-left:2%">
					<tr>

	<th colspan="2"><u><h3>Project
Information</h3></u><br /></th>
					</tr>
					<tr>


	<td style="text-align: right; color: green"
width="150px">Plant Name:</td>

	<td>

	<h:outputText
value="#{projectBean.projectPlantName}"></h:outputText>

	</td>
					</tr>
					<tr>


	<td style="text-align: right; color: green">Project
Name:</td>

	<td>

	<h:outputText
value="#{projectBean.projectName}"></h:outputText>

	</td>
					</tr>
					<tr>


	<td style="text-align: right; color: green">Project
Acronym:</td>

	<td>

	<h:outputText
value="#{projectBean.projectCode}"></h:outputText>

	</td>
					</tr>
					<tr>


	<td style="text-align: right; color: green"> Project
Administrations:</td>

	<td>

	<h:outputText value="#{projectBean.admins}">

	</h:outputText>

	</td>
					</tr>
					<tr>


	<td style="text-align: right; color: green">Project
Description:</td>

	<td rowspan="2" style="text-align: justify">

	<h:outputText
value="#{projectBean.projectDescription}"></h:outputText>

	</td>
					</tr>
					<tr>


	<td style="text-align: right; color: green"> </td>
					</tr>
					<tr>


	<td><br></br><br></br><u><h:commandLink
value="<< Back to Plant Page" action="showPlantDetails"
actionListener="#{plantBean.getPlantDetails}"><f:param
id="chosen" value="#{projectBean.projectPlantName}"
/></h:commandLink></u></td>

	<td><br></br><br></br>
					</tr>

				</table>
			</h:form>
		</div>
	</div>
	<!-- Side Bar -->
	<div id="sidebar">
	<h:form>
		<ul>
			<h:panelGroup
rendered="#{userBean.admin}">
				<li>
```

```
            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                        </li>
                                    </h:panelGroup>
                                    <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                    </li>
                                    <li>
                                        <h2>External
Links</h2>
                                        <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                        </ul>
                                    </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>

    </body>

    </html>
</f:view>
```

projectInfo.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
            <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
            <script type="text/javascript"
    src="../javascript/jquery.js"></script>
            <script type="text/javascript"
    src="../javascript/dialog.js"></script>
            <script type="text/javascript"
    src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {min-width: 100px; padding: 2px}
            </style>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
            <div id="logo">
                    <h1><a>Health Application for Natural
    Products </a></h1>

            <h1><a>      In
    formation - System for Plants</a></h1>
            </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
            <div id="menu">
                    <ul id="menulist">
                            <li><h:commandLink
    action="toHome">Home</h:commandLink></li>
                            <li><h:commandLink
    action="faq">FAQ</h:commandLink></li>
                    </ul>
                    <ul style="margin-left: 75%">
                            <li><h:commandLink
    action="editAccount" value="Account"
    actionListener="#{userAccountBean.getUserDetails}"><f:param
    id="aUserName" value="#{userBean.username}"/>
                                                    </h:commandLink>
                            </li>
                            <li>
```

```
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                    </li>
                                </ul>
                        </div>
</h:form>

<!-- Main Page -->
<div id="page">
                        <!-- Content Pane -->
                        <div id="content">
                                <!-- Post Pane -->
                                <div class="post">
                                        <br />
                                        <h:form>
                                        <h:panelGroup
rendered="#{userProjListBean.adminProjListMode &&
userBean.admin}">
                                        <h:commandLink style="margin-
left: 57%; color: green" value="[Back to HANAPIN Projects
List]" action="projectList"
actionListener="#{userProjListBean.getAdminProjList}"/>
                                        <br /><br />
                                        </h:panelGroup>
                                        <h:commandLink style="margin-
left: 2%; color: green" value="[Project Home]"
action="projectDetails"/>
                                        <h:commandLink style="margin-
left: 2%" value="[Active Compounds]" action="compProject"/>
                                        <h:commandLink style="margin-
left: 2%" value="[References]" action="refProject"/>
                                        <h:commandLink style="margin-
left: 2%" rendered="#{projectBean.level != 1}" value=" [Project
Account]" action="accountOptions"
actionListener="#{projectBean.initErrorMessage}" />
                                        <h:commandLink style="margin-
left: 2%" rendered="#{projectBean.level == 4}" value="[Project
Management] "  action="projectManage"/>

                        <br/><br/><br/>
                                                <table  border="0"
width="600" style="margin-left:2%">
                                                        <tr>

                        <th colspan="2"><u><h3>Project
Information</h3></u><br /></th>
                                                        </tr>
                                                        <tr>


                        <td style="text-align: right; color: green"
width="170px">Plant Name:</td>

                        <td>

                        <u><h:commandLink style="color:green"
value="#{projectBean.projectPlantName}"
action="showPlantDetails"
actionListener="#{plantBean.getPlantDetails}"><f:param
id="chosen" value="#{projectBean.projectPlantName}"
/></h:commandLink></u>

                        </td>
                                                        </tr>
                                                        <tr>


                        <td style="text-align: right; color: green">Project
Name:</td>

                        <td>

                        <h:outputText
value="#{projectBean.projectName}"></h:outputText>

                        </td>
                                                        </tr>
                                                        <tr>

                        <td style="text-align: right; color: green">Project
Acronym:</td>

                        <td>

                        <h:outputText
value="#{projectBean.projectCode}"></h:outputText>

                        </td>
                                                        </tr>
                                                        <tr>


                        <td style="text-align: right; color: green">Project
Description:</td>

                        <td rowspan="2" style="text-align: justify">

                        <h:outputText
value="#{projectBean.projectDescription}"></h:outputText>

                        </td>
                                                        </tr>
                                                        <tr>


                        <td style="text-align: right; color: green"></td>
                                                        </tr>

                        <h:panelGroup rendered="#{(projectBean.level == 1
&& !projectBean.pending) && !userBean.admin}">
                                                        <tr>

                        <td colspan="2" style="text-align:
center"><h:commandLink value="[Apply for Membership to this
Project]" action="applyProj" /></td>
                                                        </tr>

                        </h:panelGroup>

                        <h:panelGroup rendered="#{projectBean.pending}">
                                                        <tr>

                        <td colspan="2" style="text-align:
center"><i><h:outputText value="Awaiting for membership
validation."/></i></td>
                                                        </tr>


                        </h:panelGroup>
                                                </table>
                                                <h:panelGroup
rendered="#{userBean.admin}">

                        <h:commandButton style="margin-left: 65%"
value="Edit" action="editProject"
actionListener="#{projectBean.initForAdmins}"></h:commandBu
tton>

                        <h:commandButton style="margin-left: 5%"
value="Delete" action="deleteProject"></h:commandButton>
                                                </h:panelGroup>
                                        </h:form>
```

```
                    <br />
                    <h:form>
                        <table  border="0"
width="600" style="margin-left:2%">
                            <tr>

        <th colspan="2"><u><h3>Plant Source
Information</h3></u><br /></th>
                            </tr>

                        </table>
                        <h:outputText
rendered="#{!projectBean.hasVal}" value="[NO DATA YET]"
style="margin-left: 2%"/>
                        <h:dataTable
rendered="#{projectBean.hasVal}"
value="#{projectBean.entries}" var="entry" border="0">

        <h:column>

        <h:panelGroup rendered="#{entry.type == 'text'}">

        <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                <tr>

                        <td style="width:
150px; text-align: right; color: green"><h:outputText
value="#{entry.label}" /><h:outputText value=": " /></td>

                        <td><h:outputText
value="#{entry.value}" /></td>

                </tr>

            </table>

        </h:panelGroup>

        <h:panelGroup rendered="#{entry.many == 1}">

        </h:panelGroup>

        </h:panelGroup>

        <h:panelGroup rendered="#{entry.type == 'select'}">

        <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                <tr>

                        <td style="width:
170px; text-align: right; color: green;"><h:outputText
value="#{entry.label}" /><h:outputText value=": " /></td>

                        <td>


        <h:outputText value="#{entry.value}" />

                        </td>

                </tr>

            </table>

        </h:panelGroup>

        <h:panelGroup rendered="#{entry.many == 1}">

            <h:dataTable value="#{entry.manyVals}"
var="val" rendered="#{entry.paired}">

                <f:facet name="header">

                        <h:outputText style="color:
green; margin-left: 10%; text-decoration: underline"
value="#{entry.label} and #{entry.label2} " />

                </f:facet>

                <h:column>

                        <table style="margin-left: 10%">

                            <tr>

                                <td
style="width: 170px; color: green; text-align: right"><h:outputText
value="#{entry.label}" /><h:outputText value=": " />


        <h:outputText value="#{entry.label2}"
/><h:outputText value=": " />

                                </td>

                                <td
style="width: 200px">


        <h:outputText value="#{val.value}" /><br />


        <h:outputText value="#{val.value2}" />

                                </td>

                            </tr>

                        </table>

                </h:column>

            </h:dataTable>

        </h:panelGroup>

        </h:column>
                                <f:facet
name="footer">

        <h:commandButton value="Edit" action="editSource"
style="margin-left: 100%" rendered="#{projectBean.level >=
3}"/>
                                </f:facet>
                        </h:dataTable>
                        <br /><br />
                        <h:commandButton
rendered="#{!projectBean.hasVal && projectBean.level >= 3}"
value="Add Plant Source Info" style="margin-left: 50%"
action="addSource"/>
                    </h:form>
```

```
                </div>
        </div>
        <!-- Side Bar -->
        <div id="sidebar">
        <h:form>
                <ul>
                        <h:panelGroup
rendered="#{userBean.admin}">
                                <li>

        <h2>Administration</h2>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

        <h3> </h3>
                                </li>
                        </h:panelGroup>
                        <li>
                                <h2>Menu</h2>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                <h3> </h3>
                        </li>
                        <li>
                                <h2>External
Links</h2>
                                <ul>

        <h:dataTable value="#{linksListBean.links}"
var="link">

        <li><h:column>

        <h:outputLink value="#{link.addr}" target="_blank">

                <h:outputText value="#{link.name}" />

        </h:outputLink>

        </h:column></li>

        </h:dataTable>
                                </ul>
                        </li>
                </ul>
                </h:form>
        </div>
        <!-- Filler -->
        <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

projList.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title>Projects - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
        <script type="text/javascript"
  src="../javascript/jquery.js"></script>
        <script type="text/javascript"
  src="../javascript/dialog.js"></script>
        <script type="text/javascript"
  src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {min-width: 80px;
        font-size: 12px;
        padding-top: 10px;
        padding-bottom: 10px;
        }
        </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
  Products </a></h1>

        <h1><a>      In
  formation - System for Plants</a></h1>
        </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
```

```
                                <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                        </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <h:form id="regForm">
                                        <h:commandLink
style="color: green; margin-left: 73%" value="[Add Project]"
action="addProjectDirect"
actionListener="#{projectBean.initProjDirect}"
rendered="#{userBean.admin}"/>
                                        <br /><br />
                                        <h:commandLink
value="A" style="color: green; margin-left: 20px"
rendered="#{userProjListBean.currentLetter ==
'a'}"></h:commandLink>
                                        <h:commandLink
value="A" style="margin-left: 20px"
rendered="#{userProjListBean.currentLetter != 'a'}"
actionListener="#{userProjListBean.showForA}"></h:commandLi
nk>

                                        <h:commandLink
value="B" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'b'}"></h:commandLink>
                                        <h:commandLink
value="B" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'b'}"
actionListener="#{userProjListBean.showForB}"></h:commandLi
nk>

                                        <h:commandLink
value="C" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'c'}"></h:commandLink>
                                        <h:commandLink
value="C" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'c'}"
actionListener="#{userProjListBean.showForC}"></h:commandLi
nk>

                                        <h:commandLink
value="D" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'd'}"></h:commandLink>
                                        <h:commandLink
value="D" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'd'}"
actionListener="#{userProjListBean.showForD}"></h:commandLi
nk>

                                        <h:commandLink
value="E" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'e'}"></h:commandLink>
                                        <h:commandLink
value="E" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'e'}"
actionListener="#{userProjListBean.showForE}"></h:commandLi
nk>

                                        <h:commandLink
value="F" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'f'}"></h:commandLink>
                                        <h:commandLink
value="F" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'f'}"
actionListener="#{userProjListBean.showForF}"></h:commandLi
nk>

                                        <h:commandLink
value="G" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'g'}"></h:commandLink>
                                        <h:commandLink
value="G" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'g'}"
actionListener="#{userProjListBean.showForG}"></h:commandLi
nk>

                                        <h:commandLink
value="H" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'h'}"></h:commandLink>
                                        <h:commandLink
value="H" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'h'}"
actionListener="#{userProjListBean.showForH}"></h:commandLi
nk>

                                        <h:commandLink
value="I" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'i'}"></h:commandLink>
                                        <h:commandLink
value="I" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'i'}"
actionListener="#{userProjListBean.showForI}"></h:commandLi
nk>

                                        <h:commandLink
value="J" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'j'}"></h:commandLink>
                                        <h:commandLink
value="J" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'j'}"
actionListener="#{userProjListBean.showForJ}"></h:commandLi
nk>

                                        <h:commandLink
value="K" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'k'}"></h:commandLink>
                                        <h:commandLink
value="K" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'k'}"
```

```
actionListener="#{userProjListBean.showForK}"></h:commandLink>

                                        <h:commandLink
value="L" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'l'}"></h:commandLink>
                                        <h:commandLink
value="L" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'l'}"
actionListener="#{userProjListBean.showForL}"></h:commandLink>

                                        <h:commandLink
value="M" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'm'}"></h:commandLink>
                                        <h:commandLink
value="M" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'm'}"
actionListener="#{userProjListBean.showForM}"></h:commandLink>

                                        <h:commandLink
value="N" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'n'}"></h:commandLink>
                                        <h:commandLink
value="N" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'n'}"
actionListener="#{userProjListBean.showForN}"></h:commandLink>

                                        <h:commandLink
value="O" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'o'}"></h:commandLink>
                                        <h:commandLink
value="O" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'o'}"
actionListener="#{userProjListBean.showForO}"></h:commandLink>

                                        <h:commandLink
value="P" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'p'}"></h:commandLink>
                                        <h:commandLink
value="P" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'p'}"
actionListener="#{userProjListBean.showForP}"></h:commandLink>

                                        <h:commandLink
value="Q" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'q'}"></h:commandLink>
                                        <h:commandLink
value="Q" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'q'}"
actionListener="#{userProjListBean.showForQ}"></h:commandLink>

                                        <h:commandLink
value="R" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'r'}"></h:commandLink>
                                        <h:commandLink
value="R" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'r'}"
actionListener="#{userProjListBean.showForR}"></h:commandLink>

                                        <h:commandLink
value="S" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
's'}"></h:commandLink>
                                        <h:commandLink
value="S" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 's'}"
actionListener="#{userProjListBean.showForS}"></h:commandLink>

                                        <h:commandLink
value="T" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
't'}"></h:commandLink>
                                        <h:commandLink
value="T" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 't'}"
actionListener="#{userProjListBean.showForT}"></h:commandLink>

                                        <h:commandLink
value="U" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'u'}"></h:commandLink>
                                        <h:commandLink
value="U" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'u'}"
actionListener="#{userProjListBean.showForU}"></h:commandLink>

                                        <h:commandLink
value="V" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'v'}"></h:commandLink>
                                        <h:commandLink
value="V" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'v'}"
actionListener="#{userProjListBean.showForV}"></h:commandLink>

                                        <h:commandLink
value="W" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'w'}"></h:commandLink>
                                        <h:commandLink
value="W" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'w'}"
actionListener="#{userProjListBean.showForW}"></h:commandLink>

                                        <h:commandLink
value="X" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'x'}"></h:commandLink>
                                        <h:commandLink
value="X" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'x'}"
actionListener="#{userProjListBean.showForX}"></h:commandLink>

                                        <h:commandLink
value="Y" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'y'}"></h:commandLink>
                                        <h:commandLink
value="Y" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'y'}"
```

```
actionListener="#{userProjListBean.showForY}"></h:commandLink>

                                        <h:commandLink
value="Z" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'z'}"></h:commandLink>
                                        <h:commandLink
value="Z" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != 'z'}"
actionListener="#{userProjListBean.showForZ}"></h:commandLink>

                                        <h:commandLink
value="All" style="color: green; margin-left: 9px"
rendered="#{userProjListBean.currentLetter ==
'^'}"></h:commandLink>
                                        <h:commandLink
value="All" style="margin-left: 9px"
rendered="#{userProjListBean.currentLetter != '^'}"
actionListener="#{userProjListBean.showForAll}"></h:commandLink>
                                        <font size="1px"
style="margin-left: 20px">

            <i>Showing <h:outputText
value="#{userProjListBean.projectPagination +
userProjListBean.paginationFixer}" /> - <h:outputText
value="#{userProjListBean.projectEndCount}" /> of
<h:outputText value="#{userProjListBean.projectCount}" /></i>
                                        </font>
                                        <br /><br />
                                        <u><h3
style="margin-left: 20px; color: green">Projects List</h3></u><br
/>
                                        <h:panelGroup
rendered="#{!userProjListBean.showProjects}">
                                        <p style="margin-
left:5%">[NO POJECTS YET]</p>
                                    </h:panelGroup>
                                    <h:panelGroup
rendered="#{userProjListBean.showProjects}" >
                                        <h:dataTable
cellspacing="0" columnClasses="proj,acro,desc"
value="#{userProjListBean.pagedProjectList}" style="margin-left:
20px" var="project" border="0"  rowClasses="rowclass">
                                    <h:column>
                                        <f:facet name="header">
                                        <h:outputText
style="color:green" value="Project Name"></h:outputText>
                                        </f:facet>
                                        <h:commandLink
value="#{project.projectName}" style="color: green"
actionListener="#{projectBean.getProjectDetails}"
action="projectDetails">
                                        <f:param
id="projectID" value="#{project.projectId}"></f:param>
                                        <f:param
id="username" value="#{userBean.username}"></f:param>
                                        </h:commandLink>
                                    </h:column>
                                     <h:column>
                                        <f:facet
name="header">

            <h:outputText style="color:green"
value="Acronym"></h:outputText>
                                        </f:facet>
                                        <h:outputText
value="#{project.projectCode}"/>
                                        </h:column>
                                        <h:column>
                                        <f:facet
name="header">

            <h:outputText style="color:green"
value="Description"></h:outputText>
                                        </f:facet>
                                        <h:outputText
value="#{project.projectDescription}"/>
                                        </h:column>
                                    </h:dataTable>
                                    </h:panelGroup>
                                    <p style="margin-left: 500px;
margin-top: 30px">
            <h:commandButton value="prev"
           disabled="#{userProjListBean.projectPagination == 0}"

actionListener="#{userProjListBean.showProjectListBackward}"
           style="margin-right: 20px"/>
            <h:commandButton value="next"
           disabled="#{userProjListBean.nextProject}"

actionListener="#{userProjListBean.showProjectListForward}" />
                                    </p>
                                        </h:form>
                                    </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>

            <h:panelGroup
rendered="#{userProjListBean.adminProjListMode}">

            <ul><span style="margin-left:
20px"><u><h:commandLink value="Project Management"
action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></u></span></ul>

            </h:panelGroup>

            <h:panelGroup
rendered="#{!userProjListBean.adminProjListMode}">

            <ul><span style="margin-left:
20px"><h:commandLink value="Project Management"
action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
```

```
            </h:panelGroup>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                                    </li>
                                        </h:panelGroup>
                                        <li>
                                                    <h2>Menu</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                    <h:panelGroup
rendered="#{!userProjListBean.adminProjListMode}">

            <ul><span style="margin-left:
20px"><u><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"/></u></span><
/ul>

            </h:panelGroup>

            <h:panelGroup
rendered="#{userProjListBean.adminProjListMode}">

            <ul><span style="margin-left:
20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>

            </h:panelGroup>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                    <h3> </h3>
                                        </li>
                                        <li>
                                                    <h2>External
Links</h2>
                                                    <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                                    </ul>
                                        </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

    <!-- Footer -->
    <div id="footer"></div>

    </body>

    </html>
</f:view>
```

projManage.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
            <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
            <script type="text/javascript"
    src="../javascript/jquery.js"></script>
            <script type="text/javascript"
    src="../javascript/dialog.js"></script>
            <script type="text/javascript"
    src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {min-width: 100px}
            </style>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

            <h1><a>      In
    formation - System for Plants</a></h1>
            </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
    action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
    action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                    <li><h:commandLink
    action="editAccount" value="Account"
    actionListener="#{userAccountBean.getUserDetails}"><f:param
    id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
    action="logout"
```

```
actionListener="#{userBean.destroySession}">Logout</h:commandLink>
                                        </li>
                                </ul>
                        </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <h:form>
                                <br />
                                <h:commandLink style="margin-left: 2%;" value="[Project Home]" action="projectDetails"/>
                                <h:commandLink style="margin-left: 2%" value="[Active Compounds]"  action="compProject"/>
                                <h:commandLink style="margin-left: 2%" value="[References]" action="refProject"/>
                                <h:commandLink style="margin-left: 2%" rendered="#{projectBean.level != 1}" value=" [Project Account]" action="accountOptions" actionListener="#{projectBean.initErrorMessage}" />
                                <h:commandLink style="margin-left: 2%; color: green" rendered="#{projectBean.level == 4}" value="[Project Management] "  action="projectManage"/>
                                <br /><br />
                                <p><u><h3 style="color:green; margin-left: 2%">Project Management</h3></u></p>
                                <br />
                                <p style="margin-left: 4%"><h:outputText style="color:green" value="Project Viewers"></h:outputText> can view or download private project files.
                                                <br />
                                                <h:commandLink style="margin-left: 200px" value="Click here to manage Project Viewers." actionListener="#{projectBean.initViewers}" action="projectViewer"/>
                                </p>
                                <br />
                                <p style="margin-left: 4%"><h:outputText style="color:green" value="Project Managers"></h:outputText> can edit or update project files.
                                                <br />
                                                <h:commandLink style="margin-left: 200px" value="Click here to manage Project Managers." actionListener="#{projectBean.initManagers}" action="projectManager" />
                                </p>
                                <br />
                                <p style="margin-left: 4%"><h:outputText style="color:green" value="Project Administrations"></h:outputText> can conduct project management.
                                                <br />
                                                <h:commandLink style="margin-left: 200px" value="Click here to manage Project Administrations." actionListener="#{projectBean.initAdmins}" action="projectAdmin" />
                                </p>
                                <br />
                                <p style="margin-left: 4%">Other users can apply membership for this project. Members of this project can also <br />update their current position.
                                                <br />
                                                <h:commandLink style="margin-left: 200px" value="Click here to see pending requests." action="projectPending" actionListener="#{projectBean.getRequests}"/>
                                </p>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span style="margin-left: 20px"><h:commandLink value="User List" action="seeUsers" actionListener="#{adminTempBean.initRegistered}" /></span></ul>
                                                <ul><span style="margin-left: 20px"><h:commandLink value="Pending Requests" action="seePending" actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span style="margin-left: 20px"><h:commandLink value="Plant Management" action="plantManage"/></span></ul>
                                                <ul><span style="margin-left: 20px"><h:commandLink value="Project Management" action="projectAdminManage" actionListener="#{userProjListBean.getAdminProjList}"/></span></ul>
                                                <ul><span style="margin-left: 20px"><h:commandLink value="System Settings" action="seeLinks" actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span style="margin-left: 20px"><h:commandLink value="Plants List" action="regPlantList" actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span style="margin-left: 20px"><h:commandLink value="My Projects" action="projectList" actionListener="#{userProjListBean.getProjList}"><f:param id="username" value="#{userBean.username}" /></h:commandLink></span></ul>
                                                <ul><span style="margin-left: 20px"><h:commandLink value="Search" action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}" var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />
```

```
                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>

    </body>

    </html>
</f:view>
```

projManager.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>

<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
                <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
                <script type="text/javascript"
    src="../javascript/ajax.js"></script>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

                <h1><a>      In
    formation - System for Plants</a></h1>
                </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
    action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                        </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <br />
                                <h:form>
                                        <table border="0">
                                                <tr>

                <td style="color:green; padding-left: 40px">

                Current Project Managers

                </td>

                <td>

                </td>

                <td style="color:green; padding-left: 40px">

                Other Users

                </td>
                                                        </tr>
                                                        <tr>

                <td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentExpelManager}" size="20"
styleClass="force">

                        <f:selectItems
value="#{projectBean.projectManagers}" />

                </h:selectOneListbox></td>

                <td style="text-align: center"><h:commandButton
value="<< Add"
actionListener="#{projectBean.addManagers}"></h:commandButt
on></td>

                <td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentAddManager}" size="20"
styleClass="force">

                        <f:selectItems
value="#{projectBean.allUsers}" />
```

```
                </h:selectOneListbox></td>
                                                </tr>
                                                <tr>

                <td><h:commandButton value="Remove >>"
actionListener="#{projectBean.removeManagers}"></h:command
Button></td>
                                                </tr>
                                                <tr>

                <td><br></br><br></br><u><h:commandLink
value="<< Cancel" action="projectManage"/></u></td>

                <td></td>

                <td style="text-align: right"><h:inputText
value="#{projectBean.searchUser}"/><h:commandButton
value="Search"
actionListener="#{projectBean.searchUsers}"><f:param
id="mode" value="3" /></h:commandButton><h:commandButton
value="Reset" actionListener="#{projectBean.reInitForSearch}"
><f:param id="mode2" value="3" /></h:commandButton>

                <br /><br />

                <h:commandButton value="Save"
action="projectManage"
actionListener="#{projectBean.updateManagers}"/></td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

projReqList.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
        <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
        <title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
```

```
		<script type="text/javascript"
src="../javascript/jquery.js"></script>
		<script type="text/javascript"
src="../javascript/dialog.js"></script>
		<script type="text/javascript"
src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {min-width: 100px}
		</style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
Products </a></h1>

		<h1><a>      In
formation - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
				</li>
			</ul>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<br />
				<h:form>
					<h:outputText
styleClass="errorMessage" value="The users will receive
confirmations via email." style="margin-left:
2%"/><h:commandLink style="margin-left: 100px; color: green"
action="projectManage" value="[Back to Project Management
Page]" />
					<br /><br />
					<h3 style="margin-
left: 2%; color: green"><u>Membership Requests</u></h3>
					<h:panelGroup
rendered="#{projectBean.noRequests}">
					<br /><p
style="margin-left:2%">[NO REQUESTS]</p>
					</h:panelGroup>
					<br />
					<h:dataTable
columnClasses="projectListColumn2"
value="#{projectBean.reqUsers}" var="applicant" style="margin-
left: 40px" border="0">


		<h:column>

		<h:outputText style="color:green" value="Username: "
/>

		<h:outputText value="#{applicant.userName}" />

		<br />

		<h:outputText style="color:green" value="Name: " />

		<h:outputText value="#{applicant.firstname}
#{applicant.middlename} #{applicant.lastName}"/>

		<br />

		<h:outputText style="color:green" value="Email
Address: " />

		<h:outputText value="#{applicant.emailAdd}" />

		<br />

		<h:outputText rendered="#{applicant.flag == 1}"
style="color:green" value="Position: " />

		<h:outputText rendered="#{applicant.flag == 0}"
style="color:green" value="Update Position to: " />

		<h:outputText rendered="#{applicant.projLevel == 2}"
value="Project Viewer" />

		<h:outputText rendered="#{applicant.projLevel == 3}"
value="Project Manager" />

		<h:outputText rendered="#{applicant.projLevel == 4}"
value="Project Administration" />

		</h:column>

		<h:column>

		<h:commandButton rendered="#{applicant.flag == 1}"
value="Approve" actionListener="#{projectBean.approveApp}">

		<f:param id="username"
value="#{applicant.userName}" />

		<f:param id="userlevel"
value="#{applicant.projLevel}" />

		</h:commandButton>

		<h:commandButton rendered="#{applicant.flag == 0}"
value="Approve" actionListener="#{projectBean.updateLevel}" >

		<f:param id="username2"
value="#{applicant.userName}" />
```

```
		<f:param id="userlevel2"
value="#{applicant.projLevel}" />

		</h:commandButton>

		<h:commandButton value="Reject"
actionListener="#{projectBean.deleteApp}">

		<f:param id="rejuser"
value="#{applicant.userName}"/>

		</h:commandButton>

		</h:column>
</h:dataTable>

</h:form>
	</div>
	</div>
	<!-- Side Bar -->
	<div id="sidebar">
	<h:form>
		<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>

	<h2>Administration</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

	<h3> </h3>
</li>
</h:panelGroup>
<li>
<h2>Menu</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
<h3> </h3>
</li>
<li>
<h2>External
Links</h2>
<ul>

	<h:dataTable value="#{linksListBean.links}"
var="link">

	<li><h:column>

	<h:outputLink value="#{link.addr}" target="_blank">

<h:outputText value="#{link.name}" />

	</h:outputLink>

	</h:column></li>

	</h:dataTable>
</ul>
</li>
	</ul>
	</h:form>
	</div>
	<!-- Filler -->
	<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>

</html>
</f:view>
```

projViewer.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
	<c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
<html xmlns="http://www.w3.org/1999/xhtml">

<head>
	<title><h:outputText
value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
	<link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
	<script type="text/javascript"
src="../javascript/jquery.js"></script>
	<script type="text/javascript"
src="../javascript/dialog.js"></script>
	<script type="text/javascript"
src="../javascript/ajax.js"></script>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
	<div id="logo">
		<h1><a>Health Application for Natural
Products </a></h1>
```

```
		<h1><a>      Information - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink action="toHome">Home</h:commandLink></li>
				<li><h:commandLink action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink action="editAccount" value="Account" actionListener="#{userAccountBean.getUserDetails}"><f:param id="aUserName" value="#{userBean.username}"/>
</h:commandLink>
				</li>
				<li>
<h:commandLink action="logout" actionListener="#{userBean.destroySession}">Logout</h:commandLink>
				</li>
			</ul>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<br />
				<h:form>
<table border="0">
<tr>

		<td style="color:green; padding-left: 40px">

		Current Project Viewers

		</td>

		<td>

		</td>

		<td style="color:green; padding-left: 40px">

		Other Users

		</td>
</tr>
<tr>

		<td rowspan="2"><h:selectOneListbox value="#{projectBean.currentExpelViewer}" size="20" styleClass="force">

<f:selectItems value="#{projectBean.projectViewers}" />

		</h:selectOneListbox></td>

		<td style="text-align: center"><h:commandButton value="<< Add" actionListener="#{projectBean.addViewers}"></h:commandButton></td>

		<td rowspan="2"><h:selectOneListbox value="#{projectBean.currentAddViewer}" size="20" styleClass="force">

<f:selectItems value="#{projectBean.allUsers}" />

		</h:selectOneListbox></td>
</tr>
<tr>

		<td><h:commandButton value="Remove >>" actionListener="#{projectBean.removeViewers}"></h:commandButton></td>
</tr>
<tr>

		<td><br></br><br></br><u><h:commandLink value="<< Cancel" action="projectManage"/></u></td>

		<td></td>

		<td style="text-align: right">

		<h:inputText value="#{projectBean.searchUser}"/><h:commandButton value="Search" actionListener="#{projectBean.searchUsers}"><f:param id="mode" value="2" /></h:commandButton><h:commandButton value="Reset" actionListener="#{projectBean.reInitForSearch}" ><f:param id="mode2" value="2" /></h:commandButton>

		<br /><br />

		<h:commandButton value="Save" action="projectManage" actionListener="#{projectBean.updateViewers}"/></td>
</tr>
</table>
</h:form>
		</div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
			<ul>
<h:panelGroup rendered="#{userBean.admin}">
<li>

		<h2>Administration</h2>
<ul><span style="margin-left: 20px"><h:commandLink value="User List" action="seeUsers" actionListener="#{adminTempBean.initRegistered}" /></span></ul>
<ul><span style="margin-left: 20px"><h:commandLink value="Pending Requests" action="seePending" actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span style="margin-left: 20px"><h:commandLink value="Plant Management" action="plantManage"/></span></ul>
```

```
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="Project
  Management" action="projectAdminManage"
  actionListener="#{userProjListBean.getAdminProjList}"/></span
  ></ul>
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="System
  Settings" action="seeLinks"
  actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="Plants List"
  action="regPlantList"
  actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="My Projects"
  action="projectList"
  actionListener="#{userProjListBean.getProjList}"><f:param
  id="username" value="#{userBean.username}"
  /></h:commandLink></span></ul>
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="Search"
  action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
  Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
  var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

refProject.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
                <script type="text/javascript"
  src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {padding-top: 10px;
                padding-bottom: 10px;
                }
                </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
  Products </a></h1>

                <h1><a>      In
  formation - System for Plants</a></h1>
                </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                                </li>
                        </ul>
                </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
                <!-- Content Pane -->
                <div id="content">
```

```
<!-- Post Pane -->
<div class="post">
<h:form>
<br />

<h:commandLink style="margin-left: 2%;" value="[Project Home]" action="projectDetails"/>
<h:commandLink style="margin-left: 2%" value="[Active Compounds]" action="compProject" />
<h:commandLink style="margin-left: 2%; color: green" value="[References]" action="refProject"/>
<h:commandLink style="margin-left: 2%" rendered="#{projectBean.level != 1}" value=" [Project Account]" action="accountOptions" actionListener="#{projectBean.initErrorMessage}" />
<h:commandLink style="margin-left: 2%" rendered="#{projectBean.level == 4}" value="[Project Management] "  action="projectManage"/>
<br /><br />
<h:panelGroup rendered="#{projectBean.level >= 3}">
<h:selectOneMenu value="#{referenceManagerBean.referenceType}" style="margin-left: 60%">
<f:selectItem itemLabel="Article" itemValue="1" />
<f:selectItem itemLabel="Book" itemValue="2" />
<f:selectItem itemLabel="Booklet" itemValue="3" />
<f:selectItem itemLabel="Incollection" itemValue="4" />
<f:selectItem itemLabel="Inbook" itemValue="5" />
<f:selectItem itemLabel="Manual" itemValue="6" />
<f:selectItem itemLabel="Tech. Report" itemValue="7" />
<f:selectItem itemLabel="Thesis" itemValue="8" />
<f:selectItem itemLabel="Unpublished" itemValue="9" />
</h:selectOneMenu>
<h:commandLink value="ADD [+]" style="margin-left: 30px; font-size: 12px; color: green" action="#{referenceManagerBean.addReference}"></h:commandLink>
</h:panelGroup>
<br /><h:outputText style="color: green" value="Shown by: " />
<h:selectOneMenu value="#{projectBean.refStat}">
<f:selectItem itemLabel="Article" itemValue="1" />
<f:selectItem itemLabel="Book" itemValue="2" />
<f:selectItem itemLabel="Booklet" itemValue="3" />
<f:selectItem itemLabel="Incollection" itemValue="4" />
<f:selectItem itemLabel="Inbook" itemValue="5" />
<f:selectItem itemLabel="Manual" itemValue="6" />
<f:selectItem itemLabel="Tech. Report" itemValue="7" />
<f:selectItem itemLabel="Thesis" itemValue="8" />
<f:selectItem itemLabel="Unpublished" itemValue="9" />
</h:selectOneMenu>
<h:commandButton value="Show" actionListener="#{projectBean.initReferences}"/>
<p><u><h3 style="color:green">References</h3></u></p>
<font size="1px" style="margin-left: 520px">

<i>Showing <h:outputText value="#{projectBean.refPagination + projectBean.paginationFixer}" /> - <h:outputText value="#{projectBean.referenceEndCount}" /> of <h:outputText value="#{projectBean.refCount}" /></i>
</font>
<br /><br />
<h:panelGroup rendered="#{!projectBean.showGenericList}">
<br /><p style="margin-left:40px">[NO DATA]</p>
</h:panelGroup>
<h:dataTable rowClasses="rowclass" cellspacing="0" columnClasses="col2,col1,col1,col3" style="width: 600px" rendered="#{projectBean.showGenericList && projectBean.refStat == 1}" value="#{projectBean.pagedReferenceList}" var="article">

<h:column>
<f:facet name="header">

<h:outputText value="Article Title" style="color: green" />
</f:facet>

<h:commandLink value="#{article.title}" style="font-weight: bold; color: green" actionListener="#{referenceManagerBean.getArticle}" action="article">

<f:param id="articleId" value="#{article.id}"></f:param>

</h:commandLink>

</h:column>

<h:column>
<f:facet name="header">

<h:outputText value="Journal Title" style="color: green" />
</f:facet>

<h:outputText value="#{article.journal}"/>

</h:column>

<h:column>
<f:facet name="header">

<h:outputText value="Authors" style="color: green" />
</f:facet>

<h:outputText value="#{article.authors}"/>

</h:column>
```

```
            <h:column>
                                                    <f:facet
name="header">

            <h:outputText value="Publication" style="color: green"
/>
                                                    </f:facet>

            <h:outputText value="#{article.year}" />

            </h:column>
                                                </h:dataTable>
                                                <h:dataTable
rowClasses="rowclass" cellspacing="0"
columnClasses="col2,col1,col1" style="width: 600px"
rendered="#{projectBean.showGenericList &&
projectBean.refStat != 1}"
value="#{projectBean.pagedReferenceList}" var="ref">

            <h:column>
                                                    <f:facet
name="header">

            <h:outputText value="Reference Title" style="color:
green" />
                                                    </f:facet>

            <h:commandLink rendered="#{projectBean.refStat ==
2}" value="#{ref.title}" style="font-weight: bold; color: green"
actionListener="#{referenceManagerBean.getBook}"
action="book">

            <f:param id="bookId" value="#{ref.id}"></f:param>

            </h:commandLink>

            <h:commandLink rendered="#{projectBean.refStat ==
3}" value="#{ref.title}" style="font-weight: bold; color: green"
actionListener="#{referenceManagerBean.getBooklet}"
action="booklet">

            <f:param id="bookletId" value="#{ref.id}"></f:param>

</h:commandLink>

            <h:commandLink rendered="#{projectBean.refStat ==
4}" value="#{ref.title}" style="font-weight: bold; color: green"
actionListener="#{referenceManagerBean.getCollection}"
action="collection">

            <f:param id="collectionId"
value="#{ref.id}"></f:param>

            </h:commandLink>

            <h:commandLink rendered="#{projectBean.refStat ==
5}" value="#{ref.title}" style="font-weight: bold; color: green"
actionListener="#{referenceManagerBean.getInbook}"
action="inbook">

            <f:param id="inbookId" value="#{ref.id}"></f:param>

            </h:commandLink>

            <h:commandLink rendered="#{projectBean.refStat ==
6}" value="#{ref.title}" style="font-weight: bold; color: green"
actionListener="#{referenceManagerBean.getManual}"
action="manual">

            <f:param id="manualId" value="#{ref.id}"></f:param>

            </h:commandLink>

            <h:commandLink rendered="#{projectBean.refStat ==
7}"  value="#{ref.title}" style="font-weight: bold; color: green"
actionListener="#{referenceManagerBean.getTech}"
action="tech">

            <f:param id="reportId" value="#{ref.id}"></f:param>

            </h:commandLink>

            <h:commandLink rendered="#{projectBean.refStat ==
8}" value="#{ref.title}" style="font-weight: bold; color: green"
actionListener="#{referenceManagerBean.getThesis}"
action="thesis">

            <f:param id="thesisId" value="#{ref.id}"></f:param>

            </h:commandLink>

            <h:commandLink rendered="#{projectBean.refStat ==
9}" value="#{ref.title}" style="font-weight: bold; color: green"
actionListener="#{referenceManagerBean.getUnpublished}"
action="unpublished">

            <f:param id="unpubId" value="#{ref.id}"></f:param>

            </h:commandLink>

            </h:column>

            <h:column>
                                                    <f:facet
name="header">

            <h:outputText value="Authors" style="color: green" />
                                                    </f:facet>

            <h:outputText value="#{ref.authors}"/>

            </h:column>

            <h:column>
                                                    <f:facet
name="header">

            <h:outputText value="Publication" style="color: green"
/>
                                                    </f:facet>

            <h:outputText value="#{ref.year}"/>

            </h:column>
                                                </h:dataTable>
<!--
            <h:dataTable
rendered="#{projectBean.showGenericList}"
columnClasses="projectListColumn" id="articleList"
value="#{projectBean.pagedReferenceList}" var="ref"
style="margin-left: 40px" border="0" rows="10">   -->
<!--
            <h:column>-->
<!--
            <h:panelGroup rendered="#{ref.type == 'article'}">-->
<!--
            <hr /><table width="550px" border="0">-->
```

```
<!--
                                        <tr>-->
<!--
                                            <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                            <td style="text-
  align:justify; width: 450px">-->
<!--

                <h:commandLink  value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getArticle}"
  action="article">-->
<!--
                                                    <f:param
  id="articleId" value="#{ref.id}"></f:param>-->
<!--
                                            </h:commandLink>--
  >
<!--
                                            </td>-->
<!--
                                    </tr>-->
<!--
                                    <tr>-->
<!--
                                            <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                            <td style="text-
  align:justify">-->
<!--

                <h:outputText value="#{ref.authors}"/>-->
<!--
                                            </td>-->
<!--
                                    </tr>-->
<!--
                                    <tr>-->
<!--
                                            <td><h:outputText
  style="color:green" value="Journal: " /></td>-->
<!--
                                            <td style="text-
  align:justify">-->
<!--

                <h:outputText value="#{ref.journal}"/>-->
<!--
                                            </td>-->
<!--
                                    </tr>-->
<!--
                                    <tr>-->
<!--
                                            <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                            <td style="text-
  align:justify"><h:outputText value="Article"/></td>-->
<!--
                                    </tr>-->
<!--
                            </table>-->
<!--
                            -->
<!--
                </h:panelGroup>-->
<!--
                <h:panelGroup rendered="#{ref.type == 'book'}">-->
<!--
                            <hr /><table width="550px" border="0">-->
<!--
                                    <tr>-->
<!--
                                            <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                            <td style="text-
  align:justify; width: 450px">-->
<!--

                <h:commandLink value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getBook}"
  action="book">-->
<!--
                                                    <f:param
  id="bookId" value="#{ref.id}"></f:param>-->
<!--
                                            </h:commandLink>--
  >
<!--
                                            </td>-->
<!--
                                    </tr>-->
<!--
                                    <tr>-->
<!--
                                            <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                            <td style="text-
  align:justify">-->
<!--

                <h:outputText value="#{ref.authors}"/>-->
<!--
                                            </td>-->
<!--
                                    </tr>-->
<!--
                                    <tr>-->
<!--
                                            <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                            <td style="text-
  align:justify"><h:outputText value="Book"/></td>-->
<!--
                                    </tr>-->
<!--
                            </table>-->
<!--
                </h:panelGroup>-->
<!--
                <h:panelGroup rendered="#{ref.type == 'booklet'}">--
  >
<!--
                            <hr /><table width="550px" border="0">-->
<!--
                                    <tr>-->
<!--
                                            <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                            <td style="text-
  align:justify; width: 450px">-->
```

```
<!--
                <h:commandLink value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getBooklet}"
  action="booklet">-->
<!--
                                                    <f:param
  id="bookletId" value="#{ref.id}"></f:param>-->
<!--
                                                </h:commandLink>--
  >
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                                <td style="text-
  align:justify">-->
<!--
                <h:outputText value="#{ref.authors}"/>-->
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                                <td style="text-
  align:justify"><h:outputText value="Booklet"/></td>-->
<!--
                                        </tr>-->
<!--
                        </table>-->
<!--
                </h:panelGroup>-->
<!--
                <h:panelGroup rendered="#{ref.type ==
  'collection'}">-->
<!--
                        <hr /><table width="550px" border="0">-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                                <td style="text-
  align:justify; width: 450px">-->
<!--
                <h:commandLink value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getCollection}"
  action="collection">-->
<!--
                                                    <f:param
  id="collectionId" value="#{ref.id}"></f:param>-->
<!--
                                                </h:commandLink>--
  >
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                                <td style="text-
  align:justify">-->
<!--
                <h:outputText value="#{ref.authors}"/>-->
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                                <td style="text-
  align:justify"><h:outputText value="Incollection"/></td>-->
<!--
                                        </tr>-->
<!--
                        </table>-->
<!--
                </h:panelGroup>-->
<!--
                <h:panelGroup rendered="#{ref.type == 'inbook'}">-->
<!--
                        <hr /><table width="550px" border="0">-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                                <td style="text-
  align:justify; width: 450px">-->
<!--
                <h:commandLink value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getInbook}"
  action="inbook">-->
<!--
                                                    <f:param
  id="inbookId" value="#{ref.id}"></f:param>-->
<!--
                                                </h:commandLink>--
  >
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                                <td style="text-
  align:justify">-->
```

```
<!--
                <h:outputText value="#{ref.authors}"/>-->
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                                <td style="text-
  align:justify"><h:outputText value="Inbook"/></td>-->
<!--
                                        </tr>-->
<!--
                        </table>-->
<!--
                </h:panelGroup>-->
<!--
                <h:panelGroup rendered="#{ref.type == 'manual'}">-->
<!--
                        <hr /><table width="550px" border="0">-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                                <td style="text-
  align:justify; width: 450px">-->
<!--

                <h:commandLink value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getManual}"
  action="manual">-->
<!--
                                                                <f:param
  id="manualId" value="#{ref.id}"></f:param>-->
<!--
                                                </h:commandLink>--
  >
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                                <td style="text-
  align:justify">-->
<!--

                <h:outputText value="#{ref.authors}"/>-->
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                                <td style="text-
  align:justify"><h:outputText value="Manual"/></td>-->
<!--
                                        </tr>-->
<!--
                        </table>-->
<!--
                </h:panelGroup>-->
<!--
                <h:panelGroup rendered="#{ref.type ==
  'techreport'}">-->
<!--
                        <hr /><table width="550px" border="0">-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                                <td style="text-
  align:justify; width: 450px">-->
<!--

                <h:commandLink value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getTech}"
  action="tech">-->
<!--
                                                                <f:param
  id="reportId" value="#{ref.id}"></f:param>-->
<!--
                                                </h:commandLink>--
  >
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                                <td style="text-
  align:justify">-->
<!--

                <h:outputText value="#{ref.authors}"/>-->
<!--
                                                </td>-->
<!--
                                        </tr>-->
<!--
                                        <tr>-->
<!--
                                                <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                                <td style="text-
  align:justify"><h:outputText value="Technical Report"/></td>-->
<!--
                                        </tr>-->
<!--
                        </table>-->
<!--
                </h:panelGroup>-->
<!--
                <h:panelGroup rendered="#{ref.type == 'thesis'}">-->
```

```
<!--
                        <hr /><table width="550px" border="0">-->
<!--
                                <tr>-->
<!--
                                        <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                        <td style="text-
  align:justify; width: 450px">-->
<!--

                <h:commandLink value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getThesis}"
  action="thesis">-->
<!--
                                                <f:param
  id="thesisId" value="#{ref.id}"></f:param>-->
<!--
                                        </h:commandLink>--
  >
<!--
                                        </td>-->
<!--
                                </tr>-->
<!--
                                <tr>-->
<!--
                                        <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                        <td style="text-
  align:justify">-->
<!--

                <h:outputText value="#{ref.authors}"/>-->
<!--
                                        </td>-->
<!--
                                </tr>-->
<!--
                                <tr>-->
<!--
                                        <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                        <td style="text-
  align:justify"><h:outputText value="Thesis"/></td>-->
<!--
                                </tr>-->
<!--
                        </table>-->
<!--
                </h:panelGroup>-->
<!--
                <h:panelGroup rendered="#{ref.type ==
  'unpublished'}">-->
<!--
                        <hr /><table width="550px" border="0">-->
<!--
                                <tr>-->
<!--
                                        <td><h:outputText
  style="color:green" value="Title: " /></td>-->
<!--
                                        <td style="text-
  align:justify; width: 450px">-->
<!--
                <h:commandLink value="#{ref.title}" style="font-
  weight: bold; color: gray"
  actionListener="#{referenceManagerBean.getUnpublished}"
  action="unpublished">-->
<!--
                                                <f:param
  id="unpubId" value="#{ref.id}"></f:param>-->
<!--
                                        </h:commandLink>--
  >
<!--
                                        </td>-->
<!--
                                </tr>-->
<!--
                                <tr>-->
<!--
                                        <td><h:outputText
  style="color:green" value="Author/s: " /></td>-->
<!--
                                        <td style="text-
  align:justify">-->
<!--

                <h:outputText value="#{ref.authors}"/>-->
<!--
                                        </td>-->
<!--
                                </tr>-->
<!--
                                <tr>-->
<!--
                                        <td><h:outputText
  style="color:green" value="Type: " /></td>-->
<!--
                                        <td style="text-
  align:justify"><h:outputText value="Unpublished"/></td>-->
<!--
                                </tr>-->
<!--
                        </table>-->
<!--
                </h:panelGroup>-->
<!--
                </h:column>-->
<!--
                </h:dataTable>-->
                                        <p style="margin-left:
  500px; margin-top: 15px">
                                <h:commandButton value="prev"

  disabled="#{projectBean.refPagination == 0}"

  actionListener="#{projectBean.showRefBackward}"
                                  style="margin-right: 20px"/>

                                <h:commandButton value="next"

  disabled="#{projectBean.nextReference}"

  actionListener="#{projectBean.showRefListForward}" />
                                </p>
                                        </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
```

```
                                        <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

            <h2>Administration</h2>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

registerProj.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
        <html xmlns="http://www.w3.org/1999/xhtml">

        <head>
                <title><h:outputText
        value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
        type="text/css" media="screen" />
                <script type="text/javascript"
        src="../javascript/jquery.js"></script>
                <script type="text/javascript"
        src="../javascript/dialog.js"></script>
                <script type="text/javascript"
        src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 100px}
                </style>
        </head>

        <body>

        <!-- Logo Pane -->
        <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
        Products </a></h1>

                <h1><a>      In
        formation - System for Plants</a></h1>
                </div>
        </div>

        <!-- Menu Pane -->
        <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
        action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
        action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
        action="editAccount" value="Account"
        actionListener="#{userAccountBean.getUserDetails}"><f:param
        id="aUserName" value="#{userBean.username}"/>
                                        </h:commandLink>
```

```
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <br />
                                <h:form>
                                <h:commandLink
value="[Back]" action="projectDetails" style="color: green;
margin-left: 75%" />
                                                <table  border="0"
width="600" style="margin-left:2%">
                                                        <tr>

                <th colspan="2"><u><h3>Application
Form</h3></u><br /></th>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color: green"
width="150px">Plant Name:</td>

                <td>

                <u><h:commandLink style="color:green"
value="#{projectBean.projectPlantName}"
action="showPlantDetails"
actionListener="#{plantBean.getPlantDetails}"><f:param
id="chosen" value="#{projectBean.projectPlantName}"
/></h:commandLink></u>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color: green">Project
Name:</td>

                <td>

                <h:outputText
value="#{projectBean.projectName}"></h:outputText>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color: green">Project
Acronym:</td>

                <td>

                <h:outputText
value="#{projectBean.projectCode}"></h:outputText>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color: green">Username:
</td>

                <td>

                <h:outputText
value="#{userBean.username}"></h:outputText>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color: green">Membership
Type: </td>

                <td>

                <h:selectOneMenu
value="#{projectBean.chosenLevel}">

                  <f:selectItem itemValue="2" itemLabel="Project
Viewer"/>

                  <f:selectItem itemValue="3" itemLabel="Project
Manager"/>

                  <f:selectItem itemValue="4" itemLabel="Project
Administration"/>

                </h:selectOneMenu>

                </td>
                                                        </tr>
                                                        <tr>

                <td>



                </td>

                <td style="color: green">

                <h:commandButton value="Apply"
action="projectDetails"
actionListener="#{projectBean.applyUser}" style="margin-left:
75%"><f:param value="#{userBean.username}" id="username"
/></h:commandButton>

                </td>
                                                        </tr>
                                                </table>
                                                <br /><br /><br /><br
/><br /><br />
                                </h:form>
                                <br />
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
```

```
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                                </li>
                                    </h:panelGroup>
                                    <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                    </li>
                                    <li>
                                                <h2>External
Links</h2>
                                                <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                                </ul>
                                    </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>
   </body>

   </html>
</f:view>
```

searchUserProject.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
            <c:redirect url="/services/plantHome.jsf" />
</c:if>
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title>Insert title here</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>

   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
   action="toHome">Home</h:commandLink></li>

            <li><h:commandLink>FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                    <li><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
   action="logout"
   actionListener="#{userBean.destroySession}">Logout</h:comma
   ndLink>
                                    </li>
                        </ul>
            </div>
```

```
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<div class="post">
		<h:form>
		<br />
		<h3 style="margin-left: 40px; color:
green"><u>Project Administration</u></h3>
		<br />
		<h:outputText style="margin:40px"
value="Username:"></h:outputText>
		<h:inputText disabled="true"
value="#{projectBean.projectUserNameAdmin}"></h:inputText>
  
		<i><h:outputText value="Click the
username from below."></h:outputText></i><br/><br/>
		<h:commandButton style="margin-left:
210px" value="Assign User"
action="addProject"></h:commandButton>
		<br /><br />
		<h3 style="margin-left: 40px; color:
green"><u>Search Users</u></h3>
		<br />
				<table border="0"
width="500" style="margin-left: 40px">
					<tr>

	<td><h:outputLabel>Username:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchUserName}"/></td>

	<td rowspan="3" width="200"><i>Blank fields will not
be<br />included in the search.</i></td>
					</tr>
					<tr>

	<td><h:outputLabel>Last Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchLastName}" /></td>
					</tr>
					<tr>

	<td><h:outputLabel>First
Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchFirstName}"/></td>
					</tr>
					<tr>

	<td><h:outputLabel>Middle
Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchMiddleName}"/></td>
					</tr>
					<tr>

	<td><h:outputLabel>Email
Address:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchEmail}"/></td>
					</tr>
					<tr>

	<td><h:outputLabel>Company:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchCompany}"/></td>

	<td>

	<h:commandButton value="Search"
actionListener="#{adminTempBean.preSearch}"></h:commandBu
tton>

	<h:commandButton value="Reset"
actionListener="#{adminTempBean.resetSearch}"></h:command
Button>

	</td>
					</tr>
				</table>
		</h:form>
		<br />
		<br />
			<h:form id="userList">
			<p>
			<h:commandLink value="A"
style="color: green; margin-left: 40px"
rendered="#{adminTempBean.currentLetter ==
'a'}"></h:commandLink>
			<h:commandLink value="A"
style="margin-left: 40px"
rendered="#{adminTempBean.currentLetter != 'a'}"
actionListener="#{adminTempBean.showForA}"></h:commandLi
nk>

			<h:commandLink value="B"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'b'}"></h:commandLink>
			<h:commandLink value="B"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'b'}"
actionListener="#{adminTempBean.showForB}"></h:commandLi
nk>

			<h:commandLink value="C"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'c'}"></h:commandLink>
			<h:commandLink value="C"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'c'}"
actionListener="#{adminTempBean.showForC}"></h:commandLi
nk>

			<h:commandLink value="D"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'd'}"></h:commandLink>
			<h:commandLink value="D"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'd'}"
actionListener="#{adminTempBean.showForD}"></h:commandLi
nk>

			<h:commandLink value="E"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'e'}"></h:commandLink>
```

```
                    <h:commandLink value="E"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'e'}"
actionListener="#{adminTempBean.showForE}"></h:commandLi
nk>

                    <h:commandLink value="F"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'f'}"></h:commandLink>
                    <h:commandLink value="F"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'f'}"
actionListener="#{adminTempBean.showForF}"></h:commandLi
nk>

                    <h:commandLink value="G"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'g'}"></h:commandLink>
                    <h:commandLink value="G"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'g'}"
actionListener="#{adminTempBean.showForG}"></h:commandLi
nk>

                    <h:commandLink value="H"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'h'}"></h:commandLink>
                    <h:commandLink value="H"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'h'}"
actionListener="#{adminTempBean.showForH}"></h:commandLi
nk>

                    <h:commandLink value="I"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'i'}"></h:commandLink>
                    <h:commandLink value="I"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'i'}"
actionListener="#{adminTempBean.showForI}"></h:commandLi
nk>

                    <h:commandLink value="J"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'j'}"></h:commandLink>
                    <h:commandLink value="J"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'j'}"
actionListener="#{adminTempBean.showForJ}"></h:commandLi
nk>

                    <h:commandLink value="K"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'k'}"></h:commandLink>
                    <h:commandLink value="K"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'k'}"
actionListener="#{adminTempBean.showForK}"></h:commandLi
nk>

                    <h:commandLink value="L"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'l'}"></h:commandLink>
                    <h:commandLink value="L"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'l'}"
actionListener="#{adminTempBean.showForL}"></h:commandLi
nk>

                    <h:commandLink value="M"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'm'}"></h:commandLink>
                    <h:commandLink value="M"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'm'}"
actionListener="#{adminTempBean.showForM}"></h:commandL
ink>

                    <h:commandLink value="N"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'n'}"></h:commandLink>
                    <h:commandLink value="N"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'n'}"
actionListener="#{adminTempBean.showForN}"></h:commandLi
nk>

                    <h:commandLink value="O"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'o'}"></h:commandLink>
                    <h:commandLink value="O"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'o'}"
actionListener="#{adminTempBean.showForO}"></h:commandLi
nk>

                    <h:commandLink value="P"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'p'}"></h:commandLink>
                    <h:commandLink value="P"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'p'}"
actionListener="#{adminTempBean.showForP}"></h:commandLi
nk>

                    <h:commandLink value="Q"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'q'}"></h:commandLink>
                    <h:commandLink value="Q"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'q'}"
actionListener="#{adminTempBean.showForQ}"></h:commandLi
nk>

                    <h:commandLink value="R"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'r'}"></h:commandLink>
                    <h:commandLink value="R"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'r'}"
actionListener="#{adminTempBean.showForR}"></h:commandLi
nk>

                    <h:commandLink value="S"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
's'}"></h:commandLink>
```

```
                                    <h:commandLink value="S"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 's'}"
actionListener="#{adminTempBean.showForS}"></h:commandLi
nk>

                                    <h:commandLink value="T"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
't'}"></h:commandLink>
                                    <h:commandLink value="T"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 't'}"
actionListener="#{adminTempBean.showForT}"></h:commandLi
nk>

                                    <h:commandLink value="U"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'u'}"></h:commandLink>
                                    <h:commandLink value="U"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'u'}"
actionListener="#{adminTempBean.showForU}"></h:commandLi
nk>

                                    <h:commandLink value="V"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'v'}"></h:commandLink>
                                    <h:commandLink value="V"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'v'}"
actionListener="#{adminTempBean.showForV}"></h:commandLi
nk>

                                    <h:commandLink value="W"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'w'}"></h:commandLink>
                                    <h:commandLink value="W"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'w'}"
actionListener="#{adminTempBean.showForW}"></h:commandL
ink>

                                    <h:commandLink value="X"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'x'}"></h:commandLink>
                                    <h:commandLink value="X"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'x'}"
actionListener="#{adminTempBean.showForX}"></h:commandLi
nk>

                                    <h:commandLink value="Y"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'y'}"></h:commandLink>
                                    <h:commandLink value="Y"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'y'}"
actionListener="#{adminTempBean.showForY}"></h:commandLi
nk>

                                    <h:commandLink value="Z"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'z'}"></h:commandLink>
                                    <h:commandLink value="Z"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'z'}"
actionListener="#{adminTempBean.showForZ}"></h:commandLi
nk>

                                    <h:commandLink value="All"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'^'}"></h:commandLink>
                                    <h:commandLink value="All"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != '^'}"
actionListener="#{adminTempBean.showForAll}"></h:command
Link>

                                    <font size="1px" style="margin-
left: 10px">
                                        <i>Showing
<h:outputText value="#{adminTempBean.userPagination +
adminTempBean.paginationFixer}" /> - <h:outputText
value="#{adminTempBean.userEndCount}" /> of <h:outputText
value="#{adminTempBean.usersCount}" /></i>
                                    </font>
                                    <h3 style="margin-left: 40px;
color: green"><u>Registered Users</u></h3>
                                    </p>


                                    <h:dataTable
columnClasses="class1,class2" id="RegisteredUsers"
value="#{adminTempBean.pagedUserList}" var="regUser"
rows="10" style="margin-left: 40px">
                                        <h:column>
                                          <f:facet name="header">
                                            <h:outputText  value="User
Name"/>
                                          </f:facet>
                                           <h:commandLink
value="#{regUser.regUserName}" style="font-weight: bold; color:
gray" actionListener="#{projectBean.setAdmin}">
                                                <f:param id="chosen"
value="#{regUser.regUserName}"></f:param>
                                          </h:commandLink>
                                        </h:column>
                                        <h:column>
                                          <f:facet name="header">
                                            <h:outputText
value="Name"/>
                                          </f:facet>
                                           <h:outputText
value="#{regUser.lastName}"/>
                                           <h:outputText value=", "/>
                                           <h:outputText
value="#{regUser.firstname}"/>
                                           <h:outputText value=" "/>
                                           <h:outputText
value="#{regUser.middlename}"/>
                                        </h:column>
                                        <f:facet name="footer">
      <h:panelGroup>
            <br />
          <h:commandButton value="prev"
             disabled="#{adminTempBean.userPagination == 0}"

actionListener="#{adminTempBean.showUserListBackward}"
             style="margin-right: 20px;margin-left: 450px"/>

          <h:commandButton value="next"
             disabled="#{adminTempBean.nextUser}"
```

```
actionListener="#{adminTempBean.showUserListForward}" />
	</h:panelGroup>
		</f:facet>
					</h:dataTable>
					</h:form>
			</div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
			<ul>
					<h:panelGroup
rendered="#{userBean.admin}">
						<li>

		<h2>Administration</h2>
							<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
							<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
							<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
							<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
							<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
						</li>
					</h:panelGroup>
					<li>
						<h2>Menu</h2>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
						<h3> </h3>
					</li>
					<li>
						<h2>External
Links</h2>
						<ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">
			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
						</ul>
				</li>
			</ul>
			</h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>

	</body>

	</html>
</f:view>
```

addArticle.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
		<script type="text/javascript"
  src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {min-width: 75px}
		</style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
  Products </a></h1>

		<h1><a>      In
  formation - System for Plants</a></h1>
		</div>
  </div>

  <!-- Menu Pane -->
  <h:form>
		<div id="menu">
			<ul id="menulist">
```

```
                                    <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                                </ul>
                                <ul style="margin-left: 75%">
                                    <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                    </li>
                                </ul>
                        </div>
</h:form>

<!-- Main Page -->
<div id="page">
                        <!-- Content Pane -->
                        <div id="content">
                                <!-- Post Pane -->
                                <div class="post">
                                    <h:form
enctype="multipart/form-data">
                                    <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"/>
                                    <p><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/></p>
                                                <table  border="0"
width="600" style="margin-left:2%">
                                                            <tr>

                        <th colspan="2"><u><h3>Article
Information</h3></u><br /></th><td></td>

                        <td></td>
                                                            </tr>
                                                            <tr>


                        <td style="text-align: right; color: green">Article
Title:</td>

                        <td>

                        <h:inputText id="atitle"
value="#{referenceManagerBean.tempArticle.title}"
size="38"></h:inputText>

                        <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                        </td>

                        <td style="text-align: right; color: green">

                        </td>

                        <td></td>
                                                            </tr>
                                                            <tr>


                        <td style="text-align: right; color: green">Journal
Title:</td>

                        <td>

                        <h:inputText
value="#{referenceManagerBean.tempArticle.journal}"
size="38"></h:inputText>

                        <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                        </td>

                        <td style="text-align: right; color: green">

                        </td>

                        <td style="text-align: right; color: green">

                        </td>
                                                                    </tr>
                                                                    <tr>


                        <td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

                        <td>

                        <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempArticle.authors}"></h:input
Textarea>

                        <h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

                        </td>

                        <td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>

                                                                    </tr>
                                                                    <tr>


                        <td style="text-align: right; color:
green">Publication</td>

                        <td>

                         

                        <h:outputText style="color: green" value="Month: " />

                        <h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempArticle.month}" >

                          <f:selectItem itemValue="" itemLabel=""/>

                          <f:selectItem itemValue="January"
itemLabel="January"/>

                        <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

                        <f:selectItem itemValue="March"
itemLabel="March"/>

                        <f:selectItem itemValue="April" itemLabel="April"/>
```

```
                <f:selectItem itemValue="May" itemLabel="May"/>

                <f:selectItem itemValue="June" itemLabel="June"/>

                <f:selectItem itemValue="July" itemLabel="July"/>

                <f:selectItem itemValue="August"
itemLabel="August"/>

                <f:selectItem itemValue="September"
itemLabel="September"/>

                <f:selectItem itemValue="October"
itemLabel="October"/>

                <f:selectItem itemValue="November"
itemLabel="November"/>

                <f:selectItem itemValue="December"
itemLabel="December"/>

            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempArticle.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td>

            </td>

            <td colspan="2">

            <font style="color:green">Pages: </font><h:inputText
value="#{referenceManagerBean.tempArticle.pages}"
size="1"></h:inputText>

            <font style="color:green; margin-left: 10px">Volume:
</font><h:inputText
value="#{referenceManagerBean.tempArticle.volume}"
size="1"></h:inputText>

            <font style="color:green; margin-left: 10px">Issue:
</font><h:inputText
value="#{referenceManagerBean.tempArticle.issue}"
size="1"></h:inputText>

            </td>

            <td>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">Url:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempArticle.url}"
size="38"></h:inputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">File:</td>

            <td>

            <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempArticle.note}"></h:inputTe
xtarea>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempArticle.selected}" /></td>

            <td>

            Make publicly available.

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right"><br></br><br></br><u></u></td>

            <td></td>

            <td></td>

            <td><br></br><br></br>

            <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoArticle}"
actionListener="#{referenceManagerBean.addArticle}"><f:param
```

```
value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">
                                <h:outputText value="#{link.name}" />
                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                        </ul>
                                                </li>
                                        </ul>
                                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>


        </body>

        </html>
</f:view>
```

addBook.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
                <script type="text/javascript"
  src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 75px}
                </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
  Products </a></h1>

                <h1><a>      In
  formation - System for Plants</a></h1>
                </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
                <div id="menu">
```

```
                    <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                    </ul>
                    <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                    </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                    <!-- Post Pane -->
                    <div class="post">
                    <h:form enctype="multipart/form-data">
                        <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"/>
                        <p><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/></p>
                                <table  border="0"
width="600" style="margin-left:2%">
                                        <tr>

            <th colspan="2"><u><h3>Book
Information</h3></u><br /></th><td></td>

            <td></td>
                                        </tr>
                                        <tr>

            <td style="text-align: right; color: green">Title:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempBook.title}"
size="38"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td>



            </td>

            <td>
```

```
            </td>
                                        </tr>
                                        <tr>

            <td style="text-align: right; color:
green">Publisher:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempBook.publisher}"
size="38"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td>



            </td>

            <td>



            </td>
                                        </tr>
                                        <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBook.authors}"></h:inputT
extarea>

            <h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

            </td>

            <td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                        </tr>
                                        <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px"">Editor/s:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBook.editors}"></h:inputT
extarea>

            </td>

            <td colspan="2"></td>
                                        </tr>
                                        <tr>

            <td style="text-align: right; color:
green">Publication</td>
```

```
<td>

 

<h:outputText style="color:green" value="Month: " />

<h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempBook.month}" >

 <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

 <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

 <f:selectItem itemValue="March"
itemLabel="March"/>

 <f:selectItem itemValue="April" itemLabel="April"/>

 <f:selectItem itemValue="May" itemLabel="May"/>

 <f:selectItem itemValue="June" itemLabel="June"/>

 <f:selectItem itemValue="July" itemLabel="July"/>

 <f:selectItem itemValue="August"
itemLabel="August"/>

 <f:selectItem itemValue="September"
itemLabel="September"/>

 <f:selectItem itemValue="October"
itemLabel="October"/>

 <f:selectItem itemValue="November"
itemLabel="November"/>

 <f:selectItem itemValue="December"
itemLabel="December"/>

</h:selectOneMenu>

    

<h:outputText style="color:green" value="Year: " />

<h:inputText
value="#{referenceManagerBean.tempBook.year}"
size="4"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td></td>

<td></td>
                                                    </tr>
                                                    <tr>


<td></td>

<td colspan="2">

<h:outputText value="Edition: "
style="color:green"></h:outputText>

<h:inputText
value="#{referenceManagerBean.tempBook.edition}"
size="1"></h:inputText>

<h:outputText value="Volume: " style="color:green;
margin-left: 10px"></h:outputText>

<h:inputText
value="#{referenceManagerBean.tempBook.volume}"
size="1"></h:inputText>

<h:outputText style="color:green; margin-left: 10px"
value="Series: "></h:outputText>

<h:inputText
value="#{referenceManagerBean.tempBook.series}"
size="1"></h:inputText>

</td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green">Url:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempBook.url}"
size="38"></h:inputText>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green">File:</td>

<td>

<t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green; padding-
bottom: 35px"">Note:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBook.note}"></h:inputText
area>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempBook.selected}" /></td>
```

```
		<td>

		Make publicly available.

		</td><td></td>

		<td></td>
                                                        </tr>
                                                        <tr>

		<td style="text-align:
right"><br></br><br></br><u></u></td>

		<td></td>

		<td></td>

		<td><br></br><br></br>

		<h:commandButton value="Save"
action="#{referenceManagerBean.getToGoBook}"
actionListener="#{referenceManagerBean.addBook}"><f:param
value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                        </tr>
                                                </table>
                                        </h:form>
                                </div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
                                <ul>
                                        <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

		<h2>Administration</h2>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                        <h3> </h3>
                                                </li>
                                                <li>
                                                        <h2>External
Links</h2>
                                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                        </ul>
                                                </li>
                                        </ul>
                                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>


        </body>

        </html>
</f:view>
```

addBooklet.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
```

```
	<script type="text/javascript"
src="../javascript/ajax.js"></script>
	<style type="text/css">
	td {min-width: 75px}
	</style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
	<div id="logo">
		<h1><a>Health Application for Natural
Products </a></h1>

	<h1><a>      In
formation - System for Plants</a></h1>
	</div>
</div>

<!-- Menu Pane -->
<h:form>
	<div id="menu">
		<ul id="menulist">
			<li><h:commandLink
action="toHome">Home</h:commandLink></li>
			<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
		</ul>
		<ul style="margin-left: 75%">
			<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
				</h:commandLink>
			</li>
			<li>
				<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
			</li>
		</ul>
	</div>
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<div class="post">
		<h:form enctype="multipart/form-data">
			<h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"/>
			<p><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/></p>
				<table  border="0"
width="600" style="margin-left:2%">
					<tr>

	<th colspan="2"><u><h3>Booklet
Information</h3></u><br /></th><td></td>

	<td></td>
					</tr>
					<tr>

	<td style="text-align: right; color: green">Title:</td>

	<td>

	<h:inputText
value="#{referenceManagerBean.tempBooklet.title}"
size="38"></h:inputText>

	<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

	</td>

	<td>



	</td>

	<td>



	</td>
					</tr>
					<tr>

	<td style="text-align: right; color: green; padding-
bottom: 35px"">Author/s:</td>

	<td>

	<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBooklet.authors}"></h:inpu
tTextarea>

	<h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

	</td>

	<td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
					</tr>
					<tr>

	<td style="text-align: right; color:
green">Publication</td>

	<td>

	 

	<h:outputText style="color:green" value="Month: " />

	<h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempBooklet.month}" >

	  <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

	  <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

	  <f:selectItem itemValue="March"
itemLabel="March"/>

	  <f:selectItem itemValue="April" itemLabel="April"/>
```

```
                <f:selectItem itemValue="May" itemLabel="May"/>

                <f:selectItem itemValue="June" itemLabel="June"/>

                <f:selectItem itemValue="July" itemLabel="July"/>

                <f:selectItem itemValue="August"
itemLabel="August"/>

                <f:selectItem itemValue="September"
itemLabel="September"/>

                <f:selectItem itemValue="October"
itemLabel="October"/>

                <f:selectItem itemValue="November"
itemLabel="November"/>

                <f:selectItem itemValue="December"
itemLabel="December"/>

            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempBooklet.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align: right; color: green; padding-
bottom: 35px"">How Published</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBooklet.howPublished}"><
/h:inputTextarea>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align: right; color: green">Url:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempBooklet.url}"
size="38"></h:inputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align: right; color: green">File:</td>

            <td>

            <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align: right; color: green; padding-
bottom: 35px"">Note:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBooklet.note}"></h:inputT
extarea>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempBooklet.selected}" /></td>

            <td>

            Make publicly available.

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align:
right"><br></br><br></br><u></u></td>

            <td></td>

            <td></td>

            <td><br></br><br></br>

            <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoBooklet}"
actionListener="#{referenceManagerBean.addBooklet}"><f:param
value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                    <li>
```

```
        <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

        <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

        <h:dataTable value="#{linksListBean.links}"
var="link">

        <li><h:column>

        <h:outputLink value="#{link.addr}" target="_blank">

                <h:outputText value="#{link.name}" />

        </h:outputLink>

        </h:column></li>

        </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
        </div>
        <!-- Filler -->
        <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>


    </body>

    </html>
</f:view>
```

addCollection.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
        <script type="text/javascript"
  src="../javascript/jquery.js"></script>
        <script type="text/javascript"
  src="../javascript/dialog.js"></script>
        <script type="text/javascript"
  src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {min-width: 75px}
        </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
  Products </a></h1>

        <h1><a>      In
  formation - System for Plants</a></h1>
        </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                        </h:commandLink>
                        </li>
                        <li>
```

```
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                    </li>
                                </ul>
                        </div>
</h:form>

<!-- Main Page -->
<div id="page">
                        <!-- Content Pane -->
                        <div id="content">
                                <!-- Post Pane -->
                                <div class="post">
                                <h:form enctype="multipart/form-data">
                                        <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"/>
                                        <p><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/></p>
                                                <table  border="0"
width="600" style="margin-left:2%">
                                                        <tr>

                        <th colspan="2"><u><h3>Incollection
Information</h3></u><br /></th><td></td>

                        <td></td>
                                                        </tr>
                                                        <tr>

                        <td style="text-align: right; color: green">Title:</td>

                        <td>

                        <h:inputText
value="#{referenceManagerBean.tempCollection.title}"
size="38"></h:inputText>

                        <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                        </td>

                        <td>



                        </td>

                        <td>



                        </td>
                                                        </tr>
                                                        <tr>

                        <td style="text-align: right; color: green">Book
Title:</td>

                        <td>

                        <h:inputText
value="#{referenceManagerBean.tempCollection.bookTitle}"
size="38"></h:inputText>

                        <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                        </td>

                        <td>

                        </td>

                        <td>



                        </td>
                                                                </tr>
                                                                <tr>

                        <td style="text-align: right; color:
green">Publisher:</td>

                        <td>

                        <h:inputText
value="#{referenceManagerBean.tempCollection.publisher}"
size="38"></h:inputText>

                        <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                        </td>

                        <td>

                        </td>

                        <td>



                        </td>
                                                                </tr>
                                                                <tr>

                        <td style="text-align: right; color:
green">Organization:</td>

                        <td>

                        <h:inputText
value="#{referenceManagerBean.tempCollection.organization}"
size="38"></h:inputText>

                        </td>

                        <td>



                        </td>

                        <td>

                        </td>
                                                                </tr>
                                                                <tr>
```

```
<td style="text-align: right; color: green; padding-bottom: 35px">Author/s:</td>

<td>

<h:inputTextarea rows="3" cols="30" value="#{referenceManagerBean.tempCollection.authors}"></h:inputTextarea>

<h:outputText value="*" styleClass="errorMessage" style="position: absolute"></h:outputText>

</td>

<td colspan="2">Format: "firstname lastname".<br />Separate different entries<br /> with " and ".</td>
</tr>
<tr>

<td style="text-align: right; color: green; padding-bottom: 35px">Editor/s:</td>

<td>

<h:inputTextarea rows="3" cols="30" value="#{referenceManagerBean.tempCollection.editors}"></h:inputTextarea>

<h:outputText value="*" styleClass="errorMessage" style="position: absolute"></h:outputText>

</td>

<td colspan="2"></td>
</tr>
<tr>

<td style="text-align: right; color: green">Publication</td>

<td>

 

<h:outputText style="color:green" value="Month: " />

<h:selectOneMenu id="chooseCarColor" value="#{referenceManagerBean.tempCollection.month}" >

<f:selectItem itemValue="" itemLabel=""/><f:selectItem itemValue="January" itemLabel="January"/>

<f:selectItem itemValue="Febuary" itemLabel="Febuary"/>

<f:selectItem itemValue="March" itemLabel="March"/>

<f:selectItem itemValue="April" itemLabel="April"/>

<f:selectItem itemValue="May" itemLabel="May"/>

<f:selectItem itemValue="June" itemLabel="June"/>

<f:selectItem itemValue="July" itemLabel="July"/>

<f:selectItem itemValue="August" itemLabel="August"/>

<f:selectItem itemValue="September" itemLabel="September"/>

<f:selectItem itemValue="October" itemLabel="October"/>

<f:selectItem itemValue="November" itemLabel="November"/>

<f:selectItem itemValue="December" itemLabel="December"/>

</h:selectOneMenu>

    

<h:outputText style="color:green" value="Year: " />

<h:inputText value="#{referenceManagerBean.tempCollection.year}" size="4"></h:inputText>

<h:outputText value="*" styleClass="errorMessage"></h:outputText>

</td>

<td></td>

<td></td>
</tr>
<tr>

<td></td>

<td colspan="3">

<h:outputText style="color:green" value="Pages: "></h:outputText>

<h:inputText value="#{referenceManagerBean.tempCollection.pages}" size="1"></h:inputText>

<h:outputText style="color:green; margin-left: 10px" value="Edition: "></h:outputText>

<h:inputText value="#{referenceManagerBean.tempCollection.edition}" size="1"></h:inputText>

<h:outputText style="color:green; margin-left: 10px" value="Volume: "></h:outputText>

<h:inputText value="#{referenceManagerBean.tempCollection.volume}" size="1"></h:inputText>

<h:outputText style="color:green; margin-left: 10px" value="Series: "></h:outputText>

<h:inputText value="#{referenceManagerBean.tempCollection.series}" size="1"></h:inputText>

</td>
</tr>
```

```
                                                <tr>

                <td style="text-align: right; color: green">Url:</td>

                <td>

                <h:inputText
value="#{referenceManagerBean.tempCollection.url}"
size="38"></h:inputText>

                </td><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green">File:</td>

                <td>

                <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

                </td><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

                <td>

                <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempCollection.note}"></h:input
Textarea>

                </td><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempCollection.selected}"
/></td>

                <td>

                Make publicly available.

                </td><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align:
right"><br></br><br></br><u></u></td>

                <td></td>

                <td></td>

                <td><br></br><br></br>

                <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoCollection}"
actionListener="#{referenceManagerBean.addCollection}"><f:par
am value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">
```

```
                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                        </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>


    </body>

    </html>
</f:view>
```

addInbook.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
    %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
                <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
                <script type="text/javascript"
    src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 75px}
                </style>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

                <h1><a>      In
    formation - System for Plants</a></h1>
                </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                        </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                        <h:form enctype="multipart/form-data">
                                <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"/>
                                <p><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/></p>
                                                        <table  border="0"
width="600" style="margin-left:2%">
                                                                <tr>


                <th colspan="2"><u><h3>Inbook
Information</h3></u><br /></th><td></td>

                <td></td>
                                                                </tr>
                                                                <tr>


                <td style="text-align: right; color: green">Book
Title:</td>

                <td>

                <h:inputText
value="#{referenceManagerBean.tempInbook.bookTitle}"
size="38"></h:inputText>

                <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                </td>

                <td>



                </td>

                <td>
```

```
            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:
green">Publisher:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempInbook.publisher}"
size="38"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td>



            </td>

            <td>



            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempInbook.authors}"></h:input
Textarea>

            <h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

            </td>

            <td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px">Editor/s:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempInbook.editors}"></h:input
Textarea>

            </td>

            <td colspan="2"></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">Chapter
Title:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempInbook.chapTitle}"
size="38"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td>

            <h:outputText style="color:green" value="Pages:
"></h:outputText> 

            <h:inputText
value="#{referenceManagerBean.tempInbook.pages}"
size="1"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td>



            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:
green">Publication</td>

            <td>

             

            <h:outputText style="color:green" value="Month: " />

            <h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempInbook.month}" >

                <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

                <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

                <f:selectItem itemValue="March"
itemLabel="March"/>

                <f:selectItem itemValue="April" itemLabel="April"/>

                <f:selectItem itemValue="May" itemLabel="May"/>

                <f:selectItem itemValue="June" itemLabel="June"/>

                <f:selectItem itemValue="July" itemLabel="July"/>

                <f:selectItem itemValue="August"
itemLabel="August"/>

                <f:selectItem itemValue="September"
itemLabel="September"/>
```

```
                <f:selectItem itemValue="October"
itemLabel="October"/>

                <f:selectItem itemValue="November"
itemLabel="November"/>

                <f:selectItem itemValue="December"
itemLabel="December"/>

            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempInbook.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td></td>

            <td colspan="2">

            <h:outputText style="color:green" value="Edition:
"></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempInbook.edition}"
size="1"></h:inputText>

            <h:outputText style="color:green; margin-left: 10px"
value="Volume: "></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempInbook.volume}"
size="1"></h:inputText>

            <h:outputText style="color:green; margin-left: 10px"
value="Series: "></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempInbook.series}"
size="1"></h:inputText>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">Url:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempInbook.url}"
size="38"></h:inputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">File:</td>

            <td>

            <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempInbook.note}"></h:inputTe
xtarea>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempInbook.selected}" /></td>

            <td>

            Make publicly available.

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right"><br></br><br></br><u></u></td>

            <td></td>

            <td></td>

            <td><br></br><br></br>

            <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoInbook}"
actionListener="#{referenceManagerBean.addInbook}"><f:param
value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
```

```
		<h:form>
			<ul>
				<h:panelGroup
rendered="#{userBean.admin}">
					<li>

		<h2>Administration</h2>
						<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
					</li>
				</h:panelGroup>
				<li>
					<h2>Menu</h2>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
					<h3> </h3>
				</li>
				<li>
					<h2>External
Links</h2>
					<ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
					</ul>
				</li>
			</ul>
		</h:form>
	</div>
	<!-- Filler -->
	<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>


</body>

</html>
</f:view>
```

addManual.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
		<script type="text/javascript"
  src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {min-width: 75px}
		</style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
  Products </a></h1>

		<h1><a>      In
  formation - System for Plants</a></h1>
		</div>
  </div>

  <!-- Menu Pane -->
  <h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
  action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
  action="editAccount" value="Account"
```

```
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                        </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                        <h:form enctype="multipart/form-data">
                                <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"/>
                                <p><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/></p>
                                        <table  border="0"
width="600" style="margin-left:2%">
                                                <tr>

                <th colspan="2"><u><h3>Manual
Information</h3></u><br /></th><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green">Title:</td>

                <td>

                <h:inputText
value="#{referenceManagerBean.tempManual.title}"
size="38"></h:inputText>

                <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                </td>

                <td>

                <h:outputText style="color:green" value="Edition:
"></h:outputText>

                <h:inputText
value="#{referenceManagerBean.tempManual.edition}"
size="1"></h:inputText>

                </td>

                <td>



                </td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color:
green">Organization:</td>

                <td>

                <h:inputText
value="#{referenceManagerBean.tempManual.organization}"
size="38"></h:inputText>

                </td>

                <td>



                </td>

                <td>



                </td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

                <td>

                <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempManual.authors}"></h:inpu
tTextarea>

                <h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

                </td>

                <td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color:
green">Publication</td>

                <td>

                 

                <h:outputText style="color:green" value="Month: " />

                <h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempManual.month}" >

                  <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

                  <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

                  <f:selectItem itemValue="March"
itemLabel="March"/>

                  <f:selectItem itemValue="April" itemLabel="April"/>

                  <f:selectItem itemValue="May" itemLabel="May"/>
```

```
                <f:selectItem itemValue="June" itemLabel="June"/>

                <f:selectItem itemValue="July" itemLabel="July"/>

                <f:selectItem itemValue="August"
itemLabel="August"/>

                <f:selectItem itemValue="September"
itemLabel="September"/>

                <f:selectItem itemValue="October"
itemLabel="October"/>

                <f:selectItem itemValue="November"
itemLabel="November"/>

                <f:selectItem itemValue="December"
itemLabel="December"/>

            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempManual.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align: right; color: green">Url:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempManual.url}"
size="38"></h:inputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align: right; color: green">File:</td>

            <td>

            <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempManual.note}"></h:inputTe
xtarea>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempManual.selected}" /></td>

            <td>

            Make publicly available.

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>


            <td style="text-align:
right"><br></br><br></br><u></u></td>

            <td></td>

            <td></td>

            <td><br></br><br></br>

            <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoManual}"
actionListener="#{referenceManagerBean.addManual}"><f:param
value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
                                    </div>
                                    <!-- Side Bar -->
                                    <div id="sidebar">
                                    <h:form>
                                        <ul>
                                            <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
```

```
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                                </li>
                                    </h:panelGroup>
                                    <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                    </li>
                                    <li>
                                                <h2>External
Links</h2>
                                                <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                                </ul>
                                    </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>


</body>

</html>
</f:view>
```

addTech.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
<html xmlns="http://www.w3.org/1999/xhtml">

<head>
            <title><h:outputText
value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
            <script type="text/javascript"
src="../javascript/jquery.js"></script>
            <script type="text/javascript"
src="../javascript/dialog.js"></script>
            <script type="text/javascript"
src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {min-width: 75px}
            </style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
Products </a></h1>

            <h1><a>      In
formation - System for Plants</a></h1>
            </div>
</div>

<!-- Menu Pane -->
<h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                    <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                    </li>
                        </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                        <h:form enctype="multipart/form-data">
```

```
                                <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"/>
                                <p><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/></p>
                                        <table  border="0"
width="600" style="margin-left:2%">
                                                <tr>

        <th colspan="2"><u><h3>Technical Report
Information</h3></u><br /></th><td></td>

        <td></td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color: green">Title:</td>

        <td>

        <h:inputText
value="#{referenceManagerBean.tempTech.title}"
size="38"></h:inputText>

        <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

        </td>

        <td>

        <h:outputText style="color:green" value="Number:
"></h:outputText>

        <h:inputText
value="#{referenceManagerBean.tempTech.number}"
size="1"></h:inputText>

        </td>

        <td>



        </td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:
green">Institution:</td>

        <td>

        <h:inputText
value="#{referenceManagerBean.tempTech.institution}"
size="38"></h:inputText>

        <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

        </td>

        <td>



        </td>

        <td>
```

```
        </td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color: green">Type:</td>

        <td>

        <h:inputText
value="#{referenceManagerBean.tempTech.type}"
size="38"></h:inputText>

        </td>

        <td>



        </td>

        <td>



        </td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

        <td>

        <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempTech.authors}"></h:inputT
extarea>

        <h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

        </td>

        <td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:
green">Publication</td>

        <td>

         

        <h:outputText style="color:green" value="Month: " />

        <h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempTech.month}" >

         <f:selectItem itemValue="" itemLabel=""/>
<f:selectItem itemValue="January" itemLabel="January"/>

          <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

          <f:selectItem itemValue="March"
itemLabel="March"/>
```

```
                <f:selectItem itemValue="April" itemLabel="April"/>

                <f:selectItem itemValue="May" itemLabel="May"/>

                <f:selectItem itemValue="June" itemLabel="June"/>

                <f:selectItem itemValue="July" itemLabel="July"/>

                <f:selectItem itemValue="August"
itemLabel="August"/>

                <f:selectItem itemValue="September"
itemLabel="September"/>

                <f:selectItem itemValue="October"
itemLabel="October"/>

                <f:selectItem itemValue="November"
itemLabel="November"/>

                <f:selectItem itemValue="December"
itemLabel="December"/>

            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempTech.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">Url:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempTech.url}"
size="38"></h:inputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">File:</td>

            <td>

            <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempTech.note}"></h:inputText
area>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempTech.selected}" /></td>

            <td>

            Make publicly available.

