

UNIVERSITY OF THE PHILIPPINES MANILA
COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF PHYSICAL SCIENCES AND MATHEMATICS

**VECTOR-BORNE DISEASES MONITORING SYSTEM
(VBDMS)**

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

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Abstract

Vector-borne diseases have been a major public health concern in most tropical areas, and an emerging threat for more developed countries. This study proposes a monitoring information system with the aid of geographic information system maps to help health officials in the surveillance of these diseases and for the immediate response and intervention.

Keywords: vector-borne diseases, chikungunya, dengue, malaria, vector-borne diseases mortality and morbidity, information system, disease surveillance, database management system, geographic information system

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I. Introduction

A. Background of the Study

Vector-borne diseases are infectious diseases which can be transmitted by various vectors (e.g insects, ticks). They represent a major public health concern in most tropical areas, and an emerging threat for more developed countries [1]. In the country, these diseases are most commonly brought by mosquito vectors [2].

Vector-borne diseases specifically have been one of the leading causes of morbidity and mortality in human and animal populations with over 50 million that were accounted in 2004 for disability-adjusted life years (DALYs) [3]. Malaria, dengue and the Gambian form of human African trypanosomiasis, which are mosquito-borne diseases with only human hosts, all together affect over 250 millions people and kill around 900,000 humans every year. Other non-human host mosquito-borne diseases, like Japanese encephalitis and Chagas disease, are responsible for more than 50,000 human deaths a year, and incapacitate several hundred thousands people [1].

The vector-borne diseases with the most prevalence in the country are chikungunya, dengue and malaria. Chikungunya is a mosquito-borne disease which shares clinical signs with dengue but not as deadly. Recently, there was a reported outbreak of chikungunya in Patnongan, Antique having 313 cases from April to June 2013 with no reported deaths. [4]

Dengue ranks as the most important mosquito-borne viral disease in the world with up to 50 million infections occurring annually and 22, 000 deaths mainly among children [5]. About 80, 745 cases of dengue were identified and 496 cases of which led to death from the timeline of January 1 to August 18, 2012 only in the Philippines [6].

Malaria is one of the endemic vector-borne diseases not only in the country but in the world. In 2010, an estimated 216 million clinical episodes and 655, 000 deaths caused by malaria globally were recorded. And 6% of those recorded

deaths were from Southeast Asian Region [7]. In 2011, there were only 9, 642 malaria cases in the country which is a significant decrease compared to 43, 441 cases in 2003 [8].

Surveillance of these vector-borne diseases in the Philippines is conducted by health workers in a hierarchical order. Health workers from barangays conduct surveys and collect data of the incidence of these diseases in the community on a monthly basis. Health workers in municipalities are responsible for verifying these records sent by barangay health workers and keeping them. The information gathered will be sent to the provincial offices. Provincial health workers will then encode and put these data on the Philippine Integrated Disease Surveillance and Response (PIDS) which is managed by the Department of Health (DOH). The local government has an active role of detecting diseases and undertaking response actions while the regional and national levels will provide the needed support, the policies, guidelines, and the training as well. [2]

PIDS is a stand-alone information system which serves as the departments central repository of almost 22 diseases in the country including some vector-borne diseases like dengue and malaria. Its main purpose is data recording of patients which includes patient information (full name, age, sex, date of birth, complete address) and clinical information (attending hospital/clinic, type of hospital/clinic, hospital/clinic address, date admitted, date of onset, morbidity week, type and case classification, outcome and date died) having vector-borne diseases. As they populate the system with records of patients, they use a separate software application, EpiInfo, to compute for the statistics needed to be included in the reports. EpiInfo can also generate maps but this functionality isn't implemented by the DOH in their generation of reports of the diseases. Users of this system only include the DOH staffs mainly of the National Epidemiology and Surveillance Center and provincial health officials. It is deployed in selected province only. [2]

The Department of Health also implemented the Philippine Malaria Information System (PhilMIS) which was developed to provide information needed for

planning, implementation, monitoring and evaluation of malaria control program in a computerized form. The PhilMIS is also a stand-alone information system which basic operations include data recording and entry of records of malaria cases (age, sex, barangay, date of onset of disease, date died, and inclusive date of survey) and generation of statistical reports. In 2005, PhilMIS was deployed in a total of 17 provinces. PhilMIS software was revised in 2007, and is released as PhilMIS2. A total of 30 malaria endemic provinces were installed with PhilMIS2. The users of the PhilMIS2 include DOH staffs and provincial health officers only. It is deployed in provincial level but in selected provinces only as well. [9]

B. Statement of the Problem

Vector-borne diseases are endemic to tropical countries like Philippines. Monitoring these diseases is not easily done and information through monitoring is not that much accessible to the public.

Though there are many information systems being used by the Department of Health (DOH) to keep records of these diseases, some of those systems are deployed only in the machine or work stations of users and updates in the system are done by manually receiving patches from the main office via email. Its main users are the DOH officials and health officials in provincial levels only. The DOH, being responsible for informing the public about the health status in the country, provides information in their DOH website and also in the news. But the information with regard to the diseases, not only vector-borne diseases, is mostly out of date and not updated even in a monthly or quarterly basis.

DOH initially planned to develop web-based information systems for disease monitoring hence, their beta version but because of some program errors with the system, the implementation was cancelled. [2]

Researchers, epidemiologist and other disease analyst, may have difficulties in obtaining data for their researches as for these data are only exclusively provided by DOH. Ease of access of data will help researchers to easily focus on investigation

of possible outbreaks, disease surveillance and other health related actions.

Determining and manually mapping areas in the country where theres a high occurrence of a disease is tedious given that there can be thousands of persons who may have caught the disease since gathering information, like having survey from house-to-house or getting records from hospitals/clinic, is already pretty exhaustive for health workers especially when repeating the process monthly. With the unavailability of up-to-date information of these diseases, the public are much more likely to be unaware of the status of these diseases in the country until it becomes endemic or announced in the news. We have limited access to an updated and real-time monitoring of these diseases especially in areas which are more susceptible to these diseases.

These diseases cannot be exterminated in the near future. Besides global climate change can bring about possible changes in the prevalence of mosquito vector-borne diseases especially in temperate zones and higher altitudes in tropical countries like Philippines [10]. So as long as the vectors of the disease exist, there is always a chance that a person will be infected thus, the more needed it is to monitor these diseases.

C. Objectives of the Study

This study aims to develop an online monitoring information system for vector-borne diseases, specifically for chikungunya, dengue, and malaria, with the following functionalities:

1. Allow all levels of health workers and health officials to:
 - (a) Register to the system. He/She can log into the system once approved by the system administrator.
 - (b) Generate reports that may include specific disease statistics (morbidity, geographic distribution), GIS maps and charts (no. of cases by the specified date, disease case by age group and gender, disease case

fatality ratio by age group, disease case and death) from specific area/s and from specific date/s.

- (c) Change his/her account password.
2. Allow barangay health workers to enter the data for the vector-borne diseases which will then be verified by the municipal health workers.
 3. Allow municipal/city health workers to:
 - (a) Check the data submitted by the barangay health workers and approve these data after verification and checking.
 - (b) Send the data to provincial health workers after verification and approval.
 4. Allow provincial health workers to:
 - (a) Check the data submitted by the municipal health workers and approve these data after verification and checking.
 - (b) Update the system after verification and checking of data gathered from lower tier health workers.
 5. Allow municipal/city, provincial and national health officials to:
 - (a) Be notified whenever there is a near-case of epidemic of a disease in a certain area via SMS and message prompt in their user account
 - (b) Automatically redirect the GIS map into the users location through their assigned location and show the map of the area near it.
 - (c) Monitor/Manage the user accounts of health officials and health workers within their location.
 6. Allow a researcher to:
 - (a) Register to the system. He/She can log into the system once approved by the system administrator.

- (b) Export in spreadsheet the data sets acquired by the health workers.
- (c) Generate reports that may include specific disease statistics (morbidity, geographic distribution), GIS maps and charts (no. of cases by the specified date, disease case by age group or/and gender, disease case fatality ratio by age group, disease case and death) from specific area/s and from specific date/s.
- (d) Change his/her account password.

7. Allow public users to:

- (a) Automatically redirect the GIS map into the users location through their IP address and show the map of the area near it.
- (b) View the statistics (morbidity, geographic distribution) of the specific disease in specific area/s and from specific date/s.
- (c) View awareness campaign by DOH about vector-borne diseases (preventions, symptoms and possible first-aid treatments).

8. Allow national, provincial and municipal/city system administrators to:

- (a) Activate/Deactivate researchers or health officials accounts within their location.
- (b) View logs of activities of the researcher and health officials within their location.
- (c) Export in spreadsheet the data sets acquired by the system that are input by health workers.
- (d) Generate reports that may include specific diseases statistics (morbidity, geographic distribution), GIS maps and charts (no. of cases by the specified date, disease case by age group and gender, disease case fatality ratio by age group, disease case and death) from specific area/s and from specific date/s.
- (e) Change his/her account password.

D. Significance of the Project

This monitoring information system will help in monitoring vector-borne diseases in real-time and provide up-to-date information regarding the incidence of a vector-borne disease which may come in handy to determine possible outbreaks.

It can also help researchers and epidemiologist to gather data for research since data on these diseases aren't that much accessible. And reports generated that may include statistics of the disease will also help the researchers study the incidence of these diseases and their possible impacts to the community.

Real-time and easily accessible monitoring of vector-borne diseases can assist health officials to pinpoint areas where there is a possible endemic of a disease and make the necessary course of actions and interventions. Availability of monitored information of the said diseases especially online will raise the awareness of the public regarding the disease and will help them be more cautious about their surrounding environment.

The use of maps will assist in identifying areas with the most number of cases of a disease. The public can also make use of this map to help them see whether there are a lot of cases near them and can invoke necessary precautions and might as well inform the barangay officials to perform immediate response and interventions as deemed necessary by the situation at hand.

E. Scope and Limitations

For this study, the researcher will produce a system under the following conditions:

1. This project will initially consist of the vector-borne diseases: chikungunya, dengue, and malaria.
2. This project will only accept data sets input in the interface provided by the system in order to prevent non-uniform use of file types in the inputs and these data sets will include the patients age, sex, date of birth, complete address, attending hospital/clinic, type of hospital/clinic, hospital/clinic ad-

dress, date admitted, date of onset, type and case classification, outcome and date died.

3. This project will only export data sets including patients age, gender, barangay, disease type and patient status to protect the patients confidentiality.
4. This project will generate reports in a .pdf format.
5. The approval and deactivation of the researcher registering to the system will be solely decided by the national system administrator, and he/she informs the researcher regarding the approval of the registration.
6. This project will have a countrywide scope for the cases of the listed vector-borne diseases.
7. The map to be used in this project is static.
8. The project will reflect the cases of diseases in the map only for a month.
9. Data collection comes from surveys done by barangay health workers on households/barangay health center/hospitals for cases/incidence of diseases and is done on a monthly basis. Data gathered are sent to municipal health workers for checking and verification, and is sent to provincial health offices. Provincial health workers check and verify these data and update their records as well as the information systems and also send these data to DOH.
10. Other vector-borne diseases can be later added.

F. Assumptions

The following are the assumptions that the researcher includes in the study:

1. There is only one account (username and password) for the system administrator in the national level, and one system administrator for each province and municipality/city.
2. The system administrator uses as his/her primary basis for the approval of researcher accounts the following information provided by the researcher upon registration: the institution they belong to, significant people who have possibly referred them to the system and their research interest.
3. Barangay health workers regularly collect vector-borne disease data as mandated by law.

II. Review of Related Literature

Improvements in information technology (i.e mapping, and geographic information systems) also improves the capacity to predict, prevent and control vector-borne and other infectious diseases. [11, 12]

In Nicaragua, vector control begins at municipality level where public health workers from the Ministry of Health survey homes to calculate the mosquito infestation per neighborhood and identify sites of potential larval development. Data collected from the public health surveyors was then entered into the map and utilized to calculate several indices of larval infestation. Once information on the locations of larval development sites and dengue cases had been input on the map, spatial patterns among the known dengue cases, mosquito larval indices, and the previously identified larval development sites were visually analyzed for patterns. As a result, it is possible to prioritize control strategies and to target interventions to highest risk areas in order to eliminate the likely origin of the mosquito vector. [13]

In Saudi Arabia, researchers created models of areas with humans at risk of dengue fever prevalence based on spatial relationship between dengue fever cases and different socioeconomic parameters (e.g population numbers, population density, and neighborhood quality). These were analyzed using Geographically Weighted Regression (GWR) to create a prediction model identifying levels of risk of dengue and the diseases association with the fore-mentioned socioeconomic factors. Geographic Information Systems (GIS) was used to characterize the socioeconomic parameters like calculating population density and determining the number of dengue fever cases in that layer. [14]

Another study conducted in Jeddah, Saudi Arabia, which aimed to use geographical information systems to demonstrate the Dengue fever (DF) risk on a monthly basis in the said setting with the purpose to provide documentation to improve surveillance and monitor the Aedes aegypti mosquito vector. The data on clinical cases of DF were obtained from the Jeddah Health Affairs department

which keeps record of confirmed cases of DF since 2006. The records include age, sex, nationality, district, coordinates and the week of disease onset for each case. [15]

In North America, National Electronic Disease Surveillance Disease was implemented by the United States Centers for Disease Control and Prevention to promote rapid collection of standardized disease data. Another one is the multi-disease data management system platform with capacity for dengue and malaria which is capable of enhancing the users ability to carry out continuous surveillance, monitor interventions, evaluate control program performance, and engage in evidence-based decision making and includes production of maps and both standard and customized reports. [11]

The VBD-AIR tool by Huang, et al. [16] helps better define the roles of airlines in the transmission and spread of disease. Air travel likely moves vector-borne diseases (via infected passengers) than in moving the vector. Up to 8 % of travelers to the developing world become ill enough to seek healthcare upon returning home, with a significant proportion of these suffering from vector-borne infections. This study focuses only on four common vector-borne diseases namely malaria, dengue, yellow fever, and chikungunya. VBD-AIR integrates data sources from airport locations and air routes, disease and vector distributions, global climate data, and global land-based travel time data.

A study by Yang, et al. [17], a nationwide web-based automated system for outbreak detection and rapid response was developed in 2008 in China. The China Infectious Disease Automated-alert and Response System (CIDARS), developed by the Chinese Center for Disease Control, facilitates data analysis, aberration detection, signal dissemination, signal response and information communication needed by public health departments across the country. CIDARS has been used nationwide since 2008 and assists on early outbreak detection at the local level prompts reporting of unusual disease occurrences to CDCs throughout the country.

The study of Lars Eisen and Rebecca Eisen [12] focuses on how advances in

mapping, Geographic Information System, and Decision Support System technologies, and progress in spatial and space-time modeling, can be harnessed to prevent and control vector-borne diseases. Its major themes include importance of using high-quality and biologically or epidemiologically relevant data, incorporation of new technologies into operational vector and disease control programs, transfer of map-based information to stake-holders, and adaptation of technology solutions for use in resource-poor environments.

In the study done by Amoli [18], GIS is used to perform statistical and spatial analysis on a retrospective database, including the total number of incidence of Leishmaniasis in Isfahan, Iran between the year 2007 to 2009. It produces a map showing the relative risk of each area for this disease. The developed risk map can be used by the Public Health Department for the valuable information it provides can help in the planning of precautionary measures and for controlling the spread of Leishmaniasis.

This study will develop a web-based system which uses GIS maps so that health professionals can also record the information of vector-borne diseases into GIS system to visually display on the electronic map just like in the study done by Zhen, et al. [19] so that proper interventions can be adopted or the corresponding early warning program will be started, targeted to prevent further spread of epidemic.

III. Theoretical Framework

A. Vector-Borne Diseases

Vector-borne diseases are infections transmitted by the bite of infected arthropod species such as mosquitoes, ticks, etc. The arthropod that transmits these diseases through feeding activity is termed as vector [20, 21]. This study focuses on the vector-borne diseases chikungunya, dengue and malaria.

1. Chikungunya

Chikungunya is a viral disease that causes fever and severe joint pain. Sharing clinical signs with dengue, it is usually misdiagnosed in areas where dengue is common. It is transmitted by infected mosquitoes, usually the genus Aedes. [22]

(a) Signs and Symptoms

Aside from abrupt onset of fever frequently accompanied by joint pains, other signs and symptoms of chikungunya include muscle pain, headache, nausea, fatigue and rash. Joint pain usually lasts within a few days or weeks and while most patients recover fully from this, some cases may persist for several months, or even years. Occasionally, cases of eye, neurological and heart complications as well as gastrointestinal complaints have been reported. This disease not often cause serious complications but can contribute to death among older population. [22]

(b) Treatment

Since there are no specific drugs to cure the disease, relieving the symptoms including the joint pains are directed primarily. There is no commercial chikungunya vaccine. [22]

(c) Health Offices' Action/Advise to Public

Health officers provide information dissemination for residents to clean their surroundings and get rid of mosquito-breeding sites.

2. Dengue

Dengue is a mosquito-borne viral infection that causes flu-like illness, and occasionally develops into a potentially lethal complication called severe dengue. It is found in tropical and sub-tropical climates and mostly in urban and semi-urban areas. It is transmitted by an infected Aedes mosquito (Aedes aegypti or Aedes albopictus). [23]

(a) Signs and Symptoms

When running a high fever ($40^{\circ}\text{C}/100^{\circ}\text{F}$) and is accompanied by two symptoms, namely, severe headache, pain behind the eyes, muscle and joint pains, nausea, vomiting, swollen glands or rash, dengue should be suspected. These symptoms usually last for 2 to 7 days; that is after 4-10 days of incubation period after the bite from an infected mosquito.

A potentially deadly complication from dengue, severe dengue, is due to plasma leaking, fluid accommodation, respiratory diseases, severe bleeding, or organ impairment. After 3-7 days when the first symptoms in conjunction with a decrease in temperature of below $38^{\circ}\text{C}/100^{\circ}\text{F}$, warning sign occurs that includes severe abdominal pain, persistent vomiting, rapid breathing, bleeding gums, fatigue, restlessness and blood in vomit. Proper medical care is needed to avoid complications and risk of death especially in the next 24-48 hours of the critical stage.

[23]

(b) Treatment

There is no specific treatment for dengue fever. For severe dengue, medical care by physicians and nurses experienced with the effects and progression of the disease can save lives. Maintenance of the patients body fluid volume is critical to severe dengue care. [23]

(c) Health Offices' Action/Advise to Public

Health officers provide comprehensive information dissemination for residents to clean their surroundings and get rid of mosquito-breeding sites.

3. Malaria

Malaria, though preventable and curable, is a life-threatening disease caused by parasites that are transmitted to people through the bites of infected mosquitoes. The burden of malaria in many places has been dramatically reduced by increased malaria prevention and control measures. The Plasmodium parasite causes malaria to humans and is transmitted by Anopheles mosquitoes. [24]

(a) Signs and Symptoms

Malaria is an illness characterized with acute fever. Symptoms appear 7 days or more (10-15 days) for non-immune individuals after being bitten by an infected mosquito. The first symptoms include fever, headache, chills and vomiting which may be mild and difficult to be recognized as malaria. Residents in malaria endemic areas may develop partial immunity which allows asymptomatic infections to occur. [24]

(b) Treatment

Early diagnosis and treatment of malaria reduces disease and prevents deaths. It also contributes to reducing malaria transmission. The best available treatment, particularly for P. falciparum malaria, is artemisinin-based combination therapy (ACT). [24]

(c) Health Offices' Action/Advise to Public

Health officers provide comprehensive information dissemination for residents to clean their surroundings and get rid of mosquito-breeding sites.

B. Department of Health (DOH)

1. Organizational Structure

The organizational structure of the country's Department of Health (DOH) is shown below:

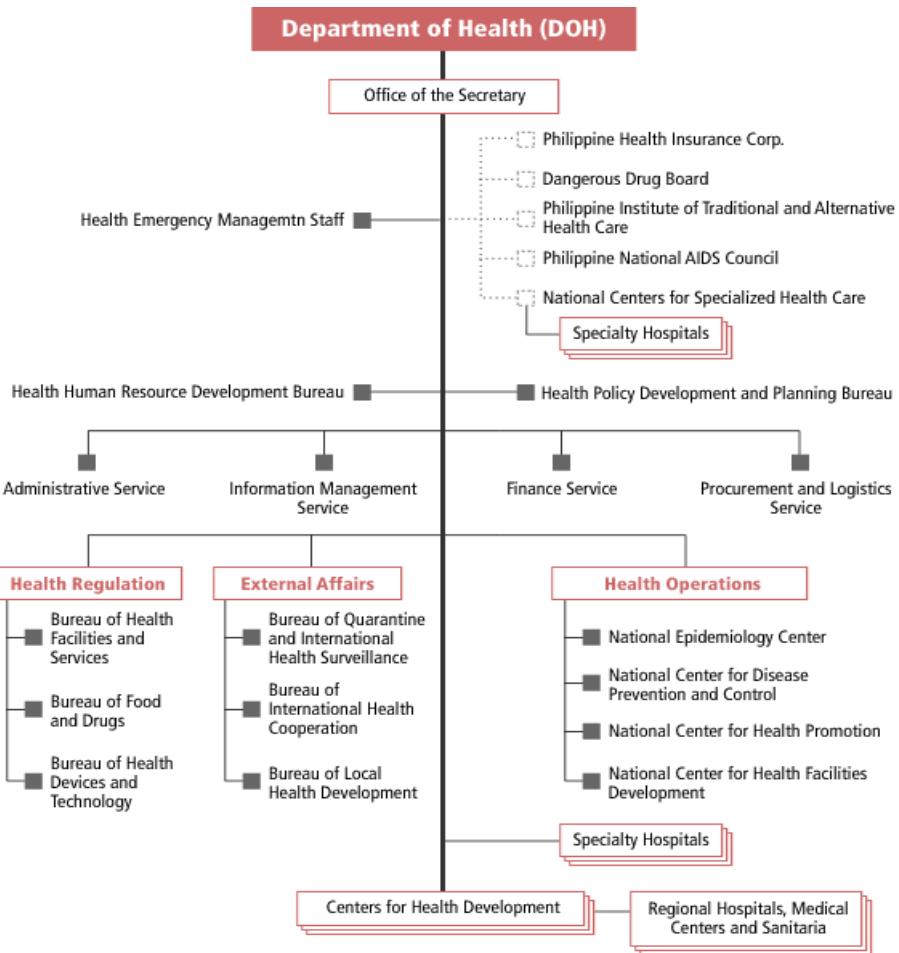


Figure 1: Researcher Reports Page, VBDMS

The Department of Health is headed by the Secretary and under the Office of the Secretary are the listed centers offices and services. The centers in charge of health operations are the National Epidemiology Center, National Center for Disease and Prevention Control, National Center for Health Promotion, and National Center for Health Facilities Development. There are Centers for Health Development in every region and affiliated with these centers are Regional Hospitals, Medical Centers and Sanitaria.

2. Data Collection

Data collection for cases of vector-borne diseases in the country are observed and recorded by the health workers in barangay level on a monthly basis. Collected data will be sent to municipal/city health office for checking. After verification, these data will be sent to provincial health offices. Provincial health officials will check the data, and input these on systems deployed in the office (like PIDS and PhilMIS) and will also be sent to national office which is the Department of Health (DOH). [2]

3. Prompt Health Actions

In the public sector, the Department of Health (DOH) delivers tertiary services, rehabilitative services and specialized healthcare, while the local government units (LGUs) deliver health promotion, disease prevention, primary, secondary, long-term care. Primary health services are delivered in barangay health stations, health centers, and at hospitals.

Case Management and Treatment: Health care providers in the Barangay Health Stations (BHS) and Rural Health Units (RHUs) were given training on Basic Malaria Management.

Vector Control: Vector control measures designed to prevent transmission of disease by aiming for the vectors were intensified through distribution of insecticide-treated nets (ITNs) with 1 net to 2 person ratio and provision of insecticide for complementary indoor residual spraying. [25]

4. Official Duty in Disease Surveillance

The country's Bureau of Quarantine and International Health Surveillance under the DOH implements mandates to help in accomplishing a mission of having an effective surveillance and control measures of infectious diseases and other health concerns with global impact through local and international networking. [26]

One of these mandates, adopted on July 23, 1969 during the 22nd WHA, is the International Health Regulations (2005) of the WHO. This IHR covers activities ranging from surveillance and response, to notification and verification to WHO of certain public health events and risks, to rules on application of health measures and development of minimum public health capacities for surveillance, assessment, response, and reporting for a broad range of risks throughout the territories of all States Parties. [27]

Another one is the Republic Act 3573 or the Law of Reporting of Communicable Diseases which requires all individuals and health facilities to report notifiable diseases to local and national health authorities. [28]

The Resolution WHA48.13 year 1995 urges Member States to strengthen national and local programs of active surveillance for infectious diseases, ensuring that efforts were directed towards early detection of epidemics and prompt identification of new, emerging and re-emerging infectious diseases. [29]

Administrative Order No. 2005-0023 or the Implementing Guidelines for Fourmula One for Health as Framework for Health Reforms Section C2.c.iii which states that, Disease surveillance shall be intensified to ensure that the targets for disease elimination, prevention and control are attained. [30]

C. Epidemiology and Disease Surveillance Systems

The National Epidemiology Center of the Department of Health is primarily responsible for assessing the health status of Filipinos, detecting or confirming disease outbreaks and implementing outbreak control measures including but not limited to rapid containment. They are also in charge of collecting, analyzing and disseminating reliable and timely information on the health status of the population in the country. Investigation of disease outbreaks and other threats to the publics health are also done by them, as well as development and evaluation of

surveillance and other health information systems. Other responsibilities of the National Epidemiology Center include advising the Secretary and Undersecretary of Health on matters pertaining to epidemiology and health surveillance. [26]

Epidemiology is the study concerned with the distribution and determinants of health-related states, events or disease and the application of this study to the control of diseases and other health problems. There are various methods that are used in carrying out epidemiological investigations and one of these is through surveillance. [31]

Disease surveillance is a continuous and systematic process with the primary activities of collection, analysis and dissemination of various data that describe the occurrence and distribution of disease, events or condition. Surveillance includes the collection of relevant data for a specified population, time period and/or geographic area, meaningful analysis of data and dissemination of data with accompanying interpretation. Disease surveillance is an important process that determines the extent of infections and the risk of disease transmission so that prevention and control measures can be applied effectively and efficiently to minimize the burden of illness. To accurately reflect the occurrence and distribution of disease, surveillance data are needed to be timely and complete. [32]

D. Information System / Database Systems

An information system is a set of interacting components (people, procedures and technologies) that together collect, process, store, and distribute information to support control, decision-making and management in organizations. Information systems personnel include all the people who manage, run, program, and maintain the system. Users include people who work with information systems to get results. The strategies, policies, methods and rules for using information system are known to be procedures. It includes the operation, maintenance and security of the computer. And the technologies, including all the software, hardware databases, telecommunications, people and procedures, are configured to collect, manipulate,

store, and process data into information. [33, 34]

In improving the quality and efficiency of healthcare, developing secure and efficient information systems for the healthcare industry plays a vital role. Healthcare information systems are an information intensive industry in which reliable and timely information is a critical resource for the planning and monitoring of service provision. Health information system collects data as a part of the patient care process. This data can be used for many different purposes across a number of systems. The patient data must be subject to confidentiality and must integrate with data from other facilities and must meet the needs of various professional groups. With the improvements in healthcare information up to this day, healthcare delivery has been more effective and far more efficient. [35]

A database system is a system for storing, processing and retrieving data or information with in a central item, the database, and its components include the software, hardware and users. A DBMS is a collection of interrelated data and a set of programs that manage or control the use of data and provides an interface between the database and its users. Its primary objective is to provide means to organize data in storage media and to enable users with easy and efficient access mechanisms. Major roles of a modern database management system are data structure definition for data storage, providing suitable mechanism for data access and data manipulation, maintain system integrity, provide safety and security measures for data, and to provide mechanism for data sharing among users concurrently. [36]

E. Geographic Information System (GIS)

An organized collection of computer hardware and software, people, money and organizational infrastructure that makes possible the acquisition and storage of geographic and related attribute data is called a geographic information system (GIS). It serves the purpose of retrieval, analysis, synthesis, and display to promote understanding and to assist in decision making. It is a digital map-based

technology commonly integrated with a database management system (DBMS) to display information, and spatial analysis. GIS combined with other information systems makes a powerful tool for location mapping, and decision making. [37, 38, 39]

Geographic information systems are being used in public health to model where people live and the environments they experience. GIS provide a digital lens for exploring the dynamic connections between people, their health and well-being, and changing physical and social environments. GIS provide ideal platforms for the convergence of disease-specific information and their analyses in relation to population settlements, surrounding social and health services and the natural environment. However, at present, most of the applications are static, which means that the process of data collection, management, analysis, and result publication is based on a fixed and cable connected network. [40, 41]

IV. Design and Implementation

A. Context Diagram

Below is the Level 0 Context Diagram of the Vector-Borne Diseases Monitoring System (VBDMS):

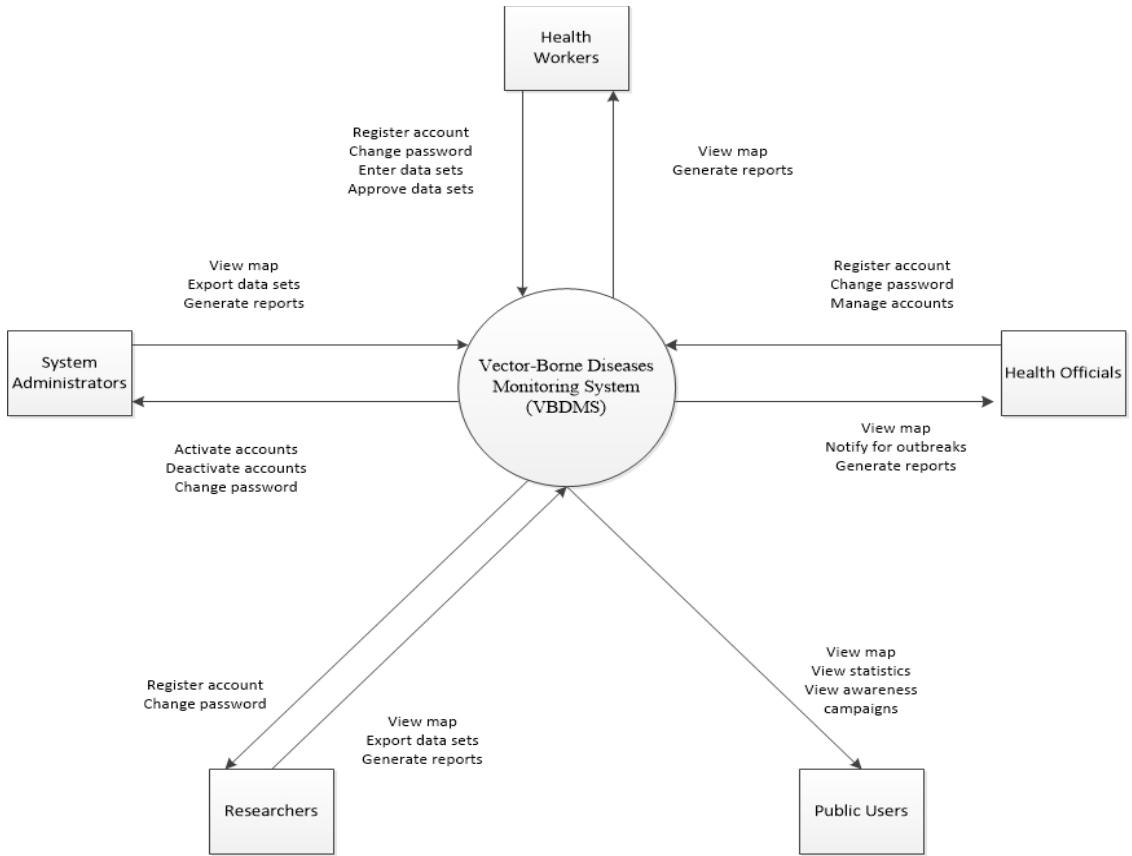


Figure 2: Level 0 Context Free Diagram

There are five external entities: health workers, health officials, researchers, public users and the system administrators. The system allows the barangay health workers to enter data sets and the municipal/city and provincial health workers to approve these data sets; they can also view the map and generate reports. The health officials can view the map, generate reports and will be notified by the system once an outbreak is possible to occur. The researchers can view the map, generate reports and export data sets. The public users can also view the map, the statistics of diseases and the awareness campaigns regarding the

diseases. The system administrators can view the map, export data sets, generate reports as well as activate/deactivate user accounts.