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right"><br></br><br></br><u></u></td>

            <td></td>

            <td></td>

            <td><br></br><br></br>

            <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoTech}"
actionListener="#{referenceManagerBean.addTech}"><f:param
value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
                                    </div>
                                    <!-- Side Bar -->
                                    <div id="sidebar">
                                    <h:form>
                                        <ul>
                                            <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

            <h2>Administration</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
```

```
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>


        </body>

        </html>
</f:view>
```

addThesis.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
                <script type="text/javascript"
  src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 75px}
                </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
  Products </a></h1>

                <h1><a>      In
  formation - System for Plants</a></h1>
                </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                                </li>
                        </ul>
                </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
                <!-- Content Pane -->
```

```
<div id="content">
<!-- Post Pane -->
<div class="post">
<h:form enctype="multipart/form-data">
<h:commandLink value="[Back]" style="color: green; margin-left: 75%" action="refProject"/>
<p><h:outputText value="#{referenceManagerBean.referenceErrorMess}" styleClass="errorMessage" style="margin-left: 2%"/></p>
<table  border="0" width="600" style="margin-left:2%">
<tr>

<th colspan="2"><u><h3>Thesis Information</h3></u><br /></th><td></td>

<td></td>
</tr>
<tr>

<td style="text-align: right; color: green">Title:</td>

<td>

<h:inputText value="#{referenceManagerBean.tempThesis.title}" size="38"></h:inputText>

<h:outputText value="*" styleClass="errorMessage"></h:outputText>

</td>

<td>



</td>

<td>



</td>
</tr>
<tr>

<td style="text-align: right; color: green; padding-bottom: 35px">Author/s:</td>

<td>

<h:inputTextarea rows="3" cols="30" value="#{referenceManagerBean.tempThesis.authors}"></h:input Textarea>

<h:outputText value="*" styleClass="errorMessage" style="position: absolute"></h:outputText>

</td>

<td colspan="2">Format: "firstname lastname".<br />Separate different entries<br /> with " and ".</td>
</tr>
<tr>

<td style="text-align: right;color:green; padding-bottom: 35px">Adviser/s:</td>

<td>

<h:inputTextarea rows="3" cols="30" value="#{referenceManagerBean.tempThesis.advisers}"></h:input Textarea>

</td>

<td colspan="2"></td>
</tr>
<tr>

<td style="text-align: right; color: green">School:</td>

<td>

<h:inputText value="#{referenceManagerBean.tempThesis.school}" size="38"></h:inputText>

<h:outputText value="*" styleClass="errorMessage"></h:outputText>

</td>

<td>



</td>

<td>



</td>
</tr>
<tr>

<td style="text-align: right; color: green">Address:</td>

<td>

<h:inputText value="#{referenceManagerBean.tempThesis.address}" size="38"></h:inputText>

</td>

<td>



</td>

<td>



</td>
</tr>
<tr>

<td style="text-align: right; color: green">Publication</td>

<td>
```

```
 

<h:outputText style="color:green" value="Month: " />

<h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempThesis.month}" >

 <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

<f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

<f:selectItem itemValue="March"
itemLabel="March"/>

<f:selectItem itemValue="April" itemLabel="April"/>

<f:selectItem itemValue="May" itemLabel="May"/>

<f:selectItem itemValue="June" itemLabel="June"/>

<f:selectItem itemValue="July" itemLabel="July"/>

<f:selectItem itemValue="August"
itemLabel="August"/>

<f:selectItem itemValue="September"
itemLabel="September"/>

<f:selectItem itemValue="October"
itemLabel="October"/>

<f:selectItem itemValue="November"
itemLabel="November"/>

<f:selectItem itemValue="December"
itemLabel="December"/>

</h:selectOneMenu>

    

<h:outputText style="color:green" value="Year: " />

<h:inputText
value="#{referenceManagerBean.tempThesis.year}"
size="4"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green">Url:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempThesis.url}"
size="38"></h:inputText>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green">File:</td>

<td>

<t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempThesis.note}"></h:inputTex
tarea>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempThesis.selected}" /></td>

<td>

Make publicly available.

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align:
right"><br></br><br></br><u></u></td>

<td></td>

<td></td>

<td><br></br><br></br>

<h:commandButton value="Save"
action="#{referenceManagerBean.getToGoThesis}"
actionListener="#{referenceManagerBean.addThesis}"><f:param
value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
                                    </div>
                                    <!-- Side Bar -->
                                    <div id="sidebar">
```

```
		<h:form>
			<ul>
				<h:panelGroup
rendered="#{userBean.admin}">
					<li>

		<h2>Administration</h2>
						<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
					</li>
				</h:panelGroup>
				<li>
					<h2>Menu</h2>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
					<h3> </h3>
				</li>
				<li>
					<h2>External
Links</h2>
					<ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
					</ul>
				</li>
			</ul>
		</h:form>
	</div>
	<!-- Filler -->
	<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>


</body>

</html>
</f:view>
```

addUnpublished.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
		<script type="text/javascript"
  src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {min-width: 75px}
		</style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
  Products </a></h1>

		<h1><a>      In
  formation - System for Plants</a></h1>
		</div>
  </div>

  <!-- Menu Pane -->
  <h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
  action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
  action="editAccount" value="Account"
```

```
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                        </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                        <h:form enctype="multipart/form-data">
                                <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"/>
                                <p><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/></p>
                                        <table  border="0"
width="600" style="margin-left:2%">
                                                <tr>

                <th colspan="2"><u><h3>Unpublished
Information</h3></u><br /></th><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green">Title:</td>

                <td>

                <h:inputText
value="#{referenceManagerBean.tempUnpublished.title}"
size="38"></h:inputText>

                <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                </td>

                <td>



                </td>

                <td>



                </td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

                <td>

                        <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempUnpublished.authors}"></h
:inputTextarea>

                        <h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

                        </td>

                        <td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                                                </tr>
                                                                <tr>


                        <td style="text-align: right; color:
green">Creation</td>

                        <td>

                         

                        <h:outputText style="color:green" value="Month: " />

                        <h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempUnpublished.month}" >

                         <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

                         <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

                         <f:selectItem itemValue="March"
itemLabel="March"/>

                         <f:selectItem itemValue="April" itemLabel="April"/>

                         <f:selectItem itemValue="May" itemLabel="May"/>

                         <f:selectItem itemValue="June" itemLabel="June"/>

                         <f:selectItem itemValue="July" itemLabel="July"/>

                         <f:selectItem itemValue="August"
itemLabel="August"/>

                         <f:selectItem itemValue="September"
itemLabel="September"/>

                         <f:selectItem itemValue="October"
itemLabel="October"/>

                         <f:selectItem itemValue="November"
itemLabel="November"/>

                         <f:selectItem itemValue="December"
itemLabel="December"/>

                        </h:selectOneMenu>

                            

                        <h:outputText style="color:green" value="Year: " />

                        <h:inputText
value="#{referenceManagerBean.tempUnpublished.year}"
size="4"></h:inputText>
```

```
<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green">Url:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempUnpublished.url}"
size="38"></h:inputText>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green">File:</td>

<td>

<t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempUnpublished.note}"></h:in
putTextarea>



</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>


<td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempUnpublished.selected}"
/></td>

<td>

Make publicly available.

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align:
right"><br></br><br></br><u></u></td>

<td></td>

<td></td>

<td><br></br><br></br>

<h:commandButton value="Save"
action="#{referenceManagerBean.getToGoUnpub}"
actionListener="#{referenceManagerBean.addUnpublished}"><f:p
aram value="#{projectBean.projectId}" id="projectId"
/></h:commandButton></td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
                                    </div>
                                    <!-- Side Bar -->
                                    <div id="sidebar">
                                    <h:form>
                                        <ul>
                                            <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

<h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
                                                </li>
                                            </h:panelGroup>
                                            <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
```

```
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>


</body>

</html>
</f:view>
```

editArticle.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
                <script type="text/javascript"
  src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 75px}
                </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
Products </a></h1>

                <h1><a>      In
formation - System for Plants</a></h1>
                </div>
</div>

<!-- Menu Pane -->
<h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <h:form
enctype="multipart/form-data">
                                <h:commandLink style="color:
green; margin-left: 75%" value="[Back]" action="article"
actionListener="#{referenceManagerBean.getArticle}"><f:param
id="chosen" value="#{referenceManagerBean.tempArticle.id}"
/></h:commandLink>
                                <br /><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/>

                                        <table  border="0"
width="600" style="margin-left:2%">
                                                <tr>

                <th colspan="2"><u><h3>Article
Information</h3></u><br /></th><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green">Article
Title:</td>

                <td>

                <h:inputText
```

```
value="#{referenceManagerBean.tempArticle.title}"
size="38"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td style="text-align: right; color: green">

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">Journal
Title:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempArticle.journal}"
size="38"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td style="text-align: right; color: green">

            </td>

            <td style="text-align: right; color: green">

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempArticle.authors}"></h:input
Textarea>

            <h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

            </td>

            <td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>

                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:
green">Publication</td>

            <td>

             

            <h:outputText style="color:green" value="Month: " />

                <h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempArticle.month}" >

                <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

                <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

                <f:selectItem itemValue="March"
itemLabel="March"/>

                <f:selectItem itemValue="April" itemLabel="April"/>

                <f:selectItem itemValue="May" itemLabel="May"/>

                <f:selectItem itemValue="June" itemLabel="June"/>

                <f:selectItem itemValue="July" itemLabel="July"/>

                <f:selectItem itemValue="August"
itemLabel="August"/>

                <f:selectItem itemValue="September"
itemLabel="September"/>

                <f:selectItem itemValue="October"
itemLabel="October"/>

                <f:selectItem itemValue="November"
itemLabel="November"/>

                <f:selectItem itemValue="December"
itemLabel="December"/>

            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempArticle.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td>

            </td>

            <td colspan="2">

            <font style="color:green">Pages: </font><h:inputText
value="#{referenceManagerBean.tempArticle.pages}"
size="1"></h:inputText>

            <font style="color:green; margin-left: 10px">Volume:
</font><h:inputText
```

```
value="#{referenceManagerBean.tempArticle.volume}"
size="1"></h:inputText>

		<font style="color:green; margin-left: 10px">Issue:
</font><h:inputText
value="#{referenceManagerBean.tempArticle.issue}"
size="1"></h:inputText>

		</td>

		<td>

		</td>
                                                        </tr>
                                                        <tr>

		<td style="text-align: right; color: green">Url:</td>

		<td>

		<h:inputText
value="#{referenceManagerBean.tempArticle.url}"
size="38"></h:inputText>

		</td><td></td>

		<td></td>
                                                        </tr>
                                                        <tr>

		<td style="text-align: right; color:green">File:</td>

		<td>

		<h:panelGroup
rendered="#{referenceManagerBean.tempArticle.filename !=
null}">

			<h:commandLink value="Delete uploaded
file" actionListener="#{referenceManagerBean.deleteArticleFile}"
/>

		</h:panelGroup>

		<h:panelGroup
rendered="#{referenceManagerBean.tempArticle.filename ==
null}">

			<t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

		</h:panelGroup>

		</td><td></td>

		<td></td>
                                                        </tr>
                                                        <tr>

		<td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

		<td>

		<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempArticle.note}"></h:inputTe
xtarea>

		</td><td></td>

		<td></td>
                                                        </tr>
                                                        <tr>

		<td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempArticle.selected}" /></td>

		<td>

		Make publicly available.

		</td><td></td>

		<td></td>
                                                        </tr>
                                                        <tr>

		<td><br></br><br></br><u></u></td>

		<td></td><td></td>

		<td><br></br><br></br>

		<h:commandButton value="Save"
action="#{referenceManagerBean.getToGoArticle}"
actionListener="#{referenceManagerBean.editArticle}"/>

		</td>
                                                        </tr>
                                                </table>
                                        </h:form>
                                </div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
			<ul>
				<h:panelGroup
rendered="#{userBean.admin}">
                                                        <li>

		<h2>Administration</h2>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
                                                        </li>
                                        </h:panelGroup>
                                        <li>
```

```
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>


        </body>

        </html>
</f:view>
```

editBook.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
   %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
                <title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
                <script type="text/javascript"
src="../javascript/jquery.js"></script>
                <script type="text/javascript"
src="../javascript/dialog.js"></script>
                <script type="text/javascript"
src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 75px}
                </style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
Products </a></h1>

                <h1><a>      In
formation - System for Plants</a></h1>
                </div>
</div>

<!-- Menu Pane -->
<h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                        <h:form enctype="multipart/form-data">
                        <h:commandLink value="[Back]"
action="book"
actionListener="#{referenceManagerBean.getBook}" style="color:
green; margin-left: 75%"><f:param
value="#{referenceManagerBean.tempBook.id}" id="bookId"
/></h:commandLink>
                                <br /><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/>

                                        <table  border="0"
width="600" style="margin-left:2%">
                                                <tr>
```

```
<th colspan="2"><u><h3>Book
Information</h3></u><br /></th><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green">Title:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempBook.title}"
size="38"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td>

</td>

<td>



</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:
green">Publisher:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempBook.publisher}"
size="38"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td>



</td>

<td>



</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBook.authors}"></h:inputT
extarea>

<h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

</td>

<td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green; padding-
bottom: 35px">Editor/s:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBook.editors}"></h:inputT
extarea>

</td>

<td colspan="2"></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:
green">Publication</td>

<td>

 

<h:outputText style="color:green" value="Month: " />

<h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempBook.month}" >

 <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

 <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

 <f:selectItem itemValue="March"
itemLabel="March"/>

 <f:selectItem itemValue="April" itemLabel="April"/>

 <f:selectItem itemValue="May" itemLabel="May"/>

 <f:selectItem itemValue="June" itemLabel="June"/>

 <f:selectItem itemValue="July" itemLabel="July"/>

 <f:selectItem itemValue="August"
itemLabel="August"/>

 <f:selectItem itemValue="September"
itemLabel="September"/>

 <f:selectItem itemValue="October"
itemLabel="October"/>

 <f:selectItem itemValue="November"
itemLabel="November"/>

 <f:selectItem itemValue="December"
itemLabel="December"/>
```

```
            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempBook.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td></td>

            <td colspan="2">

            <h:outputText value="Edition: "
style="color:green"></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempBook.edition}"
size="1"></h:inputText>

            <h:outputText value="Volume: " style="color:green;
margin-left: 10px"></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempBook.volume}"
size="1"></h:inputText>

            <h:outputText style="color:green; margin-left: 10px"
value="Series: "></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempBook.series}"
size="1"></h:inputText>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green">Url:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempBook.url}"
size="38"></h:inputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green">File:</td>

            <td>

            <h:panelGroup
rendered="#{referenceManagerBean.tempBook.filename !=
null}">

                        <h:commandLink value="Delete uploaded
file" actionListener="#{referenceManagerBean.deleteBookFile}"
/>

            </h:panelGroup>

            <h:panelGroup
rendered="#{referenceManagerBean.tempBook.filename ==
null}">

                        <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

            </h:panelGroup>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color: green; padding-
bottom: 35px">Note:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBook.note}"></h:inputText
area>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempBook.selected}" /></td>

            <td>

            Make publicly available.

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td><br></br><br></br><u></u></td>

            <td></td><td></td>

            <td><br></br><br></br>

            <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoBook}"
actionListener="#{referenceManagerBean.editBook}"/>

            </td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
```

```
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
			<ul>
				<h:panelGroup
rendered="#{userBean.admin}">
					<li>

		<h2>Administration</h2>
					<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
					</li>
				</h:panelGroup>
				<li>
					<h2>Menu</h2>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
					<h3> </h3>
				</li>
				<li>
					<h2>External
Links</h2>
					<ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
					</ul>
				</li>
			</ul>
		</h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>


	</body>

	</html>
</f:view>
```

editBooklet.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
		<script type="text/javascript"
  src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {min-width: 75px}
		</style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
  Products </a></h1>

		<h1><a>      In
  formation - System for Plants</a></h1>
		</div>
  </div>

  <!-- Menu Pane -->
  <h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
  action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
			</ul>
```

```
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <h:form
enctype="multipart/form-data">
                                <h:commandLink style="margin-
left: 75%; color: green" value="[Back]" action="booklet"
actionListener="#{referenceManagerBean.getBooklet}"><f:param
value="#{referenceManagerBean.tempBooklet.id}"
id="bookletId" /></h:commandLink>
                                <br /><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/>

                                        <table  border="0"
width="600" style="margin-left:2%">
                                                <tr>

                <th colspan="2"><u><h3>Booklet
Information</h3></u><br /></th><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green">Title:</td>

                <td>

                <h:inputText
value="#{referenceManagerBean.tempBooklet.title}"
size="38"></h:inputText>

                <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

                </td>

                <td>



                </td>

                <td>



                </td>
                                                </tr>
                                                <tr>

                <td style="text-align: right; color: green; padding-
bottom: 35px"">Author/s:</td>

                <td>

                <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBooklet.authors}"></h:inpu
tTextarea>

                <h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

                </td>

                <td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                                </tr>
                                                <tr>


                <td style="text-align: right; color:
green">Publication</td>

                <td>

                 

                <h:outputText style="color:green" value="Month: " />

                <h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempBooklet.month}" >

                  <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

                  <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

                  <f:selectItem itemValue="March"
itemLabel="March"/>

                  <f:selectItem itemValue="April" itemLabel="April"/>

                  <f:selectItem itemValue="May" itemLabel="May"/>

                  <f:selectItem itemValue="June" itemLabel="June"/>

                  <f:selectItem itemValue="July" itemLabel="July"/>

                  <f:selectItem itemValue="August"
itemLabel="August"/>

                  <f:selectItem itemValue="September"
itemLabel="September"/>

                  <f:selectItem itemValue="October"
itemLabel="October"/>

                  <f:selectItem itemValue="November"
itemLabel="November"/>

                  <f:selectItem itemValue="December"
itemLabel="December"/>

                </h:selectOneMenu>

                    
```

```
<h:outputText style="color:green" value="Year: " />

<h:inputText
value="#{referenceManagerBean.tempBooklet.year}"
size="4"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green; padding-
bottom: 35px"">How Published</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBooklet.howPublished}"><
/h:inputTextarea>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green">Url:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempBooklet.url}"
size="38"></h:inputText>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green">File:</td>

<td>

<h:panelGroup
rendered="#{referenceManagerBean.tempBooklet.filename !=
null}">

                        <h:commandLink value="Delete uploaded
file"
actionListener="#{referenceManagerBean.deleteBookletFile}" />

</h:panelGroup>

<h:panelGroup
rendered="#{referenceManagerBean.tempBooklet.filename ==
null}">

                        <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

</h:panelGroup>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color: green; padding-
bottom: 35px"">Note:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempBooklet.note}"></h:inputT
extarea>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempBooklet.selected}" /></td>

<td>

Make publicly available.

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td><br></br><br></br><u></u></td>

<td></td><td></td>

<td><br></br><br></br>

<h:commandButton value="Save"
action="#{referenceManagerBean.getToGoBooklet}"
actionListener="#{referenceManagerBean.editBooklet}"/>

</td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>

<h2>Administration</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
```

```
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>


        </body>

        </html>
</f:view>
```

editCollection.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
                <script type="text/javascript"
  src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 75px}
                </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
  Products </a></h1>

                <h1><a>      In
  formation - System for Plants</a></h1>
                </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                                </li>
                        </ul>
                </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
                <!-- Content Pane -->
```

```
<div id="content">
<!-- Post Pane -->
<div class="post">
<h:form enctype="multipart/form-data">
<h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="collection"
actionListener="#{referenceManagerBean.getCollection}"><f:para
m value="#{referenceManagerBean.tempCollection.id}"
id="collectionId" /></h:commandLink>
<br /><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/>
<table  border="0"
width="600" style="margin-left:2%">
<tr>

<th colspan="2"><u><h3>Incollection
Information</h3></u><br /></th><td></td>

<td></td>
</tr>
<tr>

<td style="text-align: right; color: green">Title:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempCollection.title}"
size="38"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td>

</td>

<td>



</td>
</tr>
<tr>

<td style="text-align: right; color: green">Book
Title:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempCollection.bookTitle}"
size="38"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td>

</td>

<td>

</td>
</tr>
<tr>

<td style="text-align: right; color:
green">Publisher:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempCollection.publisher}"
size="38"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td>

</td>

<td>



</td>
</tr>
<tr>

<td style="text-align: right; color:
green">Organization:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempCollection.organization}"
size="38"></h:inputText>

</td>

<td>



</td>

<td>


</td>
</tr>
<tr>

<td style="text-align: right; color: green; padding-
bottom: 35px">Author/s:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempCollection.authors}"></h:in
putTextarea>

<h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

</td>
```

```
<td colspan="2">Format: "firstname lastname".<br />Separate different entries<br /> with " and ".</td>
</tr>
<tr>

<td style="text-align: right; color: green; padding-bottom: 35px">Editor/s:</td>

<td>

<h:inputTextarea rows="3" cols="30" value="#{referenceManagerBean.tempCollection.editors}"></h:inputTextarea>

<h:outputText value="*" styleClass="errorMessage" style="position: absolute"></h:outputText>

</td>

<td colspan="2"></td>
</tr>
<tr>

<td style="text-align: right; color: green">Publication</td>

<td>

 

<h:outputText style="color:green" value="Month: " />

<h:selectOneMenu id="chooseCarColor" value="#{referenceManagerBean.tempCollection.month}" >

 <f:selectItem itemValue="" itemLabel=""/>
<f:selectItem itemValue="January" itemLabel="January"/>

 <f:selectItem itemValue="Febuary" itemLabel="Febuary"/>

 <f:selectItem itemValue="March" itemLabel="March"/>

 <f:selectItem itemValue="April" itemLabel="April"/>

 <f:selectItem itemValue="May" itemLabel="May"/>

 <f:selectItem itemValue="June" itemLabel="June"/>

 <f:selectItem itemValue="July" itemLabel="July"/>

 <f:selectItem itemValue="August" itemLabel="August"/>

 <f:selectItem itemValue="September" itemLabel="September"/>

 <f:selectItem itemValue="October" itemLabel="October"/>

 <f:selectItem itemValue="November" itemLabel="November"/>

 <f:selectItem itemValue="December" itemLabel="December"/>

</h:selectOneMenu>

    

<h:outputText style="color:green" value="Year: " />

<h:inputText value="#{referenceManagerBean.tempCollection.year}" size="4"></h:inputText>

<h:outputText value="*" styleClass="errorMessage"></h:outputText>

</td>

<td></td>

<td></td>
</tr>
<tr>

<td></td>

<td colspan="3">

<h:outputText style="color:green" value="Pages: "></h:outputText>

<h:inputText value="#{referenceManagerBean.tempCollection.pages}" size="1"></h:inputText>

<h:outputText style="color:green; margin-left: 10px" value="Edition: "></h:outputText>

<h:inputText value="#{referenceManagerBean.tempCollection.edition}" size="1"></h:inputText>

<h:outputText style="color:green; margin-left: 10px" value="Volume: "></h:outputText>

<h:inputText value="#{referenceManagerBean.tempCollection.volume}" size="1"></h:inputText>

<h:outputText style="color:green; margin-left: 10px" value="Series: "></h:outputText>

<h:inputText value="#{referenceManagerBean.tempCollection.series}" size="1"></h:inputText>

</td>
</tr>
<tr>

<td style="text-align: right;color:green">Url:</td>

<td>

<h:inputText value="#{referenceManagerBean.tempCollection.url}" size="38"></h:inputText>

</td><td></td>

<td></td>
</tr>
```

```
                                                    <tr>

                <td style="text-align: right; color:green">File:</td>

                <td>

                <h:panelGroup
rendered="#{referenceManagerBean.tempCollection.filename !=
null}">

                                <h:commandLink value="Delete uploaded
file"
actionListener="#{referenceManagerBean.deleteCollectionFile}"
/>

                </h:panelGroup>

                <h:panelGroup
rendered="#{referenceManagerBean.tempCollection.filename ==
null}">

                                <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

                </h:panelGroup>

                </td><td></td>

                <td></td>
                                                    </tr>
                                                    <tr>

                <td style="text-align: right;color:green; padding-
bottom: 35px">Note:</td>

                <td>

                <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempCollection.note}"></h:input
Textarea>

                </td><td></td>

                <td></td>
                                                    </tr>
                                                    <tr>

                <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempCollection.selected}"
/></td>

                <td>

                Make publicly available.

                </td><td></td>

                <td></td>
                                                    </tr>
                                                    <tr>

                <td><br></br><br></br><u></u></td>

                <td></td><td></td>

                <td><br></br><br></br>

                <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoCollection}"
actionListener="#{referenceManagerBean.editCollection}"/>

                </td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
                                    </div>
                                    <!-- Side Bar -->
                                    <div id="sidebar">
                                    <h:form>
                                        <ul>
                                            <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                </li>
                                            </h:panelGroup>
                                            <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                            </li>
                                            <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>
```

```
                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>


    </body>

    </html>
</f:view>
```

editInbook.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
    %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
                <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
                <script type="text/javascript"
    src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 75px}
                </style>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

                <h1><a>      In
    formation - System for Plants</a></h1>
                </div>
    </div>

    <!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                        <h:form
enctype="multipart/form-data">
                        <h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="inbook"
actionListener="#{referenceManagerBean.getInbook}"><f:param
value="#{referenceManagerBean.tempInbook.id}" id="inbookId"
/></h:commandLink>
                        <br /><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/>
                                <table  border="0"
width="600" style="margin-left:2%">
                                        <tr>

        <th colspan="2"><u><h3>Inbook
Information</h3></u><br /></th><td></td>

        <td></td>
                                        </tr>
                                        <tr>

        <td style="text-align: right;color:green">Book
Title:</td>

        <td>

        <h:inputText
value="#{referenceManagerBean.tempInbook.bookTitle}"
size="38"></h:inputText>

        <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

        </td>

        <td>

        </td>
```

```
<td>



</td>
                                                    </tr>
                                                    <tr>

<td style="text-align:
right;color:green">Publisher:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempInbook.publisher}"
size="38"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td>

</td>

<td>



</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right;color:green; padding-
bottom: 35px">Author/s:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempInbook.authors}"></h:input
Textarea>

<h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

</td>

<td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right;color:green; padding-
bottom: 35px">Editor/s:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempInbook.editors}"></h:input
Textarea>

</td>

<td colspan="2"></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right;color:green">Chapter
Title:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempInbook.chapTitle}"
size="38"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td>

<h:outputText style="color:green" value="Pages:
"></h:outputText> 

<h:inputText
value="#{referenceManagerBean.tempInbook.pages}"
size="1"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td>



</td>
                                                    </tr>
                                                    <tr>

<td style="text-align:
right;color:green">Publication</td>

<td>

 

<h:outputText style="color:green" value="Month: " />

<h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempInbook.month}" >

<f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

<f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

<f:selectItem itemValue="March"
itemLabel="March"/>

<f:selectItem itemValue="April" itemLabel="April"/>

<f:selectItem itemValue="May" itemLabel="May"/>

<f:selectItem itemValue="June" itemLabel="June"/>

<f:selectItem itemValue="July" itemLabel="July"/>

<f:selectItem itemValue="August"
itemLabel="August"/>
```

```
                <f:selectItem itemValue="September"
itemLabel="September"/>

                <f:selectItem itemValue="October"
itemLabel="October"/>

                <f:selectItem itemValue="November"
itemLabel="November"/>

                <f:selectItem itemValue="December"
itemLabel="December"/>

            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempInbook.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td></td>

            <td colspan="2">

            <h:outputText style="color:green" value="Edition:
"></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempInbook.edition}"
size="1"></h:inputText>

            <h:outputText style="color:green; margin-left: 10px"
value="Volume: "></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempInbook.volume}"
size="1"></h:inputText>

            <h:outputText style="color:green; margin-left: 10px"
value="Series: "></h:outputText>

            <h:inputText
value="#{referenceManagerBean.tempInbook.series}"
size="1"></h:inputText>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right;color:green">Url:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempInbook.url}"
size="38"></h:inputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green">File:</td>

            <td>

            <h:panelGroup
rendered="#{referenceManagerBean.tempInbook.filename !=
null}">

                    <h:commandLink value="Delete uploaded
file" actionListener="#{referenceManagerBean.deleteInbookFile}"
/>

            </h:panelGroup>

            <h:panelGroup
rendered="#{referenceManagerBean.tempInbook.filename ==
null}">

                    <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

            </h:panelGroup>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right;color:green; padding-
bottom: 35px">Note:</td>

            <td>

            <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempInbook.note}"></h:inputTe
xtarea>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempInbook.selected}" /></td>

            <td>

            Make publicly available.

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td><br></br><br></br><u></u></td>

            <td></td><td></td>
```

```
		<td><br></br><br></br>

		<h:commandButton value="Save"
action="#{referenceManagerBean.getToGoInbook}"
actionListener="#{referenceManagerBean.editInbook}"/>

		</td>
                                                        </tr>
                                                </table>
                                        </h:form>
                                </div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
                                <ul>
                                        <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

		<h2>Administration</h2>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>
		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

                                                        <h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
                                                                </ul>
                                                        </li>
                                                </ul>
                                                </h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>


	</body>

	</html>
</f:view>
```

editManual.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
		<script type="text/javascript"
  src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {min-width: 75px}
		</style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
  Products </a></h1>
```

```
		<h1><a>      In
formation - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
				</li>
			</ul>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<h:form
enctype="multipart/form-data">
				<h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="manual"
actionListener="#{referenceManagerBean.getManual}"><f:param
value="#{referenceManagerBean.tempManual.id}" id="manualId"
/></h:commandLink>
				<br /><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/>
					<table  border="0"
width="600" style="margin-left:2%">
						<tr>

		<th colspan="2"><u><h3>Manual
Information</h3></u><br /></th><td></td>

		<td></td>
						</tr>
						<tr>

		<td style="text-align: right;color:green">Title:</td>

		<td>

		<h:inputText
value="#{referenceManagerBean.tempManual.title}"
size="38"></h:inputText>

		<h:outputText value="*"
styleClass="errorMessage"></h:outputText>
		</td>

		<td>

		<h:outputText style="color:green" value="Edition:
"></h:outputText>

		<h:inputText
value="#{referenceManagerBean.tempManual.edition}"
size="1"></h:inputText>

		</td>

		<td>



		</td>
						</tr>
						<tr>

		<td style="text-align:
right;color:green">Organization:</td>

		<td>

		<h:inputText
value="#{referenceManagerBean.tempManual.organization}"
size="38"></h:inputText>

		</td>

		<td>



		</td>

		<td>



		</td>
						</tr>
						<tr>

		<td style="text-align: right;color:green; padding-
bottom: 35px">Author/s:</td>

		<td>

		<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempManual.authors}"></h:inpu
tTextarea>

		<h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

		</td>

		<td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
						</tr>
						<tr>

		<td style="text-align:
right;color:green">Publication</td>

		<td>
```

```
		 

		<h:outputText style="color:green" value="Month: " />

		<h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempManual.month}" >

		 <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

		<f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

		<f:selectItem itemValue="March"
itemLabel="March"/>

		<f:selectItem itemValue="April" itemLabel="April"/>

		<f:selectItem itemValue="May" itemLabel="May"/>

		<f:selectItem itemValue="June" itemLabel="June"/>

		<f:selectItem itemValue="July" itemLabel="July"/>

		<f:selectItem itemValue="August"
itemLabel="August"/>

		<f:selectItem itemValue="September"
itemLabel="September"/>

		<f:selectItem itemValue="October"
itemLabel="October"/>

		<f:selectItem itemValue="November"
itemLabel="November"/>

		<f:selectItem itemValue="December"
itemLabel="December"/>

		</h:selectOneMenu>

		    

		<h:outputText style="color:green" value="Year: " />

		<h:inputText
value="#{referenceManagerBean.tempManual.year}"
size="4"></h:inputText>

		<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

		</td>

		<td></td>

		<td></td>
```

</tr>
<tr>

```
		<td style="text-align: right;color:green">Url:</td>

		<td>

		<h:inputText
value="#{referenceManagerBean.tempManual.url}"
size="38"></h:inputText>

		</td><td></td>

		<td></td>
```

</tr>
<tr>

```
		<td style="text-align: right; color:green">File:</td>

		<td>

		<h:panelGroup
rendered="#{referenceManagerBean.tempManual.filename !=
null}">

			<h:commandLink value="Delete uploaded
file"
actionListener="#{referenceManagerBean.deleteManualFile}" />

		</h:panelGroup>

		<h:panelGroup
rendered="#{referenceManagerBean.tempManual.filename ==
null}">

			<t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

		</h:panelGroup>

		</td><td></td>

		<td></td>
```

</tr>
<tr>

```
		<td style="text-align: right;color:green; padding-
bottom: 35px">Note:</td>

		<td>

		<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempManual.note}"></h:inputTe
xtarea>

		</td><td></td>

		<td></td>
```

</tr>
<tr>

```
		<td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempManual.selected}" /></td>

		<td>

		Make publicly available.

		</td><td></td>

		<td></td>
```

</tr>
<tr>

```
		<td><br></br><br></br><u></u></td>

		<td></td><td></td>

		<td><br></br><br></br>
```

```
		<h:commandButton value="Save"
action="#{referenceManagerBean.getToGoManual}"
actionListener="#{referenceManagerBean.editManual}"/>

		</td>
                                                        </tr>
                                                </table>
                                        </h:form>
                                </div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
                                <ul>
                                        <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

		<h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">
		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

                                                <h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
                                                </ul>
                                        </li>
                                </ul>
                                </h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>


	</body>

	</html>
</f:view>
```

editTech.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
		<script type="text/javascript"
  src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {min-width: 75px}
		</style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
  Products </a></h1>

		<h1><a>      In
  formation - System for Plants</a></h1>
		</div>
  </div>
```

```
<!-- Menu Pane -->
<h:form>
	<div id="menu">
		<ul id="menulist">
			<li><h:commandLink
action="toHome">Home</h:commandLink></li>
			<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
		</ul>
		<ul style="margin-left: 75%">
			<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
				</h:commandLink>
			</li>
			<li>
				<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
			</li>
		</ul>
	</div>
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<div class="post">
			<h:form
enctype="multipart/form-data">
			<h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="tech"
actionListener="#{referenceManagerBean.getTech}"><f:param
value="#{referenceManagerBean.tempTech.id}" id="reportId"
/></h:commandLink>
			<br /><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/>
				<table  border="0"
width="600" style="margin-left:2%">
					<tr>

	<th colspan="2"><u><h3>Technical Report
Information</h3></u><br /></th><td></td>

	<td></td>
					</tr>
					<tr>

	<td style="text-align: right;color:green">Title:</td>

	<td>

	<h:inputText
value="#{referenceManagerBean.tempTech.title}"
size="38"></h:inputText>

	<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

	</td>

	<td>

	<h:outputText style="color:green" value="Number:
"></h:outputText>

	<h:inputText
value="#{referenceManagerBean.tempTech.number}"
size="1"></h:inputText>

	</td>

	<td>

	</td>
					</tr>
					<tr>

	<td style="text-align:
right;color:green">Institution:</td>

	<td>

	<h:inputText
value="#{referenceManagerBean.tempTech.institution}"
size="38"></h:inputText>

	<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

	</td>

	<td>

	</td>

	<td>

	</td>
					</tr>
					<tr>

	<td style="text-align: right;color:green">Type:</td>

	<td>

	<h:inputText
value="#{referenceManagerBean.tempTech.type}"
size="38"></h:inputText>

	</td>

	<td>

	</td>

	<td>

	</td>
					</tr>
					<tr>
```

```
<td style="text-align: right;color:green; padding-bottom: 35px">Author/s:</td>

<td>

<h:inputTextarea rows="3" cols="30" value="#{referenceManagerBean.tempTech.authors}"></h:inputTextarea>

<h:outputText value="*" styleClass="errorMessage" style="position: absolute"></h:outputText>

</td>

<td colspan="2">Format: "firstname lastname".<br />Separate different entries<br /> with " and ".</td>
</tr>
<tr>

<td style="text-align: right;color:green">Publication</td>

<td>

 

<h:outputText style="color:green" value="Month: " />

<h:selectOneMenu id="chooseCarColor" value="#{referenceManagerBean.tempTech.month}" >

<f:selectItem itemValue="" itemLabel=""/><f:selectItem itemValue="January" itemLabel="January"/>

<f:selectItem itemValue="Febuary" itemLabel="Febuary"/>

<f:selectItem itemValue="March" itemLabel="March"/>

<f:selectItem itemValue="April" itemLabel="April"/>

<f:selectItem itemValue="May" itemLabel="May"/>

<f:selectItem itemValue="June" itemLabel="June"/>

<f:selectItem itemValue="July" itemLabel="July"/>

<f:selectItem itemValue="August" itemLabel="August"/>

<f:selectItem itemValue="September" itemLabel="September"/>

<f:selectItem itemValue="October" itemLabel="October"/>

<f:selectItem itemValue="November" itemLabel="November"/>

<f:selectItem itemValue="December" itemLabel="December"/>

</h:selectOneMenu>

    

<h:outputText style="color:green" value="Year: " />

<h:inputText value="#{referenceManagerBean.tempTech.year}" size="4"></h:inputText>

<h:outputText value="*" styleClass="errorMessage"></h:outputText>

</td>

<td></td>

<td></td>
</tr>
<tr>

<td style="text-align: right;color:green">Url:</td>

<td>

<h:inputText value="#{referenceManagerBean.tempTech.url}" size="38"></h:inputText>

</td><td></td>

<td></td>
</tr>
<tr>

<td style="text-align: right; color:green">File:</td>

<td>

<h:panelGroup rendered="#{referenceManagerBean.tempTech.filename != null}">

<h:commandLink value="Delete uploaded file" actionListener="#{referenceManagerBean.deleteTechFile}" />

</h:panelGroup>

<h:panelGroup rendered="#{referenceManagerBean.tempTech.filename == null}">

<t:inputFileUpload id="file" value="#{referenceManagerBean.uploadedFile}" />

</h:panelGroup>

</td><td></td>

<td></td>
</tr>
<tr>

<td style="text-align: right;color:green; padding-bottom: 35px">Note:</td>

<td>

<h:inputTextarea rows="3" cols="30" value="#{referenceManagerBean.tempTech.note}"></h:inputTextarea>

</td><td></td>
```

```
<td></td>
                                                </tr>
                                                <tr>

<td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempTech.selected}" /></td>

<td>

Make publicly available.

</td><td></td>

<td></td>
                                                </tr>
                                                <tr>

<td><br></br><br></br><u></u></td>

<td></td><td></td>

<td><br></br><br></br>

<h:commandButton value="Save"
action="#{referenceManagerBean.getToGoTech}"
actionListener="#{referenceManagerBean.editTech}"/>

</td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

<h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                                </ul>
                                </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>


        </body>

        </html>
</f:view>
```

editThesis.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
```

```
		<script type="text/javascript"
src="../javascript/jquery.js"></script>
		<script type="text/javascript"
src="../javascript/dialog.js"></script>
		<script type="text/javascript"
src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {min-width: 75px}
		</style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
Products </a></h1>

		<h1><a>      In
formation - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
				</li>
			</ul>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<h:form
enctype="multipart/form-data">
				<h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="thesis"
actionListener="#{referenceManagerBean.getThesis}"><f:param
value="#{referenceManagerBean.tempThesis.id}" id="thesisId"
/></h:commandLink>
				<br /><h:outputText
value="#{referenceManagerBean.referenceErrorMess}"
styleClass="errorMessage" style="margin-left: 2%"/>
					<table  border="0"
width="600" style="margin-left:2%">
						<tr>
```

```
		<th colspan="2"><u><h3>Thesis
Information</h3></u><br /></th><td></td>

		<td></td>
					</tr>
					<tr>

		<td style="text-align: right;color:green">Title:</td>

		<td>

		<h:inputText
value="#{referenceManagerBean.tempThesis.title}"
size="38"></h:inputText>

		<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

		</td>

		<td>



		</td>

		<td>



		</td>
					</tr>
					<tr>

		<td style="text-align: right;color:green; padding-
bottom: 35px">Author/s:</td>

		<td>

		<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempThesis.authors}"></h:input
Textarea>

		<h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

		</td>

		<td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
					</tr>
					<tr>

		<td style="text-align: right;color:green; padding-
bottom: 35px">Adviser/s:</td>

		<td>

		<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempThesis.advisers}"></h:input
Textarea>

		</td>

		<td colspan="2"></td>
					</tr>
					<tr>

		<td style="text-align: right;color:green">School:</td>
```

```
            <td>

            <h:inputText
value="#{referenceManagerBean.tempThesis.school}"
size="38"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td>



            </td>

            <td>



            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right;color:green">Address:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempThesis.address}"
size="38"></h:inputText>

            </td>

            <td>



            </td>

            <td>



            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align:
right;color:green">Publication</td>

            <td>

             

            <h:outputText style="color:green" value="Month: " />

            <h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempThesis.month}" >

              <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

              <f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

              <f:selectItem itemValue="March"
itemLabel="March"/>

              <f:selectItem itemValue="April" itemLabel="April"/>

              <f:selectItem itemValue="May" itemLabel="May"/>

              <f:selectItem itemValue="June" itemLabel="June"/>

              <f:selectItem itemValue="July" itemLabel="July"/>

              <f:selectItem itemValue="August"
itemLabel="August"/>

              <f:selectItem itemValue="September"
itemLabel="September"/>

              <f:selectItem itemValue="October"
itemLabel="October"/>

              <f:selectItem itemValue="November"
itemLabel="November"/>

              <f:selectItem itemValue="December"
itemLabel="December"/>

            </h:selectOneMenu>

                

            <h:outputText style="color:green" value="Year: " />

            <h:inputText
value="#{referenceManagerBean.tempThesis.year}"
size="4"></h:inputText>

            <h:outputText value="*"
styleClass="errorMessage"></h:outputText>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right;color:green">Url:</td>

            <td>

            <h:inputText
value="#{referenceManagerBean.tempThesis.url}"
size="38"></h:inputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green">File:</td>

            <td>

            <h:panelGroup
rendered="#{referenceManagerBean.tempThesis.filename !=
null}">
```

```
                        <h:commandLink value="Delete uploaded
file" actionListener="#{referenceManagerBean.deleteThesisFile}"
/>

                </h:panelGroup>

                <h:panelGroup
rendered="#{referenceManagerBean.tempThesis.filename ==
null}">

                        <t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

                </h:panelGroup>

                </td><td></td>

                <td></td>
                                                        </tr>
                                                        <tr>


                <td style="text-align: right;color:green; padding-
bottom: 35px">Note:</td>

                <td>

                <h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempThesis.note}"></h:inputTex
tarea>

                </td><td></td>

                <td></td>
                                                        </tr>
                                                        <tr>


                <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempThesis.selected}" /></td>

                <td>

                Make publicly available.

                </td><td></td>

                <td></td>
                                                        </tr>
                                                        <tr>


                <td><br></br><br></br><u></u></td>

                <td></td><td></td>

                <td><br></br><br></br>

                <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoThesis}"
actionListener="#{referenceManagerBean.editThesis}"/>

                </td>
                                                        </tr>
                                                </table>
                                        </h:form>
                                </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                                        <ul>
                                                <h:panelGroup
rendered="#{userBean.admin}">
                                                        <li>

                <h2>Administration</h2>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                        </li>
                                                </h:panelGroup>
                                                <li>
                                                        <h2>Menu</h2>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                        <h3> </h3>
                                                </li>
                                                <li>
                                                        <h2>External
Links</h2>
                                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                        </ul>
                                                </li>
                                        </ul>
```

```
                    </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>


    </body>

    </html>
</f:view>
```

editUnpublished.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
   %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
                <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
                <script type="text/javascript"
    src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {min-width: 75px}
                </style>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

                <h1><a>      In
    formation - System for Plants</a></h1>
                </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
    action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
    action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
    action="editAccount" value="Account"
    actionListener="#{userAccountBean.getUserDetails}"><f:param
    id="aUserName" value="#{userBean.username}"/>
                                        </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
    action="logout"
    actionListener="#{userBean.destroySession}">Logout</h:comma
    ndLink>
                                </li>
                        </ul>
                </div>
    </h:form>

    <!-- Main Page -->
    <div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <h:form
    enctype="multipart/form-data">
                                <h:commandLink
    value="[Back]" style="color: green; margin-left: 75%"
    action="unpublished"
    actionListener="#{referenceManagerBean.getUnpublished}"><f:p
    aram value="#{referenceManagerBean.tempUnpublished.id}"
    id="unpubId" /></h:commandLink>
                                <br /><h:outputText
    value="#{referenceManagerBean.referenceErrorMess}"
    styleClass="errorMessage" style="margin-left: 2%"/>
                                        <table  border="0"
    width="600" style="margin-left:2%">
                                                <tr>

                <th colspan="2"><u><h3>Unpublished
    Information</h3></u><br /></th><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td style="text-align: right;color:green">Title:</td>

                <td>

                <h:inputText
    value="#{referenceManagerBean.tempUnpublished.title}"
    size="38"></h:inputText>

                <h:outputText value="*"
    styleClass="errorMessage"></h:outputText>

                </td>

                <td>



                </td>

                <td>



                </td>
                                                </tr>
                                                <tr>

                <td style="text-align: right;color:green; padding-
    bottom: 35px">Author/s:</td>
```

```
<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempUnpublished.authors}"></h
:inputTextarea>

<h:outputText value="*" styleClass="errorMessage"
style="position: absolute"></h:outputText>

</td>

<td colspan="2">Format: "firstname lastname".<br
/>Separate different entries<br /> with " and ".</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right;color:green">Creation</td>

<td>

 

<h:outputText style="color:green" value="Month: " />

<h:selectOneMenu id="chooseCarColor"
value="#{referenceManagerBean.tempUnpublished.month}" >

  <f:selectItem itemValue=""
itemLabel=""/><f:selectItem itemValue="January"
itemLabel="January"/>

<f:selectItem itemValue="Febuary"
itemLabel="Febuary"/>

<f:selectItem itemValue="March"
itemLabel="March"/>

<f:selectItem itemValue="April" itemLabel="April"/>

<f:selectItem itemValue="May" itemLabel="May"/>

<f:selectItem itemValue="June" itemLabel="June"/>

<f:selectItem itemValue="July" itemLabel="July"/>

<f:selectItem itemValue="August"
itemLabel="August"/>

<f:selectItem itemValue="September"
itemLabel="September"/>

<f:selectItem itemValue="October"
itemLabel="October"/>

<f:selectItem itemValue="November"
itemLabel="November"/>

<f:selectItem itemValue="December"
itemLabel="December"/>

</h:selectOneMenu>

    

<h:outputText style="color:green" value="Year: " />

<h:inputText
value="#{referenceManagerBean.tempUnpublished.year}"
size="4"></h:inputText>

<h:outputText value="*"
styleClass="errorMessage"></h:outputText>

</td>

<td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right;color:green">Url:</td>

<td>

<h:inputText
value="#{referenceManagerBean.tempUnpublished.url}"
size="38"></h:inputText>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green">File:</td>

<td>

<h:panelGroup
rendered="#{referenceManagerBean.tempUnpublished.filename
!= null}">

<h:commandLink value="Delete uploaded
file" actionListener="#{referenceManagerBean.deleteUnpubFile}"
/>

</h:panelGroup>

<h:panelGroup
rendered="#{referenceManagerBean.tempUnpublished.filename
== null}">

<t:inputFileUpload id="file"
value="#{referenceManagerBean.uploadedFile}" />

</h:panelGroup>

</td>

<td></td><td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right;color:green; padding-
bottom: 35px">Note:</td>

<td>

<h:inputTextarea rows="3" cols="30"
value="#{referenceManagerBean.tempUnpublished.note}"></h:in
putTextarea>



</td><td></td>

<td></td>
                                                    </tr>
```

```
                                                <tr>

                <td style="text-align:
right"><h:selectBooleanCheckbox
value="#{referenceManagerBean.tempUnpublished.selected}"
/></td>

                <td>

                Make publicly available.

                </td><td></td>

                <td></td>
                                                </tr>
                                                <tr>

                <td><br></br><br></br><u></u></td>

                <td></td><td></td>

                <td><br></br><br></br>

                <h:commandButton value="Save"
action="#{referenceManagerBean.getToGoUnpub}"
actionListener="#{referenceManagerBean.editUnpublished}"/>

                </td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                        <h:dataTable value="#{linksListBean.links}"
var="link">

                        <li><h:column>

                        <h:outputLink value="#{link.addr}" target="_blank">

                                <h:outputText value="#{link.name}" />

                        </h:outputLink>

                        </h:column></li>

                        </h:dataTable>
                                                </ul>
                                        </li>
                                </ul>
                                </h:form>
                        </div>
                        <!-- Filler -->
                        <div style="clear: both;"> </div>
                </div>

                <!-- Footer -->
                <div id="footer"></div>


                </body>

                </html>
        </f:view>
```

viewArticle.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
                <title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
                <script type="text/javascript"
   src="../javascript/jquery.js"></script>
```

```
        <script type="text/javascript"
src="../javascript/dialog.js"></script>
        <script type="text/javascript"
src="../javascript/ajax.js"></script>

</head>

<body>

<!-- Logo Pane -->
<div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
Products </a></h1>

        <h1><a>      In
formation - System for Plants</a></h1>
        </div>
</div>

<!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                <h:form>
                        <h:commandLink style="color:
green; margin-left: 75%" value="[Back]" action="refProject"
actionListener="#{projectBean.initReferences}"
></h:commandLink>
                        <br />

                                <table border="0"
style="width: 600px; margin-left: 2%">
                                        <tr>

        <th colspan="4"><u><h3>Article
Information</h3></u><br /></th>
                                        </tr>
                                        <tr>

        <td style="text-align: right; color: green; width: 80px"
>Article Title:</td>

        <td rowspan="2" style="font-size: 11px; width: 320px;
padding-bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempArticle.title}"></h:outputTe
xt>

        </td>

        <td  colspan="2"><font color="green">

        </td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color: green">Journal
Title:</td>

        <td rowspan="2" style="font-size: 11px; padding-
bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempArticle.journal}"></h:outpu
tText>

        </td>

        <td><font color="green">

        </td>

        <td><font color="green">

        </td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:
green">Author/s:</td>

        <td colspan="3" rowspan="2" style="font-size: 11px;
padding-bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempArticle.displayName}"></h
:outputText>

        </td>

                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green; padding-
bottom: 15px">Publication:</td>

        <td colspan="3" style="padding-bottom: 15px">
```

```
<h:outputText style="color:green" value="Month: " />

<h:outputText  style="font-size: 11px"
value="#{referenceManagerBean.tempArticle.month}"></h:output
Text>

    

<h:outputText style="color:green" value="Year: " />

<h:outputText  style="font-size: 11px"
value="#{referenceManagerBean.tempArticle.year}"></h:outputT
ext>

</td>
                                                    </tr>
                                                    <tr>

<td>

</td>

<td colspan="2">

<font style="color:green">Pages: </font><h:outputText
value="#{referenceManagerBean.tempArticle.pages}"
></h:outputText>

<font style="color:green; margin-left: 10px">Volume:
</font><h:outputText
value="#{referenceManagerBean.tempArticle.volume}"
></h:outputText>

<font style="color:green; margin-left: 10px">Issue:
</font><h:outputText
value="#{referenceManagerBean.tempArticle.issue}"
></h:outputText>

</td>

<td>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green; padding-
bottom: 15px">Url:</td>

<td colspan="3" style="text-align: justify; font-
size:11px; padding-bottom: 15px" >

<h:outputText
value="#{referenceManagerBean.tempArticle.url}"
></h:outputText>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green; padding-
bottom: 15px">File:</td>

<td style="text-align: justify; font-size:11px; padding-
bottom: 15px">

<h:panelGroup
rendered="#{referenceManagerBean.tempArticle.filename !=
null}">

<h:outputLink
value="../file/#{referenceManagerBean.tempArticle.filename}">

<h:outputText value="Click here to
download." />

</h:outputLink>

</h:panelGroup>

<h:panelGroup
rendered="#{referenceManagerBean.tempArticle.filename ==
null}">

<h:outputText value="Not available for
download." />

</h:panelGroup>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green">Note:</td>

<td colspan="3" rowspan="2" style="text-align: justify;
padding-bottom: 15px">

<h:outputText  style="font-size: 11px"
value="#{referenceManagerBean.tempArticle.note}"></h:outputT
ext>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right"></td>

<td>

<h:outputText
rendered="#{referenceManagerBean.tempArticle.selected}"
value="This entry is publicly available."></h:outputText>

<h:outputText
rendered="#{!referenceManagerBean.tempArticle.selected}"
value="This entry is not publicly available."></h:outputText>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td><br></br><br></br><u></u></td>

<td colspan="3" style="text-align: right">

<h:panelGroup rendered="#{projectBean.level >= 3}">

<br></br><br></br>

<h:outputText
```

```
rendered="#{referenceManagerBean.articleDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this article?"></h:outputText>

        <h:outputText
rendered="#{referenceManagerBean.articleDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

        <h:panelGroup
rendered="#{referenceManagerBean.articleDelete}" >

            <br />

            <h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteArticle}"/>

            <h:commandButton value="No"
actionListener="#{referenceManagerBean.articleNotDeleteMode}
"/>

        </h:panelGroup>

        <h:panelGroup
rendered="#{!referenceManagerBean.articleDelete &&
!referenceManagerBean.articleDeleted}">

        <h:commandButton value="Edit" action="editarticle"/>

        <h:commandButton value="Delete"
actionListener="#{referenceManagerBean.articleDeleteMode}"/>

        </h:panelGroup>

        </h:panelGroup>

        </td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
                                    </div>
                                    <!-- Side Bar -->
                                    <div id="sidebar">
                                    <h:form>
                                        <ul>
                                            <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

        <h2>Administration</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

        <h3> </h3>
                                                </li>
                                            </h:panelGroup>
                                            <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                            </li>
                                            <li>
                                                <h2>External
Links</h2>
                                                <ul>

        <h:dataTable value="#{linksListBean.links}"
var="link">

        <li><h:column>

        <h:outputLink value="#{link.addr}" target="_blank">

            <h:outputText value="#{link.name}" />

        </h:outputLink>

        </h:column></li>

        </h:dataTable>
                                                </ul>
                                            </li>
                                        </ul>
                                        </h:form>
                                    </div>
                                    <!-- Filler -->
                                    <div style="clear: both;"> </div>
                                </div>

                                <!-- Footer -->
                                <div id="footer"></div>


                            </body>

                            </html>
                        </f:view>
```

viewBook.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head>
	<title><h:outputText
value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
	<link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
	<script type="text/javascript"
src="../javascript/jquery.js"></script>
	<script type="text/javascript"
src="../javascript/dialog.js"></script>
	<script type="text/javascript"
src="../javascript/ajax.js"></script>
	<style type="text/css">
	td {min-width: 75px}
	</style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
	<div id="logo">
		<h1><a>Health Application for Natural
Products </a></h1>

	<h1><a>      In
formation - System for Plants</a></h1>
	</div>
</div>

<!-- Menu Pane -->
<h:form>
	<div id="menu">
		<ul id="menulist">
			<li><h:commandLink
action="toHome">Home</h:commandLink></li>
			<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
		</ul>
		<ul style="margin-left: 75%">
			<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
</h:commandLink>
			</li>
			<li>
				<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
			</li>
		</ul>
	</div>
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<div class="post">
			<h:form>
			<h:commandLink style="color:
green; margin-left: 75%" value="[Back]" action="refProject"
actionListener="#{projectBean.initReferences}"
></h:commandLink>
			<br />

				<table border="0"
width="600" style="margin-left:2%">
```

```
<tr>

	<th colspan="2"><u><h3>Book
Information</h3></u><br /></th><td></td>

	<td></td>
</tr>
<tr>

	<td style="text-align: right; color:green; width:
80px">Title:</td>

	<td rowspan="2" style="font-size: 11px; width: 320px;
padding-bottom: 15px">

	<h:outputText
value="#{referenceManagerBean.tempBook.title}"
></h:outputText>

	</td>

	<td>

	</td>
</tr>
<tr>

	<td style="text-align: right; color:green"></td>
</tr>
<tr>

	<td style="text-align: right;
color:green">Publisher:</td>

	<td rowspan="2" style="padding-bottom: 15px">

	<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBook.publisher}"></h:outp
utText>

	</td>

	<td>

	</td>

	<td>

	</td>
</tr>
<tr>

	<td style="text-align: right; color:green"></td>
</tr>
<tr>

	<td style="text-align: right;
color:green">Author/s:</td>

	<td rowspan="2" colspan="3" style="padding-bottom:
15px">

	<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBook.displayName}"></h:o
utputText>

	</td>
</tr>
<tr>
```

```
                <td style="text-align: right; color:green"></td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green">Editor/s:</td>

                <td colspan="3" rowspan="2" style="padding-bottom:
15px">

                <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBook.displayEditors}"></h:
outputText>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green"></td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green; padding-
bottom: 15px">Publication</td>

                <td style="padding-bottom: 15px">

                <h:outputText style="color:green" value="Month: " />

                <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBook.month}"></h:outputT
ext>

                    

                <h:outputText style="color:green" value="Year: " />

                <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBook.year}"></h:outputTe
xt>

                </td>

                <td></td>

                <td></td>
                                                        </tr>
                                                        <tr>

                <td></td>

                <td colspan="2">

                <h:outputText value="Edition: "
style="color:green"></h:outputText>

                <h:outputText
value="#{referenceManagerBean.tempBook.edition}"
></h:outputText>

                <h:outputText value="Volume: " style="color:green;
margin-left: 10px"></h:outputText>

                <h:outputText
value="#{referenceManagerBean.tempBook.volume}"
></h:outputText>

                <h:outputText style="color:green; margin-left: 10px"
value="Series: "></h:outputText>

                <h:outputText
value="#{referenceManagerBean.tempBook.series}"
></h:outputText>

                </td>

                <td></td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green; padding-
bottom: 15px">Url:</td>

                <td colspan="3"  style="padding-bottom: 15px">

                <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBook.url}"></h:outputText
>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green; padding-
bottom: 15px">File:</td>

                <td style="text-align: justify; font-size:11px; padding-
bottom: 15px">

                <h:panelGroup
rendered="#{referenceManagerBean.tempBook.filename !=
null}">

                        <h:outputLink
value="../file/#{referenceManagerBean.tempBook.filename}">

                        <h:outputText value="Click here to
download." />

                        </h:outputLink>

                </h:panelGroup>

                <h:panelGroup
rendered="#{referenceManagerBean.tempBook.filename ==
null}">

                        <h:outputText value="Not available for
download." />

                </h:panelGroup>

                </td><td></td>

                <td></td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green">Note:</td>

                <td colspan="3" rowspan="2" style="padding-bottom:
15px">

                <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBook.note}"></h:outputTe
xt>

                </td>
                                                        </tr>
```

```
                                                <tr>

            <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

            <td style="text-align: right"></td>

            <td>

            <h:outputText
rendered="#{referenceManagerBean.tempBook.selected}"
value="This entry is publicly available."></h:outputText>

            <h:outputText
rendered="#{!referenceManagerBean.tempBook.selected}"
value="This entry is not publicly available."></h:outputText>

            </td><td></td>

            <td></td>
                                                </tr>
                                                <tr>

            <td><br></br><br></br><u></u></td>

            <td></td>

            <td colspan="2">

            <h:panelGroup rendered="#{projectBean.level >= 3}">

            <h:outputText
rendered="#{referenceManagerBean.bookDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this book?"></h:outputText><br></br>

            <h:outputText
rendered="#{referenceManagerBean.bookDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

                        <h:panelGroup
rendered="#{referenceManagerBean.bookDelete}" >

                                    <h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteBook}"/>

                                    <h:commandButton value="No"
actionListener="#{referenceManagerBean.bookNotDeleteMode}"/
>

                                    <br />

                        </h:panelGroup>

            <h:panelGroup
rendered="#{!referenceManagerBean.bookDelete &&
!referenceManagerBean.bookDeleted}">

            <h:commandButton value="Edit"  action="editbook"/>

            <h:commandButton value="Delete"
actionListener="#{referenceManagerBean.bookDeleteMode}"/>

            </h:panelGroup>

            </h:panelGroup>

            </td>
                                                </tr>
                                    </table>
                        </h:form>
                    </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                        <ul>
                                    <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                                </li>
                                    </h:panelGroup>
                                    <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                    </li>
                                    <li>
                                                <h2>External
Links</h2>
                                                <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />
```

```
                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                        </ul>
                                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>


    </body>

    </html>
</f:view>
```

viewBooklet.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
                <title><h:outputText
    value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
                <script type="text/javascript"
    src="../javascript/ajax.js"></script>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

                <h1><a>      In
    formation - System for Plants</a></h1>
                </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
    action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
    action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                        <h:form>
                        <h:commandLink style="color:
green; margin-left: 75%" value="[Back]" action="refProject"
actionListener="#{projectBean.initReferences}"
></h:commandLink>
                        <br />
                                <table border="0"
width="600" style="margin-left:2%">
                                                <tr>

        <th colspan="2"><u><h3>Booklet
Information</h3></u><br /></th><td style="width: 150px"></td>
                                                </tr>
                                                <tr>


        <td style="text-align: right; color:green; width:
110px">Title:</td>

        <td colspan="3" rowspan="2" style="width: 320px;
font-size: 11px; padding-bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempBooklet.title}"></h:outputT
ext>

        </td>
                                                </tr>
                                                <tr>


        <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>


        <td style="text-align: right;
color:green">Author/s:</td>

        <td rowspan="2" colspan="3" style="font-size: 11px;
padding-bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempBooklet.displayName}"></
h:outputText>

        </td>
                                                </tr>
                                                <tr>


        <td style="text-align: right; color:green"></td>
```

```
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">Publication</td>

            <td style="padding-bottom: 15px">

            <h:outputText style="color:green" value="Month: " />

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBooklet.month}"></h:outp
utText>

                

            <h:outputText style="color:green" value="Year: " />

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempBooklet.year}"></h:output
Text>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green">How
Published:</td>

            <td colspan="2" rowspan="2" style="padding-bottom:
15px; font-size: 11px">

            <h:outputText
value="#{referenceManagerBean.tempBooklet.howPublished}"><
/h:outputText>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">Url:</td>

            <td style="padding-bottom: 15px; font-size: 11px">

            <h:outputText
value="#{referenceManagerBean.tempBooklet.url}"></h:outputTe
xt>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">File:</td>

            <td style="text-align: justify; font-size:11px; padding-
bottom: 15px">

            <h:panelGroup
rendered="#{referenceManagerBean.tempBooklet.filename !=
null}">

                        <h:outputLink
value="../file/#{referenceManagerBean.tempBooklet.filename}">

                        <h:outputText value="Click here to
download." />

                        </h:outputLink>

            </h:panelGroup>

            <h:panelGroup
rendered="#{referenceManagerBean.tempBooklet.filename ==
null}">

                        <h:outputText value="Not available for
download." />

            </h:panelGroup>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green">Note:</td>

            <td rowspan="2" colspan="2" style="font-size: 11px;
padding-bottom: 15px">

            <h:outputText
value="#{referenceManagerBean.tempBooklet.note}"></h:output
Text>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right"></td>

            <td>

            <h:outputText
rendered="#{referenceManagerBean.tempBooklet.selected}"
value="This entry is publicly available."></h:outputText>

            <h:outputText
rendered="#{!referenceManagerBean.tempBooklet.selected}"
value="This entry is not publicly available."></h:outputText>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td><br></br><br></br><u></u></td>

            <td></td>

            <td>

            <h:panelGroup rendered="#{projectBean.level >= 3}">

            <br></br>
```

```
            <h:outputText
rendered="#{referenceManagerBean.bookletDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this booklet?"></h:outputText>

            <h:outputText
rendered="#{referenceManagerBean.bookletDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

                        <h:panelGroup
rendered="#{referenceManagerBean.bookletDelete}" >

                        <h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteBooklet}"/>

                        <h:commandButton value="No"
actionListener="#{referenceManagerBean.bookletNotDeleteMode
}"/>

                        <br />

                        </h:panelGroup>

            <h:panelGroup
rendered="#{!referenceManagerBean.bookletDelete &&
!referenceManagerBean.bookletDeleted}">

            <h:commandButton value="Edit"
action="editbooklet"/>

            <h:commandButton value="Delete"
actionListener="#{referenceManagerBean.bookletDeleteMode}"/>

            </h:panelGroup>

            </h:panelGroup>

            </td>
                                                </tr>
                                    </table>
                        </h:form>
                </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                <ul>
                        <h:panelGroup
rendered="#{userBean.admin}">
                                    <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                    </li>
                                </h:panelGroup>
                                <li>
                                    <h2>Menu</h2>
                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                    <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                    <h3> </h3>
                                </li>
                                <li>
                                    <h2>External
Links</h2>
                                    <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                    </ul>
                                </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>


    </body>

    </html>
</f:view>
```

viewCollection.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
```

```
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title><h:outputText
  value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
        <script type="text/javascript"
  src="../javascript/jquery.js"></script>
        <script type="text/javascript"
  src="../javascript/dialog.js"></script>
        <script type="text/javascript"
  src="../javascript/ajax.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
        <div id="logo">
              <h1><a>Health Application for Natural
  Products </a></h1>

        <h1><a>      In
  formation - System for Plants</a></h1>
        </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
        <div id="menu">
              <ul id="menulist">
                    <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                    <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
              </ul>
              <ul style="margin-left: 75%">
                    <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                    </li>
                    <li>
                          <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                    </li>
              </ul>
        </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
        <!-- Content Pane -->
        <div id="content">
              <!-- Post Pane -->
              <div class="post">
                    <br />
                    <h:form>
                    <h:commandLink
  value="[Back]" style="color: green; margin-left: 75%"
  action="refProject"
  actionListener="#{projectBean.initReferences}"
  ></h:commandLink>
                                <br />
                                      <table  border="0"
  width="600" style="margin-left:2%" >
                                            <tr>

        <th colspan="2"><u><h3>Incollection
  Information</h3></u><br /></th><td></td>

        <td></td>
                                            </tr>
                                            <tr>

        <td style="text-align: right; color:green; width:
  85px">Title:</td>

        <td rowspan="2" style="width: 315px; font-size: 11px;
  padding-bottom: 15px">

        <h:outputText
  value="#{referenceManagerBean.tempCollection.title}"
  ></h:outputText>

        </td>

        <td colspan="2">

        </td>
                                            </tr>
                                            <tr>

        <td style="text-align: right; color:green"></td>
                                            </tr>
                                            <tr>

        <td style="text-align: right; color:green">Book
  Title:</td>

        <td rowspan="2" style="padding-bottom: 15px; font-
  size: 11px">

        <h:outputText
  value="#{referenceManagerBean.tempCollection.bookTitle}"></h
  :outputText>

        </td>

        <td colspan="2">

        </td>
                                            </tr>
                                            <tr>

        <td style="text-align: right; color:green"></td>
                                            </tr>
                                            <tr>


        <td style="text-align: right;
  color:green">Publisher:</td>

        <td rowspan="2" style="padding-bottom: 15px; font-
  size: 11px">

        <h:outputText
  value="#{referenceManagerBean.tempCollection.publisher}"></h:
  outputText>

        </td>

        <td></td>

        <td>
```

```
                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green"></td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right;
color:green">Organization:</td>

                <td colspan="3" rowspan="2" style="padding-bottom:
15px; font-size: 11px" >

                <h:outputText
value="#{referenceManagerBean.tempCollection.organization}">
</h:outputText>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green"></td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right;
color:green">Author/s:</td>

                <td colspan="3" rowspan="2" style="padding-bottom:
15px; font-size: 11px" >

                <h:outputText
value="#{referenceManagerBean.tempCollection.displayName}">
</h:outputText>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green"></td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green">Editor/s:</td>

                <td colspan="3" rowspan="2" style="padding-bottom:
15px; font-size: 11px" >

                <h:outputText
value="#{referenceManagerBean.tempCollection.displayEditors}"
></h:outputText>

                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green"></td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green; padding-
bottom: 15px">Publication</td>

                <td style="padding-bottom: 15px">

                <h:outputText style="color:green" value="Month: " />

                <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempCollection.month}"></h:ou
tputText>

                    

                <h:outputText style="color:green" value="Year: " />

                <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempCollection.year}"></h:outp
utText>

                </td>

                <td></td>

                <td></td>
                                                        </tr>
                                                        <tr>

                <td></td>

                <td colspan="3">

                <h:outputText style="color:green" value="Pages:
"></h:outputText>

                <h:outputText
value="#{referenceManagerBean.tempCollection.pages}"></h:out
putText>

                <h:outputText style="color:green; margin-left: 10px"
value="Edition: "></h:outputText>

                <h:outputText
value="#{referenceManagerBean.tempCollection.edition}"></h:ou
tputText>

                <h:outputText style="color:green; margin-left: 10px"
value="Volume: "></h:outputText>

                <h:outputText
value="#{referenceManagerBean.tempCollection.volume}"></h:o
utputText>

                <h:outputText style="color:green; margin-left: 10px"
value="Series: "></h:outputText>

                <h:outputText
value="#{referenceManagerBean.tempCollection.series}"></h:out
putText>



                </td>
                                                        </tr>
                                                        <tr>

                <td style="text-align: right; color:green; padding-
bottom: 15px">Url:</td>

                <td style="padding-bottom: 15px; font-size: 11px">

                <h:outputText
value="#{referenceManagerBean.tempCollection.url}"></h:output
Text>

                </td><td></td>
```

```
<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green; padding-
bottom: 15px">File:</td>

<td style="text-align: justify; font-size:11px; padding-
bottom: 15px">

<h:panelGroup
rendered="#{referenceManagerBean.tempCollection.filename !=
null}">

<h:outputLink
value="../file/#{referenceManagerBean.tempCollection.filename}"
>

<h:outputText value="Click here to
download." />

</h:outputLink>

</h:panelGroup>

<h:panelGroup
rendered="#{referenceManagerBean.tempCollection.filename ==
null}">

<h:outputText value="Not available for
download." />

</h:panelGroup>

</td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green">Note:</td>

<td rowspan="2" colspan="3" style="padding-bottom:
15px; font-size: 11px">

<h:outputText
value="#{referenceManagerBean.tempCollection.note}"></h:outp
utText>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right"></td>

<td>

<h:outputText
rendered="#{referenceManagerBean.tempCollection.selected}"
value="This entry is publicly available."></h:outputText>

<h:outputText
rendered="#{!referenceManagerBean.tempCollection.selected}"
value="This entry is not publicly available."></h:outputText>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td><br></br><br></br><u></u></td>

<td></td>

<td colspan="2">

<h:panelGroup rendered="#{projectBean.level >= 3}">



<h:outputText
rendered="#{referenceManagerBean.collectionDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this record?"></h:outputText><br></br>

<h:outputText
rendered="#{referenceManagerBean.collectionDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

<h:panelGroup
rendered="#{referenceManagerBean.collectionDelete}">

<h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteCollection}"/>

<h:commandButton value="No"
actionListener="#{referenceManagerBean.collectionNotDeleteMo
de}"/>

<br />

</h:panelGroup>

<h:panelGroup
rendered="#{!referenceManagerBean.collectionDelete &&
!referenceManagerBean.collectionDeleted}">

<h:commandButton value="Edit"
action="editcollection"/>

<h:commandButton value="Delete"
actionListener="#{referenceManagerBean.colletctionDeleteMode}
"/>

</h:panelGroup>

</h:panelGroup>

</td>
                                                    </tr>
                                                </table>
                                            </h:form>
                                        </div>
                                    </div>
                                    <!-- Side Bar -->
                                    <div id="sidebar">
                                    <h:form>
                                        <ul>
                                            <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>
```

```
		<h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>


	</body>

	</html>
</f:view>
```

viewInbook.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
                <title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
                <script type="text/javascript"
   src="../javascript/jquery.js"></script>
                <script type="text/javascript"
   src="../javascript/dialog.js"></script>
                <script type="text/javascript"
   src="../javascript/ajax.js"></script>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
   Products </a></h1>

                <h1><a>      In
   formation - System for Plants</a></h1>
                </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
   action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
   action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
   action="logout"
   actionListener="#{userBean.destroySession}">Logout</h:comma
   ndLink>
                                </li>
                        </ul>
```

```
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">

				<h:form>
				<h:commandLink style="color:
green; margin-left: 75%" value="[Back]" action="refProject"
actionListener="#{projectBean.initReferences}"
></h:commandLink>
				<br />
					<table border="0"
width="600" style="margin-left:2%">
						<tr>

		<th colspan="2"><u><h3>Inbook
Information</h3></u><br /></th><td></td>

		<td></td>
						</tr>
						<tr>

		<td style="text-align: right; color:green; width:
90px">Book Title:</td>

		<td style="width: 300px;padding-bottom: 15px"
rowspan="2">

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempInbook.bookTitle}"></h:ou
tputText>

		</td>

		<td>




		</td>
						</tr>
						<tr>

		<td style="text-align: right; color:green"></td>
						</tr>
						<tr>

		<td style="text-align: right;
color:green">Publisher:</td>

		<td  rowspan="2" style="padding-bottom: 15px">

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempInbook.publisher}"></h:out
putText>

		</td>

		<td>

		</td>

		<td>
		</td>
						</tr>
						<tr>

		<td style="text-align: right; color:green"></td>
						</tr>
						<tr>

		<td style="text-align: right;
color:green">Author/s:</td>

		<td rowspan="2" colspan="3" style="padding-bottom:
15px">

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempInbook.displayName}"></h
:outputText>

		</td>
						</tr>
						<tr>

		<td style="text-align: right; color:green"></td>
						</tr>
						<tr>

		<td style="text-align: right; color:green">Editor/s:</td>

		<td  rowspan="2" colspan="3" style="padding-bottom:
15px">

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempInbook.displayEditors}"></
h:outputText>

		</td>
						</tr>
						<tr>

		<td style="text-align: right; color:green"></td>
						</tr>
						<tr>

		<td style="text-align: right; color:green">Chapter
Title:</td>

		<td  rowspan="2" style="padding-bottom: 15px">

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempInbook.chapTitle}"></h:out
putText>

		</td>

		<td  colspan="2" style="padding-bottom: 15px">

		<h:outputText style="color:green" value="Pages:
"></h:outputText> 

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempInbook.pages}"></h:output
Text>

		</td>
						</tr>
						<tr>
```

```
<td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green; padding-bottom: 15px">Publication</td>

<td style="padding-bottom: 15px">

<h:outputText  style="color:green" value="Month: " />

<h:outputText style="font-size: 11px" value="#{referenceManagerBean.tempInbook.month}"></h:outputText>

    

<h:outputText  style="color:green" value="Year: " />

<h:outputText style="font-size: 11px" value="#{referenceManagerBean.tempInbook.year}"></h:outputText>

</td>

<td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td></td>

<td colspan="2">

<h:outputText style="color:green" value="Edition: "></h:outputText>

<h:outputText value="#{referenceManagerBean.tempInbook.edition}"></h:outputText>

<h:outputText style="color:green; margin-left: 10px" value="Volume: "></h:outputText>

<h:outputText value="#{referenceManagerBean.tempInbook.volume}"></h:outputText>

<h:outputText style="color:green; margin-left: 10px" value="Series: "></h:outputText>

<h:outputText value="#{referenceManagerBean.tempInbook.series}"></h:outputText>

</td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green; padding-bottom: 15px">Url:</td>

<td colspan="3" style="padding-bottom: 15px">

<h:outputText style="font-size: 11px" value="#{referenceManagerBean.tempInbook.url}"></h:outputText>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green; padding-bottom: 15px">File:</td>

<td style="text-align: justify; font-size:11px; padding-bottom: 15px">

<h:panelGroup rendered="#{referenceManagerBean.tempInbook.filename != null}">

<h:outputLink value="../file/#{referenceManagerBean.tempInbook.filename}">

<h:outputText value="Click here to download." />

</h:outputLink>

</h:panelGroup>

<h:panelGroup rendered="#{referenceManagerBean.tempInbook.filename == null}">

<h:outputText value="Not available for download." />

</h:panelGroup>

</td><td></td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green">Note:</td>

<td rowspan="2" colspan="3" style="padding-bottom: 15px">

<h:outputText style="font-size: 11px" value="#{referenceManagerBean.tempInbook.note}"></h:outputText>

</td>
                                                    </tr>

                                                    <tr>

<td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right"></td>

<td>

<h:outputText rendered="#{referenceManagerBean.tempInbook.selected}" value="This entry is publicly available."></h:outputText>

<h:outputText
```

```
rendered="#{!referenceManagerBean.tempInbook.selected}"
value="This entry is not publicly available."></h:outputText>

            </td><td></td>

            <td></td>
                                                    </tr>

                                                    <tr>

            <td><br></br><br></br><u></u></td>

            <td></td>

            <td colspan="2">

            <h:panelGroup rendered="#{projectBean.level >= 3}">

            <h:outputText
rendered="#{referenceManagerBean.inbookDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this inbook?"></h:outputText><br></br>

            <h:outputText
rendered="#{referenceManagerBean.inbookDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

                        <h:panelGroup
rendered="#{referenceManagerBean.inbookDelete}" >

                                    <h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteInbook}"/>

                                    <h:commandButton value="No"
actionListener="#{referenceManagerBean.inbookNotDeleteMode}
"/>

                                    <br />

                        </h:panelGroup>

            <h:panelGroup
rendered="#{!referenceManagerBean.inbookDelete &&
!referenceManagerBean.inbookDeleted}">

            <h:commandButton value="Edit"
action="editinbook"/>

            <h:commandButton value="Delete"
actionListener="#{referenceManagerBean.inbookDeleteMode}"/>

            </h:panelGroup>

            </h:panelGroup>

            </td>
                                                    </tr>
                                            </table>
                                    </h:form>
                        </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                        <ul>
                                    <h:panelGroup
rendered="#{userBean.admin}">
                                            <li>
            <h2>Administration</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                                    </li>
                                            </h:panelGroup>
                                            <li>
                                                    <h2>Menu</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                    <h3> </h3>
                                            </li>
                                            <li>
                                                    <h2>External
Links</h2>
                                                    <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                                    </ul>
                                            </li>
                        </ul>
                        </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
```

```
	</div>

	<!-- Footer -->
	<div id="footer"></div>


	</body>

	</html>
</f:view>
```

viewManual.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
	<html xmlns="http://www.w3.org/1999/xhtml">

	<head>
		<title><h:outputText
	value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
	type="text/css" media="screen" />
		<script type="text/javascript"
	src="../javascript/jquery.js"></script>
		<script type="text/javascript"
	src="../javascript/dialog.js"></script>
		<script type="text/javascript"
	src="../javascript/ajax.js"></script>
	</head>

	<body>

	<!-- Logo Pane -->
	<div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
	Products </a></h1>

		<h1><a>      In
	formation - System for Plants</a></h1>
		</div>
	</div>

	<!-- Menu Pane -->
	<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
	action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
	action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
	action="editAccount" value="Account"
	actionListener="#{userAccountBean.getUserDetails}"><f:param
	id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
	action="logout"
	actionListener="#{userBean.destroySession}">Logout</h:comma
	ndLink>
				</li>
			</ul>
		</div>
	</h:form>

	<!-- Main Page -->
	<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">

				<h:form>
					<h:commandLink
style="color: green; margin-left: 75%" value="[Back]"
action="refProject"
actionListener="#{projectBean.initReferences}"
></h:commandLink>
					<br />
					<table border="0"
width="600" style="margin-left:2%">
						<tr>

		<th colspan="2"><u><h3>Manual
Information</h3></u><br /></th><td></td>
						</tr>
						<tr>

		<td style="text-align: right; color:green; width:
90px">Title:</td>

		<td style="width: 310px; padding-bottom: 15px"
rowspan="2">

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempManual.title}"></h:outputT
ext>

		</td>

		<td>

		<h:outputText style="color:green" value="Edition:
"></h:outputText>

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempManual.edition}"></h:outp
utText>

		</td>
						</tr>
						<tr>

		<td style="text-align: right; color:green"></td>
						</tr>
						<tr>

		<td style="text-align: right;
color:green">Organization:</td>

		<td colspan="2" rowspan="2" style="padding-bottom:
15px">

		<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempManual.organization}"></h
:outputText>

		</td>
						</tr>
						<tr>

		<td style="text-align: right; color:green"></td>
```

```
                                                    </tr>
                                                    <tr>

            <td style="text-align: right;
color:green">Author/s:</td>

            <td colspan="2" rowspan="2" style="padding-bottom:
15px">

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempManual.displayName}"></
h:outputText>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">Publication</td>

            <td style="padding-bottom: 15px">

            <h:outputText style="color:green" value="Month: " />

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempManual.month}"></h:outpu
tText>

                

            <h:outputText style="color:green" value="Year: " />

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempManual.year}"></h:outputT
ext>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">Url:</td>

            <td style="padding-bottom: 15px">

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempManual.url}"></h:outputTe
xt>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">File:</td>

            <td style="text-align: justify; font-size:11px; padding-
bottom: 15px">

            <h:panelGroup
rendered="#{referenceManagerBean.tempManual.filename !=
null}">

                        <h:outputLink
value="../file/#{referenceManagerBean.tempManual.filename}">

                        <h:outputText value="Click here to
download." />

                        </h:outputLink>

            </h:panelGroup>

            <h:panelGroup
rendered="#{referenceManagerBean.tempManual.filename ==
null}">

                        <h:outputText value="Not available for
download." />

            </h:panelGroup>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green">Note:</td>

            <td  colspan="2" rowspan="2" style="padding-bottom:
15px">

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempManual.note}"></h:outputT
ext>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right"></td>

            <td>

            <h:outputText
rendered="#{referenceManagerBean.tempManual.selected}"
value="This entry is publicly available."></h:outputText>

            <h:outputText
rendered="#{!referenceManagerBean.tempManual.selected}"
value="This entry is not publicly available."></h:outputText>

            </td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td><br></br><br></br><u></u></td>

            <td></td>

            <td>

            <h:panelGroup rendered="#{projectBean.level >= 3}">

            <h:outputText
```

```
rendered="#{referenceManagerBean.manualDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this manual?"></h:outputText>

        <h:outputText
rendered="#{referenceManagerBean.manualDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

                <h:panelGroup
rendered="#{referenceManagerBean.manualDelete}" >

                        <h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteManual}"/>

                        <h:commandButton value="No"
actionListener="#{referenceManagerBean.manualNotDeleteMode
}"/>

                        <br />

                </h:panelGroup>

        <h:panelGroup
rendered="#{!referenceManagerBean.manualDelete &&
!referenceManagerBean.manualDeleted}">

        <h:commandButton value="Edit"
action="editmanual"/>

        <h:commandButton value="Delete"
actionListener="#{referenceManagerBean.manualDeleteMode}"/>

        </h:panelGroup>

        </h:panelGroup>

        </td>
                                                        </tr>
                                                </table>
                        </h:form>
                </div>
        </div>
        <!-- Side Bar -->
        <div id="sidebar">
        <h:form>
                <ul>
                        <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

        <h2>Administration</h2>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

        <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

        <h:dataTable value="#{linksListBean.links}"
var="link">

        <li><h:column>

        <h:outputLink value="#{link.addr}" target="_blank">

                <h:outputText value="#{link.name}" />

        </h:outputLink>

        </h:column></li>

        </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
        </div>
        <!-- Filler -->
        <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>


</body>

</html>
</f:view>
```

viewTech.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">

<head>
	<title><h:outputText
value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
	<link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
	<script type="text/javascript"
src="../javascript/jquery.js"></script>
	<script type="text/javascript"
src="../javascript/dialog.js"></script>
	<script type="text/javascript"
src="../javascript/ajax.js"></script>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
	<div id="logo">
		<h1><a>Health Application for Natural
Products </a></h1>

	<h1><a>      In
formation - System for Plants</a></h1>
	</div>
</div>

<!-- Menu Pane -->
<h:form>
	<div id="menu">
		<ul id="menulist">
			<li><h:commandLink
action="toHome">Home</h:commandLink></li>
			<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
		</ul>
		<ul style="margin-left: 75%">
			<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
				</h:commandLink>
			</li>
			<li>
				<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
			</li>
		</ul>
	</div>
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<div class="post">

			<h:form>
				<h:commandLink
value="[Back]" style="color: green; margin-left: 75%"
action="refProject"
actionListener="#{projectBean.initReferences}"
></h:commandLink>
				<br />
				<table border="0"
width="600" style="margin-left:2%">
					<tr>

	<th colspan="2"><u><h3>Technical Report
Information</h3></u><br /></th><td></td>
					</tr>
					<tr>

	<td style="text-align: right; color:green; width:
100px">Title:</td>

	<td style="width: 300px; padding-bottom: 15px"
rowspan="2">

	<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.title}"></h:outputText
>

	</td>

	<td>

	<h:outputText style="color:green" value="Number:
"></h:outputText>

	<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.number}"></h:output
Text>

	</td>
					</tr>
					<tr>

	<td style="text-align: right; color:green"></td>
					</tr>
					<tr>

	<td style="text-align: right;
color:green">Institution:</td>

	<td style="padding-bottom: 15px" rowspan="2"
colspan="2">

	<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.institution}"></h:outp
utText>

	</td>
					</tr>
					<tr>

	<td style="text-align: right; color:green"></td>
					</tr>
					<tr>

	<td style="text-align: right; color:green">Type:</td>

	<td style="padding-bottom: 15px" rowspan="2"
colspan="2">

	<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.type}"></h:outputTex
t>

	</td>
					</tr>
					<tr>

	<td style="text-align: right; color:green"></td>
					</tr>
					<tr>
```

```
<td style="text-align: right;
color:green">Author/s:</td>

<td style="padding-bottom: 15px" rowspan="2"
colspan="2">

<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.displayName}"></h:o
utputText>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green; padding-
bottom: 15px">Publication</td>

<td style="padding-bottom: 15px">

<h:outputText style="color:green" value="Month: " />

<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.month}"></h:outputT
ext>

    

<h:outputText style="color:green" value="Year: " />

<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.year}"></h:outputTex
t>

</td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green">Url:</td>

<td  style="padding-bottom: 15px" colspan="2">

<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.url}"></h:outputText
>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green; padding-
bottom: 15px">File:</td>

<td style="text-align: justify; font-size:11px; padding-
bottom: 15px">

<h:panelGroup
rendered="#{referenceManagerBean.tempTech.filename !=
null}">

                        <h:outputLink
value="../file/#{referenceManagerBean.tempTech.filename}">
                            <h:outputText value="Click here to
download." />

                        </h:outputLink>

</h:panelGroup>

<h:panelGroup
rendered="#{referenceManagerBean.tempTech.filename ==
null}">

                        <h:outputText value="Not available for
download." />

</h:panelGroup>

</td>

<td></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green">Note:</td>

<td style="padding-bottom: 15px" rowspan="2"
colspan="2">

<h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempTech.note}"></h:outputTex
t>

</td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

<td style="text-align: right"></td>

<td>

<h:outputText
rendered="#{referenceManagerBean.tempTech.selected}"
value="This entry is publicly available."></h:outputText>

<h:outputText
rendered="#{!referenceManagerBean.tempTech.selected}"
value="This entry is not publicly available."></h:outputText>

</td>

<td></td>
                                                    </tr>
                                                    <tr>

<td><br></br><br></br><u></u></td>

<td></td>

<td>

<h:panelGroup rendered="#{projectBean.level >= 3}">

<h:outputText
rendered="#{referenceManagerBean.techReportDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this report?"></h:outputText><br></br>
```

```
		<h:outputText
rendered="#{referenceManagerBean.techReportDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

			<h:panelGroup
rendered="#{referenceManagerBean.techReportDelete}" >

				<h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteTech}"/>

				<h:commandButton value="No"
actionListener="#{referenceManagerBean.techReportNotDeleteM
ode}"/>

				<br />

			</h:panelGroup>

		<h:panelGroup
rendered="#{!referenceManagerBean.techReportDelete &&
!referenceManagerBean.techReportDeleted}">

		<h:commandButton value="Edit" action="edittech"/>

		<h:commandButton value="Delete"
actionListener="#{referenceManagerBean.techReportDeleteMode
}"/>

		</h:panelGroup>

		</h:panelGroup>

		</td>
							</tr>
						</table>
				</h:form>
			</div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
			<ul>
				<h:panelGroup
rendered="#{userBean.admin}">
					<li>

		<h2>Administration</h2>
					<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>
		<h3> </h3>
					</li>
				</h:panelGroup>
				<li>
					<h2>Menu</h2>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
					<h3> </h3>
				</li>
				<li>
					<h2>External
Links</h2>
					<ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
					</ul>
				</li>
			</ul>
			</h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>


	</body>

	</html>
</f:view>
```

viewThesis.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
```

```
        <title><h:outputText
value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
        <script type="text/javascript"
src="../javascript/jquery.js"></script>
        <script type="text/javascript"
src="../javascript/dialog.js"></script>
        <script type="text/javascript"
src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {min-width: 75px}
        </style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
Products </a></h1>

        <h1><a>      In
formation - System for Plants</a></h1>
        </div>
</div>

<!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">

                        <h:form>
                        <h:commandLink
value="[Back]" style="margin-left: 75%; color: green"
action="refProject"
actionListener="#{projectBean.initReferences}"
></h:commandLink>
                        <br />
                                <table border="0"
width="600" style="margin-left:2%" >
                                                <tr>

        <th colspan="4"><u><h3>Thesis
Information</h3></u><br /></th>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green">Title:</td>

        <td colspan="3" rowspan="2" style="width: 400px;
font-size: 11px; padding-bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempThesis.title}"></h:outputTe
xt>

        </td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

        <td style="text-align: right;
color:green">Author/s:</td>

        <td  colspan="3" rowspan="2" style="font-size: 11px;
padding-bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempThesis.displayName}"></h:
outputText>

        </td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

        <td style="text-align: right;
color:green">Adviser/s:</td>

        <td  colspan="3" rowspan="2" style="font-size: 11px;
padding-bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempThesis.displayEditors}"></
h:outputText>

        </td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

        <td style="text-align: right; color:green">School:</td>

        <td colspan="3" rowspan="2" style="font-size: 11px;
padding-bottom: 15px">

        <h:outputText
value="#{referenceManagerBean.tempThesis.school}"></h:output
Text>
```

```
            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green">Address:</td>

            <td  colspan="3" rowspan="2" style="font-size: 11px;
padding-bottom: 15px">

            <h:outputText
value="#{referenceManagerBean.tempThesis.address}"></h:outpu
tText>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green"></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">Publication</td>

            <td style="padding-bottom: 15px">

            <h:outputText style="color:green" value="Month: " />

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempThesis.month}"></h:output
Text>

                

            <h:outputText style="color:green" value="Year: " />

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempThesis.year}"></h:outputTe
xt>

            </td>

            <td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">Url:</td>

            <td  colspan="3" style="font-size: 11px; padding-
bottom: 15px">

            <h:outputText
value="#{referenceManagerBean.tempThesis.url}"></h:outputTex
t>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">File:</td>

            <td style="text-align: justify; font-size:11px; padding-
bottom: 15px">

            <h:panelGroup
rendered="#{referenceManagerBean.tempThesis.filename !=
null}">

                        <h:outputLink
value="../file/#{referenceManagerBean.tempThesis.filename}">

                        <h:outputText value="Click here to
download." />

                        </h:outputLink>

            </h:panelGroup>

            <h:panelGroup
rendered="#{referenceManagerBean.tempThesis.filename ==
null}">

                        <h:outputText value="Not available for
download." />

            </h:panelGroup>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green">Note:</td>

            <td  colspan="3" rowspan="2" style="font-size: 11px;
padding-bottom: 15px">

            <h:outputText
value="#{referenceManagerBean.tempThesis.note}"></h:outputTe
xt>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: right; color:green"></td>

                                                    </tr>
                                                    <tr>

            <td style="text-align: right"></td>

            <td>

            <h:outputText
rendered="#{referenceManagerBean.tempThesis.selected}"
value="This entry is publicly available."></h:outputText>

            <h:outputText
rendered="#{!referenceManagerBean.tempThesis.selected}"
value="This entry is not publicly available."></h:outputText>

            </td><td></td>

            <td></td>
                                                    </tr>
                                                    <tr>

            <td><br></br><br></br><u></u></td>
```

```
		<td></td>

		<td colspan="2">

		<h:panelGroup rendered="#{projectBean.level >= 3}">

		<br></br><br></br>

		<h:outputText
rendered="#{referenceManagerBean.thesisDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this thesis?"></h:outputText>

		<h:outputText
rendered="#{referenceManagerBean.thesisDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

			<h:panelGroup
rendered="#{referenceManagerBean.thesisDelete}">

				<br />

				<h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteThesis}"/>

				<h:commandButton value="No"
actionListener="#{referenceManagerBean.thesisNotDeleteMode}"
/>

				<br />

			</h:panelGroup>

		<h:panelGroup
rendered="#{!referenceManagerBean.thesisDelete &&
!referenceManagerBean.thesisDeleted}">

		<h:commandButton value="Edit" action="editthesis"/>

		<h:commandButton value="Delete"
actionListener="#{referenceManagerBean.thesisDeleteMode}"/>

		</h:panelGroup>

		</h:panelGroup>

		</td>
				</tr>
			</table>
		</h:form>
	</div>
	</div>
	<!-- Side Bar -->
	<div id="sidebar">
	<h:form>
		<ul>
			<h:panelGroup
rendered="#{userBean.admin}">
				<li>

		<h2>Administration</h2>
				<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
				</li>
			</h:panelGroup>
			<li>
				<h2>Menu</h2>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
				<h3> </h3>
			</li>
			<li>
				<h2>External
Links</h2>
				<ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
				</ul>
			</li>
		</ul>
		</h:form>
	</div>
	<!-- Filler -->
	<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>


</body>

</html>
```

```
</f:view>
```

viewUnpublished.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title><h:outputText
   value="#{projectBean.projectCode}" /> - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {min-width: 75px}
            </style>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                     <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                     <ul id="menulist">
                              <li><h:commandLink
   action="toHome">Home</h:commandLink></li>
                              <li><h:commandLink
   action="faq">FAQ</h:commandLink></li>
                     </ul>
                     <ul style="margin-left: 75%">
                              <li><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
                                                       </h:commandLink>
                              </li>
                              <li>
                                       <h:commandLink
   action="logout"
   actionListener="#{userBean.destroySession}">Logout</h:comma
   ndLink>
                              </li>
                     </ul>
            </div>
   </h:form>

   <!-- Main Page -->
   <div id="page">
            <!-- Content Pane -->
            <div id="content">
                     <!-- Post Pane -->
                     <div class="post">

                              <h:form>
                                       <h:commandLink
   value="[Back]" style="color: green; margin-left: 75%"
   action="refProject"
   actionListener="#{projectBean.initReferences}"
   ></h:commandLink>
                                       <br />
                                       <table border="0"
   width="600" style="margin-left:2%"  >
                                                <tr>

            <th colspan="2"><u><h3>Unpublished
   Information</h3></u><br /></th><td style="width: 180px"></td>
                                                </tr>
                                                <tr>

            <td style="text-align: right; color: green">Title:</td>

            <td rowspan="2" colspan="2" style="width: 350px;
   padding-bottom: 15px" >

            <h:outputText style="font-size: 11px"
   value="#{referenceManagerBean.tempUnpublished.title}"></h:out
   putText>

            </td>
                                                </tr>
                                                <tr>

            <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

            <td style="text-align: right; color:
   green">Author/s:</td>

            <td rowspan="2" colspan="2" style="padding-bottom:
   15px" >

            <h:outputText style="font-size: 11px"
   value="#{referenceManagerBean.tempUnpublished.displayName}
   "></h:outputText>

            </td>
                                                </tr>
                                                <tr>

            <td style="text-align: right; color:green"></td>
                                                </tr>
                                                <tr>

            <td style="text-align: right; color: green; padding-
   bottom: 15px">Creation</td>

            <td style="padding-bottom: 15px">

            <h:outputText style="color:green" value="Month: " />

            <h:outputText style="font-size: 11px"
   value="#{referenceManagerBean.tempUnpublished.month}"></h:
   outputText>

                

            <h:outputText style="color:green" value="Year: " />
```

```
            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempUnpublished.year}"></h:ou
tputText>

            </td>

            <td></td>
                                                        </tr>
                                                        <tr>

            <td style="text-align: right; color: green; padding-
bottom: 15px">Url:</td>

            <td style="padding-bottom: 15px"  colspan="2">

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempUnpublished.url}"></h:out
putText>

            </td>
                                                        </tr>
                                                        <tr>

            <td style="text-align: right; color:green; padding-
bottom: 15px">File:</td>

            <td style="text-align: justify; font-size:11px; padding-
bottom: 15px">

            <h:panelGroup
rendered="#{referenceManagerBean.tempUnpublished.filename
!= null}">

                        <h:outputLink
value="../file/#{referenceManagerBean.tempUnpublished.filename
}">

                        <h:outputText value="Click here to
download." />

                        </h:outputLink>

            </h:panelGroup>

            <h:panelGroup
rendered="#{referenceManagerBean.tempUnpublished.filename
== null}">

                        <h:outputText value="Not available for
download." />

            </h:panelGroup>

            </td>

            <td></td>
                                                        </tr>
                                                        <tr>

            <td style="text-align: right; color: green">Note:</td>

            <td rowspan="2" colspan="2" style="padding-bottom:
15px">

            <h:outputText style="font-size: 11px"
value="#{referenceManagerBean.tempUnpublished.note}"></h:ou
tputText>

            </td>
                                                        </tr>
                                                        <tr>

            <td style="text-align: right; color:green"></td>
                                                        </tr>
                                                        <tr>

            <td style="text-align: right"></td>

            <td>

            <h:outputText
rendered="#{referenceManagerBean.tempUnpublished.selected}"
value="This entry is publicly available."></h:outputText>

            <h:outputText
rendered="#{!referenceManagerBean.tempUnpublished.selected}"
value="This entry is not publicly available."></h:outputText>

            </td>

            <td></td>
                                                        </tr>
                                                        <tr>

            <td><br></br><br></br><u></u></td>

            <td></td>

            <td>

            <h:panelGroup rendered="#{projectBean.level >= 3}">

            <h:outputText
rendered="#{referenceManagerBean.unpublishedDelete}"
styleClass="errorMessage" value="Are you sure you want to
delete this unpublished?"></h:outputText>

            <h:outputText
rendered="#{referenceManagerBean.unpublishedDeleted}"
styleClass="errorMessage" value="Entry has been
deleted."></h:outputText>

                        <h:panelGroup
rendered="#{referenceManagerBean.unpublishedDelete}">

                                    <h:commandButton value="Yes"
actionListener="#{referenceManagerBean.deleteUnpublished}"/>

                                    <h:commandButton value="No"
actionListener="#{referenceManagerBean.unpublishedNotDelete
Mode}"/>

                                    <br />

                        </h:panelGroup>

            <h:panelGroup
rendered="#{!referenceManagerBean.unpublishedDelete &&
!referenceManagerBean.unpublishedDeleted}">

            <h:commandButton value="Edit"
action="editunpublished"/>

            <h:commandButton value="Delete"
actionListener="#{referenceManagerBean.unpublishedDeleteMod
e}"/>

            </h:panelGroup>
```

```
		</h:panelGroup>

		</td>
</tr>
</table>
</h:form>
</div>
</div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>

<h2>Administration</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
</li>
</h:panelGroup>
<li>
<h2>Menu</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
<h3> </h3>
</li>
<li>
<h2>External
Links</h2>
<ul>

<h:dataTable value="#{linksListBean.links}"
var="link">

<li><h:column>
<h:outputLink value="#{link.addr}" target="_blank">

<h:outputText value="#{link.name}" />

</h:outputLink>

</h:column></li>

</h:dataTable>
</ul>
</li>
</ul>
</h:form>
</div>
<!-- Filler -->
<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>


</body>

</html>
</f:view>
```

fromProjects.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
<html xmlns="http://www.w3.org/1999/xhtml">

<head>
<title>Project List - HANAPIN-SP</title>
<link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
<script type="text/javascript"
src="../javascript/jquery.js"></script>
<script type="text/javascript"
src="../javascript/dialog.js"></script>
<script type="text/javascript"
src="../javascript/ajax.js"></script>
<style type="text/css">
td {min-width: 80px}
</style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
<div id="logo">
<h1><a>Health Application for Natural
Products </a></h1>

<h1><a>      In
formation - System for Plants</a></h1>
</div>
</div>

<!-- Menu Pane -->
<h:form>
<div id="menu">
<ul id="menulist">
```

```
                                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                                </ul>
                                <ul style="margin-left: 75%">
                                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                        </li>
                                        <li>
                                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                        </li>
                                </ul>
                        </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <h:form id="regForm">
                                        <br />
                                        <h:commandLink
value="[Back to Search]"
action="#{searchProjectsBean.getBackString}" style="margin-left:
70%; color: green"/>
                                        <br /><br />
                                        <h:commandLink
value="A" style="color: green; margin-left: 20px"
rendered="#{searchProjectsBean.currentLetter ==
'a'}"></h:commandLink>
                                        <h:commandLink
value="A" style="margin-left: 20px"
rendered="#{searchProjectsBean.currentLetter != 'a'}"
actionListener="#{searchProjectsBean.showForA}"></h:command
Link>

                                        <h:commandLink
value="B" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'b'}"></h:commandLink>
                                        <h:commandLink
value="B" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'b'}"
actionListener="#{searchProjectsBean.showForB}"></h:command
Link>

                                        <h:commandLink
value="C" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'c'}"></h:commandLink>
                                        <h:commandLink
value="C" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'c'}"
actionListener="#{searchProjectsBean.showForC}"></h:command
Link>

                                        <h:commandLink
value="D" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'd'}"></h:commandLink>
                                        <h:commandLink
value="D" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'd'}"
actionListener="#{searchProjectsBean.showForD}"></h:command
Link>

                                        <h:commandLink
value="E" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'e'}"></h:commandLink>
                                        <h:commandLink
value="E" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'e'}"
actionListener="#{searchProjectsBean.showForE}"></h:command
Link>

                                        <h:commandLink
value="F" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'f'}"></h:commandLink>
                                        <h:commandLink
value="F" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'f'}"
actionListener="#{searchProjectsBean.showForF}"></h:command
Link>

                                        <h:commandLink
value="G" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'g'}"></h:commandLink>
                                        <h:commandLink
value="G" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'g'}"
actionListener="#{searchProjectsBean.showForG}"></h:command
Link>

                                        <h:commandLink
value="H" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'h'}"></h:commandLink>
                                        <h:commandLink
value="H" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'h'}"
actionListener="#{searchProjectsBean.showForH}"></h:command
Link>

                                        <h:commandLink
value="I" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'i'}"></h:commandLink>
                                        <h:commandLink
value="I" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'i'}"
actionListener="#{searchProjectsBean.showForI}"></h:command
Link>

                                        <h:commandLink
value="J" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'j'}"></h:commandLink>
                                        <h:commandLink
value="J" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'j'}"
actionListener="#{searchProjectsBean.showForJ}"></h:command
Link>

                                        <h:commandLink
value="K" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'k'}"></h:commandLink>
```

```
                                    <h:commandLink
value="K" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'k'}"
actionListener="#{searchProjectsBean.showForK}"></h:command
Link>

                                    <h:commandLink
value="L" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'l'}"></h:commandLink>
                                    <h:commandLink
value="L" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'l'}"
actionListener="#{searchProjectsBean.showForL}"></h:command
Link>

                                    <h:commandLink
value="M" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'm'}"></h:commandLink>
                                    <h:commandLink
value="M" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'm'}"
actionListener="#{searchProjectsBean.showForM}"></h:comman
dLink>

                                    <h:commandLink
value="N" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'n'}"></h:commandLink>
                                    <h:commandLink
value="N" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'n'}"
actionListener="#{searchProjectsBean.showForN}"></h:command
Link>

                                    <h:commandLink
value="O" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'o'}"></h:commandLink>
                                    <h:commandLink
value="O" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'o'}"
actionListener="#{searchProjectsBean.showForO}"></h:command
Link>

                                    <h:commandLink
value="P" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'p'}"></h:commandLink>
                                    <h:commandLink
value="P" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'p'}"
actionListener="#{searchProjectsBean.showForP}"></h:command
Link>

                                    <h:commandLink
value="Q" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'q'}"></h:commandLink>
                                    <h:commandLink
value="Q" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'q'}"
actionListener="#{searchProjectsBean.showForQ}"></h:command
Link>

                                    <h:commandLink
value="R" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'r'}"></h:commandLink>
                                    <h:commandLink
value="R" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'r'}"
actionListener="#{searchProjectsBean.showForR}"></h:command
Link>

                                    <h:commandLink
value="S" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
's'}"></h:commandLink>
                                    <h:commandLink
value="S" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 's'}"
actionListener="#{searchProjectsBean.showForS}"></h:command
Link>

                                    <h:commandLink
value="T" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
't'}"></h:commandLink>
                                    <h:commandLink
value="T" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 't'}"
actionListener="#{searchProjectsBean.showForT}"></h:command
Link>

                                    <h:commandLink
value="U" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'u'}"></h:commandLink>
                                    <h:commandLink
value="U" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'u'}"
actionListener="#{searchProjectsBean.showForU}"></h:command
Link>

                                    <h:commandLink
value="V" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'v'}"></h:commandLink>
                                    <h:commandLink
value="V" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'v'}"
actionListener="#{searchProjectsBean.showForV}"></h:command
Link>

                                    <h:commandLink
value="W" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'w'}"></h:commandLink>
                                    <h:commandLink
value="W" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'w'}"
actionListener="#{searchProjectsBean.showForW}"></h:comman
dLink>

                                    <h:commandLink
value="X" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'x'}"></h:commandLink>
                                    <h:commandLink
value="X" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'x'}"
actionListener="#{searchProjectsBean.showForX}"></h:command
Link>

                                    <h:commandLink
value="Y" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'y'}"></h:commandLink>
```

```
                                        <h:commandLink
value="Y" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'y'}"
actionListener="#{searchProjectsBean.showForY}"></h:command
Link>

                                        <h:commandLink
value="Z" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'z'}"></h:commandLink>
                                        <h:commandLink
value="Z" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != 'z'}"
actionListener="#{searchProjectsBean.showForZ}"></h:command
Link>

                                        <h:commandLink
value="All" style="color: green; margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter ==
'^'}"></h:commandLink>
                                        <h:commandLink
value="All" style="margin-left: 9px"
rendered="#{searchProjectsBean.currentLetter != '^'}"
actionListener="#{searchProjectsBean.showForAll}"></h:comma
ndLink>
                                        <font size="1px"
style="margin-left: 20px">

            <i>Showing <h:outputText
value="#{searchProjectsBean.projectPagination +
searchProjectsBean.paginationFixer}" /> - <h:outputText
value="#{searchProjectsBean.projectEndCount}" /> of
<h:outputText value="#{searchProjectsBean.projectCount}"
/></i>
                                        </font>
                                        <br /><br />
                                        <u><h3
style="margin-left: 20px; color: green">Projects List</h3></u><br
/>
                                        <h:panelGroup
rendered="#{!searchProjectsBean.showProjects}">
                                        <p style="margin-
left:5%">[NO POJECTS YET]</p>
                                    </h:panelGroup>
                                        <h:panelGroup
rendered="#{searchProjectsBean.showProjects}" >
                                        <h:dataTable
cellspacing="0" columnClasses="proj,acro,desc"
value="#{searchProjectsBean.pagedProjectList}" style="margin-
left: 20px" var="project" border="0"  rowClasses="rowclass">
                                    <h:column>
                                      <f:facet name="header">
                                      <h:outputText
style="color:green" value="Project Name"></h:outputText>
                                      </f:facet>
                                      <h:commandLink
value="#{project.origname}" style="color: green"
actionListener="#{projectBean.getProjectDetails}"
action="projectDetails">
                                        <f:param
id="projectID" value="#{project.id}"></f:param>
                                        <f:param
id="username" value="#{userBean.username}"></f:param>
                                      </h:commandLink>
                                    </h:column>
                                     <h:column>
                                        <f:facet
name="header">

            <h:outputText style="color:green"
value="Acronym"></h:outputText>
                                        </f:facet>
                                        <h:outputText
value="#{project.acro}"/>
                                    </h:column>
                                    <h:column>
                                        <f:facet
name="header">

            <h:outputText style="color:green"
value="Description"></h:outputText>
                                        </f:facet>
                                        <h:outputText
value="#{project.desc}"/>
                                    </h:column>
                                </h:dataTable>
                                </h:panelGroup>
                                <p style="margin-left: 500px;
margin-top: 30px">
            <h:commandButton value="prev"
          disabled="#{searchProjectsBean.projectPagination == 0}"

actionListener="#{searchProjectsBean.showProjectListBackward}
"
          style="margin-right: 20px"/>
            <h:commandButton value="next"
          disabled="#{searchProjectsBean.nextProject}"

actionListener="#{searchProjectsBean.showProjectListForward}"
/>
                        </p>
                                </h:form>
                        </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                        </li>
                                </h:panelGroup>
```

```
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="Plants List"
  action="regPlantList"
  actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="My Projects"
  action="projectList"
  actionListener="#{userProjListBean.getProjList}"><f:param
  id="username" value="#{userBean.username}"
  /></h:commandLink></span></ul>
                                                <ul><span
  style="margin-left: 20px"><u><h:commandLink value="Search"
  action="searchSystem"></h:commandLink></u></span></ul>
                                                <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
  Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
  var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

searchByCompound.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${userBean.username == null}">
        <c:redirect url="/services/home.jsf" />
</c:if>

<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title>Search - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
        <script type="text/javascript"
src="../javascript/jquery.js"></script>
        <script type="text/javascript"
src="../javascript/dialog.js"></script>
        <script type="text/javascript"
src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {padding: 2px}
        </style>
        <script type="text/javascript"
src="../javascript/compound.js"></script>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
Products </a></h1>

        <h1><a>      In
formation - System for Plants</a></h1>
        </div>
</div>

<!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li
class="current_page_item"><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                        <h:form>
                                <h:inputHidden
value="#{searchProjectsBean.hidden}" />
                                <br />
                                <h3
style="color:green"><u>Search</u></h3>
                                <br />
```

```
                                        <h:commandLink
value="[Search By Project Details]" style="margin-left: 30px"
action="searchProjDetails"/>
                                        <h:commandLink
value="[Search By Plant Source]" style="margin-left: 30px"
action="searchPlantSource"/>
                                        <h:commandLink
value="[Search By Active Compounds]" style="color:green;
margin-left: 30px"/>
                                        <br /><br />
                                        <h:outputText
value="Blank fields are not included in the search."
styleClass="errorMessage"/>
                                        <br /><br />
                                    <h3 style="color: green; margin-
left: 2%"><u>Active Compound Details</u></h3>
                                    <br />
                                    <h:dataTable
value="#{searchProjectsBean.entries}" var="entry" border="0">
                                        <h:column>

            <h:panelGroup rendered="#{entry.type == 'text'}">

            <h:panelGroup rendered="#{entry.many == 0 &&
entry.label != 'Formula'}">

            <table>

                    <tr>

                                    <td style="width: 150px; text-
align: right; color: green"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                                    <td><h:inputText
value="#{entry.value}" size="30"/></td>

                    </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 0 &&
entry.label == 'Formula'}">

            <table>

                    <tr>

                                    <td style="width: 150px; text-
align: right; color: green; vertical-align: top; padding-top:
5px"><h:outputText value="#{entry.label}" /><h:outputText
value=": " /></td>

                                    <td><h:inputText
value="#{entry.value}" size="30" id="formula"
onkeyup="changeVal(this.value)"/><br /><span id="trueval">True
Formula:</span></td>

                    </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

            </h:panelGroup>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.type == 'select'}">

            <h:panelGroup>

            <table>

                    <tr>

                                    <td style="width: 170px; text-
align: right; color: green;"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                                    <td>

                                            <h:selectOneMenu
value="#{entry.value}" style="width: 150px">


            <f:selectItems value="#{entry.values}"/>

                                            </h:selectOneMenu>

                                    </td>

                    </tr>

            </table>

            </h:panelGroup>

            </h:panelGroup>
                                        </h:column>
                                    </h:dataTable>
                                    <h:commandButton
value="Search" style="margin-left: 75%"
actionListener="#{searchProjectsBean.searchCompounds}"
action="fromProjects"><f:param value="#{userBean.username}"
id="usernamesearch"/></h:commandButton>
                                        </h:form>
                    </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                    <ul>
                                    <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
```

```
                                                    <ul><span
  style="margin-left: 20px"><h:commandLink value="System
  Settings" action="seeLinks"
  actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                    </li>
                                        </h:panelGroup>
                                        <li>
                                                    <h2>Menu</h2>
                                                    <ul><span
  style="margin-left: 20px"><h:commandLink value="Plants List"
  action="regPlantList"
  actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                    <ul><span
  style="margin-left: 20px"><h:commandLink value="My Projects"
  action="projectList"
  actionListener="#{userProjListBean.getProjList}"><f:param
  id="username" value="#{userBean.username}"
  /></h:commandLink></span></ul>
                                                    <ul><span
  style="margin-left: 20px"><u><h:commandLink value="Search"
  action="searchSystem"></h:commandLink></u></span></ul>
                                                    <h3> </h3>
                                        </li>
                                        <li>
                                                    <h2>External
  Links</h2>
                                                    <ul>

                <h:dataTable value="#{linksListBean.links}"
  var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                            <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                    </ul>
                                        </li>
                            </ul>
                            </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

searchByPlantSource.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>

<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title>Search - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
                <script type="text/javascript"
  src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {padding: 2px}
                </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                            <h1><a>Health Application for Natural
  Products </a></h1>

                <h1><a>      In
  formation - System for Plants</a></h1>
                </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
                <div id="menu">
                            <ul id="menulist">
                                        <li
  class="current_page_item"><h:commandLink
  action="toHome">Home</h:commandLink></li>
                                        <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                            </ul>
                            <ul style="margin-left: 75%">
                                        <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                                                </h:commandLink>
                                        </li>
                                        <li>
                                                    <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                                        </li>
                            </ul>
                </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
                <!-- Content Pane -->
                <div id="content">
                            <!-- Post Pane -->
                            <div class="post">
                                        <h:form>
                                                    <h:inputHidden
  value="#{searchProjectsBean.hiddenSource}" />
```

```
                                        <br />
                                        <h3
style="color:green"><u>Search</u></h3>
                                        <br />
                                        <h:commandLink
value="[Search By Project Details]" style="margin-left: 30px"
action="searchProjDetails"/>
                                        <h:commandLink
value="[Search By Plant Source]" style="color:green;margin-left:
30px" />
                                        <h:commandLink
value="[Search By Active Compounds]" style="margin-left: 30px"
action="searchActiveCompounds"/>
                                        <br /><br />
                                        <h:outputText
value="Blank fields are not included in the search."
styleClass="errorMessage"/>
                                        <br /><br />
                                        <h:dataTable
value="#{searchProjectsBean.entries}" var="entry" border="0">
                                        <h:column>

            <h:panelGroup rendered="#{entry.type == 'text'}">

            <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                        <tr>

                                    <td style="width: 150px; text-
align: right; color: green"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                                    <td><h:inputText
value="#{entry.value}" size="30"/></td>

                        </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

            </h:panelGroup>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.type == 'select'}">

            <h:panelGroup rendered="#{entry.many == 0}">

            <table>

                        <tr>

                                    <td style="width: 170px; text-
align: right; color: green;"><h:outputText value="#{entry.label}"
/><h:outputText value=": " /></td>

                                    <td>

                                    <h:selectOneMenu
value="#{entry.value}"  style="width: 150px">


            <f:selectItems value="#{entry.values}"/>

                                    </h:selectOneMenu>
                        </td>

                        </tr>

            </table>

            </h:panelGroup>

            <h:panelGroup rendered="#{entry.many == 1}">

                        <f:facet name="header">

                                    <h:outputText style="color:
green; margin-left: 10%; text-decoration: underline"
value="#{entry.label} and #{entry.label2} " />

                        </f:facet>



                                    <table>

                                                <tr>

                                                            <td
style="width: 170px; color: green; text-align: right"><h:outputText
value="#{entry.label}" /><h:outputText value=": " />

                                                            <br /><br
/>


                        <h:outputText value="#{entry.label2}"
/><h:outputText value=": " />

                                                            </td>

                                                            <td>


                        <h:selectOneMenu value="#{entry.value}"
style="width: 150px">


                        <f:selectItems value="#{entry.values}"/>


                        </h:selectOneMenu><br /><br />


                        <h:selectOneMenu value="#{entry.value2}"
style="width: 150px">


                        <f:selectItems value="#{entry.values2}"/>


                        </h:selectOneMenu>

                                                            </td>

                                                </tr>

                                    </table>

            </h:panelGroup>

            </h:panelGroup>
                                    </h:column>
```

```
                                    </h:dataTable>
                                    <h:commandButton
value="Search" style="margin-left: 75%"
actionListener="#{searchProjectsBean.searchSource}"
action="fromProjects"><f:param value="#{userBean.username}"
id="usernamesearch"/></h:commandButton>
                                    </h:form>
                            </div>
                    </div>
                    <!-- Side Bar -->
                    <div id="sidebar">
                    <h:form>
                            <ul>
                                    <h:panelGroup
rendered="#{userBean.admin}">
                                            <li>

                    <h2>Administration</h2>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                    <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                    <h3> </h3>
                                            </li>
                                    </h:panelGroup>
                                    <li>
                                            <h2>Menu</h2>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                            <ul><span
style="margin-left: 20px"><u><h:commandLink value="Search"
action="searchSystem"></h:commandLink></u></span></ul>
                                            <h3> </h3>
                                    </li>
                                    <li>
                                            <h2>External
Links</h2>
                                            <ul>

                    <h:dataTable value="#{linksListBean.links}"
var="link">

                    <li><h:column>
                            <h:outputLink value="#{link.addr}" target="_blank">

                                    <h:outputText value="#{link.name}" />

                            </h:outputLink>

                            </h:column></li>

                            </h:dataTable>
                                                    </ul>
                                            </li>
                                    </ul>
                                    </h:form>
                    </div>
                    <!-- Filler -->
                    <div style="clear: both;"> </div>
            </div>

            <!-- Footer -->
            <div id="footer"></div>

            </body>

            </html>
    </f:view>
```

searchByProj.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>

<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title>Search - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/ajax.js"></script>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                    <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
```

```
                    <ul id="menulist">
                        <li
class="current_page_item"><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                    </ul>
                    <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                            </h:commandLink>
                        </li>
                        <li>
                            <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                    </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                    <!-- Post Pane -->
                    <div class="post">
                        <h:form>
                            <br />
                            <h3
style="color:green"><u>Search</u></h3>
                            <br />
                            <h:commandLink
value="[Search By Project Details]" style="color:green;margin-
left: 30px"/>
                            <h:commandLink
value="[Search By Plant Source]" style="margin-left: 30px"
action="searchPlantSource"/>
                            <h:commandLink
value="[Search By Active Compounds]" style="margin-left: 30px"
action="searchActiveCompounds"/>
                            <br /><br />
                            <h:outputText
value="Blank fields are not included in the search."
styleClass="errorMessage"/>
                            <br /><br />
                            <table  border="0"
width="600">
                                <tr>

            <th colspan="2"><u><h3>Project
Information</h3></u><br /></th>
                                </tr>
                                <tr>

            <td style="text-align: right; color: green">Project
Name:</td>

            <td>

            <h:inputText
value="#{searchProjectsBean.projectName}"
size="38"></h:inputText>

            </td>
                                </tr>
                                <tr>

            <td style="text-align: right; color: green">Project
Acronym:</td>

            <td>

            <h:inputText
value="#{searchProjectsBean.projectAcro}"
size="38"></h:inputText>

            </td>
                                </tr>
                                <tr>

            <td style="text-align: right; color: green">Project
Description:</td>

            <td>

            <h:inputText
value="#{searchProjectsBean.projectDescription}"
size="38"></h:inputText>

            </td>
                                </tr>
                                <tr>

            <td></td>

            <td style="text-align: right"><h:commandButton
value="Search" action="fromProjects"
actionListener="#{searchProjectsBean.searchProjects}"/></td>
                                </tr>
                            </table>
                        </h:form>
                    </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                    <ul>
                        <h:panelGroup
rendered="#{userBean.admin}">
                            <li>

            <h2>Administration</h2>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                            </li>
```

```
                                    </h:panelGroup>
                                    <li>
                                                <h2>Menu</h2>
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="Plants List"
  action="regPlantList"
  actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
  style="margin-left: 20px"><h:commandLink value="My Projects"
  action="projectList"
  actionListener="#{userProjListBean.getProjList}"><f:param
  id="username" value="#{userBean.username}"
  /></h:commandLink></span></ul>
                                                <ul><span
  style="margin-left: 20px"><u><h:commandLink value="Search"
  action="searchSystem"></h:commandLink></u></span></ul>
                                                <h3> </h3>
                                    </li>
                                    <li>
                                                <h2>External
  Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
  var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                            <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                </ul>
                                    </li>
                            </ul>
                            </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

addPlant.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
                <script type="text/javascript"
src="../javascript/jquery.js"></script>
                <script type="text/javascript"
src="../javascript/dialog.js"></script>
                <script type="text/javascript"
src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {width: 100px}
                </style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
                <div id="logo">
                            <h1><a>Health Application for Natural
Products </a></h1>

                <h1><a>      In
formation - System for Plants</a></h1>
                </div>
</div>

<!-- Menu Pane -->
<h:form>
                <div id="menu">
                            <ul id="menulist">
                                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                            </ul>
                            <ul style="margin-left: 75%">
                                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                                </h:commandLink>
                                        </li>
                                        <li>
                                                    <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                        </li>
                            </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                            <!-- Post Pane -->
                            <div class="post">
                                        <h:form
enctype="multipart/form-data">
                                        <br />
                                        <h:commandLink
value="[Back]" style="color:green; margin-left: 80%"
action="regPlantList" />
                                        <br />
                                        <p style="width: 550px; margin-
left: 40px"><h:outputText value="#{plantBean.errorString}"
styleClass="errorMessage"/></p>
```

```
                        <table style="margin-left: 40px;
margin-top: 10px" border="0">
                            <tr>
                                <th
colspan="2"><h3><u>Plant Information</u></h3><br /></th>
                            </tr>
                            <tr>
                                <td
style="text-align: right; color: green">Scientific Name:</td>
                                <td>

        <h:inputText value="#{plantBean.sciName}"
size="30"></h:inputText>
                                <h:commandButton
value="Verify" actionListener="#{plantBean.generatePlant}" />
                                </td>
                            </tr>
                            <tr>

        <td style="text-align: right; color: green">File:</td>

        <td>

        <t:inputFileUpload id="file"
value="#{plantBean.uploadedFile}" />

        </td>
                                </tr>
                            <tr>
                                <td
style="text-align: right; color: green">Local Name:</td>
                                <td>

        <h:inputText value="#{plantBean.locName}"
size="30"></h:inputText>
                                </td>
                            </tr>
                            <tr>
                                <td
colspan="2"><i><font size="1"  style="margin-left:
40%">Separate names with commas (name1, name2).</font></i>
                                </td>
                            </tr>
                            <tr>
                                <td
style="text-align: right; color: green">Synonyms:</td>
                                <td
rowspan="2">

        <h:inputTextarea rows="5" cols="40"
value="#{plantBean.synonyms}"></h:inputTextarea>
                                </td>
                            </tr>
                            <tr>

        <td> </td>
                            </tr>
                            <tr>
                                <td
style="text-align: right; color: green">Common Names:</td>
                                <td
rowspan="2">

        <h:inputTextarea rows="5" cols="40"
value="#{plantBean.otherName}"></h:inputTextarea>
                                </td>
                            </tr>
                            <tr>

        <td> </td>
                            </tr>
                            <tr>
                                <td
style="text-align: right; color: green">Description:</td>
                                <td
rowspan="2">

        <h:inputTextarea rows="5" cols="40"
value="#{plantBean.desc}"></h:inputTextarea>
                                </td>
                            </tr>
                            <tr>

        <td> </td>
                            </tr>
                        </table>
                        <br />
                        <div style="margin-left: 65%">
                            <h:commandButton
value="Add" actionListener="#{plantBean.addPlant}"
action="#{plantBean.getAddString}" />
                        </div>
                    </h:form>
                    </div>
        </div>
        <!-- Side Bar -->
        <div id="sidebar">
        <h:form>
            <ul>
                <h:panelGroup
rendered="#{userBean.admin}">
                    <li>

        <h2>Administration</h2>
                        <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                        <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                        <ul><span
style="margin-left: 20px"><u><h:commandLink value="Plant
Management" action="plantManage"/></u></span></ul>
                        <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                        <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

        <h3> </h3>
                    </li>
                </h:panelGroup>
                <li>
                    <h2>Menu</h2>
                    <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                    <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
```

```
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>

</html>
</f:view>
```

addPlantDirect.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
        <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title>HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
        <script type="text/javascript"
src="../javascript/jquery.js"></script>
        <script type="text/javascript"
src="../javascript/dialog.js"></script>
        <script type="text/javascript"
src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {width: 100px}
        </style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
Products </a></h1>

        <h1><a>      In
formation - System for Plants</a></h1>
        </div>
</div>

<!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                        <h:form
enctype="multipart/form-data">
                        <br />
                        <h:commandLink
value="[Back]" style="color:green; margin-left: 80%"
action="plantManage" />
                        <br />
                        <p style="width: 550px; margin-
left: 40px"><h:outputText value="#{plantBean.errorString}"
styleClass="errorMessage"/></p>
                        <table style="margin-left: 40px;
margin-top: 10px" border="0">
                                <tr>
                                        <th
colspan="2"><h3><u>Plant Information</u></h3><br /></th>
                                </tr>
                                <tr>
                                        <td
style="text-align: right; color: green">Scientific Name:</td>
                                        <td>
```

```
            <h:inputText value="#{plantBean.sciName}"
size="30"></h:inputText>
                                                <h:commandButton
value="Verify" actionListener="#{plantBean.generatePlant}" />
                                                </td>
                                            </tr>
                                            <tr>

            <td style="text-align: right; color: green">File:</td>

            <td>

            <t:inputFileUpload id="file"
value="#{plantBean.uploadedFile}" />

            </td>
                                                </tr>
                                            <tr>
                                                <td
style="text-align: right; color: green">Local Name:</td>
                                                <td>

            <h:inputText value="#{plantBean.locName}"
size="30"></h:inputText>
                                                </td>
                                            </tr>
                                            <tr>
                                                <td
colspan="2"><i><font size="1"  style="margin-left:
40%">Separate names with commas (name1, name2).</font></i>
                                                </td>
                                            </tr>
                                            <tr>
                                                <td
style="text-align: right; color: green">Synonyms:</td>
                                                <td
rowspan="2">

            <h:inputTextarea rows="5" cols="40"
value="#{plantBean.synonyms}"></h:inputTextarea>
                                                </td>
                                            </tr>
                                            <tr>

            <td> </td>
                                            </tr>
                                            <tr>
                                                <td
style="text-align: right; color: green">Common Names:</td>
                                                <td
rowspan="2">

            <h:inputTextarea rows="5" cols="40"
value="#{plantBean.otherName}"></h:inputTextarea>
                                                </td>
                                            </tr>
                                            <tr>

            <td> </td>
                                            </tr>
                                            <tr>
                                                <td
style="text-align: right; color: green">Description:</td>
                                                <td
rowspan="2">

            <h:inputTextarea rows="5" cols="40"
value="#{plantBean.desc}"></h:inputTextarea>
                                                </td>
                                            </tr>
                                            <tr>

            <td> </td>
                                            </tr>
                                        </table>
                                        <br />
                                        <div style="margin-left: 65%">
                                            <h:commandButton
value="Add" actionListener="#{plantBean.addPlant}"
action="#{plantBean.getAddString}" />
                                        </div>
                    </h:form>
                    </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                    <ul>
                                        <h:panelGroup
rendered="#{userBean.admin}">
                                            <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><u><h:commandLink value="Plant
Management" action="plantManage"/></u></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                            </li>
                                        </h:panelGroup>
                                        <li>
                                            <h2>Menu</h2>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                            <h3> </h3>
                                        </li>
                                        <li>
                                            <h2>External
Links</h2>
                                            <ul>
```

```
            <h:dataTable value="#{linksListBean.links}"
  var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                  <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                    </ul>
                              </li>
                  </ul>
                  </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

addProjectDirect.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
            <c:redirect url="/services/plantHome.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
            <title>HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
            <script type="text/javascript"
  src="../javascript/jquery.js"></script>
            <script type="text/javascript"
  src="../javascript/dialog.js"></script>
            <script type="text/javascript"
  src="../javascript/ajax.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
            <div id="logo">
                  <h1><a>Health Application for Natural
  Products </a></h1>

            <h1><a>      In
  formation - System for Plants</a></h1>
            </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
            <div id="menu">
                  <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                  </ul>
                  <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                    </h:commandLink>
                        </li>
                        <li>
                              <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                  </ul>
            </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
            <!-- Content Pane -->
            <div id="content">
                  <!-- Post Pane -->
                  <div class="post">
                        <br />
                        <h:form>
                        <h:commandLink style="margin-
left: 550px; color: green" value="[Back]" action="projectList"/>
                        <h:panelGroup
rendered="#{projectBean.addError}">
                              <p><h:outputText
styleClass="errorMessage" style="margin-left: 2%; margin-
bottom: 4%"
value="#{projectBean.addErrorMess}"></h:outputText></p>
                        </h:panelGroup>
                              <table  border="0"
width="600" style="margin-left:2%">
                                    <tr>

            <th colspan="2"><u><h3>Project
Information</h3></u><br /></th>
                                    </tr>
                                    <tr>

            <td rowspan="2" style="padding-left: 30px; width:
100px">

            <h:outputText style="color: green; margin-left: 5px"
value="Plant Scientific Name: " /><br />

            <h:inputText disabled="true"
value="#{projectBean.projectPlantName}" />

            </td>

            <td style="text-align: center">

            <br /><br />
```

```
<h:commandButton
disabled="#{!projectBean.hasValue}" value="<< Add"
actionListener="#{projectBean.toPlant}"></h:commandButton>

</td>

<td rowspan="2">

<h:selectOneListbox
value="#{projectBean.currentPlant}" size="10"
styleClass="force">

<f:selectItems
value="#{projectBean.plantsList}" />

</h:selectOneListbox>

<br />

</td>
</tr>
<tr>

<td><h:commandButton
disabled="#{projectBean.hasValue}" value="Remove >>"
actionListener="#{projectBean.toPlantList}"></h:commandButton
></td>
</tr>
<tr>

<td><br></br><br></br></td>

<td colspan="2" style="padding-left: 110px">

<h:inputText value="#{projectBean.plantKeyWord}"
size="17"/><h:commandButton value="Search"
actionListener="#{projectBean.searchPlantList}"></h:commandB
utton><h:commandButton value="Reset"
actionListener="#{projectBean.resetSearch}"
></h:commandButton>

</td>
</tr>
<tr>

<td style="text-align: right; color: green">Project
Name:</td>

<td colspan="2">

<h:inputText value="#{projectBean.projectName}"
size="38"></h:inputText>

</td>
</tr>
<tr>

<td style="text-align: right; color: green">Project
Acronym:</td>

<td colspan="2">

<h:inputText value="#{projectBean.projectCode}"
size="38"></h:inputText>

</td>
</tr>
<tr>

<td style="text-align: right; color: green">Project
Description:</td>

<td rowspan="2" colspan="2">

<h:inputTextarea rows="6" cols="30"
value="#{projectBean.projectDescription}"></h:inputTextarea>

</td>
</tr>
<tr>

<td></td>
</tr>
<tr>

<td style=" color: green"><u>Project
Administrations</u></td>

<td style=" color: green" colspan="2"><u
style="margin-left: 120px">Other Users</u></td>
</tr>
</table>
<table border="0">
<tr>

<td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentExpel}" size="10"
styleClass="force">

<f:selectItems
value="#{projectBean.projectAdmins}" />

</h:selectOneListbox></td>

<td style="text-align: center"><h:commandButton
value="<< Add"
actionListener="#{projectBean.addToAdmin}"></h:commandButt
on></td>

<td rowspan="2"><h:selectOneListbox
value="#{projectBean.currentUserName}" size="10"
styleClass="force">

<f:selectItems
value="#{projectBean.allUsers}" />

</h:selectOneListbox>

<br />

</td>
</tr>
<tr>

<td><h:commandButton value="Remove >>"
actionListener="#{projectBean.removeAdmin}"></h:commandBut
ton></td>
</tr>
<tr>

<td><br></br><br></br></td>

<td></td>

<td>
```

```
		<h:inputText
value="#{projectBean.searchUser}"/><h:commandButton
value="Search"
actionListener="#{projectBean.searchUsers}"><f:param
id="mode" value="1" /></h:commandButton><h:commandButton
value="Reset" actionListener="#{projectBean.reInitForSearch}"
><f:param id="mode2" value="1" /></h:commandButton>

		</td>
                                                </tr>
                                                <tr>

		<td style="text-align: right"
colspan="3"><h:commandButton value="Save"
action="#{projectBean.getGoToCreate}"
actionListener="#{projectBean.addProject}"><f:param id="user"
value="#{userBean.username}" /></h:commandButton></td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

		<h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><u><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></u></s
pan></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

                                        <h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>

	</body>

	</html>
</f:view>
```

addUser.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${userBean.username == null}">
		<c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
		<c:redirect url="/services/plantHome.jsf" />
</c:if>

<f:view>


	<html xmlns="http://www.w3.org/1999/xhtml">

	<head>
		<title>HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
	type="text/css" media="screen" />
		<script type="text/javascript"
	src="../javascript/jquery.js"></script>
		<script type="text/javascript"
	src="../javascript/dialog.js"></script>
```

```
        <script type="text/javascript"
src="../javascript/datetimepicker.js"></script>
        <script type="text/javascript"
src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {width: 150px}
        </style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
Products </a></h1>

        <h1><a>      In
formation - System for Plants</a></h1>
        </div>
</div>

<!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                <h:form id="regForm">
                <br />
                <h:commandLink value="[Back]"
action="seeUsers" style="color: green; margin-left: 75%" />
                <br />
                <p style="margin-left:
10px;"><h:outputText rendered="#{!viewUserBean.updateOk}"
value="#{viewUserBean.updateSuccessString}"
styleClass="errorMessage"></h:outputText>
                        </p>

                        <p style="margin-left: 50px;
margin-right: 100px"></p>
                                        <h3 style="margin-
left: 30px; color:green"><u>Add User</u></h3><br />
                                                <table border="0"
width="400" style="margin-left:15%">
                                                        <tr>

        <th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><u>Account
Information</u></th>

                                                        </tr>
                                                        <tr>

        <td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Username:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:inputText size="20"
value="#{viewUserBean.userName}"/></td>
                                                        </tr>
                                                        <tr>

        <td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Password:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:inputSecret size="20"
value="#{viewUserBean.password}"/></td>
                                                        </tr>
                                                        <tr>

        <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Confirm
Password:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:inputSecret size="20"
value="#{viewUserBean.password2}"/></td>
                                                        </tr>
                                                        <tr>

        <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green">System Administration</td>

        <td>

        <h:selectBooleanCheckbox
value="#{viewUserBean.setAdmin}" />

        </td>
                                                        </tr>
                                                        <tr>


        <th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>User
Information</u></th>

                                                        </tr>
                                                        <tr>

        <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Last
Name:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:inputText size="20"
value="#{viewUserBean.lastName}" /></td>
                                                        </tr>
                                                        <tr>

        <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>First
Name:</h:outputLabel></td>
```

```
<td style="padding-top: 5px"><h:inputText size="20"
value="#{viewUserBean.firstname}"/></td>
</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Middle
Name:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText size="20"
value="#{viewUserBean.middlename}"/></td>
</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Email
Address:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText size="20"
id="email" value="#{viewUserBean.emailAdd}"/></td>
</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Company:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText size="20"
value="#{viewUserBean.company}"/></td>
</tr>
<tr>

<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Security</u></th>

</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText size="30"
value="#{viewUserBean.securityQuestion}"/></td>
</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText size="20"
value="#{viewUserBean.securityAnswer}"/></td>
</tr>
<tr>

<td><br></br><br></br><u></u></td>

<td
align="right"><br></br><br></br><h:commandButton
value="Add User" action="#{viewUserBean.addUser}"
actionListener="#{adminTempBean.updateTrue}"/></td>
</tr>
</table>
</h:form>
</div>
</div>

<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>

<h2>Administration</h2>
<ul><span
style="margin-left: 20px"><u><h:commandLink value="User
List" action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></u></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
</li>
</h:panelGroup>
<li>
<h2>Menu</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
<h3> </h3>
</li>
<li>
<h2>External
Links</h2>
<ul>

<h:dataTable value="#{linksListBean.links}"
var="link">

<li><h:column>

<h:outputLink value="#{link.addr}" target="_blank">

<h:outputText value="#{link.name}" />

</h:outputLink>

</h:column></li>

</h:dataTable>
```

```
                                        </ul>
                                    </li>
                                </ul>
                                </h:form>
                        </div>
                        <!-- Filler -->
                        <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>

    </body>

    </html>
</f:view>
```

adminHome.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
                <c:redirect url="/services/plantHome.jsf" />
</c:if>

<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
                <script type="text/javascript"
    src="../javascript/ajax.js"></script>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

                <h1><a>      In
    formation - System for Plants</a></h1>
                </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li
    class="current_page_item"><h:commandLink
    action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
    action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                                </li>
                                <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <br/><br/>
                                <h3 style="color:
green"><u>Pending User Account Requests</u></h3>
                                <h:form>
                                <br />
                                <p style="margin-left: 40px">
                                        HANAPIN-SP
currently has <h:outputText
value="#{pendingUserRequestBean.pendingRequests}" />
pending user account request/s.
                                <br />
                                <h:commandLink
rendered="#{pendingUserRequestBean.pendingRequests != 0}"
style="margin-left: 150px; color: green" value="Click here to view
pending requests." action="seePending"
actionListener="#{adminTempBean.initPending}"/>
                                </p>
                                <br/><br/>
                                <h3 style="color:
green"><u>Pending Project Membership Requests</u></h3>
                                <br />
                                <h:dataTable
value="#{userBean.projList}" var="proj"
columnClasses="class7">
                                <h:column>
                                        Project
<h:commandLink style="color:green" value="#{proj.name}"
actionListener="#{projectBean.fromHomeToAdmins}"
action="projectPending"><f:param id="projectID"
value="#{proj.id}" /><f:param id="username"
value="#{userBean.username}" /></h:commandLink> has

                <h:outputText value="#{proj.reqests}" /> pending
request/s.
                                </h:column>
                                </h:dataTable>
                                <h:outputText style="margin-
left: 40px" rendered="#{userBean.noList}" value="[NO
PENDING REQUEST]" />
                                <br /><br /><br />
                                <h3 style="color:
green"><u>Notifications</u></h3>

                                <h:commandLink style="margin-
left: 35%; color: green" value="[Show Unread]"
actionListener="#{userBean.toShowUnread}"/> <h:commandLink
style="margin-left: 3%; color: green" value="[Show All]"
```

```
actionListener="#{userBean.toShowAll}"/> <h:commandLink
style="margin-left: 3%; color: green" value="[Delete All]"
actionListener="#{userBean.deleteAll}"/> <h:commandLink
style="margin-left: 3%; color: green" value="[Delete Read]"
actionListener="#{userBean.deleteRead}"/>
                                        <br /><br />
                                        <h:dataTable
value="#{userBean.list}" var="notif" columnClasses="class7"
style="margin-left: 20px">
                                                <h:column>

                <h:outputText value="*" styleClass="errorMessage"
rendered="#{!notif.read}" />Project

                <h:commandLink style="color:green"
value="#{notif.displayname}"
actionListener="#{projectBean.getProjectDetailsNotif}"
action="#{notif.getActionValue}"><f:param id="projectId"
value="#{notif.projectid}" /><f:param id="username2"
value="#{notif.username}" /></h:commandLink>
                                                        -

                <h:outputText value="#{notif.message}" />
                                                </h:column>
                                        </h:dataTable>
                                        <h:outputText value="[NO
UPDATES]" rendered="#{userBean.noData}" style="margin-left:
40px"/>
                                        </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                        <h:panelGroup
rendered="#{userBean.admin}">
                                                <li>

                <h2>Administration</h2>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                                </li>
                                        </h:panelGroup>
                                        <li>
                                                <h2>Menu</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                        <h3> </h3>
                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                                        </ul>
                                        </li>
                                </ul>
                                </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

askRegister.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
  </head>

  <body>
```

```
<!-- Logo Pane -->
<div id="header">
	<div id="logo">
		<h1><a>Health Application for Natural
Products </a></h1>

	<h1><a>      In
formation - System for Plants</a></h1>
	</div>
</div>

<!-- Menu Pane -->
<h:form>
	<div id="menu">
		<ul id="menulist">
			<li><h:commandLink
action="toHome">Home</h:commandLink></li>
			<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
		</ul>
	</div>
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<div class="post" style="padding-top:
10px">
			<p style="margin-left:
10px;"><h:outputText rendered="#{userBean.errorLogIn}"
value="Your Username and Password did not match. You may
register for an account"
styleClass="errorMessage"></h:outputText>
				<h:outputText
rendered="#{!userRegistrationBean.successRegistration}"
value="#{userRegistrationBean.registrationMessage}"
styleClass="errorMessage"></h:outputText>
			</p>
			<div>
				<h:form
id="regForm">
				<h3 style="margin-
left: 30px; color:green"><u>Registration Form</u></h3><br />
				<table border="0"
width="400" style="margin-left:15%">
					<tr>

	<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><u>Account
Information</u></th>

					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Username:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText size="20"
value="#{userRegistrationBean.regUserName}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Password:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputSecret size="20"
value="#{userRegistrationBean.regPassword}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Confirm
Password:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputSecret size="20"
value="#{userRegistrationBean.regPassword2}"/></td>
					</tr>
					<tr>



	<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>User
Information</u></th>

					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Last
Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText size="20"
value="#{userRegistrationBean.lastName}" /></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>First
Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText size="20"
value="#{userRegistrationBean.firstname}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Middle
Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText size="20"
value="#{userRegistrationBean.middlename}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Email
Address:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText size="20"
id="email" value="#{userRegistrationBean.emailAdd}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Company:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputText size="20"
value="#{userRegistrationBean.company}"/></td>
					</tr>
					<tr>



	<th colspan="2" align="left" style="padding-right:
```

```
15px; padding-top: 5px;color: green"><br /><u>In case you forgot
your password</u></th>

                                                        </tr>
                                                        <tr>


            <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText size="30"
value="#{userRegistrationBean.securityQuestion}"/></td>
                                                        </tr>
                                                        <tr>


            <td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText size="20"
value="#{userRegistrationBean.securityAnswer}"/></td>
                                                        </tr>

                                                        <tr>


            <td></td>

            <td ><i>Note: All Fields Are Required.</i><br /><br
/><h:commandButton value="Register"
actionListener="#{userRegistrationBean.registerUser}"
action="#{userRegistrationBean.getRegistrationString}"/></td>
                                                        </tr>
                                                </table>
                                                </h:form>
                                        </div>
                                </div>
                        </div>
                        <!-- Side Bar -->
                        <div id="sidebar">
                                <ul>
                                        <li>
                                                <h2>Account</h2>
                                                <ul>You Are Not
Logged In</ul>
                                                <ul style="padding-
left: 70%">
                                                        <a
href="login.jsf">

            <font size="3">Log-In</font>
                                                        </a>
                                                </ul>

                                        </li>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                                        </ul>
                                                </li>
                                        </ul>
                        </div>
                        <!-- Filler -->
                        <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<!-- Pop Up Boxes -->
<div id="boxes">
            <!-- Login Box -->
            <div id="dialog" class="window" style="width: inherit;
height: inherit;">
                        <font size="1" style="padding-left:85%">
                                    <a style="cursor: pointer"
href="#" class="close">
                                                <i>close[x]</i>
                                    </a>
                        </font>
                        <h:form id="myform">
                                    <table border="0">
                                                <tr>

            <td>Username:</td>
                                                            <td
colspan="2">

            <h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                                            </td>
                                                </tr>
                                                <tr>

            <td>Password:</td>
                                                            <td>

            <h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

            </h:inputSecret>
                                                            </td>
                                                            <td>
                                                            <font
size="1" style="padding-left:5px">

            <i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

            </font><br /><font size="1" style="padding-left:5px">

            <i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

            </font>
                                                            </td>
                                                </tr>
                                    </table>
                                    <div style="padding-left: 80%;
padding-top: 2%">
                                                <h:commandButton
value="Log-In" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
                                    </div>
```

```
                                        <h:inputHidden
   value="#{forgotPasswordBean.ctr}" />
                                </h:form>
                        </div>
                        <!-- Mask Div -->
                        <div id="mask"></div>
   </div>

   </body>

   </html>
</f:view>
```

editUser.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
                <c:redirect url="/services/plantHome.jsf" />
</c:if>

<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
                <script type="text/javascript"
   src="../javascript/jquery.js"></script>
                <script type="text/javascript"
   src="../javascript/dialog.js"></script>
                <script type="text/javascript"
   src="../javascript/datetimepicker.js"></script>
                <script type="text/javascript"
   src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {width: 150px}
                </style>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
   Products </a></h1>

                <h1><a>      In
   formation - System for Plants</a></h1>
                </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
   action="toHome">Home</h:commandLink></li>

                <li><h:commandLink>FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                <h:form id="regForm">
                <br />
                <h:commandLink style="color: green;
margin-left: 75%" value="[Back]" action="showUserDetails"
/><br/>
                <h:outputText
rendered="#{!viewUserBean.updateOk}"
value="#{viewUserBean.updateSuccessString}"
styleClass="errorMessage" />

                                        <table border="0"
width="400" style="margin-left:15%">
                                                <tr>


        <th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Information</u></th>

                                                </tr>
                                                <tr>

        <td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Username:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:inputText
disabled="true"  value="#{viewUserBean.userName}"/></td>
                                                </tr>
                                                <tr>

        <td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Password:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:commandLink
value="Reset Password"
actionListener="#{viewUserBean.resetUserPass}"/></td>
                                                </tr>
                                                <tr>


        <th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>User
Information</u></th>

                                                </tr>
```

```
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Last
Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{viewUserBean.lastName}" /></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>First
Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{viewUserBean.firstname}"/></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Middle
Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{viewUserBean.middlename}"/></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Email
Address:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText  id="email"
value="#{viewUserBean.emailProxy}"/></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Company:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{viewUserBean.company}"/></td>
                                                </tr>
                                                <tr>


            <th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Security</u></th>

                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{viewUserBean.securityQuestion}"/></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{viewUserBean.securityAnswer}"/></td>
                                                </tr>

                                                <tr>

            <td><br></br><br></br><u></u></td>

            <td><br></br><br></br><h:commandButton
value="Save" action="#{viewUserBean.updateUser}"
actionListener="#{adminTempBean.updateTrue}"/></td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>
```

```
            <h:dataTable value="#{linksListBean.links}"
  var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                  <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                    </ul>
                              </li>
                  </ul>
                  </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

forgetPassDetails.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
            <title>HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
            <script type="text/javascript"
  src="../javascript/jquery.js"></script>
            <script type="text/javascript"
  src="../javascript/dialog.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
            <div id="logo">
                  <h1><a>Health Application for Natural
  Products </a></h1>

            <h1><a>      In
  formation - System for Plants</a></h1>
            </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
            <div id="menu">
                  <ul id="menulist">
                              <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                              <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                  </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                  <!-- Post Pane -->
                  <div class="post" style="padding-top:
10px">
                              <p style="margin-left: 10px;
margin-right: 100px"><br></br><h:outputText value="You will
receive an email regarding your account details. Please check your
inbox and spam folder."
styleClass="errorMessage"></h:outputText><br></br><br></br><
/p>
                              <div>
                                    <h:form
id="regForm">
                                          <br /><br
/><br />
                                          <p
style="margin-left: 20px"><u><h:commandLink value="Return to
home page" action="toHome" /></u></p>
                                    </h:form>
                                    <br /><br /><br /><br
/><br /><br /><br /><br /><br /><br /><br /><br /><br
/><br /><br /><br /><br /><br />
                              </div>
                  </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
                  <ul>
                              <li>
                                    <h2>Account</h2>
                                    <ul>You Are Not
Logged In</ul>
                                    <ul style="padding-
left: 70%">
                                          <a
href="login.jsf">

            <font size="3">Log-In</font>
                                          </a>
                                    </ul>

                              </li>
                              <li>
                                    <h2>External
Links</h2>
                                    <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                  <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>
```

```
		</h:dataTable>
                                        </ul>
                                </li>
                        </ul>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<!-- Pop Up Boxes -->
<div id="boxes">
		<!-- Login Box -->
		<div id="dialog" class="window" style="width: inherit;
height: inherit;">
                        <font size="1" style="padding-left:85%">
                                <a style="cursor: pointer"
href="#" class="close">
                                        <i>close[x]</i>
                                </a>
                        </font>
                        <h:form id="myform">
                                <table border="0">
                                        <tr>

		<td>Username:</td>
                                                <td
colspan="2">

		<h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                                </td>
                                        </tr>
                                        <tr>

		<td>Password:</td>
                                                <td>

		<h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

		</h:inputSecret>
                                                </td>
                                                <td>
                                                <font
size="1" style="padding-left:5px">

		<i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

		</font><br /><font size="1" style="padding-left:5px">

		<i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

		</font>
                                                </td>
                                        </tr>
                                </table>
                                <div style="padding-left: 80%;
padding-top: 2%">
                                        <h:commandButton
value="Log-In" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
                                </div>
                                <h:inputHidden
value="#{forgotPasswordBean.ctr}" />
                        </h:form>
                </div>
                <!-- Mask Div -->
                <div id="mask"></div>
  </div>

  </body>

  </html>
</f:view>
```

forgetPassword.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title>HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
  Products </a></h1>

		<h1><a>      In
  formation - System for Plants</a></h1>
		</div>
  </div>

  <!-- Menu Pane -->
  <h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
  action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
			</ul>
		</div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post" style="padding-top:
  10px">
				<p style="margin-left: 10px;
  margin-right: 100px"><h:outputText
  value="#{forgotPasswordBean.forgetString}"
  styleClass="errorMessage"
  rendered="#{forgotPasswordBean.questionError}"></h:outputText
  ><br></br></p>
				<div>
```

```
                                        <h:form
id="regForm">
                                                <table
border="0" width="300" style="margin-left:2%">

            <tr>

            <th colspan="3"><h3>Account Details</h3><br></th>

            </tr>

            <tr>

            <td><h:outputLabel
style="color:green">Username:</h:outputLabel></td>

            <td style="padding-top: 5px;width:
150px"><h:inputText
value="#{forgotPasswordBean.username}"/></td>

            <td></td>

            </tr>

            <tr>

            <td><h:outputLabel
style="color:green">Question:</h:outputLabel></td>

            <td style="padding-top: 5px;width:
150px"><h:inputText disabled="true"
value="#{forgotPasswordBean.question}" size="40"/></td>

            <td><h:commandButton value="Show security
question"
actionListener="#{forgotPasswordBean.generateQuestion}"></h:c
ommandButton></td>

            </tr>

            <tr>

            <td><h:outputLabel
style="color:green">Answer:</h:outputLabel></td>

            <td style="padding-top: 5px;width:
150px"><h:inputText
value="#{forgotPasswordBean.answerProxy}"/></td>

            <td></td>

            </tr>

            <tr>

            <td></td>

            <td><br></br><br></br><h:commandButton
rendered="#{forgotPasswordBean.questionMode}" value="Reset
Password"
actionListener="#{forgotPasswordBean.resetPassword}"
action="#{forgotPasswordBean.getForgetOk}"/></td>

            </tr>
                                                </table>
                                        </h:form>
                                </div>
                        </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
                        <ul>
                                    <li>
                                                <h2>Account</h2>
                                                <ul>You Are Not
Logged In</ul>
                                                <ul style="padding-
left: 70%">
                                                            <a
href="login.jsf">

            <font size="3">Log-In</font>
                                                            </a>
                                                </ul>

                                    </li>
                                    <li>
                                                <h2>External
Links</h2>
                                                <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                                </ul>
                                    </li>
                        </ul>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<!-- Pop Up Boxes -->
<div id="boxes">
            <!-- Login Box -->
            <div id="dialog" class="window" style="width: inherit;
height: inherit;">
                        <font size="1" style="padding-left:85%">
                                    <a style="cursor: pointer"
href="#" class="close">
                                                <i>close[x]</i>
                                    </a>
                        </font>
                        <h:form id="myform">
                                    <table border="0">
                                                <tr>

            <td>Username:</td>
                                                            <td
colspan="2">

            <h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                                            </td>
                                                </tr>
                                                <tr>
```

```
                <td>Password:</td>
                                                        <td>

                <h:inputSecret id="password"
    value="#{userBean.password}" onclick="this.value="">

                </h:inputSecret>
                                                        </td>
                                                        <td>
                                                        <font
    size="1" style="padding-left:5px">

                <i><h:commandLink value="forgot password?"
    action="forgotpassword"></h:commandLink></i>

                </font><br /><font size="1" style="padding-left:5px">

                <i><h:commandLink value="forgot username?"
    action="forgotusername"></h:commandLink></i>

                </font>
                                                        </td>
                                                    </tr>
                                            </table>
                                            <div style="padding-left: 80%;
    padding-top: 2%">
                                                    <h:commandButton
    value="Log-In" action="#{userBean.validateUser}"
    actionListener="#{userRegistrationBean.reInit}"/>
                                            </div>
                                            <h:inputHidden
    value="#{forgotPasswordBean.ctr}" />
                                    </h:form>
                </div>
                <!-- Mask Div -->
                <div id="mask"></div>
    </div>

    </body>

    </html>
</f:view>
```

forgotUsername.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                            <h1><a>Health Application for Natural
    Products </a></h1>
                <h1><a>      In
formation - System for Plants</a></h1>
                </div>
</div>

<!-- Menu Pane -->
<h:form>
                <div id="menu">
                            <ul id="menulist">
                                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                            </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                            <!-- Post Pane -->
                            <div class="post" style="padding-top:
10px">
                                        <p style="margin-left: 10px;
margin-right: 100px"><h:outputText
value="#{forgotUsernameBean.errorMessage}"
styleClass="errorMessage"></h:outputText><br></br></p>
                                        <div>
                                                    <h:form
id="regForm">
                                                                <table
border="0" width="300" style="margin-left:5%">

                <tr>

                <th colspan="3"><h3>Account Details</h3><br></th>

                </tr>

                <tr>

                <td><h:outputLabel style="color:green">Email
Address:</h:outputLabel></td>

                <td style="padding-top: 5px;width:
150px"><h:inputText
value="#{forgotUsernameBean.emailAdd}"/><br/>



                </td>

                </tr>

                <tr>

                <td colspan="2" style="text-align: right"><i
style="font-size: 10px; color: green">Your username will be sent
to your email address.</i></td>

                </tr>

                <tr>

                <td></td>

                <td style="text-align: right"><h:commandButton
value="Send Username"
```

```
actionListener="#{forgotUsernameBean.sendToEmail}"
action="#{forgotUsernameBean.getStat}"/></td>

            </tr>
                                                    </table>
                                                    <br /><br
/><br /><br /><br /><br /><br />
                                            </h:form>
                                    </div>
                            </div>
                    </div>
                    <!-- Side Bar -->
                    <div id="sidebar">
                            <ul>
                                    <li>
                                            <h2>Account</h2>
                                            <ul>You Are Not
Logged In</ul>
                                            <ul style="padding-
left: 70%">
                                                    <a
href="login.jsf">

                    <font size="3">Log-In</font>
                                                    </a>
                                            </ul>

                                    </li>
                                    <li>
                                            <h2>External
Links</h2>
                                            <ul>

                    <h:dataTable value="#{linksListBean.links}"
var="link">

                    <li><h:column>

                    <h:outputLink value="#{link.addr}" target="_blank">

                            <h:outputText value="#{link.name}" />

                    </h:outputLink>

                    </h:column></li>

                    </h:dataTable>
                                            </ul>
                                    </li>
                            </ul>
                    </div>
                    <!-- Filler -->
                    <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<!-- Pop Up Boxes -->
<div id="boxes">
            <!-- Login Box -->
            <div id="dialog" class="window" style="width: inherit;
height: inherit;">
                    <font size="1" style="padding-left:85%">
                            <a style="cursor: pointer"
href="#" class="close">
                                    <i>close[x]</i>
                            </a>
                    </font>
                    <h:form id="myform">
                            <table border="0">
                                    <tr>

                    <td>Username:</td>
                                                    <td
colspan="2">

                    <h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                                    </td>
                                            </tr>
                                            <tr>

                    <td>Password:</td>
                                                    <td>

                    <h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

                    </h:inputSecret>
                                                    </td>
                                                    <td>
                                                    <font
size="1" style="padding-left:5px">

                    <i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

                    </font><br /><font size="1" style="padding-left:5px">

                    <i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

                    </font>
                                                    </td>
                                            </tr>
                                    </table>
                                    <div style="padding-left: 80%;
padding-top: 2%">
                                            <h:commandButton
value="Log-In" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
                                    </div>
                                    <h:inputHidden
value="#{forgotPasswordBean.ctr}" />
                            </h:form>
            </div>
            <!-- Mask Div -->
            <div id="mask"></div>
</div>

</body>

</html>
</f:view>
```

home.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${!installerBean.installed}">
  <c:redirect url="/services/installer.jsf" />
</c:if>
<c:if test="${userBean.logged}">
```

```
<c:if test="${userBean.admin}">
        <c:redirect url="/services/adminHome.jsf" />
</c:if>
<c:redirect url="/services/plantHome.jsf" />
</c:if>

<f:view>
<html xmlns="http://www.w3.org/1999/xhtml">

<head>
        <title>Home - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
        <script type="text/javascript"
src="../javascript/jquery.js"></script>
        <script type="text/javascript"
src="../javascript/dialog.js"></script>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
Products </a></h1>

        <h1><a>      In
formation - System for Plants</a></h1>
        </div>
</div>

<!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li
class="current_page_item"><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div style="width: 600px; text-align:
justify">
                        <h1 class="title"
style="color:green"> Welcome to HANAPIN-SP!</h1><br />
                        <span style="margin:20px">
                        Plants contain complex and
highly varied chemical compounds that are used for a variety of
purposes, most notably for defense against animals or insects that
may try to eat them.  Scientists isolate these compounds,
commonly referred to as natural products, and test them for various
applications, usually for therapeutic uses.  Many of these
compounds have subsequently been shown to be effective in
treating various diseases, for example, morphine and quinine.
Others have been the basis for synthetic drugs, for example, local
anaesthetics developed from cocaine. Clinically useful drugs which
have been recently isolated from plants include the anticancer
agent paclitaxel (Taxol) from the yew tree, and the antimalarial
agent artemisinin from Artemisia annua.</span>
                        <br /><br />
                        <span
style="margin:20px">Natural products research is a very active
field of research in the country, with different laboratories
isolating, purifying and identifying pharmacologically active
components from plant, marine and bacterial sources. However, a
lot of researches fail to reach the desired endpoint of determination
of the active components or optimum pharmacological
formulations.  In other cases, work performed by one group is
duplicated by other groups because of failure to disseminate results
either in conference presentations or journal publications.  Also,
even though there are lots of research results that show promising
medical applications, there are very few that have been translated
to industrial production and common usage.  The creation of a
Philippine natural products database will help significantly in
centralizing information and making them publicly available.<br
/></span><hr /><br />
                        <h:form>
                        <br /><h1 class="title"
style="color:green"><u>HANAPIN-SP News And
Updates</u></h1><br />
                        <h:dataTable
value="#{newsFeedBean.news}" var="news"
columnClasses="class9" rows="#{newsFeedBean.rows}">

        <h:column>

        <h:outputText style="color: green; font-size: 16px"
value="#{news.title}"/><br />

        <i><h:outputText style="font-size: 10px"
value="Added: "/><h:outputText value="#{news.date}"
style="font-size: 10px" /><br />

        <h:outputText style="font-size: 10px" value="Last
Edited: "/><h:outputText value="#{news.editDate}" style="font-
size: 10px" /><br /></i>

        <br /><h:outputText value="#{news.tempText}"
escape="false" /><br /><br />

        <h:commandLink value="[Read More]"
action="seeThisNews" style="margin-left: 85%; color: green"
actionListener="#{newsFeedBean.getThisNews}" ><f:param
id="newsId" value="#{news.id}" /></h:commandLink>

        <hr />

        </h:column>
                        </h:dataTable>
                        <br />
                        <h:commandLink
rendered="#{newsFeedBean.rows != 100}" value="[See All]"
actionListener="#{newsFeedBean.addRow}" style="margin-left:
87%; color: green"/>
                        <h:commandLink
rendered="#{newsFeedBean.rows == 100}" value="[See Less]"
actionListener="#{newsFeedBean.lessRow}" style="margin-left:
87%; color: green"/>
                        </h:form>
                </div>
          <br /><br />
        </div>
        <!-- Side Bar -->
        <div id="sidebar">
                <ul>
                        <h:form>
                        <li>
                                <h2>Account</h2>

        <ul><h:commandLink action="register"
```

```
actionListener="#{userRegistrationBean.reInit}" value="Register
for an Account" /></ul>
                                        <ul>You Are Not
Logged In</ul>
                                        <ul style="padding-
left: 70%">
                                        <h:commandLink
action="log"><font size="3">Log-In</font></h:commandLink>
                                        </ul>
                                </li>
                                </h:form>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

        <h:dataTable value="#{linksListBean.links}"
var="link">

        <li><h:column>

        <h:outputLink value="#{link.addr}" target="_blank">

                <h:outputText value="#{link.name}" />

        </h:outputLink>

        </h:column></li>

        </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
        </div>
        <!-- Filler -->
        <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<!-- Pop Up Boxes -->
<div id="boxes">
        <!-- Login Box -->
        <div id="dialog" class="window" style="width: inherit;
height: inherit;">
                <font size="1" style="padding-left:85%">
                        <a style="cursor: pointer"
href="#" class="close">
                                <i>close[x]</i>
                        </a>
                </font>
                <h:form id="myform">
                        <table border="0">
                                <tr>

        <td>Username:</td>
                                        <td
colspan="2">

        <h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                        </td>
                                </tr>
                                <tr>

        <td>Password:</td>
                                        <td>

        <h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

        </h:inputSecret>
                                        </td>
                                        <td>
                                        <font
size="1" style="padding-left:5px">

        <i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

        </font><br /><font size="1" style="padding-left:5px">

        <i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

        </font>
                                        </td>
                                </tr>
                        </table>
                        <div style="padding-left: 80%;
padding-top: 2%">
                                <h:commandButton
value="Log-In" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
                        </div>
                        <h:inputHidden
value="#{forgotPasswordBean.ctr}" />
                </h:form>
        </div>
        <!-- Mask Div -->
        <div id="mask"></div>
</div>

</body>

</html>
</f:view>
```

installer.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title>HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
        <script type="text/javascript"
  src="../javascript/jquery.js"></script>
        <script type="text/javascript"
  src="../javascript/dialog.js"></script>
        <script type="text/javascript"
  src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {width: 100px}
        </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
```

```
		<div id="logo">
			<h1><a>Health Application for Natural
Products </a></h1>

		<h1><a>      In
formation - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">

		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post" style="margin-left:
50px;text-align: justify">
				<h:form>
					<p>

		<center><h1 style="color:green">Welcome to
HANAPIN-SP First Use Page!</h1></center><br/>

		<h:outputText style="margin-left: 15%" value="Please
fill in the following fields for proper installation of the system."
styleClass="errorMessage"></h:outputText>
<br/><br/>
<h3
style="margin-left: 30px; color:green"><u>Database
Information</u></h3><br />
<table
border="0" width="400" style="margin-left:15%">

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Database
Name:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
value="#{installerBean.database}"/></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Username:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
value="#{installerBean.dbusername}"/></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Password:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputSecret size="20"
value="#{installerBean.dbpassword}"/></td>

		</tr>
</table>
<br/>
<h3
style="margin-left: 30px; color:green"><u>Administrator
Information</u></h3><br />

		<h:outputText value="#{installerBean.errorString}"
styleClass="errorMessage" style="margin-left: 15%"/>
<table
border="0" width="400" style="margin-left:15%">

		<tr>

		<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><u>Account
Information</u></th>


		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Username:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
value="#{installerBean.username}"/></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Password:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputSecret size="20"
value="#{installerBean.password}"/></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Confirm
Password:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputSecret size="20"
value="#{installerBean.confirmpassword}"/></td>

		</tr>

		<tr>


		<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>User
Information</u></th>


		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
```

```
top: 5px;color: green"><h:outputLabel>Last
Name:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
value="#{installerBean.lastName}" /></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>First
Name:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
value="#{installerBean.firstname}"/></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Middle
Name:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
value="#{installerBean.middlename}"/></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Email
Address:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
id="email" value="#{installerBean.emailAdd}"/></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Company:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
value="#{installerBean.company}"/></td>

		</tr>

		<tr>


		<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>In case you forgot
your password</u></th>


		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="30"
value="#{installerBean.question}"/></td>

		</tr>

		<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:inputText size="20"
value="#{installerBean.answer}"/></td>

		</tr>

		<tr>

		<td></td>

		<td ><i>Note: All Fields Are Required.</i><br /><br
/><h:commandButton value="Install"
actionListener="#{installerBean.install}"
action="#{installerBean.getActionString}"/></td>

		</tr>
                                                        </table>
                                                </p>
                                        </h:form>
                                </div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">

		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
  </div>

  </body>

  </html>
</f:view>
```

login.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title>HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
                        <h1><a>Health Application for Natural
  Products </a></h1>
```

```
		<h1><a>      In
formation - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
			</ul>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post" style="padding-top:
10px">
				<p style="margin-left: 10px;
margin-right: 100px"><h:outputText
value="#{forgotUsernameBean.errorMessage}"
styleClass="errorMessage"></h:outputText></p>
				<div>
				<br /><br />
				<h3 style="color: green">Login
Details</h3><br/>
					<h:form>
				<table border="0">
					<tr>

		<td>Username:</td>
							<td
colspan="2">

		<h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
							</td>
						</tr>
						<tr>

		<td>Password:</td>
							<td>

		<h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

		</h:inputSecret>
							</td>
							<td>
							<font
size="1" style="padding-left:5px">

		<i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

		</font><br /><font size="1" style="padding-left:5px">

		<i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

		</font>
							</td>
						</tr>
					</table>
					<div style="padding-left: 40%;
padding-top: 2%">
						<h:commandButton
value="Login" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
					</div>
					<h:inputHidden
value="#{forgotPasswordBean.ctr}" />
					<br /><br /><br /><br />
				</h:form>
				</div>
			</div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
			<ul>
				<li>
					<h2>External
Links</h2>
					<ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
					</ul>
				</li>
			</ul>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
	</div>

	<!-- Footer -->
	<div id="footer"></div>

	</body>

	</html>
</f:view>
```

pendingList.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
		<c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
		<c:redirect url="/services/plantHome.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title>HANAPIN-SP</title>
```

```
        <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
        <script type="text/javascript"
src="../javascript/jquery.js"></script>
        <script type="text/javascript"
src="../javascript/dialog.js"></script>
        <script type="text/javascript"
src="../javascript/ajax.js"></script>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
Products </a></h1>

        <h1><a>      In
formation - System for Plants</a></h1>
        </div>
</div>

<!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                <br />
                        <p>
                        <font size="1px" style="margin-
left: 510px">
                                <i>Showing
<h:outputText value="#{adminTempBean.pendingPagination +
adminTempBean.pendingFixer}" /> - <h:outputText
value="#{adminTempBean.pendingEndCount}" /> of
<h:outputText value="#{adminTempBean.pendingCount}" /></i>
                        </font><u><h3 style="margin-
left: 40px; color: green">Pending Requests</h3></u>
                        </p>
                        <h:form id = "pendingList">
                        <h:dataTable
id="RegisteredUsers"
value="#{adminTempBean.pagedPendingList}"
var="pendingUser" rows="10" style="margin-left: 70px">
                                <h:column >
                                        <h:outputText
style="color:green"  value="Username: "/>
                                        <h:commandLink
value="#{pendingUser.regUserName}" style="font-weight: bold;
color: gray" action="showRegDetails"
actionListener="#{userRegistrationBean.getRegDetails}">
                                                <f:param id="chosen"
value="#{pendingUser.regUserName}"></f:param>
                                        </h:commandLink>
                                        <br />
                                        <h:outputText
style="color:green"  value="Full Name: "/>
                                        <h:outputText
value="#{pendingUser.firstname} "/>
                                        <h:outputText
value="#{pendingUser.middlename} "/>
                                        <h:outputText
value="#{pendingUser.lastName}"/>
                                </h:column>
                        </h:dataTable>
                        <h:panelGroup>
                <br />
                <h:commandButton value="prev" action="seePending"
                  disabled="#{adminTempBean.pendingPagination ==
0}"

actionListener="#{adminTempBean.showPendingListBackward}"
                  style="margin-right: 20px; margin-left:430px"/>

                <h:commandButton value="next" action="seePending"
                  disabled="#{adminTempBean.next}"

actionListener="#{adminTempBean.showPendingListForward}"
/>
        </h:panelGroup>
                        </h:form>
                </div>
        </div>
        <!-- Side Bar -->
        <div id="sidebar">
        <h:form>
                <ul>
                        <h:panelGroup
rendered="#{userBean.admin}">
                                <li>

        <h2>Administration</h2>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                <ul><span
style="margin-left: 20px"><u><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}"
/></u></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
```

```
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

plantData.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${plantBean.sciName == null}">
        <c:redirect url="/services/plantList.jsf" />
</c:if>
<f:view>
<html xmlns="http://www.w3.org/1999/xhtml">

<head>
        <title><h:outputText value="#{plantBean.sciName}"
/> - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
        <script type="text/javascript"
src="../javascript/jquery.js"></script>
        <script type="text/javascript"
src="../javascript/dialog.js"></script>
        <script type="text/javascript"
src="../javascript/ajax.js"></script>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
Products </a></h1>

        <h1><a>      In
formation - System for Plants</a></h1>
        </div>
</div>

<!-- Menu Pane -->
<h:form>
        <div id="menu">
                <ul id="menulist">
                        <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                        <h:form id="regForm">
                        <br />
                        <h:commandLink value="[Back
to Plants List]" action="regPlantList"
actionListener="#{plantListBean.setBack}" style="color:green;
margin-left: 70%"/>
                                <table border="0"
width="600" style="margin-left:2%">
                                        <tr>
```

```
            <th colspan="4"><u><h3>Plant
Information</h3></u><br></th>
                                                    </tr>
                                                    <tr>

            <td rowspan="4">

            <h:graphicImage
value="/image?file=#{plantBean.filename}" width="200px"
height="250px"/>

            </td>

            <td style="color: green"
colspan="2"><h:outputLabel>Scientific
Name:</h:outputLabel></td>

            <td ><h:outputText
value="#{plantBean.sciName}"/></td>
                                                    </tr>
                                                    <tr>

            <td style="color: green"
colspan="2"><h:outputLabel>Local Name:</h:outputLabel></td>

            <td style="width: 250px"><h:outputText
value="#{plantBean.locName}" /></td>
                                                    </tr>
                                                    <tr>

            <td colspan="3" style="text-align: justify">

            <h:outputLabel style="color:
green">Synonyms:</h:outputLabel><br />

            <h:outputText value="#{plantBean.synonyms}"/></td>
                                                    </tr>
                                                    <tr>

            <td colspan="3" style="text-align: justify">

            <h:outputLabel style="color: green">Other
Names:</h:outputLabel><br />

            <h:outputText value="#{plantBean.otherName}"/>

            </td>
                                                    </tr>
                                                    <tr>

            <td style="text-align: justify"
colspan="4"><h:outputLabel style="color:
green">Description:</h:outputLabel><br />

            <h:outputText value="#{plantBean.desc}"/></td>
                                                    </tr>
                                                    <tr>



            <h:panelGroup rendered="#{userBean.admin}">

            <td><br></br></td>

            <td colspan="3"><br></br>

                        <h:outputText
rendered="#{plantBean.deleteMode}" styleClass="errorMessage"
value="Are you sure you want to delete this
plant?"></h:outputText>

                                    <h:panelGroup
rendered="#{plantBean.deleteMode}" style="margin-left: 30px">

                                    <h:commandButton
value="Yes" action="#{plantListBean.deleteRedirect}"
actionListener="#{plantBean.deletePlant}"/>

                                    <h:commandButton
value="No" actionListener="#{plantBean.notDeleteMode}"/>

                                    <br />

                                    </h:panelGroup>

                        <h:panelGroup
rendered="#{!plantBean.deleteMode}">

                                    <h:commandButton value="Edit"
style="margin-left: 250px" action="editPlant"
actionListener="#{plantBean.eraseUpdateError}"/>

                                    <h:commandButton
rendered="#{plantBean.validDelete}"  value="Delete"
actionListener="#{plantBean.inDeleteMode}"/>

                        </h:panelGroup>

            </td>

            </h:panelGroup>
                                                    </tr>
                                                </table>
                                                <br />
                                                <u><h3
style="margin-left: 20px; color: green">Projects List</h3></u><br
/>
                                                <h:panelGroup
rendered="#{!plantBean.showProjects}">
                                                <p style="margin-
left:5%">[NO POJECTS YET]</p>
                                                </h:panelGroup>
                                                <h:dataTable
columnClasses="projectListColumn" id="ProjectList"
value="#{plantBean.projectList}" var="project" style="margin-
left: 40px" border="0">
                                                    <h:column>
                                                    <h:outputText
style="color:green" value="Project Name: "></h:outputText>
                                                    <u>
                                                    <h:commandLink
value="#{project.projectName}" style="font-weight: bold; color:
gray" actionListener="#{projectBean.getProjectDetails}"
action="projectDetails">
                                                    <f:param
id="projectID" value="#{project.projectId}"></f:param>
                                                    <f:param
id="username" value="#{userBean.username}"></f:param>
                                                    </h:commandLink>
                                                    </u>
                                                    <br />
                                                    <h:outputText
style="color:green" value="Description "></h:outputText><br />
                                                    <h:outputText
value="#{project.projectDescription}"/>
                                                    </h:column>
                                                    </h:dataTable>

                        <h:panelGroup
rendered="#{userBean.admin}">
```

```
                        <br />
                        <h:commandButton value="Add Project"
style="margin-left: 500px"
actionListener="#{projectBean.initProj}" action="addProject"
><f:param id="sciName" value="#{plantBean.sciName}"
/></h:commandButton>
                    </h:panelGroup>

                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">
                        <li><h:column>

                        <h:outputLink value="#{link.addr}" target="_blank">

                                <h:outputText value="#{link.name}" />

                        </h:outputLink>

                        </h:column></li>

                        </h:dataTable>
                                                </ul>
                                        </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

plantEdit.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://myfaces.apache.org/tomahawk" prefix="t"
  %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
        <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title><h:outputText value="#{plantBean.sciName}"
  /> - HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
        <script type="text/javascript"
  src="../javascript/jquery.js"></script>
        <script type="text/javascript"
  src="../javascript/dialog.js"></script>
        <script type="text/javascript"
  src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {width: 100px}
        </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
  Products </a></h1>

        <h1><a>      In
  formation - System for Plants</a></h1>
```

```
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
				</li>
			</ul>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<h:form
enctype="multipart/form-data">
				<br />
				<h:commandLink
value="[Back]" style="color:green; margin-left: 80%"
action="showPlantDetails" />
				<br />
				<p style="width: 550px; margin-
left: 40px"><h:outputText value="#{plantBean.errorString}"
styleClass="errorMessage"/></p>
				<table style="margin-left: 40px;
margin-top: 10px" border="0">
					<tr>
						<th
colspan="2"><h3><u>Plant Information</u></h3><br /></th>
					</tr>
					<tr>
						<td
style="text-align: right; color: green">Scientific Name:</td>
						<td>

		<h:outputText
value="#{plantBean.sciName}"></h:outputText>
						</td>
					</tr>
					<tr>

		<td style="text-align: right; color:green">File:</td>

		<td>

		<h:panelGroup rendered="#{plantBean.filename !=
"}">
```

```
			<h:commandLink value="Delete uploaded
file" actionListener="#{plantBean.deletePlantImage}" />

		</h:panelGroup>

		<h:panelGroup rendered="#{plantBean.filename ==
"}">

			<t:inputFileUpload id="file"
value="#{plantBean.uploadedFile}" />

		</h:panelGroup>

		</td>
					</tr>
				<tr>
					<td
style="text-align: right; color: green">Local Name:</td>
					<td>

		<h:inputText
value="#{plantBean.locName}"></h:inputText>
					</td>
				</tr>
				<tr>
					<td
colspan="2"><i><font size="1"  style="margin-left:
40%">Separate names with commas (name1, name2).</font></i>
					</td>
				</tr>
				<tr>
					<td
style="text-align: right; color: green">Synonyms:</td>
					<td
rowspan="2">

		<h:inputTextarea rows="5" cols="40"
value="#{plantBean.synonyms}"></h:inputTextarea>
					</td>
				</tr>
				<tr>

		<td> </td>
				</tr>
				<tr>
					<td
style="text-align: right; color: green">Common Names:</td>
					<td
rowspan="2">

		<h:inputTextarea rows="5" cols="40"
value="#{plantBean.otherName}"></h:inputTextarea>
					</td>
				</tr>
				<tr>

		<td> </td>
				</tr>
				<tr>
					<td
style="text-align: right; color: green">Description:</td>
					<td
rowspan="2">

		<h:inputTextarea rows="5" cols="40"
value="#{plantBean.desc}"></h:inputTextarea>
					</td>
				</tr>
				<tr>
```

```
		<td> </td>
</tr>
</table>
<br />
<div style="margin-left: 65%">
<h:commandButton value="Save" actionListener="#{plantBean.updatePlantDetails}" action="#{plantBean.getUpdateString}" />
</div>
</h:form>
</div>
</div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup rendered="#{userBean.admin}">
<li>