B. Use Case Diagram

This project will have seven classification of user namely the system administrators, barangay health workers, municipal/city health workers, provincial health workers, the municipal/city, provincial and national health officials, researchers and public users. All but the public users are able to register an account, change their account password, and generate results.

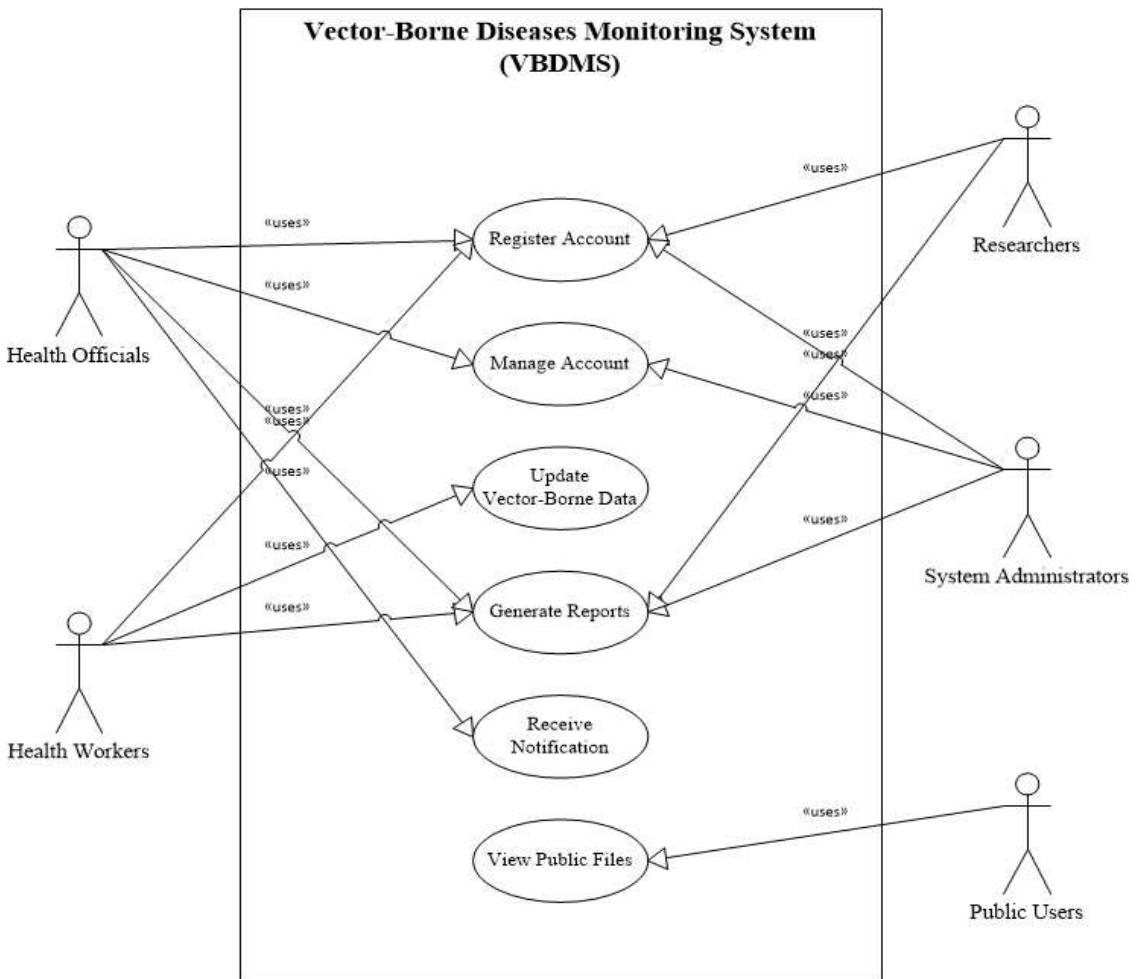


Figure 3: Use Case Diagram

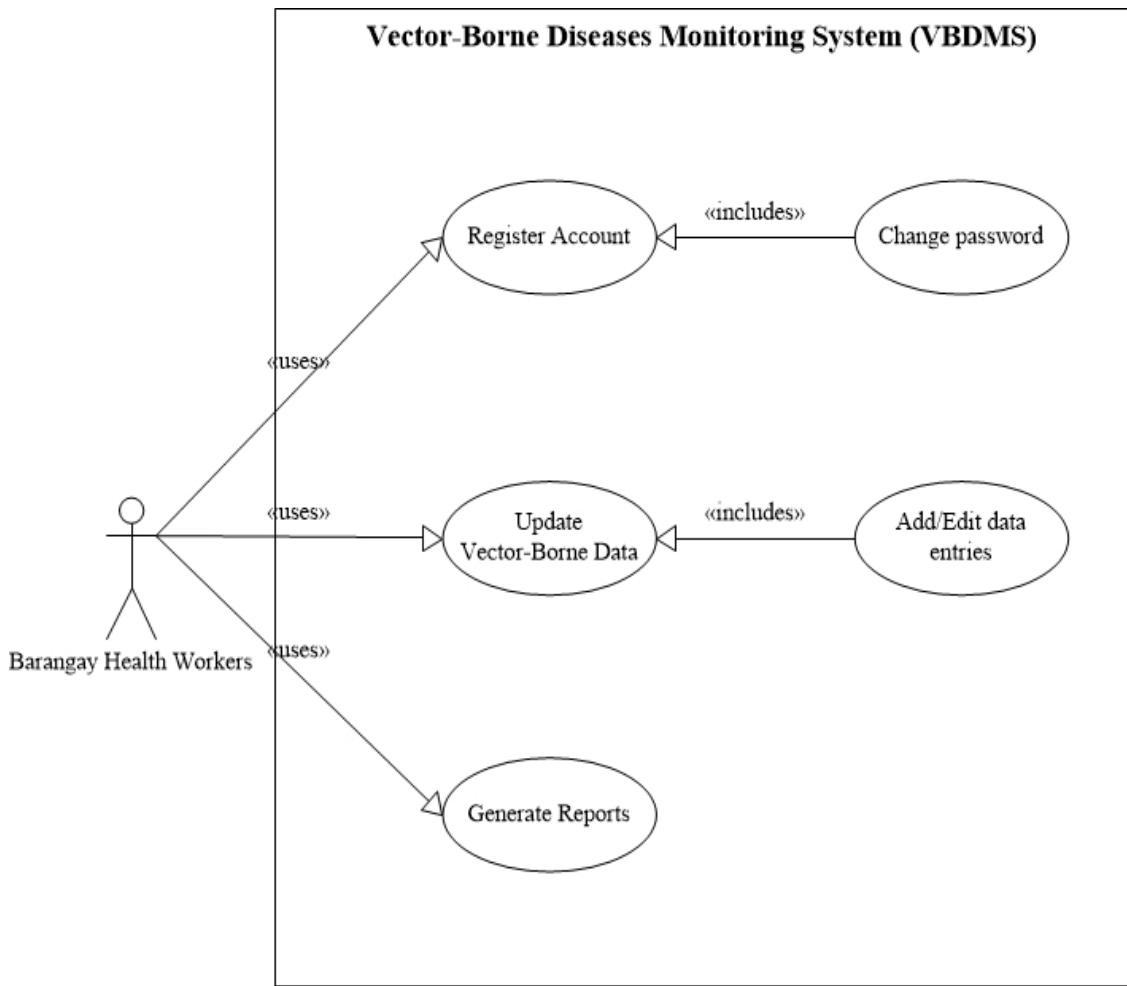


Figure 4: Use Case Diagram for *Barangay Health Workers*

The barangay health workers will have the feature of inputting the data acquired from the surveys directly into the system. After which, the input data will be submitted to the municipal/city health workers account for verification and approval.

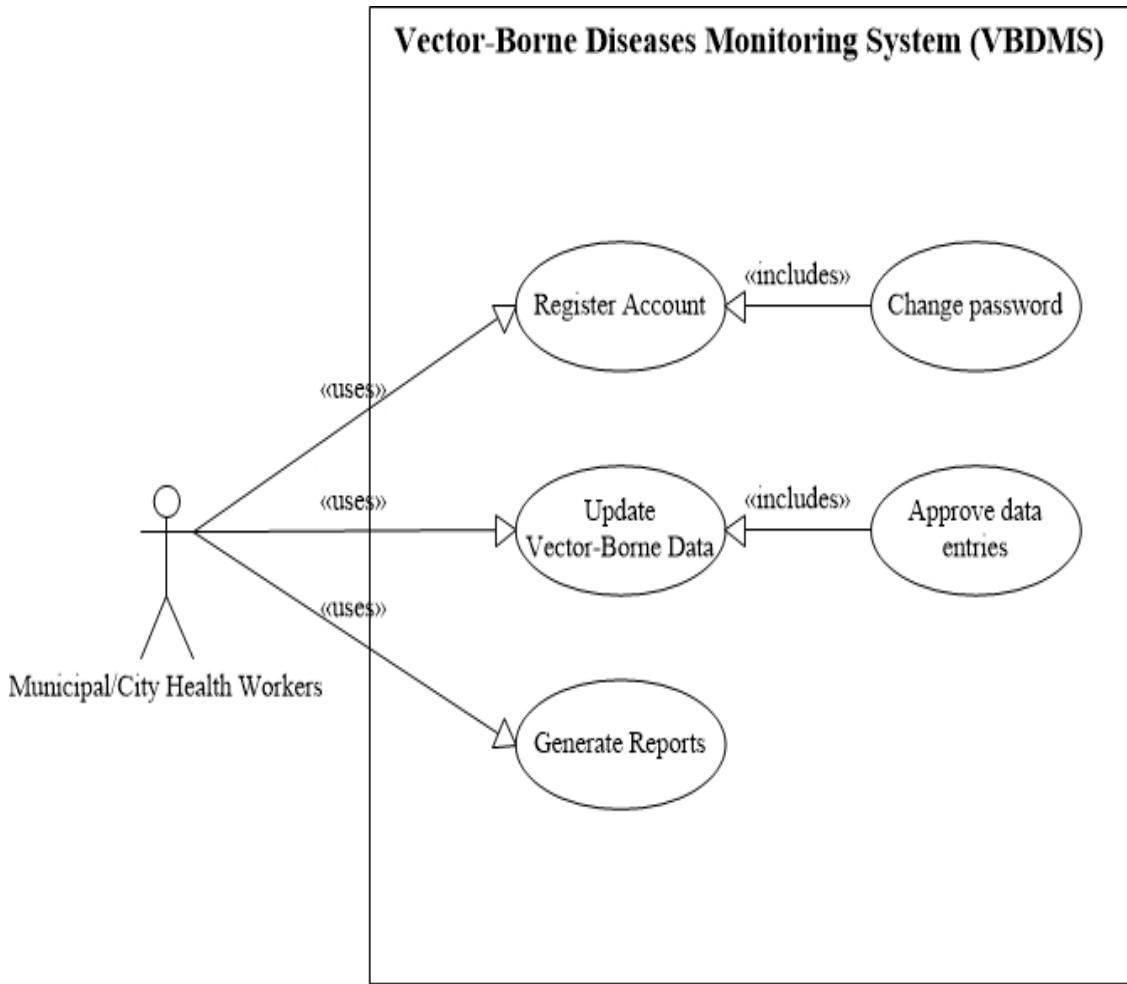


Figure 5: Use Case Diagram for *Municipal/City Health Workers*

The municipal/city health workers have the responsibility to go over the data records submitted by the barangay health workers under their municipality/city for checking and verification. Once these data are verified, they can send these data to provincial health workers account.

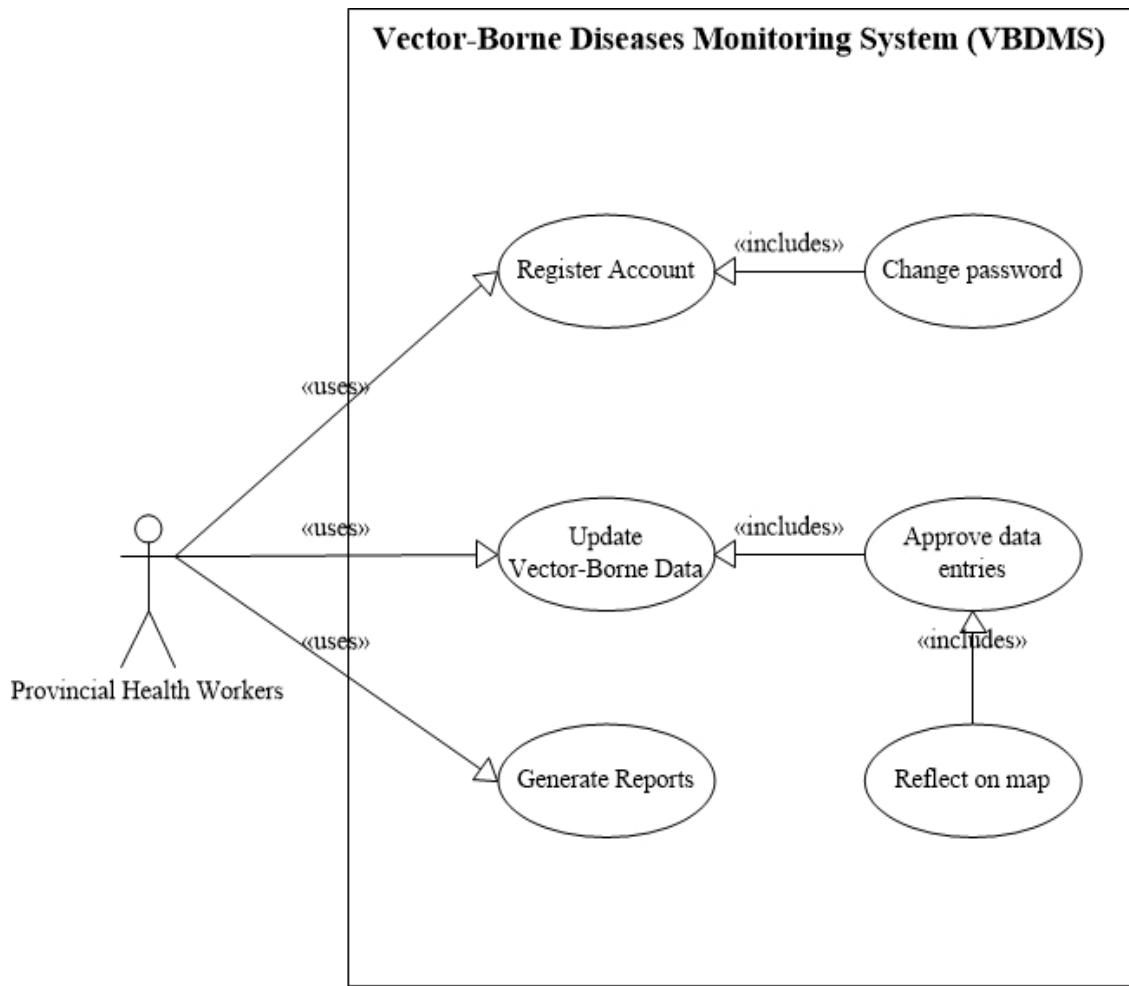


Figure 6: Use Case Diagram for *Provincial Health Workers*

The provincial health workers will again check the data submitted by the municipal/city health workers and after approval they can submit these data to update the system and send these data to national health officials as well.

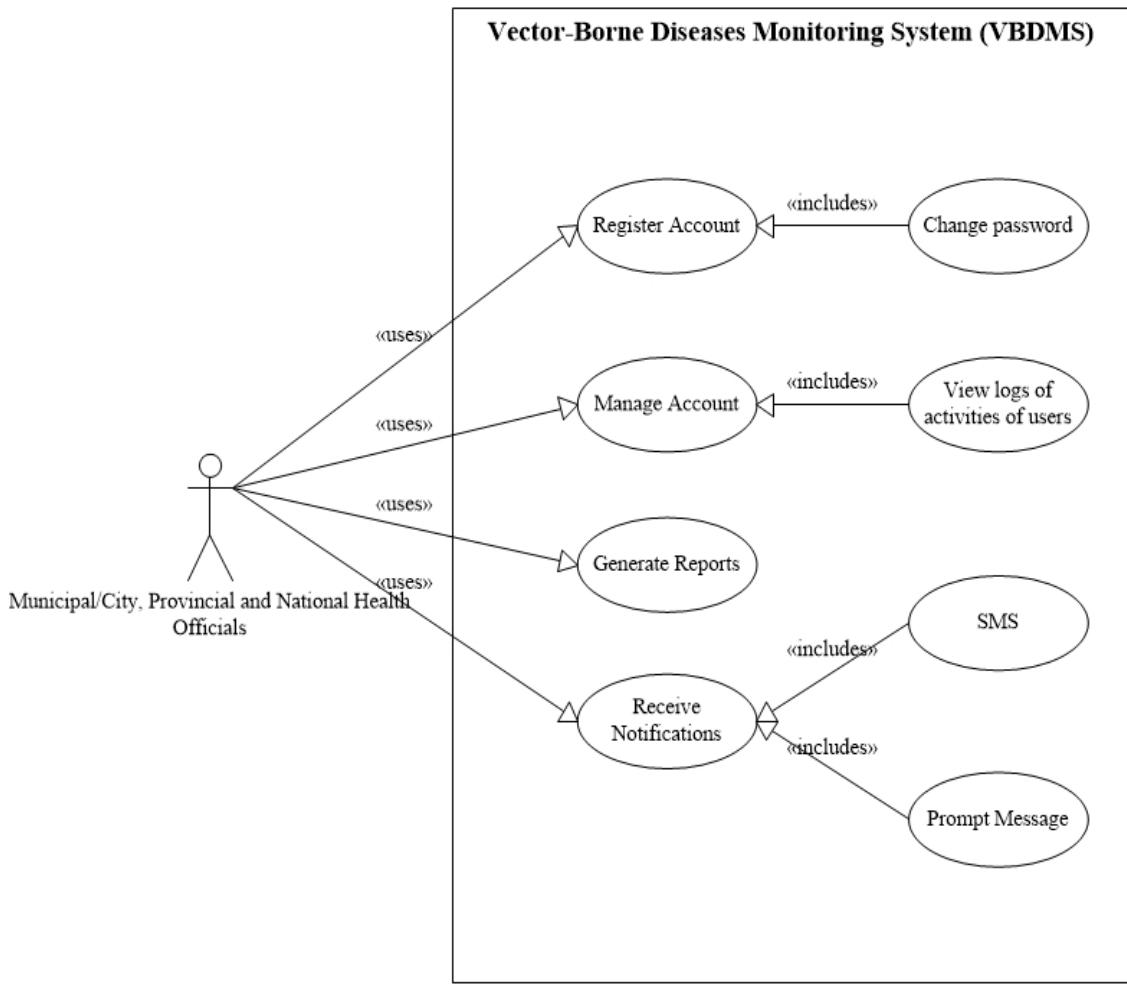


Figure 7: Use Case Diagram for *Municipal/City, Provincial and National Health Officials*

The municipal/city, provincial and national health officials will be notified when an outbreak of a vector-borne disease is likely to happen or occurs. They also have the privilege to manage or monitor the accounts of the health workers/officials under them in case of staff changes or other circumstances.

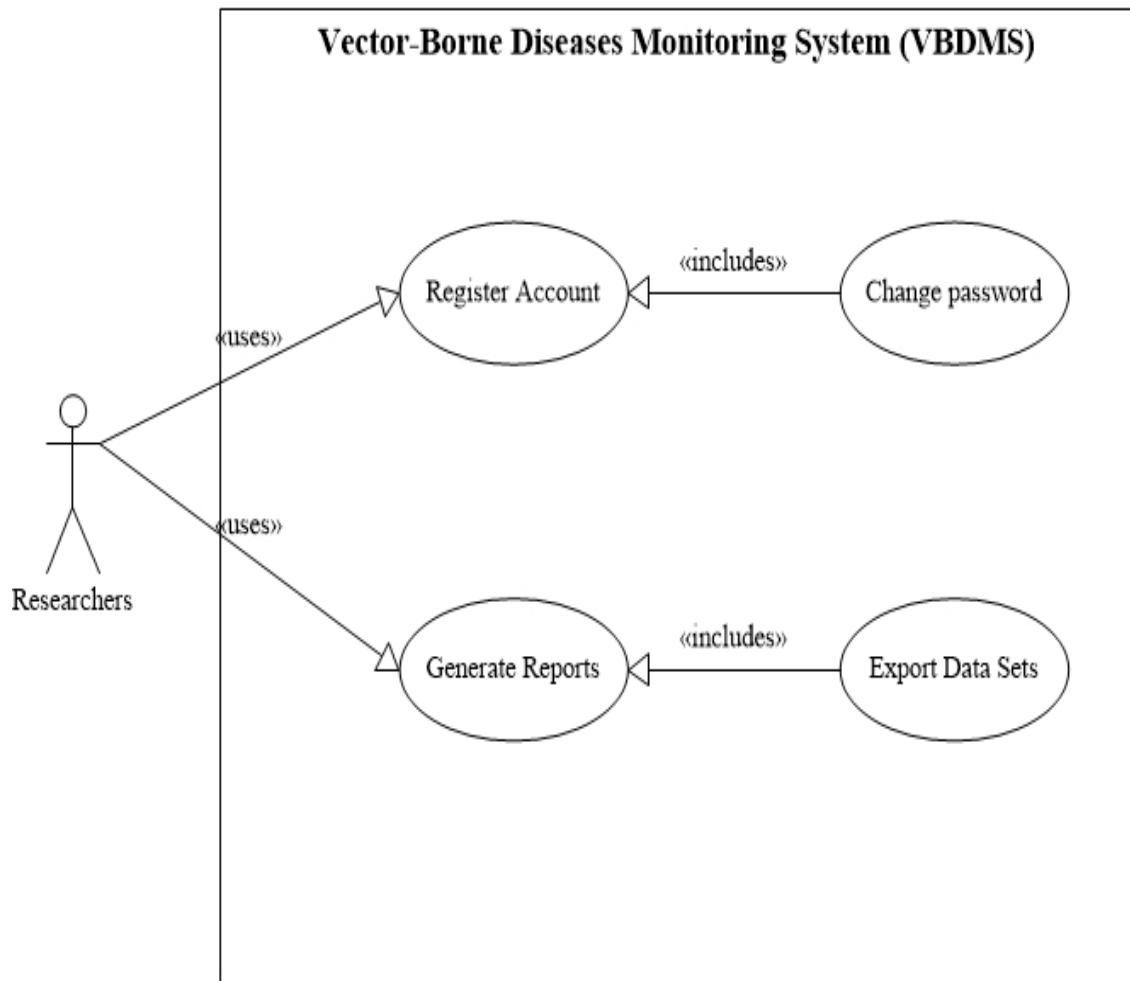


Figure 8: Use Case Diagram for *Researchers*

The researchers can download data sets, the records of patients with vector-borne diseases, in excel format for their research.

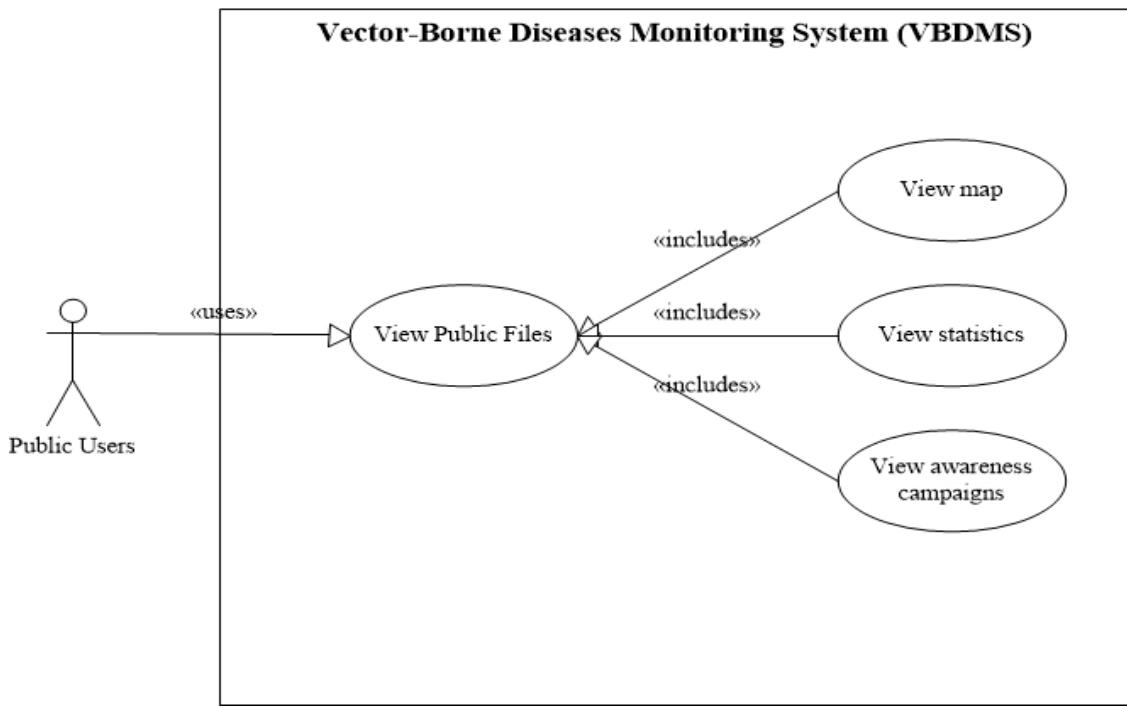


Figure 9: Use Case Diagram for *Public Users*

The public users will be automatically redirected to the map in which they are located. They can also view statistics of diseases in specific area/s within specific date/s. And for information dissemination purposes, there will also be a page for awareness campaign for vector-borne diseases. The figure below shows the use case diagram of the project.

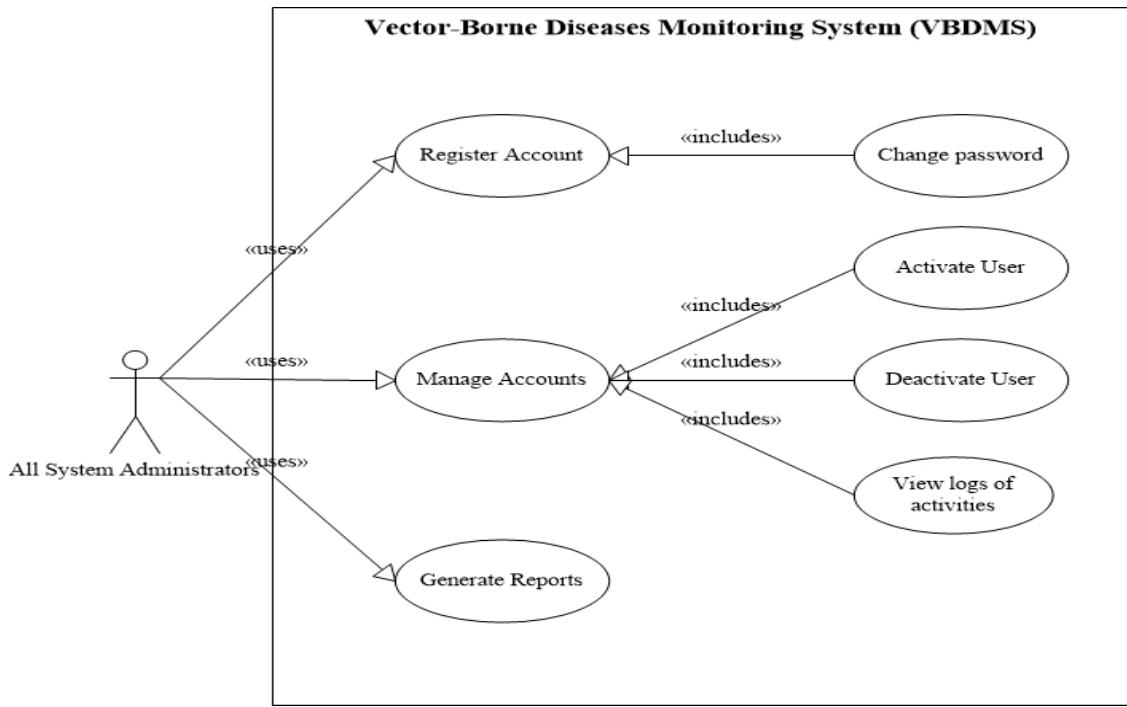


Figure 10: Use Case Diagram for *All System Administrators*

The system administrators, which consist of national, provincial and municipal health official/s and the system and database administrator, have the privilege to activate/deactivate the user account of researchers or health workers/officials within their location. The system and database administrator can view the logs of activities done by its users. All levels of system administrators can also download the data sets, the records of patients with vector-borne diseases, in excel format as well as update the system which includes updating the maps.