<h2>Administration</h2>
<ul><span style="margin-left: 20px"><h:commandLink value="User List" action="seeUsers" actionListener="#{adminTempBean.initRegistered}" /></span></ul>
<ul><span style="margin-left: 20px"><h:commandLink value="Pending Requests" action="seePending" actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span style="margin-left: 20px"><u><h:commandLink value="Plant Management" action="plantManage"/></u></span></ul>
<ul><span style="margin-left: 20px"><h:commandLink value="Project Management" action="projectAdminManage" actionListener="#{userProjListBean.getAdminProjList}"/></span></ul>
<ul><span style="margin-left: 20px"><h:commandLink value="System Settings" action="seeLinks" actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
</li>
</h:panelGroup>
<li>
<h2>Menu</h2>
<ul><span style="margin-left: 20px"><h:commandLink value="Plants List" action="regPlantList" actionListener="#{plantListBean.initializePlants}" /></span></ul>
<ul><span style="margin-left: 20px"><h:commandLink value="My Projects" action="projectList" actionListener="#{userProjListBean.getProjList}"><f:param id="username" value="#{userBean.username}" /></h:commandLink></span></ul>
<ul><span style="margin-left: 20px"><h:commandLink value="Search" action="searchSystem"></h:commandLink></span></ul>
<h3> </h3>
</li>
<li>
<h2>External Links</h2>
<ul>
<h:dataTable value="#{linksListBean.links}" var="link">

<li><h:column>

<h:outputLink value="#{link.addr}" target="_blank">

<h:outputText value="#{link.name}" />

</h:outputLink>

</h:column></li>

</h:dataTable>
</ul>
</li>
</ul>
</h:form>
</div>
<!-- Filler -->
<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>

</html>
</f:view>
```

plantHome.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title>Home - HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet" type="text/css" media="screen" />
		<script type="text/javascript" src="../javascript/jquery.js"></script>
		<script type="text/javascript" src="../javascript/dialog.js"></script>
		<script type="text/javascript" src="../javascript/ajax.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural Products </a></h1>

		<h1><a>      Information - System for Plants</a></h1>
		</div>
  </div>

  <!-- Menu Pane -->
  <h:form>
		<div id="menu">
```

```
                <ul id="menulist">
                        <li
class="current_page_item"><h:commandLink
action="toHome">Home</h:commandLink></li>
                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                </ul>
                <ul style="margin-left: 75%">
                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                        <h:form>
                        <br/><br/>
                        <h3 style="color:
green"><u>Pending Project Membership Requests</u></h3>
                        <br />
                        <h:dataTable
value="#{userBean.projList}" var="proj"
columnClasses="class7">
                                <h:column>
                                        Project
<h:commandLink style="color:green" value="#{proj.name}"
actionListener="#{projectBean.fromHomeToAdmins}"
action="projectPending"><f:param id="projectID"
value="#{proj.id}" /><f:param id="username"
value="#{userBean.username}" /></h:commandLink> has

        <h:outputText value="#{proj.reqests}" /> pending
request/s.
                                </h:column>
                        </h:dataTable>
                        <h:outputText style="margin-
left: 40px" rendered="#{userBean.noList}" value="[NO
PENDING REQUEST]" />
                        <br /><br /><br />
                        <h3 style="color:
green"><u>Notifications</u></h3>

                        <h:commandLink style="margin-
left: 35%; color: green" value="[Show Unread]"
actionListener="#{userBean.toShowUnread}"/> <h:commandLink
style="margin-left: 3%; color: green" value="[Show All]"
actionListener="#{userBean.toShowAll}"/> <h:commandLink
style="margin-left: 3%; color: green" value="[Delete All]"
actionListener="#{userBean.deleteAll}"/> <h:commandLink
style="margin-left: 3%; color: green" value="[Delete Read]"
actionListener="#{userBean.deleteRead}"/>
                        <br /><br />
                        <h:dataTable
value="#{userBean.list}" var="notif" columnClasses="class7"
style="margin-left: 20px">
                                <h:column>

        <h:outputText value="*" styleClass="errorMessage"
rendered="#{!notif.read}" />Project <h:commandLink
style="color:green" value="#{notif.displayname}"
actionListener="#{projectBean.getProjectDetailsNotif}"
action="#{notif.getActionValue}"><f:param id="projectId"
value="#{notif.projectid}" /><f:param id="username2"
value="#{notif.username}" /></h:commandLink> -

        <h:outputText value="#{notif.message}" />
                                </h:column>
                        </h:dataTable>
                        <h:outputText value="[NO
UPDATES]" rendered="#{userBean.noData}" style="margin-left:
40px"/>
                        </h:form>
                </div>
        </div>
        <!-- Side Bar -->
        <div id="sidebar">
        <h:form>
                <ul>
                        <li>
                                <h2>Menu</h2>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                <h3> </h3>
                        </li>
                        <li>
                                <h2>External
Links</h2>
                                <ul>

        <h:dataTable value="#{linksListBean.links}"
var="link">

        <li><h:column>

        <h:outputLink value="#{link.addr}" target="_blank">

                <h:outputText value="#{link.name}" />

        </h:outputLink>

        </h:column></li>

        </h:dataTable>
                                </ul>
                        </li>
                </ul>
                </h:form>
        </div>
        <!-- Filler -->
        <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>
```

```
   </body>

   </html>
</f:view>
```

plantManagement.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
            <c:redirect url="/services/plantHome.jsf" />
</c:if>

<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title>HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/ajax.js"></script>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                     <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                     <ul id="menulist">
                              <li
   class="current_page_item"><h:commandLink
   action="toHome">Home</h:commandLink></li>
                              <li><h:commandLink
   action="faq">FAQ</h:commandLink></li>
                     </ul>
                     <ul style="margin-left: 75%">
                              <li><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                              </li>
                              <li>
                                                <h:commandLink
   action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                       </li>
                     </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                     <!-- Post Pane -->
                     <div class="post">
                              <h:form>
                              <br />
                              <h3 style="color: green; margin-
left: 100px"><u>Plant Management</u></h3>
                              <br />

                   &nb
sp;        &nbs
p;        &nbs
p;      As an Administrator,
you can add a plant.
                              <br /><br /><h:commandLink
style="color: green; margin-left: 240px" value="Click here to add
a plant."  action="addPlantDirect"
actionListener="#{plantBean.reInitFields}"/>
                              <br /><br /><br /><br />
                              <h3 style="color: green; margin-
left: 100px"><u>HANAPIN Plants List</u></h3>
                              <br />

                   &nb
sp;        &nbs
p;        &nbs
p;      Browse all the plants
in the system.
                              <br /><br /><h:commandLink
style="color: green; margin-left: 240px" value="Click here browse
plants."  action="regPlantList"
actionListener="#{plantListBean.initializePlants}" />

                              </h:form>
                     </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
            <h:form>
                     <ul>
                              <h:panelGroup
rendered="#{userBean.admin}">
                                       <li>

            <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><u><h:commandLink value="Plant
Management" action="plantManage"/></u></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
```

```
  actionListener="#{userProjListBean.getAdminProjList}"/></span
  ></ul>
                                                        <ul><span
  style="margin-left: 20px"><h:commandLink value="System
  Settings" action="seeLinks"
  actionListener="#{linksListBean.initLinks}" /></span></ul>

              <h3> </h3>
                                                        </li>
                                          </h:panelGroup>
                                          <li>
                                                        <h2>Menu</h2>
                                                        <ul><span
  style="margin-left: 20px"><h:commandLink value="Plants List"
  action="regPlantList"
  actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                        <ul><span
  style="margin-left: 20px"><h:commandLink value="My Projects"
  action="projectList"
  actionListener="#{userProjListBean.getProjList}"><f:param
  id="username" value="#{userBean.username}"
  /></h:commandLink></span></ul>
                                                        <ul><span
  style="margin-left: 20px"><h:commandLink value="Search"
  action="searchSystem"></h:commandLink></span></ul>
                                                        <h3> </h3>
                                          </li>
                                          <li>
                                                        <h2>External
  Links</h2>
                                                        <ul>

              <h:dataTable value="#{linksListBean.links}"
  var="link">

              <li><h:column>

              <h:outputLink value="#{link.addr}" target="_blank">

                            <h:outputText value="#{link.name}" />

              </h:outputLink>

              </h:column></li>

              </h:dataTable>
                                                        </ul>
                                          </li>
                            </ul>
                            </h:form>
              </div>
              <!-- Filler -->
              <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

projectManagement.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<c:if test="${userBean.username == null}">
              <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
              <c:redirect url="/services/plantHome.jsf" />
</c:if>

<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
              <title>Home</title>
              <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
              <script type="text/javascript"
  src="../javascript/jquery.js"></script>
              <script type="text/javascript"
  src="../javascript/dialog.js"></script>
              <script type="text/javascript"
  src="../javascript/ajax.js"></script>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
              <div id="logo">
                            <h1><a>Health Application for Natural
  Products </a></h1>

              <h1><a>      In
  formation - System for Plants</a></h1>
              </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
              <div id="menu">
                            <ul id="menulist">
                                          <li
  class="current_page_item"><h:commandLink
  action="toHome">Home</h:commandLink></li>
                                          <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
                            </ul>
                            <ul style="margin-left: 75%">
                                          <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                                        </h:commandLink>
                                          </li>
                                          <li>
                                                        <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                                          </li>
                            </ul>
              </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
              <!-- Content Pane -->
              <div id="content">
                            <!-- Post Pane -->
                            <div class="post">
                                          <h:form>
```

```
                                <br />
                                <h3 style="color: green; margin-
left: 100px"><u>Project Management</u></h3>
                                <br />

               &nb
sp;        &nbs
p;        &nbs
p;      As an Administrator,
you can add a project under a specific plant.
                                <br /><br /><h:commandLink
style="color: green; margin-left: 240px" value="Click here to add
a project."  action="addProjectDirect"
actionListener="#{projectBean.initProjDirect}" />
                                <br /><br /><br /><br />
                                <h3 style="color: green; margin-
left: 100px"><u>HANAPIN Plants List</u></h3>
                                <br />

               &nb
sp;        &nbs
p;        &nbs
p;      Browse all the
projects in the system.
                                <br /><br /><h:commandLink
style="color: green; margin-left: 240px" value="Click here to
browse projects."  action="projectList"
actionListener="#{userProjListBean.getAdminProjList}" />

                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><u><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></u></s
pan></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

registrationSuccess.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
                <script type="text/javascript"
   src="../javascript/jquery.js"></script>
                <script type="text/javascript"
   src="../javascript/dialog.js"></script>
                <style type="text/css">
                td {width: 150px}
                </style>
```

```
</head>

<body>

<!-- Logo Pane -->
<div id="header">
	<div id="logo">
		<h1><a>Health Application for Natural
Products </a></h1>

	<h1><a>      In
formation - System for Plants</a></h1>
	</div>
</div>

<!-- Menu Pane -->
<h:form>
	<div id="menu">
		<ul id="menulist">
			<li><h:commandLink
action="toHome">Home</h:commandLink></li>

	<li><h:commandLink>FAQ</h:commandLink></li>
		</ul>
	</div>
</h:form>

<!-- Main Page -->
<div id="page">
	<!-- Content Pane -->
	<div id="content">
		<!-- Post Pane -->
		<div class="post" style="padding-top:
10px">
			<p style="margin-left: 10px;
margin-right: 100px"><br></br><h:outputText value="Your
registration will be validated by the administrator. You will receive
a confirmation message on your email address."
styleClass="errorMessage"></h:outputText><br></br></p>
			<div>
				<h:form
id="regForm">
					<table
border="0" width="400" style="margin-left:15%">
					<tr>


	<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Information</u></th>

					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Username:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.regUserName}"/></td>
					</tr>
					<tr>


	<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>User
Information</u></th>

					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Last
Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.lastName}" /></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>First
Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.firstname}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Middle
Name:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.middlename}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Email
Address:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:outputText
id="email" value="#{userRegistrationBean.emailAdd}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Company:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.company}"/></td>
					</tr>
					<tr>


	<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Security</u></th>

					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.securityQuestion}"/></td>
					</tr>
					<tr>


	<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.securityAnswer}"/></td>
					</tr>
```

```
                                        </table>
                                                <p
style="margin-left: 20px"><u><h:commandLink value="Return to
home page" action="toHome" /></u></p>
                                        </h:form>
                                </div>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                        <ul>
                                <li>
                                        <h2>Account</h2>
                                        <ul>You Are Not
Logged In</ul>
                                        <ul style="padding-
left: 70%">
                                                <a
href="login.jsf">

                <font size="3">Log-In</font>
                                                </a>
                                        </ul>

                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<!-- Pop Up Boxes -->
<div id="boxes">
                <!-- Login Box -->
                <div id="dialog" class="window" style="width: inherit;
height: inherit;">
                        <font size="1" style="padding-left:85%">
                                <a style="cursor: pointer"
href="#" class="close">
                                        <i>close[x]</i>
                                </a>
                        </font>
                        <h:form id="myform">
                                <table border="0">
                                        <tr>

                <td>Username:</td>
                                                <td
colspan="2">

                <h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                                </td>
                                        </tr>
                                        <tr>

                <td>Password:</td>
                                                <td>

                <h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

                </h:inputSecret>
                                                </td>
                                                <td>
                                                <font
size="1" style="padding-left:5px">

                <i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

                </font><br /><font size="1" style="padding-left:5px">

                <i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

                </font>
                                                </td>
                                        </tr>
                                </table>
                                <div style="padding-left: 80%;
padding-top: 2%">
                                        <h:commandButton
value="Log-In" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
                                </div>
                                <h:inputHidden
value="#{forgotPasswordBean.ctr}" />
                        </h:form>
                </div>
                <!-- Mask Div -->
                <div id="mask"></div>
</div>

</body>

</html>
</f:view>
```

resetPassword.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
```

```
		<script type="text/javascript"
src="../javascript/dialog.js"></script>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
Products </a></h1>

		<h1><a>      In
formation - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">

		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div class="post" style="margin-left: 70px">

		<br />

		<h:panelGroup
rendered="#{!forgotPasswordBean.toRender}">
		<i style="color:red; margin-left: 40px">This reset
password request is expired. You may request again at the forgot
password page.</i><br /><br />
		<h:form>
			<h:commandButton style="margin-
left:450px" value="Go to Home Page" action="toHome"/>
		</h:form>
		<br /><br /><br /><br /><br /><br /><br />
		</h:panelGroup>

		<h:panelGroup
rendered="#{forgotPasswordBean.toShow}">
		<i style="color:red; margin-left: 40px">This reset
password link is only valid for 24 hours from the time it was sent
to you.</i><br /><br />
		<h:outputText
value="#{forgotPasswordBean.changePassString}" style="
margin-left: 40px" styleClass="errorMessage"
rendered="#{forgotPasswordBean.errorChangePass}"></h:output
Text>
		<h:form>
		<br />
		<table style="margin-left:50px">
			<tr>
				<th colspan="2"><h3><u>Reset
Password</u></h3></th>
			</tr>
			<h:panelGroup
rendered="#{forgotPasswordBean.toGoChange != 'toHome'}">
			<tr>
				<td style="text-align:right;
color:green">Username:</td>
				<td><h:outputText
value="#{forgotPasswordBean.usernameParam}" /></td>
			</tr>
			<tr>
				<td style="text-align:right;
color:green">Password:</td>
				<td><h:inputSecret
value="#{forgotPasswordBean.password}"/></td>
			</tr>
			<tr>
				<td style="text-align:right;
color:green">Confirm Password</td>
				<td><h:inputSecret
value="#{forgotPasswordBean.password2}"/></td>
			</tr>
			</h:panelGroup>
			<tr>
				<td colspan="2" style="text-
align: right"><br /><h:commandButton
value="#{forgotPasswordBean.buttonValue}"
action="#{forgotPasswordBean.getToGoChange}"
actionListener="#{forgotPasswordBean.changePass}"/></td>
			</tr>
		</table>
		</h:form>
		</h:panelGroup>

		</div>
		<!-- Side Bar -->

		<!-- Filler -->
		<div style="clear: both;"> </div>
</div>



</body>

</html>
</f:view>
```

showRegDetails.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
		<c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
		<c:redirect url="/services/plantHome.jsf" />
</c:if>
<c:if test="${userRegistrationBean.regUserName == null}">
		<c:redirect url="/services/userList.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title>HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
		<script type="text/javascript"
  src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {width: 150px}
		</style>
  </head>
```

```
<body>

<!-- Logo Pane -->
<div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
Products </a></h1>

		<h1><a>      In
formation - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
				</li>
			</ul>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<h:form id="regForm">
				<h:commandLink style="color:
green; margin-left: 75%" value="[Back]" action="toList"
actionListener="#{adminTempBean.initPendingUpdate}"/>
				<p style="margin-left: 50px;
margin-right: 100px"><h:outputText value="Registration was
verified. New User will receive a confirmation message on the
given Email Address." styleClass="errorMessage"
rendered="#{userRegistrationBean.approved}"></h:outputText>
				<h:outputText
value="Registration was rejected. User will receive an email
confirmation regarding rejection of request."
styleClass="errorMessage"
rendered="#{userRegistrationBean.rejected}"></h:outputText>
				</p>
					<table border="0"
width="400" style="margin-left:15%">
						<tr>


		<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><u>Account
Information</u></th>
```

```
</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Username:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.regUserName}"/></td>
</tr>
<tr>


		<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>User
Information</u></th>

</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Last
Name:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.lastName}" /></td>
</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>First
Name:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.firstname}"/></td>
</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Middle
Name:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.middlename}"/></td>
</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Email
Address:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
id="email" value="#{userRegistrationBean.emailAdd}"/></td>
</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Company:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.company}"/></td>
</tr>
<tr>


		<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Security</u></th>
```

```
                                                </tr>
                                                <tr>

                <td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

                <td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.securityQuestion}"/></td>
                                                </tr>
                                                <tr>


                <td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

                <td style="padding-top: 5px"><h:outputText
value="#{userRegistrationBean.securityAnswer}"/></td>
                                                </tr>
                                                <tr>


                <td><br></br><br></br><u></u></td>

                <td><br></br><br></br><h:commandButton
value="Approve"
actionListener="#{userRegistrationBean.approveReg}"
disabled="#{userRegistrationBean.approved ||
userRegistrationBean.rejected}"/><h:commandButton
value="Reject"
actionListener="#{userRegistrationBean.rejectUser}"
disabled="#{userRegistrationBean.approved ||
userRegistrationBean.rejected}"/></td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>


                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><u><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}"
/></u></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

showUserDetails.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
        <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
        <c:redirect url="/services/plantHome.jsf" />
</c:if>
<c:if test="${viewUserBean.userName == null}">
        <c:redirect url="/services/userList.jsf" />
```

```
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title>HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
        <script type="text/javascript"
  src="../javascript/jquery.js"></script>
        <script type="text/javascript"
  src="../javascript/dialog.js"></script>
        <script type="text/javascript"
  src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {width: 150px}
        </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
        <div id="logo">
              <h1><a>Health Application for Natural
  Products </a></h1>

        <h1><a>      In
  formation - System for Plants</a></h1>
        </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
        <div id="menu">
              <ul id="menulist">
                    <li><h:commandLink
  action="toHome">Home</h:commandLink></li>
                    <li><h:commandLink
  action="faq">FAQ</h:commandLink></li>
              </ul>
              <ul style="margin-left: 75%">
                    <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                    </li>
                    <li>
                          <h:commandLink
  action="logout"
  actionListener="#{userBean.destroySession}">Logout</h:comma
  ndLink>
                    </li>
              </ul>
        </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
        <!-- Content Pane -->
        <div id="content">
              <!-- Post Pane -->
              <div class="post">
                    <h:form id="regForm">
                    <br />
                    <h:commandLink style="color:
  green; margin-left: 75%" value="[Back]" action="toUserList"
  actionListener="#{adminTempBean.showSearch}"/>
                          <h:outputText
  styleClass="errorMessage" style="margin-left: 50px"
  value="#{viewUserBean.updateMessage}"
  rendered="#{viewUserBean.updateError}" />
                          <table border="0"
  width="400" style="margin-left:15%">
                          <tr>


        <th colspan="2" align="left" style="padding-right:
  15px; padding-top: 5px;color: green"><br /><u>Account
  Information</u></th>

                          </tr>
                          <tr>

        <td align="right" style="padding-right: 15px; padding-
  top: 5px;color:
  green"><h:outputLabel>Username:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:outputText
  value="#{viewUserBean.userName}"/></td>
                          </tr>
                          <tr>

        <td align="right" style="padding-right: 15px; padding-
  top: 5px;color:
  green"><h:outputLabel>Status:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:outputText
  value="#{viewUserBean.status}"/></td>
                          </tr>
                          <tr>


        <th colspan="2" align="left" style="padding-right:
  15px; padding-top: 5px;color: green"><br /><u>User
  Information</u></th>

                          </tr>
                          <tr>

        <td align="right" style="padding-right: 15px; padding-
  top: 5px;color: green"><h:outputLabel>Last
  Name:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:outputText
  value="#{viewUserBean.lastName}" /></td>
                          </tr>
                          <tr>

        <td align="right" style="padding-right: 15px; padding-
  top: 5px;color: green"><h:outputLabel>First
  Name:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:outputText
  value="#{viewUserBean.firstname}"/></td>
                          </tr>
                          <tr>

        <td align="right" style="padding-right: 15px; padding-
  top: 5px;color: green"><h:outputLabel>Middle
  Name:</h:outputLabel></td>

        <td style="padding-top: 5px"><h:outputText
  value="#{viewUserBean.middlename}"/></td>
                          </tr>
                          <tr>

        <td align="right" style="padding-right: 15px; padding-
```

```
top: 5px;color: green"><h:outputLabel>Email
Address:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
id="email" value="#{viewUserBean.emailAdd}"/></td>
</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Company:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
value="#{viewUserBean.company}"/></td>
</tr>
<tr>


		<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Security</u></th>

</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
value="#{viewUserBean.securityQuestion}"/></td>
</tr>
<tr>

		<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

		<td style="padding-top: 5px"><h:outputText
value="#{viewUserBean.securityAnswer}"/></td>
</tr>

<tr>

		<td><br></br><br></br><u></u></td>

		<td><br></br><br></br><h:commandButton
value="#{viewUserBean.statusAction}" action="updateUserPage"
actionListener="#{viewUserBean.actionStatus}"
disabled="#{viewUserBean.admin}"/>

		<h:commandButton value="Edit" action="edituser"
actionListener="#{viewUserBean.getUserDetails}"><f:param
id="chosen" value="#{viewUserBean.userName}"
/></h:commandButton>

		</td>
</tr>
</table>
</h:form>
</div>
</div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>
<h2>Administration</h2>
<ul><span
style="margin-left: 20px"><u><h:commandLink value="User
List" action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></u></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
</li>
</h:panelGroup>
<li>
<h2>Menu</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
<h3> </h3>
</li>
<li>
<h2>External
Links</h2>
<ul>

<h:dataTable value="#{linksListBean.links}"
var="link">

<li><h:column>

<h:outputLink value="#{link.addr}" target="_blank">

<h:outputText value="#{link.name}" />

</h:outputLink>

</h:column></li>

</h:dataTable>
</ul>
</li>
</ul>
</h:form>
</div>
<!-- Filler -->
<div style="clear: both;"> </div>
```

```
   </div>

   <!-- Footer -->
   <div id="footer"></div>

   </body>

   </html>
</f:view>
```

userDisabled.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title>HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/datetimepicker.js"></script>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                     <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                     <ul id="menulist">
                              <li><h:commandLink
   action="toHome">Home</h:commandLink></li>
                              <li><h:commandLink
   action="faq">FAQ</h:commandLink></li>
                     </ul>
            </div>
   </h:form>

   <!-- Main Page -->
   <div id="page">
            <!-- Content Pane -->
            <div id="content">
                     <!-- Post Pane -->
                     <div class="post" style="padding-top:
   10px">
                              <p style="margin: 20px">
                                       <h:outputText
   styleClass="errorMessage" value="Your account,
   #{userBean.username} has been disabled. Please contact the
   administrator regarding the details."></h:outputText>
                              <br/>
                              <br/>
                              <br/>
                              <br/>
                              <br/>
                              <br/>
                              <br/>
                              <br/>
                              <a href="home.jsf"><u>&lt;
Back to Home Page</u></a>
                              </p>
                     </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">
                     <ul>
                              <li>
                                       <h2>Account</h2>
                                       <ul>You Are Not
Logged In</ul>
                                       <ul style="padding-
left: 70%">
                                                <a
href="#dialog" name="modal">

            <font size="3">Log-In</font>
                                                </a>
                                       </ul>

                              </li>
                              <li>
                                       <h2>External
Links</h2>
                                       <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                     <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                       </ul>
                              </li>
                     </ul>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
   </div>

   <!-- Footer -->
   <div id="footer"></div>

   <!-- Pop Up Boxes -->
   <div id="boxes">
            <!-- Login Box -->
            <div id="dialog" class="window" style="width: inherit;
height: inherit;">
                     <font size="1" style="padding-left:85%">
                              <a style="cursor: pointer"
href="#" class="close">
                                       <i>close[x]</i>
                              </a>
```

```
                        </font>
                        <h:form id="myform">
                                <table border="0">
                                        <tr>

                <td>Username:</td>
                                                <td
colspan="2">

                <h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                                </td>
                                        </tr>
                                        <tr>

                <td>Password:</td>
                                                <td>

                <h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

                </h:inputSecret>
                                                </td>
                                                <td>
                                                <font
size="1" style="padding-left:5px">

                <i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

                </font><br /><font size="1" style="padding-left:5px">

                <i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

                </font>
                                                </td>
                                        </tr>
                                </table>
                                <div style="padding-left: 80%;
padding-top: 2%">
                                        <h:commandButton
value="Log-In" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
                                </div>
                                <h:inputHidden
value="#{forgotPasswordBean.ctr}" />
                        </h:form>
                </div>
                <!-- Mask Div -->
                <div id="mask"></div>
        </div>

        </body>

        </html>
</f:view>
```

userList.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<c:if test="${!userBean.admin}">
                <c:redirect url="/services/plantHome.jsf" />
</c:if>
<c:if test="${adminTempBean.pendingList == null}">
                <c:redirect url="/services/adminHome.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
                <script type="text/javascript"
src="../javascript/jquery.js"></script>
                <script type="text/javascript"
src="../javascript/dialog.js"></script>
                <script type="text/javascript"
src="../javascript/ajax.js"></script>

  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
Products </a></h1>

                <h1><a>      In
formation - System for Plants</a></h1>
                </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                        <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                        <br />
                        <h:form>
                                <a style="color:green; margin-
left: 40px" href="#dialog" name="modal">
```

```
<font size="2">[Search]</font>
                                    </a>
                                    <h:commandLink style="font-
size: 4; color:green; margin-left: 40px" value="[Reset Search]"
action="seeUsers"
actionListener="#{adminTempBean.resetSearch}"></h:command
Link>
                                    <h:commandLink
style="margin-left: 45%; color: green" value="[Add User]"
action="adduser"
actionListener="#{viewUserBean.clearDetails}"/>
                            </h:form>
                            <br />
                                    <h:form id="userList">
                                    <p>
                                    <h:commandLink value="A"
style="color: green; margin-left: 40px"
rendered="#{adminTempBean.currentLetter ==
'a'}"></h:commandLink>
                                    <h:commandLink value="A"
style="margin-left: 40px"
rendered="#{adminTempBean.currentLetter != 'a'}"
actionListener="#{adminTempBean.showForA}"></h:commandLi
nk>

                                    <h:commandLink value="B"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'b'}"></h:commandLink>
                                    <h:commandLink value="B"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'b'}"
actionListener="#{adminTempBean.showForB}"></h:commandLi
nk>

                                    <h:commandLink value="C"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'c'}"></h:commandLink>
                                    <h:commandLink value="C"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'c'}"
actionListener="#{adminTempBean.showForC}"></h:commandLi
nk>

                                    <h:commandLink value="D"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'd'}"></h:commandLink>
                                    <h:commandLink value="D"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'd'}"
actionListener="#{adminTempBean.showForD}"></h:commandLi
nk>

                                    <h:commandLink value="E"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'e'}"></h:commandLink>
                                    <h:commandLink value="E"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'e'}"
actionListener="#{adminTempBean.showForE}"></h:commandLi
nk>

                                    <h:commandLink value="F"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'f'}"></h:commandLink>
                                    <h:commandLink value="F"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'f'}"
actionListener="#{adminTempBean.showForF}"></h:commandLi
nk>

                                    <h:commandLink value="G"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'g'}"></h:commandLink>
                                    <h:commandLink value="G"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'g'}"
actionListener="#{adminTempBean.showForG}"></h:commandLi
nk>

                                    <h:commandLink value="H"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'h'}"></h:commandLink>
                                    <h:commandLink value="H"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'h'}"
actionListener="#{adminTempBean.showForH}"></h:commandLi
nk>

                                    <h:commandLink value="I"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'i'}"></h:commandLink>
                                    <h:commandLink value="I"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'i'}"
actionListener="#{adminTempBean.showForI}"></h:commandLi
nk>

                                    <h:commandLink value="J"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'j'}"></h:commandLink>
                                    <h:commandLink value="J"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'j'}"
actionListener="#{adminTempBean.showForJ}"></h:commandLi
nk>

                                    <h:commandLink value="K"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'k'}"></h:commandLink>
                                    <h:commandLink value="K"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'k'}"
actionListener="#{adminTempBean.showForK}"></h:commandLi
nk>

                                    <h:commandLink value="L"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'l'}"></h:commandLink>
                                    <h:commandLink value="L"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'l'}"
actionListener="#{adminTempBean.showForL}"></h:commandLi
nk>

                                    <h:commandLink value="M"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'm'}"></h:commandLink>
```

```
                    <h:commandLink value="M"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'm'}"
actionListener="#{adminTempBean.showForM}"></h:commandL
ink>

                    <h:commandLink value="N"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'n'}"></h:commandLink>
                    <h:commandLink value="N"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'n'}"
actionListener="#{adminTempBean.showForN}"></h:commandLi
nk>

                    <h:commandLink value="O"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'o'}"></h:commandLink>
                    <h:commandLink value="O"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'o'}"
actionListener="#{adminTempBean.showForO}"></h:commandLi
nk>

                    <h:commandLink value="P"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'p'}"></h:commandLink>
                    <h:commandLink value="P"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'p'}"
actionListener="#{adminTempBean.showForP}"></h:commandLi
nk>

                    <h:commandLink value="Q"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'q'}"></h:commandLink>
                    <h:commandLink value="Q"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'q'}"
actionListener="#{adminTempBean.showForQ}"></h:commandLi
nk>

                    <h:commandLink value="R"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'r'}"></h:commandLink>
                    <h:commandLink value="R"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'r'}"
actionListener="#{adminTempBean.showForR}"></h:commandLi
nk>

                    <h:commandLink value="S"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
's'}"></h:commandLink>
                    <h:commandLink value="S"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 's'}"
actionListener="#{adminTempBean.showForS}"></h:commandLi
nk>

                    <h:commandLink value="T"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
't'}"></h:commandLink>
                    <h:commandLink value="T"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 't'}"
actionListener="#{adminTempBean.showForT}"></h:commandLi
nk>

                    <h:commandLink value="U"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'u'}"></h:commandLink>
                    <h:commandLink value="U"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'u'}"
actionListener="#{adminTempBean.showForU}"></h:commandLi
nk>

                    <h:commandLink value="V"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'v'}"></h:commandLink>
                    <h:commandLink value="V"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'v'}"
actionListener="#{adminTempBean.showForV}"></h:commandLi
nk>

                    <h:commandLink value="W"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'w'}"></h:commandLink>
                    <h:commandLink value="W"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'w'}"
actionListener="#{adminTempBean.showForW}"></h:commandL
ink>

                    <h:commandLink value="X"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'x'}"></h:commandLink>
                    <h:commandLink value="X"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'x'}"
actionListener="#{adminTempBean.showForX}"></h:commandLi
nk>

                    <h:commandLink value="Y"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'y'}"></h:commandLink>
                    <h:commandLink value="Y"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'y'}"
actionListener="#{adminTempBean.showForY}"></h:commandLi
nk>

                    <h:commandLink value="Z"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'z'}"></h:commandLink>
                    <h:commandLink value="Z"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != 'z'}"
actionListener="#{adminTempBean.showForZ}"></h:commandLi
nk>

                    <h:commandLink value="All"
style="color: green; margin-left: 9px"
rendered="#{adminTempBean.currentLetter ==
'^'}"></h:commandLink>
```

```
                        <h:commandLink value="All"
style="margin-left: 9px"
rendered="#{adminTempBean.currentLetter != '^'}"
actionListener="#{adminTempBean.showForAll}"></h:command
Link>

                        <font size="1px" style="margin-
left: 10px">
                            <i>Showing
<h:outputText value="#{adminTempBean.userPagination +
adminTempBean.paginationFixer}" /> - <h:outputText
value="#{adminTempBean.userEndCount}" /> of <h:outputText
value="#{adminTempBean.usersCount}" /></i>
                        </font>
                        <h3 style="margin-left: 40px;
color: green"><u>Registered Users</u></h3>
                        </p>


                        <table style="margin-left: 40px"
border="0">
                            <tr>
                                <td
style="width: 170px; text-align: left"><h:panelGroup
rendered="#{adminTempBean.username}">

        <h:commandLink value="Username"
style="color:green"
actionListener="#{adminTempBean.forUserName}"/>

        <h:outputText value="(" />

        <h:outputText
value="#{adminTempBean.usernameStat}" />

        <h:outputText value=")" />
                                </h:panelGroup>
                                <h:panelGroup
rendered="#{!adminTempBean.username}">

        <h:commandLink value="Username"
actionListener="#{adminTempBean.forUserName}"/>

</h:panelGroup></td>
                                <td
style="width: 170px"><h:panelGroup
rendered="#{adminTempBean.lastname}">

        <h:commandLink value="Last Name"
style="color:green"
actionListener="#{adminTempBean.forLastName}"/>

        <h:outputText value="(" />

        <h:outputText
value="#{adminTempBean.lastnameStat}" />

        <h:outputText value=")" />
                                </h:panelGroup>
                                <h:panelGroup
rendered="#{!adminTempBean.lastname}">

        <h:commandLink value="Last Name"
actionListener="#{adminTempBean.forLastName}"/>

</h:panelGroup></td>
                                <td
style="width: 170px"><h:panelGroup
rendered="#{adminTempBean.firstname}">

        <h:commandLink value="First Name"
style="color:green"
actionListener="#{adminTempBean.forFirstName}"/>

        <h:outputText value="(" />

        <h:outputText
value="#{adminTempBean.firstnameStat}" />

        <h:outputText value=")" />
                                </h:panelGroup>
                                <h:panelGroup
rendered="#{!adminTempBean.firstname}">

        <h:commandLink value="First Name"
actionListener="#{adminTempBean.forFirstName}"/>

</h:panelGroup></td>
                            </tr>
                        </table>



                        <h:dataTable
columnClasses="class8,class8,class8" id="RegisteredUsers"
value="#{adminTempBean.pagedUserList}" var="regUser"
rows="10" style="margin-left: 50px" border="0">
                            <h:column>
                              <h:commandLink
value="#{regUser.regUserName}" style="font-weight: bold; color:
gray" action="showUserDetails"
actionListener="#{viewUserBean.getUserDetails}">
                                <f:param id="chosen"
value="#{regUser.regUserName}"></f:param>
                              </h:commandLink>
                            </h:column>
                            <h:column>
                                <h:outputText
value="#{regUser.lastName}" />
                            </h:column>
                            <h:column>
                              <h:outputText
value="#{regUser.firstname}" />
                            </h:column>
                          </h:dataTable>
                          <h:panelGroup>
          <br />
        <h:commandButton value="prev" action="seeUsers"
          disabled="#{adminTempBean.userPagination == 0}"

actionListener="#{adminTempBean.showUserListBackward}"
           style="margin-right: 20px;margin-left: 450px"/>

        <h:commandButton value="next" action="seeUsers"
          disabled="#{adminTempBean.nextUser}"

actionListener="#{adminTempBean.showUserListForward}" />
      </h:panelGroup>
                        </h:form>
                    </div>
        </div>
        <!-- Side Bar -->
        <div id="sidebar">
        <h:form>
                    <ul>
```

```
                                    <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

            <h2>Administration</h2>
                                            <ul><span
style="margin-left: 20px"><u><h:commandLink value="User
List" action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></u></span></ul>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                            <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

            <h3> </h3>
                                        </li>
                                    </h:panelGroup>
                                    <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                    </li>
                                    <li>
                                        <h2>External
Links</h2>
                                        <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                    <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                        </ul>
                                    </li>
                    </ul>
                    </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<div id="boxes">
            <!-- Login Box -->
            <div id="dialog" class="window" style="width: inherit;
height: inherit">
                        <font size="1" style="padding-left:85%">
                                    <a style="cursor: pointer"
href="#" class="close">
                                                <i>close[x]</i>
                                    </a>
                        </font>
                        <h:form>
                                    <br />
                        <h3 style="margin-left: 40px; color:
green"><u>Search Users</u></h3>
                        <br />
                                                <table border="0"
width="500" style="margin-left: 40px">
                                                            <tr>

            <td><h:outputLabel>Username:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchUserName}"/></td>

            <td rowspan="3" width="200"><i>Blank fields will not
be<br />included in the search.</i></td>
                                                            </tr>
                                                            <tr>

            <td><h:outputLabel>Last Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchLastName}" /></td>
                                                            </tr>
                                                            <tr>

            <td><h:outputLabel>First
Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchFirstName}"/></td>
                                                            </tr>
                                                            <tr>

            <td><h:outputLabel>Middle
Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchMiddleName}"/></td>
                                                            </tr>
                                                            <tr>

            <td><h:outputLabel>Email
Address:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
value="#{adminTempBean.searchEmail}"/></td>
                                                            </tr>
                                                            <tr>

            <td><h:outputLabel>Company:</h:outputLabel></td>
```

```
            <td style="padding-top: 5px"><h:inputText
   value="#{adminTempBean.searchCompany}"/></td>

            <td>



            </td>
                                                    </tr>
                                                    <tr>

            <td></td>

            <td style="text-align: right">

            <h:commandButton value="Search" action="seeUsers"
   actionListener="#{adminTempBean.preSearch}"></h:commandBu
   tton>

            </td>
                                                    </tr>
                                                </table>
                        </h:form>
            </div>
            <!-- Mask Div -->
            <div id="mask"></div>
   </div>

   </body>

   </html>
</f:view>
```

wrongPass.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title>HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                        <!-- Post Pane -->
                        <div class="post" style="padding-top:
10px">
                                    <p style="margin-left: 10px;
margin-right: 100px"><br></br><h:outputText value="You
entered a wrong password. You may reset your password or try
again."
styleClass="errorMessage"></h:outputText><br></br></p>
                                    <div>
                                                <h:form>
                                                <br />
                                                <h3 style="margin-
left: 5%; color: green"><u>Login</u></h3>
                                                <br />
                                    <table style="margin-left: 10%">
                                                <tr>
                                                            <td
style="color:green">Username:</td>
                                                            <td>

            <h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                                            </td>
                                                </tr>
                                                <tr>
                                                            <td
style="color:green">Password:</td>
                                                            <td>

            <h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

            </h:inputSecret>

            <font size="1" style="padding-left:5px">

            <i><h:commandLink value="Reset Password"
action="forgotpassword"></h:commandLink></i>

            </font>
                                                            </td>
                                                </tr>
                                    </table>
                                    <div style="padding-left: 55%;
padding-top: 2%">
                                                <h:commandButton
value="Log-In" action="#{userBean.validateUser}" />

                                    </div>
                        </h:form>
                                    <br />
                                    <br />
                                    <br />
                                    <br />
                                    <br />
                                    <br />
                                    <br />
```

```
                                        <br />
                                        </div>
                                </div>
                        </div>
                        <!-- Side Bar -->
                        <div id="sidebar">
                                <ul>
                                        <li>
                                                <h2>External
Links</h2>
                                                <ul>

                        <h:dataTable value="#{linksListBean.links}"
var="link">

                        <li><h:column>

                        <h:outputLink value="#{link.addr}" target="_blank">

                                <h:outputText value="#{link.name}" />

                        </h:outputLink>

                        </h:column></li>

                        </h:dataTable>
                                                </ul>
                                        </li>
                                </ul>
                        </div>
                        <!-- Filler -->
                        <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<!-- Pop Up Boxes -->
<div id="boxes">
                        <!-- Login Box -->
                        <div id="dialog" class="window" style="width: inherit;
height: inherit;">
                                <font size="1" style="padding-left:85%">
                                        <a style="cursor: pointer"
href="#" class="close">
                                                <i>close[x]</i>
                                        </a>
                                </font>
                                <h:form id="myform">
                                        <table border="0">
                                                <tr>


                        <td>Username:</td>
                                                                <td
colspan="2">

                        <h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>
                                                                </td>
                                                </tr>
                                                <tr>


                        <td>Password:</td>
                                                                <td>

                        <h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

                        </h:inputSecret>
                                                                </td>
                                                                <td>
                                                                <font
size="1" style="padding-left:5px">

                        <i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

                        </font><br /><font size="1" style="padding-left:5px">

                        <i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

                        </font>
                                                                </td>
                                                        </tr>
                                                </table>
                                                <div style="padding-left: 80%;
padding-top: 2%">
                                                        <h:commandButton
value="Log-In" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
                                                </div>
                                                <h:inputHidden
value="#{forgotPasswordBean.ctr}" />
                                        </h:form>
                        </div>
                        <!-- Mask Div -->
                        <div id="mask"></div>
</div>

</body>

</html>
</f:view>
```

editNews.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
        <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
        <title>HANAPIN-SP</title>
        <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
        <script type="text/javascript"
  src="../javascript/jquery.js"></script>
        <script type="text/javascript"
  src="../javascript/dialog.js"></script>
        <script type="text/javascript"
  src="../javascript/ajax.js"></script>
        <style type="text/css">
        td {width: 100px}
        </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
        <div id="logo">
                <h1><a>Health Application for Natural
  Products </a></h1>
```

```
		<h1><a>        In
formation - System for Plants</a></h1>
		</div>
</div>

<!-- Menu Pane -->
<h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
action="toHome">Home</h:commandLink></li>
				<li><h:commandLink
action="faq">FAQ</h:commandLink></li>
			</ul>
			<ul style="margin-left: 75%">
				<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
				</li>
			</ul>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<h:form>
					<br />
					<h:commandLink
style="margin-left: 75%; color: green" value="[Back]"
action="seeNews"
actionListener="#{newsFeedBean.clearFields}"/>
					<br /><br />
					<h3 style="margin-
left: 20px; color: green"><u>Edit HANAPIN News</u></h3>
					<br />

					<h:outputText
value="Title: " style="color: green; margin-left:
20px"/><h:inputText value="#{newsFeedBean.title}" size="50"
/><br /><br />
					<h:outputText
value="Text: " style="color: green; margin-left: 20px"/><i
style="margin-left: 50%; font-size: 10px">HTML Tags are
accepted.</i><br />
					<h:inputTextarea
style="margin-left: 20px" cols="60" rows="20"
value="#{newsFeedBean.text}"  /><br /><br />
					<h:commandButton
value="Save" style="margin-left:70%"
actionListener="#{newsFeedBean.updateNews}"
action="seeNews" />

				</h:form>
			</div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
			<h:form>
				<ul>
					<h:panelGroup
rendered="#{userBean.admin}">
						<li>

		<h2>Administration</h2>
							<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
							<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
							<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
							<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
							<ul><span
style="margin-left: 20px"><u><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></u></span></ul>

		<h3> </h3>
						</li>
					</h:panelGroup>
					<li>
						<h2>Menu</h2>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
						<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
						<h3> </h3>
					</li>
					<li>
						<h2>External
Links</h2>
						<ul>

		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
						</ul>
					</li>
```

```
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>

    </body>

    </html>
</f:view>
```

email.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
    <html xmlns="http://www.w3.org/1999/xhtml">

    <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
                <script type="text/javascript"
    src="../javascript/ajax.js"></script>
    </head>

    <body>

    <!-- Logo Pane -->
    <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
    Products </a></h1>

                <h1><a>      In
    formation - System for Plants</a></h1>
                </div>
    </div>

    <!-- Menu Pane -->
    <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
    action="toHome">Home</h:commandLink></li>
                                <li><h:commandLink
    action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
    action="editAccount" value="Account"
    actionListener="#{userAccountBean.getUserDetails}"><f:param
    id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                </li>
                                <li>
                                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                </li>
                        </ul>
                </div>
</h:form>

<!-- Main Page -->
<div id="page">
                <!-- Content Pane -->
                <div id="content">
                        <!-- Post Pane -->
                        <div class="post">
                                <h:form>
                                                <br />
                                                <h:commandLink
value="[External Links]" style="margin-left: 10%"
action="seeLinks" actionListener="#{linksListBean.initLinks}"/>
                                                <h:commandLink
value="[FAQ Management]" style="margin-left: 5%"
action="seeFaqs" actionListener="#{faqBean.initFaq}"/>
                                                <h:commandLink
value="[Email Settings]" style="margin-left: 5%; color: green" />
                                                <h:commandLink
value="[HANAPIN News]" style="margin-left: 5%"
action="seeNews"
actionListener="#{newsFeedBean.clearFields}"/>
                                                <br /><br /><br />
                                                <h3
style="color:green; margin-left: 40px"><u>Email
Settings</u></h3>
                                                <br />
                                                <table border="0"
style="margin-left: 80px">
                                                                <tr>

                <td><h:outputText style="color: green" value="Display
Name: " /></td>

                <td >

                <h:inputText
disabled="#{!emailSettingsBean.editMode}"
value="#{emailSettingsBean.name}"/>

                </td>
                                                                </tr>
                                                                <tr>

                <td><h:outputText style="color:green" value="Email
Address: " /></td>

                <td>

                <h:inputText
disabled="#{!emailSettingsBean.editMode}"
value="#{emailSettingsBean.from}"/>@<h:inputText
disabled="#{!emailSettingsBean.editMode}"
value="#{emailSettingsBean.address}"/>

                </td>
                                                                </tr>
                                                                <tr>

                <td></td>

                <td style="text-align: right">
```

```
		<h:panelGroup>

			<h:commandButton
value="#{emailSettingsBean.buttonVal}"
actionListener="#{emailSettingsBean.buttonFunc}"/>

		</h:panelGroup>

		</td>
</tr>
</table>

</h:form>
</div>
</div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>

<h2>Administration</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
<ul><span
style="margin-left: 20px"><u><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></u></span></ul>

<h3> </h3>
</li>
</h:panelGroup>
<li>
<h2>Menu</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
<h3> </h3>
</li>
<li>
<h2>External
Links</h2>
<ul>

<h:dataTable value="#{linksListBean.links}"
var="link">

<li><h:column>

<h:outputLink value="#{link.addr}" target="_blank">

<h:outputText value="#{link.name}" />

</h:outputLink>

</h:column></li>

</h:dataTable>
</ul>
</li>
</ul>
</h:form>
</div>
<!-- Filler -->
<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>

</html>
</f:view>
```

faqPage.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
<html xmlns="http://www.w3.org/1999/xhtml">

<head>
<title>FAQ - HANAPIN-SP</title>
<link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
<script type="text/javascript"
src="../javascript/jquery.js"></script>
<script type="text/javascript"
src="../javascript/dialog.js"></script>
<script type="text/javascript"
src="../javascript/ajax.js"></script>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
<div id="logo">
<h1><a>Health Application for Natural
Products </a></h1>

<h1><a>      In
formation - System for Plants</a></h1>
</div>
</div>

<!-- Menu Pane -->
<h:form>
```

```
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
action="toHome">Home</h:commandLink></li>
				<li
class="current_page_item"><h:commandLink>FAQ</h:command
Link></li>
			</ul>
			<h:panelGroup
rendered="#{userBean.username != null}">
			<ul style="margin-left: 75%">
				<li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
					</h:commandLink>
				</li>
				<li>
					<h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
				</li>
			</ul>
			</h:panelGroup>
		</div>
</h:form>

<!-- Main Page -->
<div id="page">
		<!-- Content Pane -->
		<div id="content">
			<!-- Post Pane -->
			<div class="post">
				<h:form>
					<br />
					<h3 style="color:
green; margin-left: 20px"><u>Frequently Asked
Questions</u></h3>
					<br />
					<h:dataTable
value="#{faqBean.faq}" var="faq"  columnClasses="class7"
style="margin-left: 40px">

		<h:column>

		<h:outputText value="#{faq.question}" style="color:
green; font-size: 15px"  /><br />

		<h:outputText value="Answer: " style="color: green"/>

		<h:outputText value="#{faq.answer}" /><br />

		</h:column>
					</h:dataTable>
				</h:form>
				<br /><br /><br />
			</div>
		</div>
		<!-- Side Bar -->
		<div id="sidebar">
		<h:form>
			<ul>
				<h:panelGroup
rendered="#{!userBean.logged}">
				<li>
					<h2>Account</h2>

		<ul><h:form><h:commandLink action="register"
actionListener="#{userRegistrationBean.reInit}" value="Register
for an Account" /></h:form></ul>
					<ul>You Are Not
Logged In</ul>
					<ul style="padding-
left: 70%">
						<a
href="../services/login.jsf">

		<font size="3">Log-In</font>
						</a>
					</ul>
				</li>
				</h:panelGroup>
				<h:panelGroup
rendered="#{userBean.logged && userBean.admin}">
				<li>

		<h2>Administration</h2>
					<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

		<h3> </h3>
				</li>
				</h:panelGroup>
				<h:panelGroup
rendered="#{userBean.logged}">
				<li>
					<h2>Menu</h2>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
					<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
					<h3> </h3>
				</li>
				</h:panelGroup>
				<li>
					<h2>External
Links</h2>
					<ul>
```

```
		<h:dataTable value="#{linksListBean.links}"
var="link">

		<li><h:column>

		<h:outputLink value="#{link.addr}" target="_blank">

			<h:outputText value="#{link.name}" />

		</h:outputLink>

		</h:column></li>

		</h:dataTable>
							</ul>
					</li>
			</ul>
			</h:form>
		</div>
		<!-- Filler -->
		<div style="clear: both;"> </div>
</div>

<!-- Pop Up Boxes -->
<div id="boxes">
		<!-- Login Box -->
		<div id="dialog" class="window">
			<font size="1" style="padding-left:85%">
				<a style="cursor: pointer"
href="#" class="close">
					<i>close[x]</i>
				</a>
			</font>
			<h:form id="myform">
				<table>
					<tr>

		<td>Username:</td>
							<td>

		<h:inputText id="username" onclick="this.value=""
value="#{userBean.username}"></h:inputText>

		<font size="1" style="padding-left:5px">

		<i><h:commandLink value="forgot username?"
action="forgotusername"></h:commandLink></i>

		</font>
							</td>
					</tr>
					<tr>

		<td>Password:</td>
							<td>

		<h:inputSecret id="password"
value="#{userBean.password}" onclick="this.value="">

		</h:inputSecret>

		<font size="1" style="padding-left:5px">

		<i><h:commandLink value="forgot password?"
action="forgotpassword"></h:commandLink></i>

		</font>
							</td>
					</tr>
```

```
					</table>
					<div style="padding-left: 55%;
padding-top: 2%">
						<h:commandButton
value="Log-In" action="#{userBean.validateUser}"
actionListener="#{userRegistrationBean.reInit}"/>
					</div>
					<h:inputHidden
value="#{forgotPasswordBean.ctr}" />
				</h:form>
		</div>
		<!-- Mask Div -->
		<div id="mask"></div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>

</html>
</f:view>
```

faqs.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
		<c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
		<title>HANAPIN-SP</title>
		<link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
		<script type="text/javascript"
  src="../javascript/jquery.js"></script>
		<script type="text/javascript"
  src="../javascript/dialog.js"></script>
		<script type="text/javascript"
  src="../javascript/ajax.js"></script>
		<style type="text/css">
		td {width: 100px}
		</style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
		<div id="logo">
			<h1><a>Health Application for Natural
  Products </a></h1>

		<h1><a>      In
  formation - System for Plants</a></h1>
		</div>
  </div>

  <!-- Menu Pane -->
  <h:form>
		<div id="menu">
			<ul id="menulist">
				<li><h:commandLink
  action="toHome">Home</h:commandLink></li>
```

```
                                        <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                                </ul>
                                <ul style="margin-left: 75%">
                                        <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                        </li>
                                        <li>
                                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                        </li>
                                </ul>
                        </div>
</h:form>

<!-- Main Page -->
<div id="page">
                        <!-- Content Pane -->
                        <div id="content">
                                <!-- Post Pane -->
                                <div class="post">
                                        <h:form>
                                                <br />
                                                <h:commandLink
value="[External Links]" style="margin-left: 10%"
action="seeLinks" actionListener="#{linksListBean.initLinks}"/>
                                                <h:commandLink
value="[FAQ Management]" style="margin-left: 5%; color:
green"/>
                                                <h:commandLink
value="[Email Settings]" style="margin-left: 5%"
action="seeMail"
actionListener="#{emailSettingsBean.initFields}"/>
                                                <h:commandLink
value="[HANAPIN News]" style="margin-left: 5%"
action="seeNews"
actionListener="#{newsFeedBean.clearFields}"/>
                                                <br /><br /><br />
                                                <h:outputText
style="margin-left: 40px" styleClass="errorMessage"
value="Entries with blank questions/answers will not be displayed
in the FAQ page." /><br /><br />
                                                <h3 style="margin-
left: 40px; color: green"><u>Frequently Asked Questions</u><a
style="margin-left: 40%; color: green" href="#dialog"
name="modal">

                        <font size="2">Add[+]</font>
                                                        </a></h3>
                                                <br />
                                                <h:dataTable
value="#{faqBean.trueFaq}" var="faq"  columnClasses="class7"
style="margin-left: 60px">

                        <h:column>

                        <h:outputText value="Question: " style="color:
green"/><h:inputText disabled="#{!faq.editMode}"
value="#{faq.question}" size="50" /><br />

                        <h:outputText value="Answer: " style="color:
green"/>  

                        <h:inputTextarea cols="60" rows="5"
disabled="#{!faq.editMode}" value="#{faq.answer}"  /><br />

                        <h:commandButton value="#{faq.buttonVal}"
style="margin-left:78%" actionListener="#{faqBean.editFaq}">

                        <f:param value="#{faq.id}" id="ctr"/>

                        </h:commandButton>

                        <h:commandButton value="Delete"
actionListener="#{faqBean.deleteFaq}">

                        <f:param value="#{faq.id}" id="actr"/>

                        </h:commandButton>

                        </h:column>
                                                        </h:dataTable>
                                                </h:form>
                                        </div>
                                </div>
                                <!-- Side Bar -->
                                <div id="sidebar">
                                <h:form>
                                        <ul>
                                                <h:panelGroup
rendered="#{userBean.admin}">
                                                        <li>

                        <h2>Administration</h2>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                                <ul><span
style="margin-left: 20px"><u><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></u></span></ul>

                        <h3> </h3>
                                                        </li>
                                                </h:panelGroup>
                                                <li>
                                                        <h2>Menu</h2>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                                        <h3> </h3>
```

```
                                    </li>
                                    <li>
                                            <h2>External
Links</h2>
                                            <ul>

            <h:dataTable value="#{linksListBean.links}"
var="link">

            <li><h:column>

            <h:outputLink value="#{link.addr}" target="_blank">

                    <h:outputText value="#{link.name}" />

            </h:outputLink>

            </h:column></li>

            </h:dataTable>
                                            </ul>
                                    </li>
                            </ul>
                            </h:form>
            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

<!-- Pop Up Boxes -->
<div id="boxes">
            <!-- Login Box -->
            <div id="dialog" class="window" style="width: inherit;
height: inherit;">
            <h:outputText value="FAQ will not be saved if there is
an empty field." styleClass="errorMessage" />
                                    <br /><br />
                            <h3 style="color:
green"><u>FAQ</u></h3>
                            <br />
                            <h:form id="myform">
                                    <h:outputText value="Question:
" style="color: green; margin-left: 20px"/><h:inputText
value="#{faqBean.question}" size="50" /><br /><br />
                                    <h:outputText value="Answer: "
style="color: green; margin-left: 20px"/><br />
                                    <h:inputTextarea style="margin-
left: 20px" cols="60" rows="5" value="#{faqBean.answer}"  /><br
/><br />
                                    <h:commandButton
value="Save" style="margin-left:90%"
actionListener="#{faqBean.addFaq}" />
                            </h:form>
            </div>
            <!-- Mask Div -->
            <div id="mask"></div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>

</html>
</f:view>
```

links.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
            <title>HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
            <script type="text/javascript"
src="../javascript/jquery.js"></script>
            <script type="text/javascript"
src="../javascript/dialog.js"></script>
            <script type="text/javascript"
src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {width: 100px}
            </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
            <div id="logo">
                    <h1><a>Health Application for Natural
Products </a></h1>

            <h1><a>      In
formation - System for Plants</a></h1>
            </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
            <div id="menu">
                    <ul id="menulist">
                            <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                            <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                    </ul>
                    <ul style="margin-left: 75%">
                            <li><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                    </h:commandLink>
                            </li>
                            <li>
                                    <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                            </li>
                    </ul>
            </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
            <!-- Content Pane -->
            <div id="content">
                    <!-- Post Pane -->
                    <div class="post">
                            <h:form>
```

```
                                        <br />
                                        <h:commandLink
value="[External Links]" style="margin-left: 10%; color: green" />
                                        <h:commandLink
value="[FAQ Management]" style="margin-left: 5%"
action="seeFaqs" actionListener="#{faqBean.initFaq}"/>
                                        <h:commandLink
value="[Email Settings]" style="margin-left: 5%"
action="seeMail"
actionListener="#{emailSettingsBean.initFields}"/>
                                        <h:commandLink
value="[HANAPIN News]" style="margin-left: 5%"
action="seeNews"
actionListener="#{newsFeedBean.clearFields}"/>
                                        <br /><br /><br />
                                        <h:outputText
style="margin-left: 40px" styleClass="errorMessage"
value="Blank display names will not be displayed in the external
links part of the page." /><br /><br />
                                        <h3 style="margin-
left: 40px; color: green"><u>Links</u></h3>
                                        <br />
                                        <h:dataTable
value="#{linksListBean.trueLinks}" var="link"
columnClasses="class7" style="margin-left: 60px">

                <h:column>

                <h:outputText value="Display Name: " style="color:
green"/><h:inputText disabled="#{!link.editMode}"
value="#{link.name}" size="25" /><br />

                <h:outputText value="http:// " style="color: green"/>

                <h:inputText disabled="#{!link.editMode}"
value="#{link.addr}" size="32" />

                <h:commandButton value="#{link.buttonVal}"
style="margin-left:5%"
actionListener="#{linksListBean.editLink}">

                <f:param value="#{link.ctr}" id="ctr"/>

                </h:commandButton>

                <h:commandButton value="Delete"
actionListener="#{linksListBean.deleteLink}">

                <f:param value="#{link.ctr}" id="actr"/>

                </h:commandButton>

                </h:column>
                                        </h:dataTable>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><u><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></u></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>
```

```
   </body>

   </html>
</f:view>
```

news.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
            <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title>HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {width: 100px}
            </style>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                     <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                     <ul id="menulist">
                              <li><h:commandLink
   action="toHome">Home</h:commandLink></li>
                              <li><h:commandLink
   action="faq">FAQ</h:commandLink></li>
                     </ul>
                     <ul style="margin-left: 75%">
                              <li><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
                                       </h:commandLink>
                              </li>
                              <li>
                                       <h:commandLink
   action="logout"
   actionListener="#{userBean.destroySession}">Logout</h:comma
   ndLink>
                              </li>
                     </ul>
            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                     <!-- Post Pane -->
                     <div class="post">
                              <h:form>
                                       <br />
                                       <h:commandLink
value="[External Links]" style="margin-left: 10%"
action="seeLinks" actionListener="#{linksListBean.initLinks}"/>
                                       <h:commandLink
value="[FAQ Management]" style="margin-left: 5%"
action="seeFaqs" actionListener="#{faqBean.initFaq}"/>
                                       <h:commandLink
value="[Email Settings]" style="margin-left: 5%"
action="seeMail"
actionListener="#{emailSettingsBean.initFields}"/>
                                       <h:commandLink
value="[HANAPIN News]" style="margin-left: 5%; color:
green"/>
                                       <br /><br /><br />
                                       <h3 style="margin-
left: 40px; color: green"><u>HANAPIN News</u>
                                                <a
style="margin-left: 55%; color: green" href="#dialog"
name="modal">

            <font size="2">Add[+]</font>
                                                </a></h3>
                                       <br />
                                       <h:dataTable
value="#{newsFeedBean.news}" var="news"
columnClasses="class7" style="margin-left: 60px">

            <h:column>

            <h:outputText style="color: green; font-size: 16px"
value="#{news.title}"/><br />

            <i><h:outputText style="font-size: 10px"
value="Added: "/><h:outputText value="#{news.date}"
style="font-size: 10px" /><br />

            <h:outputText style="font-size: 10px" value="Last
Edited: "/><h:outputText value="#{news.editDate}" style="font-
size: 10px" /><br /></i>

            <p><h:outputText value="#{news.text}"
escape="false" /></p><br /><br />

            <h:commandButton value="Edit" style="margin-
left:78%" actionListener="#{newsFeedBean.getNewsDetails}"
action="editNews">

            <f:param value="#{news.id}" id="editId"/>

            </h:commandButton>

            <h:commandButton value="Delete"
actionListener="#{newsFeedBean.deleteNews}">

            <f:param value="#{news.id}" id="deleteId"/>

            </h:commandButton>

            </h:column>
                                       </h:dataTable>
```

```
                        </h:form>
                    </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                    <ul>
                        <h:panelGroup
rendered="#{userBean.admin}">
                            <li>

                <h2>Administration</h2>
                            <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                            <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                            <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                            <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                            <ul><span
style="margin-left: 20px"><u><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></u></span></ul>

                <h3> </h3>
                            </li>
                        </h:panelGroup>
                        <li>
                            <h2>Menu</h2>
                            <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                            <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                            <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                            <h3> </h3>
                        </li>
                        <li>
                            <h2>External
Links</h2>
                            <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                    <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                    </ul>
                            </li>
                    </ul>
                    </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
    </div>

    <!-- Pop Up Boxes -->
    <div id="boxes">
                <!-- Login Box -->
                <div id="dialog" class="window" style="width: inherit;
    height: inherit;">
                <h:outputText value="News will not be saved if there is
    an empty field." styleClass="errorMessage" />
                            <br /><br />
                        <h3 style="color:
    green"><u>News</u></h3>
                        <br />
                        <h:form id="myform">
                            <h:outputText value="Title: "
    style="color: green; margin-left: 20px"/><h:inputText
    value="#{newsFeedBean.title}" size="50" /><br /><br />
                            <h:outputText value="Text: "
    style="color: green; margin-left: 20px"/><i style="margin-left:
    65%; font-size: 10px">HTML Tags are accepted.</i><br />
                            <h:inputTextarea style="margin-
    left: 20px" cols="60" rows="20" value="#{newsFeedBean.text}"
    /><br /><br />
                            <h:commandButton
    value="Save" style="margin-left:90%"
    actionListener="#{newsFeedBean.addNews}" />
                        </h:form>
                </div>
                <!-- Mask Div -->
                <div id="mask"></div>
    </div>

    <!-- Footer -->
    <div id="footer"></div>

    </body>

    </html>
</f:view>
```

viewNews.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
                <title>HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
    type="text/css" media="screen" />
                <script type="text/javascript"
    src="../javascript/jquery.js"></script>
                <script type="text/javascript"
    src="../javascript/dialog.js"></script>
```

```
            <script type="text/javascript"
src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {width: 100px}
            </style>
</head>

<body>

<!-- Logo Pane -->
<div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
Products </a></h1>

            <h1><a>      In
formation - System for Plants</a></h1>
            </div>
</div>

<!-- Menu Pane -->
<h:form>
            <div id="menu">

            </div>
</h:form>

<!-- Main Page -->
<div id="page">
            <!-- Content Pane -->
            <div id="content">
                        <!-- Post Pane -->
                        <div class="post" style="margin-left:
50px;text-align: justify">
                                                <h:form>

            <h:commandLink style="margin-left: 75%; color:
green" value="[Back to Home Page]" action="toHome"/>
                                                </h:form>
                                    <p>
                                                <h:outputText
style="color: green; font-size: 16px"
value="#{newsFeedBean.viewNews.title}" /><br />
                                                <i><h:outputText
style="font-size: 10px" value="Added: "/><h:outputText
value="#{newsFeedBean.viewNews.date}" style="font-size: 10px"
/><br />
                                                <h:outputText
style="font-size: 10px" value="Last Edited: "/><h:outputText
value="#{newsFeedBean.viewNews.editDate}" style="font-size:
10px" /><br /></i>
                                                <br />
                                                <h:outputText
value="#{newsFeedBean.viewNews.text}" escape="false" />
                                    </p>
                        </div>
            </div>
            <!-- Side Bar -->
            <div id="sidebar">

            </div>
            <!-- Filler -->
            <div style="clear: both;"> </div>
</div>

</body>

</html>
</f:view>
```

accountChangePass.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
            <title>Account - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
type="text/css" media="screen" />
            <script type="text/javascript"
src="../javascript/jquery.js"></script>
            <script type="text/javascript"
src="../javascript/dialog.js"></script>
            <script type="text/javascript"
src="../javascript/datetimepicker.js"></script>
            <script type="text/javascript"
src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {width: 150px}
            </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
            <div id="logo">
                        <h1><a>Health Application for Natural
Products </a></h1>

            <h1><a>      In
formation - System for Plants</a></h1>
            </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
            <div id="menu">
                        <ul id="menulist">
                                    <li><h:commandLink
action="toHome">Home</h:commandLink></li>
                                    <li><h:commandLink
action="faq">FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                    <li
class="current_page_item"><h:commandLink
action="editAccount" value="Account"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userBean.username}"/>
                                                </h:commandLink>
                                    </li>
                                    <li>
                                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                                    </li>
                        </ul>
            </div>
  </h:form>

  <!-- Main Page -->
  <div id="page">
```

```
<!-- Content Pane -->
<div id="content">
	<!-- Post Pane -->
	<div class="post">
	<br/>
	<p style="margin-left:
10px;"><h:outputText rendered="#{!viewUserBean.updateOk}"
value="#{viewUserBean.updateSuccessString}"
styleClass="errorMessage"></h:outputText>
		</p>
		<h:form id="regForm">
		<br />
		<p style="margin-left: 50px;
margin-right: 100px"><br></br></p>
			<table border="0"
width="300" style="margin-left:27%">
				<tr>

	<th colspan="2"><h3 style="margin-left:20px">User
Account Details</h3><br></th>
				</tr>

	<h:panelGroup>
				<tr>

	<td><h:outputLabel>Password:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputSecret
value="#{userAccountBean.password}"/></td>
				</tr>
				<tr>

	<td><h:outputLabel>Confirm
Password:</h:outputLabel></td>

	<td style="padding-top: 5px"><h:inputSecret/></td>
				</tr>

	</h:panelGroup>
				<tr>

	<td><br></br><br></br><u><h:commandLink
value="<< Cancel" action="editAccount" /></u></td>

	<td><br></br><br></br><h:commandButton
value="Save" action="#{userAccountBean.whatStat}"
actionListener="#{userAccountBean.updatePassword}"/></td>
				</tr>
			</table>
		</h:form>
	</div>
</div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
	<ul>
		<h:panelGroup
rendered="#{userBean.admin}">
			<li>

	<h2>Administration</h2>
				<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
				<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

	<h3> </h3>
			</li>
		</h:panelGroup>
		<li>
			<h2>Menu</h2>
			<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
			<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
			<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
			<h3> </h3>
		</li>
		<li>
			<h2>External
Links</h2>
			<ul>

	<h:dataTable value="#{linksListBean.links}"
var="link">

	<li><h:column>

	<h:outputLink value="#{link.addr}" target="_blank">

		<h:outputText value="#{link.name}" />

	</h:outputLink>

	</h:column></li>

	</h:dataTable>
			</ul>
		</li>
	</ul>
	</h:form>
</div>
<!-- Filler -->
<div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

</body>

</html>
</f:view>
```

accountDetails.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title>Account - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/ajax.js"></script>
            <style type="text/css">
            td {width: 150px}
            </style>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                     <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                     <ul id="menulist">
                              <li><h:commandLink
   action="toHome">Home</h:commandLink></li>

            <li><h:commandLink>FAQ</h:commandLink></li>
                     </ul>
                     <ul style="margin-left: 75%">
                              <li
   class="current_page_item"><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
                                                      </h:commandLink>
                              </li>
                              <li>
                                                      <h:commandLink
   action="logout"
   actionListener="#{userBean.destroySession}">Logout</h:comma
   ndLink>
                              </li>
                     </ul>
            </div>
   </h:form>

   <!-- Main Page -->
   <div id="page">
            <!-- Content Pane -->
            <div id="content">
                     <!-- Post Pane -->
                     <div class="post">
                              <h:form id="regForm">
                                       <table border="0"
   width="400" style="margin-left:15%">
                                                <tr>

            <th colspan="2" align="left" style="padding-right:
   15px; padding-top: 5px;color: green"><br /><u>Account
   Information</u></th>

                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color:
   green"><h:outputLabel>Username:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:outputText
   value="#{userAccountBean.userName}"/></td>
                                                </tr>
                                                <tr>



            <th colspan="2" align="left" style="padding-right:
   15px; padding-top: 5px;color: green"><br /><u>User
   Information</u></th>

                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color: green"><h:outputLabel>Last
   Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:outputText
   value="#{userAccountBean.lastName}" /></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color: green"><h:outputLabel>First
   Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:outputText
   value="#{userAccountBean.firstname}"/></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color: green"><h:outputLabel>Middle
   Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:outputText
   value="#{userAccountBean.middlename}"/></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color: green"><h:outputLabel>Email
   Address:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:outputText
   id="email" value="#{userAccountBean.emailAdd}"/></td>
                                                </tr>
                                                <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color:
   green"><h:outputLabel>Company:</h:outputLabel></td>
```

```
<td style="padding-top: 5px"><h:outputText
value="#{userAccountBean.company}"/></td>
                                                </tr>
                                                <tr>


<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Security</u></th>

                                                </tr>
                                                <tr>


<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

<td style="padding-top: 5px"><h:outputText
value="#{userAccountBean.securityQuestion}"/></td>
                                                </tr>
                                                <tr>


<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

<td style="padding-top: 5px"><h:outputText
value="#{userAccountBean.securityAnswer}"/></td>
                                                </tr>
                                                <tr>


<td></td>

<td><br></br><br></br>

<h:commandButton value="Edit Account"
action="tryEditAccount"
actionListener="#{userAccountBean.getUserDetails}"><f:param
id="aUserName" value="#{userAccountBean.userName}"
/></h:commandButton>

</td>
                                                </tr>
                                        </table>
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>


<h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
        </div>

        <!-- Footer -->
        <div id="footer"></div>

        </body>

        </html>
</f:view>
```

editAccount.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
```

```
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<f:view>
   <html xmlns="http://www.w3.org/1999/xhtml">

   <head>
            <title>Account - HANAPIN-SP</title>
            <link href="../css/style.css" rel="stylesheet"
   type="text/css" media="screen" />
            <script type="text/javascript"
   src="../javascript/jquery.js"></script>
            <script type="text/javascript"
   src="../javascript/dialog.js"></script>
            <script type="text/javascript"
   src="../javascript/ajax.js"></script>
   </head>

   <body>

   <!-- Logo Pane -->
   <div id="header">
            <div id="logo">
                     <h1><a>Health Application for Natural
   Products </a></h1>

            <h1><a>      In
   formation - System for Plants</a></h1>
            </div>
   </div>

   <!-- Menu Pane -->
   <h:form>
            <div id="menu">
                     <ul id="menulist">
                              <li><h:commandLink
   action="toHome">Home</h:commandLink></li>

            <li><h:commandLink>FAQ</h:commandLink></li>
                     </ul>
                     <ul style="margin-left: 75%">
                              <li
   class="current_page_item"><h:commandLink
   action="editAccount" value="Account"
   actionListener="#{userAccountBean.getUserDetails}"><f:param
   id="aUserName" value="#{userBean.username}"/>
                                       </h:commandLink>
                              </li>
                              <li>
                                       <h:commandLink
   action="logout"
   actionListener="#{userBean.destroySession}">Logout</h:comma
   ndLink>
                              </li>
                     </ul>
            </div>
   </h:form>

   <!-- Main Page -->
   <div id="page">
            <!-- Content Pane -->
            <div id="content">
                     <!-- Post Pane -->
                     <div class="post">
                     <h:form id="regForm">
                     <h:commandLink style="color: green;
   margin-left: 75%" value="[Back]" action="editAccount"
   actionListener="#{userAccountBean.initDetails}"/>
                     <br/>
                              <h:outputText style="margin-left:20px;
   margin-top:30px"rendered="#{!userAccountBean.updateOk}"
   value="#{userAccountBean.updateSuccessString}"
   styleClass="errorMessage"></h:outputText>


                                                <table border="0"
   width="400" style="margin-left:15%">
                                                      <tr>


            <th colspan="2" align="left" style="padding-right:
   15px; padding-top: 5px;color: green"><br /><u>Account
   Information</u></th>

                                                      </tr>
                                                      <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color:
   green"><h:outputLabel>Username:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
   disabled="true"  value="#{userAccountBean.userName}"/></td>
                                                      </tr>
                                                      <tr>

            <td colspan="2" align="right" style="padding-right:
   15px; padding-top: 5px;color: green"><i>Leave the password
   fields blank if you want it unchanged.</i></td>
                                                      </tr>
                                                      <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color:
   green"><h:outputLabel>Password:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputSecret size="20"
   value="#{userAccountBean.passwordProxy}"/></td>
                                                      </tr>
                                                      <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color: green"><h:outputLabel>Confirm
   Password:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputSecret size="20"
   value="#{userAccountBean.password2}"/></td>
                                                      </tr>
                                                      <tr>

            <th colspan="2" align="left" style="padding-right:
   15px; padding-top: 5px;color: green"><br /><u>User
   Information</u></th>
                                                      </tr>
                                                      <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color: green"><h:outputLabel>Last
   Name:</h:outputLabel></td>

            <td style="padding-top: 5px"><h:inputText
   value="#{userAccountBean.lastName}" /></td>
                                                      </tr>
                                                      <tr>

            <td align="right" style="padding-right: 15px; padding-
   top: 5px;color: green"><h:outputLabel>First
   Name:</h:outputLabel></td>
```

```
<td style="padding-top: 5px"><h:inputText
value="#{userAccountBean.firstname}"/></td>
</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Middle
Name:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText
value="#{userAccountBean.middlename}"/></td>
</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Email
Address:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText  id="email"
value="#{userAccountBean.emailProxy}"/></td>
</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Company:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText
value="#{userAccountBean.company}"/></td>
</tr>
<tr>

<th colspan="2" align="left" style="padding-right:
15px; padding-top: 5px;color: green"><br /><u>Account
Security</u></th>

</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color: green"><h:outputLabel>Security
Question:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText size="30"
value="#{userAccountBean.securityQuestion}"/></td>
</tr>
<tr>

<td align="right" style="padding-right: 15px; padding-
top: 5px;color:
green"><h:outputLabel>Answer:</h:outputLabel></td>

<td style="padding-top: 5px"><h:inputText
value="#{userAccountBean.securityAnswer}"/></td>
</tr>
<tr>

<td><br></br><br></br><u></u></td>

<td><br></br><br></br><h:commandButton
value="Save" action="#{userAccountBean.updateUser}"/></td>
</tr>
</table>
</h:form>
</div>
</div>
<!-- Side Bar -->
<div id="sidebar">
<h:form>
<ul>
<h:panelGroup
rendered="#{userBean.admin}">
<li>

<h2>Administration</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

<h3> </h3>
</li>
</h:panelGroup>
<li>
<h2>Menu</h2>
<ul><span
style="margin-left: 20px"><h:commandLink value="Plants List"
action="regPlantList"
actionListener="#{plantListBean.initializePlants}" /></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
<ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
<h3> </h3>
</li>
<li>
<h2>External
Links</h2>
<ul>

<h:dataTable value="#{linksListBean.links}"
var="link">

<li><h:column>

<h:outputLink value="#{link.addr}" target="_blank">

<h:outputText value="#{link.name}" />

</h:outputLink>

</h:column></li>

</h:dataTable>
</ul>
</li>
```

```
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
  </div>

  <!-- Footer -->
  <div id="footer"></div>

  </body>

  </html>
</f:view>
```

regPlantList.jsp

```
<%@taglib uri="http://java.sun.com/jsf/core" prefix="f"%>
<%@taglib uri="http://java.sun.com/jsf/html" prefix="h"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<c:if test="${userBean.username == null}">
                <c:redirect url="/services/home.jsf" />
</c:if>
<f:view>
  <html xmlns="http://www.w3.org/1999/xhtml">

  <head>
                <title>Plants List - HANAPIN-SP</title>
                <link href="../css/style.css" rel="stylesheet"
  type="text/css" media="screen" />
                <script type="text/javascript"
  src="../javascript/jquery.js"></script>
                <script type="text/javascript"
  src="../javascript/dialog.js"></script>
                <script type="text/javascript"
  src="../javascript/ajax.js"></script>
                <style type="text/css">
                td {width: 150px}
                </style>
  </head>

  <body>

  <!-- Logo Pane -->
  <div id="header">
                <div id="logo">
                        <h1><a>Health Application for Natural
  Products </a></h1>

                <h1><a>      In
  formation - System for Plants</a></h1>
                </div>
  </div>

  <!-- Menu Pane -->
  <h:form>
                <div id="menu">
                        <ul id="menulist">
                                <li><h:commandLink
  action="toHome">Home</h:commandLink></li>

                <li><h:commandLink>FAQ</h:commandLink></li>
                        </ul>
                        <ul style="margin-left: 75%">
                                <li><h:commandLink
  action="editAccount" value="Account"
  actionListener="#{userAccountBean.getUserDetails}"><f:param
  id="aUserName" value="#{userBean.username}"/>
                                </h:commandLink>
                        </li>
                        <li>
                                <h:commandLink
action="logout"
actionListener="#{userBean.destroySession}">Logout</h:comma
ndLink>
                        </li>
                </ul>
        </div>
</h:form>

<!-- Main Page -->
<div id="page">
        <!-- Content Pane -->
        <div id="content">
                <!-- Post Pane -->
                <div class="post">
                        <h:form>
                        <a style="color:green; margin-
left: 20px" href="#dialog" name="modal">

        <font size="2">[Search]</font>
                        </a>
                        <h:commandLink style="font-
size: 4; color:green; margin-left: 40px" value="[Reset Search]"
actionListener="#{plantListBean.resetFields}"></h:commandLink
>
                        <h:panelGroup
rendered="#{userBean.admin}">
                        <h:commandLink value="[Add
Plant]" style="color: green; margin-left: 45%" action="addplant"
actionListener="#{plantBean.reInitFields}"
rendered="#{userBean.admin}"/>
                        </h:panelGroup>
                        <br /><br />
                                <h:commandLink
value="A" style="color: green; margin-left: 20px"
rendered="#{plantListBean.currentLetter ==
'a'}"></h:commandLink>
                        <h:commandLink value="A"
style="margin-left: 20px"
rendered="#{plantListBean.currentLetter != 'a'}"
actionListener="#{plantListBean.showForA}"></h:commandLink
>

                        <h:commandLink value="B"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'b'}"></h:commandLink>
                        <h:commandLink value="B"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'b'}"
actionListener="#{plantListBean.showForB}"></h:commandLink
>

                        <h:commandLink value="C"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'c'}"></h:commandLink>
                        <h:commandLink value="C"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'c'}"
actionListener="#{plantListBean.showForC}"></h:commandLink
>

                        <h:commandLink value="D"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'd'}"></h:commandLink>
```

```
                                <h:commandLink value="D"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'd'}"
actionListener="#{plantListBean.showForD}"></h:commandLink
>

                                <h:commandLink value="E"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'e'}"></h:commandLink>
                                <h:commandLink value="E"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'e'}"
actionListener="#{plantListBean.showForE}"></h:commandLink
>

                                <h:commandLink value="F"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'f'}"></h:commandLink>
                                <h:commandLink value="F"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'f'}"
actionListener="#{plantListBean.showForF}"></h:commandLink
>

                                <h:commandLink value="G"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'g'}"></h:commandLink>
                                <h:commandLink value="G"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'g'}"
actionListener="#{plantListBean.showForG}"></h:commandLink
>

                                <h:commandLink value="H"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'h'}"></h:commandLink>
                                <h:commandLink value="H"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'h'}"
actionListener="#{plantListBean.showForH}"></h:commandLink
>

                                <h:commandLink value="I"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'i'}"></h:commandLink>
                                <h:commandLink value="I"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'i'}"
actionListener="#{plantListBean.showForI}"></h:commandLink>

                                <h:commandLink value="J"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'j'}"></h:commandLink>
                                <h:commandLink value="J"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'j'}"
actionListener="#{plantListBean.showForJ}"></h:commandLink>

                                <h:commandLink value="K"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'k'}"></h:commandLink>
                                <h:commandLink value="K"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'k'}"
actionListener="#{plantListBean.showForK}"></h:commandLink
>

                                <h:commandLink value="L"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'l'}"></h:commandLink>
                                <h:commandLink value="L"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'l'}"
actionListener="#{plantListBean.showForL}"></h:commandLink
>

                                <h:commandLink value="M"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'm'}"></h:commandLink>
                                <h:commandLink value="M"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'm'}"
actionListener="#{plantListBean.showForM}"></h:commandLink
>

                                <h:commandLink value="N"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'n'}"></h:commandLink>
                                <h:commandLink value="N"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'n'}"
actionListener="#{plantListBean.showForN}"></h:commandLink
>

                                <h:commandLink value="O"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'o'}"></h:commandLink>
                                <h:commandLink value="O"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'o'}"
actionListener="#{plantListBean.showForO}"></h:commandLink
>

                                <h:commandLink value="P"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'p'}"></h:commandLink>
                                <h:commandLink value="P"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'p'}"
actionListener="#{plantListBean.showForP}"></h:commandLink
>

                                <h:commandLink value="Q"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'q'}"></h:commandLink>
                                <h:commandLink value="Q"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'q'}"
actionListener="#{plantListBean.showForQ}"></h:commandLink
>

                                <h:commandLink value="R"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'r'}"></h:commandLink>
                                <h:commandLink value="R"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
```

```
!= 'r'}"
actionListener="#{plantListBean.showForR}"></h:commandLink
>

                                <h:commandLink value="S"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
's'}"></h:commandLink>
                                <h:commandLink value="S"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 's'}"
actionListener="#{plantListBean.showForS}"></h:commandLink
>

                                <h:commandLink value="T"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
't'}"></h:commandLink>
                                <h:commandLink value="T"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 't'}"
actionListener="#{plantListBean.showForT}"></h:commandLink
>

                                <h:commandLink value="U"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'u'}"></h:commandLink>
                                <h:commandLink value="U"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'u'}"
actionListener="#{plantListBean.showForU}"></h:commandLink
>

                                <h:commandLink value="V"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'v'}"></h:commandLink>
                                <h:commandLink value="V"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'v'}"
actionListener="#{plantListBean.showForV}"></h:commandLink
>

                                <h:commandLink value="W"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'w'}"></h:commandLink>
                                <h:commandLink value="W"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'w'}"
actionListener="#{plantListBean.showForW}"></h:commandLink
>

                                <h:commandLink value="X"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'x'}"></h:commandLink>
                                <h:commandLink value="X"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'x'}"
actionListener="#{plantListBean.showForX}"></h:commandLink
>

                                <h:commandLink value="Y"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'y'}"></h:commandLink>
                                <h:commandLink value="Y"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'y'}"
actionListener="#{plantListBean.showForY}"></h:commandLink
>

                                <h:commandLink value="Z"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'z'}"></h:commandLink>
                                <h:commandLink value="Z"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= 'z'}"
actionListener="#{plantListBean.showForZ}"></h:commandLink
>

                                <h:commandLink value="All"
style="color: green; margin-left: 9px"
rendered="#{plantListBean.currentLetter ==
'^'}"></h:commandLink>
                                <h:commandLink value="All"
style="margin-left: 9px" rendered="#{plantListBean.currentLetter
!= '^'}"
actionListener="#{plantListBean.showForAll}"></h:commandLin
k>
                                <font size="1px" style="margin-
left: 20px">
                                    <i>Showing
<h:outputText value="#{plantListBean.plantPagination +
plantListBean.paginationFixer}" /> - <h:outputText
value="#{plantListBean.plantEndCount}" /> of <h:outputText
value="#{plantListBean.plantCount}" /></i>
                                </font>
                                <br /><br />
                                <h3 style="margin-left: 20px;
color: green"><u>Plants List</u></h3>
                                <br />
                                    <h:outputText
style="margin-left: 40px"
rendered="#{plantListBean.paginationFixer == 0}" value="[NO
RESULTS]"/>
                                    <h:dataTable
columnClasses="projectListColumn" border="0"
value="#{plantListBean.pagedPlantList}" var="plant"
style="margin-left: 40px" width="500px">
                                        <h:column>
                                          <hr />
                                          <h:outputText
value="Scientific Name: " style="color:green"/>
                                            <u>
                                            <h:commandLink
value="#{plant.sciName}" style="font-weight: bold; color: gray"
action="showPlantDetails"
actionListener="#{plantBean.getPlantDetails}">
                                                <f:param
id="chosen" value="#{plant.sciName}"></f:param>
                                            </h:commandLink>
                                                </u><br />

            <h:outputText  value="Plant Local Name: "
style="color:green"/>

            <h:outputText
value="#{plant.locName}"></h:outputText><br />

            <h:outputText  value="Plant Description "
style="color:green"/><br />

            <h:outputText
value="#{plant.tempDesc}"></h:outputText>
                                        </h:column>
                                    </h:dataTable>
```

```
                                        <p style="margin-left:
500px; margin-top: 30px">
        <h:commandButton value="prev"
            disabled="#{plantListBean.plantPagination == 0}"

actionListener="#{plantListBean.showPlantListBackward}"
            style="margin-right: 20px"/>

        <h:commandButton value="next"
            disabled="#{plantListBean.nextPlant}"

actionListener="#{plantListBean.showPlantListForward}" />
      </p>
                                        <br />
                                </h:form>
                        </div>
                </div>
                <!-- Side Bar -->
                <div id="sidebar">
                <h:form>
                        <ul>
                                <h:panelGroup
rendered="#{userBean.admin}">
                                        <li>

                <h2>Administration</h2>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="User List"
action="seeUsers"
actionListener="#{adminTempBean.initRegistered}"
/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Pending
Requests" action="seePending"
actionListener="#{adminTempBean.initPending}" /></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Plant
Management" action="plantManage"/></span></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="Project
Management" action="projectAdminManage"
actionListener="#{userProjListBean.getAdminProjList}"/></span
></ul>
                                                <ul><span
style="margin-left: 20px"><h:commandLink value="System
Settings" action="seeLinks"
actionListener="#{linksListBean.initLinks}" /></span></ul>

                <h3> </h3>
                                        </li>
                                </h:panelGroup>
                                <li>
                                        <h2>Menu</h2>
                                        <ul><span
style="margin-left: 20px"><u><h:commandLink value="Plants
List" action="regPlantList"
actionListener="#{plantListBean.initializePlants}"
/></u></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="My Projects"
action="projectList"
actionListener="#{userProjListBean.getProjList}"><f:param
id="username" value="#{userBean.username}"
/></h:commandLink></span></ul>
                                        <ul><span
style="margin-left: 20px"><h:commandLink value="Search"
action="searchSystem"></h:commandLink></span></ul>
                                        <h3> </h3>
                                </li>
                                <li>
                                        <h2>External
Links</h2>
                                        <ul>

                <h:dataTable value="#{linksListBean.links}"
var="link">

                <li><h:column>

                <h:outputLink value="#{link.addr}" target="_blank">

                        <h:outputText value="#{link.name}" />

                </h:outputLink>

                </h:column></li>

                </h:dataTable>
                                        </ul>
                                </li>
                        </ul>
                        </h:form>
                </div>
                <!-- Filler -->
                <div style="clear: both;"> </div>
</div>

<!-- Footer -->
<div id="footer"></div>

<div id="boxes">
                <!-- Login Box -->
                <div id="dialog" class="window" style="width: inherit;
height: inherit">
                        <font size="1" style="padding-left:85%">
                                <a style="cursor: pointer"
href="#" class="close">
                                        <i>close[x]</i>
                                </a>
                        </font>
                        <h:form>
                                <br />
                        <h3 style="margin-left: 40px; color:
green"><u>Search Plants</u></h3>
                        <br />
                                        <table border="0"
width="500" style="margin-left: 40px">
                                                <tr>

                <td><h:outputLabel>Scientific
Name:</h:outputLabel></td>

                <td style="padding-top: 5px"><h:inputText
value="#{plantListBean.searchSciname}"/></td>

                <td rowspan="3" width="200"><i>Blank fields will not
be<br />included in the search.</i></td>
                                                </tr>
                                                <tr>


                <td><h:outputLabel>Local
Name:</h:outputLabel></td>

                <td style="padding-top: 5px"><h:inputText
value="#{plantListBean.searchLocname}" /></td>
                                                </tr>
                                                <tr>

                <td><h:outputLabel>Synonym:</h:outputLabel></td>
```

```
                <td style="padding-top: 5px"><h:inputText
    value="#{plantListBean.searchSynonym}"/></td>
                                                        </tr>
                                                        <tr>

                <td><h:outputLabel>Common
    Name:</h:outputLabel></td>

                <td style="padding-top: 5px"><h:inputText
    value="#{plantListBean.searchOther}"/></td>
                                                        </tr>
                                                        <tr>

                <td></td>

                <td style="text-align: right">

                <h:commandButton value="Search"
    actionListener="#{plantListBean.preSearch}"></h:commandButto
    n>

                </td>
                                                        </tr>
                                                </table>
                        </h:form>
                </div>
                <!-- Mask Div -->
                <div id="mask"></div>
    </div>

    </body>

    </html>
</f:view>
```

Compound.java

```
package compounds;

import java.io.File;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;

import javax.faces.component.UIParameter;
import javax.faces.context.FacesContext;
import javax.faces.event.ActionEvent;
import javax.servlet.ServletContext;
import javax.xml.parsers.DocumentBuilder;
import javax.xml.parsers.DocumentBuilderFactory;

import ontology.DBFetcher;
import ontology.DBWriter;

import org.w3c.dom.Document;
import org.w3c.dom.Element;
import org.w3c.dom.NodeList;

import database.Config;
import database.DBConnect;
import database.Notifier;

public class Compound {

    ArrayList<Entry> entries;
    ArrayList<Entry> tempentries;
    public boolean avail;
    String id;
    Document doc;



public boolean isAvail() {
        return avail;
}

public void setAvail(boolean avail) {
        this.avail = avail;
}

public ArrayList<Entry> getTempentries() {
        return tempentries;
}

public void setTempentries(ArrayList<Entry> tempentries) {
        this.tempentries = tempentries;
}

public String getId() {
        return id;
}

public void setId(String id) {
        this.id = id;
}

public ArrayList<Entry> getEntries() {
        return entries;
}

public void setEntries(ArrayList<Entry> entries) {
        this.entries = entries;
}

public Document getDoc() {
        return doc;
}

public void setDoc(Document doc) {
        this.doc = doc;
}

public void initComp(ActionEvent event){
        try {
                DocumentBuilderFactory docBuilderFactory
= DocumentBuilderFactory.newInstance();
                DocumentBuilder docBuilder =
docBuilderFactory.newDocumentBuilder();
                FacesContext aFacesContext =
FacesContext.getCurrentInstance();
                ServletContext context =
(ServletContext)aFacesContext.getExternalContext().getContext();
                String rootpath =
context.getRealPath(Config.getInstance().getValue("path"));
                System.out.println(rootpath);
                File uniqueFile = new File(new
File(rootpath), "sample.xml");
                doc = docBuilder.parse (uniqueFile);
                NodeList nodelist =
doc.getElementsByTagName("entry");
                entries = new ArrayList<Entry>();
                populateEntries(nodelist);
                sortEntriesByType(entries);
                avail = false;
        } catch (Exception e) {
                e.printStackTrace();
        }
}
```

```
private void sortEntriesByType(ArrayList<Entry> entries){
		ArrayList<Entry> text = new ArrayList<Entry>();
		ArrayList<Entry> select = new ArrayList<Entry>();
		ArrayList<Entry> selectOne = new
ArrayList<Entry>();
		ArrayList<Entry> selectMany = new
ArrayList<Entry>();
		Entry main = new Entry();
		for(int x = 0; x < entries.size(); x++){
			if(entries.get(x).getLabel().equals("Natural
Product Name")){
				main = entries.get(x);
			} else
if(entries.get(x).getType().equals("text")){
				text.add(entries.get(x));
			} else {
				select.add(entries.get(x));
			}
		}
		for(int x = 0; x < select.size(); x++){
			if(select.get(x).getMany() == 0){
				selectOne.add(select.get(x));
			} else {
				selectMany.add(select.get(x));
			}
		}
		entries.clear();
		entries.add(main);
		for(int x = 0; x < text.size(); x++){
			entries.add(text.get(x));
		}
		for(int x = 0; x < selectOne.size(); x++){
			entries.add(selectOne.get(x));
		}
		for(int x = 0; x < selectMany.size(); x++){
			entries.add(selectMany.get(x));
		}
		for(int x = 0; x < entries.size(); x++){
			entries.get(x).setIndex(x);
		}
}

private void populateEntries(NodeList aList){
		for(int x = 0; x < aList.getLength(); x++){
			Element e = (Element) aList.item(x);
			Entry temp = new Entry();
			String type = getStringVal(e, "type");
			if(type.equals("select")){
				temp.setLabel(getStringVal(e,
"name"));
				NodeList tempList =
e.getElementsByTagName("value");
				for(int i = 0; i <
tempList.getLength(); i++){
					if(i == 0){

		temp.addValue("");
					}

		temp.addValue(getStringVal((Element)
tempList.item(i)));
				}
			} else {
				temp.setLabel(getStringVal(e,
"name"));
			}
			temp.setType(type);
			temp.setMany(Integer.parseInt(getStringVal(e,
"many")));
			temp.setIndex(x);
			entries.add(temp);
		}
}

private String getStringVal(Element el, String name){
		return
el.getElementsByTagName(name).item(0).getFirstChild().getNode
Value();
}

private String getStringVal(Element el){
		return el.getFirstChild().getNodeValue();
}

public void addVal(ActionEvent event){
		UIParameter component = (UIParameter)
event.getComponent().findComponent("addEntryIndex");
		String entryIndex = component.getValue().toString();
		try{
			int index = Integer.parseInt(entryIndex);
			entries.get(index).addManyVals("");
		} catch(Exception e){
			e.printStackTrace();
		}
}

public void removeVal(ActionEvent event){
		UIParameter component = (UIParameter)
event.getComponent().findComponent("entryIndex");
		String entryIndex = component.getValue().toString();
		component = (UIParameter)
event.getComponent().findComponent("valueIndex");
		String valueIndex = component.getValue().toString();
		try{
			int entryindex =
Integer.parseInt(entryIndex);
			int valueindex =
Integer.parseInt(valueIndex);

		if(entries.get(entryindex).getManyVals().size() != 1){

		entries.get(entryindex).removeManyVals(valueindex);
			} else {
				return;
			}
			for(int x = 0; x <
entries.get(entryindex).getManyVals().size(); x++){

		entries.get(entryindex).getManyVals().get(x).setIndex(x
+ "");
			}
		} catch(Exception e){
			e.printStackTrace();
		}
}

public void addCompound(ActionEvent event){
		UIParameter component = (UIParameter)
event.getComponent().findComponent("projectId");
		String projectId = component.getValue().toString();
		for(int x = 0; x < entries.size(); x++){
			if(entries.get(x).getMany() == 1){
				for(int y = 0; y <
entries.get(x).getManyVals().size(); y++){
					if(
entries.get(x).getManyVals().get(y).getValue().equals("")){
```

```
                entries.get(x).getManyVals().remove(y);
                                                y--;
                                        }
                                }

                if(entries.get(x).getManyVals().size() == 0){
                                        entries.remove(x);
                                        x--;
                                }
                        } else {

                if(entries.get(x).getValue().equals("")){
                                        entries.remove(x);
                                        x--;
                                }
                        }
                }
                id = DBWriter.getInstance().writeCompound(entries,
projectId, avail);
                initComp(event);
                tempentries =
DBFetcher.getInstance().getCompound(id);
                avail = DBFetcher.getInstance().isAvail(id);
                compEntries();
                try{
                        Connection conn =
DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM compounds WHERE
compound_id = ?");
                        ps.setString(1, id);
                        ResultSet rs = ps.executeQuery();
                        while(rs.next()){

                if(rs.getString("attribute").equals("Natural Product
Name")){

                Notifier.notifyAllUsers(5, projectId,
rs.getString("value"));
                                }
                        }
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public void compEntries(){
                for(int x = 0; x < entries.size(); x++){
                        for(int y = 0; y < tempentries.size(); y++){

                if(tempentries.get(y).getLabel().equals(entries.get(x).ge
tLabel())){

                if(tempentries.get(y).getType().equals("select")){

                if(tempentries.get(y).getMany() == 0){

                entries.get(x).setValue(tempentries.get(y).getValue());
                                                        } else {

                entries.get(x).setManyVals(tempentries.get(y).getMany
Vals());
                                                        }
                                                } else {

                entries.get(x).setValue(tempentries.get(y).getValue());
                                                }
                                        }
                                }
                        }
                        tempentries = entries;
                        sortEntriesByType(entries);
}

public void getCompound(ActionEvent event){
                initComp(event);
                tempentries = new ArrayList<Entry>();
                UIParameter component = (UIParameter)
event.getComponent().findComponent("compId");
                String compId = component.getValue().toString();
                id = compId;
                tempentries =
DBFetcher.getInstance().getCompound(compId);
                avail = DBFetcher.getInstance().isAvail(compId);
                compEntries();
}

public void editCompound(ActionEvent event){
                for(int x = 0; x < entries.size(); x++){
                        if(entries.get(x).getMany() == 1){
                                for(int y = 0; y <
entries.get(x).getManyVals().size(); y++){
                                        if(
entries.get(x).getManyVals().get(y).getValue().equals("")){

                entries.get(x).getManyVals().remove(y);
                                                y--;
                                        }
                                }

                if(entries.get(x).getManyVals().size() == 0){
                                        entries.remove(x);
                                        x--;
                                }
                        } else {

                if(entries.get(x).getValue().equals("")){
                                        entries.remove(x);
                                        x--;
                                }
                        }
                        String projectid =
DBWriter.getInstance().deleteCompound(id);
                        id = DBWriter.getInstance().writeCompound(entries,
projectid, avail);
                        initComp(event);
                        tempentries =
DBFetcher.getInstance().getCompound(id);
                        avail = DBFetcher.getInstance().isAvail(id);
                        compEntries();
                        try{
                                Connection conn =
DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM compounds WHERE
compound_id = ?");
                                ps.setString(1, id);
                                ResultSet rs = ps.executeQuery();
                                while(rs.next()){

                        if(rs.getString("attribute").equals("Natural Product
Name")){

                        Notifier.notifyAllUsers(6, projectid,
rs.getString("value"));
                                        }
                                }
                        } catch(Exception e){
```

```
                e.printStackTrace();
            }
    }

    public void deleteCompound(ActionEvent event){
            try{
                Connection conn =
    DBConnect.getInstance().setConnection();
                PreparedStatement ps =
    conn.prepareStatement("SELECT * FROM
    compounds,compounds_projects WHERE
    compounds.compound_id = ? AND compounds.compound_id =
    compounds_projects.compound_id");
                ps.setString(1, id);
                ResultSet rs = ps.executeQuery();
                while(rs.next()){

            if(rs.getString("attribute").equals("Natural Product
    Name")){

            Notifier.notifyAllUsers(7, rs.getString("project_id"),
    rs.getString("value"));
                        }
                }
            } catch(Exception e){
                e.printStackTrace();
            }
            DBWriter.getInstance().deleteCompound(id);
    }

}
```

CompoundList.java

```
package compounds;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;
import javax.faces.event.ActionEvent;

public class CompoundList {

    public static int compoundCount;
    public static ArrayList<Compound> compoundTempList;
    public static int compoundPagination;
    public static ArrayList<Compound> pagedCompoundList;
    public static boolean nextCompound;
    public static int compoundEndCount;

    public int getCompoundCount() {
            return compoundCount;
    }

    public void setCompoundCount(int compoundCount) {
            CompoundList.compoundCount = compoundCount;
    }

    public ArrayList<Compound> getCompoundTempList() {
            return compoundTempList;
    }

    public void setCompoundTempList(ArrayList<Compound>
    compoundTempList) {
            CompoundList.compoundTempList =
    compoundTempList;
    }

    public int getCompoundPagination() {
            return compoundPagination;
    }

    public void setCompoundPagination(int compoundPagination) {
            CompoundList.compoundPagination =
    compoundPagination;
    }

    public ArrayList<Compound> getPagedCompoundList() {
            return pagedCompoundList;
    }

    public void setPagedCompoundList(ArrayList<Compound>
    pagedCompoundList) {
            CompoundList.pagedCompoundList =
    pagedCompoundList;
    }

    public boolean isNextCompound() {
            return nextCompound;
    }

    public void setNextCompound(boolean nextCompound) {
            CompoundList.nextCompound = nextCompound;
    }

    public int getCompoundEndCount() {
            return compoundEndCount;
    }

    public void setCompoundEndCount(int compoundEndCount) {
            CompoundList.compoundEndCount =
    compoundEndCount;
    }

//  public static void initializeCompounds(ActionEvent event){
//          try {
//              Connection conn =
    database.DBConnect.getInstance().setConnection();
//              PreparedStatement ps =
    conn.prepareStatement("SELECT * from compounds order by
    iupac_name");
//              ResultSet rs = ps.executeQuery();
//              compoundTempList = new
    ArrayList<Compound>();
//              Compound aTemp;
//              compoundCount = 0;
//              while(rs.next()){
//                  aTemp = new Compound();
//
            aTemp.setCompoundName(rs.getString("compound_na
    me"));
//
            aTemp.setIupacName(rs.getString("iupac_name"));
//
            aTemp.setIupacInchi(rs.getString("iupac_inchi"));
//
            aTemp.setSmilesVal(rs.getString("smiles"));
//
            aTemp.setMolecularFormula(rs.getString("molecular_f
    ormula"));
//
            aTemp.setBiologicalRole(rs.getString("biological_role"
    ));
//
            aTemp.setStructuralType(rs.getString("structural_type"
    ));
//
            aTemp.setDesc(rs.getString("description"));
```

```
//
                compoundTempList.add(aTemp);
//                                      compoundCount++;
//                        }
//                        rs.close();
//                        ps.close();
//                        conn.close();
//                } catch (Exception e) {
//                        e.printStackTrace();
//                }
//                compoundPagination = 0;
//                showCompoundListInit(event);
// }

    public void test(ActionEvent event){
                Compound temp = new Compound();
    }

    public static void showCompoundListInit(ActionEvent event){
                int previousPagination = compoundPagination;
                int endingPagination = compoundPagination + 10;
                pagedCompoundList = new ArrayList<Compound>();
                if(endingPagination > compoundTempList.size()){
                        compoundEndCount =
    compoundTempList.size();
                        for(int x = previousPagination; x <
    compoundTempList.size(); x++){

                pagedCompoundList.add(compoundTempList.get(x));
                        }
                } else {
                        compoundEndCount = endingPagination;
                        for(int x = previousPagination; x <
    endingPagination; x++){

                pagedCompoundList.add(compoundTempList.get(x));
                        }
                }
                nextCompound = stillNext();
    }

    public void showCompoundListForward(ActionEvent event){
                compoundPagination = compoundPagination + 10;
                showCompoundListInit(event);
    }

    public void showCompoundListBackward(ActionEvent event){
                int startPage;
                int endPage;
                pagedCompoundList = new ArrayList<Compound>();
                startPage = compoundPagination - 10;
                endPage = compoundPagination;
                for(int x = startPage; x < endPage; x++){

                pagedCompoundList.add(compoundTempList.get(x));
                }
                compoundPagination = startPage;
                compoundEndCount = startPage + 10;
                nextCompound = stillNext();
    }

    public static boolean stillNext(){
                if((compoundPagination + 10) >= compoundCount &&
    (compoundCount != 0)){
                        return true;
                } else {
                        return false;
                }
    }
}
```

Entry.java

```
package compounds;

import java.util.ArrayList;

public class Entry {

   private String label;
   private String value;
   private ArrayList<String> values;
   private String type;
   private ArrayList<SubEntry> manyVals;
   private String label2;
   private String value2;
   private ArrayList<String> values2;
   private String type2;
   private ArrayList<SubEntry> manyVals2;
   private int index;
   private int many;
   private boolean paired;



   public boolean isPaired() {
                return paired;
   }

   public void setPaired(boolean paired) {
                this.paired = paired;
   }

   public String getLabel2() {
                return label2;
   }

   public void setLabel2(String label2) {
                this.label2 = label2;
   }

   public String getValue2() {
                return value2;
   }

   public void setValue2(String value2) {
                this.value2 = value2;
   }

   public ArrayList<String> getValues2() {
                return values2;
   }

   public void setValues2(ArrayList<String> values2) {
                this.values2 = values2;
   }

   public String getType2() {
                return type2;
   }

   public void setType2(String type2) {
                this.type2 = type2;
   }

   public ArrayList<SubEntry> getManyVals2() {
                return manyVals2;
   }
```

```
public void setManyVals2(ArrayList<SubEntry> manyVals2) {
		this.manyVals2 = manyVals2;
}

public int getIndex() {
		return index;
}

public void setIndex(int index) {
		this.index = index;
}

public ArrayList<SubEntry> getManyVals() {
		return manyVals;
}

public void setManyVals(ArrayList<SubEntry> manyVals) {
		this.manyVals = manyVals;
}

public int getMany() {
		return many;
}

public void setMany(int many) {
		this.many = many;
}

public String getType() {
		return type;
}

public void setType(String type) {
		this.type = type;
}

public String getLabel() {
		return label;
}

public void setLabel(String label) {
		this.label = label;
}

public String getValue() {
		return value;
}

public void setValue(String value) {
		this.value = value;
}

public ArrayList<String> getValues() {
		return values;
}

public void setValues(ArrayList<String> values) {
		this.values = values;
}

public void addValue(String aVal){
		values.add(aVal);
}

public String removeValue(int index){
		return values.remove(index);
}

public void addManyVals(String aVal){
		manyVals.add(new SubEntry(aVal, manyVals.size()));
	}

	public String removeManyVals(int index){
		return manyVals.remove(index).getValue();
	}

	public void addManyVals2(String aVal){
		manyVals2.add(new SubEntry(aVal,
	manyVals2.size()));
	}

	public String removeManyVals2(int index){
		return manyVals2.remove(index).getValue();
	}

	public void addValue2(String aVal){
		values2.add(aVal);
	}

	public String removeValue2(int index){
		return values2.remove(index);
	}

	public Entry(){
		values = new ArrayList<String>();
		manyVals = new ArrayList<SubEntry>();
		manyVals.add(new SubEntry("", manyVals.size()));
		values2 = new ArrayList<String>();
		manyVals2 = new ArrayList<SubEntry>();
		manyVals2.add(new SubEntry("", manyVals2.size()));
	}

}
```

SubEntry.java

```
package compounds;

public class SubEntry {

	private String value;
	private String value2;
	private String index;

	public String getValue2() {
		return value2;
	}

	public void setValue2(String value2) {
		this.value2 = value2;
	}

	public String getIndex() {
		return index;
	}

	public void setIndex(String index) {
		this.index = index;
	}

	public String getValue() {
		return value;
	}

	public void setValue(String value) {
		this.value = value;
	}

	public SubEntry(String value, int index){
		String trueIndex = "" + index;
```

```
                this.value = value;
                this.index = trueIndex;
    }

}
```

Config.java

```
package database;

import java.io.BufferedReader;
import java.io.File;
import java.io.FileReader;
import java.util.ResourceBundle;
import javax.faces.context.FacesContext;
import javax.servlet.ServletContext;

public class Config {
    private static Config config;
    private ResourceBundle rb;
    private static final String SOURCE = "database/config";

    private Config() {
    }

    public static Config getInstance() {
                config = new Config();
                return config;
    }

    public String getValue(String key) {
                try {
                            FacesContext aFacesContext =
    FacesContext.getCurrentInstance();
                            ServletContext context = (ServletContext)
    aFacesContext

                .getExternalContext().getContext();
                            String rootpath =
    context.getRealPath("WEB-INF/classes/database/");
                            BufferedReader br = new
    BufferedReader(new FileReader(new File(
                                                rootpath,
    "config.txt")));
                            String strLine;
                            // Read File Line By Line
                            while ((strLine = br.readLine()) != null) {
                                        // Print the content on the console
                                        String arrString[] =
    strLine.split("=");
                                        if (arrString[0].equals(key)) {
                                                    if (arrString.length >=
    2) {
                                                                return
    arrString[1];
                                                    }
                                        }
                            }
                            br.close();
                } catch (Exception e) {// Catch exception if any
                            e.printStackTrace();
                }
                return "";
    }

    public void setTemplate(String template) {
    }

}
```

DBConnect.java

```
package database;

import java.sql.Connection;
import java.sql.DriverManager;
import javax.servlet.http.HttpServlet;

/**
 * Servlet implementation class DBConnect
 */
public class DBConnect extends HttpServlet {

    private static final long serialVersionUID = 1L;
    private static DBConnect myInstance = null;
    Connection con = null;

    public static DBConnect getInstance() {
                if (myInstance == null) {
                            myInstance = new DBConnect();
                }
                return myInstance;
    }

    public Connection setConnection() {
                Connection c = null;
                 String user = Config.getInstance().getValue("user");
                 String pass =
    Config.getInstance().getValue("password");
                 String url = Config.getInstance().getValue("db");
                try {
                            c = DriverManager.getConnection(url, user,
    pass);
                            con = c;

                } catch (Exception e) {
                            e.printStackTrace();
                }

                return c;
    }

}
```

Installer.java

```
package database;

import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.File;
import java.io.FileReader;
import java.io.FileWriter;
import java.sql.Connection;
import java.sql.PreparedStatement;

import javax.faces.context.FacesContext;
import javax.faces.event.ActionEvent;
import javax.servlet.ServletContext;

public class Installer {

    public boolean installed;
    public String errorString;
    public String actionString = "toHome";
    public String database;
    public String dbusername;
    public String dbpassword;
    public String lastName;
    public String firstname;
```

```
public String middlename;
public String emailAdd;
public String company;
public String question;
public String answer;
public String username;
public String password;
public String confirmpassword;

public String getDatabase() {
	return database;
}

public void setDatabase(String database) {
	this.database = database;
}

public String getDbusername() {
	return dbusername;
}

public void setDbusername(String dbusername) {
	this.dbusername = dbusername;
}

public String getDbpassword() {
	return dbpassword;
}

public void setDbpassword(String dbpassword) {
	this.dbpassword = dbpassword;
}

public String getLastName() {
	return lastName;
}

public void setLastName(String lastName) {
	this.lastName = lastName;
}

public String getFirstname() {
	return firstname;
}

public void setFirstname(String firstname) {
	this.firstname = firstname;
}

public String getMiddlename() {
	return middlename;
}

public void setMiddlename(String middlename) {
	this.middlename = middlename;
}

public String getEmailAdd() {
	return emailAdd;
}

public void setEmailAdd(String emailAdd) {
	this.emailAdd = emailAdd;
}

public String getCompany() {
	return company;
}

public void setCompany(String company) {
	this.company = company;
}

public String getQuestion() {
	return question;
}

public void setQuestion(String question) {
	this.question = question;
}

public String getAnswer() {
	return answer;
}

public void setAnswer(String answer) {
	this.answer = answer;
}

public String getUsername() {
	return username;
}

public void setUsername(String username) {
	this.username = username;
}

public String getPassword() {
	return password;
}

public void setPassword(String password) {
	this.password = password;
}

public String getConfirmpassword() {
	return confirmpassword;
}

public void setConfirmpassword(String confirmpassword) {
	this.confirmpassword = confirmpassword;
}

public String getErrorString() {
	return errorString;
}

public void setErrorString(String errorString) {
	this.errorString = errorString;
}

public String getActionString() {
	return actionString;
}

public void setActionString(String actionString) {
	this.actionString = actionString;
}

public boolean isInstalled() {
	installed = true;
	try {
		FacesContext aFacesContext =
FacesContext.getCurrentInstance();
		ServletContext context = (ServletContext)
aFacesContext

	.getExternalContext().getContext();
		String rootpath =
context.getRealPath("WEB-INF/classes/database/");
```

```
                        BufferedReader br = new
BufferedReader(new FileReader(new File(
                                                rootpath,
"config.txt")));
                        br.close();
                } catch (Exception e) {// Catch exception if any
                        installed = false;
                }
                return installed;
}

public void setInstalled(boolean installed) {
                this.installed = installed;
}

public void install(ActionEvent event) {
                if(validRegister()){
                        try {
                                        // Create file
                                        actionString = "toHome";
                                        errorString = "";
                                        FacesContext aFacesContext =
FacesContext.getCurrentInstance();
                                        ServletContext context =
(ServletContext) aFacesContext

                .getExternalContext().getContext();
                                        String rootpath =
context.getRealPath("WEB-INF/classes/database/");
                                        FileWriter fstream = new
FileWriter(rootpath + "/config.txt");
                                        BufferedWriter out = new
BufferedWriter(fstream);

                out.write("db=jdbc:mysql://localhost/" +
database.trim());
                                        out.newLine();
                                        out.write("user=" +
dbusername.trim());
                                        out.newLine();
                                        out.write("password=" +
dbpassword.trim());
                                        out.newLine();

                out.write("path=/references/files");
                                        // Close the output stream
                                        out.close();
                                        populateDatabase();
                                        addAdmin();
                        } catch (Exception e) {// Catch exception if
any
                                        e.printStackTrace();
                        }
                }
}

public void populateDatabase(){
                try {
                        Connection conn =
DBConnect.getInstance().setConnection();
                        PreparedStatement ps;
                        FacesContext aFacesContext =
FacesContext.getCurrentInstance();
                        ServletContext context = (ServletContext)
aFacesContext

                .getExternalContext().getContext();
                        String rootpath =
context.getRealPath("WEB-INF/classes/database/");
                        BufferedReader br = new
BufferedReader(new FileReader(new File(
                                                rootpath,
"installsql.txt")));
                        String strLine;
                        String finalString = "";
                        while ((strLine = br.readLine()) != null) {
                                finalString += strLine;
                        }
                        String[] newString = finalString.split(";");
                        System.out.println(newString.length);
                        for(int x = 0; x < newString.length; x++){
                                ps =
conn.prepareStatement(newString[x]);
                                ps.execute();
                        }
                        br.close();
                } catch (Exception e){
                        e.printStackTrace();
                }

}

public void addAdmin(){
                try {
                        Connection conn =
DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("INSERT INTO users VALUES (?,
md5(?), ?, ?, ?, ?, ?, ?, ?, ?, ?)");
                        ps.setString(1, username);
                        ps.setString(2, password);
                        ps.setString(3, "Yes");
                        ps.setString(4, lastName);
                        ps.setString(5, middlename);
                        ps.setString(6, firstname);
                        ps.setString(7, company);
                        ps.setString(8, emailAdd);
                        ps.setString(9, "0");
                        ps.setString(10, question);
                        ps.setString(11, answer);
                        ps.execute();
                        ps.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public boolean validRegister(){
                try{
                        if(username.equals("")){
                                actionString = "";
                                errorString = "Username field is
required.";
                                return false;
                        }
                        if(username.length() < 5 || username.length()
> 15){
                                actionString = "";
                                errorString = "Username cannot
be less than 5 characters and not more than 15 characters.";
                                return false;
                        }
                        if(lastName.equals("")){
                                actionString = "";
                                errorString = "Please provide
your last name.";
                                return false;
                        }
                        if(middlename.equals("")){
```

```
                                actionString = "";
                                errorString = "Please provide
  your middle name.";
                                return false;
                        }
                        if(firstname.equals("")){
                                actionString = "";
                                errorString = "Please provide
  your first name.";
                                return false;
                        }
                        if(company.equals("")){
                                actionString = "";
                                errorString = "Please provide
  your company name.";
                                return false;
                        }
                        if(emailAdd.equals("")){
                                actionString = "";
                                errorString = "Email Field is
  required!";
                                return false;
                        }
                        if(emailAdd.indexOf('@') == -1){
                                actionString = "";
                                errorString = "Invalid Email
  Address!";
                                return false;
                        }
                        if(question.equals("")){
                                actionString = "";
                                errorString = "Please provide a
  security question for your account.";
                                return false;
                        }
                        if(answer.equals("")){
                                actionString = "";
                                errorString = "Please provide a
  security answer for your account.";
                                return false;
                        }
                        if(password.equals("")){
                                actionString = "";
                                errorString = "Password field is
  required.";
                                return false;
                        }
                        if(password.length() < 6 || password.length()
  > 15){
                                actionString = "";
                                errorString = "Password cannot
  be less than 6 characters and not more than 15 characters.";
                                return false;
                        }

                        if(!password.equals(confirmpassword)){
                                actionString = "";
                                errorString = "Passwords did not
  match.";
                                return false;
                        }
                } catch(Exception e){
                        e.printStackTrace();
                }
                return true;
  }

}
```

Notifier.java

```
package database;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.Calendar;

public class Notifier {

  public static void notifyAllUsers(int type, String projectId, String
  objectName) {
                String newObjectName = "";
                if(objectName.length() >= 40){
                        newObjectName =
  objectName.substring(0,40) + "....";
                } else {
                        newObjectName = objectName;
                }
                int update = 0;
                try {
                        String updateMessage = "";
                        switch (type) {
                        case 1:
                                updateMessage = "Project details
  has been modified.";
                                update = 1;
                                break;
                        case 2:
                                updateMessage = "Reference " +
  newObjectName + " has been added.";
                                update = 2;
                                break;
                        case 3:
                                updateMessage = "Reference " +
  newObjectName + " has been edited.";
                                update = 2;
                                break;
                        case 4:
                                updateMessage = "Reference " +
  newObjectName + " has been deleted.";
                                update = 2;
                                break;
                        case 5:
                                updateMessage = "Active
  Compound " + newObjectName + " has been added.";
                                update = 3;
                                break;
                        case 6:
                                updateMessage = "Active
  Compound " + newObjectName + " has been edited.";
                                update = 3;
                                break;
                        case 7:
                                updateMessage = "Active
  Compound " + newObjectName + " has been deleted.";
                                update = 3;
                                break;
                        case 8:
                                updateMessage = "Registered
  members has been updated.";
                                update = 1;
                                break;
                        case 9:
                                updateMessage = "Plant Source
  information has been added.";
                                update = 1;
                                break;
                        case 10:
```

```
                                updateMessage = "Plant Source
information has been edited.";
                                update = 1;
                                break;
                        }
                        int monthnow = Integer.parseInt(now("MM
dd yyyy").split(" ")[0]);
                        int datenow = Integer.parseInt(now("MM dd
yyyy").split(" ")[1]);
                        int yearnow = Integer.parseInt(now("MM dd
yyyy").split(" ")[2]);
                        Connection conn =
DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("DELETE FROM updates WHERE
project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM users_projects WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ResultSet rs = ps.executeQuery();
                        while(rs.next()){
                                ps =
conn.prepareStatement("INSERT INTO updates (username,
project_id, update_message, read_stat, save_date, update_type)
VALUES (?, ?, ?, ?, ?, ?)");
                                ps.setString(1,
rs.getString("username"));
                                ps.setString(2, projectId);
                                ps.setString(3, updateMessage);
                                ps.setString(4, "0");
                                ps.setString(5, yearnow + "" +
monthnow + "" + datenow);
                                ps.setString(6, update + "");
                                ps.executeUpdate();
                        }
                        rs.close();
                        ps.close();
                        conn.close();
                } catch (Exception e) {
                        e.printStackTrace();
                }
        }

        public static String now(String dateFormat) {
                Calendar cal = Calendar.getInstance();
                SimpleDateFormat sdf = new
SimpleDateFormat(dateFormat);
                return sdf.format(cal.getTime());
        }

}
```

SendEmail.java

```
package database;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.*;
import javax.mail.*;
import javax.mail.internet.*;

public class SendEmail {
   private static SendEmail myInstance = null;

   public static SendEmail getInstance() {
                if (myInstance == null) {
                        myInstance = new SendEmail();
                }
                return myInstance;
        }

        public void sendEmail(String destination, String subject, String
msg) {
                try {
                        String from = "";
                        String screenName = "";
                        String address = "";
                        Connection conn =
DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * from admin");
                        ResultSet rs = ps.executeQuery();
                        if(rs.next()){
                                from =
rs.getString("from_name");
                                screenName =
rs.getString("screen_name");
                                address =
rs.getString("net_address");
                        }
                        String host = "localhost";

                        String msgHead = "----HANAPIN Message-
---\n\n";
                        String msgBody = "" + msg + "\n\n";
                        String msgFoot = "\n\n\n"
                                        +
"**********************************************\n"
                                        + "This message is for
the intended reader only\n"
                                        + "\t\t--HANAPIN-SP
Team-\n"
                                        +
"**********************************************";

                        Properties properties =
System.getProperties();
                        properties.setProperty("mail.smtp.host",
host);
                        properties.setProperty("mail.from",
"geejay@cool.ph");
                        Session session =
Session.getDefaultInstance(properties);
                        MimeMessage message = new
MimeMessage(session);
                        message.setFrom(new InternetAddress(from
+ "@" + address, screenName));

                message.addRecipient(Message.RecipientType.TO,
new InternetAddress(
                                        destination));
                        message.setSubject(subject);
                        Multipart fullMessage = new
MimeMultipart();
                        BodyPart head = new MimeBodyPart();
                        head.setText(msgHead);
                        BodyPart body = new MimeBodyPart();
                        body.setText(msgBody);
                        BodyPart foot = new MimeBodyPart();
                        foot.setText(msgFoot);
                        fullMessage.addBodyPart(head);
                        fullMessage.addBodyPart(body);
                        fullMessage.addBodyPart(foot);
                        message.setContent(fullMessage);
                        Transport.send(message);
                } catch (Exception e) {
```

```
                e.printStackTrace();
            }
    }

}
```

DBFetcher.java

```
package ontology;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;

import compounds.Entry;

import projects.CompoundPrototype;

public class DBFetcher {

    private static DBFetcher myInstance = null;

    public static DBFetcher getInstance() {
            if (myInstance == null) {
                    myInstance = new DBFetcher();
            }
            return myInstance;
    }

    public ArrayList<CompoundPrototype> getCompounds(String
    projectId, int level){
            ArrayList<CompoundPrototype> compList = new
    ArrayList<CompoundPrototype>();
            try{
                    Connection conn =
    database.DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
    conn.prepareStatement("SELECT * FROM compounds_projects
    WHERE project_id = ? ");
                    ps.setString(1, projectId);
                    ResultSet rs = ps.executeQuery();
                    while(rs.next()){
                            ps =
    conn.prepareStatement("SELECT * FROM compounds WHERE
    compound_id = ?");
                            ps.setString(1,
    rs.getString("compound_id"));
                            ResultSet nrs =
    ps.executeQuery();
                            while(nrs.next()){

            if(nrs.getString("attribute").equals("Natural Product
    Name") && Integer.parseInt(rs.getString("availability")) <=
    level){

            compList.add(new
    CompoundPrototype(nrs.getString("compound_id"),
    nrs.getString("value")));
                                    }
                            }
                    }
                    ps.close();
                    conn.close();
            } catch(Exception e){
                    e.printStackTrace();
            }
            return compList;
    }
```

```
public boolean isAvail(String compId){
            try{
                    Connection conn =
database.DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
conn.prepareStatement("SELECT * FROM compounds_projects
WHERE compound_id = ? ");
                    ps.setString(1, compId);
                    ResultSet rs = ps.executeQuery();
                    if(rs.next()){

            if(rs.getString("availability").equals("1")){
                                    return true;
                            } else {
                                    return false;
                            }
                    }
                    rs.close();
                    ps.close();
                    conn.close();
            } catch(Exception e){
                    e.printStackTrace();
            }
            return false;
}

public ArrayList<Entry> getCompound(String compId){
            ArrayList<Entry> tempentries = new
ArrayList<Entry>();
            try{
                    Connection conn =
database.DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
conn.prepareStatement("SELECT * FROM compounds WHERE
compound_id = ? ");
                    ps.setString(1, compId);
                    ResultSet rs = ps.executeQuery();
                    String tempString = "";
                    int aCtr = 0;
                    Entry temp = new Entry();
                    while(rs.next()){

            if(!rs.getString("attribute").equals(tempString) ){

            if(!tempString.equals("")){

            tempentries.add(temp);
                                            aCtr++;
                                    }
                                    temp = new Entry();
                                    tempString =
rs.getString("attribute");

            temp.setLabel(rs.getString("attribute"));
                                    temp.setIndex(aCtr);

            temp.setMany(Integer.parseInt(rs.getString("many")));

            temp.setType(rs.getString("type"));

            if(Integer.parseInt(rs.getString("many")) == 1){

            temp.getManyVals().get(0).setValue(rs.getString("valu
e"));
                                    } else {

            temp.setValue(rs.getString("value"));
                                    }
                            } else {
```

```
                temp.setType(rs.getString("type"));

                temp.addManyVals(rs.getString("value"));

                temp.setMany(Integer.parseInt(rs.getString("many")));
                                }
                        }
                        tempentries.add(temp);
                } catch(Exception e){
                        e.printStackTrace();
                }
                return tempentries;
        }

}
```

DBWriter.java

```
package ontology;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;

import compounds.Entry;

public class DBWriter {

        private static DBWriter myInstance = null;

        public static DBWriter getInstance() {
                if (myInstance == null) {
                        myInstance = new DBWriter();
                }
                return myInstance;
        }

        public String writeCompound(ArrayList<Entry> aList, String
        projectId, boolean available){
                String returnString = "";
                try{
                        Connection conn =
        database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
        conn.prepareStatement("INSERT INTO compounds_projects
        (compound_id, project_id, availability) VALUES (? , ?, ?)");
                        ps.setString(1, "0");
                        ps.setString(2, projectId);
                        if(available){
                                ps.setString(3, "1");
                        } else {
                                ps.setString(3, "2");
                        }
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
        FROM compounds_projects WHERE project_id = ? ORDER BY
        compound_id DESC");
                        ps.setString(1, projectId);
                        ResultSet rs = ps.executeQuery();
                        if(rs.next()){
                                ps =
        conn.prepareStatement("INSERT INTO compounds
        (compound_id, attribute, value, type, many) VALUES (?, ?, ?, ?,
        ?)");
                                ps.setString(1,
        rs.getString("compound_id"));
                                returnString =
        rs.getString("compound_id");
                                for(int x = 0; x < aList.size();
x++){

                if(aList.get(x).getMany() == 0){

                ps.setString(2, aList.get(x).getLabel());

                ps.setString(3, aList.get(x).getValue());

                ps.setString(4, aList.get(x).getType());

                ps.setString(5, 0 + "");

                ps.executeUpdate();
                                        } else {
                                                for(int i =
0; i < aList.get(x).getManyVals().size(); i++){

                ps.setString(2, aList.get(x).getLabel());

                ps.setString(3,
aList.get(x).getManyVals().get(i).getValue());

                ps.setString(4, aList.get(x).getType());

                ps.setString(5, 1 + "");

                ps.executeUpdate();
                                                }
                                        }
                                }
                        }
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
                return returnString;
        }

        public String deleteCompound(String id){
                String returnString = "";
                try{
                        Connection conn =
        database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
        conn.prepareStatement("SELECT * FROM compounds_projects
        WHERE compound_id = ?");
                        ps.setString(1, id);
                        ResultSet rs = ps.executeQuery();
                        if(rs.next()){
                                ps =
        conn.prepareStatement("DELETE FROM compounds_projects
        WHERE compound_id = ?");
                                ps.setString(1, id);
                                ps.executeUpdate();
                                ps =
        conn.prepareStatement("DELETE FROM compounds WHERE
        compound_id = ?");
                                ps.setString(1, id);
                                ps.executeUpdate();
                                returnString =
        rs.getString("project_id");
                        }
                } catch(Exception e){
                        e.printStackTrace();
                }
                return returnString;
        }
```

```
    public String deleteSource(String id){
            String returnString = "";
            try{
                    Connection conn =
    database.DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
    conn.prepareStatement("SELECT * FROM sources_projects
    WHERE source_id = ?");
                    ps.setString(1, id);
                    ResultSet rs = ps.executeQuery();
                    if(rs.next()){
                            ps =
    conn.prepareStatement("DELETE FROM sources_projects
    WHERE source_id = ?");
                            ps.setString(1, id);
                            ps.executeUpdate();
                            ps =
    conn.prepareStatement("DELETE FROM sources WHERE
    source_id = ?");
                            ps.setString(1, id);
                            ps.executeUpdate();
                            returnString =
    rs.getString("source_id");
                    }
            } catch(Exception e){
                    e.printStackTrace();
            }
            return returnString;
    }

}
```

CompoundPrototype.java

```
package projects;

public class CompoundPrototype {

    private String id;
    private String name;

    public String getId() {
            return id;
    }
    public void setId(String id) {
            this.id = id;
    }
    public String getName() {
            return name;
    }
    public void setName(String name) {
            this.name = name;
    }
    public CompoundPrototype(String id, String name){
            this.id = id;
            this.name = name;
    }
}
```

Project.java

```
package projects;

import java.io.File;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;
import java.util.Iterator;
import javax.faces.component.UIParameter;
import javax.faces.context.FacesContext;
import javax.faces.event.ActionEvent;
import javax.servlet.ServletContext;
import javax.xml.parsers.DocumentBuilder;
import javax.xml.parsers.DocumentBuilderFactory;

import org.w3c.dom.Document;
import org.w3c.dom.Element;
import org.w3c.dom.NodeList;

import compounds.Entry;

import ontology.DBFetcher;
import ontology.DBWriter;

import database.Config;
import database.DBConnect;
import database.Notifier;
import database.SendEmail;
import users.UserAccount;

public class Project {

    public String projectPlantName;
    public String projectName;
    public String projectDescription;
    public String projectId;
    public String projectCode;
    public String projectUsername;
    public String currentUserName;
    public String currentExpel;
    public String currentExpelViewer;
    public String currentAddViewer;
    public String currentExpelManager;
    public String currentAddManager;
    public String currentExpelAdmin;
    public String currentAddAdmin;
    public ArrayList<String> projectAdmins;
    public ArrayList<String> projectViewers;
    public ArrayList<String> projectManagers;
    public ArrayList<String> allUsers;
    public String addErrorMess;
    public boolean addError;
    public String goToCreate;
    public String updateErrorMess;
    public boolean updateError;
    public String goToUpdate;
    public String chosenLevel;
    public boolean pending;
    public ArrayList<UserAccount> reqUsers;
    public boolean noRequests;
    public boolean errorLeave = false;
    public String toGoLeave;
    public boolean changeProgress;
    public boolean showGenericList;
    int level = 1;
    public int refCount;
    public ArrayList<ReferencePrototype> genericList =  new
    ArrayList<ReferencePrototype>();
    public int refPagination;
    public ArrayList<ReferencePrototype> pagedReferenceList;
    public boolean nextReference;
    public int referenceEndCount;
    public int paginationFixer;
    public ArrayList<CompoundPrototype> compList = new
    ArrayList<CompoundPrototype>();
    public String searchUser;
    ArrayList<String> tempAll = new ArrayList<String>();
```

```
ArrayList<String> plantsList = new ArrayList<String>();
public String currentPlant;
public boolean hasValue;
public String plantKeyWord;
public String hidden;
public int RefStat = 1;
ArrayList<Entry> entries;
ArrayList<Entry> tempentries;
String id;
Document doc;
public String hiddenSource;
public String sourceId;
public boolean hasVal;



public int getRefStat() {
	return RefStat;
}

public void setRefStat(int refStat) {
	RefStat = refStat;
}

public String getSourceId() {
	return sourceId;
}

public void setSourceId(String sourceId) {
	this.sourceId = sourceId;
}

public String getHiddenSource() {
	initPlantSource();
	return hiddenSource;
}

public void setHiddenSource(String hiddenSource) {
	this.hiddenSource = hiddenSource;
}

public ArrayList<Entry> getEntries() {
	return entries;
}

public void setEntries(ArrayList<Entry> entries) {
	this.entries = entries;
}

public ArrayList<Entry> getTempentries() {
	return tempentries;
}

public void setTempentries(ArrayList<Entry> tempentries) {
	this.tempentries = tempentries;
}

public String getId() {
	return id;
}

public void setId(String id) {
	this.id = id;
}

public Document getDoc() {
	return doc;
}

public void setDoc(Document doc) {
	this.doc = doc;
}

public String getHidden() {
	initCompounds();
	return hidden;
}

public void setHidden(String hidden) {
	this.hidden = hidden;
}

public String getPlantKeyWord() {
	return plantKeyWord;
}

public void setPlantKeyWord(String plantKeyWord) {
	this.plantKeyWord = plantKeyWord;
}

public boolean isHasValue() {
	if(projectPlantName.equals("")){
		hasValue = true;
	} else {
		hasValue = false;
	}
	return hasValue;
}

public void setHasValue(boolean hasValue) {
	this.hasValue = hasValue;
}

public String getCurrentPlant() {
	return currentPlant;
}

public void setCurrentPlant(String currentPlant) {
	this.currentPlant = currentPlant;
}

public ArrayList<String> getTempAll() {
	return tempAll;
}

public void setTempAll(ArrayList<String> tempAll) {
	this.tempAll = tempAll;
}

public ArrayList<String> getPlantsList() {
	return plantsList;
}

public void setPlantsList(ArrayList<String> plantsList) {
	this.plantsList = plantsList;
}

public String getSearchUser() {
	return searchUser;
}

public void setSearchUser(String searchUser) {
	this.searchUser = searchUser;
}

public ArrayList<CompoundPrototype> getCompList() {
	return compList;
}
```

```
public void setCompList(ArrayList<CompoundPrototype>
compList) {
		this.compList = compList;
}

public boolean isNextReference() {
		return nextReference;
}

public void setNextReference(boolean nextReference) {
		this.nextReference = nextReference;
}

public int getReferenceEndCount() {
		return referenceEndCount;
}

public void setReferenceEndCount(int referenceEndCount) {
		this.referenceEndCount = referenceEndCount;
}

public int getPaginationFixer() {
		if(refCount == 0){
			paginationFixer = 0;
		} else {
			paginationFixer = 1;
		}
		return paginationFixer;
}

public void setPaginationFixer(int paginationFixer) {
		this.paginationFixer = paginationFixer;
}

public int getRefCount() {
		return refCount;
}

public void setRefCount(int refCount) {
		this.refCount = refCount;
}

public int getRefPagination() {
		return refPagination;
}

public void setRefPagination(int refPagination) {
		this.refPagination = refPagination;
}

public ArrayList<ReferencePrototype> getPagedReferenceList() {
		return pagedReferenceList;
}

public void
setPagedReferenceList(ArrayList<ReferencePrototype>
pagedReferenceList) {
		this.pagedReferenceList = pagedReferenceList;
}

public boolean isShowGenericList() {
		if(genericList.size() == 0){
			showGenericList = false;
		} else {
			showGenericList = true;
		}
		return showGenericList;
}

public void setShowGenericList(boolean showGenericList) {
		this.showGenericList = showGenericList;
}

public ArrayList<ReferencePrototype> getGenericList() {
		return genericList;
}

public void setGenericList(ArrayList<ReferencePrototype>
genericList) {
		this.genericList = genericList;
}

public boolean isChangeProgress() {
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM unreg_users_projects
WHERE username = ? AND project_id = ?");
			ps.setString(1, projectUsername);
			ps.setString(2, projectId);
			ResultSet rs = ps.executeQuery();
			if(rs.next()){
				changeProgress = true;
			} else {
				changeProgress = false;
			}
		} catch(Exception e){
			e.printStackTrace();
		}
		return changeProgress;
}

public void setChangeProgress(boolean changeProgress) {
		this.changeProgress = changeProgress;
}

public String getToGoLeave() {
		return toGoLeave;
}

public void setToGoLeave(String toGoLeave) {
		this.toGoLeave = toGoLeave;
}

public String getProjectUsername() {
		return projectUsername;
}

public void setProjectUsername(String projectUsername) {
		this.projectUsername = projectUsername;
}

public boolean isErrorLeave() {
		return errorLeave;
}

public void setErrorLeave(boolean errorLeave) {
		this.errorLeave = errorLeave;
}

public String getCurrentExpelAdmin() {
		return currentExpelAdmin;
}

public void setCurrentExpelAdmin(String currentExpelAdmin) {
		this.currentExpelAdmin = currentExpelAdmin;
}

public String getCurrentAddAdmin() {
```

```
		return currentAddAdmin;
}

public void setCurrentAddAdmin(String currentAddAdmin) {
		this.currentAddAdmin = currentAddAdmin;
}

public String getCurrentExpelManager() {
		return currentExpelManager;
}

public void setCurrentExpelManager(String currentExpelManager)
{
		this.currentExpelManager = currentExpelManager;
}

public String getCurrentAddManager() {
		return currentAddManager;
}

public void setCurrentAddManager(String currentAddManager) {
		this.currentAddManager = currentAddManager;
}

public String getCurrentExpelViewer() {
		return currentExpelViewer;
}

public void setCurrentExpelViewer(String currentExpelViewer) {
		this.currentExpelViewer = currentExpelViewer;
}

public String getCurrentAddViewer() {
		return currentAddViewer;
}

public void setCurrentAddViewer(String currentAddViewer) {
		this.currentAddViewer = currentAddViewer;
}

public ArrayList<String> getProjectViewers() {
		return projectViewers;
}

public void setProjectViewers(ArrayList<String> projectViewers)
{
		this.projectViewers = projectViewers;
}

public ArrayList<String> getProjectManagers() {
		return projectManagers;
}

public void setProjectManagers(ArrayList<String>
projectManagers) {
		this.projectManagers = projectManagers;
}

public boolean isNoRequests() {
		if(reqUsers.size() == 0){
			noRequests = true;
		} else {
			noRequests = false;
		}
		return noRequests;
}

public void setNoRequests(boolean noRequests) {
		this.noRequests = noRequests;
}

public ArrayList<UserAccount> getReqUsers() {
		return reqUsers;
}

public void setReqUsers(ArrayList<UserAccount> reqUsers) {
		this.reqUsers = reqUsers;
}

public boolean isPending() {
		return pending;
}

public void setPending(boolean pending) {
		this.pending = pending;
}

public String getChosenLevel() {
		return chosenLevel;
}

public void setChosenLevel(String chosenLevel) {
		this.chosenLevel = chosenLevel;
}

public String getUpdateErrorMess() {
		return updateErrorMess;
}

public void setUpdateErrorMess(String updateErrorMess) {
		this.updateErrorMess = updateErrorMess;
}

public boolean isUpdateError() {
		return updateError;
}

public void setUpdateError(boolean updateError) {
		this.updateError = updateError;
}

public String getGoToUpdate() {
		return goToUpdate;
}

public void setGoToUpdate(String goToUpdate) {
		this.goToUpdate = goToUpdate;
}

public String getGoToCreate() {
		return goToCreate;
}

public void setGoToCreate(String goToCreate) {
		this.goToCreate = goToCreate;
}

public String getAddErrorMess() {
		return addErrorMess;
}

public void setAddErrorMess(String addErrorMess) {
		this.addErrorMess = addErrorMess;
}

public boolean getAddError() {
		return addError;
}

public void setAddError(boolean addError) {
```

```
		this.addError = addError;
}

public String getProjectCode() {
		return projectCode;
}

public void setProjectCode(String projectCode) {
		this.projectCode = projectCode;
}

public String getCurrentUserName() {
		return currentUserName;
}

public void setCurrentUserName(String currentUserName) {
		this.currentUserName = currentUserName;
}

public String getCurrentExpel() {
		return currentExpel;
}

public void setCurrentExpel(String currentExpel) {
		this.currentExpel = currentExpel;
}

public ArrayList<String> getProjectAdmins() {
		return projectAdmins;
}

public void setProjectAdmins(ArrayList<String> projectAdmins) {
		this.projectAdmins = projectAdmins;
}

public ArrayList<String> getAllUsers() {
		return allUsers;
}

public void setAllUsers(ArrayList<String> allUsers) {
		this.allUsers = allUsers;
}

public int getLevel() {
		return level;
}

public void setLevel(int level) {
		this.level = level;
}

public String getProjectId() {
		return projectId;
}

public void setProjectId(String projectId) {
		this.projectId = projectId;
}

public String getProjectPlantName() {
		return projectPlantName;
}

public void setProjectPlantName(String projectPlantName) {
		this.projectPlantName = projectPlantName;
}

public String getProjectName() {
		return projectName;
}

public void setProjectName(String projectName) {
		this.projectName = projectName;
}

public String getProjectDescription() {
		return projectDescription;
}

public void setProjectDescription(String projectDescription) {
		this.projectDescription = projectDescription;
}

public void showReferenceListInit(){
		int previousPagination = refPagination;
		int endingPagination = refPagination + 10;
		pagedReferenceList = new
ArrayList<ReferencePrototype>();
		if(endingPagination > genericList.size()){
			referenceEndCount = genericList.size();
			for(int x = previousPagination; x <
genericList.size(); x++){

		pagedReferenceList.add(genericList.get(x));
			}
		} else {
			referenceEndCount = endingPagination;
			for(int x = previousPagination; x <
endingPagination; x++){

		pagedReferenceList.add(genericList.get(x));
			}
		}
		nextReference = stillNext();
}

public void showReferenceListInit(ActionEvent event){
		showReferenceListInit();
}

public void showRefListForward(ActionEvent event){
		refPagination = refPagination + 10;
		showReferenceListInit(event);
}

public void showRefBackward(ActionEvent event){
		int startPage;
		int endPage;
		pagedReferenceList = new
ArrayList<ReferencePrototype>();
		startPage = refPagination - 10;
		endPage = refPagination;
		for(int x = startPage; x < endPage; x++){
			pagedReferenceList.add(genericList.get(x));
		}
		refPagination = startPage;
		referenceEndCount = startPage + 10;
		nextReference = stillNext();
}

public boolean stillNext(){
		if((refPagination + 10) >= genericList.size()){
			return true;
		} else {
			return false;
		}
}

public void getProjectDetailsNotif(ActionEvent event){
```

```
		UIParameter component = (UIParameter)
event.getComponent().findComponent("projectId");
		String id = component.getValue().toString();
		component = (UIParameter)
event.getComponent().findComponent("username2");
		String user = component.getValue().toString();
		getProjectDetails(event, id, user);
		try{
			Connection conn =
DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("UPDATE updates SET read_stat = ?
WHERE username = ? and project_id = ?");
			ps.setString(1, "1");
			ps.setString(2, user);
			ps.setString(3, id);
			ps.executeUpdate();
			ps.close();
			conn.close();
		} catch(Exception e){
			e.printStackTrace();
		}

}

public void fromHomeToAdmins(ActionEvent event){
		getProjectDetails(event);
		getRequests(event);
}

public void getProjectDetails(ActionEvent event){
		try {
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM projects WHERE
project_id = ?");
			UIParameter component = (UIParameter)
event.getComponent().findComponent("projectID");
			String id = component.getValue().toString();
			ps.setString(1, id);
			ResultSet rs = ps.executeQuery();
			while(rs.next()){

		setProjectDescription(rs.getString("project_description"
));

		setProjectId(rs.getString("project_id"));

		setProjectName(rs.getString("project_name"));

		setProjectPlantName(rs.getString("plant_sci_name"));

		setProjectCode(rs.getString("acro"));
			}
			ps = conn.prepareStatement("SELECT *
FROM users_projects WHERE username = ? and project_id = ?");
			component = (UIParameter)
event.getComponent().findComponent("username");
			String aUserName =
component.getValue().toString();
			projectUsername = aUserName;
			ps.setString(1, aUserName);
			ps.setString(2, id);
			rs = ps.executeQuery();
			level = 1;
			pending = false;
			while(rs.next()){
				pending = false;
				level =
Integer.parseInt(rs.getString("level"));
			}
			if(level == 1){
				ps =
conn.prepareStatement("SELECT * FROM unreg_users_projects
WHERE username = ? and project_id = ?");
				ps.setString(1, aUserName);
				ps.setString(2, id);
				rs = ps.executeQuery();
				if(rs.next()){

		if(rs.getString("update_flag").equals("1")){
							pending =
true;
					}
				}
			}
			ps.close();
			rs.close();
			conn.close();
			refPagination = 0;
			RefStat = 1;
			initReferences(event);
			initCompounds();
			initPlantSource();
		} catch (Exception e) {
			e.printStackTrace();
		}
}

public void initProjectDetails(ActionEvent event){
		getProjectDetails(event, projectId, projectUsername);
}

public void getProjectDetails(ActionEvent event, String id, String
aUserName){
		try {
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM projects WHERE
project_id = ?");
			ps.setString(1, id);
			ResultSet rs = ps.executeQuery();
			while(rs.next()){

		setProjectDescription(rs.getString("project_description"
));

		setProjectId(rs.getString("project_id"));

		setProjectName(rs.getString("project_name"));

		setProjectPlantName(rs.getString("plant_sci_name"));

		setProjectCode(rs.getString("acro"));
			}
			ps = conn.prepareStatement("SELECT *
FROM users_projects WHERE username = ? and project_id = ?");
			projectUsername = aUserName;
			ps.setString(1, aUserName);
			ps.setString(2, id);
			rs = ps.executeQuery();
			level = 1;
			pending = false;
			while(rs.next()){
				pending = false;
				level =
Integer.parseInt(rs.getString("level"));
```

```
                        }
                        if(level == 1){
                                ps =
conn.prepareStatement("SELECT * FROM unreg_users_projects
WHERE username = ? and project_id = ?");
                                ps.setString(1, aUserName);
                                ps.setString(2, id);
                                rs = ps.executeQuery();
                                if(rs.next()){

        if(rs.getString("update_flag").equals("1")){
                                                        pending =
true;
                                        }
                                }
                        }
                        ps.close();
                        rs.close();
                        conn.close();
                        refPagination = 0;
                        RefStat = 1;
                        initReferences(event);
                        initPlantSource();
                        initCompounds();
        } catch (Exception e) {
                        e.printStackTrace();
        }
}

public void initCompounds(ActionEvent event){
        initCompounds();
}

public void initCompounds(){
        compList =
DBFetcher.getInstance().getCompounds(projectId, level);
}

public void initReferences(ActionEvent event){
        genericList = new ArrayList<ReferencePrototype>();
        ReferencePrototype temp;
        try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM article WHERE
project_id = ?");
                        ps.setString(1, projectId);
                        ResultSet rs = ps.executeQuery();
                        refCount = 0;
                        while(rs.next()){
                                temp = new
ReferencePrototype();

        if(Integer.parseInt(rs.getString("availability")) <=
level){

        temp.setId(rs.getString("id"));

        temp.setTitle(rs.getString("title"));

        temp.setType("article");

        temp.setAuthors(rs.getString("authors"));

        temp.setJournal(rs.getString("journal"));

        temp.setYear(rs.getString("year"));
                                        if(RefStat == 1){
        genericList.add(temp);

        refCount++;
                                        }
                                }
                        }

                        ps = conn.prepareStatement("SELECT *
FROM book WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){
                                temp = new
ReferencePrototype();

        if(Integer.parseInt(rs.getString("availability")) <=
level){

        temp.setId(rs.getString("id"));

        temp.setTitle(rs.getString("title"));

        temp.setType("book");temp.setAuthors(rs.getString("au
thors"));temp.setYear(rs.getString("year"));
                                        if(RefStat == 2){

        genericList.add(temp);

        refCount++;
                                        }
                                }
                        }

                        ps = conn.prepareStatement("SELECT *
FROM booklet WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){
                                temp = new
ReferencePrototype();

        if(Integer.parseInt(rs.getString("availability")) <=
level){

        temp.setId(rs.getString("id"));

        temp.setTitle(rs.getString("title"));

        temp.setType("booklet");temp.setAuthors(rs.getString("
authors"));temp.setYear(rs.getString("year"));
                                        if(RefStat == 3){

        genericList.add(temp);

        refCount++;
                                        }
                                }
                        }

                        ps = conn.prepareStatement("SELECT *
FROM collection WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){
                                temp = new
ReferencePrototype();

        if(Integer.parseInt(rs.getString("availability")) <=
level){
```

```
temp.setId(rs.getString("id"));

temp.setTitle(rs.getString("title"));

temp.setType("collection");temp.setAuthors(rs.getStrin
g("authors"));temp.setYear(rs.getString("year"));
                                        if(RefStat == 4){

genericList.add(temp);

refCount++;
                                        }
                                }
                        }

                        ps = conn.prepareStatement("SELECT *
FROM inbook WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){
                                temp = new
ReferencePrototype();

if(Integer.parseInt(rs.getString("availability")) <=
level){

temp.setId(rs.getString("id"));

temp.setTitle(rs.getString("book_title"));

temp.setType("inbook");temp.setAuthors(rs.getString("
authors"));temp.setYear(rs.getString("year"));
                                        if(RefStat == 5){

genericList.add(temp);

refCount++;
                                        }
                                }
                        }

                        ps = conn.prepareStatement("SELECT *
FROM manual WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){
                                temp = new
ReferencePrototype();

if(Integer.parseInt(rs.getString("availability")) <=
level){

temp.setId(rs.getString("id"));

temp.setTitle(rs.getString("title"));

temp.setType("manual");temp.setAuthors(rs.getString("
authors"));temp.setYear(rs.getString("year"));
                                        if(RefStat == 6){

genericList.add(temp);

refCount++;
                                        }
                                }
                        }

                        ps = conn.prepareStatement("SELECT *
FROM tech_report WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){
                                temp = new
ReferencePrototype();

if(Integer.parseInt(rs.getString("availability")) <=
level){

temp.setId(rs.getString("id"));

temp.setTitle(rs.getString("title"));

temp.setType("techreport");temp.setAuthors(rs.getStrin
g("authors"));temp.setYear(rs.getString("year"));
                                        if(RefStat == 7){

genericList.add(temp);

refCount++;
                                        }
                                }
                        }

                        ps = conn.prepareStatement("SELECT *
FROM thesis WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){
                                temp = new
ReferencePrototype();

if(Integer.parseInt(rs.getString("availability")) <=
level){

temp.setId(rs.getString("id"));

temp.setTitle(rs.getString("title"));

temp.setType("thesis");temp.setAuthors(rs.getString("a
uthors"));temp.setYear(rs.getString("year"));
                                        if(RefStat == 8){

genericList.add(temp);

refCount++;
                                        }
                                }
                        }

                        ps = conn.prepareStatement("SELECT *
FROM unpublished WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){
                                temp = new
ReferencePrototype();

if(Integer.parseInt(rs.getString("availability")) <=
level){

temp.setId(rs.getString("id"));

temp.setTitle(rs.getString("title"));

temp.setType("unpublished");temp.setAuthors(rs.getStr
ing("authors"));temp.setYear(rs.getString("year"));
                                        if(RefStat == 9){

genericList.add(temp);
```

```
                refCount++;
                                        }
                                }
                        }
                        showReferenceListInit();
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public void initProj(ActionEvent event){
                UIParameter component = (UIParameter)
event.getComponent().findComponent("sciName");
                String sciName = component.getValue().toString();
                setProjectPlantName(sciName);
                setProjectDescription("");
                setProjectId("");
                setProjectName("");
                setCurrentExpel("");
                setCurrentUserName("");
                setProjectCode("");
                initForAdmins(event);
                addErrorMess = "";
                addError = false;
                goToCreate = "";
                initPlants();
}

public void initProjDirect(ActionEvent event){
                setProjectPlantName("");
                setProjectDescription("");
                setProjectId("");
                setProjectName("");
                setCurrentExpel("");
                setCurrentUserName("");
                setProjectCode("");
                initForAdmins(event);
                addErrorMess = "";
                addError = false;
                goToCreate = "";
                initPlants();
}

public void initPlants(){
                try{
                        Connection conn =
DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM plants");
                        ResultSet rs = ps.executeQuery();
                        plantsList = new ArrayList<String>();
                        while(rs.next()){
                                String temp =
rs.getString("scientific_name") + "(" + rs.getString("local_name")
+ ")";
                                plantsList.add(temp);
                        }
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public void initProj(){
                setProjectPlantName("");
                setProjectDescription("");
                setProjectId("");
                setProjectName("");
                setCurrentExpel("");
                setCurrentUserName("");
                setProjectCode("");
                addErrorMess = "";
                addError = false;
                goToCreate = "";
}

public void initForAdmins(ActionEvent event){
                initAdmins();
}

public boolean validAdd(){
                if(projectName.equals("") || projectCode.equals("") ||
projectDescription.equals("")){
                        addErrorMess = "All fields are required.";
                        addError = true;
                        goToCreate = "";
                        return false;
                }
                if(projectName.length() > 80){
                        addErrorMess = "Please limit project name
to 80 characters.";
                        addError = true;
                        goToCreate = "";
                        return false;
                }
                if(projectDescription.length() > 2000){
                        addErrorMess = "Please limit project
description to 2000 characters.";
                        addError = true;
                        goToCreate = "";
                        return false;
                }
                if(projectCode.length() > 50){
                        addErrorMess = "Please limit project
acronym to 50 characters.";
                        addError = true;
                        goToCreate = "";
                        return false;
                }
                try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * from projects WHERE acro =
?");
                        ps.setString(1, projectCode);
                        ResultSet rs = ps.executeQuery();
                        if(rs.next()){
                                addErrorMess = "Project
acronym already exists.";
                                addError = true;
                                goToCreate = "";
                                return false;
                        }
                }catch(Exception e){
                        e.printStackTrace();
                }
                if(projectAdmins.size() == 0){
                        addErrorMess = "A project must atleast
have one administrator.";
                        addError = true;
                        goToCreate = "";
                        return false;
                }
                return true;
}
```

```
public void addProject(ActionEvent event){
	if(validAdd()){
		try {
			UIParameter component =
(UIParameter) event.getComponent().findComponent("user");
			String id =
component.getValue().toString();
			projectUsername = id;
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("INSERT INTO projects (plant_sci_name
,project_id ,project_name ,project_description, acro) VALUES (?,
?,  ?, ?, ?)");

	if(projectPlantName.contains("(")){
				projectPlantName =
projectPlantName.substring(0, projectPlantName.indexOf('('));
			}
			ps.setString(1,
projectPlantName);
			ps.setString(2, 0 + "");
			ps.setString(3, projectName);
			ps.setString(4,
projectDescription);
			ps.setString(5, projectCode);
			ps.executeUpdate();
			ps =
conn.prepareStatement("INSERT INTO users_projects (username
,project_id ,level) VALUES (?,  LAST_INSERT_ID(),  ?)");
			for(int x = 0; x <
projectAdmins.size(); x++){
				ps.setString(1,
projectAdmins.get(x).substring(0,
projectAdmins.get(x).indexOf('(')));
				ps.setString(2, "4");
				ps.executeUpdate();
			}
			ps =
conn.prepareStatement("SELECT * FROM projects WHERE acro
= ?");
			ps.setString(1, projectCode);
			ResultSet rs =
ps.executeQuery();
			if(rs.next()){

	getProjectDetails(event, rs.getString("project_id"),
projectUsername);
			}
			rs.close();
			ps.close();
			conn.close();
		} catch (Exception e) {
			e.printStackTrace();
		}
		goToCreate = "projectDetails";
		addError = false;
		addErrorMess = "";

	}
}

public boolean validUpdate(){
	if(projectName.equals("") ||
projectDescription.equals("")){
		updateErrorMess = "All fields are
required.";
		updateError = true;
		goToUpdate = "";
		return false;
	}
	if(projectName.length() > 80){
		updateErrorMess = "Please limit project
name to 80 characters.";
		updateError = true;
		goToUpdate = "";
		return false;
	}
	return true;
}

public void updateProject(ActionEvent event){
	if(validUpdate()){
		try {
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("UPDATE projects SET plant_sci_name =
?, project_name = ?, project_description = ? WHERE project_id =
?");
			ps.setString(1,
projectPlantName);
			ps.setString(2, projectName);
			ps.setString(3,
projectDescription);
			ps.setString(4, projectId);
			ps.executeUpdate();

			PreparedStatement psDisabled =
conn.prepareStatement("SELECT * FROM users");
			ResultSet rs =
psDisabled.executeQuery();
			while(rs.next()){

	if(rs.getString("disabled").equals("0")){
				ps =
conn.prepareStatement("DELETE FROM users_projects WHERE
project_id = ? and level = ? and username = ?");

	ps.setString(1, projectId);

	ps.setString(2, "4");

	ps.setString(3, rs.getString("username"));

	ps.executeUpdate();
				}
			}
			ps =
conn.prepareStatement("DELETE FROM users_projects WHERE
project_id = ? AND username = ?");
			for(int x = 0; x <
projectAdmins.size(); x++){
				ps.setString(1,
projectId);
				ps.setString(2,
projectAdmins.get(x).substring(0,
projectAdmins.get(x).indexOf('(')));
				ps.executeUpdate();
			}
			ps =
conn.prepareStatement("DELETE FROM unreg_users_projects
WHERE project_id = ? AND username = ?");
			for(int x = 0; x <
projectAdmins.size(); x++){
				ps.setString(1,
projectId);
				ps.setString(2,
projectAdmins.get(x).substring(0,
projectAdmins.get(x).indexOf('(')));
```

```
                                        ps.executeUpdate();
                                }
                                ps =
conn.prepareStatement("INSERT INTO users_projects (username
,project_id ,level) VALUES (?,  ?,  ?)");
                                for(int x = 0; x <
projectAdmins.size(); x++){
                                        ps.setString(1,
projectAdmins.get(x).substring(0,
projectAdmins.get(x).indexOf('(')));
                                        ps.setString(2,
projectId);
                                        ps.setString(3, "4");
                                        ps.executeUpdate();
                                }

                                if(level == 4){
                                        ps =
conn.prepareStatement("INSERT INTO users_projects (username
,project_id ,level) VALUES (?,  ?,  ?)");
                                        ps.setString(1,
projectUsername);
                                        ps.setString(2,
projectId);
                                        ps.setString(3, "4");
                                        ps.executeUpdate();
                                }
                                ps =
conn.prepareStatement("SELECT * FROM users_projects
WHERE username = ? and project_id = ?");
                                UIParameter component =
(UIParameter)
event.getComponent().findComponent("username");
                                String aUserName =
component.getValue().toString();
                                ps.setString(1, aUserName);
                                ps.setString(2, projectId);
                                rs = ps.executeQuery();
                                level = 1;
                                while(rs.next()){
                                        pending = false;
                                        level =
Integer.parseInt(rs.getString("level"));
                                }
                                rs.close();
                                ps.close();
                                conn.close();
                                initReferences(event);
                                initPlantSource();
                                initCompounds();
                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                        goToUpdate = "projectDetails";
                        updateError = false;
                        updateErrorMess = "";
                        Notifier.notifyAllUsers(1, projectId, "");
                }
}

public void addToAdmin(ActionEvent event){
        if(!currentUserName.equals("")){
                projectAdmins.add(currentUserName);
                allUsers.remove(currentUserName);
        }
}

public void removeAdmin(ActionEvent event){
        if(!currentExpel.equals("")){
                allUsers.add(currentExpel);
                projectAdmins.remove(currentExpel);
        }
}

public void applyUser(ActionEvent event){
        try{
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("INSERT INTO unreg_users_projects
(username ,project_id ,level, update_flag) VALUES (?, ?, ?, ?)");
                UIParameter component = (UIParameter)
event.getComponent().findComponent("username");
                String username =
component.getValue().toString();
                ps.setString(1, username);
                ps.setString(2, projectId);
                ps.setString(3, chosenLevel);
                ps.setString(4, "1");
                ps.executeUpdate();
                ps.close();
                conn.close();
                pending = true;
        } catch(Exception e){
                e.printStackTrace();
        }
}

public void getRequests(ActionEvent event){
        reqUsers = new ArrayList<UserAccount>();
        try{
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users,
unreg_users_projects WHERE users.username =
unreg_users_projects.username and
unreg_users_projects.project_id = ?");
                ps.setString(1, projectId);
                ResultSet rs = ps.executeQuery();
                UserAccount aTemp;
                while(rs.next()){
                        aTemp = new UserAccount();

        aTemp.setUserName(rs.getString("username"));

        aTemp.setFirstname(rs.getString("first_name"));

        aTemp.setLastName(rs.getString("last_name"));

        aTemp.setMiddlename(rs.getString("middle_name"));

        aTemp.setEmailAdd(rs.getString("email_add"));

        aTemp.setProjLevel(rs.getString("level"));

        aTemp.setFlag(rs.getString("update_flag"));
                                reqUsers.add(aTemp);
                }
                ps.close();
                conn.close();
        }catch(Exception e){
                e.printStackTrace();
        }
}

public void approveApp(ActionEvent event){
        try{
                Connection conn =
database.DBConnect.getInstance().setConnection();
```

```
                        PreparedStatement ps =
conn.prepareStatement("INSERT INTO users_projects (username
,project_id ,level) VALUES (?, ?,  ?)");
                        UIParameter component = (UIParameter)
event.getComponent().findComponent("username");
                        String aUserName =
component.getValue().toString();
                        component = (UIParameter)
event.getComponent().findComponent("userlevel");
                        String aLevel =
component.getValue().toString();
                        ps.setString(1, aUserName);
                        ps.setString(2, projectId);
                        ps.setString(3, aLevel);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("DELETE
FROM unreg_users_projects WHERE username = ? AND
project_id = ?");
                        ps.setString(1, aUserName);
                        ps.setString(2, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM users WHERE username = ?");
                        ps.setString(1, aUserName);
                        ResultSet rs = ps.executeQuery();
                        String anEmail = "";
                        while(rs.next()){
                                anEmail =
rs.getString("email_add");
                        }
                        String msg = "Congratulations! You are now
a member of " + projectName + "(" + projectCode + ").";
                        SendEmail handler =
SendEmail.getInstance();
                        handler.sendEmail(anEmail, "HANAPIN-SP
Projects Update", msg);
                        rs.close();
                        ps.close();
                        conn.close();
                        Notifier.notifyAllUsers(8, projectId, "");
                } catch(Exception e){
                        e.printStackTrace();
                }
                getRequests(event);
}

public void deleteApp(ActionEvent event){
                UIParameter component = (UIParameter)
event.getComponent().findComponent("username");
                String aUserName = component.getValue().toString();
                try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users WHERE
username = ?");
                        ps.setString(1, aUserName);
                        ResultSet rs = ps.executeQuery();
                        String anEmail = "";
                        while(rs.next()){
                                anEmail =
rs.getString("email_add");
                        }
                        String msg = "Sorry! Your membership
request to " + projectName + "(" + projectCode + ") has been
rejected.";
                        SendEmail handler =
SendEmail.getInstance();
                        handler.sendEmail(anEmail, "HANAPIN-SP
Projects Update", msg);
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
                deleteApp(aUserName);
                getRequests(event);
}

public void deleteApp(String aUserName){
                try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("DELETE FROM unreg_users_projects
WHERE username = ? AND project_id = ?");
                        ps.setString(1, aUserName);
                        ps.setString(2, projectId);
                        ps.executeUpdate();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public void initAllTypes(ActionEvent event){
                initAllTypes();
}

public void initAllTypes(){
                try{
                        searchUser = "";
                        projectViewers = new ArrayList<String>();
                        projectManagers = new
ArrayList<String>();
                        projectAdmins = new ArrayList<String>();
                        allUsers = new ArrayList<String>();
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users, users_projects
WHERE users_projects.project_id = ? AND
users_projects.username = users.username");
                        ps.setString(1, projectId);
                        ResultSet rs = ps.executeQuery();
                        String adminString = "";
                        while(rs.next()){

                if(rs.getString("disabled").equals("0")){

                if(rs.getString("level").equals("2")){

                projectViewers.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");
                                                }

                if(rs.getString("level").equals("3")){

                projectManagers.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");
                                                }

                if(rs.getString("level").equals("4")){

                projectAdmins.add(rs.getString("username") + "(" +
```

```
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");

		if(rs.getString("username").equals(projectUsername)){

		adminString = rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")";
                                                        }
                                                }
                                        }
                        }
                        ps = conn.prepareStatement("SELECT *
FROM users");
                        rs = ps.executeQuery();
                        while(rs.next()){

		if(rs.getString("disabled").equals("0")){

		allUsers.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");
                                        }
                        }
                        for(int x = 0; x < projectAdmins.size();
x++){

		allUsers.remove(projectAdmins.get(x));
                        }
                        for(int x = 0; x < projectViewers.size();
x++){

		allUsers.remove(projectViewers.get(x));
                        }
                        for(int x = 0; x < projectManagers.size();
x++){

		allUsers.remove(projectManagers.get(x));
                        }
                        projectAdmins.remove(adminString);
                        rs.close();
                        ps.close();
                        conn.close();
		} catch(Exception e){
                        e.printStackTrace();
		}
}

public void initViewers(ActionEvent event){
		initViewers();
}

public void initViewers(){
		try{
                        searchUser = "";
                        projectViewers = new ArrayList<String>();
                        allUsers = new ArrayList<String>();
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users, users_projects
WHERE users_projects.project_id = ? AND
users_projects.username = users.username");
                        ps.setString(1, projectId);
                        ResultSet rs = ps.executeQuery();
                        String adminString = "";
                        while(rs.next()){

		if(rs.getString("disabled").equals("0")){

		if(rs.getString("level").equals("2")){

		projectViewers.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");
                                                }
                                        }

		if(rs.getString("level").equals("4")){

		if(rs.getString("username").equals(projectUsername)){

		adminString = rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")";
                                                }
                                        }
                        }
                        ps = conn.prepareStatement("SELECT *
FROM users");
                        rs = ps.executeQuery();
                        while(rs.next()){

		if(rs.getString("disabled").equals("0")){

		allUsers.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");
                                        }
                        }
                        for(int x = 0; x < projectViewers.size();
x++){

		allUsers.remove(projectViewers.get(x));
                        }
                        allUsers.remove(adminString);
                        rs.close();
                        ps.close();
                        conn.close();
		} catch(Exception e){
                        e.printStackTrace();
		}
}

public void addViewers(ActionEvent event){
		if(!currentAddViewer.equals("")){
                        projectViewers.add(currentAddViewer);
                        allUsers.remove(currentAddViewer);
		}
}

public void removeViewers(ActionEvent event){
		if(!currentExpelViewer.equals("")){

		projectViewers.remove(currentExpelViewer);
                        allUsers.add(currentExpelViewer);
		}
}

public void updateViewers(ActionEvent event){
		try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps, psDisabled;
                        psDisabled =
conn.prepareStatement("SELECT * FROM users");
                        ResultSet rs = psDisabled.executeQuery();
                        while(rs.next()){
```

```
                if(rs.getString("disabled").equals("0")){
                                        ps =
conn.prepareStatement("DELETE FROM users_projects WHERE
project_id = ? and level = ? and username = ?");
                                        ps.setString(1,
projectId);
                                        ps.setString(2, "2");
                                        ps.setString(3,
rs.getString("username"));
                                        ps.executeUpdate();
                                }
                        }
                        ps = conn.prepareStatement("DELETE
FROM users_projects WHERE project_id = ? and username = ?");
                        for(int x = 0; x < projectViewers.size();
x++){
                                ps.setString(1, projectId);
                                ps.setString(2,
projectViewers.get(x).substring(0,
projectViewers.get(x).indexOf('(')));
                                ps.executeUpdate();
                        }
                        ps = conn.prepareStatement("DELETE
FROM unreg_users_projects WHERE project_id = ? AND
username = ?");
                        for(int x = 0; x < projectViewers.size();
x++){
                                ps.setString(1, projectId);
                                ps.setString(2,
projectViewers.get(x).substring(0,
projectViewers.get(x).indexOf('(')));
                                ps.executeUpdate();
                        }
                        ps = conn.prepareStatement("INSERT
INTO users_projects (username ,project_id ,level) VALUES (?,  ?,
?)");
                        for(int x = 0; x < projectViewers.size();
x++){
                                ps.setString(1,
projectViewers.get(x).substring(0,
projectViewers.get(x).indexOf('(')));
                                ps.setString(2, projectId);
                                ps.setString(3, "2");
                                ps.executeUpdate();
                        }
                        ps.close();
                        conn.close();
                        Notifier.notifyAllUsers(8, projectId, "");
                } catch(Exception e){
                        e.printStackTrace();
                }
        }

        public void initManagers(ActionEvent event){
                initManagers();
        }

        public void initManagers(){
                try{
                        searchUser = "";
                        projectManagers = new
ArrayList<String>();
                        allUsers = new ArrayList<String>();
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users, users_projects
WHERE users_projects.project_id = ? AND
users_projects.username = users.username");
                        ps.setString(1, projectId);
                        ResultSet rs = ps.executeQuery();
                        String adminString = "";
                        while(rs.next()){

                if(rs.getString("disabled").equals("0")){

                if(rs.getString("level").equals("3")){

                projectManagers.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");
                                        }
                                }

                if(rs.getString("level").equals("4")){

                if(rs.getString("username").equals(projectUsername)){

                adminString = rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")";
                                        }
                                }
                        }
                        ps = conn.prepareStatement("SELECT *
FROM users");
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(rs.getString("disabled").equals("0")){

                allUsers.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");
                                }
                        }
                        for(int x = 0; x < projectManagers.size();
x++){

                allUsers.remove(projectManagers.get(x));
                        }
                        allUsers.remove(adminString);
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
        }

        public void addManagers(ActionEvent event){
                if(!currentAddManager.equals("")){
                        projectManagers.add(currentAddManager);
                        allUsers.remove(currentAddManager);
                }
        }

        public void removeManagers(ActionEvent event){
                if(!currentExpelManager.equals("")){

                projectManagers.remove(currentExpelManager);
                        allUsers.add(currentExpelManager);
                }
        }

        public void updateManagers(ActionEvent event){
                try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
```

```
                        PreparedStatement ps, psDisabled;
                        psDisabled =
conn.prepareStatement("SELECT * FROM users");
                        ResultSet rs = psDisabled.executeQuery();
                        while(rs.next()){

                if(rs.getString("disabled").equals("0")){
                                                ps =
conn.prepareStatement("DELETE FROM users_projects WHERE
project_id = ? and level = ? and username = ?");
                                                ps.setString(1,
projectId);
                                                ps.setString(2, "3");
                                                ps.setString(3,
rs.getString("username"));
                                                ps.executeUpdate();
                                        }
                        }
                        ps = conn.prepareStatement("DELETE
FROM users_projects WHERE project_id = ? AND username =
?");
                        for(int x = 0; x < projectManagers.size();
x++){
                                        ps.setString(1, projectId);
                                        ps.setString(2,
projectManagers.get(x).substring(0,
projectManagers.get(x).indexOf('(')));
                                        ps.executeUpdate();
                        }
                        ps = conn.prepareStatement("DELETE
FROM unreg_users_projects WHERE project_id = ? AND
username = ?");
                        for(int x = 0; x < projectManagers.size();
x++){
                                        ps.setString(1, projectId);
                                        ps.setString(2,
projectManagers.get(x).substring(0,
projectManagers.get(x).indexOf('(')));
                                        ps.executeUpdate();
                        }
                        ps = conn.prepareStatement("INSERT
INTO users_projects (username ,project_id ,level) VALUES (?,  ?,
?)");
                        for(int x = 0; x < projectManagers.size();
x++){
                                        ps.setString(1,
projectManagers.get(x).substring(0,
projectManagers.get(x).indexOf('(')));
                                        ps.setString(2, projectId);
                                        ps.setString(3, "3");
                                        ps.executeUpdate();
                        }
                        ps.close();
                        conn.close();
                        Notifier.notifyAllUsers(8, projectId, "");
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public void initAdmins(ActionEvent event){
                initAdmins();
}

public void initAdmins(){
                try{
                        searchUser = "";
                        projectAdmins = new ArrayList<String>();
                        allUsers = new ArrayList<String>();
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users, users_projects
WHERE users_projects.project_id = ? AND
users_projects.username = users.username");
                        ps.setString(1, projectId);
                        ResultSet rs = ps.executeQuery();
                        String adminString = "";
                        while(rs.next()){

                if(rs.getString("disabled").equals("0")){

                if(rs.getString("level").equals("4")){

                projectAdmins.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");

                if(rs.getString("username").equals(projectUsername)){

                adminString = rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")";
                                                                }
                                                        }
                                                }
                        }
                        ps = conn.prepareStatement("SELECT *
FROM users");
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(rs.getString("disabled").equals("0")){

                allUsers.add(rs.getString("username") + "(" +
rs.getString("first_name") + " " + rs.getString("middle_name") + "
" + rs.getString("last_name") + ")");
                                        }
                        }
                        for(int x = 0; x < projectAdmins.size();
x++){

                allUsers.remove(projectAdmins.get(x));
                        }
                        projectAdmins.remove(adminString);
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public void addAdmins(ActionEvent event){
                if(!currentAddAdmin.equals("")){
                        projectAdmins.add(currentAddAdmin);
                        allUsers.remove(currentAddAdmin);
                }
}

public void removeAdmins(ActionEvent event){
                if(!currentExpelAdmin.equals("")){

                projectAdmins.remove(currentExpelAdmin);
                        allUsers.add(currentExpelAdmin);
                }
}

public void updateAdmins(ActionEvent event){
```

```
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps, psDisabled;
			psDisabled =
conn.prepareStatement("SELECT * FROM users");
			ResultSet rs = psDisabled.executeQuery();
			while(rs.next()){

		if(rs.getString("disabled").equals("0")){
					ps =
conn.prepareStatement("DELETE FROM users_projects WHERE
project_id = ? and level = ? and username = ?");
					ps.setString(1,
projectId);
					ps.setString(2, "4");
					ps.setString(3,
rs.getString("username"));
					ps.executeUpdate();
				}
			}
			ps = conn.prepareStatement("DELETE
FROM users_projects WHERE project_id = ? AND username =
?");
			for(int x = 0; x < projectAdmins.size();
x++){
				ps.setString(1, projectId);
				ps.setString(2,
projectAdmins.get(x).substring(0,
projectAdmins.get(x).indexOf('(')));
				ps.executeUpdate();
			}
			ps = conn.prepareStatement("DELETE
FROM unreg_users_projects WHERE project_id = ? AND
username = ?");
			for(int x = 0; x < projectAdmins.size();
x++){
				ps.setString(1, projectId);
				ps.setString(2,
projectAdmins.get(x).substring(0,
projectAdmins.get(x).indexOf('(')));
				ps.executeUpdate();
			}
			ps = conn.prepareStatement("INSERT
INTO users_projects (username ,project_id ,level) VALUES (?,  ?,
?)");
			for(int x = 0; x < projectAdmins.size();
x++){
				ps.setString(1,
projectAdmins.get(x).substring(0,
projectAdmins.get(x).indexOf('(')));
				ps.setString(2, projectId);
				ps.setString(3, "4");
				ps.executeUpdate();
			}
			ps = conn.prepareStatement("INSERT
INTO users_projects (username ,project_id ,level) VALUES (?,  ?,
?)");
			ps.setString(1, projectUsername);
			ps.setString(2, projectId);
			ps.setString(3, "4");
			ps.executeUpdate();
			ps.close();
			conn.close();
			Notifier.notifyAllUsers(8, projectId, "");
		} catch(Exception e){
			e.printStackTrace();
		}
}
```

```
public boolean validLeave(){
		if(level != 4){
			toGoLeave = "projectDetails";
			errorLeave = false;
			return true;
		}
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users,users_projects
WHERE level = 4 AND project_id = ? AND users.username =
users_projects.username");
			ps.setString(1, projectId);
			ResultSet rs = ps.executeQuery();
			int levelCtr = 0;
			while(rs.next()){

		if(rs.getString("disabled").equals("0")){
					levelCtr++;
				}
			}
			if(levelCtr > 1){
				toGoLeave = "projectDetails";
				errorLeave = false;
				return true;
			} else {
				toGoLeave = "";
				errorLeave = true;
				return false;
			}
		} catch(Exception e){
			e.printStackTrace();
		}
		toGoLeave = "";
		errorLeave = true;
		return false;
}

public void initErrorMessage(ActionEvent event){
		errorLeave = false;
}

public void leaveProject(ActionEvent event){
		if(validLeave()){
			try{
				Connection conn =
database.DBConnect.getInstance().setConnection();
				PreparedStatement ps;
				ps =
conn.prepareStatement("DELETE FROM users_projects WHERE
project_id = ? and username = ?");
				ps.setString(1, projectId);
				ps.setString(2, projectUsername);
				ps.executeUpdate();
				ps =
conn.prepareStatement("DELETE FROM unreg_users_projects
WHERE project_id = ? and username = ?");
				ps.setString(1, projectId);
				ps.setString(2, projectUsername);
				ps.executeUpdate();
				ps.close();
				conn.close();
				Notifier.notifyAllUsers(8,
projectId, "");
				initProjectDetails(event);
			}catch(Exception e){
				e.printStackTrace();
			}
		}
```

```
}

public void applyChangeLevel(ActionEvent event){
	try{
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps =
conn.prepareStatement("INSERT INTO unreg_users_projects
(username ,project_id ,level, update_flag) VALUES (?, ?, ?, ?)");
		ps.setString(1, projectUsername);
		ps.setString(2, projectId);
		ps.setString(3, chosenLevel);
		ps.setString(4, "0");
		ps.executeUpdate();
		ps.close();
		conn.close();
	} catch(Exception e){
		e.printStackTrace();
	}
}

public void updateLevel(ActionEvent event){
	try{
		Notifier.notifyAllUsers(8, projectId, "");
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps =
conn.prepareStatement("UPDATE users_projects SET level = ?
WHERE username = ? AND project_id = ?");
		UIParameter component = (UIParameter)
event.getComponent().findComponent("username2");
		String aUserName =
component.getValue().toString();
		component = (UIParameter)
event.getComponent().findComponent("userlevel2");
		String aLevel =
component.getValue().toString();
		ps.setString(1, aLevel);
		ps.setString(2, aUserName);
		ps.setString(3, projectId);
		ps.executeUpdate();
		deleteApp(aUserName);
		getRequests(event);
		ps = conn.prepareStatement("SELECT *
FROM users WHERE username = ?");
		ps.setString(1, aUserName);
		ResultSet rs = ps.executeQuery();
		String anEmail = "";
		while(rs.next()){
			anEmail =
rs.getString("email_add");
		}
		String levelString = "";
		if(aLevel.equals("3")){
			levelString = "Project Manager";
		} else if(aLevel.equals("4")){
			levelString = "Project
Administrator";
		}
		String msg = "Congratulations! Your project
position in " + projectName + "(" + projectCode + ") has been
updated. You are now a " + levelString + ".";
		SendEmail handler =
SendEmail.getInstance();
		handler.sendEmail(anEmail, "HANAPIN-SP
Projects Update", msg);
		rs.close();
		ps.close();
		conn.close();
	} catch(Exception e){
		e.printStackTrace();
	}
}

public void deleteProject(ActionEvent event){
	try{
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps =
conn.prepareStatement("DELETE FROM projects WHERE
project_id = ?");
		ps.setString(1, projectId);
		ps.executeUpdate();
		ps = conn.prepareStatement("DELETE
FROM unreg_users_projects WHERE project_id = ?");
		ps.setString(1, projectId);
		ps.executeUpdate();
		ps = conn.prepareStatement("DELETE
FROM users_projects WHERE project_id = ?");
		ps.setString(1, projectId);
		ps.executeUpdate();
		ps = conn.prepareStatement("DELETE
FROM updates WHERE project_id = ?");
		ps.setString(1, projectId);
		ps.executeUpdate();
		//Delete References
		deleteReferences();
		//Delete Plant Source Info
		deletePlantSource();
		//Delete Active Compounds
		deleteCompounds();
		ps.close();
		conn.close();
		initProj();
	} catch(Exception e){
		e.printStackTrace();
	}
}

public void deletePlantSource(){
	try{
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps =
conn.prepareStatement("SELECT * FROM sources_projects
WHERE project_id = ?");
		ps.setString(1, projectId);
		ResultSet rs = ps.executeQuery();
		while(rs.next()){
			ps =
conn.prepareStatement("DELETE FROM sources WHERE
source_id = ?");
			ps.setString(1,
rs.getString("source_id"));
			ps.executeUpdate();
		}
		ps = conn.prepareStatement("DELETE
FROM sources_projects WHERE project_id = ?");
		ps.setString(1, projectId);
		ps.executeUpdate();
		rs.close();
		ps.close();
		conn.close();
	} catch(Exception e){
		e.printStackTrace();
	}
}

public void deleteCompounds(){
```

```
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM compounds_projects
WHERE project_id = ?");
			ps.setString(1, projectId);
			ResultSet rs = ps.executeQuery();
			while(rs.next()){
				ps =
conn.prepareStatement("DELETE FROM compounds WHERE
source_id = ?");
				ps.setString(1,
rs.getString("compound_id"));
				ps.executeUpdate();
			}
			ps = conn.prepareStatement("DELETE
FROM compounds_projects WHERE project_id = ?");
			ps.setString(1, projectId);
			ps.executeUpdate();
			rs.close();
			ps.close();
			conn.close();
		} catch(Exception e){
			e.printStackTrace();
		}
}

public void deleteReferences(){
		FacesContext aFacesContext =
FacesContext.getCurrentInstance();
		ServletContext context =
(ServletContext)aFacesContext.getExternalContext().getContext();
		String rootpath =
context.getRealPath(Config.getInstance().getValue("path"));
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM article WHERE
project_id = ?");
			ps.setString(1, projectId);
			ResultSet rs = ps.executeQuery();
			while(rs.next()){

		if(!rs.getString("filename").equals("")){
					File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
					uniqueFile.delete();
				}
			}
			ps = conn.prepareStatement("DELETE
FROM article WHERE project_id = ?");
			ps.setString(1, projectId);
			ps.executeUpdate();
			ps = conn.prepareStatement("SELECT *
FROM book WHERE project_id = ?");
			ps.setString(1, projectId);
			rs = ps.executeQuery();
			while(rs.next()){

		if(!rs.getString("filename").equals("")){
					File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
					uniqueFile.delete();
				}
			}
			ps = conn.prepareStatement("DELETE
FROM book WHERE project_id = ?");
			ps.setString(1, projectId);
			ps.executeUpdate();
			ps = conn.prepareStatement("SELECT *
FROM booklet WHERE project_id = ?");
			ps.setString(1, projectId);
			rs = ps.executeQuery();
			while(rs.next()){

		if(!rs.getString("filename").equals("")){
					File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
					uniqueFile.delete();
				}
			}
			ps = conn.prepareStatement("DELETE
FROM booklet WHERE project_id = ?");
			ps.setString(1, projectId);
			ps.executeUpdate();
			ps = conn.prepareStatement("SELECT *
FROM collection WHERE project_id = ?");
			ps.setString(1, projectId);
			rs = ps.executeQuery();
			while(rs.next()){

		if(!rs.getString("filename").equals("")){
					File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
					uniqueFile.delete();
				}
			}
			ps = conn.prepareStatement("DELETE
FROM collection WHERE project_id = ?");
			ps.setString(1, projectId);
			ps.executeUpdate();
			ps = conn.prepareStatement("SELECT *
FROM inbook WHERE project_id = ?");
			ps.setString(1, projectId);
			rs = ps.executeQuery();
			while(rs.next()){

		if(!rs.getString("filename").equals("")){
					File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
					uniqueFile.delete();
				}
			}
			ps = conn.prepareStatement("DELETE
FROM inbook WHERE project_id = ?");
			ps.setString(1, projectId);
			ps.executeUpdate();
			ps = conn.prepareStatement("SELECT *
FROM manual WHERE project_id = ?");
			ps.setString(1, projectId);
			rs = ps.executeQuery();
			while(rs.next()){

		if(!rs.getString("filename").equals("")){
					File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
					uniqueFile.delete();
				}
			}
			ps = conn.prepareStatement("DELETE
FROM manual WHERE project_id = ?");
			ps.setString(1, projectId);
			ps.executeUpdate();
			ps = conn.prepareStatement("SELECT *
FROM tech_report WHERE project_id = ?");
			ps.setString(1, projectId);
			rs = ps.executeQuery();
			while(rs.next()){
```

```
		if(!rs.getString("filename").equals("")){
                                        File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                        uniqueFile.delete();
                                }
                        }
                        ps = conn.prepareStatement("DELETE
FROM tech_report WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM thesis WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

		if(!rs.getString("filename").equals("")){
                                        File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                        uniqueFile.delete();
                                }
                        }
                        ps = conn.prepareStatement("DELETE
FROM thesis WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM unpublished WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

		if(!rs.getString("filename").equals("")){
                                        File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                        uniqueFile.delete();
                                }
                        }
                        ps = conn.prepareStatement("DELETE
FROM unpublished WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public void searchUsers(ActionEvent event){
                tempAll = new ArrayList<String>();
                for(int x = 0; x < allUsers.size(); x++){
                        tempAll.add(allUsers.get(x));
                }
                String searchString = searchUser.toLowerCase();
                UIParameter component = (UIParameter)
event.getComponent().findComponent("mode");
                String mode = component.getValue().toString();
                initForSearch(mode);
                searchUser = searchString;
                ArrayList<String> temp = new ArrayList<String>();
                if(!searchUser.equals("")){
                        for(int x = 0; x < allUsers.size(); x++){

		if(allUsers.get(x).toLowerCase().contains(searchUser.tr
im())){

                temp.add(allUsers.get(x));
                                }
                        }
                }
                allUsers.clear();
                for(int x = 0; x < temp.size(); x++){
                        allUsers.add(temp.get(x));
                }
}

public void reInitForSearch(ActionEvent event){
                UIParameter component = (UIParameter)
event.getComponent().findComponent("mode2");
                String mode = component.getValue().toString();
                initForSearch(mode);
                searchUser = "";
}

public void initForSearch(String mode){
                ArrayList<String> tempInnerJoin = new
ArrayList<String>();
                if(mode.equals("1")){
                        ArrayList<String> tempAdmins =
projectAdmins;
                        initAdmins();
                        //remove intersection
                        for(int x = 0; x < tempAdmins.size(); x++){

                if(projectAdmins.contains(tempAdmins.get(x))){

                tempInnerJoin.add(tempAdmins.get(x));

                projectAdmins.remove(tempAdmins.get(x));
                                }
                        }
                        for(int x = 0; x < tempInnerJoin.size();
x++){

                tempAdmins.remove(tempInnerJoin.get(x));
                        }
                        //add removed items
                        for(int x = 0; x < projectAdmins.size();
x++){

                allUsers.add(projectAdmins.get(x));
                        }
                        //remove added items
                        for(int x = 0; x < tempAdmins.size(); x++){

                allUsers.remove(tempAdmins.get(x));
                        }
                        //reinitialize all projectAdmins
                        for(int x = 0; x < tempInnerJoin.size();
x++){

                tempAdmins.add(tempInnerJoin.get(x));
                        }
                        projectAdmins.clear();
                        projectAdmins = tempAdmins;
                } else if (mode.equals("2")){
                        ArrayList<String> tempViewers =
projectViewers;
                        initViewers();
                        //remove intersection
                        for(int x = 0; x < tempViewers.size(); x++){

                if(projectViewers.contains(tempViewers.get(x))){

                tempInnerJoin.add(tempViewers.get(x));

                projectViewers.remove(tempViewers.get(x));
```

```
                        }
                }
                for(int x = 0; x < tempInnerJoin.size();
x++){

        tempViewers.remove(tempInnerJoin.get(x));
                }
                //add removed items
                for(int x = 0; x < projectViewers.size();
x++){

        allUsers.add(projectViewers.get(x));
                }
                //remove added items
                for(int x = 0; x < tempViewers.size(); x++){

        allUsers.remove(tempViewers.get(x));
                }
                //reinitialize all projectViewers
                for(int x = 0; x < tempInnerJoin.size();
x++){

        tempViewers.add(tempInnerJoin.get(x));
                }
                projectViewers.clear();
                projectViewers = tempViewers;
        } else {
                ArrayList<String> tempManagers =
projectManagers;
                initManagers();
                //remove intersection
                for(int x = 0; x < tempManagers.size();
x++){

        if(projectManagers.contains(tempManagers.get(x))){

        tempInnerJoin.add(tempManagers.get(x));

        projectManagers.remove(tempManagers.get(x));
                        }
                }
                for(int x = 0; x < tempInnerJoin.size();
x++){

        tempManagers.remove(tempInnerJoin.get(x));
                }
                //add removed items
                for(int x = 0; x < projectManagers.size();
x++){

        allUsers.add(projectManagers.get(x));
                }
                //remove added items
                for(int x = 0; x < tempManagers.size();
x++){

        allUsers.remove(tempManagers.get(x));
                }
                //reinitialize all projectManagers
                for(int x = 0; x < tempInnerJoin.size();
x++){

        tempManagers.add(tempInnerJoin.get(x));
                }
                projectManagers.clear();
                projectManagers = tempManagers;
        }
}

public void toPlant(ActionEvent event){
        if(!currentPlant.equals("")){
                projectPlantName = currentPlant;
                plantsList.remove(currentPlant);
        }
}

public void toPlantList(ActionEvent event){
        plantsList.add(projectPlantName);
        projectPlantName = "";
}

public void searchPlantList(ActionEvent event){
        ArrayList<String> temp  = new ArrayList<String>();
        for(int x = 0; x < plantsList.size(); x++){

        if(plantsList.get(x).toLowerCase().contains(plantKeyW
ord.trim().toLowerCase())){
                        temp.add(plantsList.get(x));
                }
        }
        plantsList.clear();
        plantsList = temp;
}

public void resetSearch(ActionEvent event){
        plantKeyWord = "";
        initPlants();
        if(!projectPlantName.equals("")){
                plantsList.remove(projectPlantName);
        }
}

public boolean isHasVal() {
        return hasVal;
}

public void setHasVal(boolean hasVal) {
        this.hasVal = hasVal;
}

public void initPlantSource(){
        try {
                DocumentBuilderFactory docBuilderFactory
= DocumentBuilderFactory.newInstance();
                DocumentBuilder docBuilder =
docBuilderFactory.newDocumentBuilder();
                FacesContext aFacesContext =
FacesContext.getCurrentInstance();
                ServletContext context =
(ServletContext)aFacesContext.getExternalContext().getContext();
                String rootpath =
context.getRealPath(Config.getInstance().getValue("path"));
                File uniqueFile = new File(new
File(rootpath), "ps.xml");
                doc = docBuilder.parse (uniqueFile);
                NodeList nodelist =
doc.getElementsByTagName("entry");
                entries = new ArrayList<Entry>();
                populateEntries(nodelist);
                sortEntriesByType(entries);
                Connection conn =
DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM sources_projects
WHERE project_id = ?");
                ps.setString(1, projectId);
                ResultSet rs = ps.executeQuery();
                if(rs.next()){
                        hasVal = true;
```

```
                                        sourceId =
rs.getString("source_id");
                                        tempentries =
getSourceDetails(sourceId);
                                        compEntries();
                                } else {
                                        hasVal = false;
                                }
                                rs.close();
                                ps.close();
                                conn.close();

                        } catch (Exception e) {
                                e.printStackTrace();
                        }
}

public void compEntries(){
                for(int x = 0; x < entries.size(); x++){
                        for(int y = 0; y < tempentries.size(); y++){

                if(tempentries.get(y).getLabel().equals(entries.get(x).ge
tLabel())){

                if(tempentries.get(y).getType().equals("select")){

                if(tempentries.get(y).getMany() == 0){

                entries.get(x).setValue(tempentries.get(y).getValue());
                                                                } else {

                entries.get(x).setManyVals(tempentries.get(y).getMany
Vals());
                                                                }
                                                        } else {

                entries.get(x).setValue(tempentries.get(y).getValue());
                                                        }
                                        }
                                }
                        }
                        tempentries = entries;
                        sortEntriesByType(entries);
}

private void sortEntriesByType(ArrayList<Entry> entries){
                ArrayList<Entry> text = new ArrayList<Entry>();
                ArrayList<Entry> select = new ArrayList<Entry>();
                ArrayList<Entry> selectOne = new
ArrayList<Entry>();
                ArrayList<Entry> selectMany = new
ArrayList<Entry>();
                for(int x = 0; x < entries.size(); x++){
                        if(entries.get(x).getType().equals("text")){
                                text.add(entries.get(x));
                        } else {
                                select.add(entries.get(x));
                        }
                }
                for(int x = 0; x < select.size(); x++){
                        if(select.get(x).getMany() == 0){
                                selectOne.add(select.get(x));
                        } else {
                                selectMany.add(select.get(x));
                        }
                }
                entries.clear();
                for(int x = 0; x < text.size(); x++){
                        entries.add(text.get(x));
                }
                for(int x = 0; x < selectOne.size(); x++){
                        entries.add(selectOne.get(x));
                }
                for(int x = 0; x < selectMany.size(); x++){
                        entries.add(selectMany.get(x));
                }
                for(int x = 0; x < entries.size(); x++){
                        entries.get(x).setIndex(x);
                }
}

private void populateEntries(NodeList aList){
                for(int x = 0; x < aList.getLength(); x++){
                        Element e = (Element) aList.item(x);
                        int size =
e.getElementsByTagName("name").getLength();
                        if(size != 1){
                                Entry temp = new Entry();
                                temp.setPaired(true);
                                temp.setLabel(getStringVal(e,
"name"));

                temp.setLabel2(getStringValSecond(e, "name"));
                                String type = getStringVal(e,
"type");
                                String type2 = getStringVal(e,
"type");
                                temp.setType(type);
                                if(type.equals("select")){
                                        NodeList tempList =
e.getElementsByTagName("value");
                                        for(int i = 0; i <
tempList.getLength(); i++){
                                                if(i == 0){

                temp.addValue("");
                                                }

                temp.addValue(getStringVal((Element)
tempList.item(i)));
                                        }
                                }

                temp.setMany(Integer.parseInt(getStringVal(e,
"many")));

                                temp.setType2(type2);
                                if(type2.equals("select")){
                                        NodeList tempList =
e.getElementsByTagName("next_value");
                                        for(int i = 0; i <
tempList.getLength(); i++){
                                                if(i == 0){

                temp.addValue2("");
                                                }

                temp.addValue2(getStringVal((Element)
tempList.item(i)));
                                        }
                                }

                temp.setMany(Integer.parseInt(getStringVal(e,
"many")));
                                temp.setIndex(x);
                                entries.add(temp);
                        } else {
                                Entry temp = new Entry();
                                temp.setPaired(false);
```

```
                                String type = getStringVal(e,
"type");
                                if(type.equals("select")){

                temp.setLabel(getStringVal(e, "name"));
                                        NodeList tempList =
e.getElementsByTagName("value");
                                        for(int i = 0; i <
tempList.getLength(); i++){
                                                if(i == 0){

                temp.addValue("");
                                                }

                temp.addValue(getStringVal((Element)
tempList.item(i)));
                                        }
                                } else {

                temp.setLabel(getStringVal(e, "name"));
                                }
                                temp.setType(type);

                temp.setMany(Integer.parseInt(getStringVal(e,
"many")));
                                temp.setIndex(x);
                                entries.add(temp);
                        }
                }
}

private String getStringVal(Element el, String name){
        return
el.getElementsByTagName(name).item(0).getFirstChild().getNode
Value();
}

private String getStringValSecond(Element el, String name){
        return
el.getElementsByTagName(name).item(1).getFirstChild().getNode
Value();
}

private String getStringVal(Element el){
        return el.getFirstChild().getNodeValue();
}

public void addVal(ActionEvent event){
        UIParameter component = (UIParameter)
event.getComponent().findComponent("addEntryIndex");
        String entryIndex = component.getValue().toString();
        try{
                int index = Integer.parseInt(entryIndex);
                entries.get(index).addManyVals("");
                entries.get(index).addManyVals2("");
        } catch(Exception e){
                e.printStackTrace();
        }
}

public void removeVal(ActionEvent event){
        UIParameter component = (UIParameter)
event.getComponent().findComponent("entryIndex");
        String entryIndex = component.getValue().toString();
        component = (UIParameter)
event.getComponent().findComponent("valueIndex");
        String valueIndex = component.getValue().toString();
        try{
                int entryindex =
Integer.parseInt(entryIndex);
                int valueindex =
Integer.parseInt(valueIndex);

        if(entries.get(entryindex).getManyVals().size() != 1){

        entries.get(entryindex).removeManyVals(valueindex);

        entries.get(entryindex).removeManyVals2(valueindex);
                } else {
                        return;
                }
                for(int x = 0; x <
entries.get(entryindex).getManyVals().size(); x++){

        entries.get(entryindex).getManyVals().get(x).setIndex(x
+ "");

        entries.get(entryindex).getManyVals2().get(x).setIndex(
x + "");
                }
        } catch(Exception e){
                e.printStackTrace();
        }
}

public void addSource(ActionEvent event){
        for(int x = 0; x < entries.size(); x++){
                if(entries.get(x).getMany() == 1){
                        for(int y = 0; y <
entries.get(x).getManyVals().size(); y++){
                                if(
entries.get(x).getManyVals().get(y).getValue().equals("")){

        entries.get(x).getManyVals().remove(y);
                                                y--;
                                }
                        }

        if(entries.get(x).getManyVals().size() == 0){
                                entries.remove(x);
                                x--;
                        }
                } else {

        if(entries.get(x).getValue().equals("")){
                                entries.remove(x);
                                x--;
                        }
                }
        }
        sourceId = writeSource();
        initProjectDetails(event);
        Notifier.notifyAllUsers(9, projectId, "");
}

public String writeSource(){
        String returnString = "";
        try{
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("INSERT INTO sources_projects
(source_id, project_id) VALUES (? , ?)");
                ps.setString(1, "0");
                ps.setString(2, projectId);
                ps.executeUpdate();
                ps = conn.prepareStatement("SELECT *
FROM sources_projects WHERE project_id = ? ORDER BY
source_id DESC");
                ps.setString(1, projectId);
```

```
                        ResultSet rs = ps.executeQuery();
                        if(rs.next()){
                                ps =
conn.prepareStatement("INSERT INTO sources (source_id,
attribute, value, type, many) VALUES (?, ?, ?, ?, ?)");
                                ps.setString(1,
rs.getString("source_id"));
                                returnString =
rs.getString("source_id");
                                for(int x = 0; x < entries.size();
x++){

                if(entries.get(x).getMany() == 0){

                ps.setString(2, entries.get(x).getLabel());

                ps.setString(3, entries.get(x).getValue());

                ps.setString(4, entries.get(x).getType());

                ps.setString(5, 0 + "");

                ps.executeUpdate();
                                        } else {
                                                for(int i =
0; i < entries.get(x).getManyVals().size(); i++){

                ps.setString(2, entries.get(x).getLabel()+"-
"+entries.get(x).getLabel2());

                ps.setString(3,
entries.get(x).getManyVals().get(i).getValue() + "-" +
entries.get(x).getManyVals().get(i).getValue2());

                ps.setString(4, entries.get(x).getType());

                ps.setString(5, 1 + "");

                ps.executeUpdate();
                                                }
                                        }
                                }
                        }
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
                return returnString;
}

public ArrayList<Entry> getSourceDetails(String sourceID){
                ArrayList<Entry> tempentries = new
ArrayList<Entry>();
                try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM sources WHERE
source_id = ? ORDER BY attribute");
                        ps.setString(1, sourceID);
                        ResultSet rs = ps.executeQuery();
                        String tempString = "";
                        int aCtr = 0;
                        Entry temp = new Entry();
                        while(rs.next()){

                if(!rs.getString("attribute").equals(tempString) ){

                if(!tempString.equals("")){

                tempentries.add(temp);
                                                        aCtr++;
                                        }
                                        temp = new Entry();

                if(rs.getString("attribute").contains("-")){
                                                String[]
labels = rs.getString("attribute").split("-");

                temp.setLabel(labels[0]);

                temp.setLabel2(labels[1]);

                temp.setIndex(aCtr);

                temp.setMany(Integer.parseInt(rs.getString("many")));

                temp.setType(rs.getString("type"));
                                                String
values[] = rs.getString("value").split("-");

                if(Integer.parseInt(rs.getString("many")) == 1){

                temp.getManyVals().get(0).setValue(values[0]);

                temp.getManyVals().get(0).setValue2(values[1]);
                                                } else {

                temp.setValue(values[0]);

                temp.setValue2(values[1]);
                                                }
                                        } else {

                temp.setLabel(rs.getString("attribute"));

                temp.setIndex(aCtr);

                temp.setMany(Integer.parseInt(rs.getString("many")));

                temp.setType(rs.getString("type"));

                if(Integer.parseInt(rs.getString("many")) == 1){

                temp.getManyVals().get(0).setValue(rs.getString("valu
e"));                                           } else {

                temp.setValue(rs.getString("value"));
                                                }
                                        }
                                        tempString =
rs.getString("attribute");
                                } else {

                if(rs.getString("attribute").contains("-")){
                                                String
values[] = rs.getString("value").split("-");

                temp.addManyVals(values[0]);

                temp.getManyVals().get(temp.getManyVals().size() -
1).setValue2(values[1]);
                                        } else {

                temp.setType(rs.getString("type"));
```

```
                temp.addManyVals(rs.getString("value"));

                temp.setMany(Integer.parseInt(rs.getString("many")));
                                        }

                                }
                        }
                        tempentries.add(temp);
                } catch(Exception e){
                        e.printStackTrace();
                }
                return tempentries;
        }



        public void editSource(ActionEvent event){
                for(int x = 0; x < entries.size(); x++){
                        if(entries.get(x).getMany() == 1){
                                for(int y = 0; y <
        entries.get(x).getManyVals().size(); y++){
                                        if(
        entries.get(x).getManyVals().get(y).getValue().equals("") ||
        entries.get(x).getManyVals().get(y).getValue2().equals("")){

                entries.get(x).getManyVals().remove(y);
                                                y--;
                                        }
                                }

                if(entries.get(x).getManyVals().size() == 0){
                                        entries.remove(x);
                                        x--;
                                }
                        } else {

                if(entries.get(x).getValue().equals("")){
                                        entries.remove(x);
                                        x--;
                                }
                        }
                }
                DBWriter.getInstance().deleteSource(sourceId);
                sourceId = writeSource();
                initPlantSource();
                Notifier.notifyAllUsers(10, projectId, "");
        }

}
```