C. Flowchart

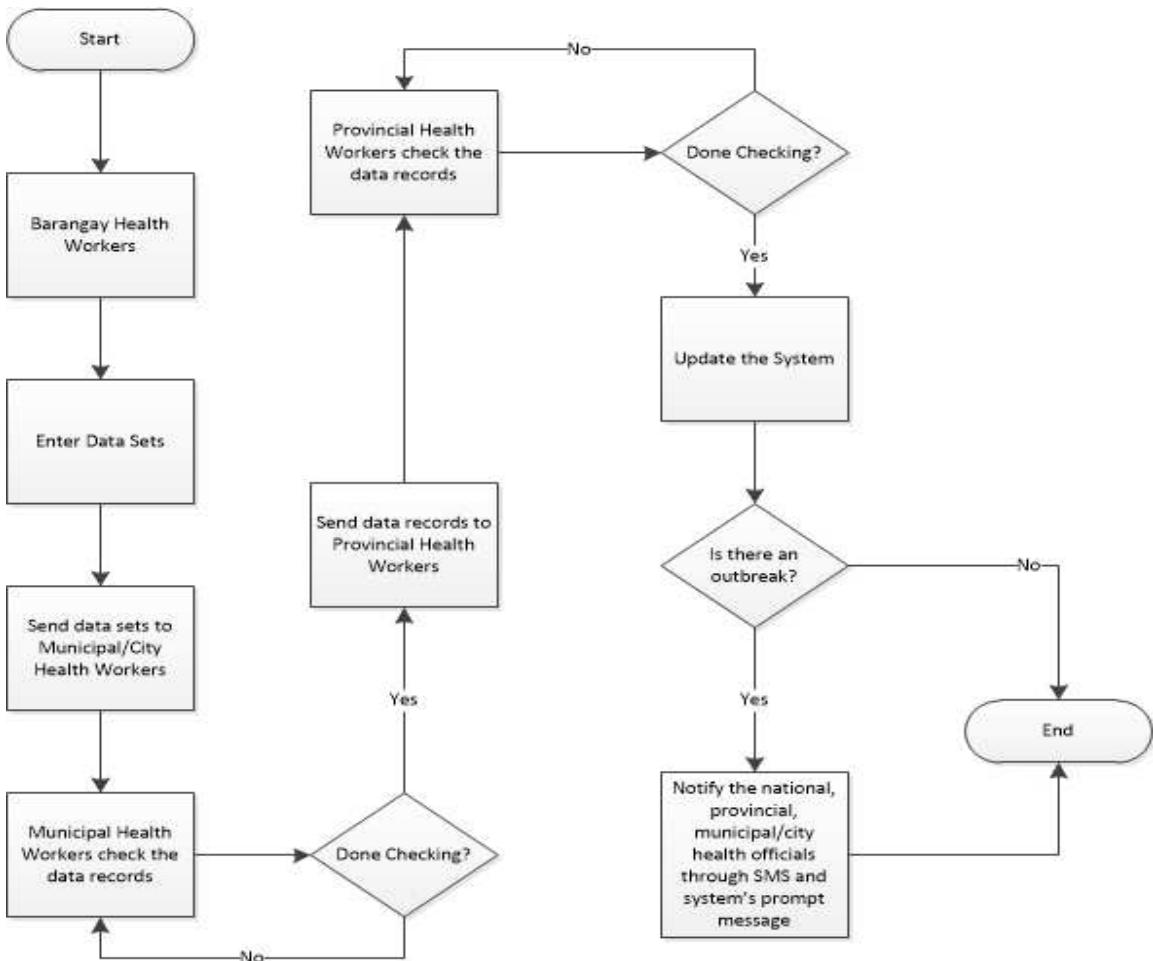


Figure 11: System Flow Chart

This flow chart shows the main flow of the system. The barangay health workers will enter the data sets gathered from their surveys into the system. After entering these data sets, they will send it to the Municipal/City Health workers who will check and validate the data gathered. After checking the data records, they will send these data to Provincial Health Workers. The provincial health workers will check the data records and once done, they are able to update the system. If there is an outbreak, the system will notify the national, provincial, municipal/city health officials via SMS and prompt message from the system for the needed interventions.

D. Entity Relationship Diagram

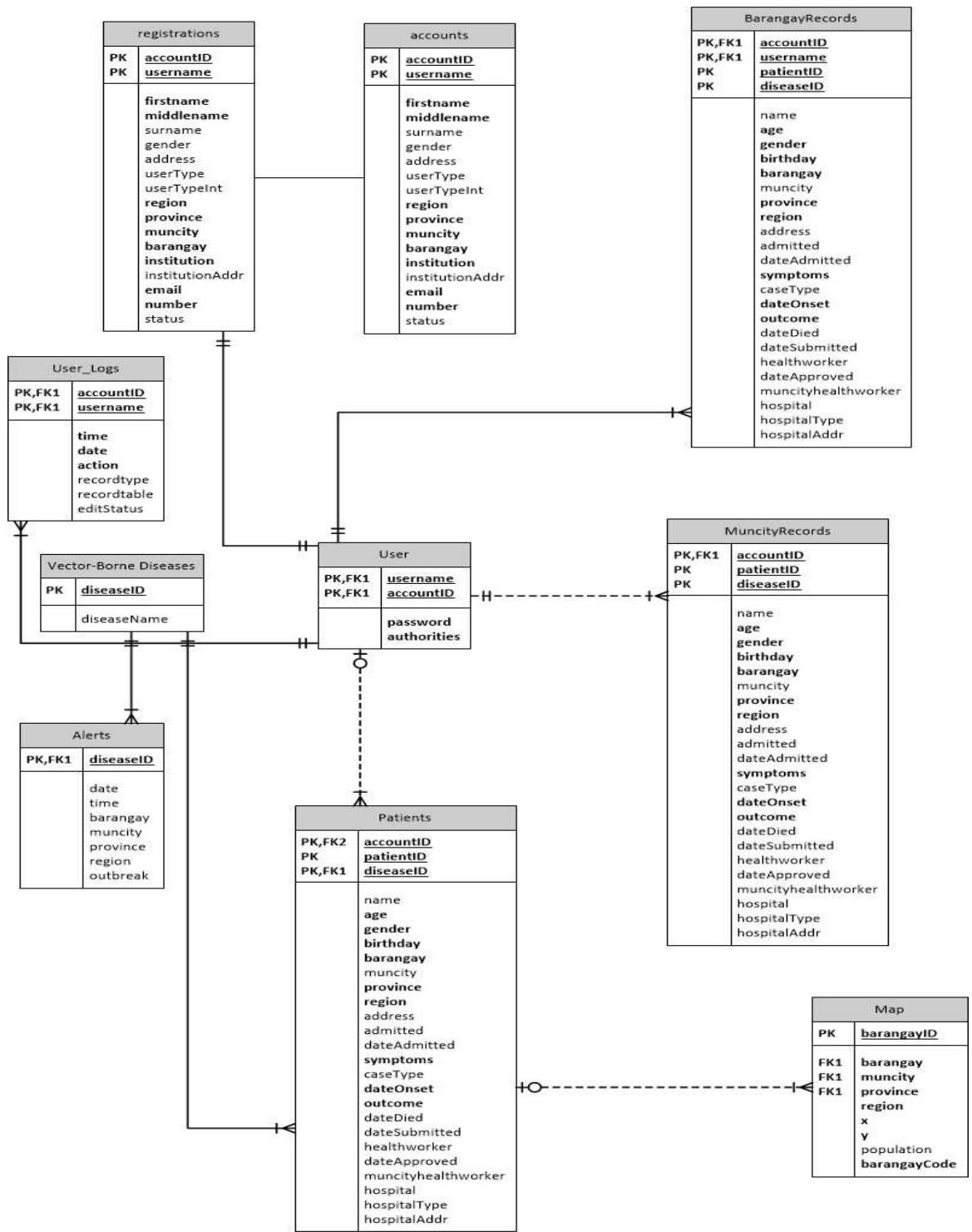


Figure 12: Entity Relationship Diagram

E. Data Dictionary

Table 1: User table

Attribute	Data Type	Description
accountID	integer	Primary key; Unique identifier of a user
username	integer	Primary key; Username
password	varchar(50)	Password
authorities	varchar(30)	User's Authorities

Table 2: User_Logs table

Attribute	Data Type	Description
accountID	integer	Primary and foreign key; Unique identifier of a user
time	Datetime	Primary key; Time that the action was done
date	Date	Primary key; Date that the action was done
action	varchar(20)	Action done by the user
recordtype	varchar(20)	Type of record
recordtable	varchar(20)	Type of record table
editStatus	integer	Edit status of a record

Table 3: Registrations table

Attribute	Data Type	Description
accountID	integer	Primary key; Unique identifier of a user
username	integer	Primary key; Unique identifier of the health office
firstname	varchar(50)	User's First Name
middlename	varchar(30)	User's Middle Name
surname	varchar(30)	User's Surame
gender	varchar(30)	User's Gender
userType	varchar(30)	Type of User
userTypeInt	integer	Type of User (in Integer)
region	varchar(30)	Region of User's affiliated Institution
province	varchar(30)	Province of User's affiliated Institution
muncity	varchar(30)	Municipality/City of User's affiliated Institution
barangay	varchar(30)	Barangay of User's affiliated Institution
institution	text	User's affiliated Institution
institutionAddr	varchar(30)	User's affiliated Institution Address
email	varchar(30)	User's email
number	varchar(30)	User's contact number
status	integer	User's Registration Status Ex: 0 = pending, 1 = approved

Table 4: Accounts table

Attribute	Data Type	Description
accountID	integer	Primary key; Unique identifier of a user
username	integer	Primary key; Unique identifier of the health office
firstname	varchar(50)	User's First Name
middlename	varchar(30)	User's Middle Name
surname	varchar(30)	User's Surame
gender	varchar(30)	User's Gender
userType	varchar(30)	Type of User
userTypeInt	integer	Type of User (in Integer)
region	varchar(30)	Region of User's affiliated Institution
province	varchar(30)	Province of User's affiliated Institution
muncity	varchar(30)	Municipality/City of User's affiliated Institution
barangay	varchar(30)	Barangay of User's affiliated Institution
institution	text	User's affiliated Institution
institutionAddr	varchar(30)	User's affiliated Institution Address
email	varchar(30)	User's email
number	varchar(30)	User's contact number

Table 5: BarangayRecords table

Attribute	Data Type	Description
accountID	integer	Primary key; Unique identifier of a patient
patientID	integer	Primary and foreign key; Unique identifier of a vecto-borne disease
diseaseID	integer	Patient's name
name	varchar(50)	Patient's name
age	integer	Patient's Age
sex	varchar(10)	Patient's Sex
address	varchar(50)	Patient's Complete Address
region	varchar(4)	Patient's regional address
province	varchar(20)	Patient's provincial address
muncity	varchar(20)	Patient's municipal or city address
barangay	varchar(20)	Patient's barangay address
symptoms	varchar(50)	Patient's disease symptoms
caseType	varchar(50)	Patient's disease case classification
dateOnset	Date	Date onset of the disease
outcome	varchar(30)	Patient's outcome
dateDied	Date	Date of death
dateSubmitted	Date	Date submitted by Barangay Health Worker
healthworker	varchar(30)	Barangay Health Worker

Table 6: BarangayRecords table (Continuation)

Attribute	Data Type	Description
dateApproved	Date	Date approved by Municipal/City Health Worker
muncityhealthworker	varchar(30)	Municipal/City Health Worker
admitted	varchar(30)	Is patient admitted? Yes or No
dateAdmitted	Date	Date admitted in the hospital
hospital	varchar(30)	Hospital where patient's admitted
hospitalType	varchar(30)	Type of Hospital
hospitalAddr	varchar(30)	Hospital's address

Table 7: MuncityRecords table

Attribute	Data Type	Description
accountID	integer	Primary key; Unique identifier of a patient
patientID	integer	Primary and foreign key; Unique identifier of a vecto-borne disease
diseaseID	integer	Patient's name
name	varchar(50)	Patient's name
age	integer	Patient's Age
sex	varchar(10)	Patient's Sex
address	varchar(50)	Patient's Complete Address

Table 8: MuncityRecords table (Continuation)

Attribute	Data Type	Description
region	varchar(4)	Patient's regional address
province	varchar(20)	Patient's provincial address
muncity	varchar(20)	Patient's municipal or city address
barangay	varchar(20)	Patient's barangay address
symptoms	varchar(50)	Patient's disease symptoms
caseType	varchar(50)	Patient's disease case classification
dateOnset	Date	Date onset of the disease
outcome	varchar(30)	Patient's outcome
dateDied	Date	Date of death
dateSubmitted	Date	Date submitted by Barangay Health Worker
healthworker	varchar(30)	Barangay Health Worker
dateApproved	Date	Date approved by Municipal/City Health Worker
muncityhealthworker	varchar(30)	Municipal/City Health Worker
admitted	varchar(30)	Is patient admitted? Yes or No
dateAdmitted	Date	Date admitted in the hospital
hospital	varchar(30)	Hospital where patient's admitted
hospitalType	varchar(30)	Type of Hospital
hospitalAddr	varchar(30)	Hospital's address

Table 9: Patients table

Attribute	Data Type	Description
accountID	integer	Primary key; Unique identifier of a patient
patientID	integer	Primary and foreign key; Unique identifier of a vecto-borne disease
diseaseID	integer	Patient's name
name	varchar(50)	Patient's name
age	integer	Patient's Age
sex	varchar(10)	Patient's Sex
address	varchar(50)	Patient's Complete Address
region	varchar(4)	Patient's regional address
province	varchar(20)	Patient's provincial address
muncity	varchar(20)	Patient's municipal or city address
barangay	varchar(20)	Patient's barangay address
symptoms	varchar(50)	Patient's disease symptoms
caseType	varchar(50)	Patient's disease case classification
dateOnset	Date	Date onset of the disease
outcome	varchar(30)	Patient's outcome
dateDied	Date	Date of death
dateSubmitted	Date	Date submitted by Barangay Health Worker
healthworker	varchar(30)	Barangay Health Worker

Table 10: Patients table (Continuation)

Attribute	Data Type	Description
dateApproved	Date	Date approved by Municipal/City Health Worker
muncityhealthworker	varchar(30)	Municipal/City Health Worker
dateApproved2	Date	Date approved by Provincial Health Worker
provincehealthworker	varchar(30)	Province Health Worker
admitted	varchar(30)	Is patient admitted? Yes or No
dateAdmitted	Date	Date admitted in the hospital
hospital	varchar(30)	Hospital where patient's admitted
hospitalType	varchar(30)	Type of Hospital
hospitalAddr	varchar(30)	Hospital's address

Table 11: Map table

Attribute	Data Type	Description
barangayID	integer	Primary and foreign key; Unique identifier of a barangay
barangay	varchar(50)	Barangay
muncity	varchar(50)	Muncity
province	varchar(50)	Provine
region	varchar(50)	Region
x	double	Barangay's X coordinate
y	double	Barangay's Y coordinate
population	double	Barangay's population

Table 12: Vector-Borne Diseases table

Attribute	Data Type	Description
diseaseID	integer	Primary key; Unique identifier of a vecto-borne disease
diseaseName	varchar(20)	Vector-borne disease name (Chikungunya, Dengue, Malaria)

Table 13: Alerts table

Attribute	Data Type	Description
diseaseID	integer	Primary and foreign key; Unique identifier of a vector-borne disease
time	Datetime	Primary key; Time for Outbreak record
date	Date	Primary key; Date for Outbreak record
barangay	varchar(50)	Barangay with Outbreak
muncity	varchar(50)	Muncity with Outbreak
province	varchar(50)	Province with Outbreak
region	varchar(50)	Region with Outbreak
outbreak	double	Outbreak percentage
status	int	Alert status, Ex: 0 = unseen, 1 seen

V. Architecture

A. System Architecture

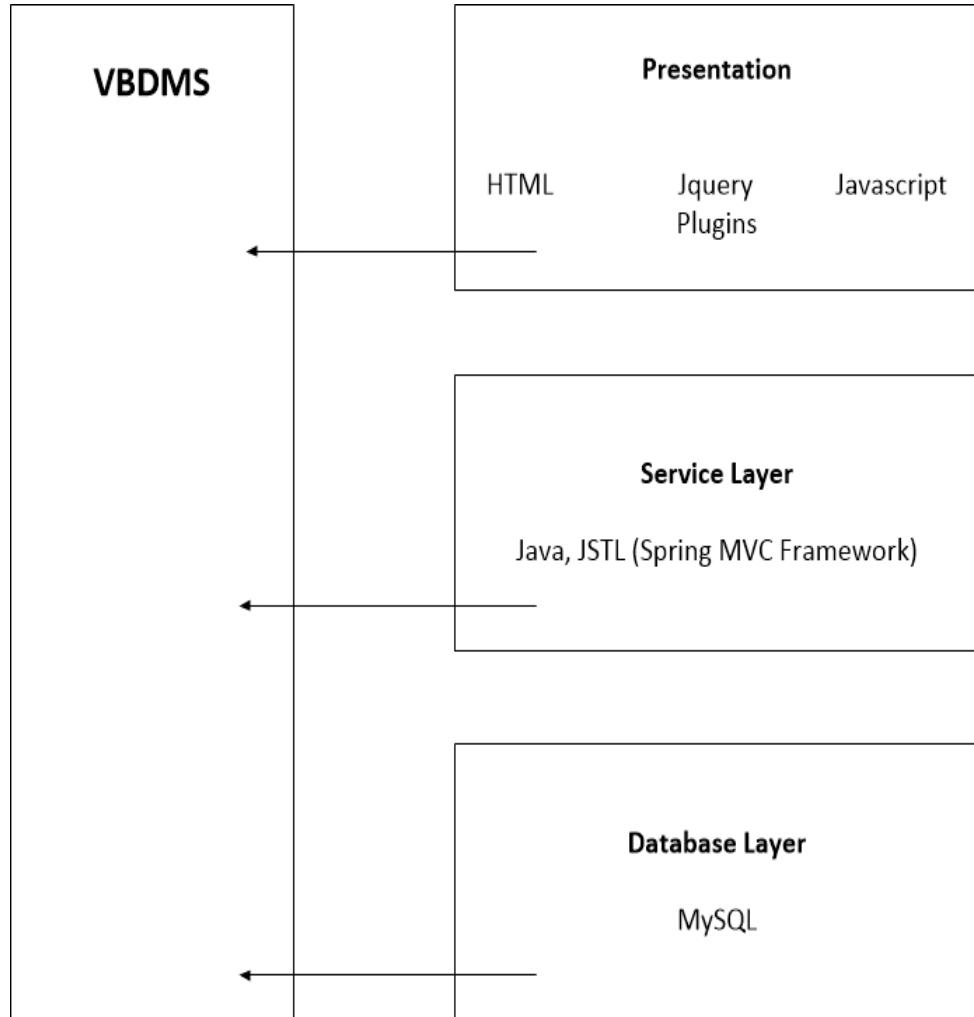


Figure 13: VBDMS System Architecture

In this figure, it shows the three main domains of VBDMS. Its web interface is encoded in HTML and Javascript. It is linked to the Service Layer using Spring MVC Framework and JSTL. VBDMS implements the MVC, Model View Controller, pattern of the Spring MVC Framework. VBDMS uses Java language to connect to its database and perform other services as well. VBDMS uses MySQL to connect to its database.

B. Technical Architecture

The hardware requirements for the server:

- 2 GHz processor or higher
- 512 MB of RAM or higher
- Up to 2GB of free disk space

The hardware requirements for the client:

- 2 GHz processor or higher
- 512 MB of RAM or higher
- 300 MB of free disk space
- Consistent internet connectivity
- Web browser (Google Chrome, Mozilla Firefox, other google map compatible browsers)

VI. Results

A. General View

1. Home Page

The screenshot shows the homepage of the Vector-Borne Diseases Monitoring System (VBDMS). At the top, there is a navigation bar with links for 'Home', 'Diseases', 'Disease Statistics', 'Awareness Campaigns', 'Login', and 'Register'. The main content area has a title 'Vector-Borne Diseases'. Below the title, there is a paragraph defining 'Vector-borne disease' as an illness caused by an infectious microbe transmitted by blood-sucking arthropods, with examples including mosquitoes, fleas, lice, biting flies, and bugs. It also lists blood-sucking arachnids like mites and ticks. A bulleted list includes: • blood sucking insects such as mosquitoes, fleas, lice, biting flies and bugs, and • blood sucking arachnids such as mites and ticks. A note states that the term "vector" refers to any arthropod that transmits a disease through feeding activity. Another paragraph explains that vectors typically become infected by a disease agent while feeding on infected vertebrates (e.g., birds, rodents, other larger animals, or humans), and then pass on the microbe to a susceptible person or other animal. It notes that an infectious microbe must infect and multiply inside the arthropod before it can transmit the disease. The most common vector-borne diseases in Virginia are carried by mosquitoes and ticks. A source link is provided: <http://www.vdh.state.va.us/epidemiology/dee/vectorborne/>. To the right of the text, there is a circular logo for the 'REPUBLIC OF THE PHILIPPINES DEPARTMENT OF HEALTH' and a photograph of a mosquito on a human skin sample.

Figure 14: Home Page, VBDMS

Figure 14 shows the home page of Vector-Borne Diseases Monitoring System (VBDMS). This home page contains brief information such as signs and symptoms, mode of transmission, incubation period, communicability, and treatment of Vector-Borne Diseases. It also includes disease statistics and current awareness campaigns.

2. Login Page

VBDMS

Home Diseases Disease Statistics Awareness Campaigns Login Register

Vector-Borne Diseases

"*Vector-borne disease*" is the term commonly used to describe diseases that are transmitted to people by blood-sucking arthropods. Arthropods that commonly serve as vectors include:

- blood sucking insects such as mosquitoes
- blood sucking arachnids such as mites

The term "vector" refers to any arthropod that can carry and transmit disease.

Vectors typically become infected by a disease while feeding on an infected host (e.g., birds, rodents, other larger animals, or humans). After becoming infected, the vector can transmit the disease to another animal. In almost all cases, an infectious agent must pass through the vector before it can infect another animal. For example, the West Nile virus, which has been found in Virginia, is carried by mosquitoes and ticks.

Source: <http://www.vdh.state.va.us/epidemiology/dee/vectorborne/>

Vector Borne Diseases Monitoring System

Username

Password

Log in

PHILIPPINES * GOVERNMENT OF THE PHILIPPINES * DEPARTMENT OF HEALTH

— www.phlstar.com

Figure 15: Login Page, VBDMS

The administrator, all levels of health workers and health officials, and researchers can login to their respective accounts through this page. (See Figure 15)

3. Registration Page

The screenshot shows the VBDMS registration form. At the top, there is a navigation bar with links for Home, Diseases, Disease Statistics, and Awareness Campaigns. Below the navigation bar, the title "Registration Form" is displayed. A note indicating "* Required fields" is present. The form consists of several input fields arranged in rows:

- First Name * (text input field)
- Middle Name (text input field)
- Surname * (text input field)
- Gender (dropdown menu)
- Home Address (text input field)
- Register as * (dropdown menu)
- Username * (text input field)
- Region * (dropdown menu)
- Province * (dropdown menu)
- City/Municipality * (dropdown menu)
- Barangay * (dropdown menu)
- Institution * (text input field)

Figure 16: Registration Form Page, VBDMS

Registration form for interested users or researchers and health officials and health workers. (See Figure 16)

4. Disease Page

The screenshot shows the VBDMS Disease Page for Chikungunya. At the top, there is a navigation bar with links for Home, Chikungunya (selected), Disease Statistics, Awareness Campaigns, Login, and Register. The main content area has a title 'Chikungunya' and a brief description: 'Chikungunya is a viral disease that causes fever and severe joint pain. Sharing clinical signs with dengue, it is usually misdiagnosed in areas where dengue is common. It is transmitted by infected mosquitoes, usually the genus Aedes.' Below this, there are two sections: 'a. Signs and Symptoms' and 'b. Mode Of Transmission'. The 'Signs and Symptoms' section contains a detailed paragraph about the disease's symptoms. The 'Mode Of Transmission' section contains a paragraph about the transmission route. To the right of the text, there is a map of a coastal area showing several barangays: Maniboc, Lingayen, Baay, Binmaley, Dulag, and Balogo. The map highlights roads like National Rd, Romulo Hwy, and Bantayan Port, and rivers like Enero River and Ubizondo-Lingayen Rd. Two specific locations are marked with red boxes: 'Maniboc' and 'Baay'. The map also includes a legend for Capture, Map, and Satellite views, and a note that the map data is from Google.

Figure 17: Disease Page, VBDMS

Figure 17 shows where all system users, as well as public users, can view information such as signs and symptoms, mode of transmission, incubation period, communicability, and treatment on vector-borne diseases specified in the system; namely, chikungunya, dengue and malaria. This page also contains a map showing markers of barangays where there are cases of the selected disease.

5. Disease Statistics Page

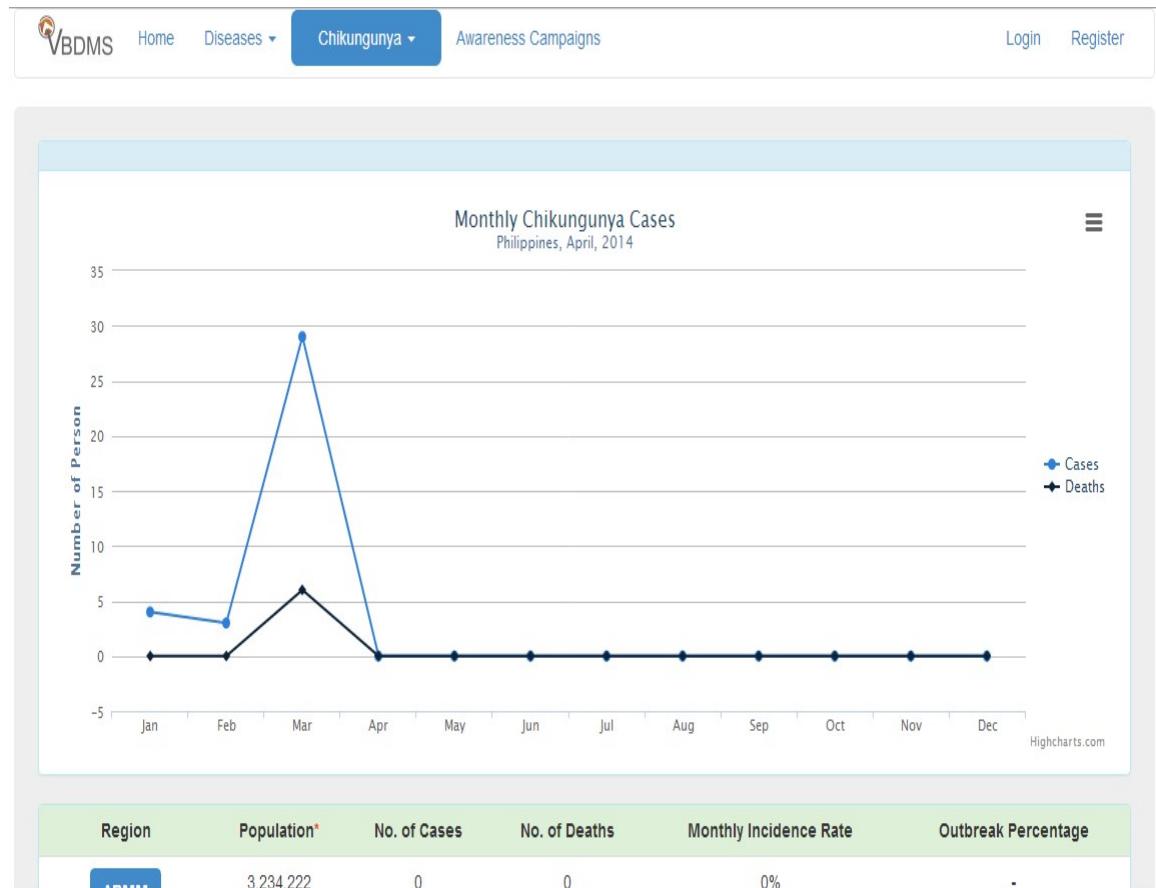


Figure 18: Disease Statistics Page, VBDMS

In Figure 18, all users can view statistics about the chosen vector-borne disease. A sample chart portraying the monthly cases of the disease (April 2014) is shown, as well as incidence rate, and outbreak percentage on regional and municipal level.

6. Awareness Campaign Page

The screenshot shows a web interface for a health information system. At the top, there's a navigation bar with links for 'VBDMS', 'Home', 'Disease ▾', 'Disease Statistics ▾', 'Awareness Campaigns' (which is highlighted in blue), 'Login', and 'Register'. Below the navigation, there are three tabs: 'Chikungunya', 'Dengue' (which is selected and highlighted in blue), and 'Malaria'. The main content area has a light gray background. On the left, there's a paragraph of text about preventing dengue fever by removing stagnant water. To the right, there's a yellow rectangular graphic titled 'Dengue'. It includes a cartoon illustration of a person lying in bed with a fever. The graphic contains two sections: 'Mga Palatandaan' (Signs and Symptoms) and 'Pag-iwas at pagsugpo' (Prevention and Control). Both sections contain bulleted lists of tips. At the bottom right of the graphic is a 'HEALTH ADVISORY' logo and the URL '— pinoykidsmd.com'.