ReferencePrototype.java

```
package projects;

public class ReferencePrototype {

        private String title;
        private String id;
        private String type;
        private String authors;
        private String journal;
        private String year;



        public String getYear() {
                return year;
        }

        public void setYear(String year) {
                this.year = year;
        }

        public String getJournal() {
                return journal;
        }

        public void setJournal(String journal) {
                this.journal = journal;
        }

        public String getAuthors() {
                String[] temp = authors.split(" and ");
                authors = "";
                for(int x = 0; x < temp.length-1; x++){
                        if(x == 0){
                                authors += temp[x];
                        } else {
                                authors += ", " + temp[x];
                        }
                }
                if(temp.length == 1){
                        authors = temp[0];
                } else {
                        authors += " and " + temp[temp.length-1];
                }
                return authors;
        }

        public void setAuthors(String authors) {
                this.authors = authors;
        }

        public String getTitle() {
                return title;
        }

        public void setTitle(String title) {
                this.title = title;
        }

        public String getId() {
                return id;
        }

        public void setId(String id) {
                this.id = id;
        }

        public String getType() {
                return type;
        }

        public void setType(String type) {
                this.type = type;
        }

}
```

UserProjList.java

```
package projects;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;

import javax.faces.component.UIParameter;
```

```
import javax.faces.event.ActionEvent;

import services.Plant;

public class UserProjList {

   public boolean showProjects;
   public int projectCount;
   public ArrayList<Project> projectList;
   public int projectPagination;
   public ArrayList<Project> pagedProjectList;
   public boolean nextProject;
   public int projectEndCount;
   public char currentLetter = '^';
   public int paginationFixer;
   public String username;
   public boolean adminProjListMode;


   public boolean isAdminProjListMode() {
            return adminProjListMode;
   }
   public void setAdminProjListMode(boolean adminProjListMode)
   {
            this.adminProjListMode = adminProjListMode;
   }
   public String getUsername() {
            return username;
   }
   public void setUsername(String username) {
            this.username = username;
   }
   public int getProjectCount() {
            return projectCount;
   }
   public void setProjectCount(int projectCount) {
            this.projectCount = projectCount;
   }
   public int getProjectPagination() {
            return projectPagination;
   }
   public void setProjectPagination(int projectPagination) {
            this.projectPagination = projectPagination;
   }
   public ArrayList<Project> getPagedProjectList() {
            return pagedProjectList;
   }
   public void setPagedProjectList(ArrayList<Project>
   pagedProjectList) {
            this.pagedProjectList = pagedProjectList;
   }
   public boolean isNextProject() {
            return nextProject;
   }
   public void setNextProject(boolean nextProject) {
            this.nextProject = nextProject;
   }
   public int getProjectEndCount() {
            return projectEndCount;
   }
   public void setProjectEndCount(int projectEndCount) {
            this.projectEndCount = projectEndCount;
   }
   public char getCurrentLetter() {
            return currentLetter;
   }
   public void setCurrentLetter(char currentLetter) {
            this.currentLetter = currentLetter;
   }
   public int getPaginationFixer() {
            if(projectEndCount == 0){
                     paginationFixer = 0;
            } else {
                     paginationFixer = 1;
            }
            return paginationFixer;
   }
   public void setPaginationFixer(int paginationFixer) {
            this.paginationFixer = paginationFixer;
   }
   public ArrayList<Project> getProjectList() {
            return projectList;
   }
   public void setProjectList(ArrayList<Project> projectList) {
            this.projectList = projectList;
   }
   public boolean isShowProjects() {
            if(projectList.size() == 0){
                     showProjects = false;
            } else{
                     showProjects = true;
            }
            return showProjects;
   }
   public void setShowProjects(boolean showProjects) {
            this.showProjects = showProjects;
   }

   public  void showForA(ActionEvent event) {
            currentLetter = 'a';
            getProjList(username);
   }

   public  void showForB(ActionEvent event) {
            currentLetter = 'b';
            getProjList(username);
   }

   public  void showForC(ActionEvent event) {
            currentLetter = 'c';
            getProjList(username);
   }

   public  void showForD(ActionEvent event) {
            currentLetter = 'd';
            getProjList(username);
   }

   public  void showForE(ActionEvent event) {
            currentLetter = 'e';
            getProjList(username);
   }

   public  void showForF(ActionEvent event) {
            currentLetter = 'f';
            getProjList(username);
   }

   public  void showForG(ActionEvent event) {
            currentLetter = 'g';
            getProjList(username);
   }

   public  void showForH(ActionEvent event) {
            currentLetter = 'h';
            getProjList(username);
   }

   public  void showForI(ActionEvent event) {
            currentLetter = 'i';
```

```
		getProjList(username);
}

public  void showForJ(ActionEvent event) {
		currentLetter = 'j';
		getProjList(username);
}

public  void showForK(ActionEvent event) {
		currentLetter = 'k';
		getProjList(username);
}

public  void showForL(ActionEvent event) {
		currentLetter = 'l';
		getProjList(username);
}

public  void showForM(ActionEvent event) {
		currentLetter = 'm';
		getProjList(username);
}

public  void showForN(ActionEvent event) {
		currentLetter = 'n';
		getProjList(username);
}

public  void showForO(ActionEvent event) {
		currentLetter = 'o';
		getProjList(username);
}

public  void showForP(ActionEvent event) {
		currentLetter = 'p';
		getProjList(username);
}

public  void showForQ(ActionEvent event) {
		currentLetter = 'q';
		getProjList(username);
}

public  void showForR(ActionEvent event) {
		currentLetter = 'r';
		getProjList(username);
}

public  void showForS(ActionEvent event) {
		currentLetter = 's';
		getProjList(username);
}

public  void showForT(ActionEvent event) {
		currentLetter = 't';
		getProjList(username);
}

public  void showForU(ActionEvent event) {
		currentLetter = 'u';
		getProjList(username);
}

public  void showForV(ActionEvent event) {
		currentLetter = 'v';
		getProjList(username);
}

public  void showForW(ActionEvent event) {
		currentLetter = 'w';
		getProjList(username);
}

public  void showForX(ActionEvent event) {
		currentLetter = 'x';
		getProjList(username);
}

public  void showForY(ActionEvent event) {
		currentLetter = 'y';
		getProjList(username);
}

public  void showForZ(ActionEvent event) {
		currentLetter = 'z';
		getProjList(username);
}

public  void showForAll(ActionEvent event) {
		currentLetter = '^';
		getProjList(username);
}

public void getProjList(ActionEvent event){
		UIParameter component = (UIParameter)
event.getComponent().findComponent("username");
		String aUserName = component.getValue().toString();
		username = aUserName;
		getProjList(aUserName);
}

public void getAdminProjList(ActionEvent event){
		getAdminProjList();
}

public void getAdminProjList(){
		try{
				username = "";
				if(!adminProjListMode){
						currentLetter = '^';
				}
				adminProjListMode = true;
				Connection conn =
database.DBConnect.getInstance().setConnection();
				PreparedStatement ps =
conn.prepareStatement("SELECT * FROM projects ORDER BY
project_name");
				ResultSet rs = ps.executeQuery();
				projectList = new ArrayList<Project>();
				Project aTemp;
				projectCount = 0;
				while(rs.next()){
						aTemp = new Project();

		aTemp.setProjectName(rs.getString("project_name"));

		aTemp.setProjectId(rs.getString("project_id"));

		aTemp.setProjectDescription(rs.getString("project_desc
ription"));

		aTemp.setProjectCode(rs.getString("acro"));
						if(currentLetter != '^' &&
rs.getString("project_name").toLowerCase().charAt(0) ==
currentLetter){

		projectList.add(aTemp);
								projectCount++;
						}
						if(currentLetter == '^'){
```

```
                projectList.add(aTemp);
                                        projectCount++;
                                }
                        }
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
                projectPagination = 0;
                showProjectListInit();
}

public void getProjList(String aUserName){
                if(!username.equals("")){
                        try{
                                if(adminProjListMode){
                                        currentLetter = '^';
                                }
                                adminProjListMode = false;
                                Connection conn =
database.DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users_projects,projects
WHERE projects.project_id = users_projects.project_id AND
users_projects.username = ? ORDER BY projects.project_name");
                                ps.setString(1, aUserName);
                                ResultSet rs =
ps.executeQuery();
                                projectList = new
ArrayList<Project>();
                                Project aTemp;
                                projectCount = 0;
                                while(rs.next()){
                                        aTemp = new
Project();

                aTemp.setProjectName(rs.getString("project_name"));

                aTemp.setProjectId(rs.getString("project_id"));

                aTemp.setProjectDescription(rs.getString("project_desc
ription"));

                aTemp.setProjectCode(rs.getString("acro"));
                                        if(currentLetter != '^'
&& rs.getString("project_name").toLowerCase().charAt(0) ==
currentLetter){

                projectList.add(aTemp);

                projectCount++;
                                        }
                                        if(currentLetter ==
'^'){

                projectList.add(aTemp);

                projectCount++;
                                        }
                                }
                                rs.close();
                                ps.close();
                                conn.close();
                        } catch(Exception e){
                                e.printStackTrace();
                        }
                        projectPagination = 0;
                        showProjectListInit();
                } else {
                        getAdminProjList();
                }
        }

        public  void showProjectListInit(){
                int previousPagination = projectPagination;
                int endingPagination = projectPagination + 10;
                pagedProjectList = new ArrayList<Project>();
                if(endingPagination > projectList.size()){
                        projectEndCount = projectList.size();
                        for(int x = previousPagination; x <
projectList.size(); x++){

                pagedProjectList.add(projectList.get(x));
                        }
                } else {
                        projectEndCount = endingPagination;
                        for(int x = previousPagination; x <
endingPagination; x++){

                pagedProjectList.add(projectList.get(x));
                        }
                }
                nextProject = stillNext();
        }

        public void showProjectListForward(ActionEvent event){
                projectPagination = projectPagination + 10;
                showProjectListInit();
        }

        public void showProjectListBackward(ActionEvent event){
                int startPage;
                int endPage;
                pagedProjectList = new ArrayList<Project>();
                startPage = projectPagination - 10;
                endPage = projectPagination;
                for(int x = startPage; x < endPage; x++){
                        pagedProjectList.add(projectList.get(x));
                }
                projectPagination = startPage;
                projectEndCount = startPage + 10;
                nextProject = stillNext();
        }

        public boolean stillNext(){
                if((projectPagination + 10) >= projectCount){
                        return true;
                } else {
                        return false;
                }
        }

}
```

Article.java

```
package references;

public class Article {

   private int id;
   private String title;
   private String authors;
   private String journal;
   private String year;
   private String note;
   private String month;
```

```
private String pages;
private String url;
private String volume;
private String issue;
private boolean availability;
private boolean selected;
private String filename;
private String displayName;

public String getDisplayName() {
		String[] arr = authors.split(" and ");
		displayName = "";
		for(int x = 0; x < arr.length-1; x++){
			if(x == 0){
				displayName += arr[x];
			} else {
				displayName += ", " + arr[x];
			}
		}
		if(arr.length == 1){
			displayName = arr[0];
		} else {
			displayName += " and " + arr[arr.length-1];
		}
		return displayName;
}
public void setDisplayName(String displayName) {
		this.displayName = displayName;
}
public String getFilename() {
		return filename;
}
public void setFilename(String filename) {
		this.filename = filename;
}
public String getIssue() {
		return issue;
}
public void setIssue(String issue) {
		this.issue = issue;
}
public boolean isSelected() {
		return selected;
}
public void setSelected(boolean selected) {
		this.selected = selected;
}
public boolean isAvailability() {
		return availability;
}
public void setAvailability(boolean availability) {
		this.availability = availability;
}
public String getAuthors() {
		return authors;
}
public void setAuthors(String authors) {
		this.authors = authors;
}
public int getId() {
		return id;
}
public void setId(int id) {
		this.id = id;
}
public String getTitle() {
		return title;
}
public void setTitle(String title) {
		this.title = title;
}
public String getJournal() {
		return journal;
}
public void setJournal(String journal) {
		this.journal = journal;
}
public String getYear() {
		return year;
}
public void setYear(String year) {
		this.year = year;
}
public String getNote() {
		return note;
}
public void setNote(String note) {
		this.note = note;
}
public String getMonth() {
		return month;
}
public void setMonth(String month) {
		this.month = month;
}
public String getPages() {
		return pages;
}
public void setPages(String pages) {
		this.pages = pages;
}
public String getUrl() {
		return url;
}
public void setUrl(String url) {
		this.url = url;
}
public String getVolume() {
		return volume;
}
public void setVolume(String volume) {
		this.volume = volume;
}


}
```

Book.java

```
package references;

public class Book {

	private int id;
	private String title;
	private String publisher;
	private String editors;
	private String authors;
	private String year;
	private String month;
	private String volume;
	private String series;
	private String edition;
	private String url;
	private String note;
	private boolean availability;
	private boolean selected;
	private String filename;
	private String displayName;
	private String displayEditors;
```

```
public String getDisplayEditors() {
		String[] arr = editors.split(" and ");
		displayEditors = "";
		for(int x = 0; x < arr.length-1; x++){
			if(x == 0){
				displayEditors += arr[x];
			} else {
				displayEditors += ", " + arr[x];
			}
		}
		if(arr.length == 1){
			displayEditors = arr[0];
		} else {
			displayEditors += " and " + arr[arr.length-1];
		}
		return displayEditors;
}

public void setDisplayEditors(String displayEditors) {
		this.displayEditors = displayEditors;
}

public String getDisplayName() {
		String[] arr = authors.split(" and ");
		displayName = "";
		for(int x = 0; x < arr.length-1; x++){
			if(x == 0){
				displayName += arr[x];
			} else {
				displayName += ", " + arr[x];
			}
		}
		if(arr.length == 1){
			displayName = arr[0];
		} else {
			displayName += " and " + arr[arr.length-1];
		}
		return displayName;
}

public void setDisplayName(String displayName) {
		this.displayName = displayName;
}
public String getFilename() {
		return filename;
}

public void setFilename(String filename) {
		this.filename = filename;
}

public boolean isSelected() {
		return selected;
}

public void setSelected(boolean selected) {
		this.selected = selected;
}

public boolean isAvailability() {
		return availability;
}

public void setAvailability(boolean availability) {
		this.availability = availability;
}

public int getId() {
		return id;
}

public void setId(int id) {
		this.id = id;
}

public String getTitle() {
		return title;
}

public void setTitle(String title) {
		this.title = title;
}

public String getPublisher() {
		return publisher;
}

public void setPublisher(String publisher) {
		this.publisher = publisher;
}

public String getEditors() {
		return editors;
}

public void setEditors(String editors) {
		this.editors = editors;
}

public String getAuthors() {
		return authors;
}

public void setAuthors(String authors) {
		this.authors = authors;
}

public String getYear() {
		return year;
}

public void setYear(String year) {
		this.year = year;
}

public String getMonth() {
		return month;
}

public void setMonth(String month) {
		this.month = month;
}

public String getVolume() {
		return volume;
}

public void setVolume(String volume) {
		this.volume = volume;
}

public String getSeries() {
		return series;
}

public void setSeries(String series) {
		this.series = series;
}
```

```
	public String getEdition() {
		return edition;
	}

	public void setEdition(String edition) {
		this.edition = edition;
	}

	public String getUrl() {
		return url;
	}

	public void setUrl(String url) {
		this.url = url;
	}

	public String getNote() {
		return note;
	}

	public void setNote(String note) {
		this.note = note;
	}

}
```

Booklet.java

```
package references;

public class Booklet {

	private int id;
	private String title;
	private String authors;
	private String year;
	private String month;
	private String howPublished;
	private String url;
	private String note;
	private boolean availability;
	private boolean selected;
	private String filename;
private String displayName;

	public String getDisplayName() {
		String[] arr = authors.split(" and ");
		displayName = "";
		for(int x = 0; x < arr.length-1; x++){
			if(x == 0){
				displayName += arr[x];
			} else {
				displayName += ", " + arr[x];
			}
		}
		if(arr.length == 1){
			displayName = arr[0];
		} else {
			displayName += " and " + arr[arr.length-1];
		}
		return displayName;
	}
	public void setDisplayName(String displayName) {
		this.displayName = displayName;
	}
	public String getFilename() {
		return filename;
	}

	public void setFilename(String filename) {
		this.filename = filename;
	}

	public boolean isSelected() {
		return selected;
	}

	public void setSelected(boolean selected) {
		this.selected = selected;
	}

	public boolean isAvailability() {
		return availability;
	}

	public void setAvailability(boolean availability) {
		this.availability = availability;
	}

	public String getAuthors() {
		return authors;
	}

	public void setAuthors(String authors) {
		this.authors = authors;
	}

	public int getId() {
		return id;
	}

	public void setId(int id) {
		this.id = id;
	}

	public String getTitle() {
		return title;
	}

	public void setTitle(String title) {
		this.title = title;
	}

	public String getYear() {
		return year;
	}

	public void setYear(String year) {
		this.year = year;
	}

	public String getMonth() {
		return month;
	}

	public void setMonth(String month) {
		this.month = month;
	}

	public String getHowPublished() {
		return howPublished;
	}

	public void setHowPublished(String howPublished) {
		this.howPublished = howPublished;
	}

	public String getUrl() {
		return url;
	}
```

```
    public void setUrl(String url) {
        this.url = url;
    }

    public String getNote() {
        return note;
    }

    public void setNote(String note) {
        this.note = note;
    }

}
```

Collection.java

```
package references;

public class Collection {

    private int id;
    private String title;
    private String authors;
    private String bookTitle;
    private String year;
    private String month;
    private String publisher;
    private String editors;
    private String pages;
    private String organization;
    private String url;
    private String note;
    private String volume;
    private String series;
    private String edition;
    private boolean availability;
    private boolean selected;
    private String filename;
private String displayName;
private String displayEditors;

public String getDisplayEditors() {
    String[] arr = editors.split(" and ");
    displayEditors = "";
    for(int x = 0; x < arr.length-1; x++){
        if(x == 0){
            displayEditors += arr[x];
        } else {
            displayEditors += ", " + arr[x];
        }
    }
    if(arr.length == 1){
        displayEditors = arr[0];
    } else {
        displayEditors += " and " + arr[arr.length-1];
    }
    return displayEditors;
}

public void setDisplayEditors(String displayEditors) {
    this.displayEditors = displayEditors;
}
    public String getDisplayName() {
        String[] arr = authors.split(" and ");
        displayName = "";
        for(int x = 0; x < arr.length-1; x++){
            if(x == 0){
                displayName += arr[x];
            } else {
                displayName += ", " + arr[x];
            }
        }
        if(arr.length == 1){
            displayName = arr[0];
        } else {
            displayName += " and " + arr[arr.length-1];
        }
        return displayName;
}
public void setDisplayName(String displayName) {
    this.displayName = displayName;
}
public String getFilename() {
    return filename;
}

public void setFilename(String filename) {
    this.filename = filename;
}

public boolean isSelected() {
    return selected;
}

public void setSelected(boolean selected) {
    this.selected = selected;
}

public boolean isAvailability() {
    return availability;
}

public void setAvailability(boolean availability) {
    this.availability = availability;
}

public int getId() {
    return id;
}

public void setId(int id) {
    this.id = id;
}

public String getTitle() {
    return title;
}

public void setTitle(String title) {
    this.title = title;
}

public String getAuthors() {
    return authors;
}

public void setAuthors(String authors) {
    this.authors = authors;
}

public String getBookTitle() {
    return bookTitle;
}

public void setBookTitle(String bookTitle) {
    this.bookTitle = bookTitle;
}

public String getYear() {
```

```
        return year;
}

public void setYear(String year) {
        this.year = year;
}

public String getMonth() {
        return month;
}

public void setMonth(String month) {
        this.month = month;
}

public String getPublisher() {
        return publisher;
}

public void setPublisher(String publisher) {
        this.publisher = publisher;
}

public String getEditors() {
        return editors;
}

public void setEditors(String editors) {
        this.editors = editors;
}

public String getPages() {
        return pages;
}

public void setPages(String pages) {
        this.pages = pages;
}

public String getOrganization() {
        return organization;
}

public void setOrganization(String organization) {
        this.organization = organization;
}

public String getUrl() {
        return url;
}

public void setUrl(String url) {
        this.url = url;
}

public String getNote() {
        return note;
}

public void setNote(String note) {
        this.note = note;
}

public String getVolume() {
        return volume;
}

public void setVolume(String volume) {
        this.volume = volume;
}
```

```
  public String getSeries() {
        return series;
  }

  public void setSeries(String series) {
        this.series = series;
  }

  public String getEdition() {
        return edition;
  }

  public void setEdition(String edition) {
        this.edition = edition;
  }

}
```

Inbook.java

```
package references;

public class Inbook {

  private int id;
  private String bookTitle;
  private String publisher;
  private String authors;
  private String pages;
  private String year;
  private String month;
  private String editors;
  private String chapTitle;
  private String volume;
  private String series;
  private String edition;
  private String url;
  private String note;
  private boolean availability;
  private boolean selected;
  private String filename;
private String displayName;
private String displayEditors;

public String getDisplayEditors() {
  String[] arr = editors.split(" and ");
  displayEditors = "";
  for(int x = 0; x < arr.length-1; x++){
        if(x == 0){
              displayEditors += arr[x];
        } else {
              displayEditors += ", " + arr[x];
        }
  }
  if(arr.length == 1){
        displayEditors = arr[0];
  } else {
        displayEditors += " and " + arr[arr.length-1];
  }
  return displayEditors;
}

public void setDisplayEditors(String displayEditors) {
  this.displayEditors = displayEditors;
}
  public String getDisplayName() {
        String[] arr = authors.split(" and ");
        displayName = "";
        for(int x = 0; x < arr.length-1; x++){
```

```
                        if(x == 0){
                                displayName += arr[x];
                        } else {
                                displayName += ", " + arr[x];
                        }
                }
                if(arr.length == 1){
                        displayName = arr[0];
                } else {
                        displayName += " and " + arr[arr.length-1];
                }
                return displayName;
        }
        public void setDisplayName(String displayName) {
                this.displayName = displayName;
        }
        public String getFilename() {
                return filename;
        }

        public void setFilename(String filename) {
                this.filename = filename;
        }

        public boolean isSelected() {
                return selected;
        }

        public void setSelected(boolean selected) {
                this.selected = selected;
        }

        public boolean isAvailability() {
                return availability;
        }

        public void setAvailability(boolean availability) {
                this.availability = availability;
        }

        public int getId() {
                return id;
        }

        public void setId(int id) {
                this.id = id;
        }

        public String getBookTitle() {
                return bookTitle;
        }

        public void setBookTitle(String bookTitle) {
                this.bookTitle = bookTitle;
        }

        public String getPublisher() {
                return publisher;
        }

        public void setPublisher(String publisher) {
                this.publisher = publisher;
        }

        public String getAuthors() {
                return authors;
        }

        public void setAuthors(String authors) {
                this.authors = authors;
        }

        public String getPages() {
                return pages;
        }

        public void setPages(String pages) {
                this.pages = pages;
        }

        public String getYear() {
                return year;
        }

        public void setYear(String year) {
                this.year = year;
        }

        public String getMonth() {
                return month;
        }

        public void setMonth(String month) {
                this.month = month;
        }

        public String getEditors() {
                return editors;
        }

        public void setEditors(String editors) {
                this.editors = editors;
        }

        public String getChapTitle() {
                return chapTitle;
        }

        public void setChapTitle(String chapTitle) {
                this.chapTitle = chapTitle;
        }

        public String getVolume() {
                return volume;
        }

        public void setVolume(String volume) {
                this.volume = volume;
        }

        public String getSeries() {
                return series;
        }

        public void setSeries(String series) {
                this.series = series;
        }

        public String getEdition() {
                return edition;
        }

        public void setEdition(String edition) {
                this.edition = edition;
        }

        public String getUrl() {
                return url;
        }
```

```
    public void setUrl(String url) {
        this.url = url;
    }

    public String getNote() {
        return note;
    }

    public void setNote(String note) {
        this.note = note;
    }

}
```

Manual.java

```
package references;

public class Manual {

    private int id;
    private String title;
    private String authors;
    private String year;
    private String month;
    private String organization;
    private String url;
    private String note;
    private String edition;
    private boolean availability;
    private boolean selected;
    private String filename;
private String displayName;

    public String getDisplayName() {
        String[] arr = authors.split(" and ");
        displayName = "";
        for(int x = 0; x < arr.length-1; x++){
            if(x == 0){
                displayName += arr[x];
            } else {
                displayName += ", " + arr[x];
            }
        }
        if(arr.length == 1){
            displayName = arr[0];
        } else {
            displayName += " and " + arr[arr.length-1];
        }
        return displayName;
    }
    public void setDisplayName(String displayName) {
        this.displayName = displayName;
    }
    public String getFilename() {
        return filename;
    }

    public void setFilename(String filename) {
        this.filename = filename;
    }

    public boolean isSelected() {
        return selected;
    }

    public void setSelected(boolean selected) {
        this.selected = selected;
    }

    public boolean isAvailability() {
        return availability;
    }

    public void setAvailability(boolean availability) {
        this.availability = availability;
    }

    public int getId() {
        return id;
    }

    public void setId(int id) {
        this.id = id;
    }

    public String getTitle() {
        return title;
    }

    public void setTitle(String title) {
        this.title = title;
    }

    public String getAuthors() {
        return authors;
    }

    public void setAuthors(String authors) {
        this.authors = authors;
    }

    public String getYear() {
        return year;
    }

    public void setYear(String year) {
        this.year = year;
    }

    public String getMonth() {
        return month;
    }

    public void setMonth(String month) {
        this.month = month;
    }

    public String getOrganization() {
        return organization;
    }

    public void setOrganization(String organization) {
        this.organization = organization;
    }

    public String getUrl() {
        return url;
    }

    public void setUrl(String url) {
        this.url = url;
    }

    public String getNote() {
        return note;
    }

    public void setNote(String note) {
        this.note = note;
```

```
    }

    public String getEdition() {
            return edition;
    }

    public void setEdition(String edition) {
            this.edition = edition;
    }

}
```

TechReport.java

```
package references;

public class TechReport {

    private int id;
    private String title;
    private String authors;
    private String institution;
    private String year;
    private String month;
    private String type;
    private String number;
    private String url;
    private String note;
    private boolean availability;
    private boolean selected;
    private String filename;
private String displayName;

    public String getDisplayName() {
            String[] arr = authors.split(" and ");
            displayName = "";
            for(int x = 0; x < arr.length-1; x++){
                    if(x == 0){
                            displayName += arr[x];
                    } else {
                            displayName += ", " + arr[x];
                    }
            }
            if(arr.length == 1){
                    displayName = arr[0];
            } else {
                    displayName += " and " + arr[arr.length-1];
            }
            return displayName;
    }
    public void setDisplayName(String displayName) {
            this.displayName = displayName;
    }
    public String getFilename() {
            return filename;
    }

    public void setFilename(String filename) {
            this.filename = filename;
    }

    public boolean isSelected() {
            return selected;
    }

    public void setSelected(boolean selected) {
            this.selected = selected;
    }

    public boolean isAvailability() {
            return availability;
    }

    public void setAvailability(boolean availability) {
            this.availability = availability;
    }

    public int getId() {
            return id;
    }

    public void setId(int id) {
            this.id = id;
    }

    public String getTitle() {
            return title;
    }

    public void setTitle(String title) {
            this.title = title;
    }

    public String getAuthors() {
            return authors;
    }

    public void setAuthors(String authors) {
            this.authors = authors;
    }

    public String getInstitution() {
            return institution;
    }

    public void setInstitution(String institution) {
            this.institution = institution;
    }

    public String getYear() {
            return year;
    }

    public void setYear(String year) {
            this.year = year;
    }

    public String getMonth() {
            return month;
    }

    public void setMonth(String month) {
            this.month = month;
    }

    public String getType() {
            return type;
    }

    public void setType(String type) {
            this.type = type;
    }

    public String getNumber() {
            return number;
    }

    public void setNumber(String number) {
            this.number = number;
    }
```

```
    public String getUrl() {
        return url;
    }

    public void setUrl(String url) {
        this.url = url;
    }

    public String getNote() {
        return note;
    }

    public void setNote(String note) {
        this.note = note;
    }

}
```

Thesis.java

```
package references;

public class Thesis {

    private int id;
    private String title;
    private String authors;
    private String school;
    private String year;
    private String month;
    private String address;
    private String url;
    private String note;
    private String advisers;
    private boolean availability;
    private boolean selected;
    private String filename;
private String displayName;
private String displayEditors;

public String getDisplayEditors() {
    String[] arr = advisers.split(" and ");
    displayEditors = "";
    for(int x = 0; x < arr.length-1; x++){
        if(x == 0){
            displayEditors += arr[x];
        } else {
            displayEditors += ", " + arr[x];
        }
    }
    if(arr.length == 1){
        displayEditors = arr[0];
    } else {
        displayEditors += " and " + arr[arr.length-1];
    }
    return displayEditors;
}

public void setDisplayEditors(String displayEditors) {
    this.displayEditors = displayEditors;
}
    public String getDisplayName() {
        String[] arr = authors.split(" and ");
        displayName = "";
        for(int x = 0; x < arr.length-1; x++){
            if(x == 0){
                displayName += arr[x];
            } else {
                displayName += ", " + arr[x];
            }
        }
        if(arr.length == 1){
            displayName = arr[0];
        } else {
            displayName += " and " + arr[arr.length-1];
        }
        return displayName;
}
public void setDisplayName(String displayName) {
        this.displayName = displayName;
}
public String getFilename() {
        return filename;
}

public void setFilename(String filename) {
        this.filename = filename;
}

public String getAdvisers() {
        return advisers;
}

public void setAdvisers(String advisers) {
        this.advisers = advisers;
}

public boolean isSelected() {
        return selected;
}

public void setSelected(boolean selected) {
        this.selected = selected;
}

public boolean isAvailability() {
        return availability;
}

public void setAvailability(boolean availability) {
        this.availability = availability;
}

public int getId() {
        return id;
}

public void setId(int id) {
        this.id = id;
}

public String getTitle() {
        return title;
}

public void setTitle(String title) {
        this.title = title;
}

public String getAuthors() {
        return authors;
}

public void setAuthors(String authors) {
        this.authors = authors;
}

public String getSchool() {
        return school;
```

```
    }

    public void setSchool(String school) {
            this.school = school;
    }

    public String getYear() {
            return year;
    }

    public void setYear(String year) {
            this.year = year;
    }

    public String getMonth() {
            return month;
    }

    public void setMonth(String month) {
            this.month = month;
    }

    public String getAddress() {
            return address;
    }

    public void setAddress(String address) {
            this.address = address;
    }

    public String getUrl() {
            return url;
    }

    public void setUrl(String url) {
            this.url = url;
    }

    public String getNote() {
            return note;
    }

    public void setNote(String note) {
            this.note = note;
    }

}
```

Unpublished.java

```
package references;

public class Unpublished {

    private int id;
    private String title;
    private String authors;
    private String year;
    private String month;
    private String url;
    private String note;
    private boolean availability;
    private boolean selected;
    private String filename;
private String displayName;

    public String getDisplayName() {
            String[] arr = authors.split(" and ");
            displayName = "";
            for(int x = 0; x < arr.length-1; x++){
                    if(x == 0){
                            displayName += arr[x];
                    } else {
                            displayName += ", " + arr[x];
                    }
            }
            if(arr.length == 1){
                    displayName = arr[0];
            } else {
                    displayName += " and " + arr[arr.length-1];
            }
            return displayName;
    }
    public void setDisplayName(String displayName) {
            this.displayName = displayName;
    }
    public String getFilename() {
            return filename;
    }

    public void setFilename(String filename) {
            this.filename = filename;
    }

    public boolean isSelected() {
            return selected;
    }

    public void setSelected(boolean selected) {
            this.selected = selected;
    }

    public boolean isAvailability() {
            return availability;
    }

    public void setAvailability(boolean availability) {
            this.availability = availability;
    }

    public int getId() {
            return id;
    }

    public void setId(int id) {
            this.id = id;
    }

    public String getTitle() {
            return title;
    }

    public void setTitle(String title) {
            this.title = title;
    }

    public String getAuthors() {
            return authors;
    }

    public void setAuthors(String authors) {
            this.authors = authors;
    }

    public String getYear() {
            return year;
    }

    public void setYear(String year) {
            this.year = year;
```

```
    }

    public String getMonth() {
            return month;
    }

    public void setMonth(String month) {
            this.month = month;
    }

    public String getUrl() {
            return url;
    }

    public void setUrl(String url) {
            this.url = url;
    }

    public String getNote() {
            return note;
    }

    public void setNote(String note) {
            this.note = note;
    }

}
```

SearchProjects.java

```
package search;

import java.io.File;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;

import javax.faces.component.UIParameter;
import javax.faces.context.FacesContext;
import javax.faces.event.ActionEvent;
import javax.servlet.ServletContext;
import javax.xml.parsers.DocumentBuilder;
import javax.xml.parsers.DocumentBuilderFactory;

import org.w3c.dom.Document;
import org.w3c.dom.Element;
import org.w3c.dom.NodeList;

import compounds.Entry;

import services.ProjectPrototype;

import database.Config;
import database.DBConnect;

public class SearchProjects {

    public String backString;

    public String projectName;
    public String projectAcro;
    public String projectDescription;

    public ArrayList<ProjectPrototype> projlist = new
    ArrayList<ProjectPrototype>();
    public boolean showProjects;
    public int projectCount;
    public int projectPagination;
    public ArrayList<ProjectPrototype> pagedProjectList;
    public boolean nextProject;
    public int projectEndCount;
    public char currentLetter = '^';
    public int paginationFixer;

    ArrayList<Entry> entries;
    Document doc;
    public String hidden;
    ArrayList<String> id;
    public String hiddenSource;



    public String getHiddenSource() {
            initPlantSource();
            return hiddenSource;
    }

    public void setHiddenSource(String hiddenSource) {
            this.hiddenSource = hiddenSource;
    }

    public String getBackString() {
            return backString;
    }

    public void setBackString(String backString) {
            this.backString = backString;
    }

    public ArrayList<String> getId() {
            return id;
    }

    public void setId(ArrayList<String> id) {
            this.id = id;
    }

    public String getHidden() {
            initComp();
            return hidden;
    }

    public void setHidden(String hidden) {
            this.hidden = hidden;
    }

    public ArrayList<Entry> getEntries() {
            return entries;
    }

    public void setEntries(ArrayList<Entry> entries) {
            this.entries = entries;
    }

    public Document getDoc() {
            return doc;
    }

    public void setDoc(Document doc) {
            this.doc = doc;
    }

    public ArrayList<ProjectPrototype> getProjlist() {
            return projlist;
    }

    public void setProjlist(ArrayList<ProjectPrototype> projlist) {
            this.projlist = projlist;
    }
```

```
public boolean isShowProjects() {
		if(pagedProjectList.size() == 0){
			showProjects = false;
		} else{
			showProjects = true;
		}
		return showProjects;
}

public void setShowProjects(boolean showProjects) {
		this.showProjects = showProjects;
}

public int getProjectCount() {
		return projectCount;
}

public void setProjectCount(int projectCount) {
		this.projectCount = projectCount;
}

public int getProjectPagination() {
		return projectPagination;
}

public void setProjectPagination(int projectPagination) {
		this.projectPagination = projectPagination;
}

public ArrayList<ProjectPrototype> getPagedProjectList() {
		return pagedProjectList;
}

public void setPagedProjectList(ArrayList<ProjectPrototype>
pagedProjectList) {
		this.pagedProjectList = pagedProjectList;
}

public boolean isNextProject() {
		return nextProject;
}

public void setNextProject(boolean nextProject) {
		this.nextProject = nextProject;
}

public int getProjectEndCount() {
		return projectEndCount;
}

public void setProjectEndCount(int projectEndCount) {
		this.projectEndCount = projectEndCount;
}

public char getCurrentLetter() {
		return currentLetter;
}

public void setCurrentLetter(char currentLetter) {
		this.currentLetter = currentLetter;
}

public int getPaginationFixer() {
		if(projectEndCount == 0){
			paginationFixer = 0;
		} else {
			paginationFixer = 1;
		}
		return paginationFixer;
}

public void setPaginationFixer(int paginationFixer) {
		this.paginationFixer = paginationFixer;
}

public String getProjectName() {
		return projectName;
}

public void setProjectName(String projectName) {
		this.projectName = projectName;
}

public String getProjectAcro() {
		return projectAcro;
}

public void setProjectAcro(String projectAcro) {
		this.projectAcro = projectAcro;
}

public String getProjectDescription() {
		return projectDescription;
}

public void setProjectDescription(String projectDescription) {
		this.projectDescription = projectDescription;
}

public  void showForA(ActionEvent event) {
		currentLetter = 'a';
		getProjList();
}

public  void showForB(ActionEvent event) {
		currentLetter = 'b';
		getProjList();
}

public  void showForC(ActionEvent event) {
		currentLetter = 'c';
		getProjList();
}

public  void showForD(ActionEvent event) {
		currentLetter = 'd';
		getProjList();
}

public  void showForE(ActionEvent event) {
		currentLetter = 'e';
		getProjList();
}

public  void showForF(ActionEvent event) {
		currentLetter = 'f';
		getProjList();
}

public  void showForG(ActionEvent event) {
		currentLetter = 'g';
		getProjList();
}

public  void showForH(ActionEvent event) {
		currentLetter = 'h';
		getProjList();
}
```

```
public  void showForI(ActionEvent event) {
		currentLetter = 'i';
		getProjList();
}

public  void showForJ(ActionEvent event) {
		currentLetter = 'j';
		getProjList();
}

public  void showForK(ActionEvent event) {
		currentLetter = 'k';
		getProjList();
}

public  void showForL(ActionEvent event) {
		currentLetter = 'l';
		getProjList();
}

public  void showForM(ActionEvent event) {
		currentLetter = 'm';
		getProjList();
}

public  void showForN(ActionEvent event) {
		currentLetter = 'n';
		getProjList();
}

public  void showForO(ActionEvent event) {
		currentLetter = 'o';
		getProjList();
}

public  void showForP(ActionEvent event) {
		currentLetter = 'p';
		getProjList();
}

public  void showForQ(ActionEvent event) {
		currentLetter = 'q';
		getProjList();
}

public  void showForR(ActionEvent event) {
		currentLetter = 'r';
		getProjList();
}

public  void showForS(ActionEvent event) {
		currentLetter = 's';
		getProjList();
}

public  void showForT(ActionEvent event) {
		currentLetter = 't';
		getProjList();
}

public  void showForU(ActionEvent event) {
		currentLetter = 'u';
		getProjList();
}

public  void showForV(ActionEvent event) {
		currentLetter = 'v';
		getProjList();
}
```

```
public  void showForW(ActionEvent event) {
		currentLetter = 'w';
		getProjList();
}

public  void showForX(ActionEvent event) {
		currentLetter = 'x';
		getProjList();
}

public  void showForY(ActionEvent event) {
		currentLetter = 'y';
		getProjList();
}

public  void showForZ(ActionEvent event) {
		currentLetter = 'z';
		getProjList();
}

public  void showForAll(ActionEvent event) {
		currentLetter = '^';
		getProjList();
}

public void checkSearch(){
		if(projectName.equals("")){
			projectName = "^";
		}
		if(projectDescription.equals("")){
			projectDescription = "^";
		}
		if(projectAcro.equals("")){
			projectAcro = "^";
		}
}

public void initComp(){
		try {
			DocumentBuilderFactory docBuilderFactory
= DocumentBuilderFactory.newInstance();
			DocumentBuilder docBuilder =
docBuilderFactory.newDocumentBuilder();
			FacesContext aFacesContext =
FacesContext.getCurrentInstance();
			ServletContext context =
(ServletContext)aFacesContext.getExternalContext().getContext();
			String rootpath =
context.getRealPath(Config.getInstance().getValue("path"));
			File uniqueFile = new File(new
File(rootpath), "sample.xml");
			doc = docBuilder.parse (uniqueFile);
			NodeList nodelist =
doc.getElementsByTagName("entry");
			entries = new ArrayList<Entry>();
			populateEntries(nodelist);
			sortEntriesByType(entries);
		} catch (Exception e) {
			e.printStackTrace();
		}
}

private void sortEntriesByType(ArrayList<Entry> entries){
		ArrayList<Entry> text = new ArrayList<Entry>();
		ArrayList<Entry> select = new ArrayList<Entry>();
		ArrayList<Entry> selectOne = new
ArrayList<Entry>();
		ArrayList<Entry> selectMany = new
ArrayList<Entry>();
		Entry main = new Entry();
```

```
		for(int x = 0; x < entries.size(); x++){
			if(entries.get(x).getLabel().equals("Natural
Product Name")){
				main = entries.get(x);
			} else
if(entries.get(x).getType().equals("text")){
				text.add(entries.get(x));
			} else {
				select.add(entries.get(x));
			}
		}
		for(int x = 0; x < select.size(); x++){
			if(select.get(x).getMany() == 0){
				selectOne.add(select.get(x));
			} else {
				selectMany.add(select.get(x));
			}
		}
		entries.clear();
		entries.add(main);
		for(int x = 0; x < text.size(); x++){
			entries.add(text.get(x));
		}
		for(int x = 0; x < selectOne.size(); x++){
			entries.add(selectOne.get(x));
		}
		for(int x = 0; x < selectMany.size(); x++){
			entries.add(selectMany.get(x));
		}
		for(int x = 0; x < entries.size(); x++){
			entries.get(x).setIndex(x);
		}
}

private void populateEntries(NodeList aList){
		for(int x = 0; x < aList.getLength(); x++){
			Element e = (Element) aList.item(x);
			Entry temp = new Entry();
			String type = getStringVal(e, "type");
			if(type.equals("select")){
				temp.setLabel(getStringVal(e,
"name"));
				NodeList tempList =
e.getElementsByTagName("value");
				for(int i = 0; i <
tempList.getLength(); i++){
					if(i == 0){

		temp.addValue("");
					}

		temp.addValue(getStringVal((Element)
tempList.item(i)));
				}
			} else {
				temp.setLabel(getStringVal(e,
"name"));
			}
			temp.setType(type);

		temp.setMany(Integer.parseInt(getStringVal(e,
"many")));
			temp.setIndex(x);
			entries.add(temp);
		}
}

private String getStringVal(Element el, String name){
		return
el.getElementsByTagName(name).item(0).getFirstChild().getNode
Value();
}

private String getStringVal(Element el){
		return el.getFirstChild().getNodeValue();
}

public void initSearch(){
		projectName = "";
		projectDescription = "";
		projectAcro = "";
}

public void getProjList(){
		ArrayList<ProjectPrototype> tempList = new
ArrayList<ProjectPrototype>();
		for(int x = 0; x < projlist.size(); x++){
			tempList.add(projlist.get(x));
		}
		for(int x = 0; x < projlist.size(); x++){
			if(currentLetter != '^' &&
projlist.get(x).getOrigname().toLowerCase().trim().charAt(0) !=
currentLetter){
				projlist.remove(x);
				x--;
			}
		}
		projectPagination = 0;
		projectCount = projlist.size();
		showProjectListInit();
		projlist = tempList;
}

public void searchProjects(ActionEvent event){
		try{
			currentLetter = '^';
			backString = "searchProjDetails";
			checkSearch();
			Connection conn =
DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM projects ORDER BY
project_name");
			ResultSet rs = ps.executeQuery();
			projlist = new
ArrayList<ProjectPrototype>();
			ProjectPrototype temp;
			while(rs.next()){
				temp = new ProjectPrototype();

		if(rs.getString("project_name").toLowerCase().contains
(projectName.trim().toLowerCase()) ||
rs.getString("acro").toLowerCase().contains(projectAcro.trim().to
LowerCase()) ||
rs.getString("project_description").toLowerCase().contains(project
Description.trim().toLowerCase())){

		temp.setAcro(rs.getString("acro"));

		temp.setOrigname(rs.getString("project_name"));

		temp.setId(rs.getString("project_id"));

		temp.setDesc(rs.getString("project_description"));
					projlist.add(temp);
				}
			}
			projectCount = projlist.size();
```

```
                        rs.close();
                        ps.close();
                        conn.close();
                        projectPagination = 0;
                        showProjectListInit();
                        initSearch();
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public void checkEntries(){
        for(int x = 0; x < entries.size(); x++){
                if(entries.get(x).getValue().equals("")){
                        entries.get(x).setValue("^");
                }
        }
}

public void checkEntriesSource(){
        for(int x = 0; x < entries.size(); x++){
                if(entries.get(x).getValue().equals("")){
                        entries.get(x).setValue("^");
                }
                if(entries.get(x).isPaired()){

        if(entries.get(x).getValue2().equals("")){

        entries.get(x).setValue2("^");
                        }
                }
        }
}

public void searchCompounds(ActionEvent event){
        try{
                currentLetter = '^';
                backString = "searchActiveCompounds";
                checkEntries();
                UIParameter component = (UIParameter)
event.getComponent().findComponent("usernamesearch");
                String username =
component.getValue().toString();
                Connection conn =
DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM projects ORDER BY
project_name");
                ResultSet rs = ps.executeQuery();
                projlist = new
ArrayList<ProjectPrototype>();
                id = new ArrayList<String>();
                ProjectPrototype temp;
                int level = 1;
                while(rs.next()){
                        ps =
conn.prepareStatement("SELECT * FROM users_projects
WHERE project_id = ? AND username = ?");
                        ps.setString(1,
rs.getString("project_id"));
                        ps.setString(2, username);
                        ResultSet irs =
ps.executeQuery();
                        if(irs.next()){
                                level = 2;
                        } else {
                                level = 1;
                        }
                                ps =
conn.prepareStatement("SELECT * FROM compounds_projects
WHERE project_id = ?");
                                ps.setString(1,
rs.getString("project_id"));
                                irs = ps.executeQuery();
                                while(irs.next()){

        if(Integer.parseInt(irs.getString("availability")) <=
level){
                                                ps =
conn.prepareStatement("SELECT * FROM compounds WHERE
compound_id = ?");

        ps.setString(1, irs.getString("compound_id"));
                                                ResultSet
vrs = ps.executeQuery();

        while(vrs.next()){

        for(int x = 0; x < entries.size(); x++){

        if(entries.get(x).getLabel().equals(vrs.getString("attribu
te"))){

                        if(!id.contains(rs.getString("project_id"))
&&
vrs.getString("value").toLowerCase().contains(entries.get(x).getVa
lue().toLowerCase())){

                                temp = new ProjectPrototype();


        temp.setName(rs.getString("project_name"));


        temp.setAcro(rs.getString("acro"));


        temp.setOrigname(rs.getString("project_name"));


        temp.setDesc(rs.getString("project_description"));


        temp.setId(rs.getString("project_id"));

                                projlist.add(temp);

                                x = entries.size();


        id.add(rs.getString("project_id"));

                }

        }

        }
                                                }
                                        }
                                }
                                irs.close();
                        }
                        rs.close();
                        ps.close();
                        conn.close();
                        projectCount = projlist.size();
                        showProjectListInit();
        }catch(Exception e){
```

```
                    e.printStackTrace();
            }
}

public void searchSource(ActionEvent event){
            try{
                    currentLetter = '^';
                    backString = "searchPlantSource";
                    checkEntriesSource();
                    UIParameter component = (UIParameter)
event.getComponent().findComponent("usernamesearch");
                    String username =
component.getValue().toString();
                    Connection conn =
DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
conn.prepareStatement("SELECT * FROM projects ORDER BY
project_name");
                    ResultSet rs = ps.executeQuery();
                    projlist = new
ArrayList<ProjectPrototype>();
                    id = new ArrayList<String>();
                    ProjectPrototype temp;
                    int level = 1;
                    while(rs.next()){
                            ps =
conn.prepareStatement("SELECT * FROM users_projects
WHERE project_id = ? AND username = ?");
                            ps.setString(1,
rs.getString("project_id"));
                            ps.setString(2, username);
                            ResultSet irs =
ps.executeQuery();
                            if(irs.next()){
                                    level = 2;
                            } else {
                                    level = 1;
                            }
                            ps =
conn.prepareStatement("SELECT * FROM sources_projects
WHERE project_id = ?");
                            ps.setString(1,
rs.getString("project_id"));
                            irs = ps.executeQuery();
                            while(irs.next()){
                                    ps =
conn.prepareStatement("SELECT * FROM sources WHERE
source_id = ?");
                                    ps.setString(1,
irs.getString("source_id"));
                                    ResultSet vrs =
ps.executeQuery();
                                    while(vrs.next()){
                                            for(int x =
0; x < entries.size(); x++){

            if(entries.get(x).getLabel().equals(vrs.getString("attribu
te"))){

            if(entries.get(x).isPaired()){

                    if(!id.contains(rs.getString("project_id"))
&&
(vrs.getString("value").toLowerCase().contains(entries.get(x).getV
alue().toLowerCase()) ||
vrs.getString("value").toLowerCase().contains(entries.get(x).getVa
lue2().toLowerCase()))){

                            temp = new ProjectPrototype();
                            temp.setName(rs.getString("project_name"));

                            temp.setAcro(rs.getString("acro"));

                            temp.setOrigname(rs.getString("project_name"));

                            temp.setDesc(rs.getString("project_description"));

                            temp.setId(rs.getString("project_id"));
                                    projlist.add(temp);
                                    x = entries.size();

                            id.add(rs.getString("project_id"));
                    }
            } else {
                    if(!id.contains(rs.getString("project_id"))
&&
vrs.getString("value").toLowerCase().contains(entries.get(x).getVa
lue().toLowerCase())){
                            temp = new ProjectPrototype();
                            temp.setName(rs.getString("project_name"));

                            temp.setAcro(rs.getString("acro"));

                            temp.setOrigname(rs.getString("project_name"));

                            temp.setDesc(rs.getString("project_description"));

                            temp.setId(rs.getString("project_id"));
                                    projlist.add(temp);
                                    x = entries.size();

                            id.add(rs.getString("project_id"));
                    }
            }
                                                    }
                                            }
                    }
                    irs.close();
            }
            rs.close();
            ps.close();
            conn.close();
```

```
                projectCount = projlist.size();
                showProjectListInit();
        }catch(Exception e){
                e.printStackTrace();
        }
}

public  void showProjectListInit(){
        int previousPagination = projectPagination;
        int endingPagination = projectPagination + 10;
        pagedProjectList = new ArrayList<ProjectPrototype>();
        if(endingPagination > projlist.size()){
                projectEndCount = projlist.size();
                for(int x = previousPagination; x <
projlist.size(); x++){

        pagedProjectList.add(projlist.get(x));
                }
        } else {
                projectEndCount = endingPagination;
                for(int x = previousPagination; x <
endingPagination; x++){

        pagedProjectList.add(projlist.get(x));
                }
        }
        nextProject = stillNext();
}

public void showProjectListForward(ActionEvent event){
        projectPagination = projectPagination + 10;
        showProjectListInit();
}

public void showProjectListBackward(ActionEvent event){
        int startPage;
        int endPage;
        pagedProjectList = new ArrayList<ProjectPrototype>();
        startPage = projectPagination - 10;
        endPage = projectPagination;
        for(int x = startPage; x < endPage; x++){
                pagedProjectList.add(projlist.get(x));
        }
        projectPagination = startPage;
        projectEndCount = startPage + 10;
        nextProject = stillNext();
}

public boolean stillNext(){
        if((projectPagination + 10) >= projectCount){
                return true;
        } else {
                return false;
        }
}

public void initPlantSource(){
        try {
                DocumentBuilderFactory docBuilderFactory
= DocumentBuilderFactory.newInstance();
                DocumentBuilder docBuilder =
docBuilderFactory.newDocumentBuilder();
                FacesContext aFacesContext =
FacesContext.getCurrentInstance();
                ServletContext context =
(ServletContext)aFacesContext.getExternalContext().getContext();
                String rootpath =
context.getRealPath(Config.getInstance().getValue("path"));
                File uniqueFile = new File(new
File(rootpath), "ps.xml");
                doc = docBuilder.parse (uniqueFile);
                NodeList nodelist =
doc.getElementsByTagName("entry");
                entries = new ArrayList<Entry>();
                populateEntriesSource(nodelist);
                sortEntriesByTypeSource(entries);
        } catch (Exception e) {
                e.printStackTrace();
        }
}

private void populateEntriesSource(NodeList aList){
        for(int x = 0; x < aList.getLength(); x++){
                Element e = (Element) aList.item(x);
                int size =
e.getElementsByTagName("name").getLength();
                if(size != 1){
                        Entry temp = new Entry();
                        temp.setPaired(true);
                        temp.setLabel(getStringVal(e,
"name"));

        temp.setLabel2(getStringValSecond(e, "name"));
                        String type = getStringVal(e,
"type");
                        String type2 = getStringVal(e,
"type");
                        temp.setType(type);
                        if(type.equals("select")){
                                NodeList tempList =
e.getElementsByTagName("value");
                                for(int i = 0; i <
tempList.getLength(); i++){
                                        if(i == 0){

        temp.addValue("");
                                        }

        temp.addValue(getStringVal((Element)
tempList.item(i)));
                                }
                        }

        temp.setMany(Integer.parseInt(getStringVal(e,
"many")));

                        temp.setType2(type2);
                        if(type2.equals("select")){
                                NodeList tempList =
e.getElementsByTagName("next_value");
                                for(int i = 0; i <
tempList.getLength(); i++){
                                        if(i == 0){

        temp.addValue2("");
                                        }

        temp.addValue2(getStringVal((Element)
tempList.item(i)));
                                }
                        }

        temp.setMany(Integer.parseInt(getStringVal(e,
"many")));
                        temp.setIndex(x);
                        entries.add(temp);
                } else {
                        Entry temp = new Entry();
                        temp.setPaired(false);
```

```
                                        String type = getStringVal(e,
"type");
                                        if(type.equals("select")){

                temp.setLabel(getStringVal(e, "name"));
                                                NodeList tempList =
e.getElementsByTagName("value");
                                                for(int i = 0; i <
tempList.getLength(); i++){
                                                        if(i == 0){

                temp.addValue("");
                                                        }

                temp.addValue(getStringVal((Element)
tempList.item(i)));
                                                }
                                        } else {

                temp.setLabel(getStringVal(e, "name"));
                                        }
                                        temp.setType(type);

                temp.setMany(Integer.parseInt(getStringVal(e,
"many")));
                                        temp.setIndex(x);
                                        entries.add(temp);
                        }
                }
}

private void sortEntriesByTypeSource(ArrayList<Entry> entries){
                ArrayList<Entry> text = new ArrayList<Entry>();
                ArrayList<Entry> select = new ArrayList<Entry>();
                ArrayList<Entry> selectOne = new
ArrayList<Entry>();
                ArrayList<Entry> selectMany = new
ArrayList<Entry>();
                for(int x = 0; x < entries.size(); x++){
                        if(entries.get(x).getType().equals("text")){
                                text.add(entries.get(x));
                        } else {
                                select.add(entries.get(x));
                        }
                }
                for(int x = 0; x < select.size(); x++){
                        if(select.get(x).getMany() == 0){
                                selectOne.add(select.get(x));
                        } else {
                                selectMany.add(select.get(x));
                        }
                }
                entries.clear();
                for(int x = 0; x < text.size(); x++){
                        entries.add(text.get(x));
                }
                for(int x = 0; x < selectOne.size(); x++){
                        entries.add(selectOne.get(x));
                }
                for(int x = 0; x < selectMany.size(); x++){
                        entries.add(selectMany.get(x));
                }
                for(int x = 0; x < entries.size(); x++){
                        entries.get(x).setIndex(x);
                }
}

private String getStringValSecond(Element el, String name){
                return
  el.getElementsByTagName(name).item(1).getFirstChild().getNode
  Value();
  }

}
```

AdminTemp.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;
import java.util.Locale;

import javax.faces.event.ActionEvent;

public class AdminTemp {

  public int pendingCount;
  public ArrayList<UserRegistration> pendingList;
  public int usersCount;
  public ArrayList<UserRegistration> registeredList;
  public int pendingPagination;
  public ArrayList<UserRegistration> pagedPendingList;
  public boolean next;
  public int pendingEndCount;
  public int userPagination;
  public ArrayList<UserRegistration> pagedUserList;
  public boolean nextUser;
  public int userEndCount;
  public char currentLetter = '^';
  public int paginationFixer;
  public int pendingFixer;
  public boolean searchMode = false;
  public String searchUserName;
  public String searchFirstName;
  public String searchMiddleName;
  public String searchLastName;
  public String searchCompany;
  public String searchEmail;
  public  boolean updated = false;
  public String usernameStat = "DESC";
  public String lastnameStat = "DESC";
  public String firstnameStat = "DESC";
  public boolean firstname = false;
  public boolean lastname = false;
  public boolean username = true;

  public boolean isFirstname() {
                return firstname;
  }

  public void setFirstname(boolean firstname) {
                this.firstname = firstname;
  }

  public boolean isLastname() {
                return lastname;
  }

  public void setLastname(boolean lastname) {
                this.lastname = lastname;
  }

  public boolean isUsername() {
                return username;
  }
```

```
public void setUsername(boolean username) {
	this.username = username;
}

public String getUsernameStat() {
	return usernameStat;
}

public void setUsernameStat(String usernameStat) {
	this.usernameStat = usernameStat;
}

public String getLastnameStat() {
	return lastnameStat;
}

public void setLastnameStat(String lastnameStat) {
	this.lastnameStat = lastnameStat;
}

public String getFirstnameStat() {
	return firstnameStat;
}

public void setFirstnameStat(String firstnameStat) {
	this.firstnameStat = firstnameStat;
}

public int getPendingFixer() {
	if(pendingEndCount == 0){
		pendingFixer = 0;
	} else {
		pendingFixer = 1;
	}
	return pendingFixer;
}

public void setPendingFixer(int pendingFixer) {
	this.pendingFixer = pendingFixer;
}

public boolean isUpdated() {
	return updated;
}

public void setUpdated(boolean updated) {
	this.updated = updated;
}

public boolean isSearchMode() {
	return searchMode;
}

public void setSearchMode(boolean searchMode) {
	this.searchMode = searchMode;
}

public String getSearchUserName() {
	return searchUserName;
}

public void setSearchUserName(String searhUserName) {
	this.searchUserName = searhUserName;
}

public String getSearchFirstName() {
	return searchFirstName;
}

public void setSearchFirstName(String searchFirstName) {
	this.searchFirstName = searchFirstName;
}

public String getSearchMiddleName() {
	return searchMiddleName;
}

public void setSearchMiddleName(String searchMiddleName) {
	this.searchMiddleName = searchMiddleName;
}

public String getSearchLastName() {
	return searchLastName;
}

public void setSearchLastName(String searchLastName) {
	this.searchLastName = searchLastName;
}

public String getSearchCompany() {
	return searchCompany;
}

public void setSearchCompany(String searchCompany) {
	this.searchCompany = searchCompany;
}

public String getSearchEmail() {
	return searchEmail;
}

public void setSearchEmail(String searchEmail) {
	this.searchEmail = searchEmail;
}

public int getPaginationFixer() {
	if(userEndCount == 0){
		paginationFixer = 0;
	} else {
		paginationFixer = 1;
	}
	return paginationFixer;
}

public void setPaginationFixer(int paginationFixer) {
	this.paginationFixer = paginationFixer;
}

public char getCurrentLetter() {
	return currentLetter;
}

public void setCurrentLetter(char currentLetter) {
	this.currentLetter = currentLetter;
}

public int getUserPagination() {
	return userPagination;
}

public void setUserPagination(int userPagination) {
	this.userPagination = userPagination;
}

public ArrayList<UserRegistration> getPagedUserList() {
	return pagedUserList;
}
```

```
public void setPagedUserList(ArrayList<UserRegistration>
pagedUserList) {
		this.pagedUserList = pagedUserList;
}

public boolean isNextUser() {
		return nextUser;
}

public void setNextUser(boolean nextUser) {
		this.nextUser = nextUser;
}

public int getUserEndCount() {
		return userEndCount;
}

public void setUserEndCount(int userEndCount) {
		this.userEndCount = userEndCount;
}

public int getPendingEndCount() {
		return pendingEndCount;
}

public void setPendingEndCount(int pendingEndCount) {
		this.pendingEndCount = pendingEndCount;
}

public boolean isNext() {

		return next;
}

public void setNext(boolean next) {
		this.next = next;
}

public ArrayList<UserRegistration> getPagedPendingList() {
		return pagedPendingList;
}

public void setPagedPendingList(ArrayList<UserRegistration>
pagedPendingList) {
		this.pagedPendingList = pagedPendingList;
}

public int getPendingPagination() {
		return pendingPagination;
}

public void setPendingPagination(int pendingPagination) {
		this.pendingPagination = pendingPagination;
}

public int getUsersCount() {
		return usersCount;
}

public void setUsersCount(int usersCount) {
		this.usersCount = usersCount;
}

public int getPendingCount() {
		return pendingCount;
}

public void setPendingCount(int pendingCount) {
		this.pendingCount = pendingCount;
}

public ArrayList<UserRegistration> getPendingList() {
		return pendingList;
}

public void setPendingList(ArrayList<UserRegistration>
pendingList) {
		this.pendingList = pendingList;
}

public ArrayList<UserRegistration> getRegisteredList() {
		return registeredList;
}

public void setRegisteredList(ArrayList<UserRegistration>
registeredList) {
		this.registeredList = registeredList;
}

public void callInitiator(ActionEvent event){
		if(searchMode){
			showSearch(event);
		} else if(username){
			setSearchUserNames(event, currentLetter);
		} else if (firstname){
			setSearchFirstName(event, currentLetter);
		} else {
			setSearchLastName(event, currentLetter);
		}
}

public  void showForA(ActionEvent event) {
		currentLetter = 'a';
		callInitiator(event);
}

public  void showForB(ActionEvent event) {
		currentLetter = 'b';
		callInitiator(event);
}

public  void showForC(ActionEvent event) {
		currentLetter = 'c';
		callInitiator(event);
}

public  void showForD(ActionEvent event) {
		currentLetter = 'd';
		callInitiator(event);
}

public  void showForE(ActionEvent event) {
		currentLetter = 'e';
		callInitiator(event);
}

public  void showForF(ActionEvent event) {
		currentLetter = 'f';
		callInitiator(event);
}

public  void showForG(ActionEvent event) {
		currentLetter = 'g';
		callInitiator(event);
}

public  void showForH(ActionEvent event) {
		currentLetter = 'h';
		callInitiator(event);
}
```