To prevent the spread of dengue fever, you must first prevent the breeding of its vector, the Aedes mosquito. The Aedes mosquito is easily identifiable by its distinctive black and white stripes on their body. It prefers to breed in clean, stagnant water easily found in our homes. You can get rid of the Aedes mosquito by frequently checking and removing stagnant water in your premises. The guidelines below will give you an overview of how you can prevent the Aedes mosquito from breeding.

- Keep your homes and offices protected against mosquitoes.
- Keep homes and offices airy, bright and safe from moisture.
- Fix nets on doors and windows.
- Wear full sleeves clothes.
- Use mosquito nets while sleeping.
- Don't leave the overhead tanks open.
- Don't keep water in containers for more than a week. Instead, empty them every week, let them dry and then fill again.
- Don't let the water falling from the overhead tanks to accumulate permanently. Instead dry it.
- Don't let the water accumulate in any case both inside or outside the home.
- Be mindful of your home's cleanliness.
- Be mindful of your home's cleanliness.
- Keep the fence and hedge boundaries duly cut both inside and outside the home, and spray over them with insecticides, particularly in the evening.
- Don't let the water stay all the time in the flower pots, gamias of plants. Instead water them only in the morning every alternate day.

Dengue
Sahih: Dengue Virus
Paano Nakukuhang: Mula sa kagot ng lamok na may daling dengue virus

Mga Palatandaan

- Mataas na lagnat sa loob ng 2-7 na araw
- Pananalik ng kasukuan at kalamnan
- Panghihina
- Pagkawala ng ganang kumain
- Pamumula ng bilat
- Pansin na ng tyan at pagusuka
- Pagdunugo ng ilong at giligid

Pag-iwas at pagsugpo:

- Linisin at takipan ang mga dram at iba pang imbalan ng tubig.
- Ibab ang mga bote, lata at iba pang mairring mapag-iwanan ng tubig at mapunghitisan ng mga lamok.
- Magisut ng mahahabang kasutuan upang hindi madaling makagat ng lamok.
- Maari din gumamit ng insect repellent.
- Magapatingin sa health center.

— pinoykidsmd.com

Figure 19: Awareness Campaign Page, VBDMS

Shown in Figure 19 are the different awareness campaigns for vector-borne diseases instituted by the Department of Health (DOH) and other international health organizations.

B. Administrator View / National Health Official View / Provincial Health Official View / Municipal/City Health Official View

1. Notification Page

(a) Alerts Page

The screenshot shows the VBDMS (Virtual Bureau of Disease Management System) interface. At the top, there is a navigation bar with links for Home, Diseases, Disease Statistics, Awareness Campaigns, and a user profile indicating 'Logged in as: Administrator'. Below the navigation bar, there is a horizontal menu with tabs: Notifications, Health Workers and Officials, Reports, Profile, Alerts (which is highlighted and shows a count of 0), and Registrations. The main content area displays a table of disease outbreaks:

Date	Disease	Outbreak Percentage	Barangay	Municipality	Province	Region
2014-03-30	Chikungunya	311.11111%	Baay	LINGAYEN	Pangasinan	Region I
2014-03-29	Chikungunya	271.42857%	Baay	LINGAYEN	Pangasinan	Region I
2014-03-29	Chikungunya	244.44444%	Baay	LINGAYEN	Pangasinan	Region I
2014-03-29	Chikungunya	244.44444%	Baay	LINGAYEN	Pangasinan	Region I
2014-03-29	Chikungunya	255.55556%	Baay	LINGAYEN	Pangasinan	Region I
2014-03-29	Chikungunya	266.66667%	Baay	LINGAYEN	Pangasinan	Region I
2014-03-29	Chikungunya	277.77778%	Baay	LINGAYEN	Pangasinan	Region I

Below the table, it says 'Showing 1 to 7 of 7 entries' and has a page navigation control with buttons for «, 1, and ».

Figure 20: Alerts Page, VBDMS

System alerts are shown in Figure 20. These alerts, aside from SMS alerts, are to notify the health officials and administrators if there are outbreaks in a certain barangay whenever the provincial health worker updates the system.

(b) Registration Page

The screenshot shows the VBDMS registration interface. At the top, there is a navigation bar with links for Home, Diseases, Disease Statistics, Awareness Campaigns, and a user account section indicating 'Logged in as: Administrator'. Below the navigation bar is a secondary menu with tabs for Notifications, Health Workers and Officials, Reports, Profile, Alerts (with a count of 0), Registrations (selected), Municipal/City, Provincial, National, and Researchers. The main content area is titled 'Pending Registrations' and displays a table with two columns: 'Region' and 'No.of Municipal/City Users'. The table lists six regions: ARMM, CAR, NCR, Region I, Region II, and Region III, each with a count of 0 or 1 users.

Region	No.of Municipal/City Users
ARMM	0
CAR	0
NCR	0
Region I	1
Region II	0
Region III	0

Figure 21: Registration Page, VBDMS

The registrations to the system can be viewed by the administrator, national, provincial, municipal/city health officials. The figure shows the registrations pending for approval, approved registrations and rejected registrations.(See Figure 21)

2. Health Worker and Officials Page

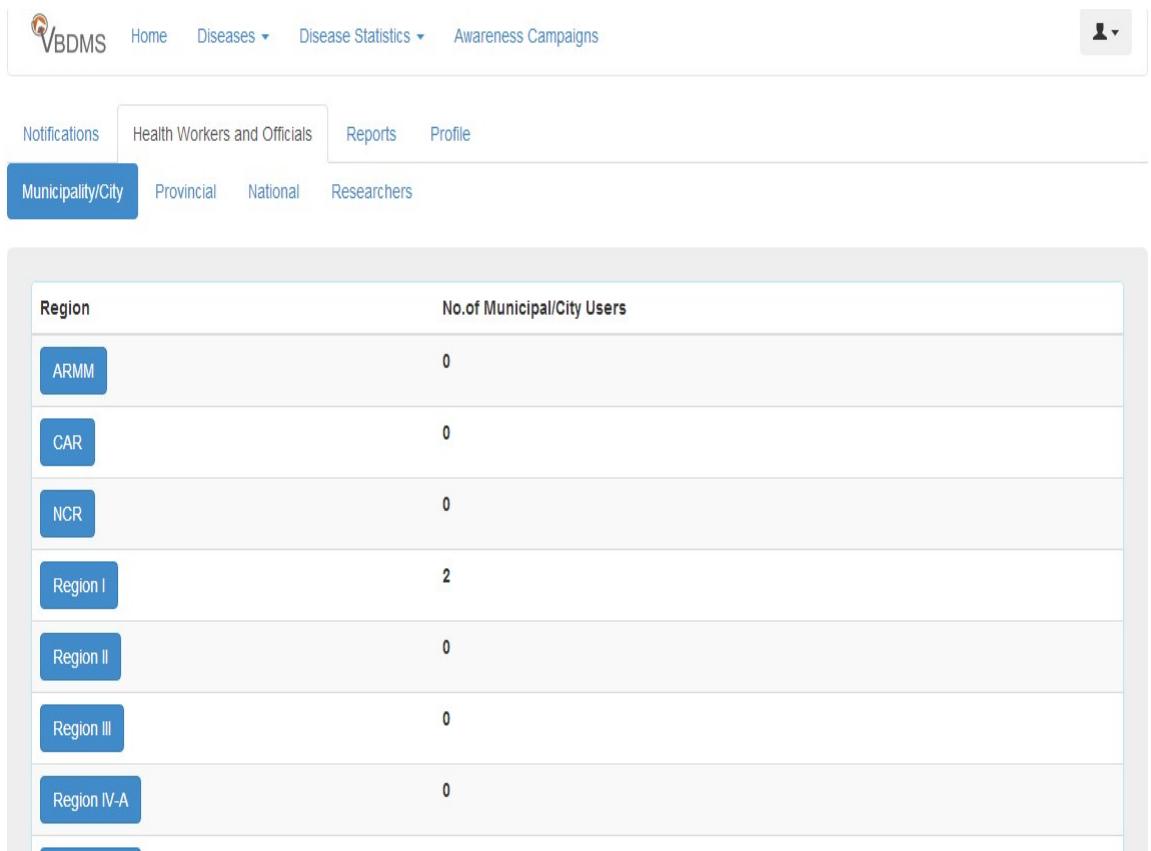


Figure 22: Health Worker and Officials Page, VBDMS

All users registered to the VBDMS is shown in Figure 22. They are arranged according to their scope of operations: barangay, municipal/city, provincial, national. The researchers are also shown here as well. Through this page, the administrator, national, provincial, municipal/city health officials can view the activities and profile of all the users of the system.

3. Reports Page

The screenshot shows the VBDMS Reports Page. At the top, there is a navigation bar with links for Home, Diseases, Disease Statistics, Awareness Campaigns, and a user profile indicating 'Logged in as: Administrator'. Below the navigation bar, there is a secondary menu with links for Notifications, Health Workers and Officials, Reports (which is currently selected), and Profile. A blue button labeled 'Export Reports' is visible. The main content area is titled 'Generate reports' and contains several configuration options:

- INCLUDE DATES**: Two date input fields labeled 'From:' (2014-01-01) and 'To:' (2014-01-01) with calendar icons.
- Disease**: A dropdown menu for selecting a disease.
- Include following charts:** A section containing six checkboxes grouped into three pairs:
 - Disease Case by Age Group and Cases Fatality Ratio by Age Group
 - Disease Case by Gender Group and Cases and Death by Region
 - Cases and Death by Municipality/City (with a dropdown arrow)

Figure 23: Administrator, National, Provincial, Municipal/City Health Officials Reports Page, VBDMS

The reports page is where the reports for chosen vector-borne disease can be generated and exported to pdf as seen in Figure 23. The user can also export data sets of VBDMS patient records in xls format.

4. Profile Page

The screenshot shows the VBDMS profile page for an administrator. At the top, there is a navigation bar with links for Home, Diseases, Disease Statistics, Awareness Campaigns, Notifications, Health Workers and Officials, Reports, and Profile. The Profile link is highlighted. On the right, it shows 'Logged in as: Administrator' with a user icon. Below the navigation bar is a large circular logo of the Department of Health of the Philippines. The main content area is titled 'Account Information' and displays the username 'admin'. A blue button labeled 'Change Password' is visible at the bottom right of this section.

Figure 24: Administrator, Naitonal, Provincial, Municipal/City Health Officials Profile Page, VBDMS

The user currently logged in can view his profile in this page, and can change some of his/her information as well. (See Figure 24)

C. Barangay Health Worker View / Municipal/City Health Worker View / Provincial Health Worker View

1. Manage Records Page

The screenshot shows the 'Manage Records' page of the VBDMS system. At the top, there is a navigation bar with links for 'Home', 'Diseases', 'Disease Statistics', and 'Awareness Campaigns'. On the right, it says 'Logged in as: Barangay Health Worker' with a user icon. Below the navigation, there are three tabs: 'Manage Records' (which is selected), 'Reports', and 'Profile'. The main content area is titled 'Inserting Barangay Patient Record'. It has two sections: 'Patient's Record Information' and 'Patient's General Information'. In the 'Patient's Record Information' section, there are fields for 'Default Region' (Region I), 'Default Province' (Pangasinan), 'Municipality/City' (dropdown menu), and 'Barangay' (dropdown menu). In the 'Patient's General Information' section, there are fields for 'Name' (text input), 'Complete Address' (text input), 'Date of Birth' (dropdown menu with three date pickers), and 'Gender' (dropdown menu).

Figure 25: Manage Records Page, VBDMS

The barangay health worker can add new barangay patient records which will be sent to municipal/city health workers for approval. Municipal/City health workers will receive these patient records and verifies them. After verification and approval of these patient records, they will be sent to the provincial health workers. Health workers page in various levels are similar to Figure 25, 26 and 27.

2. Reports Page

The screenshot shows the VBDMS Reports Page. At the top, there is a navigation bar with links for Home, Diseases, Disease Statistics, Awareness Campaigns, and Profile. A user is logged in as 'Barangay Health Worker'. Below the navigation bar, there are tabs for Manage Records, Reports (which is selected), and Profile. There are also buttons for Export Reports and Export Data.

The main content area is titled 'Generate reports'. It includes sections for 'INCLUDE DATES' (From: 2014-01-01, To: 2014-01-01) and 'Disease' (a dropdown menu). Below these, there is a section titled 'Include following charts:' with three rows of checkboxes:

<input type="checkbox"/> Disease Case by Age Group	<input type="checkbox"/> Cases Fatality Ratio by Age Group
<input type="checkbox"/> Disease Case by Gender Group	<input type="checkbox"/> Cases and Death by Region
<input type="checkbox"/> Cases and Death by Municipality/City	

A blue button at the bottom right of the form area is partially visible.

Figure 26: Barangay, Municipal/City, Provincial Health Workers Reports Page, VBDMS

Figure 26 shows where the reports for chosen vector-borne disease can be generated and exported to pdf. The user can also export data sets of VBDMS patient records in xls format.

3. Profile Page

The screenshot shows the VBDMS profile page for a user named 'Barangay Health Worker'. At the top, there is a navigation bar with links for Home, Diseases, Disease Statistics, Awareness Campaigns, and a dropdown for account settings. Below the navigation bar, there are three tabs: Manage Records, Reports, and Profile, with Profile being the active tab. In the center, there is a large circular emblem of the Department of Health of the Philippines. Below the emblem, there is a box labeled 'Account Information' containing a field for 'Username' with the value 'kbsaringan'. A blue button labeled 'Change Password' is located at the bottom right of this box.

Figure 27: Barangay, Municipal/City, Provincial Health Workers Profile Page, VBDMS

The user currently logged in can view his profile in Figure 27, and can change some of his/her information as well.

D. Researcher View

1. Reports Page

The screenshot shows the 'Reports' section of the VBDMS interface. At the top, there is a navigation bar with links for Home, Diseases, Disease Statistics, Awareness Campaigns, and a user profile indicating 'Logged in as: Barangay Health Worker'. Below the navigation bar, there are tabs for Manage Records, Reports (which is selected), and Profile. A blue button labeled 'Export Reports' is visible. The main content area is titled 'Generate reports'. It includes sections for 'INCLUDE DATES' (From: 2014-01-01, To: 2014-01-01) and 'Disease' (a dropdown menu). Below these, there is a section titled 'Include following charts:' with several checkboxes: 'Disease Case by Age Group', 'Cases Fatality Ratio by Age Group', 'Disease Case by Gender Group', 'Cases and Death by Region', and 'Cases and Death by Municipality/City'. A large blue button at the bottom is partially visible.

Figure 28: Researcher Reports Page, VBDMS

Figure 28 shows where the reports for chosen vector-borne disease can be generated and exported to pdf. The user can also export data sets of VBDMS patient records in xls format.

2. Profile Page

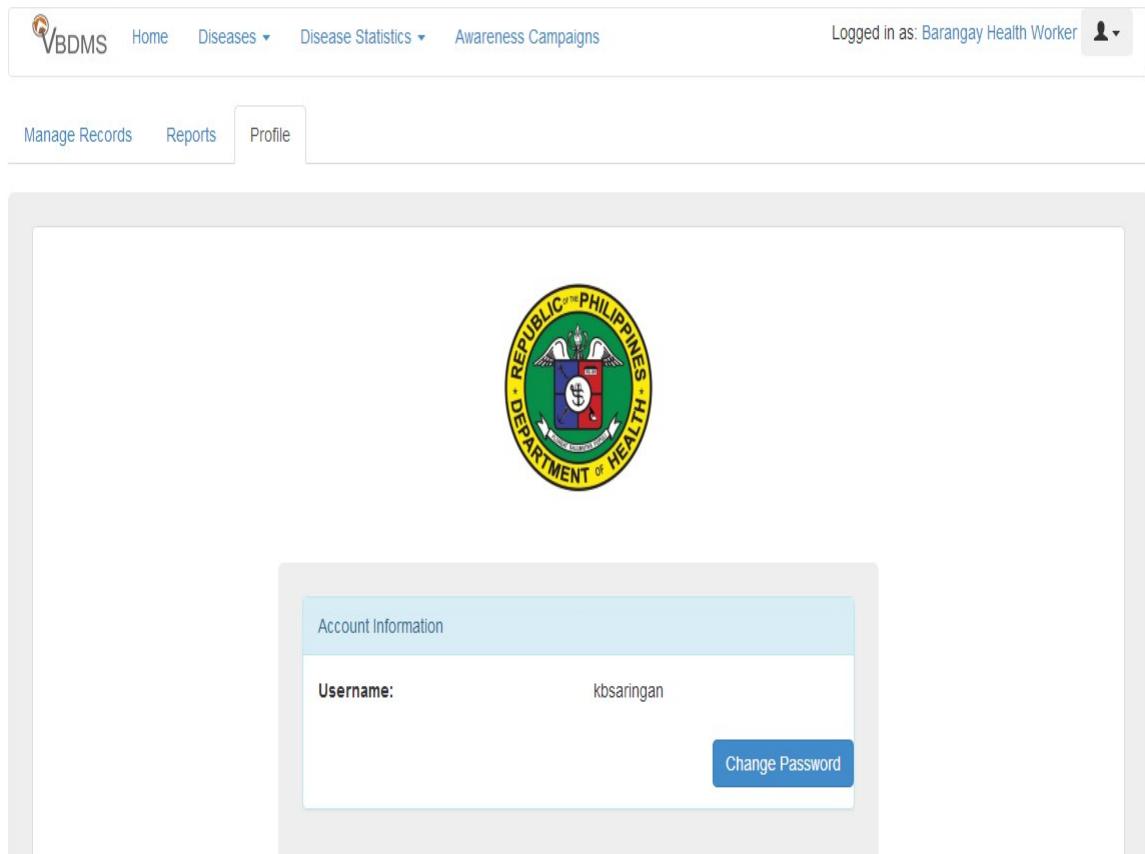


Figure 29: Researcher Profile Page, VBDMS

The user currently logged in can view his profile in Figure 29, and can change some of his/her information as well.

E. Generated Report

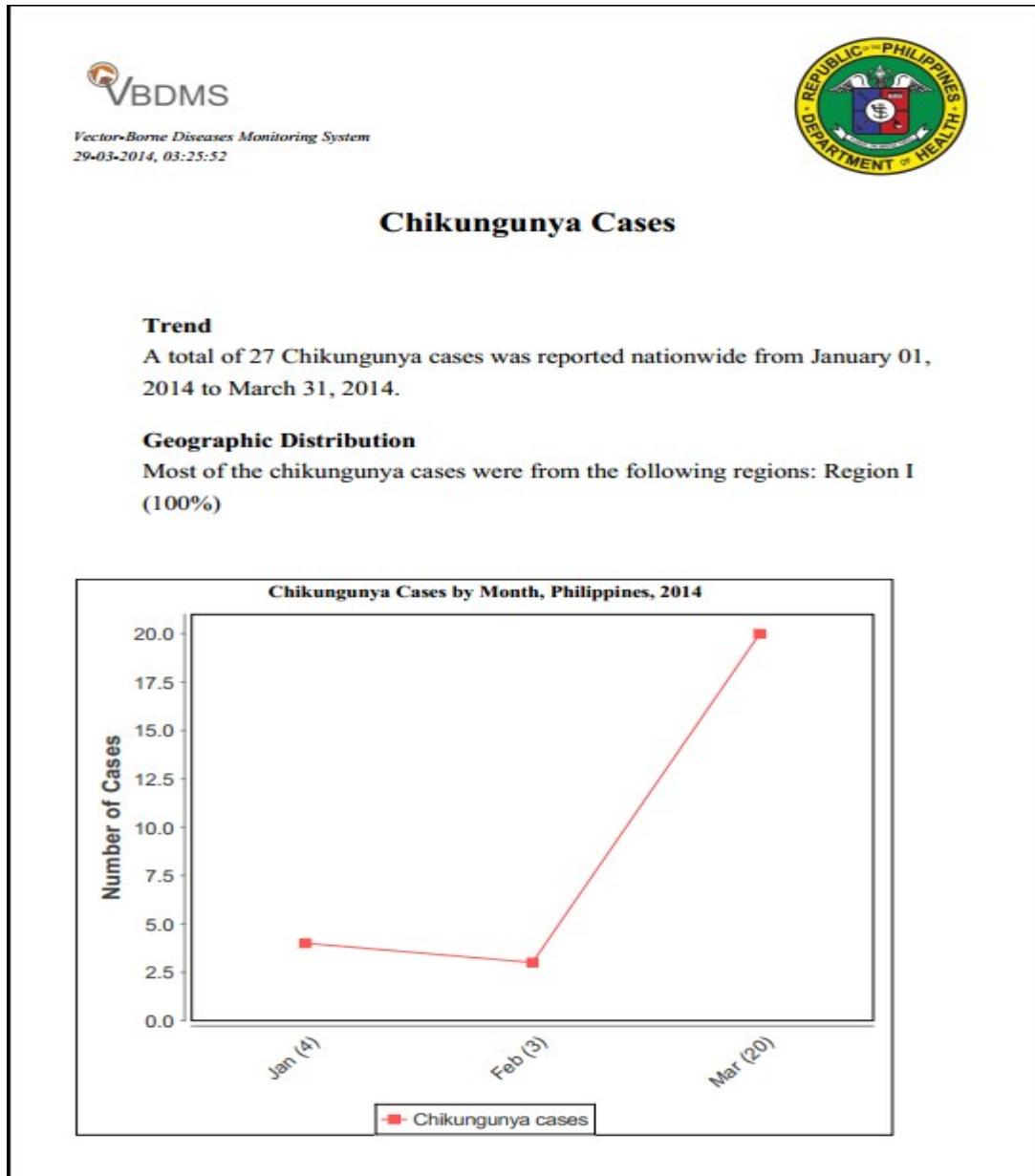


Figure 30: Generated Report, VBDMS

A sample generated report for vector-borne disease Chikungunya is shown in Figure 30 while sample generated dataset in spreadsheet is seen in Figure 31. Figure 32 on the other hand shows the sample generated SMS for an outbreak.

F. Generated Dataset in Spreadsheet

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Disease:	Chikungunya		From	2014-01-01	To	2014-03-31							
2	Record No	Age	Gender	Symptoms	Date Onset	Outcome	Date Died	Barangay	Muncity	Province	Region			
3	1	21	Male	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
4	2	41	Female	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
5	3	23	Male	High fever	2014-03-09	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
6	4	26	Female	High fever	2014-03-06	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
7	5	41	Female	High fever	2014-03-03	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
8	6	37	Female	High fever	2014-03-06	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
9	7	21	Male	High fever	2013-03-09	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
10	8	22	Male	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
11	9	22	Male	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
12	10	22	Male	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
13	11	22	Male	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
14	12	22	Male	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
15	13	22	Male	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
16	14	10	Female	High fever	2014-03-11	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
17	15	10	Female	High fever	2014-03-11	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
18	16	10	Female	High fever	2014-03-11	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
19	17	10	Female	High fever	2014-03-11	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
20	18	29	Male	High fever	2014-03-03	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
21	19	21	Male	High fever	2014-03-03	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
22	20	21	Male	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
23	21	41	Female	High fever	2014-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
24	22	23	Male	High fever	2014-03-09	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
25	23	21	Male	High fever	2013-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
26	24	41	Female	High fever	2013-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
27	25	21	Male	High fever	2013-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
28	26	41	Female	High fever	2013-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
29	27	41	Female	High fever	2013-03-02	Recovered		Baay	LINGAYEN	Pangasinan	Region I			
30														
31														
32														
33														

Figure 31: Generated Spreadsheet, VBDMS

A sample generated dataset in spreadsheet for vector-borne disease Chikungunya is shown in Figure 31.

G. Generated SMS

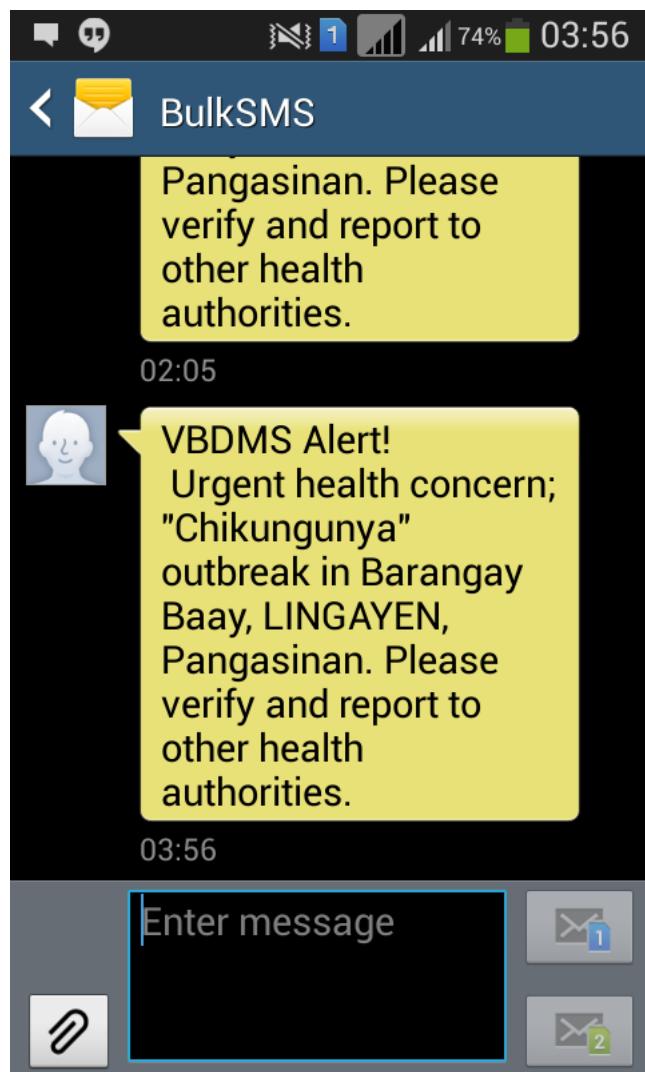


Figure 32: Generated SMS, VBDMS

A sample generated SMS sent to health officials when there's an outbreak is shown in Figure 32.

VII. Discussions

The Vector-Borne Diseases Monitoring System (VBDMS) is a web application which aims to help in monitoring vector-borne diseases, to provide up-to-date information regarding the incidence of a vector-borne disease and to determine barangays where outbreaks of a vector-borne disease occur. The web application developed was able to function just like how it was designed to and was able to meet the main and other objectives that were set by the developer.

Using Spring MVC Framework made the development of this web application easier in some ways. There are many spring resources which greatly helped the researcher in developing the web application without requiring too much effort . Problems also arised in configuring the xml files needed for the web application. Lot of patience and research was done by the developer in order to implement spring resources like spring-security which is an essential tool for web applications especially for systems with many different users and user types like this system.

The programming language used in writing the controllers is Java, and since Java has many widely known API (Application Programming Interface) and libraries which made some functionalities easier to be implemented. But in the view pages, using JSTL somehow caused difficulty for the researcher. Merging JSTL with javascript requires other medium, JSON, to be able to make the programming language work smoothly together. The developer, being unfamiliar with JSON, decided to use other means that worked for the system like calling the script internally within the page for the compiler to be able to read JSTL codes with the javascript.

The system has many types of users to carry out the system's objective or main tasks as well as to monitor the activities of other users in the system. Many types of system user means that the view pages for each type of user will be a little bit similar or will be mostly different especially for tasks, functionalities or areas unique or within the vicinity of the type of user. Creating different pages for different type of users is quite tedious even if they have the same functionalities.

The developer also made use of nested modals and data table to let the users easily navigate areas within their vicinity but using these and dealing with a nationwide area up to the barangay level caused the browser to not respond having large load of work on rendering so many modals and data tables. The large number of records for mapping barangays also made the running time of the web application to be slow. This may also be caused by the complexity of the code of the developer and the condition of the processor of the computer running the server.

Another problem encountered by the developer is the unavailability of a free SMS Gateway provider in the country. The SMS Gateway used in the system, BulkSMS, was used to send SMS to health officials notifying them when theres an outbreak. This module of the system is of utmost importance and one of the main objective of the system. But a disadvantage of this SMS Gateway is that it charges the user registered to the SMS Gateway provider for every message sent.

Comparing VBDMS with systems being used by the DOH, it may lack in functionalities since the researcher didn't have a first hand experience in using the systems they use such as the Philippine Integrated Disease Surveillance and Response (PIDS) and the Philippine Malaria Information System (PhilMIS). But even if VBDMS may lack some functionalities, it makes up for it through its powerful tools such as the barangay mapping and statistics of the diseases, the SMS notification to health officials and the built-in reports generation and dataset exporting which cannot be found on the forementioned systems being used by the DOH in monitoring diseases in the country.

VIII. Conclusions

Vector-Borne Disease Monitoring System (VBDMS) provides aid in vector-borne disease surveillance. It helps in tracking down barangays with cases of certain vector-borne disease and notifies the health officials for proper courses of action.

Patient records, which are gathered through household surveying and through patients visiting the barangay health center, will be added by Barangay Health Workers to the system. After adding these barangay patient records, they will be automatically sent to municipal/city health workers.

The Municipal/City Health Workers will check if the sent barangay patient records are credible enough and may also pay a visit in the barangay health center to see if the situation based on the received records are true. Once these patient records are approved, they will be sent to the provincial health workers.

The Provincial Health Workers will approve the records sent by the municipal/city health workers, and once approved, they will be added to the systems patients database records. These will also reflect on the map, and as well as on the disease statistics page.

After the approval of the provincial health workers of the records, the system will check if theres an outbreak in the barangay. The system will send an alert to all the health officials under that barangay, municipality, province and even the national health officials, and they will also receive a SMS as well to notify that a certain area has a vector-borne-disease outbreak. Now, it would be on the hands of the health officials to take the necessary course of actions or protocols and proper interventions regarding the outbreak of vector-borne disease in that area.

IX. Recommendations

This special project monitors the vector-borne diseases chikungunya, dengue and malaria. These three diseases were the initially proposed diseases since they are the most widely known cases in the country and the vector carrying these diseases are mosquito which is in every Filipino household. To have a more extensive monitoring of diseases in the country, adding other vector-borne diseases in the system with other vectors aside from mosquitoes would be beneficial once added to the system.

It would also be good to have a system messaging or chat function among the users so information gathering and disseminating would be a lot easier. There will be instant communication of users within the system where they can interchange disease information, disease notifications as well as discuss proper interventions and seek help from other health officials and workers easily by being connected to the system.

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XI. Appendix

A. Source Code

1. XML Files

Listing 1: web.xml

```

1  <?xml version="1.0" encoding="UTF-8"?>
2  <web-app xmlns:xsi="http://www.w3.org/2001/
   XMLSchema-instance"
3    xmlns="http://java.sun.com/xml/ns/javaee"
4    xsi:schemaLocation="http://java.sun.com/xml/
      ns/javaee http://java.sun.com/xml/ns/javaee
      /web-app_3.0.xsd" id="WebApp_ID" version
       ="3.0">
5
6    <display-name>VectorBorne </display-name>
7
8    <welcome-file-list>
9      <welcome-file>home.jsp</welcome-file>
10     </welcome-file-list>
11
12   <servlet>
13     <servlet-name>Disease </servlet-name>
14     <servlet-class>
15       org.springframework.web.servlet.
          DispatcherServlet
16     </servlet-class>
17     <load-on-startup>1</load-on-startup>
18   </servlet>
19
20   <servlet-mapping>
21     <servlet-name>Disease </servlet-name>
22     <url-pattern>/</url-pattern>
23   </servlet-mapping>
24
25   <servlet-mapping>
26     <servlet-name>default </servlet-name>
27     <url-pattern>*.css</url-pattern>
28   </servlet-mapping>
29
30   <servlet-mapping>
31     <servlet-name>default </servlet-name>
32     <url-pattern>*.js</url-pattern>
33   </servlet-mapping>
34
35   <servlet-mapping>
36     <servlet-name>default </servlet-name>
37     <url-pattern>*.jpg</url-pattern>
38   </servlet-mapping>
39
40   <servlet-mapping>
41     <servlet-name>default </servlet-name>
42     <url-pattern>*.png, *.svg, *.wof, *.ttf
        </url-pattern>
43   </servlet-mapping>
44
45   <servlet-mapping>
46     <servlet-name>default </servlet-name>
47     <url-pattern>*.svg</url-pattern>
48   </servlet-mapping>
49
50   <servlet>
51     <servlet-name>ongetParameterValues </
           servlet-name>
52
53     <servlet-class>arraying.
      OngetParameterValues </servlet-class>
54   </servlet>
55
56   <servlet-mapping>
57     <servlet-name>ongetParameterValues </
           servlet-name>
58     <url-pattern>/onGPV </url-pattern>
59   </servlet-mapping>
60
61   <context-param>
62     <param-name>contextConfigLocation </param
           -name>
63     <param-value>
64       /WEB-INF/Disease-servlet.xml
65       /WEB-INF/security-context.xml
66     </param-value>
67   </context-param>
68   <!-- Filter for the Spring Security -->
69   <filter>
70     <filter-name>springSecurityFilterChain </
           filter-name>
71     <filter-class>org.springframework.web.
      filter.DelegatingFilterProxy </filter-class>
72   </filter>
73
74   <filter-mapping>
75     <filter-name>springSecurityFilterChain </
           filter-name>
76     <url-pattern>/*</url-pattern>
77   </filter-mapping>
78
79   <listener>
80     <listener-class>org.springframework.web.
      context.ContextLoaderListener </listener-
           class>
81   </listener>
82
83   <listener>
84     <listener-class>
85       org.springframework.security.web.session.
      HttpSessionEventPublisher
86     </listener-class>
87   </listener>
88
89   <error-page>
90     <exception-type>misc.CustomGenericException </
           exception-type>
91     <location>/WEB-INF/views/custom_error.jsp</
           location>
92   </error-page>
93
94   <error-page>
95     <exception-type>java.lang.Exception </exception
           -type>
96     <location>/WEB-INF/views/generic_error.jsp</
           location>
97   </error-page>
98
99   </web-app>

```

Listing 2: Disease-servlet.xml

```

1  <?xml version="1.0" encoding="UTF-8"?>
2  <beans xmlns="http://www.springframework.org/
   schema/beans"
3    xmlns:xsi="http://www.w3.org/2001/XMLSchema-
      instance"
4    xmlns:p="http://www.springframework.org/
      schema/p"
5    xmlns:context="http://www.springframework.
      org/schema/context"
6    xmlns:mvc="http://www.springframework.org/
      schema/mvc"
7    xsi:schemaLocation="
8      http://www.springframework.org/schema/beans
9      http://www.springframework.org/schema/beans/
      spring-beans-3.2.xsd
10     http://www.springframework.org/schema/mvc
11     http://www.springframework.org/schema/mvc/spring-
      -mvc-3.2.xsd
12     http://www.springframework.org/schema/context
13     http://www.springframework.org/schema/context/
      spring-context-3.2.xsd">
14
15   <context:component-scan
16     base-package="controllers" />
17
18   <mvc:annotation-driven />
19   <bean id="viewResolver"
20     class="org.springframework.web.servlet.
      view.UrlBasedViewResolver">
21     <property name="viewClass"
22       value="org.springframework.web.
      servlet.view.JstlView" />
23     <property name="prefix" value="/WEB-INF/
      views/" />
24     <property name="suffix" value=".jsp" />
25   </bean>
26
27   <bean id="messageSource"
28     class="org.springframework.context.support.
      ResourceBundleMessageSource">
29     <property name="basename" value="messages" />
30   </bean>
31
32   <!-- for datasource -->

```

```

33      <bean id="dataSource"
34          class="org.springframework.jdbc.datasource
            .DriverManagerDataSource">
35          <property name="driverClassName" value="
            com.mysql.jdbc.Driver"/>
36          <property name="url" value="jdbc:mysql://
            localhost:3306/ybd?zeroDateTimeBehavior=
            convertToNull"/>
37          <property name="username" value="root"/>
38          <property name="password" value=""/>
39      </bean>
40
41      <bean id="barangayRecordsDAO" class="dao.
            BarangayRecordsDAO" />
42      <bean id="diseaseDAO" class="dao.DiseaseDAO
            " />
43      <bean id="mapsDAO" class="dao.MapsDAO" />

```

Listing 3: security-context.xml

```

1  <?xml version="1.0" encoding="UTF-8"?>
2  <beans:beans xmlns="http://www.springframework.
            org/schema/security"
3      xmlns:beans="http://www.springframework.org/
            schema/beans" xmlns:xsi="http://www.w3.org
            /2001/XMLSchema-instance"
4      xsi:schemaLocation="http://www.springframework.
            org/schema/beans http://www.springframework
            .org/schema/beans/spring-beans-3.1.xsd
            http://www.
            springframework.org/schema/security http://
            www.springframework.org/schema/security/
            spring-security-3.1.xsd">
5
6      <http auto-config="true" use-expressions = "
        true">
7          <intercept-url pattern="/pages*" access=""
            hasAnyRole('ROLE_USER', 'ROLE_BHWorker', ,
            ROLE_MCHWorker', 'ROLE_MCOfficial', ,
            ROLE_PHWorker', 'ROLE_PHOfficial', ,
            ROLE_NHOfficial')" />
8          <!-- requires-channel="https" -->
9          <intercept-url pattern="/pages/insertRecords*"
            access="hasAnyRole('ROLE_USER',
            ROLE_BHWorker', 'ROLE_MCHWorker', ,
            ROLE_MCOfficial', 'ROLE_PHWorker', ,
            ROLE_PHOfficial', 'ROLE_NHOfficial')" />
10     <form-login
11         login-page="/home"
12         default-target-url="/loginSuccess"
13         authentication-failure-url="/loginfailed"
14     />
15     <logout logout-success-url="/home"
16     />
17
18     </http>
19
20     <beans:bean id="encoder" class="org.
            springframework.security.crypto.bcrypt.
            BCryptPasswordEncoder"/>
21
22     <authentication-manager>
23         <authentication-provider>
24             <password-encoder ref = "encoder"/>
25             <jdbc-user-service data-source-ref =
            dataSource
            users-by-username-query = "SELECT
            username, password, true FROM users WHERE
            username = ?"
26             authorities-by-username-query = "SELECT
            username, authorities FROM users WHERE
            username = ?"
27         />
28     </authentication-provider>
29 </authentication-manager>
30
31 </beans:beans>
32
33

```

2. Controllers

Listing 4: HomeController.java

```

1 package controllers;
2
3 import java.net.URL;
4 import java.sql.SQLException;
5 import java.text.DateFormat;
6 import java.text.SimpleDateFormat;
7 import java.util.ArrayList;
8 import java.util.Calendar;
9 import java.util.Date;
10 import java.util.List;
11 import java.util.Map;
12
13 import javax.mail.internet.InternetAddress;
14 import javax.servlet.ServletOutputStream;
15 import javax.servlet.http.HttpServlet;
16 import javax.servlet.http.HttpServletRequest;
17 import javax.servlet.http.HttpServletResponse;
18 import javax.validation.Valid;
19
20 import misc.SendEmail;
21 import misc.SendSMS;
22
23 import org.apache.catalina.connector.Request;
24 import org.jfree.ui.RefineryUtilities;
25 import org.springframework.beans.factory.
            annotation.Autowired;
26 import org.springframework.core.io.
            ClassPathResource;
27 import org.springframework.core.io.
            FileSystemResource;
28 import org.springframework.http.HttpRequest;
29 import org.springframework.http.HttpServletResponse;
30 import org.springframework.security.core.
            Authentication;
31 import org.springframework.security.core.context
            .SecurityContextHolder;
32 import org.springframework.security.crypto.
            brypt.BCryptPasswordEncoder;
33 import org.springframework.security.crypto.
            password.PasswordEncoder;
34 import org.springframework.stereotype.Controller
            ;

```

```

35 import org.springframework.ui.ModelMap;
36 import org.springframework.validation.
            BindingResult;
37 import org.springframework.web.bind.annotation.
            ModelAttribute;
38 import org.springframework.web.bind.annotation.
            PathVariable;
39 import org.springframework.web.bind.annotation.
            RequestMapping;
40 import org.springframework.web.bind.annotation.
            RequestMethod;
41 import org.springframework.web.bind.annotation.
            RequestParam;
42 import org.springframework.web.bind.annotation.
            SessionAttributes;
43 import org.springframework.web.servlet.
            ModelAndView;
44 import org.springframework.web.servlet.mvc.
            support.RedirectAttributes;
45
46 import com.itextpdf.text.DocumentException;
47
48 import dao.BarangayRecordsDAO;
49 import dao.DiseaseDAO;
50 import dao.MapsDAO;
51 import dao.NewUserDAO;
52 import dao.PatientsDAO;
53 import dao.RegistrationDAO;
54 import dao.ReportsDAO;
55 import dao.UserProfileDAO;
56 import objects.BarangayRecords;
57 import objects.Diseases;
58 import objects.FormStruct;
59 import objects.Maps;
60 import objects.NewUser;
61 import objects.Patients;
62 import objects.PatientsForm;
63 import objects.Place;
64 import objects.Registrants;
65 import objects.Reports;
66 import objects.UserChange;
67 import objects.UserProfile;
68 import pdf.GenerateReports;
69

```

```

70  @Controller
71  @SessionAttributes({"registers"})
72  public class HomeController extends HttpServlet
73  {
74      @Autowired
75      DiseaseDAO diseasesDAO;
76      @Autowired
77      NewUserDAO newUserDAO;
78      @Autowired
79      UserProfileDAO userProfileDAO;
80      @Autowired
81      RegistrationDAO registrationDAO;
82      @Autowired
83      BarangayRecordsDAO brgyRecordsDAO;
84      @Autowired
85      PatientsDAO patientsDAO;
86      @Autowired
87      MapsDAO mapsDAO;
88      @Autowired
89      ReportsDAO reportsDAO;
90
91      @RequestMapping(value = "/home", method =
92          RequestMethod.GET)
92  public String home(ModelMap model) throws
93      Exception {
93      ProfileController pr = new ProfileController()
94          ;
94      if(pr.alertCheck == 0) {
95          pr.alertCheck = 1;
96          diseasesDAO.updateAlerts();
97      }
98      List<Diseases> dis = diseasesDAO.listDiseases
98          ();
99      model.addAttribute("disease", dis);
100     model.addAttribute("pages", "home");
101     return "home";
102 }
103
104     @RequestMapping(value = "/disease/{diseaseID}",
104         method = {RequestMethod.GET, RequestMethod
104             .POST})
105    public String chikungunya(@PathVariable("
105        diseaseID") String disease,
106        ModelMap model) throws Exception {
107    ProfileController pr = new ProfileController()
107        ;
108    if(pr.alertCheck == 0) {
109        pr.alertCheck = 1;
110        diseasesDAO.updateAlerts();
111    }
112    List<Diseases> dis = diseasesDAO.listDiseases
112        ();
113
114    if(disease.equalsIgnoreCase("Chikungunya")) {
115        List<Maps> map = mapsDAO.listOfCPatients();
116        model.addAttribute("maps", map);
117        System.out.println(map.size());
118    } else if(disease.equalsIgnoreCase("Dengue")) {
119        List<Maps> map = mapsDAO.listOfDPatients();
120        model.addAttribute("maps", map);
121    } else if(disease.equalsIgnoreCase("Malaria")) {
122        List<Maps> map = mapsDAO.listOfMPatients();
123        model.addAttribute("maps", map);
124    }
125    model.addAttribute("disease", dis);
126    model.addAttribute("diseaseName", disease);
127    return "disease";
128 }
129
130     @RequestMapping(value = "/statistics/{disease
130         }", method = {RequestMethod.GET,
130             RequestMethod.POST})
131    public ModelAndView stat(@PathVariable("disease
131        ") String disease, ModelMap model) throws
131        Exception {
132    ProfileController pr = new ProfileController()
132        ;
133    if(pr.alertCheck == 0) {
134        pr.alertCheck = 1;
135        diseasesDAO.updateAlerts();
136    }
137    model.addAttribute("pages", "statistics");
138
138    List<Patients> patients = patientsDAO.
138        listAllPatients();
139    List<Patients> patients2 = patientsDAO.
139        listOldPatients();
140    String[] regions = {"ARM", "CAR", "NCR", "
140        Region I", "Region II", "Region III",
141        "Region IV-A", "Region IV-B", "Region V", "
141        Region VI", "Region VII",
142        "Region VIII", "Region IX", "Region X", "
142        Region XI", "Region XII", "Region XIII"};
143    List<List<Maps>> map = new ArrayList<List<Maps
143        >>(17);
144
145
146
147    for(int i = 0; i < 17; i++) {
148        map.add(i, mapsDAO.listAllMuncity(regions[i])
148            );
149    }
150
151    int[] popula = new int[17];
152    int mCases = 0;
153    int mDeaths = 0;
154    int oCases = 0;
155    int oDeaths = 0;
156    for(int i = 0; i < 17; i++) {
157        popula[i] = 0;
158        for(Maps ms : map.get(i)) {
159            popula[i] += ms.getPopulation();
160            mCases = 0;
161            mDeaths = 0;
162            for(Patients pat : patients) {
163                if(pat.getDisease().equalsIgnoreCase(
163                    disease)) {
164                    if(pat.getRegion().equalsIgnoreCase(
164                        regions[i])) {
165                        if(pat.getMuncity().equalsIgnoreCase(ms.
165                            getMuncity())) {
166                            mCases++;
167                            if(pat.getDeceased().equalsIgnoreCase("
167                                Died"))
168                                mDeaths++;
169                            }
170                        }
171                    }
172                }
173                for(Patients pat : patients2) {
174                    if(pat.getDisease().equalsIgnoreCase(
174                        disease)) {
175                        if(pat.getRegion().equalsIgnoreCase(
175                            regions[i])) {
176                            if(pat.getMuncity().equalsIgnoreCase(ms.
176                                getMuncity())) {
177                                oCases++;
178                                if(pat.getDeceased().equalsIgnoreCase("
178                                Died"))
179                                    oDeaths++;
180                            }
181                        }
182                    }
183                }
184                ms.setCountMCases(mCases);
185                ms.setCountMDeaths(mDeaths);
186                ms.setCountOCases(oCases);
187                ms.setCountODeaths(oDeaths);
188            }
189        }
190
191        model.put("map", map);
192
193        int cases[] = new int[17];
194        int deaths[] = new int[17];
195        int oldCases[] = new int[17];
196        int oldDeaths[] = new int[17];
197
198        for(Patients pat : patients) {
199            for(int i = 0; i < regions.length; i++) {
200                if(pat.getDisease().equalsIgnoreCase(disease
200                    )) {
201                    if(pat.getRegion().equalsIgnoreCase(regions
201                        [i])) {
202                        cases[i]++;
203                        if(pat.getDeceased().equalsIgnoreCase("Yes
203                            "))
204                            deaths[i]++;
205                    }
206                }
207            }
208        }
209
210        for(Patients pat : patients2) {
211            for(int i = 0; i < regions.length; i++) {
212                if(pat.getDisease().equalsIgnoreCase(disease
212                    )) {
213                    if(pat.getRegion().equalsIgnoreCase(regions
213                        [i])) {
214                        oldCases[i]++;
215                    }
216                }
217            }
218        }
219
220        DateFormat dateFormat = new SimpleDateFormat("
220            yyyy-MM-dd");
221        Date date = new Date();
222        Date date2 = new Date();
223        date.setMonth(0);
224        date.setDate(1);
225        date2.setMonth(12);
226        date2.setDate(31);
227
228        List<PatientsForm> allPatients = patientsDAO.
228            listAllPatients(dateFormat.format(date),

```

```

        dateFormat.format(date2));
229    int yearCases[] = new int[12];
230    int yearDeaths[] = new int[12];
231
232    for(PatientsForm pat : allPatients) {
233        String parts[] = pat.getDateSubmitted().split
234            ("-");
235        for(int i = 0; i < 12; i++) {
236            String days = "";
237            if(i < 9)
238                days = "0" + (i+1);
239            else
240                days = "" + (i+1);
241            if(pat.getDisease().equalsIgnoreCase(disease
242                )) {
243                if(parts[1].equalsIgnoreCase(days)) {
244                    yearCases[i]++;
245                    if(pat.getOutcome().equalsIgnoreCase("Died
246                        "))
247                        yearDeaths[i]++;
248                }
249            }
250
251            model.addAttribute("pat", patients);
252            model.addAttribute("regions", regions);
253            model.addAttribute("cases", cases);
254            model.addAttribute("deaths", deaths);
255            model.addAttribute("oldCases", oldCases);
256            model.addAttribute("popula", popula);
257            String op = "[";
258            String dat1 = "", dat2 = "";
259            for(int i = 0; i < 12; i++) {
260                dat1 += yearCases[i] + ", ";
261                dat2 += yearDeaths[i] + ", ";
262            }
263            dat1 = op + dat1 + "]";
264            dat2 = op + dat2 + "]";
265
266            model.addAttribute("data1", dat1);
267            model.addAttribute("data2", dat2);
268            model.addAttribute("diseaseName", disease);
269            String text = "Monthly " + disease + " Cases";
270            model.addAttribute("titles", text);
271            model.addAttribute("disease", diseasesDAO.
272                listDiseases());
273
274            return new ModelAndView("statistics");
275        }
276
277    @RequestMapping(value = "/campaigns", method =
278        RequestMethod.GET)
279    public ModelAndView camps(ModelMap model) {
280        ProfileController pr = new ProfileController()
281            ;
282        if(pr.alertCheck == 0) {
283            pr.alertCheck = 1;
284            diseasesDAO.updateAlerts();
285        }
286        List<Diseases> dis = diseasesDAO.listDiseases
287            ();
288        model.addAttribute("disease", dis);
289        return new ModelAndView("campaigns");
290
291    @RequestMapping(value = "/register")
292    public ModelAndView reg(ModelMap model) throws
293        Exception {
294        List<Diseases> dis = diseasesDAO.listDiseases
295            ();
296        model.addAttribute("disease", dis);
297        model.addAttribute("pages", "register");
298        model.put("registers", new NewUser());
299        model.addAttribute("userNames", userProfileDAO
300            .getAllUserNames());
301
302    @RequestMapping(value = "/registerUser", method
303        = {RequestMethod.POST, RequestMethod.GET})
304    public ModelAndView registerUser(
305        @ModelAttribute("registers") @Valid NewUser
306            user,
307            BindingResult result, ModelMap model) {
308        boolean err = false;
309        for(String u : userProfileDAO.getAllUserNames
310            ()) {
311            if(user.getUsername().equalsIgnoreCase(u)) {
312                model.addAttribute("nameTaken", "Username
313                    already taken!");
314                err = true;
315            }
316            for(String u : userProfileDAO.
317                getAllUserNumbers()) {
318                if(user.getNumber().equalsIgnoreCase(u)) {
319                    model.addAttribute("numTaken", "Contact
320                        number should be unique.");
321                    err = true;
322                }
323            }
324            if(result.hasErrors() || err) {
325                model.addAttribute("userNames",
326                    userProfileDAO.getAllUserNames());
327                model.addAttribute("userNumbers",
328                    userProfileDAO.getAllUserNumbers());
329                model.addAttribute("pages", "register");
330                return new ModelAndView("register");
331            } else {
332                newUserDAO.insert(user.getFirstname(), user.
333                    getMiddlename(),
334                    user.getSurname(), user.getGender(), user.
335                    getAddress(),
336                    user.getUserType(), user.getUserTypeInt(),
337                    user.getRegion(), user.getProvince(), user.
338                    getMuncity(),
339                    user.getBarangay(), user.getInstitution(),
340                    user.getInstitutionAddr(), user.getEmail(),
341                    user.getNumber());
342            }
343        }
344
345    @RequestMapping(value = "/successRegister")
346    public ModelAndView success(ModelMap model) {
347        List<Diseases> dis = diseasesDAO.listDiseases
348            ();
349        model.addAttribute("disease", dis);
350        return new ModelAndView("successRegister");
351
352    @RequestMapping(value = "/loginfailed", method
353        = {RequestMethod.GET, RequestMethod.POST})
354    public String errorLogin(ModelMap model) {
355        List<Diseases> dis = diseasesDAO.listDiseases
356            ();
357        model.addAttribute("disease", dis);
358        model.addAttribute("pages", "loginfailed");
359        return "loginfailed";
360
361    @RequestMapping(value = "/"
362        changeCredentialsSuccessful")
363    public ModelAndView changeCredit(ModelMap model
364            ) {
365        List<Diseases> dis = diseasesDAO.listDiseases
366            ();
367        model.addAttribute("disease", dis);
368        return new ModelAndView(""
369            changeCredentialsSuccessful");
370
371    @RequestMapping(value = "/loginSuccess")
372    public ModelAndView loginSuccess(ModelMap model
373            ) {
374        List<Diseases> dis = diseasesDAO.listDiseases
375            ();
376        model.addAttribute("disease", dis);
377        Authentication auth = SecurityContextHolder.
378            getContext()
379            .getAuthentication();
380        String name = auth.getName();
381        UserProfile prof = userProfileDAO.getUser(name
382            );
383        if(prof.getUserType().equalsIgnoreCase("Barangay Health Worker") ||
384            prof.getUserType().equalsIgnoreCase("Municipal/City Health Worker") ||
385            prof.getUserType().equalsIgnoreCase("Provincial Health Worker")) {
386            return new ModelAndView("redirect:pages/
387                system");
388        }
389        else if(prof.getUserType().equalsIgnoreCase("National Health Official") ||
390            prof.getUserType().equalsIgnoreCase("Municipal
391                /City Health Official") ||
392            prof.getUserType().equalsIgnoreCase("Provincial Health Official") ||
393            prof.getUserType().equalsIgnoreCase(""))

```

```

384     Administrator")) {
385         return new ModelAndView("redirect:pages/
386         notifications");
387     }
388 }
389 }

ProfileController.java

Listing 5: ProfileController.java

1 package controllers;
2
3 import java.awt.Image;
4 import java.awt.Rectangle;
5 import java.io.ByteArrayOutputStream;
6 import java.io.File;
7 import java.io.FileInputStream;
8 import java.io.FileNotFoundException;
9 import java.io.IOException;
10 import java.io.InputStream;
11 import java.net.URL;
12 import java.nio.ByteBuffer;
13 import java.sql.SQLException;
14 import java.text.DateFormat;
15 import java.text.SimpleDateFormat;
16 import java.util.ArrayList;
17 import java.util.Calendar;
18 import java.util.Date;
19 import java.util.HashMap;
20 import java.util.Iterator;
21 import java.util.List;
22 import java.util.Map;
23 import java.util.Set;
24
25 import javax.servlet.ServletOutputStream;
26 import javax.servlet.http.HttpServlet;
27 import javax.servlet.http.HttpServletRequest;
28 import javax.servlet.http.HttpServletResponse;
29 import javax.swing.ImageIcon;
30 import javax.swing.JFrame;
31 import javax.swing.JLabel;
32 import javax.validation.Valid;
33
34 import misc.SendEmail;
35 import misc.SendSMS;
36
37 import org.apache.catalina.connector.Request;
38 import org.jfree.ui.RefineryUtilities;
39 import org.springframework.beans.factory.
40     annotation.Autowired;
41 import org.springframework.core.io.
42     ClassPathResource;
43 import org.springframework.core.io.Resource;
44 import org.springframework.security.core.
45     Authentication;
46 import org.springframework.security.core.context
47     .SecurityContextHolder;
48 import org.springframework.security.crypto.
49     bcrypt.BCryptPasswordEncoder;
50 import org.springframework.security.crypto.
51     password.PasswordEncoder;
52 import org.springframework.stereotype.Controller
53 import org.springframework.validation.
54     RequestMethod;
55 import org.springframework.web.bind.annotation.
56     ModelAttribute;
57 import org.springframework.web.bind.annotation.
58     PathVariable;
59 import org.springframework.web.bind.annotation.
60     RequestMapping;
61 import org.springframework.web.bind.annotation.
62     RequestMethod;
63 import org.springframework.web.bind.annotation.
64     RequestParam;
65 import org.springframework.web.bind.annotation.
66     SessionAttributes;
67 import org.springframework.web.servlet.
68     ModelAndView;
69 import org.springframework.web.servlet.mvc.
70     support.RedirectAttributes;
71 import com.itextpdf.text.DocumentException;
72 import com.sun.pdfview.PDFFile;
73 import com.sun.pdfview.PDFPage;
74 import dao.BarangayRecordsDAO;
75 import dao.DiseaseDAO;
76 import dao.MapsDAO;
77 import dao.NewUserDAO;
78 import dao.PatientsDAO;
79 import dao.RegistrationDAO;
80 import dao.ReportsDAO;
81 import dao.UserProfileDAO;
82 import objects.BarangayRecords;
83 import objects.ContactsChange;
84 import objects.Diseases;
85 import objects.FormStruct;
86 import objects.Maps;
87 import objects.NewUser;
88 import objects.Patients;
89 import objects.PatientsForm;
90 import objects.Place;
91 import objects.Registrants;
92 import objects.Reports;
93 import objects.UserChange;
94 import objects.UserLogs;
95 import objects.UserProfile;
96 import pdf.GenerateExcel;
97 import pdf.GenerateReports;
98
99 @Controller
100 @SessionAttributes({"changeUser", "changeContacts", "cBrgyForm", "addNewUser", "forReports", "diseases", "forExcel", "name", "age", "gender", "deceased", "patientForm"})
101 public class ProfileController extends
102     HttpServlet {
103     public int alertCheck = -1;
104     @Autowired
105     DiseaseDAO diseasesDAO;
106     @Autowired
107     NewUserDAO newUserDAO;
108     @Autowired
109     UserProfileDAO userProfileDAO;
110     @Autowired
111     RegistrationDAO registrationDAO;
112     @Autowired
113     BarangayRecordsDAO brgyRecordsDAO;
114     @Autowired
115     MapsDAO mapsDAO;
116     @Autowired
117     ReportsDAO reportsDAO;
118     @Autowired
119     PatientsDAO patientsDAO;
120     @RequestMapping(value = "/pages/profile",
121         method = {RequestMethod.GET, RequestMethod.
122             POST})
123     public ModelAndView toProfile(ModelMap model)
124         throws Exception {
125         Authentication auth = SecurityContextHolder.
126             getContext()
127             .getAuthentication();
128         String name = auth.getName();
129         System.out.println(name);
130         UserProfile prof = userProfileDAO.getUser(name
131             );
132         model.put("disease", diseasesDAO.listDiseases
133             ());
134         model.addAttribute("user", prof);
135         model.addAttribute("userDetails",
136             userProfileDAO.getUserDetails(name));
137         model.addAttribute("thePage", "profile");
138         model.addAttribute("us", new UserChange());
139         model.addAttribute("insf", new FormStruct());
140         model.addAttribute("reports", new Reports());
141         model.put("changeUser", new UserChange());
142         model.put("changeContacts", new ContactsChange
143             ());
144         model.put("cBrgyForm", new FormStruct());
145         if(prof.getStatus() == 1)
146             return new ModelAndView("pages/profile");
147         else {
148             return new ModelAndView("pages/errors/
149                 userDeactivated");
150         }
151     }
152     @RequestMapping(value = "/pages/messages",
153         method = {RequestMethod.GET, RequestMethod.
154             POST})
155     public ModelAndView toMessages(ModelMap model)
156         {
157         Authentication auth = SecurityContextHolder.
158             getContext()
159             .getAuthentication();
160         String name = auth.getName();
161         UserProfile prof = userProfileDAO.getUser(name
162             );
163     }