```
public  void showForI(ActionEvent event) {
		currentLetter = 'i';
		callInitiator(event);
}

public  void showForJ(ActionEvent event) {
		currentLetter = 'j';
		callInitiator(event);
}

public  void showForK(ActionEvent event) {
		currentLetter = 'k';
		callInitiator(event);
}

public  void showForL(ActionEvent event) {
		currentLetter = 'l';
		callInitiator(event);
}

public  void showForM(ActionEvent event) {
		currentLetter = 'm';
		callInitiator(event);
}

public  void showForN(ActionEvent event) {
		currentLetter = 'n';
		callInitiator(event);
}

public  void showForO(ActionEvent event) {
		currentLetter = 'o';
		callInitiator(event);
}

public  void showForP(ActionEvent event) {
		currentLetter = 'p';
		callInitiator(event);
}

public  void showForQ(ActionEvent event) {
		currentLetter = 'q';
		callInitiator(event);
}

public  void showForR(ActionEvent event) {
		currentLetter = 'r';
		callInitiator(event);
}

public  void showForS(ActionEvent event) {
		currentLetter = 's';
		callInitiator(event);
}

public  void showForT(ActionEvent event) {
		currentLetter = 't';
		callInitiator(event);
}

public  void showForU(ActionEvent event) {
		currentLetter = 'u';
		callInitiator(event);
}

public  void showForV(ActionEvent event) {
		currentLetter = 'v';
		callInitiator(event);
}

public  void showForW(ActionEvent event) {
		currentLetter = 'w';
		callInitiator(event);
}

public  void showForX(ActionEvent event) {
		currentLetter = 'x';
		callInitiator(event);
}

public  void showForY(ActionEvent event) {
		currentLetter = 'y';
		callInitiator(event);
}

public  void showForZ(ActionEvent event) {
		currentLetter = 'z';
		callInitiator(event);
}

public  void showForAll(ActionEvent event) {
		currentLetter = '^';
		callInitiator(event);
}

public void resetSearch(ActionEvent event){
		searchUserName = "";
		searchFirstName = "";
		searchMiddleName = "";
		searchLastName = "";
		searchCompany = "";
		searchEmail = "";
		searchMode = false;
		updated = false;
		initializeUsers(event);
		showUserListInit(event);
		username=true;
		firstname = false;
		lastname = false;
		usernameStat = "ASC";
		firstnameStat = "DESC";
		lastnameStat = "DESC";
}

public void forUserName(ActionEvent event){
		if(usernameStat.equals("DESC")){
			usernameStat = "ASC";
		} else {
			usernameStat = "DESC";
		}
		username = true;
		firstname = false;
		lastname = false;
		if(searchMode){
			showSearch(event);
		} else {
			setSearchUserNames(event, currentLetter);
		}
}

public void forFirstName(ActionEvent event){
		if(firstnameStat.equals("DESC")){
			firstnameStat = "ASC";
		} else {
			firstnameStat = "DESC";
		}
		username = false;
		firstname = true;
		lastname = false;
```

```
		if(searchMode){
			showSearch(event);
		} else {
			setSearchFirstName(event, currentLetter);
		}
	}

	public void forLastName(ActionEvent event){
		if(lastnameStat.equals("DESC")){
			lastnameStat = "ASC";
		} else {
			lastnameStat = "DESC";
		}
		username = false;
		firstname = false;
		lastname = true;
		if(searchMode){
			showSearch(event);
		} else {
			setSearchLastName(event, currentLetter);
		}
	}

	public void setSearchFirstName(ActionEvent event, char
firstLetter){
		try {
			userPagination = 0;
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users   order by
first_name " + firstnameStat);
			ResultSet rs = ps.executeQuery();
			UserRegistration aTemp;
			registeredList = new
ArrayList<UserRegistration>();
			usersCount = 0;
			while (rs.next()) {
				if(firstLetter != '^' &&
rs.getString("first_name").toLowerCase(Locale.getDefault()).char
At(0) == firstLetter){
					aTemp = new
UserRegistration();

		aTemp.setRegUserName(rs.getString("username"));

		aTemp.setLastName(rs.getString("last_name"));

		aTemp.setFirstname(rs.getString("first_name"));

		aTemp.setMiddlename(rs.getString("middle_name"));

		registeredList.add(aTemp);
					usersCount++;
				}
				if(firstLetter == '^'){
					aTemp = new
UserRegistration();

		aTemp.setRegUserName(rs.getString("username"));

		aTemp.setLastName(rs.getString("last_name"));

		aTemp.setFirstname(rs.getString("first_name"));

		aTemp.setMiddlename(rs.getString("middle_name"));

		registeredList.add(aTemp);
					usersCount++;
				}
			}
			ps.close();
			rs.close();
			conn.close();
			showUserListInit(event);
		} catch (Exception e) {
			e.printStackTrace();
		}
	}

	public void setSearchLastName(ActionEvent event, char
firstLetter){
		try {
			userPagination = 0;
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users   order by
last_name " + lastnameStat);
			ResultSet rs = ps.executeQuery();
			UserRegistration aTemp;
			registeredList = new
ArrayList<UserRegistration>();
			usersCount = 0;
			while (rs.next()) {
				if(firstLetter != '^' &&
rs.getString("last_name").toLowerCase(Locale.getDefault()).charA
t(0) == firstLetter){
					aTemp = new
UserRegistration();

		aTemp.setRegUserName(rs.getString("username"));

		aTemp.setLastName(rs.getString("last_name"));

		aTemp.setFirstname(rs.getString("first_name"));

		aTemp.setMiddlename(rs.getString("middle_name"));

		registeredList.add(aTemp);
					usersCount++;
				}
				if(firstLetter == '^'){
					aTemp = new
UserRegistration();

		aTemp.setRegUserName(rs.getString("username"));

		aTemp.setLastName(rs.getString("last_name"));

		aTemp.setFirstname(rs.getString("first_name"));

		aTemp.setMiddlename(rs.getString("middle_name"));

		registeredList.add(aTemp);
					usersCount++;
				}
			}
			ps.close();
			rs.close();
			conn.close();
			showUserListInit(event);
		} catch (Exception e) {
			e.printStackTrace();
		}
	}

	public  void setSearchUserNames(ActionEvent event, char
firstLetter){
		try {
```

```
                        userPagination = 0;
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users   order by
username " + usernameStat);
                        ResultSet rs = ps.executeQuery();
                        UserRegistration aTemp;
                        registeredList = new
ArrayList<UserRegistration>();
                        usersCount = 0;
                        while (rs.next()) {
                                if(firstLetter != '^' &&
rs.getString("username").toLowerCase(Locale.getDefault()).charA
t(0) == firstLetter){
                                        aTemp = new
UserRegistration();

            aTemp.setRegUserName(rs.getString("username"));

            aTemp.setLastName(rs.getString("last_name"));

            aTemp.setFirstname(rs.getString("first_name"));

            aTemp.setMiddlename(rs.getString("middle_name"));

            registeredList.add(aTemp);
                                        usersCount++;
                                }
                                if(firstLetter == '^'){
                                        aTemp = new
UserRegistration();

            aTemp.setRegUserName(rs.getString("username"));

            aTemp.setLastName(rs.getString("last_name"));

            aTemp.setFirstname(rs.getString("first_name"));

            aTemp.setMiddlename(rs.getString("middle_name"));

            registeredList.add(aTemp);
                                        usersCount++;
                                }
                        }
                        ps.close();
                        rs.close();
                        conn.close();
                        showUserListInit(event);
            } catch (Exception e) {
                        e.printStackTrace();
            }
}

public void checkSearchFields(){
            if(searchUserName.equals("")){
                        searchUserName = "^";
            }
            if(searchCompany.equals("")){
                        searchCompany = "^";
            }
            if(searchEmail.equals("")){
                        searchEmail = "^";
            }
            if(searchFirstName.equals("")){
                        searchFirstName = "^";
            }
            if(searchMiddleName.equals("")){
                        searchMiddleName = "^";
            }
            if(searchLastName.equals("")){
                        searchLastName = "^";
            }
}

public void resetSearchFields(){
            if(searchUserName.equals("^")){
                        searchUserName = "";
            }
            if(searchCompany.equals("^")){
                        searchCompany = "";
            }
            if(searchEmail.equals("^")){
                        searchEmail = "";
            }
            if(searchFirstName.equals("^")){
                        searchFirstName = "";
            }
            if(searchMiddleName.equals("^")){
                        searchMiddleName = "";
            }
            if(searchLastName.equals("^")){
                        searchLastName = "";
            }
}

public void preSearch(ActionEvent event){
            searchMode = true;
            showSearch(event);
}

public void updateTrue(ActionEvent event){
            updated = true;
}

public void initPendingUpdate(ActionEvent event){
            initializeUsers(event);
            showPendingListInit(event);
}

public void showSearch(ActionEvent event){
            try {
                        if(searchMode){
                                    userPagination = 0;
                                    Connection conn =
database.DBConnect.getInstance().setConnection();
                                    PreparedStatement ps;
                                    if(username){
                                                ps =
conn.prepareStatement("SELECT * FROM users  order by
username " + usernameStat);
                                    } else if(firstname) {
                                                ps =
conn.prepareStatement("SELECT * FROM users  order by
first_name " + firstnameStat);
                                    } else {
                                                ps =
conn.prepareStatement("SELECT * FROM users  order by
last_name " + lastnameStat);
                                    }
                                    ResultSet rs =
ps.executeQuery();
                                    UserRegistration aTemp;
                                    registeredList = new
ArrayList<UserRegistration>();
                                    usersCount = 0;
                                    checkSearchFields();
                                    while (rs.next()) {
```

```
            if(rs.getString("username").toLowerCase(Locale.getDe
fault()).contains(searchUserName.toLowerCase())

            ||
rs.getString("first_name").toLowerCase(Locale.getDefault()).conta
ins(searchFirstName.toLowerCase())

            ||
rs.getString("last_name").toLowerCase(Locale.getDefault()).contai
ns(searchLastName.toLowerCase())

            ||
rs.getString("middle_name").toLowerCase(Locale.getDefault()).co
ntains(searchMiddleName.toLowerCase())

            ||
rs.getString("company").toLowerCase(Locale.getDefault()).contai
ns(searchCompany.toLowerCase())

            ||
rs.getString("email_add").toLowerCase(Locale.getDefault()).conta
ins(searchEmail.toLowerCase())){

            if(currentLetter == '^'){

            aTemp = new UserRegistration();

            aTemp.setRegUserName(rs.getString("username"));

            aTemp.setLastName(rs.getString("last_name"));

            aTemp.setFirstname(rs.getString("first_name"));

            aTemp.setMiddlename(rs.getString("middle_name"));

            registeredList.add(aTemp);

            usersCount++;
                                                    } else {

            if(username &&
rs.getString("username").toLowerCase().charAt(0) ==
currentLetter){

            aTemp = new UserRegistration();

            aTemp.setRegUserName(rs.getString("username"));

            aTemp.setLastName(rs.getString("last_name"));

            aTemp.setFirstname(rs.getString("first_name"));

            aTemp.setMiddlename(rs.getString("middle_name"));

            registeredList.add(aTemp);

            usersCount++;

            } else if(firstname &&
rs.getString("first_name").toLowerCase().charAt(0) ==
currentLetter){

            aTemp = new UserRegistration();

            aTemp.setRegUserName(rs.getString("username"));

            aTemp.setLastName(rs.getString("last_name"));

            aTemp.setFirstname(rs.getString("first_name"));

            aTemp.setMiddlename(rs.getString("middle_name"));

            registeredList.add(aTemp);

            usersCount++;

            } else if(lastname &&
rs.getString("last_name").toLowerCase().charAt(0) ==
currentLetter){

            aTemp = new UserRegistration();

            aTemp.setRegUserName(rs.getString("username"));

            aTemp.setLastName(rs.getString("last_name"));

            aTemp.setFirstname(rs.getString("first_name"));

            aTemp.setMiddlename(rs.getString("middle_name"));

            registeredList.add(aTemp);

            usersCount++;

            }
                                                                    }
                                                            }
                                                    }
                                                    ps.close();
                                                    rs.close();
                                                    conn.close();
                                                    resetSearchFields();
                                            } else {
                                                    if(updated){
                                                            int userPage =
userPagination;
                                                            initializeUsers(event);
                                                            userPagination =
userPage;
                                                    }
                                                    username=true;
                                                    firstname = false;
                                                    lastname = false;
                                                    usernameStat = "ASC";
                                                    firstnameStat = "DESC";
                                                    lastnameStat = "DESC";
                                            }
                                            updated = false;
                                            showUserListInit(event);

            } catch (Exception e) {
                    e.printStackTrace();
            }
}

public void initPending(ActionEvent event){
            initializeUsers(event);
            showPendingListInit(event);
}

public void initRegistered(ActionEvent event){
            initializeUsers(event);
            showUserListInit(event);
            username=true;
            firstname = false;
            lastname = false;
            usernameStat = "ASC";
            firstnameStat = "DESC";
            lastnameStat = "DESC";
```

```
}

public void initializeUsers(ActionEvent event){
	try {
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps =
conn.prepareStatement("SELECT * from unregistered_users order
by reg_username");
		ResultSet rs = ps.executeQuery();
		pendingList = new
ArrayList<UserRegistration>();
		UserRegistration aTemp;
		pendingCount = 0;
		while(rs.next()){
			aTemp = new UserRegistration();

	aTemp.setRegUserName(rs.getString("reg_username"))
;

	aTemp.setLastName(rs.getString("last_name"));

	aTemp.setFirstname(rs.getString("first_name"));

	aTemp.setMiddlename(rs.getString("middle_name"));
				pendingList.add(aTemp);
				pendingCount++;
		}
		ps = conn.prepareStatement("SELECT *
from users  order by username");
		rs = ps.executeQuery();
		registeredList = new
ArrayList<UserRegistration>();
		usersCount = 0;
		while(rs.next()){
			aTemp = new UserRegistration();

	aTemp.setRegUserName(rs.getString("username"));

	aTemp.setLastName(rs.getString("last_name"));

	aTemp.setFirstname(rs.getString("first_name"));

	aTemp.setMiddlename(rs.getString("middle_name"));
				registeredList.add(aTemp);
				usersCount++;
		}
		rs.close();
		ps.close();
		conn.close();
	} catch (Exception e) {
		e.printStackTrace();
	}
	pendingPagination = 0;
	userPagination = 0;
	currentLetter = '^';
}

public void showInitSearchProject(ActionEvent event){
	initializeUsers(event);
	showUserListInit(event);
}

public void showPendingListInit(ActionEvent event){
	int previousPagination = pendingPagination;
	int endingPagination = pendingPagination + 10;
	pagedPendingList = new
ArrayList<UserRegistration>();
	if(endingPagination > pendingList.size()){
		pendingEndCount = pendingList.size();
		for(int x = previousPagination; x <
pendingList.size(); x++){

	pagedPendingList.add(pendingList.get(x));
		}
	} else {
		pendingEndCount = endingPagination;
		for(int x = previousPagination; x <
endingPagination; x++){

	pagedPendingList.add(pendingList.get(x));
		}
	}
	next = stillNext();
}

public void showPendingListForward(ActionEvent event){
	pendingPagination = pendingPagination + 10;
	showPendingListInit(event);
}

public void showPendingListBackward(ActionEvent event){
	int startPage;
	int endPage;
	pagedPendingList = new
ArrayList<UserRegistration>();
	startPage = pendingPagination - 10;
	endPage = pendingPagination;
	for(int x = startPage; x < endPage; x++){
		pagedPendingList.add(pendingList.get(x));
	}
	pendingPagination = startPage;
	pendingEndCount = startPage + 10;
	next = stillNext();
}

public boolean stillNext(){
	if((pendingPagination + 10) >= pendingCount){
		return true;
	} else {
		return false;
	}
}

public boolean stillNextUser(){
	if((userPagination + 10) >= usersCount){
		return true;
	} else {
		return false;
	}
}

public void showUserListInit(ActionEvent event){
	int previousPagination = userPagination;
	int endingPagination = userPagination + 10;
	pagedUserList = new ArrayList<UserRegistration>();
	if(endingPagination > registeredList.size()){
		userEndCount = registeredList.size();
		for(int x = previousPagination; x <
registeredList.size(); x++){

	pagedUserList.add(registeredList.get(x));
		}
	} else {
		userEndCount = endingPagination;
		for(int x = previousPagination; x <
endingPagination; x++){

	pagedUserList.add(registeredList.get(x));
		}
```

```
                }
                nextUser = stillNextUser();
    }

    public void showUserListForward(ActionEvent event){
                userPagination = userPagination + 10;
                showUserListInit(event);
    }

    public void showUserListBackward(ActionEvent event){
                int startPage;
                int endPage;
                pagedUserList = new ArrayList<UserRegistration>();
                startPage = userPagination - 10;
                endPage = userPagination;
                for(int x = startPage; x < endPage; x++){
                        pagedUserList.add(registeredList.get(x));
                }
                userPagination = startPage;
                userEndCount = startPage + 10;
                nextUser = stillNextUser();
    }

}
```

EmailSettings.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.Properties;

import javax.faces.event.ActionEvent;
import javax.mail.Session;
import javax.mail.internet.InternetAddress;

import database.DBConnect;

public class EmailSettings {

    public String from;
    public String name;
    public String address;
    public boolean editMode = false;
    public String buttonVal = "Edit";



    public String getAddress() {
                return address;
    }

    public void setAddress(String address) {
                this.address = address;
    }

    public String getButtonVal() {
                return buttonVal;
    }

    public void setButtonVal(String buttonVal) {
                this.buttonVal = buttonVal;
    }

    public boolean isEditMode() {
                return editMode;
    }

public void setEditMode(boolean editMode) {
                this.editMode = editMode;
}

public String getFrom() {
                return from;
}

public void setFrom(String from) {
                this.from = from;
}

public String getName() {
                return name;
}

public void setName(String name) {
                this.name = name;
}

public void initFields(ActionEvent event){
                try{
                                Connection conn =
DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM admin");
                                ResultSet rs = ps.executeQuery();
                                if(rs.next()){
                                                from =
rs.getString("from_name");
                                                name =
rs.getString("screen_name");
                                                address =
rs.getString("net_address");
                                }
                                rs.close();
                                ps.close();
                                conn.close();
                } catch (Exception e){
                                e.printStackTrace();
                }
}

public void buttonFunc(ActionEvent event){
                if(editMode){
                                editFields();
                } else {
                                setToEditMode();
                }
}

public void editFields(){
                try{
                                Connection conn =
DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("UPDATE admin SET from_name = ?,
screen_name = ?, net_address = ? WHERE foradmin = 'Yes'");
                                ps.setString(1, from);
                                ps.setString(2, name);
                                ps.setString(3, address);
                                ps.executeUpdate();
                                ps.close();
                                conn.close();
                                editMode = false;
                                buttonVal = "Edit";
                } catch(Exception e){
                                e.printStackTrace();
                }
}
```

```
    public void setToEditMode(){
            editMode = true;
            buttonVal = "Save";
    }

}
```

FAQ.java

```
package services;

public class FAQ {

    public String question;
    public String answer;
    public boolean editMode = false;
    public int ctr;
    public String buttonVal = "Edit";
    public String id;

    public FAQ(String question, String answer, int ctr, String id){
            this.question = question;
            this.answer = answer;
            this.ctr = ctr;
            this.id = id;
    }
    public FAQ(String id){
            this.id = id;
    }
    public FAQ() {
            // TODO Auto-generated constructor stub
    }
    public String getQuestion() {
            return question;
    }
    public void setQuestion(String question) {
            this.question = question;
    }
    public String getAnswer() {
            return answer;
    }
    public void setAnswer(String answer) {
            this.answer = answer;
    }
    public boolean isEditMode() {
            return editMode;
    }
    public void setEditMode(boolean editMode) {
            if(editMode == false){
                    buttonVal = "Edit";
            } else {
                    buttonVal = "Save";
            }
            this.editMode = editMode;
    }
    public int getCtr() {
            return ctr;
    }
    public void setCtr(int ctr) {
            this.ctr = ctr;
    }
    public String getButtonVal() {
            return buttonVal;
    }
    public void setButtonVal(String buttonVal) {
            this.buttonVal = buttonVal;
    }
    public String getId() {
            return id;
    }
    public void setId(String id) {
            this.id = id;
    }

}
```

FAQList.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;

import javax.faces.component.UIParameter;
import javax.faces.event.ActionEvent;

public class FAQList {

    private ArrayList<FAQ> faq;
    private ArrayList<FAQ> trueFaq;
    private String question;
    private String answer;

    public String getQuestion() {
            return question;
    }
    public void setQuestion(String question) {
            this.question = question;
    }
    public String getAnswer() {
            return answer;
    }
    public void setAnswer(String answer) {
            this.answer = answer;
    }
    public ArrayList<FAQ> getFaq() {
            try {
                    Connection conn =
    database.DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
    conn.prepareStatement("SELECT * from faqs");
                    ResultSet rs = ps.executeQuery();
                    ArrayList<FAQ> aList = new
    ArrayList<FAQ>();
                    int ctr = 0;
                    while (rs.next()) {
                            String aTemp =
    rs.getString("question");
                            String aTemp2 =
    rs.getString("answer");
                            String anId = rs.getString("id");
                            if(!aTemp.equals("")){
                                    aList.add(new
    FAQ(aTemp, aTemp2, ctr, anId));
                                    ctr++;
                            }
                    }
                    rs.close();
                    ps.close();
                    conn.close();
                    faq = aList;
            } catch (Exception e) {
                    e.printStackTrace();
            }
            return faq;
    }
    public void setFaq(ArrayList<FAQ> faq) {
```

```
		this.faq = faq;
	}
	public ArrayList<FAQ> getTrueFaq() {
		return trueFaq;
	}
	public void setTrueFaq(ArrayList<FAQ> trueFaq) {
		this.trueFaq = trueFaq;
	}

	public void initFaq(ActionEvent event){
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * from faqs");
			ResultSet rs = ps.executeQuery();
			ArrayList<FAQ> aList = new
ArrayList<FAQ>();
			int ctr = 0;
			while (rs.next()) {
				String aTemp =
rs.getString("question");
				String aTemp2 =
rs.getString("answer");
				String anId = rs.getString("id");
				aList.add(new FAQ(aTemp,
aTemp2, ctr, anId));
				ctr++;
			}
			rs.close();
			ps.close();
			conn.close();
			trueFaq = aList;
		} catch(Exception e){
			e.printStackTrace();
		}
	}

	public void deleteFaq(ActionEvent event){
		UIParameter component = (UIParameter)
event.getComponent().findComponent("actr");
		String ctrString = component.getValue().toString();
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("DELETE FROM faqs WHERE id = ?");
			ps.setString(1, ctrString);
			ps.executeUpdate();
			ps.close();
			conn.close();
		} catch(Exception e){
			e.printStackTrace();
		}
		int ctr = 0;
		for(int x = 0; x < trueFaq.size(); x++){
			if(trueFaq.get(x).getId().equals(ctrString)){
				ctr = x;
				break;
			}
		}
		trueFaq.remove(ctr);
		initFaq(event);
	}

	public void addFaq(ActionEvent event){
		question = question.trim();
		if(!question.equals("")){
			try{
				Connection conn =
database.DBConnect.getInstance().setConnection();
				PreparedStatement ps =
conn.prepareStatement("INSERT INTO faqs (question ,answer)
VALUES (?, ?)");
				ps.setString(1, question);
				ps.setString(2, answer);
				ps.executeUpdate();
				ps.close();
				conn.close();
			} catch(Exception e){
				e.printStackTrace();
			}
			initFaq(event);
		}
	}

	public void editFaq(ActionEvent event){
		UIParameter component = (UIParameter)
event.getComponent().findComponent("ctr");
		String ctrString = component.getValue().toString();
		int ctr = 0;
		for(int x = 0; x < trueFaq.size(); x++){
			if(trueFaq.get(x).getId().equals(ctrString)){
				ctr = x;
				break;
			}
		}
		if(trueFaq.get(ctr).editMode == true){
			trueFaq.get(ctr).setEditMode(false);
			try{
				Connection conn =
database.DBConnect.getInstance().setConnection();

		if(trueFaq.get(ctr).getQuestion().equals("") ||
trueFaq.get(ctr).getAnswer().equals("")){
					PreparedStatement ps
= conn.prepareStatement("DELETE FROM faqs WHERE id = ?");
					ps.setString(1,
trueFaq.get(ctr).getId());
					ps.executeUpdate();
					ps.close();
				} else {
					PreparedStatement ps
= conn.prepareStatement("UPDATE faqs SET question = ?,
answer = ? WHERE id = ?");
					ps.setString(1,
trueFaq.get(ctr).getQuestion());
					ps.setString(2,
trueFaq.get(ctr).getAnswer());
					ps.setString(3,
trueFaq.get(ctr).getId());
					ps.executeUpdate();
					ps.close();
				}
				conn.close();
			} catch(Exception e){
				e.printStackTrace();
			}
			initFaq(event);
		} else {
			trueFaq.get(ctr).setEditMode(true);
			FAQ temp = trueFaq.remove(ctr);
			trueFaq.add(0, temp);
		}
	}


}
```

Links.java

```
package services;

public class Links {

   public String name;
   public String addr;
   public boolean editMode = false;
   public int ctr;
   public String buttonVal = "Edit";
   public String id;



   public String getId() {
            return id;
   }

   public void setId(String id) {
            this.id = id;
   }

   public String getButtonVal() {
            return buttonVal;
   }

   public void setButtonVal(String buttonVal) {
            this.buttonVal = buttonVal;
   }

   public int getCtr() {
            return ctr;
   }

   public void setCtr(int ctr) {
            this.ctr = ctr;
   }

   public boolean isEditMode() {
            return editMode;
   }

   public void setEditMode(boolean editMode) {
            if(editMode == false){
                     buttonVal = "Edit";
            } else {
                     buttonVal = "Save";
            }
            this.editMode = editMode;
   }

   public Links(String name, String addr, int ctr, String id){
            this.name = name;
            this.addr = addr;
            this.ctr = ctr;
            this.id = id;
   }

   public String getName() {
            return name;
   }

   public void setName(String name) {
            this.name = name;
   }

   public String getAddr() {
            return addr;
   }

   public void setAddr(String addr) {
            this.addr = addr;
   }

}
```

LinksList.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;
import java.util.Collection;

import javax.faces.component.UIParameter;
import javax.faces.event.ActionEvent;

public class LinksList {

   private ArrayList<Links> links;
   private ArrayList<Links> trueLinks;

   public ArrayList<Links> getTrueLinks() {
            return trueLinks;
   }

   public void setTrueLinks(ArrayList<Links> trueLinks) {
            this.trueLinks = trueLinks;
   }

   public ArrayList<Links> getLinks() {
            try {
                     Connection conn =
   database.DBConnect.getInstance().setConnection();
                     PreparedStatement ps =
   conn.prepareStatement("SELECT * from links");
                     ResultSet rs = ps.executeQuery();
                     ArrayList<Links> aList = new
   ArrayList<Links>();
                     int ctr = 0;
                     while (rs.next()) {
                              String aTemp =
   rs.getString("link_name");
                              String aTemp2 =
   rs.getString("link_addr");
                              String anId = rs.getString("id");
                              if(!aTemp.equals("")){
                                       aList.add(new
   Links(aTemp, aTemp2, ctr, anId));
                                       ctr++;
                              }
                     }
                     rs.close();
                     ps.close();
                     conn.close();
                     links = aList;
            } catch (Exception e) {
                     e.printStackTrace();
            }
            return links;
   }

   public void setLinks(ArrayList<Links> links) {
            this.links = links;
   }

   public void deleteLink(ActionEvent event){
```

```
		UIParameter component = (UIParameter)
event.getComponent().findComponent("actr");
		String ctrString = component.getValue().toString();
		int ctr = Integer.parseInt(ctrString);
		trueLinks.get(ctr).setAddr("");
		trueLinks.get(ctr).setName("");
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("UPDATE links SET link_name = ?,
link_addr = ? WHERE id = ?");
			ps.setString(1,
trueLinks.get(ctr).getName());
			ps.setString(2, "http://" +
trueLinks.get(ctr).getAddr());
			ps.setString(3, trueLinks.get(ctr).getId());
			ps.executeUpdate();
			ps.close();
			conn.close();
		} catch(Exception e){
			e.printStackTrace();
		}
}

public void initLinks(ActionEvent event){
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * from links");
			ResultSet rs = ps.executeQuery();
			ArrayList<Links> aList = new
ArrayList<Links>();
			int ctr = 0;
			while (rs.next()) {
				String aTemp =
rs.getString("link_name");
				String aTemp2 =
rs.getString("link_addr").substring(7);
				String anId = rs.getString("id");
				aList.add(new Links(aTemp,
aTemp2, ctr, anId));
				ctr++;
			}
			rs.close();
			ps.close();
			conn.close();
			trueLinks = aList;
		} catch(Exception e){
			e.printStackTrace();
		}
}

public void editLink(ActionEvent event){
		UIParameter component = (UIParameter)
event.getComponent().findComponent("ctr");
		String ctrString = component.getValue().toString();
		int ctr = Integer.parseInt(ctrString);
		if(trueLinks.get(ctr).editMode == true){
			trueLinks.get(ctr).setEditMode(false);
			try{
				Connection conn =
database.DBConnect.getInstance().setConnection();
				PreparedStatement ps =
conn.prepareStatement("UPDATE links SET link_name = ?,
link_addr = ? WHERE id = ?");
				ps.setString(1,
trueLinks.get(ctr).getName());
				ps.setString(2, "http://" +
trueLinks.get(ctr).getAddr());
				ps.setString(3,
trueLinks.get(ctr).getId());
				ps.executeUpdate();
				ps.close();
				conn.close();
			} catch(Exception e){
				e.printStackTrace();
			}
		} else {
			trueLinks.get(ctr).setEditMode(true);
		}
	}
}
```

News.java

```
package services;

public class News {

	public String text;
	public String title;
	public String date;
	public String id;
	public String editDate;
	public String tempText;


	public String getTempText() {
		if(text.length() >= 200){
			tempText = text.substring(0, 195) + "...";
		} else {
			tempText = text;
		}
		return tempText;
	}
	public void setTempText(String tempText) {
		this.tempText = tempText;
	}
	public String getEditDate() {
		return editDate;
	}
	public void setEditDate(String editDate) {
		this.editDate = editDate;
	}
	public String getText() {
		return text;
	}
	public void setText(String text) {
		this.text = text;
	}
	public String getTitle() {
		return title;
	}
	public void setTitle(String title) {
		this.title = title;
	}
	public String getDate() {
		return date;
	}
	public void setDate(String date) {
		this.date = date;
	}
	public String getId() {
		return id;
	}
	public void setId(String id) {
		this.id = id;
```

```
    }

}
```

NewsFeed.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Calendar;

import javax.faces.component.UIParameter;
import javax.faces.event.ActionEvent;

import database.DBConnect;

public class NewsFeed {

    private ArrayList<News> news;
    private ArrayList<News> tempnews;
    private String title;
    private String text;
    private String[] monthName = {"January", "February","March",
    "April", "May", "June", "July","August", "September", "October",
    "November","December"};
    private String id;
    private int rows = 2;
    private News viewNews;


    public News getViewNews() {
            return viewNews;
    }
    public void setViewNews(News viewNews) {
            this.viewNews = viewNews;
    }
    public int getRows() {
            return rows;
    }
    public void setRows(int rows) {
            this.rows = rows;
    }
    public String[] getMonthName() {
            return monthName;
    }
    public void setMonthName(String[] monthName) {
            this.monthName = monthName;
    }
    public String getId() {
            return id;
    }
    public void setId(String id) {
            this.id = id;
    }
    public String getTitle() {
            return title;
    }
    public void setTitle(String title) {
            this.title = title;
    }
    public String getText() {
            return text;
    }
    public void setText(String text) {
            this.text = text;
    }
public ArrayList<News> getNews() {
            try{
                    Connection conn =
DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
conn.prepareStatement("SELECT * FROM news ORDER BY
full_date DESC");
                    ResultSet rs = ps.executeQuery();
                    news = new ArrayList<News>();
                    News temp;
                    while(rs.next()){
                            temp = new News();

            temp.setId(rs.getString("news_id"));

            temp.setText(rs.getString("news_text"));

            temp.setTitle(rs.getString("news_title"));

            temp.setDate(rs.getString("add_month") + " " +
rs.getString("add_date") + " " + rs.getString("add_year"));

            temp.setEditDate(rs.getString("edit_month") + " " +
rs.getString("edit_date") + " " + rs.getString("edit_year"));
                            news.add(temp);
                    }
                    rs.close();
                    ps.close();
                    conn.close();
            } catch(Exception e){
                    e.printStackTrace();
            }
            return news;
}
public void setNews(ArrayList<News> news) {
            this.news = news;
}
public ArrayList<News> getTempnews() {
            return tempnews;
}
public void setTempnews(ArrayList<News> tempnews) {
            this.tempnews = tempnews;
}

public void addNews(ActionEvent event){
            if(!title.equals("") && !text.equals("")){
                    String query = "INSERT INTO news
(news_id ,news_title ,news_text ,add_month ,add_date ,add_year
,edit_month ,edit_date ,edit_year ,full_date)VALUES (? , ?, ?, ?,
?, ?, ?, ?, ?, ?)";
                    try{
                            Connection conn =
DBConnect.getInstance().setConnection();
                            PreparedStatement ps =
conn.prepareStatement(query);
                            ps.setString(1, "0");
                            ps.setString(2, title);
                            ps.setString(3, text);
                            Calendar cal =
Calendar.getInstance();
                            String month =
monthName[cal.get(Calendar.MONTH)];
                            String monthnow = now("MM
dd yyyy").split(" ")[0];
                            String datenow = now("MM dd
yyyy").split(" ")[1];
                            String yearnow = now("MM dd
yyyy").split(" ")[2];
                            ps.setString(4, month);
                            ps.setString(5, datenow);
```

```
                                        ps.setString(6, yearnow);
                                        ps.setString(7, month);
                                        ps.setString(8, datenow);
                                        ps.setString(9, yearnow);
                                        ps.setString(10, yearnow +
monthnow + datenow);
                                        ps.executeUpdate();
                                        ps.close();
                                        conn.close();
                                        title = "";
                                        text = "";
                                } catch(Exception e){
                                        e.printStackTrace();
                                }
                        }
}

public static String now(String dateFormat) {
                        Calendar cal = Calendar.getInstance();
                        SimpleDateFormat sdf = new
SimpleDateFormat(dateFormat);
                        return sdf.format(cal.getTime());
}

public void getNewsDetails(ActionEvent event){
                        try{
                                Connection conn =
DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM news WHERE
news_id = ?");
                                UIParameter component = (UIParameter)
event.getComponent().findComponent("editId");
                                id = component.getValue().toString();
                                ps.setString(1, id);
                                ResultSet rs = ps.executeQuery();
                                if(rs.next()){
                                        text = rs.getString("news_text");
                                        title = rs.getString("news_title");
                                }
                                rs.close();
                                ps.close();
                                conn.close();
                        }catch(Exception e){
                                e.printStackTrace();
                        }
}

public void getThisNews(ActionEvent event){
                        try{
                                Connection conn =
DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM news WHERE
news_id = ?");
                                UIParameter component = (UIParameter)
event.getComponent().findComponent("newsId");
                                String newsId =
component.getValue().toString();
                                ps.setString(1, newsId);
                                ResultSet rs = ps.executeQuery();
                                if(rs.next()){
                                        viewNews = new News();

                        viewNews.setId(rs.getString("news_id"));

                        viewNews.setText(rs.getString("news_text"));

                        viewNews.setTitle(rs.getString("news_title"));

                        viewNews.setDate(rs.getString("add_month") + " " +
rs.getString("add_date") + " " + rs.getString("add_year"));

                        viewNews.setEditDate(rs.getString("edit_month") + " "
+ rs.getString("edit_date") + " " + rs.getString("edit_year"));
                                }
                                rs.close();
                                ps.close();
                                conn.close();
                        }catch(Exception e){
                                e.printStackTrace();
                        }
}

public void clearFields(ActionEvent event){
                        title = "";
                        text = "";
}

public void updateNews(ActionEvent event){
                        if(!title.equals("") && !text.equals("")){
                                try{
                                        Connection conn =
DBConnect.getInstance().setConnection();
                                        PreparedStatement ps =
conn.prepareStatement("UPDATE news SET news_title = ?,
news_text = ?, edit_month = ?, edit_date = ?, edit_year = ?
WHERE news_id = ?");
                                        ps.setString(1, title);
                                        ps.setString(2, text);
                                        Calendar cal =
Calendar.getInstance();
                                        String month =
monthName[cal.get(Calendar.MONTH)];
                                        String datenow = now("MM dd
yyyy").split(" ")[1];
                                        String yearnow = now("MM dd
yyyy").split(" ")[2];
                                        ps.setString(3, month);
                                        ps.setString(4, datenow);
                                        ps.setString(5, yearnow);
                                        ps.setString(6, id);
                                        ps.executeUpdate();
                                        ps.close();
                                        conn.close();
                                        title = "";
                                        text = "";
                                }catch(Exception e){
                                        e.printStackTrace();
                                }
                        }
}

public void deleteNews(ActionEvent event){
                        try{
                                Connection conn =
DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("DELETE FROM news WHERE news_id
= ?");
                                UIParameter component = (UIParameter)
event.getComponent().findComponent("editId");
                                String newsId =
component.getValue().toString();
                                ps.setString(1, newsId);
                                ps.executeUpdate();
                                ps.close();
                                conn.close();
                        }catch(Exception e){
```

```
                e.printStackTrace();
            }
    }

    public void addRow(ActionEvent event){
            rows = 100;
    }

    public void lessRow(ActionEvent event){
            rows = 2;
    }
}
```

Notification.java

```
package services;

public class Notification {

    public String username;
    public String message;
    public String projectname;
    public String projectacro;
    public String projectid;
    public boolean read;
    public String displayname;
    public String type;
    public String actionValue;


    public String getActionValue() {
            if(type.equals("1")){
                    actionValue="projectDetails";
            } else if(type.equals("2")) {
                    actionValue="refProject";
            } else {
                    actionValue="compProject";
            }
            return actionValue;
    }
    public void setActionValue(String actionValue) {
            this.actionValue = actionValue;
    }
    public String getType() {
            return type;
    }
    public void setType(String type) {
            this.type = type;
    }
    public String getDisplayname() {
            displayname = projectname + "(" + projectacro + ")";
            return displayname;
    }
    public void setDisplayname(String displayname) {
            this.displayname = displayname;
    }
    public boolean isRead() {
            return read;
    }
    public void setRead(boolean read) {
            this.read = read;
    }
    public String getUsername() {
            return username;
    }
    public void setUsername(String username) {
            this.username = username;
    }
    public String getMessage() {
            return message;
    }
    public void setMessage(String message) {
            this.message = message;
    }
    public String getProjectname() {
            return projectname;
    }
    public void setProjectname(String projectname) {
            this.projectname = projectname;
    }
    public String getProjectacro() {
            return projectacro;
    }
    public void setProjectacro(String projectacro) {
            this.projectacro = projectacro;
    }
    public String getProjectid() {
            return projectid;
    }
    public void setProjectid(String projectid) {
            this.projectid = projectid;
    }


}
```

PendingUserRequest.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;

import database.DBConnect;

public class PendingUserRequest {

    public int pendingRequests;

    public int getPendingRequests() {
            try{
                    pendingRequests = 0;
                    Connection conn =
    DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
    conn.prepareStatement("SELECT * FROM unregistered_users");
                    ResultSet rs = ps.executeQuery();
                    while(rs.next()){
                            pendingRequests++;
                    }
            } catch(Exception e){
                    e.printStackTrace();
            }
            return pendingRequests;
    }

    public void setPendingRequests(int pendingRequests) {
            this.pendingRequests = pendingRequests;
    }



}
```

Plant.java

```
package services;

import java.io.BufferedReader;
```

```
import java.io.File;
import java.io.InputStreamReader;
import java.io.StringReader;
import java.net.HttpURLConnection;
import java.net.URL;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;

import javax.faces.component.UIParameter;
import javax.faces.context.FacesContext;
import javax.faces.event.ActionEvent;
import javax.servlet.ServletContext;
import javax.xml.parsers.DocumentBuilder;
import javax.xml.parsers.DocumentBuilderFactory;

import org.apache.myfaces.custom.fileupload.UploadedFile;
import org.w3c.dom.Document;
import org.w3c.dom.Element;
import org.w3c.dom.NodeList;
import org.xml.sax.InputSource;

import database.Config;

import projects.Project;
import upload.FileUpload;

public class Plant {

   public String sciName;
   public String locName;
   public String otherName;
   public String synonyms;
   public String desc;
   public String tempDesc;
   public String tempOtherName;
   public String addString;
   public String filename;
   public boolean deleteMode = false;
   public ArrayList<Project> projectList;
   public boolean showProjects;
   public String errorString;
   public ArrayList<String> synonymList;
   public ArrayList<String> commList;
   public boolean validDelete = true;
   public String updateString;
   private UploadedFile uploadedFile;



   public UploadedFile getUploadedFile() {
            return uploadedFile;
   }

   public void setUploadedFile(UploadedFile uploadedFile) {
            this.uploadedFile = uploadedFile;
   }

   public String getFilename() {
            return filename;
   }

   public void setFilename(String filename) {
            this.filename = filename;
   }

   public String getUpdateString() {
            return updateString;
   }

public void setUpdateString(String updateString) {
            this.updateString = updateString;
}

public boolean isValidDelete() {
            try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM projects WHERE
plant_sci_name = ?");
                        ps.setString(1, sciName.trim());
                        ResultSet rs = ps.executeQuery();
                        if(rs.next()){
                                    validDelete = false;
                        } else {
                                    validDelete = true;
                        }
            } catch (Exception e) {
                        e.printStackTrace();
            }
            return validDelete;
}

public void setValidDelete(boolean validDelete) {
            this.validDelete = validDelete;
}

public ArrayList<String> getSynonymList() {
            return synonymList;
}

public void setSynonymList(ArrayList<String> synonymList) {
            this.synonymList = synonymList;
}

public ArrayList<String> getCommList() {
            return commList;
}

public void setCommList(ArrayList<String> commList) {
            this.commList = commList;
}

public String getSynonyms() {
            return synonyms;
}

public void setSynonyms(String synonyms) {
            this.synonyms = synonyms;
}

public String getErrorString() {
            return errorString;
}

public void setErrorString(String errorString) {
            this.errorString = errorString;
}

public boolean isShowProjects() {
            if (projectList.size() != 0) {
                        showProjects = true;
            } else {
                        showProjects = false;
            }
            return showProjects;
}
```

```
public void setShowProjects(boolean showProjects) {
	this.showProjects = showProjects;
}

public ArrayList<Project> getProjectList() {
	return projectList;
}

public void setProjectList(ArrayList<Project> projectList) {
	this.projectList = projectList;
}

public String getSciName() {
	return sciName;
}

public void setSciName(String sciName) {
	this.sciName = sciName;
}

public String getLocName() {
	return locName;
}

public void setLocName(String locName) {
	this.locName = locName;
}

public String getOtherName() {
	return otherName;
}

public void setOtherName(String otherName) {
	this.otherName = otherName;
}

public String getDesc() {
	return desc;
}

public void setDesc(String desc) {
	this.desc = desc;
}

public String getTempDesc() {
	return tempDesc;
}

public void setTempDesc(String tempDesc) {
	this.tempDesc = tempDesc;
}

public String getTempOtherName() {
	return tempOtherName;
}

public void setTempOtherName(String tempOtherName) {
	this.tempOtherName = tempOtherName;
}

public String getAddString() {
	return addString;
}

public void setAddString(String addString) {
	this.addString = addString;
}

public boolean isDeleteMode() {
	return deleteMode;
}

}

public void setDeleteMode(boolean deleteMode) {
	this.deleteMode = deleteMode;
}

public void inDeleteMode(ActionEvent event) {
	setDeleteMode(true);
}

public void notDeleteMode(ActionEvent event) {
	setDeleteMode(false);
}

public void inDeleteMode() {
	setDeleteMode(true);
}

public void notDeleteMode() {
	setDeleteMode(false);
}

public void verifyPlant(String tempSci) {
	Document dom = null;
	HttpURLConnection connection = null;
	BufferedReader rd = null;
	StringBuilder sb = null;
	String line = null;
	URL serverAddress = null;
	try {
		serverAddress = new
URL("http://www.catalogueoflife.org/annual-
checklist/2010/webservice?name=" + tempSci +
"&response=full");
		connection = (HttpURLConnection)
serverAddress.openConnection();
		connection.setRequestMethod("GET");
		connection.setDoOutput(true);
		connection.setReadTimeout(60000);
		connection.connect();
		rd = new BufferedReader(new
InputStreamReader(connection
				.getInputStream()));
		sb = new StringBuilder();
		while ((line = rd.readLine()) != null) {
			sb.append(line + '\n');
		}
		DocumentBuilderFactory dbf =
DocumentBuilderFactory.newInstance();
		DocumentBuilder db =
dbf.newDocumentBuilder();
		dom = db.parse(new InputSource(new
StringReader(sb.toString())));
		parseXML(dom);
	} catch (Exception e) {
		e.printStackTrace();
		errorString = "Server time out. Try again
later.";
	}
}

public void parseXML(Document dom){
	NodeList aList =
dom.getElementsByTagName("result");
	if(aList.getLength() == 0){
		errorString = "The word you entered is not a
valid scientific name.";
		return;
	} else {
		Element el = (Element)aList.item(0);
```

```
                String compString = getTextValue(el,
"rank");
                if(compString.equals("Species")){
                        if(getTextValue(el,
"name_status").equals("synonym")){
                                errorString = "The
word you entered is a synonym for a species name (Common
names and Scientific name is generated for you).";
                                swapSynSci(el, 1);
                        } else if(getTextValue(el,
"name_status").equals("accepted name")){
                                errorString = "The
word you entered is a valid species name (Synonyms and common
names are generated for you).";
                                swapSynSci(el, 0);
                        }
                        getComSyn(el);
                } else {
                        errorString = "The word you
entered is not a valid species name.";
                        return;
                }
        }
}

private void getComSyn(Element el){
        NodeList synList =
el.getElementsByTagName("synonym");
        if(synList.getLength() != 0){
                for(int x = 0; x < synList.getLength(); x++){
                        Element syn =
(Element)synList.item(x);

        synonymList.add(getTextValue(syn, "name"));
                }
        }
        NodeList commonList =
el.getElementsByTagName("common_name");
        if(commonList.getLength() != 0){
                for(int x = 0; x < commonList.getLength();
x++){
                        Element com =
(Element)commonList.item(x);

        commList.add(getTextValue(com, "name"));
                }
        }
}

private void swapSynSci(Element el, int i){
        NodeList nameList =
el.getElementsByTagName("name");
        if(nameList.getLength() != 0){
                Element name = (Element)
nameList.item(i);
                sciName =
name.getFirstChild().getNodeValue();
        }
}

private String getTextValue(Element ele, String tagName) {
        String textVal = null;
        NodeList nl = ele.getElementsByTagName(tagName);
        if(nl != null && nl.getLength() > 0) {
                Element el = (Element)nl.item(0);
                textVal = el.getFirstChild().getNodeValue();
        }

        return textVal;
}
```

```
public void generatePlant(ActionEvent event){
        sciName = sciName.trim();
        String tempSci = sciName.replace(" ", "+");
        synonymList = new ArrayList<String>();
        commList = new ArrayList<String>();
        verifyPlant(tempSci);
        synonyms = "";
        otherName = "";
        if(synonymList.size() != 0){
                for(int x = 0; x < synonymList.size(); x++){
                        synonyms +=
synonymList.get(x) + ", ";
                }
                synonyms = synonyms.substring(0,
synonyms.length()-2);
        }
        if(commList.size() != 0){
                for(int x = 0; x < commList.size(); x++){
                        otherName += commList.get(x)
+ ", ";
                }
                otherName = otherName.substring(0,
otherName.length()-2);
        }
}

public void addPlant(ActionEvent event) {
        if(validAdd()){
                try {
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps = conn

        .prepareStatement("INSERT INTO plants VALUES (?,
?, ?, ?, ?, ?)");
                        ps.setString(1, locName.trim());
                        ps.setString(2, sciName.trim());
                        ps.setString(3, otherName);
                        ps.setString(4, desc);
                        ps.setString(5, synonyms);
                        try{
                                filename =
FileUpload.uploadFile(uploadedFile);
                                ps.setString(6,
filename);
                        } catch(Exception e){
                                e.printStackTrace();
                                ps.setString(6, "");
                        }
                        ps.execute();
                        ps.close();
                        conn.close();
                        addString = "plantAddSuccess";
                        errorString = "";
                        projectList = new
ArrayList<Project>();
                } catch (Exception e) {
                        e.printStackTrace();
                        addString = "";
                }
        } else {
                addString = "";
        }
}

public void getPlantDetails(ActionEvent event) {
        try {
                Connection conn =
database.DBConnect.getInstance().setConnection();
```

```
                        PreparedStatement ps = conn

            .prepareStatement("SELECT * FROM plants WHERE
scientific_name = ?");
                        UIParameter component = (UIParameter)
event.getComponent()

            .findComponent("chosen");
                        String plantSciName =
component.getValue().toString();
                        ps.setString(1, plantSciName);
                        ResultSet rs = ps.executeQuery();
                        while (rs.next()) {

            setDesc(rs.getString("description"));

            setLocName(rs.getString("local_name"));

            setOtherName(rs.getString("other_name"));

            setSciName(rs.getString("scientific_name"));

            setSynonyms(rs.getString("synonym"));

            setFilename(rs.getString("image"));
                        }
                        ps = conn

            .prepareStatement("SELECT * FROM projects
WHERE plant_sci_name = ?");
                        ps.setString(1, sciName);
                        rs = ps.executeQuery();
                        projectList = new ArrayList<Project>();
                        Project aTemp;
                        while (rs.next()) {
                                    aTemp = new Project();

            aTemp.setProjectPlantName(sciName);
                                    aTemp

            .setProjectDescription(rs

            .getString("project_description"));

            aTemp.setProjectName(rs.getString("project_name"));

            aTemp.setProjectId(rs.getString("project_id"));
                                    projectList.add(aTemp);
                        }
                        ps.close();
                        rs.close();
                        conn.close();
            } catch (Exception e) {
                        e.printStackTrace();
            }
}

public void deletePlantImage(ActionEvent event){
            deletePlantImage();
}

public void deletePlantImage(){
            FacesContext aFacesContext =
FacesContext.getCurrentInstance();
            ServletContext context =
(ServletContext)aFacesContext.getExternalContext().getContext();
            String rootpath =
context.getRealPath(Config.getInstance().getValue("path"));
            try{
                        File uniqueFile = new File(new
File(rootpath), filename);
                        uniqueFile.delete();
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("UPDATE  plants SET  image = ?
WHERE  scientific_name = ?");
                        ps.setString(1, "");
                        ps.setString(2, sciName);
                        ps.executeUpdate();
                        ps.close();
                        conn.close();
                        filename = "";
            } catch (Exception e){
                        e.printStackTrace();
            }
}

public boolean validAdd(){
            if(sciName.equals("")){
                        errorString = "Scientific Name is a required
field.";
                        return false;
            }
            if(locName.equals("")){
                        errorString = "Local Name is a required
field.";
                        return false;
            }
            try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM plants");
                        ResultSet rs = ps.executeQuery();
                        while(rs.next()){

            if(rs.getString("scientific_name").toLowerCase().trim().
equals(sciName.toLowerCase().trim())){
                                    errorString = "Species
already in the system.";
                                    return false;
                        }
                        }
            } catch (Exception e) {
                        e.printStackTrace();
            }
            return true;
}

public boolean validUpdate(){
            if(locName.equals("")){
                        errorString = "Local Name is a required
field.";
                        return false;
            }
            return true;
}

public void updatePlantDetails(ActionEvent event) {
            if(validUpdate()){
                        try {
                                    Connection conn =
database.DBConnect.getInstance().setConnection();
                                    PreparedStatement ps = conn

            .prepareStatement("UPDATE plants SET local_name =
?, other_name = ?, description = ?, synonym = ?, image = ?
WHERE scientific_name = ?");
```

```
                                        ps.setString(1, locName);
                                        ps.setString(2, otherName);
                                        ps.setString(3, desc);
                                        ps.setString(4, synonyms);
                                        ps.setString(6, sciName.trim());
                                        try{
                                                filename =
FileUpload.uploadFile(uploadedFile);
                                                ps.setString(5,
filename);
                                        } catch(Exception e){
                                                ps.setString(5, "");
                                                filename = "";
                                        }
                                        ps.execute();
                                        ps.close();
                                        conn.close();
                                        updateString =
"showPlantDetails";
                                        errorString = "";
                                } catch (Exception e) {
                                        e.printStackTrace();
                                        updateString= "";
                                }
                        } else {
                                updateString= "";
                        }
}

public void eraseUpdateError(ActionEvent event){
                errorString = "";
}

public void reInitFields() {
                locName = "";
                otherName = "";
                desc = "";
                sciName = "";
                synonyms = "";
                deleteMode = false;
                errorString = "";
                filename="";
}

public void deletePlant(ActionEvent event) {
                try {
                                deletePlantImage();
                                Connection conn =
database.DBConnect.getInstance().setConnection();
                                PreparedStatement ps = conn

                .prepareStatement("DELETE from plants WHERE
scientific_name = ?");
                                ps.setString(1, sciName);
                                ps.execute();
                                ps.close();
                                conn.close();
                                reInitFields();
                } catch (Exception e) {
                                e.printStackTrace();
                }
                notDeleteMode();
}

public void deleteProject(String projectId){
                try{
                                Connection conn =
database.DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("DELETE FROM projects WHERE
project_id = ?");
                                ps.setString(1, projectId);
                                ps.executeUpdate();
                                ps = conn.prepareStatement("DELETE
FROM unreg_users_projects WHERE project_id = ?");
                                ps.setString(1, projectId);
                                ps.executeUpdate();
                                ps = conn.prepareStatement("DELETE
FROM users_projects WHERE project_id = ?");
                                ps.setString(1, projectId);
                                ps.executeUpdate();
                                ps = conn.prepareStatement("DELETE
FROM updates WHERE project_id = ?");
                                ps.setString(1, projectId);
                                ps.executeUpdate();
                                //Delete References
                                deleteReferences(projectId);
                                //Delete Plant Source Info
                                deletePlantSource(projectId);
                                //Delete Active Compounds
                                deleteCompounds(projectId);
                                ps.close();
                                conn.close();
                        } catch(Exception e){
                                e.printStackTrace();
                        }
}

public void deletePlantSource(String projectId){
                try{
                                Connection conn =
database.DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM sources_projects
WHERE project_id = ?");
                                ps.setString(1, projectId);
                                ResultSet rs = ps.executeQuery();
                                while(rs.next()){
                                        ps =
conn.prepareStatement("DELETE FROM sources WHERE
source_id = ?");
                                        ps.setString(1,
rs.getString("source_id"));
                                        ps.executeUpdate();
                                }
                                ps = conn.prepareStatement("DELETE
FROM sources_projects WHERE project_id = ?");
                                ps.setString(1, projectId);
                                ps.executeUpdate();
                                rs.close();
                                ps.close();
                                conn.close();
                        } catch(Exception e){
                                e.printStackTrace();
                        }
}

public void deleteCompounds(String projectId){
                try{
                                Connection conn =
database.DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM compounds_projects
WHERE project_id = ?");
                                ps.setString(1, projectId);
                                ResultSet rs = ps.executeQuery();
                                while(rs.next()){
```

```
                                        ps =
conn.prepareStatement("DELETE FROM compounds WHERE
source_id = ?");
                                        ps.setString(1,
rs.getString("compound_id"));
                                        ps.executeUpdate();
                                }
                                ps = conn.prepareStatement("DELETE
FROM compounds_projects WHERE project_id = ?");
                                ps.setString(1, projectId);
                                ps.executeUpdate();
                                rs.close();
                                ps.close();
                                conn.close();
                        } catch(Exception e){
                                e.printStackTrace();
                        }
        }

        public void deleteReferences(String projectId){
                FacesContext aFacesContext =
FacesContext.getCurrentInstance();
                ServletContext context =
(ServletContext)aFacesContext.getExternalContext().getContext();
                String rootpath =
context.getRealPath(Config.getInstance().getValue("path"));
                try{
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("SELECT * FROM article WHERE
project_id = ?");
                        ps.setString(1, projectId);
                        ResultSet rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                                File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                                uniqueFile.delete();
                                        }
                        }
                        ps = conn.prepareStatement("DELETE
FROM article WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM book WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                                File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                                uniqueFile.delete();
                                        }
                        }
                        ps = conn.prepareStatement("DELETE
FROM book WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM booklet WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                                File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                                uniqueFile.delete();
                                        }
                        }
                        ps = conn.prepareStatement("DELETE
FROM booklet WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM collection WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                                File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                                uniqueFile.delete();
                                        }
                        }
                        ps = conn.prepareStatement("DELETE
FROM collection WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM inbook WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                                File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                                uniqueFile.delete();
                                        }
                        }
                        ps = conn.prepareStatement("DELETE
FROM inbook WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM manual WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                                File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                                uniqueFile.delete();
                                        }
                        }
                        ps = conn.prepareStatement("DELETE
FROM manual WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
FROM tech_report WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                                File uniqueFile = new
File(new File(rootpath), rs.getString("filename"));
                                                uniqueFile.delete();
                                        }
                        }
```

```
                        ps = conn.prepareStatement("DELETE
    FROM tech_report WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
    FROM thesis WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                File uniqueFile = new
    File(new File(rootpath), rs.getString("filename"));
                                uniqueFile.delete();
                        }
                        }
                        ps = conn.prepareStatement("DELETE
    FROM thesis WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        ps = conn.prepareStatement("SELECT *
    FROM unpublished WHERE project_id = ?");
                        ps.setString(1, projectId);
                        rs = ps.executeQuery();
                        while(rs.next()){

                if(!rs.getString("filename").equals("")){
                                File uniqueFile = new
    File(new File(rootpath), rs.getString("filename"));
                                uniqueFile.delete();
                        }
                        }
                        ps = conn.prepareStatement("DELETE
    FROM unpublished WHERE project_id = ?");
                        ps.setString(1, projectId);
                        ps.executeUpdate();
                        rs.close();
                        ps.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
    }

}
```

PlantList.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.ArrayList;

import javax.faces.event.ActionEvent;

public class PlantList {

    public int plantCount;
    public ArrayList<Plant> plantTempList;
    public int plantPagination;
    public ArrayList<Plant> pagedPlantList;
    public boolean nextPlant;
    public int plantEndCount;
    public char currentLetter = '^';
    public char current = '^';
    public int paginationFixer;
    public int hidden;
    public String searchSciname;
    public String searchLocname;
    public String searchSynonym;
    public String searchOther;
    public boolean searchMode = false;;



    public boolean isSearchMode() {
            return searchMode;
    }

    public void setSearchMode(boolean searchMode) {
            this.searchMode = searchMode;
    }

    public String getSearchSciname() {
            return searchSciname;
    }

    public void setSearchSciname(String searchSciname) {
            this.searchSciname = searchSciname;
    }

    public String getSearchLocname() {
            return searchLocname;
    }

    public void setSearchLocname(String searchLocname) {
            this.searchLocname = searchLocname;
    }

    public String getSearchSynonym() {
            return searchSynonym;
    }

    public void setSearchSynonym(String searchSynonym) {
            this.searchSynonym = searchSynonym;
    }

    public String getSearchOther() {
            return searchOther;
    }

    public void setSearchOther(String searchOther) {
            this.searchOther = searchOther;
    }

    public int getHidden() {
            initializePlants();
            showPlantListInit();
            return hidden;
    }

    public void setHidden(int hidden) {
            this.hidden = hidden;
    }

    public char getCurrentLetter() {
            return currentLetter;
    }

    public void setCurrentLetter(char currentLetter) {
            this.currentLetter = currentLetter;
    }

    public char getCurrent() {
            return current;
    }

    public void setCurrent(char current) {
```

```
		this.current = current;
}

public int getPlantCount() {
		return plantCount;
}

public void setPlantCount(int plantCount) {
		this.plantCount = plantCount;
}

public ArrayList<Plant> getPlantTempList() {
		return plantTempList;
}

public void setPlantTempList(ArrayList<Plant> plantTempList) {
		this.plantTempList = plantTempList;
}

public int getPlantPagination() {
		return plantPagination;
}

public void setPlantPagination(int plantPagination) {
		this.plantPagination = plantPagination;
}

public ArrayList<Plant> getPagedPlantList() {
		return pagedPlantList;
}

public void setPagedPlantList(ArrayList<Plant> pagedPlantList) {
		this.pagedPlantList = pagedPlantList;
}

public boolean isNextPlant() {
		return nextPlant;
}

public void setNextPlant(boolean nextPlant) {
		this.nextPlant = nextPlant;
}

public int getPlantEndCount() {
		return plantEndCount;
}

public void setPlantEndCount(int plantEndCount) {
		this.plantEndCount = plantEndCount;
}

public int getPaginationFixer() {
		if (plantEndCount == 0) {
				paginationFixer = 0;
		} else {
				paginationFixer = 1;
		}
		return paginationFixer;
}

public void setPaginationFixer(int paginationFixer) {
		this.paginationFixer = paginationFixer;
}

public void showForA(ActionEvent event) {
		currentLetter = 'a';
		current = 'a';
		initializePlants(event);
}

public void showForB(ActionEvent event) {
		currentLetter = 'b';
		current = 'b';
		initializePlants(event);
}

public void showForC(ActionEvent event) {
		currentLetter = 'c';
		current = 'c';
		initializePlants(event);
}

public void showForD(ActionEvent event) {
		currentLetter = 'd';
		current = 'd';
		initializePlants(event);
}

public void showForE(ActionEvent event) {
		currentLetter = 'e';
		current = 'e';
		initializePlants(event);
}

public void showForF(ActionEvent event) {
		currentLetter = 'f';
		current = 'f';
		initializePlants(event);
}

public void showForG(ActionEvent event) {
		currentLetter = 'g';
		current = 'g';
		initializePlants(event);
}

public void showForH(ActionEvent event) {
		currentLetter = 'h';
		current = 'h';
		initializePlants(event);
}

public void showForI(ActionEvent event) {
		currentLetter = 'i';
		current = 'i';
		initializePlants(event);
}

public void showForJ(ActionEvent event) {
		currentLetter = 'j';
		current = 'j';
		initializePlants(event);
}

public void showForK(ActionEvent event) {
		currentLetter = 'k';
		current = 'k';
		initializePlants(event);
}

public void showForL(ActionEvent event) {
		currentLetter = 'l';
		current = 'l';
		initializePlants(event);
}

public void showForM(ActionEvent event) {
		currentLetter = 'm';
		current = 'm';
		initializePlants(event);
```

```
}

public void showForN(ActionEvent event) {
		currentLetter = 'n';
		current = 'n';
		initializePlants(event);
}

public void showForO(ActionEvent event) {
		currentLetter = 'o';
		current = 'o';
		initializePlants(event);
}

public void showForP(ActionEvent event) {
		currentLetter = 'p';
		current = 'p';
		initializePlants(event);
}

public void showForQ(ActionEvent event) {
		currentLetter = 'q';
		current = 'q';
		initializePlants(event);
}

public void showForR(ActionEvent event) {
		currentLetter = 'r';
		current = 'r';
		initializePlants(event);
}

public void showForS(ActionEvent event) {
		currentLetter = 's';
		current = 's';
		initializePlants(event);
}

public void showForT(ActionEvent event) {
		currentLetter = 't';
		current = 't';
		initializePlants(event);
}

public void showForU(ActionEvent event) {
		currentLetter = 'u';
		current = 'u';
		initializePlants(event);
}

public void showForV(ActionEvent event) {
		currentLetter = 'v';
		current = 'v';
		initializePlants(event);
}

public void showForW(ActionEvent event) {
		currentLetter = 'w';
		current = 'w';
		initializePlants(event);
}

public void showForX(ActionEvent event) {
		currentLetter = 'x';
		current = 'x';
		initializePlants(event);
}

public void showForY(ActionEvent event) {
		currentLetter = 'y';
		current = 'y';
		initializePlants(event);
}

public void showForZ(ActionEvent event) {
		currentLetter = 'z';
		current = 'z';
		initializePlants(event);
}

public void showForAll(ActionEvent event) {
		currentLetter = '^';
		current = '^';
		initializePlants(event);
}

public void checkSearchFields() {
		if (searchSciname.equals("")) {
			searchSciname = "^";
		}
		if (searchLocname.equals("")) {
			searchLocname = "^";
		}
		if (searchSynonym.equals("")) {
			searchSynonym = "^";
		}
		if (searchOther.equals("")) {
			searchOther = "^";
		}
}

public void preSearch(ActionEvent event){
		current = '^';
		currentLetter = '^';
		searchMode = true;
		checkSearchFields();
		initializePlants();
		showPlantListInit();
}

public void setBack(ActionEvent event){
		int aTemp = plantPagination;
		initializePlants();
		plantPagination = aTemp;
		showPlantListInit();
}

public void searchPlant() {
		try {
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps = conn

		.prepareStatement("SELECT * from plants order by
scientific_name");
			ResultSet rs = ps.executeQuery();
			plantTempList = new ArrayList<Plant>();
			Plant aTemp;
			plantCount = 0;
			while (rs.next()) {
				if
(rs.getString("local_name").toLowerCase().contains(

		searchLocname.trim().toLowerCase())
                                                                ||
rs.getString("other_name").toLowerCase().contains(

		searchOther.trim().toLowerCase())
                                                                ||
rs.getString("synonym").toLowerCase().contains(
```

```
                searchSynonym.trim().toLowerCase())
                                                        ||
rs.getString("scientific_name").toLowerCase()

                .contains(searchSciname.trim().toLowerCase())) {
                                                aTemp = new Plant();
                                                String descTemp =
rs.getString("description");
                                                if (descTemp.length()
> 300) {

                aTemp.setTempDesc(descTemp.substring(0,
300).concat(

                "....."));
                                                } else {

                aTemp.setTempDesc(descTemp);
                                                }

                aTemp.setDesc(descTemp);

                aTemp.setLocName(rs.getString("local_name"));
                                                String otherTemp =
rs.getString("other_name");
                                                if (otherTemp.length()
> 300) {

                aTemp.setTempOtherName(otherTemp.substring(0,
300)

                .concat("....."));
                                                } else {

                aTemp.setTempOtherName(otherTemp);
                                                }

                aTemp.setOtherName(otherTemp);

                aTemp.setSciName(rs.getString("scientific_name"));
                                                if (current != '^'

                && rs.getString("scientific_name").toLowerCase()

                                .charAt(0) == current) {

                plantTempList.add(aTemp);

                plantCount++;
                                                }
                                                if (current == '^') {

                plantTempList.add(aTemp);

                plantCount++;
                                                }
                                        }

                                }
                                rs.close();
                                ps.close();
                                conn.close();
                                plantPagination = 0;
                        } catch (Exception e) {
                                e.printStackTrace();
                        }
}

public void resetFields(ActionEvent event){
                searchMode = false;
                searchLocname = "";
                searchSciname = "";
                searchOther = "";
                searchSynonym = "";
                current = '^';
                currentLetter = '^';
                initializePlants();
                showPlantListInit();
}

public void initializePlants() {
                if(searchMode){
                                searchPlant();
                } else {
                                try {
                                                Connection conn =
database.DBConnect.getInstance().setConnection();
                                                PreparedStatement ps = conn

                .prepareStatement("SELECT * from plants order by
scientific_name");
                                                ResultSet rs =
ps.executeQuery();
                                                plantTempList = new
ArrayList<Plant>();
                                                Plant aTemp;
                                                plantCount = 0;
                                                while (rs.next()) {
                                                                aTemp = new Plant();
                                                                String descTemp =
rs.getString("description");
                                                                if (descTemp.length()
> 300) {

                aTemp.setTempDesc(descTemp.substring(0, 300)

                .concat("....."));
                                                                } else {

                aTemp.setTempDesc(descTemp);
                                                                }

                aTemp.setDesc(descTemp);

                aTemp.setLocName(rs.getString("local_name"));
                                                                String otherTemp =
rs.getString("other_name");
                                                                if (otherTemp.length()
> 300) {

                aTemp.setTempOtherName(otherTemp.substring(0,
300).concat(

                "....."));
                                                                } else {

                aTemp.setTempOtherName(otherTemp);
                                                                }

                aTemp.setOtherName(otherTemp);

                aTemp.setSciName(rs.getString("scientific_name"));
                                                                if (current != '^'

                && rs.getString("scientific_name").toLowerCase()

                                .charAt(0) == current) {

                plantTempList.add(aTemp);
```

```
                plantCount++;
                                        }
                                        if (current == '^') {

                plantTempList.add(aTemp);

                plantCount++;
                                        }
                                }
                                rs.close();
                                ps.close();
                                conn.close();
                                plantPagination = 0;
                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
}

public String deleteRedirect() {
        initializePlants();
        showPlantListInit();
        return "regPlantList";
}

public void initializePlants(ActionEvent event) {
        initializePlants();
        showPlantListInit();
}

public void showPlantListInit() {
        int previousPagination = plantPagination;
        int endingPagination = plantPagination + 10;
        pagedPlantList = new ArrayList<Plant>();
        if (endingPagination > plantTempList.size()) {
                plantEndCount = plantTempList.size();
                for (int x = previousPagination; x <
plantTempList.size(); x++) {

        pagedPlantList.add(plantTempList.get(x));
                }
        } else {
                plantEndCount = endingPagination;
                for (int x = previousPagination; x <
endingPagination; x++) {

        pagedPlantList.add(plantTempList.get(x));
                }
        }
        nextPlant = stillNext();
}

public void showPlantListInit(ActionEvent event) {
        showPlantListInit();
}

public void showPlantListForward(ActionEvent event) {
        plantPagination = plantPagination + 10;
        showPlantListInit(event);
}

public void showPlantListBackward(ActionEvent event) {
        int startPage;
        int endPage;
        pagedPlantList = new ArrayList<Plant>();
        startPage = plantPagination - 10;
        endPage = plantPagination;
        for (int x = startPage; x < endPage; x++) {
                pagedPlantList.add(plantTempList.get(x));
                }
                plantPagination = startPage;
                plantEndCount = startPage + 10;
                nextPlant = stillNext();
  }

  public boolean stillNext() {
                if ((plantPagination + 10) >= plantCount) {
                        return true;
                } else {
                        return false;
                }
  }

}
```

ProjectPrototype.jsp

```
package services;

public class ProjectPrototype {

  public String name;
  public String acro;
  public String id;
  public String desc;
  public int reqests;
  public String origname;


  public String getOrigname() {
        return origname;
  }
  public void setOrigname(String origname) {
        this.origname = origname;
  }
  public String getDesc() {
        return desc;
  }
  public void setDesc(String desc) {
        this.desc = desc;
  }
  public int getReqests() {
        return reqests;
  }
  public void setReqests(int reqests) {
        this.reqests = reqests;
  }
  public String getName() {
        name = name + "(" + acro + ")";
        return name;
  }
  public void setName(String name) {
        this.name = name;
  }
  public String getAcro() {
        return acro;
  }
  public void setAcro(String acro) {
        this.acro = acro;
  }
  public String getId() {
        return id;
  }
  public void setId(String id) {
        this.id = id;
  }
  public void addRequest(){
        reqests++;
  }
```

```
}
```

User.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.util.ArrayList;
import java.util.Properties;

import javax.faces.event.ActionEvent;
import javax.mail.Message;
import javax.mail.Session;
import javax.mail.Transport;
import javax.mail.internet.InternetAddress;
import javax.mail.internet.MimeMessage;

import database.DBConnect;

public class User {

   private String username;
   private String password;
   private boolean admin = false;
   private boolean errorLogIn;
   private boolean errorForgetPass;
   private String forgetPassString;
   private boolean logged;
   private ArrayList<ProjectPrototype> projList;
   private boolean noList;
   ArrayList<Notification> list = new ArrayList<Notification>();
   public boolean showunread = false;
   public boolean noData;



   public boolean isNoData() {
            if(list.size() == 0){
                     noData = true;
            } else {
                     noData = false;
            }
            return noData;
   }

   public void setNoData(boolean noData) {
            this.noData = noData;
   }

   public boolean isShowunread() {
            return showunread;
   }

   public void setShowunread(boolean showunread) {
            this.showunread = showunread;
   }

   public void toShowUnread(ActionEvent event){
            showunread = true;
   }

   public void toShowAll(ActionEvent event){
            showunread = false;
   }

   public void deleteAll(ActionEvent event){
            try{
                     Connection conn =
DBConnect.getInstance().setConnection();
                     PreparedStatement ps =
conn.prepareStatement("DELETE FROM updates WHERE
username = ?");
                     ps.setString(1, username);
                     ps.executeUpdate();
                     ps.close();
                     conn.close();
                     showunread = false;
            } catch(Exception e){
                     e.printStackTrace();
            }
   }

   public void deleteRead(ActionEvent event){
            try{
                     Connection conn =
DBConnect.getInstance().setConnection();
                     PreparedStatement ps =
conn.prepareStatement("DELETE FROM updates WHERE
username = ? AND read_stat = '1'");
                     ps.setString(1, username);
                     ps.executeUpdate();
                     ps.close();
                     conn.close();
                     showunread = false;
            } catch(Exception e){
                     e.printStackTrace();
            }
   }

   public ArrayList<Notification> getList() {
            try{
                     Connection conn =
DBConnect.getInstance().setConnection();
                     PreparedStatement ps;
                     if(showunread){
                              ps =
conn.prepareStatement("SELECT * FROM updates,projects
WHERE updates.username = ? AND updates.project_id =
projects.project_id AND read_stat = '0' ORDER BY
updates.save_date DESC");
                     } else {
                              ps =
conn.prepareStatement("SELECT * FROM updates,projects
WHERE updates.username = ? AND updates.project_id =
projects.project_id ORDER BY updates.save_date DESC");
                     }
                     ps.setString(1, username);
                     ResultSet rs = ps.executeQuery();
                     list = new ArrayList<Notification>();
                     Notification temp;
                     while(rs.next()){
                              temp = new Notification();

            temp.setMessage(rs.getString("update_message"));

            temp.setProjectacro(rs.getString("acro"));

            temp.setProjectid(rs.getString("project_id"));

            temp.setProjectname(rs.getString("project_name"));

            if(rs.getString("read_stat").equals("1")){
                                       temp.setRead(true);
                              } else {
                                       temp.setRead(false);
                              }
```

```
                                        temp.setUsername(username);
                        temp.setType(rs.getString("update_type"));
                                        list.add(temp);
                                }
                                rs.close();
                                ps.close();
                                conn.close();
                        } catch(Exception e){
                                e.printStackTrace();
                        }
                        return list;
}

public void setList(ArrayList<Notification> list) {
                        this.list = list;
}

public boolean isNoList() {
                        if(projList.size() == 0){
                                noList = true;
                        } else {
                                noList = false;
                        }
                        return noList;
}

public void setNoList(boolean noList) {
                        this.noList = noList;
}

public ArrayList<ProjectPrototype> getProjList() {
                        try{
                                projList = new
ArrayList<ProjectPrototype>();
                                Connection conn =
DBConnect.getInstance().setConnection();
                                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users_projects,projects
WHERE username = ? AND level = '4' AND
users_projects.project_id = projects.project_id");
                                ps.setString(1, username);
                                ResultSet rs = ps.executeQuery();
                                while(rs.next()){
                                        ps =
conn.prepareStatement("SELECT * FROM unreg_users_projects
WHERE project_id = ?");
                                        ps.setString(1,
rs.getString("project_id"));
                                        ResultSet innerRs =
ps.executeQuery();
                                        ProjectPrototype temp = new
ProjectPrototype();
                                        temp.setReqests(0);
                                        while(innerRs.next()){
                                                temp.addRequest();
                                        }
                                        if(temp.getReqests() != 0){

                        temp.setName(rs.getString("project_name"));

                        temp.setAcro(rs.getString("acro"));

                        temp.setId(rs.getString("project_id"));
                                                projList.add(temp);
                                        }
                                }
                        } catch(Exception e){
                                e.printStackTrace();
                        }
                        return projList;
}

public void setProjList(ArrayList<ProjectPrototype> projList) {
                        this.projList = projList;
}

public boolean isLogged() {
                        return logged;
}

public void setLogged(boolean logged) {
                        this.logged = logged;
}

public String getForgetPassString() {
                        return forgetPassString;
}

public void setForgetPassString(String forgetPassString) {
                        this.forgetPassString = forgetPassString;
}

public boolean isErrorForgetPass() {
                        return errorForgetPass;
}

public void setErrorForgetPass(boolean errorForgetPass) {
                        this.errorForgetPass = errorForgetPass;
}

public boolean isAdmin() {
                        return admin;
}

public void setAdmin(boolean admin) {
                        this.admin = admin;
}

public String getUsername() {
                        return username;
}

public void setUsername(String username) {
                        this.username = username;
}

public String getPassword() {
                        return password;
}

public void setPassword(String password) {
                        this.password = password;
}

public boolean isErrorLogIn() {
                        return errorLogIn;
}

public void setErrorLogIn(boolean errorLogIn) {
                        this.errorLogIn = errorLogIn;
}

public void setError (ActionEvent event){
                        errorLogIn = false;
}

public String validateUser(){
                        try {
```

```
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("SELECT * from users where username =
?");
                ps.setString(1, username);
                ResultSet rs = ps.executeQuery();
                String result = "loginFailed";
                errorLogIn = true;
                while(rs.next()){
                        String truePass =
rs.getString("password");
                        ps =
conn.prepareStatement("SELECT md5(?)");
                        ps.setString(1, password);
                        rs = ps.executeQuery();
                        rs.next();
                        String inputPass =
rs.getString(1);
                        if(truePass.equals(inputPass)){
                                ps =
conn.prepareStatement("SELECT * from users where username =
?");
                                ps.setString(1,
username);
                                rs =
ps.executeQuery();
                                rs.next();
                                String isAdmin =
rs.getString("admin");

        if(isAdmin.equals("Yes")){
                                        admin =
true;
                                        result =
"loginAdmin";
                                        logged =
true;
                                } else if
(rs.getString("disabled").equals("1")) {
                                        result =
"loginDisabled";
                                        username
= null;
                                        logged =
false;
                                } else {
                                        admin =
false;
                                        result =
"loginSuccess";
                                        logged =
true;
                                }
                                errorLogIn = false;

                        } else {
                                result =
"loginPartFail";
                                logged = false;
                        }
                }
                rs.close();
                ps.close();
                conn.close();
                return result;
        } catch (Exception e) {
                e.printStackTrace();
        }
        logged = false;
        return "loginFailed";
}

public void destroySession(ActionEvent event){
        username = null;
        password = null;
        admin = false;
        errorLogIn = false;
        errorForgetPass = false;
        logged = false;
}

public void forgetPassword(ActionEvent event) {
        String origPassword = "";
        String emailAdd = "";
        String firstName = "";
        String middleName = "";
        String lastName = "";
        try {
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps = conn

        .prepareStatement("SELECT * from users where
username = ?");
                ps.setString(1, username);
                ResultSet rs = ps.executeQuery();
                while (rs.next()) {
                        origPassword =
rs.getString("password");
                        emailAdd =
rs.getString("email_add");
                        firstName =
rs.getString("first_name");
                        middleName =
rs.getString("middle_name");
                        lastName =
rs.getString("last_name");
                }
                ps = conn.prepareStatement("Select
decode(?,'1234567')");
                ps.setString(1, origPassword);
                rs = ps.executeQuery();
                rs.next();
                origPassword = rs.getString("decode('" +
origPassword + "','1234567')");
                rs.close();
                ps.close();
                conn.close();
                if (!origPassword.equals("")) {
                        errorForgetPass = false;
                        forgetPassString = "forgetok";
                        String host = "", user =
"gerard.custodio@gmail.com", pass = "geejay07";
                        host = "smtp.gmail.com";
                        String SSL_FACTORY =
"javax.net.ssl.SSLSocketFactory";
                        String to = emailAdd;
                        String from = emailAdd;
                        String subject = "Hi " +
firstName + " " + middleName + " "
                                                +
lastName;
                        String messageText = "This is
your hanapin-sp account details:\n\tusername:"
                                                +
username + "\n\tpassword:" + origPassword;
                        boolean sessionDebug = true;
                        Properties props =
System.getProperties();
```

```
                                        props.put("mail.host", host);

                props.put("mail.transport.protocol.", "smtp");
                                        props.put("mail.smtp.auth",
    "true");
                                        props.put("mail.smtp.", "true");
                                        props.put("mail.smtp.port",
    "465");

                props.put("mail.smtp.socketFactory.fallback", "false");

                props.put("mail.smtp.socketFactory.class",
    SSL_FACTORY);
                                        Session mailSession =
    Session.getDefaultInstance(props, null);

                mailSession.setDebug(sessionDebug);
                                        Message msg = new
    MimeMessage(mailSession);
                                        msg.setFrom(new
    InternetAddress(from));
                                        InternetAddress[] address = {
    new InternetAddress(to) };

                msg.setRecipients(Message.RecipientType.TO,
    address);
                                        msg.setSubject(subject);
                                        msg.setContent(messageText,
    "text/html");
                                        Transport transport =
    mailSession.getTransport("smtp");
                                        transport.connect(host, user,
    pass);
                                        transport.sendMessage(msg,
    msg.getAllRecipients());
                                        transport.close();
                        } else {
                                        errorForgetPass = true;
                                        forgetPassString = "forgetnotok";
                        }
                } catch (Exception e) {
                        e.printStackTrace();
                }
    }

}
```

UserRegistration.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;

import javax.faces.component.UIParameter;
import javax.faces.event.ActionEvent;
import database.SendEmail;


public class UserRegistration {

    public String lastName;
    public String firstname;
    public String middlename;
    public String emailAdd;
    public String company;
    public String regUserName;
    public String regPassword;
    public String regPassword2;
    public String registrationString;
    public boolean approved;
    public String approveString;
    public String registrationMessage;
    public boolean successRegistration;
    public boolean rejected;
    public String securityQuestion;
    public String securityAnswer;

    public String getSecurityQuestion() {
            return securityQuestion;
    }
    public void setSecurityQuestion(String securityQuestion) {
            this.securityQuestion = securityQuestion;
    }
    public String getSecurityAnswer() {
            return securityAnswer;
    }
    public void setSecurityAnswer(String securityAnswer) {
            this.securityAnswer = securityAnswer;
    }
    public boolean isRejected() {
            return rejected;
    }
    public void setRejected(boolean rejected) {
            this.rejected = rejected;
    }
    public boolean isSuccessRegistration() {
            return successRegistration;
    }
    public void setSuccessRegistration(boolean successRegistration) {
            this.successRegistration = successRegistration;
    }
    public String getRegistrationMessage() {
            return registrationMessage;
    }
    public void setRegistrationMessage(String registrationMessage) {
            this.registrationMessage = registrationMessage;
    }
    public String getRegPassword2() {
            return regPassword2;
    }
    public void setRegPassword2(String regPassword2) {
            this.regPassword2 = regPassword2;
    }
    public String getApproveString() {
            return approveString;
    }
    public void setApproveString(String approveString) {
            this.approveString = approveString;
    }
    public boolean isApproved() {
            return approved;
    }
    public void setApproved(boolean approved) {
            this.approved = approved;
    }
    public String getRegistrationString() {
            return registrationString;
    }
    public void setRegistrationString(String registrationString) {
            this.registrationString = registrationString;
    }
    public String getLastName() {
            return lastName;
    }
    public void setLastName(String lastName) {
            this.lastName = lastName;
    }
    public String getFirstname() {
```

```
		return firstname;
	}
	public void setFirstname(String firstname) {
		this.firstname = firstname;
	}
	public String getMiddlename() {
		return middlename;
	}
	public void setMiddlename(String middlename) {
		this.middlename = middlename;
	}
	public String getEmailAdd() {
		return emailAdd;
	}
	public void setEmailAdd(String emailAdd) {
		this.emailAdd = emailAdd;
	}
	public String getCompany() {
		return company;
	}
	public void setCompany(String company) {
		this.company = company;
	}
	public String getRegUserName() {
		return regUserName;
	}
	public void setRegUserName(String regUserName) {
		this.regUserName = regUserName;
	}
	public String getRegPassword() {
		return regPassword;
	}
	public void setRegPassword(String regPassword) {
		this.regPassword = regPassword;
	}
	public boolean validRegister(){
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * from users where username =
?");
			ps.setString(1, regUserName);
			ResultSet rs = ps.executeQuery();
			while(rs.next()){
				registrationString =
"registrationError";
				registrationMessage =
"Username already exist.";
				successRegistration = false;
				return false;
			}
			ps = conn.prepareStatement("SELECT *
from unregistered_users where reg_username = ?");
			ps.setString(1, regUserName);
			rs = ps.executeQuery();
			while(rs.next()){
				registrationString =
"registrationError";
				registrationMessage =
"Username already exist.";
				successRegistration = false;
				return false;
			}
			if(regUserName.equals("")){
				registrationString =
"registrationError";
				registrationMessage =
"Username field is required.";
				successRegistration = false;
				return false;
			}
			if(regUserName.length() < 5 ||
regUserName.length() > 15){
				registrationString =
"registrationError";
				registrationMessage =
"Username cannot be less than 5 characters and not more than 15
characters.";
				successRegistration = false;
				return false;
			}
			if(lastName.equals("")){
				registrationString =
"registrationError";
				registrationMessage = "Please
provide your last name.";
				successRegistration = false;
				return false;
			}
			if(middlename.equals("")){
				registrationString =
"registrationError";
				registrationMessage = "Please
provide your middle name.";
				successRegistration = false;
				return false;
			}
			if(firstname.equals("")){
				registrationString =
"registrationError";
				registrationMessage = "Please
provide your first name.";
				successRegistration = false;
				return false;
			}
			if(company.equals("")){
				registrationString =
"registrationError";
				registrationMessage = "Please
provide your company name.";
				successRegistration = false;
				return false;
			}
			ps = conn.prepareStatement("SELECT *
from users where email_add = ?");
			ps.setString(1, emailAdd);
			rs = ps.executeQuery();
			while(rs.next()){
				registrationString =
"registrationError";
				registrationMessage = "Email
address is alreay in use.";
				successRegistration = false;
				return false;
			}
			ps = conn.prepareStatement("SELECT *
from unregistered_users where email_add = ?");
			ps.setString(1, emailAdd);
			rs = ps.executeQuery();
			while(rs.next()){
				registrationString =
"registrationError";
				registrationMessage = "Email
address is alreay in use.";
				successRegistration = false;
				return false;
			}
			if(emailAdd.equals("")){
```

```
                                registrationString =
"registrationError";
                                registrationMessage = "Email
Field is required!";
                                successRegistration = false;
                                return false;
                        }
                        if(emailAdd.indexOf('@') == -1){
                                registrationString =
"registrationError";
                                registrationMessage = "Invalid
Email Address!";
                                successRegistration = false;
                                return false;
                        }
                        if(securityQuestion.equals("")){
                                registrationString =
"registrationError";
                                registrationMessage = "Please
provide a security question for your account.";
                                successRegistration = false;
                                return false;
                        }
                        if(securityAnswer.equals("")){
                                registrationString =
"registrationError";
                                registrationMessage = "Please
provide a security answer for your account.";
                                successRegistration = false;
                                return false;
                        }
                        if(regPassword.equals("")){
                                registrationString =
"registrationError";
                                registrationMessage = "Password
field is required.";
                                successRegistration = false;
                                return false;
                        }
                        if(regPassword.length() < 6 ||
regPassword.length() > 15){
                                registrationString =
"registrationError";
                                registrationMessage = "Password
cannot be less than 6 characters and not more than 15 characters.";
                                successRegistration = false;
                                return false;
                        }

                        if(!regPassword.equals(regPassword2)){
                                registrationString =
"registrationError";
                                registrationMessage =
"Passwords did not match.";
                                successRegistration = false;
                                return false;
                        }
                        conn.close();
                        ps.close();
                        rs.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
                return true;
}
public void registerUser(ActionEvent event){
        if(validRegister()){
                try {
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("INSERT INTO unregistered_users
VALUES (?, ?, ?, ?, ?, ?, ?, ? ,?)");
                        ps.setString(1, regUserName);
                        ps.setString(2, regPassword);
                        ps.setString(3, lastName);
                        ps.setString(4, middlename);
                        ps.setString(5, firstname);
                        ps.setString(6, emailAdd);
                        ps.setString(7, company);
                        ps.setString(8, securityQuestion);
                        ps.setString(9, securityAnswer);
                        ps.execute();
                        ps.close();
                        conn.close();
                        registrationMessage = "";
                        registrationString =
"registrationSuccess";
                        successRegistration = true;
                        SendEmail handler =
SendEmail.getInstance();
                        String message = "Your email
address was used in HANAPIN-SP account registration with the
following details:\n\n"
                                        +
"\t\tUsername: " + regUserName + "\n"
                                        + "\t\tLast
Name: " + lastName + "\n"
                                        + "\t\tFirst
Name: " + firstname + "\n"
                                        +
"\t\tMiddle Name: " + middlename + "\n"
                                        +
"\t\tCompany: " + company + "\n"
                                        + "\n"
                                        + "Please
wait for a confirmation regarding your registration status. Thank
you.";
                        handler.sendEmail(emailAdd,
"Registration Status", message);
                } catch (Exception e) {
                        e.printStackTrace();
                        registrationString =
"registrationError";
                }
        }
}
public void getRegDetails(ActionEvent event){
        try {
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM unregistered_users
WHERE reg_username = ?");
                UIParameter component = (UIParameter)
event.getComponent().findComponent("chosen");
                String regName =
component.getValue().toString();
                ps.setString(1, regName);
                ResultSet rs = ps.executeQuery();
                while(rs.next()){

        setRegUserName(rs.getString("reg_username"));

        setRegPassword(rs.getString("reg_password"));

        setCompany(rs.getString("company"));

        setEmailAdd(rs.getString("email_add"));
```

```
                setFirstname(rs.getString("first_name"));

                setMiddlename(rs.getString("middle_name"));

                setLastName(rs.getString("last_name"));

                setSecurityQuestion(rs.getString("question"));

                setSecurityAnswer(rs.getString("answer"));
                                setApproved(false);
                        }
                        ps.close();
                        rs.close();
                        conn.close();
                } catch (Exception e) {
                        e.printStackTrace();
                }
                approved = false;
                rejected = false;
}

public void approveReg(ActionEvent event){
                try {
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("INSERT INTO users VALUES (?,
md5(?), ?, ?, ?, ?, ?, ?, ?, ?)");
                        ps.setString(1, regUserName);
                        ps.setString(2, regPassword);
                        ps.setString(3, "No");
                        ps.setString(4, lastName);
                        ps.setString(5, middlename);
                        ps.setString(6, firstname);
                        ps.setString(7, company);
                        ps.setString(8, emailAdd);
                        ps.setString(9, "0");
                        ps.setString(10, securityQuestion);
                        ps.setString(11, securityAnswer);
                        ps.execute();
                        ps = conn