```

```

144     );
145     model.addAttribute("disease", diseasesDAO.
146         listDiseases());
147     model.addAttribute("user", prof);
148     model.addAttribute("userDetails",
149         userProfileDAO.getUserDetails(name));
150     model.addAttribute("thePage", "messages");
151 }
152 @RequestMapping(value = "/pages/notifications",
153     method = {RequestMethod.GET, RequestMethod
154         .POST})
155 public ModelAndView toNotifications(ModelMap
156     model) {
157     if(alertCheck == -1)
158         alertCheck = 0;
159     Authentication auth = SecurityContextHolder.
160         getContext()
161         .getAuthentication();
162     String name = auth.getName();
163     UserProfile prof = userProfileDAO.getUser(name
164         );
165     model.addAttribute("disease", diseasesDAO.
166         listDiseases());
167     model.addAttribute("user", prof);
168     model.addAttribute("userDetails",
169         userProfileDAO.getUserDetails(name));
170     model.addAttribute("thePage", "notifications")
171         ;
172     String[] regions = {"ARMM", "CAR", "NCR", "
173         Region I", "Region II", "Region III",
174         "Region IV-A", "Region IV-B", "Region V",
175         "Region VI", "Region VII",
176         "Region VIII", "Region IX", "Region X",
177         "Region XI", "Region XII", "Region XIII"};
178     System.out.println(prof.getUserType());
179     int classify = 0;
180     if(prof.getUserType().equalsIgnoreCase("Municipal/City Health Official")) {
181         model.addAttribute("pageVisit", "mofficial");
182         classify = 2;
183         model.addAttribute("allUsers", userProfileDAO
184             .listAllUsers(classify));
185         model.addAttribute("brgy", mapsDAO.
186             getAllBarangay(prof.getMuncity(), prof.
187                 getProvince(), prof.getRegion()));
188     } else if(prof.getUserType().equalsIgnoreCase("Provincial Health Official")) {
189         model.addAttribute("pageVisit", "pofficial");
190         classify = 4;
191         model.addAttribute("allUsers", userProfileDAO
192             .listAllUsers(classify));
193         List<List<Place>> prov = new ArrayList<List<
194             Place>>();
195         List<List<Place>> mun = new ArrayList<List<
196             Place>>();
197         List<List<Place>> brg = new ArrayList<List<
198             Place>>();
199         int count = 0, count2 = 0;
200         String theRegion = "";
201         for(int i = 0; i < regions.length; i++) {
202             if(regions[i].equalsIgnoreCase(prof.
203                 getRegion()))
204                 theRegion = prof.getRegion();
205             else
206                 theRegion = "";
207             prov.add(i, mapsDAO.getAllProvince(theRegion
208                 ));
209             for(Place p : prov.get(i)) {
210                 mun.add(count, mapsDAO.
211                     getAllMuncityFromProv(p.getProvince(),
212                         theRegion));
213                 for(Place m : mun.get(count)) {
214                     brg.add(count2, mapsDAO.getAllBarangay(m.
215                         getMuncity(), p.getProvince(), theRegion));
216                     count2++;
217                 }
218                 count++;
219             }
220         }
221         model.addAttribute("prov", prov);
222         model.addAttribute("mun", mun);
223         model.addAttribute("brgy", brg);
224     } else if(prof.getUserType().equalsIgnoreCase("National Health Official")) {
225         model.addAttribute("pageVisit", "nofficial");
226         classify = 5;
227         model.addAttribute("allUsers", userProfileDAO
228             .listAllUsers(classify));
229         List<List<Place>> prov = new ArrayList<List<
230             Place>>();
231         List<List<Place>> mun = new ArrayList<List<
232             Place>>();
233         List<List<Place>> brg = new ArrayList<List<
234             Place>>();
235         int count = 0, count2 = 0;
236         for(int i = 0; i < regions.length; i++) {
237             prov.add(i, mapsDAO.getAllProvince(regions[i
238                 ]));
239             for(Place p : prov.get(i)) {
240                 mun.add(count, mapsDAO.
241                     getAllMuncityFromProv(p.getProvince(),
242                         regions[i]));
243                 count++;
244             }
245         }
246         model.addAttribute("prov", prov);
247         model.addAttribute("mun", mun);
248     } else if(prof.getUserType().equalsIgnoreCase("Municipal/City Health Official")) {
249         classify = 2;
250         model.addAttribute("registrations",
251             registrationDAO.listAllRegistrations(
252                 classify));
253     } else if(prof.getUserType().equalsIgnoreCase("Provincial Health Official")) {
254         classify = 4;
255         model.addAttribute("registrations",
256             registrationDAO.listAllRegistrations(
257                 classify));
258     } else if(prof.getUserType().equalsIgnoreCase("National Health Official")) {
259         classify = 5;
260         model.addAttribute("registrations",
261             registrationDAO.listAllRegistrations(
262                 classify));
263     } else if(prof.getUserTypeInt() == 2 || prof.
264         getUserTypeInt() == 4 || prof.
265         getUserTypeInt() == 5 || prof.
266         getUserTypeInt() == 7) {
267         model.addAttribute("pending", registrationDAO
268             .countPending(classify));
269         model.addAttribute("approved",
270             registrationDAO.countApproved(classify));
271         model.addAttribute("rejected",
272             registrationDAO.countRejected(classify));
273     }
274     model.addAttribute("regions", regions);
275     model.addAttribute("alerts", diseasesDAO.
276         getAlerts());
277     model.addAttribute("numAlerts", diseasesDAO.
278         getCountAlerts());
279 }
280
281 @RequestMapping(value = "/pages/addUser/{regID
282     }", method = {RequestMethod.GET,

```

```

    RequestMethod.POST});
276 public ModelAndView addUser(@PathVariable("regID") int regID, ModelMap model) {
277     if(alertCheck == 0) {
278         alertCheck = 1;
279         diseasesDAO.updateAlerts();
280     }
281     Authentication auth = SecurityContextHolder.
282         getContext()
283         .getAuthentication();
284     String name = auth.getName();
285     UserProfile prof = userProfileDAO.getUser(name);
286     model.addAttribute("disease", diseasesDAO.
287         listDiseases());
288     model.addAttribute("thePage", "notifications");
289     ;
290     String yow = newUserDAO.getUser(regID);
291     int classify = 0;
292     if(prof.getUserType().equalsIgnoreCase("Municipal/City Health Official")) {
293         classify = 2;
294         model.addAttribute("registrations",
295             registrationDAO.listAllRegistrations(
296                 classify));
297     } else if(prof.getUserType().equalsIgnoreCase("Provincial Health Official")) {
298         classify = 4;
299         model.addAttribute("registrations",
300             registrationDAO.listAllRegistrations(
301                 classify));
302     } else if(prof.getUserType().equalsIgnoreCase("National Health Official")) {
303         classify = 5;
304         model.addAttribute("registrations",
305             registrationDAO.listAllRegistrations(
306                 classify));
307     } else if(prof.getUserType().equalsIgnoreCase("Administrator")) {
308         classify = 7;
309         model.addAttribute("registrations",
310             registrationDAO.listAllRegistrations(
311                 classify));
312     }
313     if(prof.getUserTypeInt() == 2 || prof.
314         getUserTypeInt() == 4 || prof.
315         getUserTypeInt() == 6 || prof.
316         getUserTypeInt() == 7) {
317         model.addAttribute("pending", registrationDAO
318             .countPending(classify));
319         model.addAttribute("approved",
320             registrationDAO.countApproved(classify));
321         model.addAttribute("rejected",
322             registrationDAO.countRejected(classify));
323     }
324     if (!yow.isEmpty()) {
325         UserChange user = newUserDAO.getAccount(regID
326             );
327         UserProfile prof2 = userProfileDAO.getUser(
328             regID);
329         SendEmail sends = new SendEmail();
330         sends.sendmail(prof2.getEmail(), prof2.
331             getUsername(), yow, prof2.getUserType(),
332             true);
333         model.addAttribute("success", "Adding New
334             User Successful!");
335         return new ModelAndView("pages/notifications
336             ");
337     }
338     return null;
339 }
340 @RequestMapping(value = "/pages/rejectUser/{regID}", method = {RequestMethod.GET,
341     RequestMethod.POST})
342 public ModelAndView rejectUser(@PathVariable("regID") int regID, ModelMap model) {
343     if(alertCheck == 0) {
344         alertCheck = 1;
345         diseasesDAO.updateAlerts();
346     }
347     Authentication auth = SecurityContextHolder.
348         getContext()
349         .getAuthentication();
350     String name = auth.getName();
351     UserProfile prof = userProfileDAO.getUser(name
352         );
353     model.addAttribute("disease", diseasesDAO.
354         listDiseases());
355     model.addAttribute("thePage", "notifications")
356         ;
357     int classify = 0;
358     if(prof.getUserType().equalsIgnoreCase("Municipal/City Health Official")) {
359         classify = 2;
360         model.addAttribute("registrations",
361             registrationDAO.listAllRegistrations(
362                 classify));
363     } else if(prof.getUserType().equalsIgnoreCase("Provincial Health Official")) {
364         classify = 4;
365         model.addAttribute("registrations",
366             registrationDAO.listAllRegistrations(
367                 classify));
368     } else if(prof.getUserType().equalsIgnoreCase("National Health Official")) {
369         classify = 5;
370         model.addAttribute("registrations",
371             registrationDAO.listAllRegistrations(
372                 classify));
373     } else if(prof.getUserType().equalsIgnoreCase("Administrator")) {
374         classify = 7;
375         model.addAttribute("registrations",
376             registrationDAO.listAllRegistrations(
377                 classify));
378     }
379     if(prof.getUserTypeInt() == 2 || prof.
380         getUserTypeInt() == 4 || prof.
381         getUserTypeInt() == 6 || prof.
382         getUserTypeInt() == 7) {
383         model.addAttribute("pending", registrationDAO
384             .countPending(classify));
385         model.addAttribute("approved",
386             registrationDAO.countApproved(classify));
387         model.addAttribute("rejected",
388             registrationDAO.countRejected(classify));
389     }
390     System.out.println("Success!!!");
```

```

405     List<Place> muncies = mapsDAO.
406         getAllMuncityFromProv(prof.getProvince(),
407             prof.getRegion());
408
409     List<List<Place>> brgys = new ArrayList<List<
410         Place>>(muncies.size());
411
412     for(int i = 0; i < muncies.size(); i++) {
413         brgys.add(i, mapsDAO.getAllBarangay(muncies.
414             get(i).getMuncity(), prof.getProvince(),
415             prof.getRegion()));
416     }
417     model.addAttribute("munci", muncies);
418     model.addAttribute("brgys", brgys);
419     //}
420
421     if(prof.getUserType().equalsIgnoreCase("Municipal/City Health Worker"))
422     model.addAttribute("allBRecords",
423         brgyRecordsDAO.listOfAllBrgyRecords(prof.
424             getMuncity(),
425             prof.getProvince(), prof.getRegion()));
426     else if(prof.getUserType().equalsIgnoreCase("Provincial Health Worker"))
427     model.addAttribute("allMRecords",
428         brgyRecordsDAO.listOfAllMunCityRecords(
429             userProfileDAO.getUser(name).getProvince(),
430             prof.getRegion()));
431
432     return new ModelAndView("pages/system");
433 }
434
435 @RequestMapping(value = "/pages/system/
436     toInsertRecord", method = {RequestMethod.
437         GET, RequestMethod.POST})
438 public ModelAndView insertNewRec(
439     @ModelAttribute("patientForm") @Valid
440         PatientsForm p,
441         BindingResult results, ModelMap model) {
442
443     model.addAttribute("disease", diseasesDAO.
444         listDiseases());
445
446     Authentication auth = SecurityContextHolder.
447         getContext()
448         .getAuthentication();
449     String name = auth.getName();
450     UserProfile prof = userProfileDAO.getUser(name
451         );
452
453     model.addAttribute("disease", diseasesDAO.
454         listDiseases());
455     model.addAttribute("user", prof);
456     model.addAttribute("userDetails",
457         userProfileDAO.getUserDetails(name));
458     model.addAttribute("thePage", "system");
459
460     List<Place> muncies = mapsDAO.
461         getAllMuncityFromProv(prof.getProvince(),
462             prof.getRegion());
463
464     List<List<Place>> brgys = new ArrayList<List<
465         Place>>(muncies.size());
466
467     for(int i = 0; i < muncies.size(); i++) {
468         brgys.add(i, mapsDAO.getAllBarangay(muncies.
469             get(i).getMuncity(), prof.getProvince(),
470             prof.getRegion()));
471     }
472     model.addAttribute("munci", muncies);
473     model.addAttribute("brgys", brgys);
474
475     boolean withErr = false;
476
477     if(p.getDisease().equalsIgnoreCase("Dengue")
478         && p.getCaseType().isEmpty()) {
479         model.addAttribute("eCaseType", "Case Type is
480             required.");
481         withErr = true;
482     }
483
484     if(p.getAdmitted().equalsIgnoreCase("Yes")) {
485         if(p.getDateAdmitted().isEmpty())
486             model.addAttribute("eDateAdmitted", "Date
487                 Admitted is required.");
488         withErr = true;
489     }
490
491     if(p.getHospital().isEmpty())
492         model.addAttribute("eHospital", "Hospital/
493             Clinic is required.");
494     withErr = true;
495
496     if(p.getHospitalAddr().isEmpty())
497         model.addAttribute("eHospitalAddr", "Hospital
498             Address is required.");
499     withErr = true;
500
501     if(p.getHospitalType().isEmpty())
502         model.addAttribute("eHospitalType", "Hospital
503             Type is required.");
504
505     withErr = true;
506 }
507
508 if(p.getOutcome().equalsIgnoreCase("Died"))
509     if(p.getDateDied().isEmpty())
510         model.addAttribute("eDateDied", "Date Died
511             is required.");
512     withErr = true;
513
514 if (results.hasErrors() || withErr)
515     model.addAttribute("disease", diseasesDAO.
516         listDiseases());
517
518 System.out.println("With Errors");
519 return new ModelAndView("pages/system/
520     recordInsertion");
521
522 } else {
523
524     brgyRecordsDAO.insertBrgyRecords(p, prof,
525         name);
526     model.addAttribute("disease", diseasesDAO.
527         listDiseases());
528     model.addAttribute("success", "Adding record
529         successful!");
530
531     model.addAttribute("pages", "system");
532     model.put("patientForm", new PatientsForm());
533
534     return new ModelAndView("pages/system");
535 }
536
537 @RequestMapping(value = "/pages/system/
538     addToMunCityRecords/{recID}", method = {
539         RequestMethod.GET, RequestMethod.POST})
540 public ModelAndView addRecordMunCity(
541     @PathVariable("recID") int recID, ModelMap
542         model) {
543
544     model.addAttribute("disease", diseasesDAO.
545         listDiseases());
546
547     Authentication auth = SecurityContextHolder.
548         getContext()
549         .getAuthentication();
550     String names = auth.getName();
551     UserProfile prof = userProfileDAO.getUser(
552         names);
553
554     model.addAttribute("disease", diseasesDAO.
555         listDiseases());
556     model.addAttribute("user", prof);
557     model.addAttribute("userDetails",
558         userProfileDAO.getUserDetails(names));
559     model.addAttribute("thePage", "system");
560
561     List<Place> muncies = mapsDAO.
562         getAllMuncityFromProv(prof.getProvince(),
563             prof.getRegion());
564
565     List<List<Place>> brgys = new ArrayList<List<
566         Place>>(muncies.size());
567
568     for(int i = 0; i < muncies.size(); i++) {
569         brgys.add(i, mapsDAO.getAllBarangay(muncies.
570             get(i).getMuncity(), prof.getProvince(),
571             prof.getRegion()));
572     }
573
574     model.addAttribute("munci", muncies);
575     model.addAttribute("brgys", brgys);
576
577     if (brgyRecordsDAO.insertMunCityRecords(recID,
578         prof.getFirstname() + " " + prof.
579             getMiddlename() + " " + prof.getSurname(),
580             names)) {
581         model.addAttribute("disease", diseasesDAO.
582             listDiseases());
583         model.put("success", "Adding barangay patient
584             record successful!");
585
586         model.addAttribute("allBRecords",
587             brgyRecordsDAO.listOfAllBrgyRecords(prof.
588                 getMuncity(),
589                 prof.getProvince(), prof.getRegion()));
590
591     return new ModelAndView("pages/system");
592 }
593
594 @RequestMapping(value = "/pages/system/
595     addToProvRecords/{recID}", method = {
596         RequestMethod.GET, RequestMethod.POST})
597 public ModelAndView addRecordProvincial(
598     @PathVariable("recID") int recID, ModelMap
599         model) throws Exception {
600
601     model.addAttribute("disease", diseasesDAO.
602         listDiseases());
603
604     Authentication auth = SecurityContextHolder.

```

```

540     getContext()
541     .getAuthentication();
542     String names = auth.getName();
543     UserProfile prof = userProfileDAO.getUser(
544         names);
545     model.addAttribute("disease", diseasesDAO.
546         listDiseases());
547     model.addAttribute("user", prof);
548     model.addAttribute("userDetails",
549         userProfileDAO.getUserDetails(names));
550     model.addAttribute("thePage", "system");
551     List<Place> muncies = mapsDAO.
552         getAllMuncityFromProv(prof.getProvince(),
553             prof.getRegion());
554     List<List<Place>> brgys = new ArrayList<List<
555         Place>>(muncies.size());
556     for(int i = 0; i < muncies.size(); i++) {
557         brgys.add(i, mapsDAO.getAllBarangay(muncies.
558             get(i).getMuncity(), prof.getProvince(),
559                 prof.getRegion()));
560         model.addAttribute("munci", muncies);
561         model.addAttribute("brgys", brgys);
562     }
563     if (brgyRecordsDAO.insertProvRecords(recID,
564         prof.getFirstname() + " " + prof.
565             getMiddlename() + " " + prof.getSurname(),
566             names)) {
567         model.addAttribute("disease", diseasesDAO.
568             listDiseases());
569         model.addAttribute("success", "Adding
570             municipality/city patient record successful
571             !");
572         model.addAttribute("allMRecords",
573             brgyRecordsDAO.listOfAllMunCityRecords(prof
574                 .getProvince(),
575                     prof.getRegion()));
576     }
577     PatientsForm pF = brgyRecordsDAO.getRecord(
578         recID);
579     checkOutbreak(pF.getDisease(), pF.getMuncity()
580         , prof.getProvince(), prof.getRegion());
581     return new ModelAndView("pages/system");
582 }
583 @RequestMapping(value = "/pages/system/
584     rejectMunCityRecords/{recID}", method = {
585     RequestMethod.GET, RequestMethod.POST})
586 public ModelAndView rejMunCity(@PathVariable("
587     recID") int recID, ModelMap model) {
588     model.addAttribute("disease", diseasesDAO.
589         listDiseases());
590     Authentication auth = SecurityContextHolder.
591         getContext()
592         .getAuthentication();
593     String names = auth.getName();
594     UserProfile prof = userProfileDAO.getUser(
595         names);
596     model.addAttribute("disease", diseasesDAO.
597         listDiseases());
598     model.addAttribute("user", prof);
599     model.addAttribute("userDetails",
600         userProfileDAO.getUserDetails(names));
601     model.addAttribute("thePage", "system");
602     model.addAttribute("rejected", "yes");
603     List<Place> muncies = mapsDAO.
604         getAllMuncityFromProv(prof.getProvince(),
605             prof.getRegion());
606     List<List<Place>> brgys = new ArrayList<List<
607         Place>>(muncies.size());
608     for(int i = 0; i < muncies.size(); i++) {
609         brgys.add(i, mapsDAO.getAllBarangay(muncies.
610             get(i).getMuncity(), prof.getProvince(),
611                 prof.getRegion()));
612     }
613     Authentication auth = SecurityContextHolder.
614         getContext()
615         .getAuthentication();
616     String names = auth.getName();
617     UserProfile prof = userProfileDAO.getUser(
618         names);
619     model.addAttribute("disease", diseasesDAO.
620         listDiseases());
621     model.addAttribute("user", prof);
622     model.addAttribute("userDetails",
623         userProfileDAO.getUserDetails(names));
624     model.addAttribute("thePage", "system");
625     model.addAttribute("rejected", "yes");
626     List<Place> muncies = mapsDAO.
627         getAllMuncityFromProv(prof.getProvince(),
628             prof.getRegion());
629     List<List<Place>> brgys = new ArrayList<List<
630         Place>>(muncies.size());
631     for(int i = 0; i < muncies.size(); i++) {
632         brgys.add(i, mapsDAO.getAllBarangay(muncies.
633             get(i).getMuncity(), prof.getProvince(),
634                 prof.getRegion()));
635     }
636     model.addAttribute("munci", muncies);
637     model.addAttribute("brgys", brgys);
638     if (brgyRecordsDAO.rejectProvRecords(recID,
639         prof.getFirstname() + " " + prof.
640             getMiddlename() + " " + prof.getSurname(),
641             names)) {
642         model.addAttribute("disease", diseasesDAO.
643             listDiseases());
644         model.addAttribute("rej", "Record
645             successfully rejected!");
646         model.addAttribute("allMRecords",
647             brgyRecordsDAO.listOfAllMunCityRecords(
648                 userProfileDAO.getUser(names).getProvince()
649                     ,
650                         prof.getRegion()));
651     }
652     return new ModelAndView("pages/system");
653 }
654 @RequestMapping(value = "/pages/system/
655     editRecord/{recID}", method = {
656     RequestMethod.POST, RequestMethod.GET})
657 public ModelAndView toEditRecord(@PathVariable("
658     recID") int recID, ModelMap model) {
659     Authentication auth = SecurityContextHolder.
660         getContext()
661         .getAuthentication();
662     String name = auth.getName();
663     System.out.println(name);
664     UserProfile prof = userProfileDAO.getUser(name
665         );
666     model.addAttribute("disease", diseasesDAO.
667         listDiseases());
668     model.addAttribute("user", prof);
669     model.addAttribute("userDetails",
670         userProfileDAO.getUserDetails(name));
671     model.addAttribute("thePage", "system");
672     if(prof.getUserType().equalsIgnoreCase(""
673         Municipal/City Health Worker"))
674         model.addAttribute("patientForm",
675             brgyRecordsDAO.getRecord(recID));
676     else if(prof.getUserType().equalsIgnoreCase(""
677         Provincial Health Worker"))
678         model.addAttribute("patientForm",
679             brgyRecordsDAO.getMunCityRecord(recID));
680     List<place> muncies = mapsDAO.
681         getAllMuncityFromProv(prof.getProvince(),
682             prof.getRegion());

```

```

664     List<List<Place>> brgys = new ArrayList<List<
665         Place>>(muncies.size());
666     for(int i = 0; i < muncies.size(); i++) {
667         brgys.add(i, mapsDAO.getAllBarangay(muncies.
668             get(i).getMuncity(), prof.getProvince(),
669             prof.getRegion()));
670         model.addAttribute("munci", muncies);
671         model.addAttribute("brgys", brgys);
672     }
673     return new ModelAndView("pages/systems/
674         editingRecords");
675     }@RequestMapping(value = "/pages/system/
676         toEditRecord", method = {RequestMethod.GET,
677         RequestMethod.POST})
678     public ModelAndView editNewRec(@ModelAttribute
679         ("patientForm") @Valid PatientsForm p,
680         BindingResult results, ModelMap model) {
681     model.addAttribute("disease", diseasesDAO.
682         listDiseases());
683     Authentication auth = SecurityContextHolder.
684         getContext()
685         .getAuthentication();
686     String name = auth.getName();
687     UserProfile prof = userProfileDAO.getUser(name
688         );
689     model.addAttribute("disease", diseasesDAO.
690         listDiseases());
691     model.addAttribute("user", prof);
692     model.addAttribute("userDetails",
693         userProfileDAO.getUserDetails(name));
694     model.addAttribute("thePage", "system");
695     List<Place> muncies = mapsDAO.
696         getAllMuncityFromProv(prof.getProvince(),
697             prof.getRegion());
698     List<List<Place>> brgys = new ArrayList<List<
699         Place>>(muncies.size());
700     for(int i = 0; i < muncies.size(); i++) {
701         brgys.add(i, mapsDAO.getAllBarangay(muncies.
702             get(i).getMuncity(), prof.getProvince(),
703             prof.getRegion()));
704         model.addAttribute("munci", muncies);
705         model.addAttribute("brgys", brgys);
706     }
707     boolean withErr = false;
708     if(p.getDisease().equalsIgnoreCase("Dengue")
709         && p.getCaseType().isEmpty()) {
710         model.addAttribute("eCaseType", "Case Type is
711             required.");
712         withErr = true;
713     }
714     if(p.getDateAdmitted().equals("Yes")) {
715         if(p.getDateAdmitted().isEmpty()) {
716             model.addAttribute("eDateAdmitted", "Date
717                 Admitted is required.");
718             withErr = true;
719         }
720         if(p.getHospital().isEmpty()) {
721             model.addAttribute("eHospital", "Hospital/
722                 Clinic is required.");
723             withErr = true;
724         }
725         if(p.getHospitalAddr().isEmpty()) {
726             model.addAttribute("eHospitalAddr", "
727                 Hospital Address is required.");
728             withErr = true;
729         }
730         if(p.getHospitalType().isEmpty()) {
731             model.addAttribute("eHospitalType", "
732                 Hospital Type is required.");
733             withErr = true;
734         }
735     }
736     if(p.getOutcome().equalsIgnoreCase("Died")) {
737         if(p.getDateDied().isEmpty()) {
738             model.addAttribute("eDateDied", "Date Died
739                 is required.");
740             withErr = true;
741         }
742         if (results.hasErrors() || withErr) {
743             model.addAttribute("disease", diseasesDAO.
744                 listDiseases());
745             System.out.println("With Errors");
746             return new ModelAndView("pages/systems/
747                 editingRecords");
748         }
749     }
750     else if(prof.getUserType().equalsIgnoreCase(""
751         Municipal/City Health Worker")) {
752         brgyRecordsDAO.insertEditBrgyRecords(p, prof
753             , name);
754         model.addAttribute("allBRecords",
755             brgyRecordsDAO.listOfAllBrgyRecords(prof.
756                 getMuncity(),
757                 prof.getProvince(), prof.getRegion()));
758     }
759     else if(prof.getUserType().equalsIgnoreCase(""
760         Provincial Health Worker")) {
761         brgyRecordsDAO.insertEditMunCityRecords(p,
762             prof, name);
763         model.addAttribute("allMRecords",
764             brgyRecordsDAO.listOfAllMunCityRecords(prof
765                 .getProvince(), prof.getRegion()));
766     }
767     return new ModelAndView("pages/system");
768 }
769
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804     diseasesDAO.updateAlerts();
805 }
806 Authentication auth = SecurityContextHolder.
807     getContext()
808     .getAuthentication();
809 String name = auth.getName();
810 UserProfile prof = new UserProfile();
811 prof = userProfileDAO.getUser(name);
812
813 model.addAttribute("disease", diseasesDAO.
814     listDiseases());
815 model.addAttribute("user", userProfileDAO.
816     getUser(name));
817 model.addAttribute("userDetails",
818     userProfileDAO.getUserDetails(name));
819 model.addAttribute("thePage", "profile");
820
821 if (result.hasErrors()) {
822     model.addAttribute("pages", "profile");
823     return new ModelAndView("pages/errors/
824         changeContactsError");
825 } else {
826     newUserDAO.editUserContacts(name, change.
827         getEmail(), change.getNumber());
828     prof = userProfileDAO.getUser(name);
829     model.addAttribute("success", "Changing
830         contact details successful!");
831     return new ModelAndView("pages/profile");
832 }
833
834 @RequestMapping(value = "/pages/generateReports
835     ", method = {RequestMethod.GET,
836         RequestMethod.POST})
837 public ModelAndView toGenerateReports(
838     @ModelAttribute("forReports") @Valid
839     Reports report, BindingResult result,
840     HttpServletResponse res, ModelMap model)
841     throws DocumentException, IOException {
842     if(alertCheck == 0) {
843         alertCheck = 1;
844         diseasesDAO.updateAlerts();
845     }
846     model.addAttribute("disease", diseasesDAO.
847         listDiseases());
848     System.out.println(report.getRegion());
849     if(result.hasErrors() || (report.
850         isCaseAndDeath() && report.getRegion().
851         isEmpty())) {
852         if(report.isCaseAndDeath() && report.
853             getRegion().isEmpty())
854             model.addAttribute("error", "Please select
855                 region!");
856         for(int i = 0; i < result.getErrorCount(); i
857             +++) {
858             for(FieldError e : result.getFieldErrors())
859                 System.out.println(e.getDefaultMessage());
860         }
861         model.addAttribute("location", "reports");
862         System.out.println("Errors!");
863     }
864     return new ModelAndView("pages/reports");
865 }
866
867 else {
868     List<PatientsForm> patients = patientsDAO.
869     listAllPatients(report.getDateFrom(),
870         report.getDateTo(), report.getDisease());
871
872     for(PatientsForm pat : patients) {
873         System.out.println("One: " + pat.getAge());
874     }
875     Date date = new Date();
876     DateFormat dateFormat =
877         new SimpleDateFormat("yyyy-MM-dd");
878     System.out.println((date.getYear() - 1) +
879         "-01-01" + " " + (date.getYear() - 1) +
880         "-12-31");
881     System.out.println(date.getYear() +
882         "-01-01" + " " + date.getYear() +
883         "-12-31");
884     String d1[] = dateFormat.format(date).
885     split("-");
886     List<PatientsForm> psi = patientsDAO.
887     listAllPatients((Integer.parseInt(d1[0]) -
888         1) + "-01-01", (Integer.parseInt(d1[0]) -
889         1) + "-12-31", report.getDisease());
890     List<PatientsForm> ps2 = patientsDAO.
891     listAllPatients(Integer.parseInt(d1[0]) +
892         "-01-01", Integer.parseInt(d1[0]) +
893         "-12-31", report.getDisease());
894
895     GenerateReports rep = new GenerateReports();
896     List<Place> place = null;
897
898     if(report.isCaseAndDeath())
899         place = mapsDAO.getAllMuncity(report.
900             getRegion());
901
902     ByteArrayOutputStream bits = rep.
903     generateReports(patients, report, place,
904         ps2, ps1);
905     String filename = "VBDMS reports.pdf";
906
907     res.setHeader("Cache-Control", "max-age=30");
908     res.setContentType("application/pdf");
909     res.setHeader("Content-disposition", "
910         inline; filename=" + filename);
911
912     ServletOutputStream sos;
913     sos = res.getOutputStream();
914
915     try {
916         bits.writeTo(sos);
917     } catch (NullPointerException npe) {
918         npe.printStackTrace();
919     }
920     sos.flush();
921
922     Authentication auth =
923     SecurityContextHolder.getContext()
924     .getAuthentication();
925     String name = auth.getName();
926
927     return null;
928 }
929
930 @RequestMapping(value = "/pages/generateExcel",
931     method = {RequestMethod.GET, RequestMethod
932         .POST})
933 public ModelAndView toGenerateExcel(
934     @ModelAttribute("forExcel") @Valid Reports
935     report, BindingResult result,
936     HttpServletResponse res, ModelMap model)
937     throws DocumentException, IOException {
938     if(alertCheck == 0) {
939         alertCheck = 1;
940         diseasesDAO.updateAlerts();
941     }
942     model.addAttribute("disease", diseasesDAO.
943         listDiseases());
944
945     if(result.hasErrors() || (report.isSpecRegion
946         () && report.getRegion().isEmpty())) {
947         if(report.isCaseAndDeath() && report.
948             getRegion().isEmpty())
949             model.addAttribute("error", "Please select
950                 region!");
951         model.addAttribute("location", "reports");
952         model.addAttribute("reportsPage", "Excel");
953         System.out.println("Errors!");
954
955         return new ModelAndView("pages/reports");
956     }
957     else {
958         List<PatientsForm> patients = null;
959
960         if(report.isSpecRegion())
961             patients = patientsDAO.listAllPatients(
962                 report.getDateFrom(), report.getDateTo(),
963                 report.getRegion());
964         else
965             patients = patientsDAO.listAllPatients(
966                 report.getDateFrom(), report.getDateTo());
967
968         Date date = new Date();
969         DateFormat dateFormat =
970             new SimpleDateFormat("yyyy-MM-dd");
971
972         GenerateExcel exc = new GenerateExcel();
973
974         ByteArrayOutputStream bits = exc.
975         generateExcel(patients, report);
976
977         String filename = "VBDMS dataset.xls";
978
979         res.setHeader("Cache-Control", "max-age=30");
980         res.setContentType("application/xls");
981         res.setHeader("Content-disposition", "
982             inline; filename=" + filename);
983
984         ServletOutputStream sos;
985         sos = res.getOutputStream();
986
987         try {
988             bits.writeTo(sos);
989         } catch (NullPointerException npe) {
990             npe.printStackTrace();
991         }
992     }
993 }

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951         }
952         sos.flush();
953         return null;
954     }
955 }
956 }
957 }
958 @RequestMapping(value = "/pages/workers",
959     method = {RequestMethod.GET, RequestMethod.
960     POST})
961 public ModelAndView toWorkers(ModelMap model)
962     throws Exception {
963     if(alertCheck == 0) {
964         alertCheck = 1;
965         diseasesDAO.updateAlerts();
966     }
967     Authentication auth = SecurityContextHolder.
968         getContext();
969     .getAuthentication();
970     String name = auth.getName();
971     UserProfile prof = userProfileDAO.getUser(name
972         );
973     model.addAttribute("disease", diseasesDAO.
974         listDiseases());
975     model.addAttribute("user", prof);
976     model.addAttribute("userDetails",
977         userProfileDAO.getUserDetails(name));
978     model.addAttribute("thePage", "workers");
979     String[] regions = {"ARMM", "CAR", "NCR", "
980     Region I", "Region II", "Region III", "
981     Region IV-A", "Region IV-B", "Region V", "
982     Region VI", "Region VII",
983     "Region VIII", "Region IX", "Region X", "
984     Region XI", "Region XII", "Region XIII"};
985     int classify = 0;
986     if(prof.getUserType().equalsIgnoreCase("Municipal/City Health Official")) {
987         model.addAttribute("pageVisit", "mofficial");
988         classify = 2;
989         model.addAttribute("allUsers", userProfileDAO
990             .listAllUsers(classify));
991         model.addAttribute("brgy", mapsDAO.
992             getAllBarangay(prof.getMuncity(), prof.
993                 getProvince(), prof.getRegion()));
994         model.addAttribute("brgR", brgyRecordsDAO.
995             listOfAllBrgyRecords(prof.getMuncity(),
996                 prof.getProvince(), prof.getRegion()));
997         model.addAttribute("editB", brgyRecordsDAO.
998             listOfAllEditBrgyRecords(prof.getMuncity(),
999                 prof.getProvince(), prof.getRegion()));
1000    } else if(prof.getUserType().equalsIgnoreCase("Provincial Health Official")) {
1001        model.addAttribute("pageVisit", "pofficial");
1002        classify = 4;
1003        model.addAttribute("allUsers", userProfileDAO
1004            .listAllUsers(classify));
1005        List<List<Place>> prov = new ArrayList<List<
1006            Place>>();
1007        List<List<Place>> mun = new ArrayList<List<
1008            Place>>();
1009        List<List<Place>> brg = new ArrayList<List<
1010            Place>>();
1011        List<List<PatientsForm>> brgR = new ArrayList<
1012            List<PatientsForm>>();
1013        List<List<PatientsForm>> munR = new ArrayList<
1014            List<PatientsForm>>();
1015        List<List<PatientsForm>> provR = new
1016            ArrayList<List<PatientsForm>>();
1017        List<List<PatientsForm>> editB = new
1018            ArrayList<List<PatientsForm>>();
1019        int count = 0, count2 = 0;
1020        String theRegion = "";
1021        for(int i = 0; i < regions.length; i++) {
1022            if(regions[i].equalsIgnoreCase(prof.
1023                getRegion()))
1024                theRegion = prof.getRegion();
1025            else
1026                theRegion = "";
1027            prov.add(i, mapsDAO.getAllProvince(theRegion
1028                ));
1029            for(Place p : prov.get(i)) {
1030                provR.add(count, brgyRecordsDAO.
1031                    listOfAllProvincialRecords(p.getProvince(),
1032                        theRegion));
1033                mun.add(count, mapsDAO.
1034                    getAllMuncityFromProv(p.getProvince(),
1035                        theRegion));
1036                for(Place m : mun.get(count)) {
1037                    editB.add(count2, brgyRecordsDAO.
1038                        listOfAllEditBrgyRecords(m.getMuncity(),
1039                            p.getProvince(), theRegion));
1040                    brg.add(count2, mapsDAO.getAllBarangay(m.
1041                        getMuncity(), p.getProvince(),
1042                            theRegion));
1043                    brgR.add(count2, brgyRecordsDAO.
1044                        listOfAllBrgyRecords(m.getMuncity(), p.
1045                            getProvince(), theRegion)));
1046                    count++;
1047                    count2++;
1048                }
1049                model.addAttribute("prov", prov);
1050                model.addAttribute("mun", mun);
1051                model.addAttribute("brgy", brg);
1052                model.addAttribute("brgR", brgR);
1053                model.addAttribute("munR", munR);
1054                model.addAttribute("provR", munR);
1055                model.addAttribute("editB", editB);
1056            }
1057        }
1058    }
1059    munR.add(count, brgyRecordsDAO.
1060        listOfAllMunCityRecords(p.getProvince(),
1061            theRegion));
1062    count++;
1063 }
1064 }
1065 }
1066 }
1067 }
1068 }
1069 }
1070 }
1071 }
1072 }
1073 }
1074 }
1075 }
1076 }
1077 }
1078 }
1079 }
1080 }

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1081     model.addAttribute("regions", regions); 1140
1082     model.addAttribute("allLogs", userProfileDAO. 1141
1083         allLogs());
1084     return new ModelAndView("pages/workers"); 1142
1085 }
1086
1087 @RequestMapping(value = "/pages/deactivateUser
1088 /{regID}", method = {RequestMethod.GET,
1089 RequestMethod.POST})
1090 public ModelAndView deactivateUser(
1091     @PathVariable("regID") int regID, ModelMap
1092     model) throws Exception {
1093
1094     Authentication auth = SecurityContextHolder.
1095         getContext()
1096         .getAuthentication();
1097     String name = auth.getName();
1098     UserProfile prof = userProfileDAO.getUser(name
1099 );
1100     model.addAttribute("disease", diseasesDAO.
1101         listDiseases());
1102     model.addAttribute("user", prof);
1103     model.addAttribute("userDetails",
1104         userProfileDAO.getUserDetails(name));
1105     model.addAttribute("thePage", "workers");
1106
1107     if(userProfileDAO.deactivateUser(regID, name))
1108         {
1109             String[] regions = {"ARMM", "CAR", "NCR", "
1110             Region I", "Region II", "Region III",
1111             "Region IV-A", "Region IV-B", "Region V", "
1112             Region VI", "Region VII",
1113             "Region VIII", "Region IX", "Region X", "
1114             Region XI", "Region XII", "Region XIII"};
1115             int classify = 0;
1116             if(prof.getUserType().equalsIgnoreCase("Municipal/City Health Official"))
1117                 {
1118                     model.addAttribute("pageVisit", "mofficial")
1119                     ;
1120                     classify = 2;
1121                     model.addAttribute("allUsers",
1122                         userProfileDAO.listAllUsers(classify));
1123                     model.addAttribute("brgy", mapsDAO.
1124                         getAllBarangay(prof.getMuncity(),
1125                         prof.getProvince(),
1126                         prof.getRegion()));
1127                     model.addAttribute("brgR", brgyRecordsDAO.
1128                         listOfAllBrgyRecords(prof.getMuncity(),
1129                         prof.getProvince(),
1130                         prof.getRegion()));
1131                     int count = 0, count2 = 0;
1132                     String theRegion = "";
1133                     for(int i = 0; i < regions.length; i++)
1134                         if(regions[i].equalsIgnoreCase(prof.
1135                             getRegion()))
1136                             theRegion = prof.getRegion();
1137                     else
1138                         theRegion = "";
1139                     prov.add(i, mapsDAO.getAllProvince(
1140                         theRegion));
1141                     for(Place p : prov.get(i))
1142                         provR.add(count, brgyRecordsDAO.
1143                             listOfAllProvincialRecords(p.getProvince(),
1144                             theRegion));
1145                     mun.add(count, mapsDAO.
1146                         getAllMuncityFromProv(p.getProvince(),
1147                         theRegion));
1148
1149                     if(alertCheck == 0) {
1150                         alertCheck = 1;
1151                         diseasesDAO.updateAlerts();
1152                     }
1153                     Authentication auth = SecurityContextHolder.
1154                         getContext()
1155                         .getAuthentication();
1156                     String name = auth.getName();
1157                     UserProfile prof = userProfileDAO.getUser(name
1158 );
1159                     model.addAttribute("disease", diseasesDAO.
1160                         listDiseases());
1161                     model.addAttribute("user", prof);
1162                     model.addAttribute("userDetails",
1163                         userProfileDAO.getUserDetails(name));
1164                     model.addAttribute("thePage", "workers");
1165
1166                     if(userProfileDAO.deactivateUser(regID, name))
1167                         {
1168                             String[] regions = {"ARMM", "CAR", "NCR", "
1169                             Region I", "Region II", "Region III",
1170                             "Region IV-A", "Region IV-B", "Region V", "
1171                             Region VI", "Region VII",
1172                             "Region VIII", "Region IX", "Region X", "
1173                             Region XI", "Region XII", "Region XIII"};
1174                             int classify = 0;
1175                             if(prof.getUserType().equalsIgnoreCase("Municipal/City Health Official"))
1176                                 {
1177                                     model.addAttribute("pageVisit", "mofficial")
1178                                     ;
1179                                     classify = 2;
1180                                     model.addAttribute("allUsers",
1181                                         userProfileDAO.listAllUsers(classify));
1182                                     model.addAttribute("brgy", mapsDAO.
1183                                         getAllBarangay(prof.getMuncity(),
1184                                         prof.getProvince(),
1185                                         prof.getRegion()));
1186                                     model.addAttribute("brgR", brgyRecordsDAO.
1187                                         listOfAllBrgyRecords(prof.getMuncity(),
1188                                         prof.getProvince(),
1189                                         prof.getRegion()));
1190                                     model.addAttribute("editB", brgyRecordsDAO.
1191                                         listOfAllEditBrgyRecords(prof.getMuncity(),
1192                                         prof.getProvince(),
1193                                         prof.getRegion()));
1194                                     int count = 0, count2 = 0;
1195                                     String theRegion = "";
1196                                     for(int i = 0; i < regions.length; i++)
1197                                         if(regions[i].equalsIgnoreCase(prof.
1198                                             getRegion()))
1199                                             theRegion = prof.getRegion();
1200                                         else
1201                                             theRegion = "";
1202                                         prov.add(i, mapsDAO.getAllProvince(
1203                                             theRegion));
1204                                         for(Place p : prov.get(i))
1205                                             provR.add(count, brgyRecordsDAO.
1206                                                 listOfAllProvincialRecords(p.getProvince(),
1207                                                 theRegion));
1208                                         mun.add(count, mapsDAO.
1209                                             getAllMuncityFromProv(p.getProvince(),
1210                                             theRegion));
1211                                         editB.add(count2, brgyRecordsDAO.
1212                                             listOfAllBrgyRecords(m.getMuncity(), p.
1213                                                 getProvince(), theRegion));
1214                                         brg.add(count2, mapsDAO.getAllBarangay(m.
1215                                             getMuncity(), p.getProvince(), theRegion));
1216                                         brgR.add(count2, brgyRecordsDAO.
1217                                             listOfAllBrgyRecords(m.getMuncity(), p.
1218                                                 getProvince(), theRegion));
1219                                         count2++;
1220                                     }
1221                                     munR.add(count, brgyRecordsDAO.
1222                                         listOfAllMunCityRecords(p.getProvince(),
1223                                         theRegion));
1224                                     count++;
1225                                 }
1226                                 if(prof.getUserType().equalsIgnoreCase("National Health Official"))
1227                                     {
1228                                         model.addAttribute("pageVisit", "nofficial")
1229                                         ;
1230                                         classify = 5;
1231                                         model.addAttribute("allUsers",
1232                                             userProfileDAO.listAllUsers(classify));
1233                                         List<List<Place>> prov = new ArrayList<List<
1234                                         Place>>();
1235                                         for(int i = 0; i < regions.length; i++)
1236                                             prov.add(i, mapsDAO.getAllProvince(regions[
1237                                             i]));
1238                                         model.addAttribute("prov", prov);
1239                                         List<Place> mun = mapsDAO.
1240                                         getAllMuncityFromProv(prof.getProvince(),
1241                                         prof.getRegion());
1242                                         model.addAttribute("mun", mun);
1243                                         List<List<Place>> brg = new ArrayList<List<
1244                                         Place>>();
1245                                         int count = 0;
1246                                         for(Place m : mun)
1247                                             brg.add(count, mapsDAO.getAllBarangay(prof.
1248                                                 getMuncity(), prof.getProvince(), prof.
1249                                                 getRegion()));
1250                                         count++;
1251                                         model.addAttribute("brgy", brg);
1252                                     }
1253                                     else if(prof.getUserType().equalsIgnoreCase("Administrator"))
1254                                         {
1255                                         model.addAttribute("pageVisit", "admin");
1256                                         classify = 7;
1257                                         model.addAttribute("allUsers",
1258                                             userProfileDAO.listAllUsers(classify));
1259                                         List<List<Place>> prov = new ArrayList<List<
1260                                         Place>>();
1261                                         List<List<Place>> mun = new ArrayList<List<
1262                                         Place>>();
1263                                         List<List<Place>> brg = new ArrayList<List<
1264                                         Place>>();
1265                                         List<List<PatientsForm>> brgR = new
1266                                         ArrayList<List<PatientsForm>>();
1267                                         List<List<PatientsForm>> munR = new
1268                                         ArrayList<List<PatientsForm>>();
1269                                         List<List<PatientsForm>> provR = new
1270                                         ArrayList<List<PatientsForm>>();
1271                                         List<List<PatientsForm>> editB = new
1272                                         ArrayList<List<PatientsForm>>();
1273                                         int count = 0, count2 = 0;
1274                                         for(int i = 0; i < regions.length; i++)
1275                                             prov.add(i, mapsDAO.getAllProvince(regions[
1276                                             i]));
1277                                         for(Place p : prov.get(i))
1278                                             provR.add(count, brgyRecordsDAO.
1279                                                 listOfAllProvincialRecords(p.getProvince(),
1280                                                 regions[i]));
1281                                         mun.add(count, mapsDAO.
1282                                             getAllMuncityFromProv(p.getProvince(),
1283                                             regions[i]));
1284                                         for(Place m : mun.get(count))
1285                                             brg.add(count2, mapsDAO.getAllBarangay(m.
1286                                                 getMuncity(), p.getProvince(), regions[i]))
1287                                         ;
1288                                         editB.add(count2, brgyRecordsDAO.
1289                                             listOfAllBrgyRecords(m.getMuncity(), p.
1290                                                 getProvince(), regions[i]));
1291                                         count2++;
1292                                     }
1293                                     munR.add(count, brgyRecordsDAO.
1294                                         listOfAllMunCityRecords(p.getProvince(),
1295                                         regions[i]));
1296                                     count++;
1297                                 }

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1203     }
1204
1205     model.addAttribute("prov", prov);
1206     model.addAttribute("mun", mun);
1207     model.addAttribute("brgy", brg);
1208     model.addAttribute("munR", munR);
1209     model.addAttribute("provR", munR);
1210     model.addAttribute("editB", editB);
1211
1212 }
1213
1214
1215     model.addAttribute("regions", regions);
1216     model.addAttribute("allLogs", userProfileDAO.
1217         allLogs());
1218
1219     System.out.println("Deactivation Success!!!") ;
1220
1221     model.addAttribute("successD", "Deactivating
1222         User Successful!");
1223
1224     return new ModelAndView("pages/workers");
1225
1226 @RequestMapping(value = "/pages/activateUser/{"
1227     regID}", method = {RequestMethod.GET,
1228     RequestMethod.POST})
1229 public ModelAndView activateUser(@PathVariable
1230     ("regID") int regID, ModelMap model) throws
1231     Exception {
1232
1233     if(alertCheck == 0) {
1234         alertCheck = 1;
1235         diseasesDAO.updateAlerts();
1236     }
1237
1238     Authentication auth = SecurityContextHolder.
1239         getContext()
1240         .getAuthentication();
1241
1242     String name = auth.getName();
1243     UserProfile prof = userProfileDAO.getUser(name
1244         );
1245
1246     model.addAttribute("disease", diseasesDAO.
1247         listDiseases());
1248
1249     model.addAttribute("user", prof);
1250
1251     model.addAttribute("userDetails",
1252         userProfileDAO.getUserDetails(name));
1253
1254     model.addAttribute("thePage", "workers");
1255
1256     if(userProfileDAO.activateUser(regID, name)) {
1257
1258         String[] regions = {"ARMM", "CAR", "NCR", "
1259             Region I", "Region II", "Region III",
1260             "Region IV-A", "Region IV-B", "Region V", "
1261             Region VI", "Region VII",
1262             "Region VIII", "Region IX", "Region X", "
1263             Region XI", "Region XII", "Region XIII"};
1264
1265         int classify = 0;
1266
1267         if(prof.getUserType().equalsIgnoreCase(""
1268             Municipal/City Health Official")) {
1269
1270             model.addAttribute("pageVisit", "mofficial")
1271                 ;
1272
1273             classify = 2;
1274
1275             model.addAttribute("allUsers",
1276                 userProfileDAO.listAllUsers(classify));
1277
1278             model.addAttribute("brgy", mapsDAO.
1279                 getAllBarangay(prof.getMuncity(),
1280                     prof.getProvince(),
1281                     prof.getRegion()));
1282
1283             model.addAttribute("brgR", brgyRecordsDAO.
1284                 listOfAllBrgyRecords(prof.getMuncity(),
1285                     prof.getProvince(),
1286                     prof.getRegion()));
1287
1288             model.addAttribute("munR", brgyRecordsDAO.
1289                 listOfAllMunCityRecords(prof.getProvince(),
1290                     prof.getRegion()));
1291
1292             model.addAttribute("editB", editB);
1293
1294         } else if(prof.getUserType().equalsIgnoreCase(""
1295             Provincial Health Official")) {
1296
1297             model.addAttribute("pageVisit", "pofficial")
1298                 ;
1299
1300             classify = 4;
1301
1302             model.addAttribute("allUsers",
1303                 userProfileDAO.listAllUsers(classify));
1304
1305             List<List<Place>> prov = new ArrayList<List<
1306                 Place>>();
1307
1308             List<List<Place>> mun = new ArrayList<List<
1309                 Place>>();
1310
1311             List<List<Place>> brg = new ArrayList<List<
1312                 Place>>();
1313
1314             List<List<PatientsForm>> brgR = new
1315                 ArrayList<List<PatientsForm>>();
1316
1317             List<List<PatientsForm>> munR = new
1318                 ArrayList<List<PatientsForm>>();
1319
1320             List<List<PatientsForm>> provR = new
1321                 ArrayList<List<PatientsForm>>();
1322
1323             List<List<PatientsForm>> editB = new
1324                 ArrayList<List<PatientsForm>>();
1325
1326             int count = 0, count2 = 0;
1327
1328             for(int i = 0; i < regions.length; i++) {
1329
1330                 prov.add(i, mapsDAO.getAllProvince(
1331                     regions[i]));
1332
1333                 for(Place p : prov.get(i)) {
1334
1335                     provR.add(count, brgyRecordsDAO.
1336                         listOfAllProvincialRecords(p.getProvince(),
1337                             regions[i]));
1338
1339                     mun.add(count, mapsDAO.
1340                         getAllMuncityFromProv(p.getProvince(),
1341                             regions[i]));
1342
1343                     for(Place m : mun.get(count)) {
1344
1345                         editB.add(count2, brgyRecordsDAO.
1346                             listOfAllEditBrgyRecords(m.getMuncity(),
1347                                 p.getProvince(),
1348                                     regions[i]));
1349
1350                         brg.add(count2, mapsDAO.getAllBarangay(m.
1351                             getMuncity(), p.getProvince(),
1352                                 regions[i]));
1353
1354                         brgR.add(count2, brgyRecordsDAO.
1355                             listOfAllBrgyRecords(m.getMuncity(),
1356                                 p.getProvince(),
1357                                     regions[i]));
1358
1359                         count2++;
1360
1361                     }
1362
1363                     munR.add(count, brgyRecordsDAO.
1364                         listOfAllMunCityRecords(p.getProvince(),
1365                             regions[i]));
1366
1367                     count++;
1368
1369                 }
1370
1371             }
1372
1373             model.addAttribute("prov", prov);
1374             model.addAttribute("mun", mun);
1375
1376             model.addAttribute("brgy", brg);
1377
1378             model.addAttribute("munR", munR);
1379
1380             model.addAttribute("provR", provR);
1381
1382             model.addAttribute("editB", editB);
1383
1384         } else if(prof.getUserType().equalsIgnoreCase(""
1385             Administrator")) {
1386
1387             model.addAttribute("pageVisit", "admin");
1388
1389         }
1390
1391     }

```

```

1334     classify = 7;
1335     model.addAttribute("allUsers",
1336         userProfileDAO.listAllUsers(classify));
1337     List<List<Place>> prov = new ArrayList<List<
1338         Place>>();
1339     List<List<Place>> mun = new ArrayList<List<
1340         Place>>();
1341     List<List<PatientsForm>> munR = new
1342         ArrayList<List<PatientsForm>>();
1343     List<List<PatientsForm>> provR = new
1344         ArrayList<List<PatientsForm>>();
1345     List<List<PatientsForm>> editB = new
1346         ArrayList<List<PatientsForm>>();
1347     int count = 0, count2 = 0;
1348     for(int i = 0; i < regions.length; i++) {
1349         prov.add(i, mapsDAO.getAllProvince(regions[
1350             i]));
1351         for(Place p : prov.get(i)) {
1352             provR.add(count, brgyRecordsDAO.
1353                 listOfAllProvincialRecords(p.getProvince(), regions[i]));
1354             mun.add(count, mapsDAO.
1355                 getAllMuncityFromProv(p.getProvince(), regions[i]));
1356             for(Place m : mun.get(count)) {
1357                 editB.add(count2, brgyRecordsDAO.
1358                     listOfAllBrgyRecords(m.getMuncity(), p.
1359                         getProvince(), regions[i]));
1360                 count2++;
1361             }
1362             munR.add(count, brgyRecordsDAO.
1363                 listOfAllMunCityRecords(p.getProvince(), regions[i]));
1364             count++;
1365         }
1366     }
1367     model.addAttribute("regions", regions);
1368     model.addAttribute("allLogs", userProfileDAO.
1369         allLogs());
1370     model.addAttribute("successD", "Activating
1371         User Successful!");
1372     return new ModelAndView("pages/workers");
1373 }
1374
1375
1376 public void checkOutbreak(String disease,
1377     String muncity, String province, String
1378     region) throws Exception {
1379     Calendar cal = Calendar.getInstance();
1380     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
1381     Date date = new Date();
1382     Date date2 = new Date();
1383     date2.setDate(cal.getActualMaximum(Calendar
1384         .DATE));
1385     String sd[] = dateFormat.format(date).split
1386         ("\"");
1387     String sd2[] = dateFormat.format(date2).
1388         split("\"");
1389     List<PatientsForm> newPatients =
1390         patientsDAO.listAllPatients(dateFormat.
1391             format(date), dateFormat.format(date2));
1392     List<Patients> oldPatients = patientsDAO.
1393         listOldPatients();
1394     List<Patients> patients = patientsDAO.
1395         listAllPatients();
1396     int cou = 0;
1397     for(Place mp : mapsDAO.getAllBarangay(muncity,
1398         province, region)) {
1399         bars.put(cou, mp.getBarangay());
1400         cou++;
1401     }
1402     //bar.put(muncity, mapsDAO.getAllBarangay(
1403         muncity, province, region));
1404     double[] cases = new double[bars.size()];
1405     double[] oCases = new double[bars.size()];
1406     int counterS = 0;
1407     for(PatientsForm p : newPatients) {
1408         if(p.getDisease().equalsIgnoreCase(disease))
1409             if(p.getRegion().equalsIgnoreCase(region))
1410                 if(p.getProvince().equalsIgnoreCase(
1411                     province)) {
1412                     if(p.getMuncity().equalsIgnoreCase(
1413                         muncity)) {
1414                         for(int i = 0; i < bars.size(); i++) {
1415                             System.out.println(p.getBarangay());
1416                             System.out.println(bars.get(i).
1417                                 toString());
1418                             if(p.getBarangay().equalsIgnoreCase(
1419                                 bars.get(i).toString()))
1420                                 cases[i]++;
1421                         }
1422                     }
1423                 }
1424             }
1425         }
1426         counterS = 0;
1427         for(Patients p : oldPatients) {
1428             if(p.getDisease().equalsIgnoreCase(disease))
1429                 if(p.getRegion().equalsIgnoreCase(region))
1430                     if(p.getProvince().equalsIgnoreCase(
1431                         province)) {
1432                         if(p.getMuncity().equalsIgnoreCase(
1433                             muncity)) {
1434                             for(int i = 0; i < bars.size(); i++) {
1435                                 if(p.getBarangay().equalsIgnoreCase(
1436                                     bars.get(i).toString()))
1437                                     oCases[i]++;
1438                             }
1439                         }
1440                     }
1441                 }
1442             }
1443             String brg = "";
1444             for(int i = 0; i < cases.length; i++) {
1445                 if(cases[i] > 0 && oCases[i] != 0) {
1446                     if(cases[i]/oCases[i] > 0.40) {
1447                         brg = bars.get(i).toString();
1448                         diseasesDAO.insertAlert(brg, muncity,
1449                             province, region, cases[i]/oCases[i],
1450                             disease);
1451                         SendSMS sms = new SendSMS();
1452                         List<UserProfile> allU =
1453                             userProfileDAO.
1454                             allUsers(brg, muncity, province, region);
1455                         sms.msgSend(disease, brg, muncity,
1456                             province, allU);
1457                     }
1458                 }
1459             }
1460         }
1461     }

```

3. Models and DAOs

Listing 6: BarangayRecordsDAO.java

```

1 package dao;
2
3 import java.sql.DriverManager;
4 import java.sql.SQLException;
5 import java.text.DateFormat;
6 import java.text.SimpleDateFormat;
7 import java.util.Date;
8 import java.util.List;
9
10 import mapper.BarangayRecordsMapper;
11 import mapper.DiseaseMapper;
12 import mapper.PatientsFormMapper;
13 import objects.BarangayRecords;
14 import objects.Diseases;
15 import objects.PatientsForm;
16 import objects.UserProfile;