                .prepareStatement("DELETE FROM
unregistered_users WHERE reg_username = ?");
                        ps.setString(1, regUserName);
                        ps.execute();
                        ps.close();
                        conn.close();
                        approveString = "approved";
                        approved = true;
                } catch (Exception e) {
                        e.printStackTrace();
                        approved = true;
                        approveString = "errorapproving";
                }
                SendEmail handler = SendEmail.getInstance();
                handler.sendEmail(emailAdd, "Registration Status",
"Welcome to HANAPIN-SP! Your registration has been
verified.");
}

public void rejectUser(ActionEvent event){
                try {
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps;
                        ps = conn.prepareStatement("DELETE
FROM unregistered_users WHERE reg_username = ?");
                        ps.setString(1, regUserName);
                        ps.execute();
                        ps.close();
                        conn.close();
                        rejected = true;
                        SendEmail handler =
  SendEmail.getInstance();
                        handler.sendEmail(emailAdd, "Registration
  Status", "Sorry, but your registration has been rejected.");
                } catch (Exception e) {
                        e.printStackTrace();
                        rejected = false;
                }
  }

  public void reInit(ActionEvent event){
                regUserName = "";
                regPassword = "";
                lastName = "";
                middlename = "";
                firstname = "";
                company = "";
                emailAdd = "";
                securityQuestion = "";
                securityAnswer = "";
                approved = false;
                rejected = false;
  }
}
```

ViewUser.java

```
package services;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Calendar;
import java.util.Random;

import javax.faces.component.UIParameter;
import javax.faces.event.ActionEvent;

import database.SendEmail;


public class ViewUser {

  public String lastName;
  public String firstname;
  public String middlename;
  public String emailAdd;
  public String company;
  public String userName;
  public String password;
  public String password2;
  public String securityQuestion;
  public String securityAnswer;
  public String status;
  public String statusAction;
  public boolean admin;
  public String updateSuccessString;
  public boolean updateOk;
  public String emailProxy;
  public boolean setAdmin;
  public String updateMessage;
  public boolean updateError;

  public String getUpdateMessage() {
```

```
        return updateMessage;
}

public void setUpdateMessage(String updateMessage) {
        this.updateMessage = updateMessage;
}

public boolean isUpdateError() {
        return updateError;
}

public void setUpdateError(boolean updateError) {
        this.updateError = updateError;
}

public boolean isSetAdmin() {
        return setAdmin;
}

public void setSetAdmin(boolean setAdmin) {
        this.setAdmin = setAdmin;
}

public String getEmailProxy() {
        return emailProxy;
}

public void setEmailProxy(String emailProxy) {
        this.emailProxy = emailProxy;
}

public String getSecurityQuestion() {
        return securityQuestion;
}

public void setSecurityQuestion(String securityQuestion) {
        this.securityQuestion = securityQuestion;
}

public String getSecurityAnswer() {
        return securityAnswer;
}

public void setSecurityAnswer(String securityAnswer) {
        this.securityAnswer = securityAnswer;
}

public String getPassword2() {
        return password2;
}

public void setPassword2(String password2) {
        this.password2 = password2;
}

public String getUpdateSuccessString() {
        return updateSuccessString;
}

public void setUpdateSuccessString(String updateSuccessString) {
        this.updateSuccessString = updateSuccessString;
}

public boolean isUpdateOk() {
        return updateOk;
}

public void setUpdateOk(boolean updateOk) {
        this.updateOk = updateOk;
}

public boolean isAdmin() {
        return admin;
}

public void setAdmin(boolean isAdmin) {
        this.admin = isAdmin;
}


public String getLastName() {
        return lastName;
}

public void setLastName(String lastName) {
        this.lastName = lastName;
}

public String getFirstname() {
        return firstname;
}

public void setFirstname(String firstname) {
        this.firstname = firstname;
}

public String getMiddlename() {
        return middlename;
}

public void setMiddlename(String middlename) {
        this.middlename = middlename;
}

public String getEmailAdd() {
        return emailAdd;
}

public void setEmailAdd(String emailAdd) {
        this.emailAdd = emailAdd;
}

public String getCompany() {
        return company;
}

public void setCompany(String company) {
        this.company = company;
}

public String getUserName() {
        return userName;
}

public void setUserName(String userName) {
        this.userName = userName;
}

public String getPassword() {
        return password;
}

public void setPassword(String password) {
        this.password = password;
}

public String getStatus() {
        return status;
}
```

```
public void setStatus(String status) {
	this.status = status;
}

public String getStatusAction() {
	return statusAction;
}

public void setStatusAction(String statusAction) {
	this.statusAction = statusAction;
}

public void getUserDetails(ActionEvent event) {
	try {
		updateError = false;
		updateMessage = "";
		updateSuccessString = "";
		updateOk = true;
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps = conn

	.prepareStatement("SELECT * FROM users WHERE
username = ?");
		UIParameter component = (UIParameter)
event.getComponent()

	.findComponent("chosen");
		String regName =
component.getValue().toString();
		ps.setString(1, regName);
		ResultSet rs = ps.executeQuery();
		while (rs.next()) {

	setUserName(rs.getString("username"));

	setPassword(rs.getString("password"));

	setCompany(rs.getString("company"));

	setEmailAdd(rs.getString("email_add"));

	setFirstname(rs.getString("first_name"));

	setMiddlename(rs.getString("middle_name"));

	setLastName(rs.getString("last_name"));

	setSecurityAnswer(rs.getString("answer"));

	setSecurityQuestion(rs.getString("question"));

	setEmailProxy(rs.getString("email_add"));
			if
(rs.getString("disabled").equals("0")) {
				setStatus("Enabled");

	setStatusAction("Disable");
			} else {
				setStatus("Disabled");

	setStatusAction("Enable");
			}

	if(rs.getString("admin").equals("Yes")){
				setAdmin(true);
			} else {
				setAdmin(false);
			}
		}
		ps.close();
		rs.close();
		conn.close();
	} catch (Exception e) {
		e.printStackTrace();
	}
}

public String now(String dateFormat) {
	Calendar cal = Calendar.getInstance();
	SimpleDateFormat sdf = new
SimpleDateFormat(dateFormat);
	return sdf.format(cal.getTime());
}

public void resetUserPass(ActionEvent event){
	try{
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps =
conn.prepareStatement("DELETE FROM forgetpasswords
WHERE username = ?");
		ps.setString(1, userName);
		ps.executeUpdate();
		Random r = new Random();
		String token =
Long.toString(Math.abs(r.nextLong()), 36);
		String[] vals = now("MM dd yyyy").split("
");
		ps = conn.prepareStatement("INSERT
INTO  forgetpasswords (username,security_key ,month ,date
,year)VALUES (?,  ?,  ?,  ?,  ?)");
		ps.setString(1, userName);
		ps.setString(2, token);
		ps.setString(3, vals[0]);
		ps.setString(4, vals[1]);
		ps.setString(5, vals[2]);
		ps.executeUpdate();
		SendEmail handler =
SendEmail.getInstance();
		String msg = "Click this link to reset your
password.\n\n" +
"http://agila.upm.edu.ph:8082/hanapin/services/resetPassword.jsf?
username=" + userName + "&key=" + token;
		handler.sendEmail(emailAdd, "HANAPIN
Reset Password", msg);
		updateSuccessString = "Reset password link
sent to the user.";
		updateOk = false;
		ps.close();
		conn.close();
	} catch(Exception e){
		e.printStackTrace();
	}
}

public void actionStatus(ActionEvent event) {
	if(status.equals("Enabled")){
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users_projects
WHERE username = ? AND level = 4");
			ps.setString(1, userName);
			ResultSet rs =
ps.executeQuery();
			ArrayList<String> projectIds =
new ArrayList<String>();
```

```
                                        while(rs.next()){

                projectIds.add(rs.getString("project_id"));
                                        }
                                        ps =
conn.prepareStatement("SELECT * FROM users_projects
WHERE project_id = ? AND level = 4");
                                        for(int x = 0; x <
projectIds.size(); x++){
                                                ps.setString(1,
projectIds.get(x));
                                                rs =
ps.executeQuery();
                                                int actr = 0;
                                                while(rs.next()){
                                                        actr++;
                                                }
                                                if(actr == 1){

                updateError = true;

                updateMessage = "Cannot disable user for he is the
only administrator in a certain project.";
                                                        return;
                                                }
                                        }
                        } catch(Exception e){
                                e.printStackTrace();
                        }
                }
                try {
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps = conn

                .prepareStatement("UPDATE users SET disabled = ?
WHERE username = ?");
                        String aStat;
                        if (status.equals("Enabled")) {
                                aStat = "1";
                        } else {
                                aStat = "0";
                        }
                        ps.setString(1, aStat);
                        ps.setString(2, userName);
                        ps.execute();
                        ps.close();
                        conn.close();
                        if (status.equals("Enabled")) {
                                setStatus("Disabled");
                                setStatusAction("Enable");
                        } else {
                                setStatus("Enabled");
                                setStatusAction("Disable");
                        }
                        updateError = false;
                        updateMessage = "";
                } catch (Exception e) {
                        e.printStackTrace();
                }
}

public boolean validateUpdate() {
                try {
                        if (lastName.equals("")) {
                                updateSuccessString = "Please
provide your last name.";
                                updateOk = false;
                                return false;
                        }
                        if (middlename.equals("")) {
                                updateSuccessString = "Please
provide your middle name.";
                                updateOk = false;
                                return false;
                        }
                        if (firstname.equals("")) {
                                updateSuccessString = "Please
provide your first name.";
                                updateOk = false;
                                return false;
                        }
                        if (company.equals("")) {
                                updateSuccessString = "Please
provide your company name.";
                                updateOk = false;
                                return false;
                        }
                        if (emailAdd.equals("")) {
                                updateSuccessString = "Email
Address is required.";
                                updateOk = false;
                                return false;
                        }
                        if (emailAdd.indexOf('@') == -1) {
                                updateSuccessString = "Email
Address is invalid.";
                                updateOk = false;
                                return false;
                        }
                        if (securityQuestion.equals("")) {
                                updateSuccessString = "Please
provide a security question.";
                                updateOk = false;
                                return false;
                        }
                        if (securityAnswer.equals("")) {
                                updateSuccessString = "Please
provide a security answer.";
                                updateOk = false;
                                return false;
                        }
                        if(!emailProxy.equals(emailAdd)){
                                Connection conn =
database.DBConnect.getInstance().setConnection();
                                PreparedStatement ps = conn

                        .prepareStatement("SELECT * from users where
email_add = ?");
                                ps.setString(1, emailProxy);
                                ResultSet rs =
ps.executeQuery();
                                while (rs.next()) {
                                        updateSuccessString
= "Email Address is already in use.";
                                        updateOk = false;
                                        return false;
                                }
                                ps = conn

                        .prepareStatement("SELECT * from unregistered_users
where email_add = ?");
                                ps.setString(1, emailProxy);
                                rs = ps.executeQuery();
                                while (rs.next()) {
                                        updateSuccessString
= "Email Address is already in use.";
                                        updateOk = false;
                                        return false;
                                }
```

```
                                conn.close();
                                ps.close();
                                rs.close();
                                emailAdd = emailProxy;
                        }
                } catch (Exception e) {
                        e.printStackTrace();
                }
                return true;
}

public String updateUser(){
        if(validateUpdate()){
                try {
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("UPDATE users SET last_name = ?,
middle_name = ?, first_name = ?, company = ?, email_add = ?,
question = ?, answer = ? WHERE username = ?");
                        ps.setString(1, lastName);
                        ps.setString(2, middlename);
                        ps.setString(3, firstname);
                        ps.setString(4, company);
                        ps.setString(5, emailAdd);
                        ps.setString(6, securityQuestion);
                        ps.setString(7, securityAnswer);
                        ps.setString(8, userName);
                        ps.execute();
                        ps.close();
                        conn.close();
                        updateSuccessString = "";
                        updateOk = true;
                        return "showUserDetails";
                } catch (Exception e) {
                        e.printStackTrace();
                }
        }
        return "";
}

public void clearDetails(ActionEvent event){
        setLastName("");
        setMiddlename("");
        setFirstname("");
        setCompany("");
        setEmailAdd("");
        setUserName("");
        setPassword("");
        setSecurityAnswer("");
        setSecurityQuestion("");
        setEmailProxy("");
        updateSuccessString = "";
        updateOk = true;
}

public boolean validateAdd(){
        try {
                if(userName.equals("")){
                        updateSuccessString =
"Username field is required!";
                        updateOk = false;
                        return false;
                }
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("SELECT * from users where username =
?");
                ps.setString(1, userName);
                ResultSet rs = ps.executeQuery();
                while(rs.next()){
                        updateSuccessString =
"Username already in use.";
                        updateOk = false;
                        return false;
                }
                ps = conn.prepareStatement("SELECT *
from unregistered_users where reg_username = ?");
                ps.setString(1, userName);
                rs = ps.executeQuery();
                while(rs.next()){
                        updateSuccessString =
"Username already in use.";
                        updateOk = false;
                        return false;
                }
                if(userName.length() < 5 ||
userName.length() > 15){
                        updateSuccessString =
"Username cannot be less than 5 characters and not more than 15
characters!";
                        updateOk = false;
                        return false;
                }
                if (lastName.equals("")) {
                        updateSuccessString = "Please
provide your last name.";
                        updateOk = false;
                        return false;
                }
                if (firstname.equals("")) {
                        updateSuccessString = "Please
provide your first name.";
                        updateOk = false;
                        return false;
                }
                if (middlename.equals("")) {
                        updateSuccessString = "Please
provide your middle name.";
                        updateOk = false;
                        return false;
                }
                conn =
database.DBConnect.getInstance().setConnection();
                ps = conn

                .prepareStatement("SELECT * from users where
email_add = ?");
                ps.setString(1, emailAdd);
                rs = ps.executeQuery();
                while (rs.next()) {
                        updateSuccessString = "Email
Address is already in use.";
                        updateOk = false;
                        return false;
                }
                ps = conn

                .prepareStatement("SELECT * from unregistered_users
where email_add = ?");
                ps.setString(1, emailAdd);
                rs = ps.executeQuery();
                while (rs.next()) {
                        updateSuccessString = "Email
Address is already in use.";
                        updateOk = false;
                        return false;
                }
                if (company.equals("")) {
```

```
                                updateSuccessString = "Please
provide your company name.";
                                updateOk = false;
                                return false;
                        }
                        if (emailAdd.equals("")) {
                                updateSuccessString = "Email
Address is required.";
                                updateOk = false;
                                return false;
                        }
                        if (emailAdd.indexOf('@') == -1) {
                                updateSuccessString = "Email
Address is invalid.";
                                updateOk = false;
                                return false;
                        }
                        if (securityQuestion.equals("")) {
                                updateSuccessString = "Please
provide a security question.";
                                updateOk = false;
                                return false;
                        }
                        if (securityAnswer.equals("")) {
                                updateSuccessString = "Please
provide a security answer.";
                                updateOk = false;
                                return false;
                        }
                        if(password.equals("")){
                                updateSuccessString =
"Password field is required!";
                                updateOk = false;
                                return false;
                        }
                        if(password.length() < 6 || password.length()
> 15){
                                updateSuccessString =
"Password should not be less than 6 characters and not momre than
15 characters.";
                                updateOk = false;
                                return false;
                        }
                        if(!password.equals(password2)){
                                updateSuccessString =
"Passwords did not match!";
                                updateOk = false;
                                return false;
                        }
                        conn.close();
                        ps.close();
                        rs.close();
                } catch (Exception e) {
                        e.printStackTrace();
                }
                return true;
}

public String addUser(){
        if(validateAdd()){
                try {
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("INSERT INTO users VALUES (?,
md5(?), ?, ?, ?, ?, ?, ?, ?, ?, ?)");
                        ps.setString(1, userName);
                        ps.setString(2, password);
                        if(setAdmin){
                                ps.setString(3,
"Yes");
                        } else {
                                ps.setString(3, "No");
                        }
                        ps.setString(4, lastName);
                        ps.setString(5, middlename);
                        ps.setString(6, firstname);
                        ps.setString(7, company);
                        ps.setString(8, emailAdd);
                        ps.setString(10,
securityQuestion);
                        ps.setString(11, securityAnswer);
                        ps.setString(9, "0");
                        ps.execute();
                        ps.close();
                        conn.close();
                        status = "Enabled";
                        statusAction = "Disable";
                        updateOk = true;
                        updateSuccessString = "";
                        return "showUserDetails";
                } catch (Exception e) {
                        e.printStackTrace();
                }
        }
        return "";
}

}
```

FileServlet.java

```
package upload;

import java.io.BufferedInputStream;
import java.io.BufferedOutputStream;
import java.io.Closeable;
import java.io.File;
import java.io.FileInputStream;
import java.io.IOException;
import java.net.URLDecoder;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

import database.Config;

public class FileServlet extends HttpServlet {

   /**
    *
    */
   private static final long serialVersionUID = 1L;

   // Constants ----------------------------------------------------------------
   ----------------

   private static final int DEFAULT_BUFFER_SIZE = 10240; //
   10KB.

   // Properties ---------------------------------------------------------------
   ----------------

   private String filePath;

   // Actions ------------------------------------------------------------------
   ----------------
```

```
public void init() throws ServletException {

    // Define base path somehow. You can define it as init-param of
the servlet.
    this.filePath = Config.getInstance().getValue("path");

    // In a Windows environment with the Applicationserver
running on the
    // c: volume, the above path is exactly the same as "c:\files".
    // In UNIX, it is just straightforward "/files".
    // If you have stored files in the WebContent of a WAR, for
example in the
    // "/WEB-INF/files" folder, then you can retrieve the absolute
path by:
    // this.filePath = getServletContext().getRealPath("/WEB-
INF/files");
}

protected void doGet(HttpServletRequest request,
HttpServletResponse response)
    throws ServletException, IOException
{
    // Get requested file by path info.
    String requestedFile = request.getPathInfo();

    // Check if file is actually supplied to the request URI.
    if (requestedFile == null) {
        // Do your thing if the file is not supplied to the request URI.
        // Throw an exception, or send 404, or show default/warning
page, or just ignore it.
                response.sendRedirect("services/home.jsf");// 404.
        return;
    }

    // Decode the file name (might contain spaces and on) and
prepare file object.
    File file = new File(getServletContext().getRealPath(filePath),
URLDecoder.decode(requestedFile, "UTF-8"));

    // Check if file actually exists in filesystem.
    if (!file.exists()) {
        // Do your thing if the file appears to be non-existing.
        // Throw an exception, or send 404, or show default/warning
page, or just ignore it.

                System.out.println(getServletContext().getRealPath("/re
ferences/files"));

//response.sendError(HttpServletResponse.SC_NOT_FOUND); //
404.
        return;
    }

    // Get content type by filename.
    String contentType =
getServletContext().getMimeType(file.getName());

    // If content type is unknown, then set the default value.
    // For all content types, see:
http://www.w3schools.com/media/media_mimeref.asp
    // To add new content types, add new mime-mapping entry in
web.xml.
    if (contentType == null) {
        contentType = "application/octet-stream";
    }

    // Init servlet response.
    response.reset();
    response.setBufferSize(DEFAULT_BUFFER_SIZE);
    response.setContentType(contentType);
    response.setHeader("Content-Length",
String.valueOf(file.length()));
    response.setHeader("Content-Disposition", "attachment;
filename=\"" + file.getName() + "\"");

    // Prepare streams.
    BufferedInputStream input = null;
    BufferedOutputStream output = null;

    try {
        // Open streams.
        input = new BufferedInputStream(new FileInputStream(file),
DEFAULT_BUFFER_SIZE);
        output = new
BufferedOutputStream(response.getOutputStream(),
DEFAULT_BUFFER_SIZE);

        // Write file contents to response.
        byte[] buffer = new byte[DEFAULT_BUFFER_SIZE];
        int length;
        while ((length = input.read(buffer)) > 0) {
            output.write(buffer, 0, length);
        }
    } finally {
        // Gently close streams.
        close(output);
        close(input);
    }
}

// Helpers (can be refactored to public utility class) ----------
----------

private static void close(Closeable resource) {
    if (resource != null) {
        try {
            resource.close();
        } catch (IOException e) {
            // Do your thing with the exception. Print it, log it or mail
it.
            e.printStackTrace();
        }
    }
}

}
```

FileUpload.java

```
package upload;

import java.io.File;
import java.io.IOException;

import javax.faces.application.FacesMessage;
import javax.faces.context.FacesContext;
import javax.servlet.ServletContext;

import org.apache.myfaces.custom.fileupload.UploadedFile;

import database.Config;

public class FileUpload {

    public static String uploadFile(UploadedFile uploadedFile){
                File uniqueFile = new File("");
                try {
                        String uploadedFileName =
FileUtil.trimFilePath(uploadedFile
```

```
                                                .getName());
                        FacesContext aFacesContext =
    FacesContext.getCurrentInstance();
                        ServletContext context =
    (ServletContext)aFacesContext.getExternalContext().getContext();
                        String rootpath =
    context.getRealPath(Config.getInstance().getValue("path"));
                        uniqueFile = FileUtil.uniqueFile(new
    File(rootpath),
                                                uploadedFileName);
                        FileUtil.write(uniqueFile,
    uploadedFile.getInputStream());
                        // Show succes message.
                        return uniqueFile.getName();
                } catch (IOException e) {
                        // Show error message.

                FacesContext.getCurrentInstance().addMessage(
                                                "uploadForm",
                                                new
    FacesMessage(FacesMessage.SEVERITY_ERROR,

                "File upload failed with I/O error.", null));
                        // Always log stacktraces.
                        e.printStackTrace();
                }
                return "";
    }

}
```

FileUtil.java

```
package upload;

import java.io.BufferedInputStream;
import java.io.BufferedOutputStream;
import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.ByteArrayInputStream;
import java.io.CharArrayReader;
import java.io.Closeable;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import java.io.InputStream;
import java.io.Reader;
import java.util.ArrayList;
import java.util.List;

/**
 * Useful file system level utilities.
 *
 * @author BalusC
 * @link http://balusc.blogspot.com/2007/09/FileUtil.html
 */
public final class FileUtil {

    // Init ---------------------------------------------------------------------
    ---------------

    public static final String LINE_SEPARATOR =
    System.getProperty("line.separator");

    // Constructors -------------------------------------------------------------
    -----------------

private FileUtil() {
    // Utility class, hide constructor.
}

// Writers ------------------------------------------------------------------
----------------

/**
 * Write byte array to file. If file already exists, it will be
overwritten.
 * @param file The file where the given byte array have to be
written to.
 * @param bytes The byte array which have to be written to the
given file.
 * @throws IOException If writing file fails.
 */
public static void write(File file, byte[] bytes) throws IOException
{
    write(file, new ByteArrayInputStream(bytes), false);
}

/**
 * Write byte array to file with option to append to file or not. If
not, then any existing
 * file will be overwritten.
 * @param file The file where the given byte array have to be
written to.
 * @param bytes The byte array which have to be written to the
given file.
 * @param append Append to file?
 * @throws IOException If writing file fails.
 */
public static void write(File file, byte[] bytes, boolean append)
throws IOException {
    write(file, new ByteArrayInputStream(bytes), append);
}

/**
 * Write byte inputstream to file. If file already exists, it will be
overwritten.It's highly
 * recommended to feed the inputstream as BufferedInputStream
or ByteArrayInputStream as those
 * are been automatically buffered.
 * @param file The file where the given byte inputstream have to
be written to.
 * @param input The byte inputstream which have to be written to
the given file.
 * @throws IOException If writing file fails.
 */
public static void write(File file, InputStream input) throws
IOException {
    write(file, input, false);
}

/**
 * Write byte inputstream to file with option to append to file or
not. If not, then any
 * existing file will be overwritten. It's highly recommended to
feed the inputstream as
 * BufferedInputStream or ByteArrayInputStream as those are
been automatically buffered.
 * @param file The file where the given byte inputstream have to
be written to.
 * @param input The byte inputstream which have to be written to
the given file.
 * @param append Append to file?
 * @throws IOException If writing file fails.
 */
public static void write(File file, InputStream input, boolean
append) throws IOException {
```

```
    mkdirs(file);
    BufferedOutputStream output = null;

    try {
        output = new BufferedOutputStream(new
FileOutputStream(file, append));
        int data = -1;
        while ((data = input.read()) != -1) {
            output.write(data);
        }
    } finally {
        close(input, file);
        close(output, file);
    }
}

/**
 * Write character array to file. If file already exists, it will be
overwritten.
 * @param file The file where the given character array have to be
written to.
 * @param chars The character array which have to be written to
the given file.
 * @throws IOException If writing file fails.
 */
public static void write(File file, char[] chars) throws IOException
{
    write(file, new CharArrayReader(chars), false);
}

/**
 * Write character array to file with option to append to file or not.
If not, then any
 * existing file will be overwritten.
 * @param file The file where the given character array have to be
written to.
 * @param chars The character array which have to be written to
the given file.
 * @param append Append to file?
 * @throws IOException If writing file fails.
 */
public static void write(File file, char[] chars, boolean append)
throws IOException {
    write(file, new CharArrayReader(chars), append);
}

/**
 * Write string value to file. If file already exists, it will be
overwritten.
 * @param file The file where the given string value have to be
written to.
 * @param string The string value which have to be written to the
given file.
 * @throws IOException If writing file fails.
 */
public static void write(File file, String string) throws IOException
{
    write(file, new CharArrayReader(string.toCharArray()), false);
}

/**
 * Write string value to file with option to append to file or not. If
not, then any existing
 * file will be overwritten.
 * @param file The file where the given string value have to be
written to.
 * @param string The string value which have to be written to the
given file.
 * @param append Append to file?
 * @throws IOException If writing file fails.
 */
public static void write(File file, String string, boolean append)
throws IOException {
    write(file, new CharArrayReader(string.toCharArray()),
append);
}

/**
 * Write character reader to file. If file already exists, it will be
overwritten. It's highly
 * recommended to feed the reader as BufferedReader or
CharArrayReader as those are been
 * automatically buffered.
 * @param file The file where the given character reader have to
be written to.
 * @param reader The character reader which have to be written to
the given file.
 * @throws IOException If writing file fails.
 */
public static void write(File file, Reader reader) throws
IOException {
    write(file, reader, false);
}

/**
 * Write character reader to file with option to append to file or
not. If not, then any
 * existing file will be overwritten. It's highly recommended to
feed the reader as
 * BufferedReader or CharArrayReader as those are been
automatically buffered.
 * @param file The file where the given character reader have to
be written to.
 * @param reader The character reader which have to be written to
the given file.
 * @param append Append to file?
 * @throws IOException If writing file fails.
 */
public static void write(File file, Reader reader, boolean append)
throws IOException {
    mkdirs(file);
    BufferedWriter writer = null;

    try {
        writer = new BufferedWriter(new FileWriter(file, append));
        int data = -1;
        while ((data = reader.read()) != -1) {
            writer.write(data);
        }
    } finally {
        close(reader, file);
        close(writer, file);
    }
}

/**
 * Write list of String records to file. If file already exists, it will be
overwritten.
 * @param file The file where the given character reader have to
be written to.
 * @param records The list of String records which have to be
written to the given file.
 * @throws IOException If writing file fails.
 */
public static void write(File file, List<String> records) throws
IOException {
    write(file, records, false);
}

/**
```

```
     * Write list of String records to file with option to append to file
or not. If not, then any
     * existing file will be overwritten.
     * @param file The file where the given character reader have to
be written to.
     * @param records The list of String records which have to be
written to the given file.
     * @param append Append to file?
     * @throws IOException If writing file fails.
     */
    public static void write(File file, List<String> records, boolean
append) throws IOException {
        mkdirs(file);
        BufferedWriter writer = null;

        try {
            writer = new BufferedWriter(new FileWriter(file, append));
            for (String record : records) {
                writer.write(record);
                writer.write(LINE_SEPARATOR);
            }
        } finally {
            close(writer, file);
        }
    }

    // Readers ----------------------------------------------------------
    ----------------

    /**
     * Read byte array from file. Take care with big files, this would
be memory hogging, rather
     * use readStream() instead.
     * @param file The file to read the byte array from.
     * @return The byte array with the file contents.
     * @throws IOException If reading file fails.
     */
    public static byte[] readBytes(File file) throws IOException {
        BufferedInputStream stream = (BufferedInputStream)
    readStream(file);
        byte[] bytes = new byte[stream.available()];
        stream.read(bytes);
        return bytes;
    }

    /**
     * Read byte stream from file.
     * @param file The file to read the byte stream from.
     * @return The byte stream with the file contents (actually:
    BufferedInputStream).
     * @throws IOException If reading file fails.
     */
    public static InputStream readStream(File file) throws
    IOException {
        return new BufferedInputStream(new FileInputStream(file));
    }

    /**
     * Read character array from file. Take care with big files, this
    would be memory hogging,
     * rather use readReader() instead.
     * @param file The file to read the character array from.
     * @return The character array with the file contents.
     * @throws IOException If reading file fails.
     */
    public static char[] readChars(File file) throws IOException {
        BufferedReader reader = (BufferedReader) readReader(file);
        char[] chars = new char[(int) file.length()];
        reader.read(chars);
        return chars;
    }

    /**
     * Read string value from file. Take care with big files, this would
    be memory hogging, rather
     * use readReader() instead.
     * @param file The file to read the string value from.
     * @return The string value with the file contents.
     * @throws IOException If reading file fails.
     */
    public static String readString(File file) throws IOException {
        return new String(readChars(file));
    }

    /**
     * Read character reader from file.
     * @param file The file to read the character reader from.
     * @return The character reader with the file contents (actually:
    BufferedReader).
     * @throws IOException If reading file fails.
     */
    public static Reader readReader(File file) throws IOException {
        return new BufferedReader(new FileReader(file));
    }

    /**
     * Read list of String records from file.
     * @param file The file to read the character writer from.
     * @return A list of String records which represents lines of the
    file contents.
     * @throws IOException If reading file fails.
     */
    public static List<String> readRecords(File file) throws
    IOException {
        BufferedReader reader = (BufferedReader) readReader(file);
        List<String> records = new ArrayList<String>();
        String record = null;

        try {
            while ((record = reader.readLine()) != null) {
                records.add(record);
            }
        } finally {
            close(reader, file);
        }

        return records;
    }

    // Copiers ----------------------------------------------------------
    ----------------

    /**
     * Copy file. Any existing file at the destination will be
    overwritten.
     * @param source The file to read the contents from.
     * @param destination The file to write the contents to.
     * @throws IOException If copying file fails.
     */
    public static void copy(File source, File destination) throws
    IOException {
        copy(source, destination, true);
    }

    /**
     * Copy file with the option to overwrite any existing file at the
    destination.
     * @param source The file to read the contents from.
     * @param destination The file to write the contents to.
```

```
 * @param overwrite Set whether to overwrite any existing file at
the destination.
 * @throws IOException If the destination file already exists while
<tt>overwrite</tt> is set
 * to false, or if copying file fails.
 */
public static void copy(File source, File destination, boolean
overwrite) throws IOException {
    if (destination.exists() && !overwrite) {
        throw new IOException(
            "Copying file " + source.getPath() + " to " +
destination.getPath() + " failed."
                + " The destination file already exists.");
    }

    mkdirs(destination);
    BufferedInputStream input = null;
    BufferedOutputStream output = null;

    try {
        input = new BufferedInputStream(new
FileInputStream(source));
        output = new BufferedOutputStream(new
FileOutputStream(destination));
        int data = -1;
        while ((data = input.read()) != -1) {
            output.write(data);
        }
    } finally {
        close(input, source);
        close(output, destination);
    }
}

// Movers -----------------------------------------------------------------
-----------------

/**
 * Move (rename) file. Any existing file at the destination will be
overwritten.
 * @param source The file to be moved.
 * @param destination The new destination of the file.
 * @throws IOException If moving file fails.
 */
public static void move(File source, File destination) throws
IOException {
    move(source, destination, true);
}

/**
 * Move (rename) file with the option to overwrite any existing file
at the destination.
 * @param source The file to be moved.
 * @param destination The new destination of the file.
 * @param overwrite Set whether to overwrite any existing file at
the destination.
 * @throws IOException If the destination file already exists while
<tt>overwrite</tt> is set
 * to false, or if moving file fails.
 */
public static void move(File source, File destination, boolean
overwrite) throws IOException {
    if (destination.exists()) {
        if (overwrite) {
            destination.delete();
        } else {
            throw new IOException(
                "Moving file " + source.getPath() + " to " +
destination.getPath() + " failed."
                    + " The destination file already exists.");
        }
    }

    mkdirs(destination);

    if (!source.renameTo(destination)) {
        throw new IOException(
            "Moving file " + source.getPath() + " to " +
destination.getPath() + " failed.");
    }
}

// Filenames --------------------------------------------------------------
-----------------

/**
 * Trim the eventual file path from the given file name. Anything
before the last occurred "/"
 * and "\" will be trimmed, including the slash.
 * @param fileName The file name to trim the file path from.
 * @return The file name with the file path trimmed.
 */
public static String trimFilePath(String fileName) {
    return fileName
        .substring(fileName.lastIndexOf("/") + 1)
        .substring(fileName.lastIndexOf("\\") + 1);
}

/**
 * Generate unique file based on the given path and name. If the
file exists, then it will
 * add "[i]" to the file name as long as the file exists. The value of i
can be between
 * 0 and 2147483647 (the value of Integer.MAX_VALUE).
 * @param filePath The path of the unique file.
 * @param fileName The name of the unique file.
 * @return The unique file.
 * @throws IOException If unique file cannot be generated, this
can be caused if all file
 * names are already in use. You may consider another filename
instead.
 */
public static File uniqueFile(File filePath, String fileName) throws
IOException {
    File file = new File(filePath, fileName);

    if (file.exists()) {

        // Split filename and add braces, e.g. "name.ext" --> "name[",
"].ext".
        String prefix;
        String suffix;
        int dotIndex = fileName.lastIndexOf(".");

        if (dotIndex > -1) {
            prefix = fileName.substring(0, dotIndex) + "[";
            suffix = "]" + fileName.substring(dotIndex);
        } else {
            prefix = fileName + "[";
            suffix = "]";
        }

        int count = 0;

        // Add counter to filename as long as file exists.
        while (file.exists()) {
            if (count < 0) { // int++ restarts at -2147483648 after
2147483647.
                throw new IOException("No unique filename available
for " + fileName
```

```
                + " in path " + filePath.getPath() + ".");
            }

            // Glue counter between prefix and suffix, e.g. "name[" +
    count + "].ext".
            file = new File(filePath, prefix + (count++) + suffix);
        }
      }

      return file;
    }

    // Helpers ----------------------------------------------------------------
    ----------------

    /**
     * Check and create missing parent directories for the given file.
     * @param file The file to check and create the missing parent
    directories for.
     * @throws IOException If the given file is actually not a file or if
    creating parent
     * directories fails.
     */
    private static void mkdirs(File file) throws IOException {
      if (file.exists() && !file.isFile()) {
        throw new IOException("File " + file.getPath() + " is actually
    not a file.");
      }
      File parentFile = file.getParentFile();
      if (!parentFile.exists() && !parentFile.mkdirs()) {
        throw new IOException("Creating directories " +
    parentFile.getPath() + " failed.");
      }
    }

    /**
     * Close the given I/O resource of the given file.
     * @param resource The I/O resource to be closed.
     * @param file The I/O resource's subject.
     */
    private static void close(Closeable resource, File file) {
      if (resource != null) {
        try {
          resource.close();
        } catch (IOException e) {
          String message = "Closing file " + file.getPath() + "
    failed.";
          // Do your thing with the exception and the message. Print
    it, log it or mail it.
          System.err.println(message);
          e.printStackTrace();
        }
      }
    }

}
```

ImageServlet.java

```
package upload;

import java.io.BufferedInputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.IOException;
import java.net.URLDecoder;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

import database.Config;

public class ImageServlet extends HttpServlet {

    private static final long serialVersionUID = 1L;
    private String filePath;

    public String getFilePath() {
            return filePath;
    }

    public void setFilePath(String filePath) {
            this.filePath = filePath;
    }

    protected void doGet(HttpServletRequest request,
    HttpServletResponse response)
            throws ServletException, IOException
    {
            try {
                    // Get image file.
                    this.filePath =
    Config.getInstance().getValue("path");
                    String requestedFile =
    request.getParameter("file");
                    File file = new
    File(getServletContext().getRealPath(filePath),
    URLDecoder.decode(requestedFile, "UTF-8"));
                    BufferedInputStream in = new
    BufferedInputStream(new FileInputStream(file));

                    // Get image contents.
                    byte[] bytes = new byte[in.available()];
                    in.read(bytes);
                    in.close();

                    // Write image contents to response.
                    response.getOutputStream().write(bytes);
            } catch (IOException e) {
                    e.printStackTrace();
            }
    }
}
```

ForgotPassword.java

```
package users;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Random;

import javax.faces.context.FacesContext;
import javax.faces.event.ActionEvent;
import javax.servlet.http.HttpServletRequest;

import database.SendEmail;


public class ForgotPassword {

    public String username;
    public String question;
    public String answer;
    public String answerProxy;
```

```
public boolean questionMode = false;
public String forgetString;
public boolean questionError = false;
public int[] months  = {31,29,31,30,31,30,31,31,30,31,30,31};
public String forgetOk;
public String usernameParam;
public String password;
public String password2;
public boolean toRender = true;
public String changePassString;
public boolean errorChangePass = false;
public String buttonValue="";
public String toGoChange="";
public boolean toShow = false;
public int ctr = 0;
public boolean updated = false;


public int getCtr() {
	ctr = 0;
	errorChangePass = false;
	buttonValue = "Reset Password";
	toGoChange = "";
	updated = false;
	return ctr;
}
public void setCtr(int ctr) {
	this.ctr = ctr;
}
public boolean isUpdated() {
	return updated;
}
public void setUpdated(boolean updated) {
	this.updated = updated;
}
public boolean isToShow() {
	return toShow;
}
public void setToShow(boolean toShow) {
	this.toShow = toShow;
}
public String getToGoChange() {
	return toGoChange;
}
public void setToGoChange(String toGoChange) {
	this.toGoChange = toGoChange;
}
public String getButtonValue() {
	return buttonValue;
}
public void setButtonValue(String buttonValue) {
	this.buttonValue = buttonValue;
}
public boolean isErrorChangePass() {
	return errorChangePass;
}
public void setErrorChangePass(boolean errorChangePass) {
	this.errorChangePass = errorChangePass;
}
public String getChangePassString() {
	return changePassString;
}
public void setChangePassString(String changePass) {
	this.changePassString = changePass;
}
public boolean isToRender() {
	if(ctr == 0){
		callValues();
	}
	ctr++;
	return toRender;
}
public void callValues(){
	HttpServletRequest
request=(HttpServletRequest)FacesContext.getCurrentInstance().g
etExternalContext().getRequest();
	String key = request.getParameter("key");
	usernameParam = request.getParameter("username");
	try{
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps =
conn.prepareStatement("SELECT * FROM forgetpasswords
WHERE username = ? AND security_key = ?");
		ps.setString(1, usernameParam);
		ps.setString(2, key);
		ResultSet rs = ps.executeQuery();
		if(rs.next()){
			String[] aDate =
{rs.getString("month"),rs.getString("date"),rs.getString("year")};
			if(!isOneDay(aDate)){
				toRender = false;
				toGoChange =
"toHome";
				buttonValue = "Go to
home";
			} else {
				toRender = true;
				toGoChange = "";
				buttonValue = "Reset
Password";
			}
		} else {
			toRender = false;
			toGoChange = "toHome";
			buttonValue = "Go to home";

		}
		ps.close();
		rs.close();
		conn.close();
	} catch(Exception e){
		e.printStackTrace();
	}
	toShow = toRender;
}
public void setToRender(boolean toRender) {
	this.toRender = toRender;
}
public String getPassword() {
	return password;
}
public void setPassword(String password) {
	this.password = password;
}
public String getPassword2() {
	return password2;
}
public void setPassword2(String password2) {
	this.password2 = password2;
}
public String getUsernameParam() {
	return usernameParam;
}
public void setUsernameParam(String usernameParam) {
	this.usernameParam = usernameParam;
}
public int[] getMonths() {
	return months;
}
```

```
public void setMonths(int[] months) {
	this.months = months;
}
public String getForgetOk() {
	return forgetOk;
}
public void setForgetOk(String forgetOk) {
	this.forgetOk = forgetOk;
}
public boolean isQuestionError() {
	return questionError;
}
public void setQuestionError(boolean questionError) {
	this.questionError = questionError;
}
public String getAnswerProxy() {
	return answerProxy;
}
public void setAnswerProxy(String answerProxy) {
	this.answerProxy = answerProxy;
}
public String getForgetString() {
	return forgetString;
}
public void setForgetString(String forgetString) {
	this.forgetString = forgetString;
}
public boolean isQuestionMode() {
	return questionMode;
}
public void setQuestionMode(boolean questionMode) {
	this.questionMode = questionMode;
}
public String getUsername() {
	return username;
}
public void setUsername(String username) {
	this.username = username;
}
public String getQuestion() {
	return question;
}
public void setQuestion(String question) {
	this.question = question;
}
public String getAnswer() {
	return answer;
}
public void setAnswer(String answer) {
	this.answer = answer;
}

public boolean validPassUpdate(){
	if(password.equals("")){
		toGoChange = "";
		changePassString = "Please input a
password.";
		errorChangePass = true;
		return false;
	}
	if(password.length() < 6 || password.length() > 15){
		toGoChange = "";
		changePassString = "Password must not be
less than 6 characters and not more than 15 characters.";
		errorChangePass = true;
		return false;
	}
	if(!password.equals(password2)){
		toGoChange = "";
		changePassString = "Passwords did not
match.";
		errorChangePass = true;
		return false;
	}
	return true;
}

public void changePass(ActionEvent event){
	if(updated){
		toGoChange = "toHome";
	}
	if(!updated && toRender){
		toShow = true;
	} else {
		toShow = false;
	}
	if(!updated && validPassUpdate()){
		try{
			Connection conn =
database.DBConnect.getInstance().setConnection();
			PreparedStatement ps =
conn.prepareStatement("UPDATE users SET password = md5(?)
WHERE username = ?");

	System.out.println(usernameParam + " " + password);
			ps.setString(2, usernameParam);
			ps.setString(1, password);
			ps.executeUpdate();
			ps =
conn.prepareStatement("DELETE FROM forgetpasswords
WHERE username = ?");
			ps.setString(1, usernameParam);
			ps.executeUpdate();
			ps.close();
			conn.close();
			changePassString = "Password
has been updated! Congratulations!";
			errorChangePass = true;
			buttonValue = "Go to home";
			toGoChange = "toHome";
			updated = true;
		} catch(Exception e){
			e.printStackTrace();
		}
	}
}

public void generateQuestion(ActionEvent event){
	try{
		Connection conn =
database.DBConnect.getInstance().setConnection();
		PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users WHERE
username = ?");
		ps.setString(1, username);
		ResultSet rs = ps.executeQuery();
		if(rs.next()){

	setQuestion(rs.getString("question"));

	setAnswer(rs.getString("answer"));
			questionMode = true;
			questionError = false;
			forgetString = "";
		} else {
			forgetString = "Username does
not exist!";
			questionMode = false;
			questionError = true;
```

```
                        }
                        conn.close();
                        ps.close();
                        rs.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
}

public String now(String dateFormat) {
        Calendar cal = Calendar.getInstance();
        SimpleDateFormat sdf = new
SimpleDateFormat(dateFormat);
        return sdf.format(cal.getTime());
}

public boolean isOneDay(String[] aDate){
        try{
                int month = Integer.parseInt(aDate[0]);
                int date = Integer.parseInt(aDate[1]);
                int year = Integer.parseInt(aDate[2]);
                int monthnow = Integer.parseInt(now("MM
dd yyyy").split(" ")[0]);
                int datenow = Integer.parseInt(now("MM dd
yyyy").split(" ")[1]);
                int yearnow = Integer.parseInt(now("MM dd
yyyy").split(" ")[2]);
                if(year != yearnow){
                        return false;
                }
                if(datenow < date){
                        if(Math.abs(datenow -
months[month]) >= 2){
                                return false;
                        } else {
                                return true;
                        }
                }
                if(datenow == date){
                        if(month != monthnow){
                                return false;
                        } else {
                                return true;
                        }
                }
                if((datenow - date) >= 2){
                        return false;
                } else {
                        return true;
                }
        } catch(Exception e){
                e.printStackTrace();
        }
        return false;
}

public void resetPassword(ActionEvent event) {
        try{
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("SELECT * FROM forgetpasswords
WHERE username = ?");
                ps.setString(1, username);
                ResultSet rs = ps.executeQuery();
                if(rs.next()){
                        String[] aDate =
{rs.getString("month"),rs.getString("date"),rs.getString("year")};
                        if(isOneDay(aDate)){
                                forgetString = "Sorry,
you still have a pending reset in your email. You may apply for
another reset link after 24 hours.";
                                questionError = true;
                                forgetOk =
"forgetnotok";
                                return;
                        } else {
                                ps =
conn.prepareStatement("DELETE FROM forgetpasswords
WHERE username = ?");
                                ps.setString(1,
username);
                                ps.executeUpdate();
                        }
                }
                ps.close();
                rs.close();
                conn.close();
        } catch(Exception e){
                e.printStackTrace();
        }
        if
(answer.toLowerCase().equals(answerProxy.toLowerCase())) {
                Random r = new Random();
                String token =
Long.toString(Math.abs(r.nextLong()), 36);
                try{
                        String[] vals = now("MM dd
yyyy").split(" ");
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("INSERT INTO  forgetpasswords
(username,security_key ,month ,date ,year)VALUES (?,  ?,  ?,  ?,
?)");
                        ps.setString(1, username);
                        ps.setString(2, token);
                        ps.setString(3, vals[0]);
                        ps.setString(4, vals[1]);
                        ps.setString(5, vals[2]);
                        ps.executeUpdate();
                        ps =
conn.prepareStatement("SELECT * FROM users WHERE
username = ?");
                        ps.setString(1, username);
                        ResultSet rs =
ps.executeQuery();
                        rs.next();
                        SendEmail handler =
SendEmail.getInstance();
                        String msg = "Click this link to
reset your password.\n\n" +
"http://agila.upm.edu.ph:8082/hanapin/services/resetPassword.jsf?
username=" + username + "&key=" + token;

                handler.sendEmail(rs.getString("email_add"),
"HANAPIN Reset Password", msg);
                        ps.close();
                        rs.close();
                        conn.close();
                } catch(Exception e){
                        e.printStackTrace();
                }
                forgetString = "";
                questionError = false;
                forgetOk = "forgetok";
                question = "";
                answer = "";
                answerProxy = "";
```

```
                        ctr = 0;
                } else {
                        forgetString = "Sorry, wrong answer. You
    may try again.";
                        questionError = true;
                        forgetOk = "forgetnotok";
                }
    }

}
```

ForgotUsername.java

```
package users;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;

import javax.faces.event.ActionEvent;

import database.DBConnect;
import database.SendEmail;

public class ForgotUsername {

    private String emailAdd;
    private String errorMessage;
    private String stat;



    public String getStat() {
            return stat;
    }

    public void setStat(String stat) {
            this.stat = stat;
    }

    public String getErrorMessage() {
            return errorMessage;
    }

    public void setErrorMessage(String errorMessage) {
            this.errorMessage = errorMessage;
    }

    public String getEmailAdd() {
            return emailAdd;
    }

    public void setEmailAdd(String emailAdd) {
            this.emailAdd = emailAdd;
    }

    public void sendToEmail(ActionEvent event){
            try{
                    Connection conn =
    DBConnect.getInstance().setConnection();
                    PreparedStatement ps =
    conn.prepareStatement("SELECT * FROM users WHERE
    email_add = ?");
                    ps.setString(1, emailAdd);
                    ResultSet rs = ps.executeQuery();
                    if(rs.next()){

            SendEmail.getInstance().sendEmail(rs.getString("email
    _add"), "HANAPIN Username Request" , "Your HANAPIN-SP
    username is: " + rs.getString("username"));
                            stat = "toHome";
                    } else {
                            errorMessage = "You entered an
    invalid email address.";
                            stat = "";
                    }
                    rs.close();
                    ps.close();
                    conn.close();
            } catch(Exception e){
                    e.printStackTrace();
            }
    }

}
```

UserAccount.java

```
package users;

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import javax.faces.component.UIParameter;
import javax.faces.event.ActionEvent;

public class UserAccount {

    public String lastName;
    public String firstname;
    public String middlename;
    public String emailAdd;
    public String company;
    public String userName;
    public String password;
    public String password2;
    public boolean admin;
    public String updateSuccessString;
    public boolean updateOk = true;
    public String stat;
    public String securityQuestion;
    public String securityAnswer;
    public String emailProxy;
    public String passwordProxy;
    public String projLevel;
    public String flag;



    public String getFlag() {
            return flag;
    }

    public void setFlag(String flag) {
            this.flag = flag;
    }

    public String getProjLevel() {
            return projLevel;
    }

    public void setProjLevel(String projLevel) {
            this.projLevel = projLevel;
    }

    public String getPasswordProxy() {
            return passwordProxy;
    }

    public void setPasswordProxy(String passwordProxy) {
```

```
		this.passwordProxy = passwordProxy;
}

public String getEmailProxy() {
		return emailProxy;
}

public void setEmailProxy(String emailProxy) {
		this.emailProxy = emailProxy;
}

public String getSecurityQuestion() {
		return securityQuestion;
}

public void setSecurityQuestion(String securityQuestion) {
		this.securityQuestion = securityQuestion;
}

public String getSecurityAnswer() {
		return securityAnswer;
}

public void setSecurityAnswer(String securityAnswer) {
		this.securityAnswer = securityAnswer;
}

public boolean isAdmin() {
		return admin;
}

public void setAdmin(boolean admin) {
		this.admin = admin;
}

public String getStat() {
		return stat;
}

public void setStat(String stat) {
		this.stat = stat;
}

public String getPassword2() {
		return password2;
}

public void setPassword2(String password2) {
		this.password2 = password2;
}

public String getUpdateSuccessString() {
		return updateSuccessString;
}

public void setUpdateSuccessString(String updateSuccessString) {
		this.updateSuccessString = updateSuccessString;
}

public boolean isUpdateOk() {
		return updateOk;
}

public void setUpdateOk(boolean updateOk) {
		this.updateOk = updateOk;
}


public String getLastName() {
		return lastName;
}

public void setLastName(String lastName) {
		this.lastName = lastName;
}

public String getFirstname() {
		return firstname;
}

public void setFirstname(String firstname) {
		this.firstname = firstname;
}

public String getMiddlename() {
		return middlename;
}

public void setMiddlename(String middlename) {
		this.middlename = middlename;
}

public String getEmailAdd() {
		return emailAdd;
}

public void setEmailAdd(String emailAdd) {
		this.emailAdd = emailAdd;
}

public String getCompany() {
		return company;
}

public void setCompany(String company) {
		this.company = company;
}

public String getUserName() {
		return userName;
}

public void setUserName(String userName) {
		this.userName = userName;
}

public String getPassword() {
		return password;
}

public void setPassword(String password) {
		this.password = password;
}

public void getUserDetails(String regName){
		try {
				Connection conn =
database.DBConnect.getInstance().setConnection();
				PreparedStatement ps =
conn.prepareStatement("SELECT * FROM users WHERE
username = ?");
				ps.setString(1, regName);
				ResultSet rs = ps.executeQuery();
				while (rs.next()) {

		setUserName(rs.getString("username"));

		setPassword(rs.getString("password"));

		setCompany(rs.getString("company"));
```

```
                setEmailAdd(rs.getString("email_add"));

                setFirstname(rs.getString("first_name"));

                setMiddlename(rs.getString("middle_name"));

                setLastName(rs.getString("last_name"));

                setSecurityAnswer(rs.getString("answer"));

                setSecurityQuestion(rs.getString("question"));

                setEmailProxy(rs.getString("email_add"));
                        }
                        ps.close();
                        rs.close();
                        conn.close();
                } catch (Exception e) {
                        e.printStackTrace();
                }
}

public void getUserDetails(ActionEvent event) {
        updateSuccessString = "";
        updateOk = true;
        UIParameter component = (UIParameter)
event.getComponent()
        .findComponent("aUserName");
        String regName = component.getValue().toString();
        getUserDetails(regName);
}

public void initDetails(ActionEvent event){
        getUserDetails(userName);
}

public void updatePassword(ActionEvent event){
        try {
                if(password.equals("")){
                        updateSuccessString =
"Password field is required!";
                        stat = "errorPass";
                        updateOk = false;
                        return;
                }if(password.length() < 6){
                        updateSuccessString =
"Password should be more than 6 characters.";stat = "errorPass";
                        updateOk = false;
                        return;
                }
                if(!password.equals(password2)){
                        updateSuccessString =
"Passwords did not match!";stat = "errorPass";
                        updateOk = false;
                        return;
                }
                Connection conn =
database.DBConnect.getInstance().setConnection();
                PreparedStatement ps =
conn.prepareStatement("UPDATE users SET password = md5(?)
WHERE username = ?");
                ps.setString(1, password);
                ps.setString(2, userName);
                ps.execute();
                ps.close();
                conn.close();
                updateSuccessString = "";
                updateOk = true;
                stat = "showUserDetails";
        } catch (Exception e) {
                e.printStackTrace();
        }
        stat = "errorPass";
}

public String whatStat(){
        return stat;
}

public boolean validateEditAccount(){
        try {
                if (lastName.equals("")) {
                        updateSuccessString = "Please
provide your last name.";
                        updateOk = false;
                        return false;
                }
                if (middlename.equals("")) {
                        updateSuccessString = "Please
provide your middle name.";
                        updateOk = false;
                        return false;
                }
                if (firstname.equals("")) {
                        updateSuccessString = "Please
provide your first name.";
                        updateOk = false;
                        return false;
                }
                if (company.equals("")) {
                        updateSuccessString = "Please
provide your company name.";
                        updateOk = false;
                        return false;
                }
                if (emailAdd.equals("")) {
                        updateSuccessString = "Email
Address is required.";
                        updateOk = false;
                        return false;
                }
                if (emailAdd.indexOf('@') == -1) {
                        updateSuccessString = "Email
Address is invalid.";
                        updateOk = false;
                        return false;
                }
                if(!emailProxy.equals(emailAdd)){
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps = conn

                .prepareStatement("SELECT * from users where
email_add = ?");
                        ps.setString(1, emailProxy);
                        ResultSet rs =
ps.executeQuery();
                        while (rs.next()) {
                                updateSuccessString
= "Email Address is already in use.";
                                updateOk = false;
                                return false;
                        }
                        ps = conn

                .prepareStatement("SELECT * from unregistered_users
where email_add = ?");
                        ps.setString(1, emailProxy);
                        rs = ps.executeQuery();
```

```
                        while (rs.next()) {
                                updateSuccessString
= "Email Address is already in use.";
                                updateOk = false;
                                return false;
                        }
                        conn.close();
                        ps.close();
                        rs.close();
                }
                if (securityQuestion.equals("")) {
                        updateSuccessString = "Please
provide a security question.";
                        updateOk = false;
                        return false;
                }
                if (securityAnswer.equals("")) {
                        updateSuccessString = "Please
provide a security answer.";
                        updateOk = false;
                        return false;
                }
                if(!passwordProxy.equals("")){
                        if(passwordProxy.length() < 6 ||
passwordProxy.length() > 15){
                                updateSuccessString
= "Password should not be less than 6 characters and not more than
15 characters.";
                                updateOk = false;
                                return false;
                        }

        if(!passwordProxy.equals(password2)){
                                updateSuccessString
= "Passwords did not match!";
                                updateOk = false;
                                return false;
                        }
                }
        } catch (Exception e) {
                e.printStackTrace();
        }
        return true;
}

public String updateUser(){
        if(validateEditAccount()){
                if(!emailProxy.equals(emailAdd)){
                        emailAdd = emailProxy;
                }
                if(!passwordProxy.equals("")){
                        password = passwordProxy;
                }
                try {
                        Connection conn =
database.DBConnect.getInstance().setConnection();
                        PreparedStatement ps =
conn.prepareStatement("UPDATE users SET last_name = ?,
middle_name = ?, first_name = ?, company = ?, email_add = ?,
question = ?, answer = ?, password = md5(?) WHERE username =
?");
                        ps.setString(1, lastName);
                        ps.setString(2, middlename);
                        ps.setString(3, firstname);
                        ps.setString(4, company);
                        ps.setString(5, emailAdd);
                        ps.setString(6, securityQuestion);
                        ps.setString(7, securityAnswer);
                        ps.setString(8, password);
                        ps.setString(9, userName);
                        ps.execute();
                        ps.close();
                        conn.close();
                        updateSuccessString = "";
                        updateOk = true;
                        return "editAccount";
                } catch (Exception e) {
                        e.printStackTrace();
                }
        }
        return "";
  }

  public void clearDetails(ActionEvent event){
        setLastName("");
        setMiddlename("");
        setFirstname("");
        setCompany("");
        setEmailAdd("");
        setUserName("");
        setPassword("");
  }

}
```

style.css

```
@CHARSET "ISO-8859-1";

body {
  margin: 0;
  background: url(../images/img01.jpg) repeat-x left top;
  font-family: "Trebuchet MS", Arial, Helvetica, sans-serif;
  font-size: 13px;
  color: #787878;
}

h1, h2, h3 {
  margin: 0;
  text-transform: uppercase;
  letter-spacing: .15em;
  font-family: Arial, Helvetica, sans-serif;
}

h1 {
  font-size: 1.8em;
}

h2 {
  font-size: 1.4em;
}

h3 {
  font-size: 1em;
}

p, ul, ol {
  margin-top: 0;
  line-height: 180%;
}

ul, ol {
}

a {
  text-decoration: none;
  color: #C0BFBF;
}

th {
```

```
   text-align: left;
   color: green;
}

td {
   padding: 5px;
   word-break: normal;
}


a:hover {
   background: none;
}

/* Header */

#header {
   width: 920px;
   height: 98px;
   margin: 0 auto;
}

/* Logo */

#logo {
   float: left;
   width: 950px;
}

#logo h1 {
   float: left;
   padding-top: 10px;
   padding-left: 6%;
   text-transform: uppercase;
   font-size: 2em;
}

#logo p {
   float: left;
   margin: 0;
   padding: 30px 0 0 2px;
   text-transform: lowercase;
   font: 1.6em "Trebuchet MS", Arial, Helvetica, sans-serif;

}

#logo a {
   background: none;
   text-decoration: none;
   color: #5F882C;
}

/* Search */

#search {
   float: right;
   width: 200px;
   padding-top: 16px;
}

#search form {
   width: 230px;
   height: 41px;
   margin: 0;
   padding: 15px 0 0 10px;
}

#search fieldset {
   margin: 0;
   padding: 0;
   border: none;
}

#search-text {
   border: none;
   text-transform: lowercase;
   border: 1px #8DBC4A solid;
   font: bold 1.2em Arial, Helvetica, sans-serif;
   color: #FFFFFF;
}

#search-submit {
   display: none;
}

/* Menu */

#menu {
   width: 1000px;
   height: 50px;
   margin: 0 auto;
}

#menu ul {
   margin: 0;
   margin-right: 30px;
   padding: 0;
   list-style: none;
   line-height: normal;
}

#menu li {
   float: left;
}

#menu a {
   margin-right: 3px;
   padding: 5px 20px 5px 20px;
   text-transform: uppercase;
   text-decoration: none;
   font-family: Arial, Helvetica, sans-serif;
   font-size: 13px;
   font-weight: normal;
   color: #FFFFFF;
}

#menu a:hover, #menu .current_page_item a {
   background: #566316;
   color: #FFFFFF;
}

#menu a:hover {
   text-decoration: underline;
}

/* Page */

#page {
   width: 920px;
   margin: 0 auto;
   padding-top: 15px;
   padding-left: 5%;
}

/* Content */

#content {
   float: left;
   width: 670px;
}
```

```
.post {
   width: 700px;
}

.post .title {
   padding: 15px 0 5px 20px;
   color: #5C5C5C;
}

.post .title a {
   background: none;
   color: #5C5C5C;
}

.post .meta {
   padding: 2px 20px;
   border-top: 1px dashed #D2D4C9;
   border-bottom: 1px dashed #D2D4C9;
   text-transform: uppercase;
   text-align: left;
   font-family: Arial, Helvetica, sans-serif;
   font-size: 9px;
}

.post .entry {
   padding: 20px 20px;
   text-align: justify;
}

/* Sidebar */

#sidebar {
   float: right;
   width: 200px;
   padding-right: 5%;
   color: #787878;
}

#sidebar ul {
   margin: 0;
   padding: 0;
   list-style: none;
}

#sidebar li {
}

#sidebar li ul {
   padding: 5px;
}

#sidebar li li {
   line-height: 35px;


   padding-left: 10px;
}

#sidebar h2 {
   padding: 5px 10px;
   background: #79A73B url(../images/img04.jpg) repeat-x left top;
   letter-spacing: -.5px;
   font-size: 1.2em;
   color: #FFFFFF;
}

#sidebar p {
   padding: 20px;
}

#sidebar a {
   color: #787878;
}

/* Calendar */

#calendar {
}

#calendar_wrap {
   padding: 20px;
}

#calendar table {
   width: 100%;
}

#calendar tbody td {
   text-align: center;
}

#calendar #next {
   text-align: right;
}

/* Footer */

#footer {
   width: 100%;
   height: 0px;
   padding: 30px 0;
   background: #90BF4D url(../images/img02.jpg) left top;
   font-family: Arial, Helvetica, sans-serif;
}

#footer p {
   margin: 0;
   line-height: normal;
   font-size: 9px;
   text-transform: uppercase;
   text-align: center;
}

#footer a {
   color: #FFFFFF;
}

/*collapse*/

.outline {
   list-style: none;
   padding: 0px;
}

.outline ul {
   list-style: none;
   padding: 0px;
   cursor: pointer;
}

.outline li {
   cursor: pointer;
   padding: 0px;
}

.olink {
   border-style: none;
   padding-right: 0px;
   cursor: pointer;
```

```
}
.oimg {
   border-style: none;
   padding: 0px;
   cursor: pointer;
}

#mask {
  position:absolute;
  left:0;
  top:0;
  z-index:9000;
  background-color:#000;
  display:none;
}

#boxes .window {
  position:absolute;
  left:0;
  top:0;
  width:440px;
  height:200px;
  display:none;
  z-index:9999;
  padding:20px;
}

#boxes #dialog {
  width:350px;
  height:130px;
  padding:10px;
  background-color:#ffffff;
}

.errorMessage {
   font-style: italic;
   color: red;
   padding-top: 10px;
}
.projectListColumn {
   width: 500px;
   text-align: justify;
}
.projectListColumn2 {
   width: 400px;
   text-align: justify;
}
.class1 { width: 120px; }
.class2 { width: 200px;
                font-size: 12px
}
.class3 { width: 200px;
}
.class4 { width: 350px;
                font-size: 12px
}
.class5 { width: 250px;
}
.class6 { width: 300px;
                font-size: 12px
}
.class8 { width: 170px;
}
.force{
   font-size: 10px;
   width: 250px
}
.class7 {
   width: 450px
}
.class7 {
   width: 500px;
   text-align: justify;
}

.class9 {
   width: 600px;
   text-align: justify;
}
.proj {
   width: 150px;border-top: 1px;
   border-style: solid;
}
.acro {
   width: 100px;border-top: 1px;
   border-style: solid;
}
.desc{
   width: 300px;
   border-top: 1px;
   border-style: solid;
}
.rowclass{
   vertical-align: top;
}
.col1{
   border-top: 1px;
   border-style: dashed;
   width: 175px;
   vertical-align: top;
   font-size: 11px;
}
.col2{
   border-top: 1px;
   border-style: dashed;
   width: 300px;
   vertical-align: top;
   font-size: 11px;
}
.col3{
   border-top: 1px;
   border-style: dashed;
   width: 50px;
   vertical-align: top;
   font-size: 11px;
}
```

Compound.js

```
function changeVal(StringVal) {
   var i;
   var newString = "";
   for (i = 0; i <= StringVal.length; i++) {
                if (isNaN(parseInt(StringVal.charAt(i)))) {
                                newString = newString +
   StringVal.charAt(i).toUpperCase();
                } else {
                                newString = newString + "<sub>" +
   StringVal.charAt(i) + "</sub>";
                }
                document.getElementById("trueval").innerHTML =
   "True Formula: "
                                                + newString;
   }
}

function changeformula(){
```

```
   var StringVal =
   document.getElementById("myform:comptable:2:formula").inner
   HTML;
   changeVal(StringVal);
}
```

Dialog.js

```
$(document).ready(function() {

   //select all the a tag with name equal to modal
   $('a[name=modal]').click(function(e) {
                //Cancel the link behavior
                e.preventDefault();

                //Get the A tag
                var id = $(this).attr('href');

                //Get the screen height and width
                var maskHeight = $(document).height();
                var maskWidth = $(window).width();

                //Set heigth and width to mask to fill up the whole
   screen

                $('#mask').css({'width':maskWidth,'height':maskHeight
   });

                //transition effect
                $('#mask').fadeIn(1000);
                $('#mask').fadeTo("slow",0.8);

                //Get the window height and width
                var winH = $(window).height();
                var winW = $(window).width();

                //Set the popup window to center
                $(id).css('top',  winH/2-$(id).height()/2);
                $(id).css('left', winW/2-$(id).width()/2);

                //transition effect
                $(id).fadeIn(2000);

   });

   //if close button is clicked
   $('.window .close').click(function (e) {
                //Cancel the link behavior
                e.preventDefault();

                $('#mask').hide();
                $('.window').hide();
   });

   //if mask is clicked
   $('#mask').click(function () {
                $(this).hide();
                $('.window').hide();
   });

});
```

NOTE: For Reference, Please download JQuery Library.

Web.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-
   instance"
   xmlns="http://java.sun.com/xml/ns/javaee"
   xmlns:web="http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
   xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
   http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
   id="WebApp_ID" version="2.5">
   <display-name>Hanapin-SP</display-name>
   <welcome-file-list>
                <welcome-file>index.html</welcome-file>
                <welcome-file>index.htm</welcome-file>
                <welcome-file>index.jsp</welcome-file>
                <welcome-file>default.html</welcome-file>
                <welcome-file>default.htm</welcome-file>
                <welcome-file>default.jsp</welcome-file>
   </welcome-file-list>
   <context-param>
                <param-
   name>javax.faces.STATE_SAVING_METHOD</param-name>
                <param-value>client</param-value>
   </context-param>
   <resource-ref>
  <description>
   Resource reference to a factory for javax.mail.Session
   instances that may be used for sending electronic mail
   messages, preconfigured to connect to the appropriate
   SMTP server.
  </description>
  <res-ref-name>
   mail/Session
  </res-ref-name>
  <res-type>
   javax.mail.Session
  </res-type>
  <res-auth>
   Container
  </res-auth>
</resource-ref>
   <servlet>
                <servlet-name>Faces Servlet</servlet-name>
                <servlet-
   class>javax.faces.webapp.FacesServlet</servlet-class>
                <load-on-startup>1</load-on-startup>
   </servlet>
   <servlet-mapping>
                <servlet-name>Faces Servlet</servlet-name>
                <url-pattern>*.jsf</url-pattern>
   </servlet-mapping>
   <filter>
   <filter-name>Extensions Filter</filter-name>
   <filter-
   class>org.apache.myfaces.webapp.filter.ExtensionsFilter</filter-
   class>
</filter>
<filter-mapping>
   <filter-name>Extensions Filter</filter-name>
   <servlet-name>Faces Servlet</servlet-name>
</filter-mapping>
<servlet>
   <servlet-name>fileServlet</servlet-name>
   <servlet-class>upload.FileServlet</servlet-class>
</servlet>
<servlet-mapping>
   <servlet-name>fileServlet</servlet-name>
   <url-pattern>/file/*</url-pattern>
</servlet-mapping>
<servlet>
                <servlet-name>Image Servlet</servlet-name>
                <servlet-class>upload.ImageServlet</servlet-class>
                <load-on-startup>1</load-on-startup>
   </servlet>
   <servlet-mapping>
                <servlet-name>Image Servlet</servlet-name>
                <url-pattern>/image/*</url-pattern>
```

```
  </servlet-mapping>
</web-app>
```

Faces-config.xml

```
<?xml version="1.0" encoding="UTF-8"?>

<faces-config
   xmlns="http://java.sun.com/xml/ns/javaee"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
   http://java.sun.com/xml/ns/javaee/web-facesconfig_1_2.xsd"
   version="1.2">
   <managed-bean>
            <description>Links List</description>
            <managed-bean-name>linksListBean</managed-bean-
   name>
            <managed-bean-class>services.LinksList</managed-
   bean-class>
            <managed-bean-scope>session</managed-bean-scope>
   </managed-bean>
   <managed-bean>
            <description>User Values</description>
            <managed-bean-name>userBean</managed-bean-
   name>
            <managed-bean-class>services.User</managed-bean-
   class>
            <managed-bean-scope>session</managed-bean-scope>
   </managed-bean>
   <managed-bean>
            <description>User Registration Bean</description>
            <managed-bean-
   name>userRegistrationBean</managed-bean-name>
            <managed-bean-
   class>services.UserRegistration</managed-bean-class>
            <managed-bean-scope>session</managed-bean-scope>
   </managed-bean>
   <managed-bean>
            <description>Admin Temporary Bean</description>
            <managed-bean-name>adminTempBean</managed-
   bean-name>
            <managed-bean-
   class>services.AdminTemp</managed-bean-class>
            <managed-bean-scope>session</managed-bean-scope>
   </managed-bean>
   <managed-bean>
            <description>View User Bean</description>
            <managed-bean-name>viewUserBean</managed-bean-
   name>
            <managed-bean-class>services.ViewUser</managed-
   bean-class>
            <managed-bean-scope>session</managed-bean-scope>
   </managed-bean>
   <managed-bean>
            <description>Plant Bean</description>
            <managed-bean-name>plantBean</managed-bean-
   name>
            <managed-bean-class>services.Plant</managed-bean-
   class>
            <managed-bean-scope>session</managed-bean-scope>
   </managed-bean>
   <managed-bean>
            <description>Plant List Bean</description>
            <managed-bean-name>plantListBean</managed-bean-
   name>
            <managed-bean-class>services.PlantList</managed-
   bean-class>
            <managed-bean-scope>session</managed-bean-scope>
   </managed-bean>
   <managed-bean>
            <description>Compound Bean</description>
            <managed-bean-name>compoundBean</managed-
bean-name>
            <managed-bean-
class>compounds.Compound</managed-bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
            <description>Compound List Bean</description>
            <managed-bean-name>compoundListBean</managed-
bean-name>
            <managed-bean-
class>compounds.CompoundList</managed-bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
            <description>Article Bean</description>
            <managed-bean-name>articleBean</managed-bean-
name>
            <managed-bean-class>references.Article</managed-
bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
            <description>Book Bean</description>
            <managed-bean-name>bookBean</managed-bean-
name>
            <managed-bean-class>references.Book</managed-
bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
            <description>Booklet Bean</description>
            <managed-bean-name>bookletBean</managed-bean-
name>
            <managed-bean-class>references.Booklet</managed-
bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
            <description>Collection Bean</description>
            <managed-bean-name>collectionBean</managed-bean-
name>
            <managed-bean-
class>references.Collection</managed-bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
            <description>Inbook Bean</description>
            <managed-bean-name>inbookBean</managed-bean-
name>
            <managed-bean-class>references.Inbook</managed-
bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
            <description>User Account Bean</description>
            <managed-bean-name>userAccountBean</managed-
bean-name>
            <managed-bean-class>users.UserAccount</managed-
bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
            <managed-bean-
name>referenceManagerBean</managed-bean-name>
            <managed-bean-
class>references.ReferenceManager</managed-bean-class>
            <managed-bean-scope>session</managed-bean-scope>
</managed-bean>
```

```
<managed-bean>
		<description>Project Bean</description>
		<managed-bean-name>projectBean</managed-bean-
name>
		<managed-bean-class>projects.Project</managed-bean-
class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>Forgot Password Bean</description>
		<managed-bean-
name>forgotPasswordBean</managed-bean-name>
		<managed-bean-
class>users.ForgotPassword</managed-bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>Projects List Bean</description>
		<managed-bean-name>userProjListBean</managed-
bean-name>
		<managed-bean-
class>projects.UserProjList</managed-bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>FAQ List Bean</description>
		<managed-bean-name>faqBean</managed-bean-
name>
		<managed-bean-class>services.FAQList</managed-
bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>Email Settings Bean</description>
		<managed-bean-name>emailSettingsBean</managed-
bean-name>
		<managed-bean-
class>services.EmailSettings</managed-bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<managed-bean-
name>pendingUserRequestBean</managed-bean-name>
		<managed-bean-
class>services.PendingUserRequest</managed-bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>Forgot Username Bean</description>
		<managed-bean-
name>forgotUsernameBean</managed-bean-name>
		<managed-bean-
class>users.ForgotUsername</managed-bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>Search Projects Bean</description>
		<managed-bean-name>searchProjectsBean</managed-
bean-name>
		<managed-bean-
class>search.SearchProjects</managed-bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>Plant Source Bean</description>
		<managed-bean-name>plantSourceBean</managed-
bean-name>
		<managed-bean-
class>plantsource.PlantSource</managed-bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>News Feed Bean</description>
		<managed-bean-name>newsFeedBean</managed-
bean-name>
		<managed-bean-class>services.NewsFeed</managed-
bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<description>Installer Bean</description>
		<managed-bean-name>installerBean</managed-bean-
name>
		<managed-bean-class>database.Installer</managed-
bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>
<managed-bean>
		<managed-bean-name>config</managed-bean-name>
		<managed-bean-class>database.Config</managed-
bean-class>
		<managed-bean-scope>session</managed-bean-scope>
</managed-bean>

<navigation-rule>
		<display-name>home</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
				<from-outcome>loginSuccess</from-
outcome>
				<to-view-id>/services/plantHome.jsp</to-
view-id>
		</navigation-case>
		<navigation-case>
				<from-outcome>loginFailed</from-
outcome>
				<to-view-id>/services/askRegister.jsp</to-
view-id>
		</navigation-case>
		<navigation-case>
				<from-outcome>loginAdmin</from-
outcome>
				<to-view-id>/services/adminHome.jsp</to-
view-id>
		</navigation-case>
		<navigation-case>
				<from-outcome>loginDisabled</from-
outcome>
				<to-view-id>/services/userDisabled.jsp</to-
view-id>
		</navigation-case>
		<navigation-case>
				<from-outcome>loginPartFail</from-
outcome>
				<to-view-id>/services/wrongPass.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>home</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
				<from-outcome>register</from-outcome>
				<to-view-id>/services/askRegister.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
```

```
		<display-name>Registration</display-name>
		<from-view-id>/services/askRegister.jsp</from-view-
id>
		<navigation-case>
			<from-outcome>registrationSuccess</from-
outcome>
			<to-view-
id>/services/registrationSuccess.jsp</to-view-id>
		</navigation-case>
		<navigation-case>
			<from-outcome>registrationError</from-
outcome>
			<to-view-id>/services/askRegister.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Registration</display-name>
		<from-view-id>/services/askRegister.jsp</from-view-
id>
		<navigation-case>
			<from-outcome>loginFailed</from-
outcome>
			<to-view-id>/services/askRegister.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Registration</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>toHome</from-outcome>
			<to-view-id>/services/home.jsp</to-view-
id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Manage Users</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>manageUsers</from-
outcome>
			<to-view-id>/services/manageUsers.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Manage Users</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>seePending</from-
outcome>
			<to-view-id>/services/pendingList.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Registration Details</display-name>
		<from-view-id>/services/pendingList.jsp</from-view-
id>
		<navigation-case>
			<from-outcome>showRegDetails</from-
outcome>
			<to-view-
id>/services/showRegDetails.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Pending List</display-name>
		<from-view-id>/services/showRegDetails.jsp</from-
view-id>
		<navigation-case>
			<from-outcome>toList</from-outcome>
			<to-view-id>/services/pendingList.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Manage Users</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>seeUsers</from-outcome>
			<to-view-id>/services/userList.jsp</to-view-
id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Manage Users</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>adduser</from-outcome>
			<to-view-id>/services/addUser.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>User Account List</display-name>
		<from-view-id>/services/showUserDetails.jsp</from-
view-id>
		<navigation-case>
			<from-outcome>toUserList</from-
outcome>
			<to-view-id>/services/userList.jsp</to-view-
id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>User Account Details</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>showUserDetails</from-
outcome>
			<to-view-
id>/services/showUserDetails.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>User Account Details</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>edituser</from-outcome>
			<to-view-id>/services/editUser.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/*</from-view-id>
```

```
		<navigation-case>
			<from-outcome>managePlants</from-
outcome>
			<to-view-id>/services/plantList.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>manageUsers</from-
outcome>
			<to-view-id>/services/manageUsers.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>plantAddSuccess</from-
outcome>
			<to-view-id>/services/plantData.jsp</to-
view-id>
		</navigation-case>
		<navigation-case>
			<from-outcome>plantAddError</from-
outcome>
			<to-view-id>/services/plantList.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/services/plantData.jsp</from-view-id>
		<navigation-case>
			<from-outcome>toAdminPlantList</from-
outcome>
			<to-view-id>/services/plantList.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/services/plantList.jsp</from-view-id>
		<navigation-case>
			<from-outcome>seePlantsAdmin</from-
outcome>
			<to-view-id>/services/plantList.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>showPlantDetails</from-
outcome>
			<to-view-id>/services/plantData.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Disable/Enable User</display-name>
		<from-view-id>/services/showUserDetails.jsp</from-
view-id>
		<navigation-case>
			<from-outcome>updateUserPage</from-
outcome>
			<to-view-
id>/services/showUserDetails.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/services/plantData.jsp</from-view-id>
		<navigation-case>
			<from-outcome>editPlant</from-outcome>
			<to-view-id>/services/plantEdit.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/services/*</from-view-id>
		<navigation-case>
			<from-outcome>backToPlantData</from-
outcome>
			<to-view-id>/services/plantData.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/services/plantData.jsp</from-view-id>
		<navigation-case>
			<from-outcome>deletePlantSuccess</from-
outcome>
			<to-view-id>/services/plantList.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Plant Management</display-name>
		<from-view-id>/services/*</from-view-id>
		<navigation-case>
			<from-outcome>toManageUsers</from-
outcome>
			<to-view-id>/services/manageUsers.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Compound Management</display-
name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>manageCompounds</from-
outcome>
			<to-view-
id>/compounds/compoundList.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Compound Management</display-
name>
```

```
		<from-view-id>/compounds/compoundList.jsp</from-
view-id>
		<navigation-case>
			<from-
outcome>showCompoundDetails</from-outcome>
			<to-view-
id>/compounds/compoundDetails.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Compound Management</display-
name>
		<from-view-id>/compounds/*</from-view-id>
		<navigation-case>
			<from-
outcome>seeCompoundsAdmin</from-outcome>
			<to-view-
id>/compounds/compoundList.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Compound Management</display-
name>
		<from-view-id>/compounds/compoundList.jsp</from-
view-id>
		<navigation-case>
			<from-
outcome>compoundAddSuccess</from-outcome>
			<to-view-
id>/compounds/compoundDetails.jsp</to-view-id>
		</navigation-case>
		<navigation-case>
			<from-
outcome>compoundAddError</from-outcome>
			<to-view-
id>/compounds/compoundList.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Compound Management</display-
name>
		<from-view-
id>/compounds/compoundDetails.jsp</from-view-id>
		<navigation-case>
			<from-outcome>editCompound</from-
outcome>
			<to-view-
id>/compounds/compoundEdit.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Compound Management</display-
name>
		<from-view-id>/compounds/compoundEdit.jsp</from-
view-id>
		<navigation-case>
			<from-
outcome>backToCompoundData</from-outcome>
			<to-view-
id>/compounds/compoundDetails.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Compound Management</display-
name>
		<from-view-
id>/compounds/compoundDetails.jsp</from-view-id>
		<navigation-case>
			<from-
outcome>deleteCompoundSuccess</from-outcome>
			<to-view-
id>/compounds/compoundList.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>References Management</display-
name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>manageReferences</from-
outcome>
			<to-view-
id>/references/referenceHome.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>References Management</display-
name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>article</from-outcome>
			<to-view-
id>/references/viewArticle.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>References Management</display-
name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>book</from-outcome>
			<to-view-id>/references/viewBook.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>References Management</display-
name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>booklet</from-outcome>
			<to-view-
id>/references/viewBooklet.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>References Management</display-
name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>collection</from-outcome>
			<to-view-
id>/references/viewCollection.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>References Management</display-
name>
		<from-view-id>/*</from-view-id>
```

```
		<navigation-case>
			<from-outcome>inbook</from-outcome>
			<to-view-
id>/references/viewInbook.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>References Management</display-
name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>manual</from-outcome>
			<to-view-
id>/references/viewManual.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>References Management</display-
name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>tech</from-outcome>
			<to-view-id>/references/viewTech.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>thesis</from-outcome>
			<to-view-id>/references/viewThesis.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>unpublished</from-
outcome>
			<to-view-
id>/references/viewUnpublished.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
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			<to-view-id>/references/addArticle.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
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view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
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outcome>
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view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>addcollection</from-
outcome>
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id>/references/addCollection.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
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outcome>
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view-id>
		</navigation-case>
</navigation-rule>

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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>addmanual</from-
outcome>
			<to-view-id>/references/addManual.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
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view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>addthesis</from-outcome>
```

```
                <to-view-id>/references/addThesis.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

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name>
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        <navigation-case>
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outcome>
                <to-view-
id>/references/addUnpublished.jsp</to-view-id>
        </navigation-case>
</navigation-rule>


<navigation-rule>
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name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-
id>/references/referenceHome.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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name>
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view-id>
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</navigation-rule>

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name>
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view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>References Management</display-
name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/references/editBooklet.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-
id>/references/editCollection.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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name>
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        <navigation-case>
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outcome>
                <to-view-id>/references/editInbook.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>References Management</display-
name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>editmanual</from-
outcome>
                <to-view-id>/references/editManual.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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                <to-view-id>/references/editTech.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>References Management</display-
name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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                <to-view-id>/references/editThesis.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>References Management</display-
name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>editunpublished</from-
outcome>
                <to-view-
id>/references/editUnpublished.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>logout</from-outcome>
```

```
                <to-view-id>/services/home.jsf</to-view-
id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Edit Account</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>editAccount</from-
outcome>
                <to-view-id>/users/accountDetails.jsf</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Edit Account</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/users/editAccount.jsf</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-
id>/services/adminChangePass.jsf</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Forget Password</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>forgetok</from-outcome>
                <to-view-
id>/services/forgetPassDetails.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-
id>/services/forgetPassword.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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        <from-view-id>/*</from-view-id>
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outcome>
                <to-view-
id>/services/forgetPassword.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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        <from-view-id>/*</from-view-id>
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outcome>
                <to-view-
id>/services/forgotUsername.jsp</to-view-id>
        </navigation-case>
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<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/projects/addProject.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Project Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>setAdmin</from-outcome>
                <to-view-
id>/projects/searchUserProject.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Project Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>projectDetails</from-
outcome>
                <to-view-id>/projects/projectInfo.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Project Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/projects/projectInfo.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Plant Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>regPlantList</from-
outcome>
                <to-view-id>/users/regPlantList.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Project Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
```

```
                <from-outcome>editProject</from-
outcome>
                <to-view-id>/projects/editProject.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Account Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>forget2</from-outcome>
                <to-view-
id>/services/resetPassword2.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>applyProj</from-outcome>
                <to-view-id>/projects/registerProj.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Project Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>projectManage</from-
outcome>
                <to-view-id>/projects/projManage.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/projects/projReqList.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/projects/projViewer.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Project Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>projectManager</from-
outcome>
                <to-view-id>/projects/projManager.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>Project Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/projects/projAdmin.jsp</to-
view-id>
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<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>accountOptions</from-
outcome>
                <to-view-
id>/projects/accountOptions.jsp</to-view-id>
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<navigation-rule>
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        <navigation-case>
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outcome>
                <to-view-id>/projects/projList.jsp</to-view-
id>
        </navigation-case>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/projects/deleteProject.jsp</to-
view-id>
        </navigation-case>
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        <from-view-id>/*</from-view-id>
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view-id>
        </navigation-case>
</navigation-rule>

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        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>addplant</from-outcome>
                <to-view-id>/services/addPlant.jsp</to-
view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>System Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>seeLinks</from-outcome>
```

```
                <to-view-id>/system/links.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>System Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>seeFaqs</from-outcome>
                <to-view-id>/system/faqs.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>System Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>faq</from-outcome>
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id>
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</navigation-rule>

<navigation-rule>
        <display-name>Active Compound
Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-id>/projects/compProject.jsp</to-
view-id>
        </navigation-case>
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<navigation-rule>
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Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-
id>/compounds/addCompound.jsp</to-view-id>
        </navigation-case>
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Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-
id>/compounds/viewCompound.jsp</to-view-id>
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<navigation-rule>
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Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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outcome>
                <to-view-
id>/compounds/editCompound.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>System Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>seeMail</from-outcome>
                <to-view-id>/system/email.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>System Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-outcome>seeNews</from-outcome>
                <to-view-id>/system/news.jsp</to-view-id>
        </navigation-case>
</navigation-rule>

<navigation-rule>
        <display-name>System Management</display-name>
        <from-view-id>/*</from-view-id>
        <navigation-case>
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                <to-view-id>/system/editNews.jsp</to-
view-id>
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</navigation-rule>

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        <navigation-case>
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outcome>
                <to-view-
id>/services/addPlantDirect.jsp</to-view-id>
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</navigation-rule>

<navigation-rule>
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        <navigation-case>
                <from-outcome>plantManage</from-
outcome>
                <to-view-
id>/services/plantManagement.jsp</to-view-id>
        </navigation-case>
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<navigation-rule>
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        <navigation-case>
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outcome>
                <to-view-
id>/services/addProjectDirect.jsp</to-view-id>
        </navigation-case>
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<navigation-rule>
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        <from-view-id>/*</from-view-id>
        <navigation-case>
                <from-
outcome>projectAdminManage</from-outcome>
                <to-view-id>/projects/projList.jsp</to-view-
id>
```

```
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Project Management</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>searchProjDetails</from-
outcome>
			<to-view-id>/search/searchByProj.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-
outcome>searchActiveCompounds</from-outcome>
			<to-view-
id>/search/searchByCompound.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>searchPlantSource</from-
outcome>
			<to-view-
id>/search/searchByPlantSource.jsp</to-view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>Project Management</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>searchSystem</from-
outcome>
			<to-view-id>/search/searchByProj.jsp</to-
view-id>
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		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>fromProjects</from-
outcome>
			<to-view-id>/search/fromProjects.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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		<navigation-case>
			<from-outcome>fromCompounds</from-
outcome>
			<to-view-
id>/search/fromCompounds.jsp</to-view-id>
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</navigation-rule>

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		<navigation-case>
			<from-outcome>addSource</from-
outcome>
			<to-view-id>/projects/addSource.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

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		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>editSource</from-
outcome>
			<to-view-id>/projects/editSource.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
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		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>seeThisNews</from-
outcome>
			<to-view-id>/system/viewNews.jsp</to-
view-id>
		</navigation-case>
</navigation-rule>

<navigation-rule>
		<display-name>News Management</display-name>
		<from-view-id>/*</from-view-id>
		<navigation-case>
			<from-outcome>log</from-outcome>
			<to-view-id>/services/login.jsp</to-view-
id>
		</navigation-case>
</navigation-rule>

</faces-config>
```

XI. ACKNOWLEDGEMENT

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