```

```

17 import org.springframework.beans.factory.
18     annotation.Autowired;
19 import org.springframework.jdbc.core.
20     JdbcTemplate;
21 import org.springframework.jdbc.core.
22     PreparedStatementCreator;
23 import org.springframework.jdbc.support.
24     GeneratedKeyHolder;
25 import org.springframework.jdbc.support.
26     KeyHolder;
27
28 public class BarangayRecordsDAO {
29
30     @Autowired
31     private javax.sql.DataSource dataSource;
32     private JdbcTemplate jdbcTemplateObject;
33
34     public void insertBrgyRecords(final
35         PatientsForm pat, final UserProfile prof,
36         String username) {
37
38         jdbcTemplateObject = new JdbcTemplate(
39             dataSource);
40
41         final DateFormat dateFormat = new
42             SimpleDateFormat("yyyy-MM-dd");
43         final Date date = new Date();
44
45         String SQL = "select accountID from users
46             where username ='" + username + "'";
47
48         final int accountID = jdbcTemplateObject.
49             queryForInt(SQL);
50
51         int diseaseID = -1;
52
53         if(pat.getDisease().equals("Chikungunya"))
54             diseaseID = 0;
55         else if(pat.getDisease().equals("Dengue"))
56             diseaseID = 1;
57         else if(pat.getDisease().equals("Malaria"))
58             diseaseID = 2;
59
60         final int disID = diseaseID;
61         PatientsForm pats = pat;
62         if(pat.getDateAdmitted() == null)
63             pats.setDateAdmitted("0000-00-00");
64         if(pat.getDateDied() == null)
65             pats.setDateDied("0000-00-00");
66         if(pat.getHospital() == null)
67             pats.setHospital("");
68         if(pat.getHospitalType() == null)
69             pats.setHospitalType("");
70         if(pat.getCaseType() == null)
71             pats.setCaseType("");
72
73         final PatientsForm pat2 = pats;
74
75         final String SQL2 = "insert into
76             barangayrecords (accountID, name, age,
77             gender, birthDate, address, admitted,
78             dateAdmitted, "
79             + "outcome, dateDied, hospital, hospitalType,
80             hospitalAddr, region, province, muncity,
81             barangay,
82             + "diseaseID, symptoms, dateOnset,
83             healthworker, muncityhealthworker,
84             dateSubmitted) "
85             + "values (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,
86             ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
87
88         KeyHolder keyHolder = new GeneratedKeyHolder();
89         jdbcTemplateObject.update(
90             new PreparedStatementCreator() {
91                 @Override
92                 public java.sql.PreparedStatement
93                     createPreparedStatement(
94                         java.sql.Connection connection) throws
95                         SQLException {
96                     PreparedStatement pS = (PreparedStatement)
97                         connection.prepareStatement(SQL2, Statement
98                             .RETURN_GENERATED_KEYS);
99                     pS.setDouble(1, accountID);
100                    pS.setString(2, pat2.getName());
101                    pS.setDouble(3, pat2.getAge());
102                    pS.setString(4, pat2.getGender());
103                    pS.setString(5, pat2.getDateofbirth());
104
105                    pS.setString(6, pat2.getAddress());
106                    pS.setString(7, pat2.getAdmitted());
107                    pS.setString(8, pat2.getDateAdmitted());
108                    pS.setString(9, pat2.getOutcome());
109                    pS.setString(10, pat2.getDateDied());
110                    pS.setString(11, pat2.getHospital());
111                    pS.setString(12, pat2.getHospitalType());
112                    pS.setString(13, pat2.getHospitalAddr());
113                    pS.setString(14, pat2.getRegion());
114                    pS.setString(15, pat2.getProvince());
115                    pS.setString(16, pat2.getMuncity());
116                    pS.setString(17, pat2.getBarangay());
117                    pS.setDouble(18, disID);
118                    pS.setString(19, pat2.getSymptoms());
119                    pS.setString(20, pat2.getDateOnset());
120
121                    pS.setString(21, prof.getFirstName() + " "
122                         + prof.getMiddleName() + " "
123                         + prof.getSurName());
124
125                    pS.setString(22, "");
126                    pS.setString(23, dateFormat.format(date));
127
128                }
129
130                return pS;
131            }
132        );
133
134        String action = "Inserted barangay record.";
135        SQL = "insert into userlogs (accountID, action,
136             date, time, recordID, recordtable,
137             recordtype) values (?, ?, ?, ?, ?, ?, ?, ?)";
138
139        jdbcTemplateObject.update(SQL, new Object[]{
140             accountID, action, dateFormat.format(date),
141             timeFormat.format(time), keyHolder.getKey()
142             ().intValue(), "barangayrecords", 1});
143
144    }
145
146    public void insertEditBrgyRecords(PatientsForm
147        pat, UserProfile prof, String username) {
148
149        jdbcTemplateObject = new JdbcTemplate(
150             dataSource);
151
152        final DateFormat dateFormat = new SimpleDateFormat(""
153             yyyy-MM-dd");
154        final Date date = new Date();
155
156        final DateFormat timeFormat = new SimpleDateFormat(""
157             HH:mm:ss");
158        final Date time = new Date();
159
160        String SQL = "select accountID from users where
161             username ='" + username + "'";
162
163        final int accountID = jdbcTemplateObject.queryForInt(
164             SQL);
165
166        int diseaseID = -1;
167
168        if(pat.getDisease().equals("Chikungunya"))
169            diseaseID = 0;
170        else if(pat.getDisease().equals("Dengue"))
171            diseaseID = 1;
172        else if(pat.getDisease().equals("Malaria"))
173            diseaseID = 2;
174
175        if(pat.getDateAdmitted() == null)
176            pat.setDateAdmitted("0000-00-00");
177        if(pat.getDateDied() == null)
178            pat.setDateDied("0000-00-00");
179        if(pat.getDateOnset() == null)
180            pat.setDateOnset("0000-00-00");
181        if(pat.getHospital() == null)
182            pat.setHospital("");
183        if(pat.getHospitalType() == null)
184            pat.setHospitalType("");
185        if(pat.getHospitalAddr() == null)
186            pat.setHospitalAddr("");
187        if(pat.getCaseType() == null)
188            pat.setCaseType("");
189
190        SQL = "SELECT * FROM barangayrecords WHERE
191             recordID = '" + pat.getRecordID() + "'";
192
193        List<PatientsForm> pGS = jdbcTemplateObject.
194             query(SQL, new PatientsFormMapper());
195
196        SQL = "DELETE FROM editbarangayrecords WHERE
197             recordID = '" + pat.getRecordID() + "'";
198
199        jdbcTemplateObject.update(SQL);
200
201        SQL = "insert into editbarangayrecords (
202             accountID, name, age, gender, birthDate,
203             address, admitted, dateAdmitted, "
204             + "outcome, dateDied, hospital, hospitalType,
205             hospitalAddr, region, province, muncity,
206             barangay,
207             + "diseaseID, dateOnset, symptoms,
208             healthworker, muncityhealthworker,
209             dateSubmitted) "
210             + "values (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,
211             ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
212
213    }

```

```

    healthworker, muncityhealthworker,
    dateSubmitted, recordID) "
172 + "values (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
173
174 for(PatientsForm pG : pGS) {
175     if(pG.getDateAdmitted() == null)
176         pG.setDateAdmitted("0000-00-00");
177     if(pG.getDateDied() == null)
178         pG.setDateDied("0000-00-00");
179     if(pG.getDateOnset() == null)
180         pG.setDateOnset("0000-00-00");
181     jdbcTemplateObject.update(SQL, new Object[]{ 
182         accountID, pG.getName(), pG.getAge(), pG.
183         getGender(), pG.getDateofbirth(), pG.
184         getAddress(), pG.getDateAdmitted(), pG.
185         getDateDied(), pG.getOutcome(), pG.
186         getHospitalType(), pG.getHospitalAddr(), pG.
187         .getRegion(), pG.getProvince(), pG.
188         getMuncity(), pG.getBarangay(),
189         diseaseID, pG.getDateOnset(), pG.getSymptoms()
190         , pG.getHealthworker(), "", pG.
191         getDateSubmitted(), pG.getRecordID()});
192     }
193     SQL = "DELETE FROM barangayrecords WHERE
194         recordID = '" + pat.getRecordID() + "'";
195     jdbcTemplateObject.update(SQL);
196
197     SQL = "insert into barangayrecords (accountID,
198         name, age, gender, birthDate, address,
199         admitted, dateAdmitted, "
200         + "outcome, dateDied, hospital, hospitalType,
201         hospitalAddr, region, province, muncity,
202         barangay,
203         + "diseaseID, dateOnset, symptoms, healthworker
204         , muncityhealthworker, dateSubmitted,
205         edittedBy, dateEdited, recordID, editStatus
206         )"
207         + "values (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?
208         , ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
209
210     jdbcTemplateObject.update(SQL, new Object[]{ 
211         accountID, pat.getName(), pat.getAge(), pat
212         .getGender(), pat.getDateofbirth(),
213         pat.getAddress(), pat.getDateAdmitted(), pat.
214         getDateDied(), pat.getOutcome(), pat.
215         getDateSubmitted(), pat.getHospital(),
216         pat.getHospitalType(), pat.getHospitalAddr(),
217         pat.getRegion(), pat.getProvince(), pat.
218         getMuncity(), pat.getBarangay(),
219         diseaseID, pat.getDateOnset(), pat.getSymptoms()
220         , pat.getHealthworker(), "", pat.
221         getDateSubmitted(),
222         prof.getFirstName() + " " + prof.getMiddleName()
223         () + " " + prof.getLastName(), dateFormat.
224         format(date), pat.getRecordID(), 1});
225
226     String action = "Edited a barangay patient
227         record.";
228
229     SQL = "insert into userlogs (accountID, action,
230         date, time, recordID, editStatus,
231         recordtable, recordtype) values (?, ?, ?, ?
232         , ?, ?, ?, ?, ?)";
233
234     jdbcTemplateObject.update(SQL, new Object[]{ 
235         accountID, action, dateFormat.format(date),
236         timeFormat.format(time), pat.getRecordID()
237         , 1, "editbarangayrecords", 0});
238
239     return true;
240 }
241
242 public void insertEditMunCityRecords(
243     PatientsForm pat, UserProfile prof, String
244     username) {
245
246     jdbcTemplateObject = new JdbcTemplate(
247         dataSource);
248
249     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
250     Date date = new Date();
251
252     DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
253     Date time = new Date();
254
255     String SQL = "select accountID from users where
256         username ='" + username + "'";
257
258     int accountID = jdbcTemplateObject.queryForInt(
259         SQL);
260
261     int diseaseID = -1;
262
263     if(pf.getDisease().equals("Chikungunya"))
264         diseaseID = 0;
265     else if(pf.getDisease().equals("Dengue"))
266         diseaseID = 1;
267     else if(pf.getDisease().equals("Malaria"))
268         diseaseID = 2;
269
270     if(pf.getDateDied() == null)
271         pf.setDateDied("0000-00-00");
272     if(pf.getDateAdmitted() == null)
273         pf.setDateAdmitted("0000-00-00");
274
275     SQL = "insert into muncityrecords (accountID,
276         name, age, gender, birthDate, address,
277         admitted, dateAdmitted,
278         + "outcome, dateDied, hospital, hospitalType,
279         hospitalAddr, region, province, muncity,
280         barangay,
281         + "diseaseID, symptoms, healthworker,
282         muncityhealthworker, dateSubmitted,
283         recordID, dateApproved, dateOnset) "
284         + "values (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?
285         , ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
286
287     jdbcTemplateObject.update(SQL, new Object[]{ 
288         accountID, pf.getName(), pf.getAge(), pf.
289         getGender(), pf.getDateofbirth(), pf.
290         getAddress(),
291         pf.getDateAdmitted(), pf.getDateDied(), pf.
292         getHospital(), pf.getHospitalType(),
293         pf.getHospitalAddr(), pf.getRegion(), pf.
294         getProvince(), pf.getMuncity(), pf.
295         getBarangay(), diseaseID, pf.getSymptoms(),
296         pf.getHealthworker(), name, pf.getDateSubmitted()
297         (), pf.getRecordID(), dateFormat.format(
298         date), pf.getDateOnset()});
299
300     SQL = "UPDATE barangayrecords SET status = ?,
301         dateApproved = ?, muncityhealthworker = ?
302         WHERE recordID = ?";
303     jdbcTemplateObject.update(SQL, 1, dateFormat.
304         format(date), name, id);
305
306     String action = "Approved a barangay patient
307         record. Inserted into municipal/city
308         patient record.";
309
310     SQL = "insert into userlogs (accountID, action,
311         date, time, recordID, recordtable,
312         recordtype) values (?, ?, ?, ?, ?, ?, ?, ?)";
313
314     jdbcTemplateObject.update(SQL, new Object[]{ 
315         accountID, action, dateFormat.format(date),
316         timeFormat.format(time), pf.getRecordID(),
317         "muncityrecords", 1});
318
319
320     return true;
321 }
322
323 public void insertEditMunCityRecords(
324     PatientsForm pat, UserProfile prof, String
325     username) {
326
327     jdbcTemplateObject = new JdbcTemplate(
328         dataSource);
329
330     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
331     Date date = new Date();
332
333     DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
334     Date time = new Date();
335
336     String SQL = "select accountID from users where
337         username ='" + username + "'";
338
339     int accountID = jdbcTemplateObject.queryForInt(
340         SQL);
341
342     int diseaseID = -1;
343
344     if(pat.getDisease().equals("Chikungunya"))
345         diseaseID = 0;
346     else if(pat.getDisease().equals("Dengue"))
347         diseaseID = 1;
348     else if(pat.getDisease().equals("Malaria"))
349         diseaseID = 2;

```

```

290     if(pat.getDateAdmitted() == null)
291         pat.setDateAdmitted("0000-00-00");
292     if(pat.getDateDied() == null)
293         pat.setDateDied("0000-00-00");
294
295     SQL = "SELECT * FROM muncityrecords WHERE
296           recordID = '" + pat.getRecordID() + "'";
297     List<PatientsForm> pGS = jdbcTemplateObject.
298         query(SQL, new PatientsFormMapper());
299
300     SQL = "DELETE FROM editmuncityrecords WHERE
301           recordID = '" + pat.getRecordID() + "'";
302     jdbcTemplateObject.update(SQL);
303
304     SQL = "insert into editmuncityrecords (
305           accountID, name, age, gender, birthDate,
306           address, admitted, dateAdmitted, "
307           + "outcome, dateDied, hospital, hospitalType,
308           hospitalAddr, region, province, muncity,
309           barangay,
310           + "diseaseID, symptoms, healthworker,
311           muncityhealthworker, dateSubmitted,
312           recordID, dateApproved, dateOnset) "
313           + "values (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,
314           ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
315
316     for(PatientsForm pG : pGS) {
317         if(pG.getDateAdmitted() == null)
318             pG.setDateAdmitted("0000-00-00");
319         if(pG.getDateDied() == null)
320             pG.setDateDied("0000-00-00");
321
322         jdbcTemplateObject.update(SQL, new Object[]{
323             accountID, pG.getName(), pG.getAge(), pG.
324             getGender(), pG.getDateofbirth(),
325             pG.getAddress(), pG.getAdmitted(), pG.
326             getDateAdmitted(), pG.getOutcome(), pG.
327             getDateDied(), pG.getHospital(),
328             pG.getHospitalType(), pG.getHospitalAddr(), pG.
329             getRegion(), pG.getProvince(), pG.
330             getMuncity(), pG.getBarangay(),
331             diseaseID, pG.getSymptoms(), pG.
332             getHealthworker(), pG.getMuncityHW(), pG.
333             getDateSubmitted(), pG.getRecordID(),
334             pG.getDateApproved(), pG.getDateOnset()});
335
336     }
337     SQL = "DELETE FROM muncityrecords WHERE recordID
338           = '" + pat.getRecordID() + "'";
339     jdbcTemplateObject.update(SQL);
340
341
342 }
343
344 public boolean rejectMunCityRecords(int id,
345     String name, String username) {
346     jdbcTemplateObject = new JdbcTemplate(
347         dataSource);
348
349     String SQL = "UPDATE barangayrecords SET status
350           = ?, dateApproved = ?, muncityhealthworker
351           = ? WHERE recordID = ?";
352
353     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
354     Date date = new Date();
355
356     DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
357     Date time = new Date();
358
359     jdbcTemplateObject.update(SQL, 2, dateFormat.
360         format(date), name, id);
361
362     SQL = "select accountID from users where
363           username ='" + username + "'";
364
365     int accountID = jdbcTemplateObject.queryForInt(
366         SQL);
367
368     String action = "Rejected a barangay patient
369           record.";
370
371     SQL = "insert into userlogs (accountID, action,
372           date, time, recordID, recordtable,
373           recordtype) values (?, ?, ?, ?, ?, ?, ?)";
374
375     jdbcTemplateObject.update(SQL, new Object[]{
376         accountID, action, dateFormat.format(date),
377         timeFormat.format(time), id,
378         "barangayrecords", 1});
379
380     return true;
381 }
382
383 public boolean insertProvRecords(int id, String
384     name, String username) throws Exception {
385
386     jdbcTemplateObject = new JdbcTemplate(
387         dataSource);
388
389     String SQL = "SELECT * FROM muncityrecords
390           WHERE recordID = ?";
391
392     PatientsForm pf = jdbcTemplateObject.
393         queryForObject(SQL, new Object[]{id}, new
394         PatientsFormMapper());
395
396     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
397     Date date = new Date();
398
399     DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
400     Date time = new Date();
401
402     SQL = "select accountID from users where
403           username ='" + username + "'";
404
405     int accountID = jdbcTemplateObject.queryForInt(
406         SQL);
407
408
409     int diseaseID = -1;
410     if(pf.getDisease().equals("Chikungunya"))
411         diseaseID = 0;
412     else if(pf.getDisease().equals("Dengue"))
413         diseaseID = 1;
414     else if(pf.getDisease().equals("Malaria"))
415         diseaseID = 2;
416     if(pf.getDateDied() == null)
417         pf.setDateDied("0000-00-00");
418     if(pf.getDateAdmitted() == null)
419         pf.setDateAdmitted("0000-00-00");
420
421     SQL = "insert into patientrecords (accountID,
422           name, age, gender, birthDate, address,
423           admitted, dateAdmitted, "
424           + "outcome, dateDied, hospital, hospitalType,
425           hospitalAddr, region, province, muncity,
426           barangay,
427           + "diseaseID, symptoms, healthworker,
428           muncityhealthworker, recordID, dateApproved
429           , dateSubmitted,
430           + "dateOnset, dateApproved2,
431           provincehealthworker) "
432           + "values (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,
433           ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,
434           ?, ?)";

```

```

411     jdbcTemplateObject.update(SQL, new Object[]{
412         accountID, pf.getName(), pf.getAge(), pf.
413         getGender(), pf.getDateofbirth(), pf.
414         getAddress(),
415         pf.getAdmitted(), pf.getDateAdmitted(), pf.
416         getOutcome(), pf.getDateDied(), pf.
417         getHospital(), pf.getHospitalType(),
418         pf.getHospitalAddr(), pf.getRegion(), pf.
419         getProvince(), pf.getMuncity(), pf.
420         getBarangay(), diseaseID, pf.getSymptoms(),
421         pf.getHealthworker(), pf.getMuncityHW(), pf.
422         getRecordID(), pf.getDateApproved(), pf.
423         getDateSubmitted(), pf.getDateOnset(),
424         dateFormat.format(date), name});
425
426     SQL = "UPDATE muncityrecords SET status = ?,
427           dateApproved2 = ?, provincehealthworker = ?
428           WHERE recordID = ?";
429     jdbcTemplateObject.update(SQL, 1, dateFormat.
430         format(date), name, id);
431
432     String action = "Approved municipality/city
433         patient record. Inserted into patient
434         records.";
435     SQL = "insert into userlogs (accountID, action,
436         date, time, recordID, recordtable,
437         recordtype) values (?, ?, ?, ?, ?, ?, ?)";
438     jdbcTemplateObject.update(SQL, new Object[]{
439         accountID, action, dateFormat.format(date),
440         dateFormat.format(time), pf.getRecordID(),
441         "muncityrecords", 2});
442
443     return true;
444 }
445
446 public boolean rejectProvRecords(int id, String
447     name, String username) {
448     jdbcTemplateObject = new JdbcTemplate(
449         dataSource);
450
451     String SQL = "UPDATE muncityrecords SET status
452         = ?, dateApproved = ?, provincehealthworker
453         = ? WHERE recordID = ?";
454
455     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
456     Date date = new Date();
457
458     DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
459     Date time = new Date();
460
461     jdbcTemplateObject.update(SQL, 2, dateFormat.
462         format(date), name, id);
463
464     SQL = "select accountID from users where
465         username ='" + username + "'";
466     int accountID = jdbcTemplateObject.queryForInt(
467         SQL);
468
469     String action = "Rejected a municipal/city
470         patient record.";
471     SQL = "insert into userlogs (accountID, action,
472         date, time, recordID, recordtable,
473         recordtype) values (?, ?, ?, ?, ?, ?, ?)";
474     jdbcTemplateObject.update(SQL, new Object[]{
475         accountID, action, dateFormat.format(date),
476         dateFormat.format(time), id, "
477         muncityrecords", 1});
478
479     return true;
480 }
481
482 public PatientsForm getRecord(int id) {
483     jdbcTemplateObject = new JdbcTemplate(
484         dataSource);
485
486     String SQL = "SELECT * FROM barangayrecords
487         WHERE recordID = ?";
488
489     PatientsForm pf = jdbcTemplateObject.
490         queryForObject(SQL, new Object[]{id}, new
491         PatientsFormMapper());
492
493     return pf;
494 }
495
496 public PatientsForm getMunCityRecord(int id) {
497     jdbcTemplateObject = new JdbcTemplate(
498         dataSource);
499
500     String SQL = "SELECT * FROM muncityrecords
501         WHERE recordID = ?";
502
503     PatientsForm pf = jdbcTemplateObject.
504         queryForObject(SQL, new Object[]{id}, new
505         PatientsFormMapper());
506
507     return pf;
508 }
509
510 public List<PatientsForm> listOfOrigBrgyRecords(
511     String muncity, String username) {
512     jdbcTemplateObject = new JdbcTemplate(
513         dataSource);
514
515     String SQL = "select * from editbarangayrecords
516         where muncity = ? ORDER BY dateSubmitted,
517         barangay, recordID";
518
519     List<PatientsForm> pF = jdbcTemplateObject.
520         query(SQL,
521             new Object[]{muncity}, new PatientsFormMapper()
522             ());
523
524     return pF;
525 }
526
527 public List<PatientsForm> listOfEditBrgyRecords(
528     String muncity, String username) {
529     jdbcTemplateObject = new JdbcTemplate(
530         dataSource);
531
532     String SQL = "select * from barangayrecords
533         where muncity = ? AND editStatus = ? ORDER
534         BY dateSubmitted, barangay, recordID";
535
536     List<PatientsForm> pF = jdbcTemplateObject.
537         query(SQL,
538             new Object[]{muncity, 1}, new
539             PatientsFormMapper());
540
541     return pF;
542 }
543
544 public List<PatientsForm> listOfAllBrgyRecords(
545     String muncity, String province, String
546         region) {
547     jdbcTemplateObject = new JdbcTemplate(
548         dataSource);
549
550     String SQL = "select * from barangayrecords
551         where muncity = ? AND province = ? AND
552         region = ? ORDER BY dateSubmitted, muncity,
553         barangay, recordID";
554
555     List<PatientsForm> muncy = jdbcTemplateObject.
556         query(SQL,
557             new Object[]{muncity, province, region}, new
558             PatientsFormMapper());
559
560     return muncy;
561 }
562
563 public List<PatientsForm>
564     listOfAllEditBrgyRecords(String muncity,
565         String province, String region) {
566     jdbcTemplateObject = new JdbcTemplate(
567         dataSource);
568
569     String SQL = "select * from barangayrecords
570         where muncity = ? AND province = ? AND
571         region = ? ORDER BY dateSubmitted, muncity,
572         barangay, recordID";
573
574     List<PatientsForm> muncy = jdbcTemplateObject.
575         query(SQL,
576             new Object[]{muncity, province, region}, new
577             PatientsFormMapper());
578
579     return muncy;
580 }

```

```

535     return muncy;
536 }
537 }
538 }
539 }
540 public List<PatientsForm>
541     listOfAllMunCityRecords(String province,
542     String region) {
543     jdbcTemplateObject = new JdbcTemplate(
544         dataSource);
545     String SQL = "select * from muncityrecords
546     where province = ? AND region = ? ORDER BY
547     dateSubmitted, muncity, barangay, recordID
548     ";
549     List<PatientsForm> muncy = jdbcTemplateObject.
550         query(SQL,
551             new Object[]{province, region}, new
552             PatientsFormMapper());
553     return muncy;
554 }
555 public List<PatientsForm>
556     listOfAllProvincialRecords(String province,
557     String region) {
558     jdbcTemplateObject = new JdbcTemplate(
559         dataSource);
560     String SQL = "select * from muncityrecords
561     where province = ? AND region = ? AND
562     dateApproved2 > ? ORDER BY dateSubmitted,
563     muncity, barangay, recordID";
564     List<PatientsForm> muncy = jdbcTemplateObject.
565         query(SQL,
566             new Object[]{province, region, "0000-00-00"}, new
567             PatientsFormMapper());
568     return muncy;
569 }
570 public List<PatientsForm>
571     listOfEditMunCityRecords(String province,
572     String username) {
573     jdbcTemplateObject = new JdbcTemplate(
574         dataSource);
575     String SQL = "select * from editmuncityrecords
576     where province = ? ORDER BY dateSubmitted,
577     barangay, recordID";
578     List<PatientsForm> pF = jdbcTemplateObject.
579         query(SQL,
580             new Object[]{province}, new PatientsFormMapper()
581             ());
582     return pF;
583 }
584 public List<PatientsForm>
585     listOfEditMunCityRecords(String province,
586     String username) {
587     jdbcTemplateObject = new JdbcTemplate(
588         dataSource);
589     String SQL = "select * from muncityrecords
590     where province = ? AND editStatus = ? ORDER
591     BY dateSubmitted, barangay, recordID";
592     List<PatientsForm> pF = jdbcTemplateObject.
593         query(SQL,
594             new Object[]{province, 1}, new
595             PatientsFormMapper());
596     return pF;
597 }
598 }

```

Listing 7: DiseaseDAO.java

```

1 package dao;
2
3 import java.text.DateFormat;
4 import java.text.SimpleDateFormat;
5 import java.util.Date;
6 import java.util.List;
7
8 import mapper.AlertsMapper;
9 import mapper.DiseaseMapper;
10 import objects.Alerts;
11 import objects.Diseases;
12
13 import org.springframework.beans.factory.
14     annotation.Autowired;
14 import org.springframework.jdbc.core.
15     JdbcTemplate;
16
17 public class DiseaseDAO {
18
19     @Autowired
20     private javax.sql.DataSource dataSource;
21     private JdbcTemplate jdbcTemplateObject;
22
23     public List<Diseases> listDiseases() {
24         jdbcTemplateObject = new JdbcTemplate(
25             dataSource);
26
27         String SQL = "select * from diseases";
28         List<Diseases> diseases = jdbcTemplateObject.
29             query(SQL,
30                 new DiseaseMapper());
31
32         return diseases;
33     }
34
35     public Diseases getDisease(int id) {
36
37         jdbcTemplateObject = new JdbcTemplate(
38             dataSource);
39
39         String SQL = "SELECT * FROM diseases WHERE
40             diseaseID = '"+ id + "'";
41
42         String ans = "";
43         Diseases disease = jdbcTemplateObject.
44             queryForObject(SQL, new DiseaseMapper());
45
46     }
47
48     public List<Alerts> getAlerts(String barangay,
49     String muncity, String province) {
50
51         jdbcTemplateObject = new JdbcTemplate(
52             dataSource);
53
54         String SQL = "SELECT * FROM alerts WHERE (
55             barangay = ? OR muncity = ?) AND province =
56             ?";
57
58         List<Alerts> alerts = jdbcTemplateObject.query(
59             SQL, new Object[]{barangay, muncity,
60                 province}, new AlertsMapper());
61
62         return alerts;
63     }
64
65     public void insertAlert(String barangay, String
66     muncity, String province, String region,
67     double outbreak, String disease) {
68
69         jdbcTemplateObject = new JdbcTemplate(
70             dataSource);
71
72         DateFormat dateFormat = new SimpleDateFormat(
73             "yyyy-MM-dd");
74         Date date = new Date();
75
76         int diseaseID = -1;
77
78         if(disease.equals("Chikungunya"))
79             diseaseID = 0;
80         else if(disease.equals("Dengue"))
81             diseaseID = 1;
82         else if(disease.equals("Malaria"))
83             diseaseID = 2;
84
85         String SQL = "INSERT INTO alerts (barangay,
86             muncity, province, region, outbreak, date,
87             disease, diseaseID) VALUES (?, ?, ?, ?, ?, ?,
88             ?, ?, ?)";
89
90         jdbcTemplateObject.update(SQL, new Object[]{
91             barangay, muncity, province, region,
92             outbreak, dateFormat.format(date),
93             disease, diseaseID});
94
95     }
96
97     public List<Alerts> getAlerts() {
98
99         jdbcTemplateObject = new JdbcTemplate(
100            dataSource);
101
102     }

```

```

86     String SQL = "SELECT * FROM alerts ORDER BY
87         date DESC";
88     List<Alerts> alerts = jdbcTemplateObject.query(
89         SQL, new AlertsMapper());
90     return alerts;
91 }
92 public int getCountAlerts() {
93     jdbcTemplateObject = new JdbcTemplate(
94         dataSource);
95     String SQL = "SELECT COUNT(*) FROM alerts
96         WHERE status = 0";
97 }
98
99     return jdbcTemplateObject.queryForInt(SQL);
100 }
101
102 public void updateAlerts() {
103     jdbcTemplateObject = new JdbcTemplate(
104         dataSource);
105     String SQL = "UPDATE alerts SET status = 1
106         WHERE status = 0";
107     jdbcTemplateObject.update(SQL);
108 }
109 }
110 }
111 }
112 }

```

Listing 8: MapsDAO.java

```

1 package dao;
2
3 import java.sql.DriverManager;
4 import java.sql.ResultSet;
5 import java.text.SimpleDateFormat;
6 import java.util.ArrayList;
7 import java.util.Calendar;
8 import java.util.Date;
9 import java.util.List;
10 import java.util.List;
11
12 import mapper.BarangayRecordsMapper;
13 import mapper.MapsMapper;
14 import mapper.PlaceMapper;
15 import objects.BarangayRecords;
16 import objects.Maps;
17 import objects.Place;
18
19 import org.springframework.beans.factory.
20     annotation.Autowired;
21 import org.springframework.jdbc.core.
22     JdbcTemplate;
23
24 import com.mysql.jdbc.Connection;
25 import com.mysql.jdbc.PreparedStatement;
26
27 public class MapsDAO {
28
29     @Autowired
30     private javax.sql.DataSource dataSource;
31     private JdbcTemplate jdbcTemplateObject;
32
33     public List<Maps> listAllMuncity(String region)
34         throws Exception {
35
36         jdbcTemplateObject = new JdbcTemplate(
37             dataSource);
38         Connection dbConnect = getMySqlConnection();
39         PreparedStatement pSt = null;
40
41         String SQL = "SELECT DISTINCT muncity FROM
42             maps where region = '" + region + "' ORDER
43             BY muncity";
44         pSt = (PreparedStatement) dbConnect.
45             prepareStatement(SQL);
46         ResultSet rs = pSt.executeQuery();
47
48         DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
49         Date date = new Date();
50         Date late = new Date();
51         late.setDate(1);
52         Calendar cal = Calendar.getInstance();
53         date.setDate(cal.getActualMaximum(Calendar.
54             DAY_OF_MONTH));
55
56         List<Maps> map = new ArrayList<Maps>();
57
58         while(rs.next()) {
59             Maps maps = new Maps();
60             maps.setMuncity(rs.getString("muncity"));
61             maps.setPopulation(getTotalPop(rs.getString(""
62                 "muncity"), region));
63             map.add(maps);
64         }
65
66         pSt.close();
67         dbConnect.close();
68
69         return map;
70     }
71
72     public int getTotalPop(String muncity, String
73         region) throws Exception {
74
75         jdbcTemplateObject = new JdbcTemplate(
76             dataSource);
77
78         String SQL = "SELECT population FROM maps
79             where region = '" + region + "' AND muncity
80             = '" + muncity + "'";
81         List<Maps> map = jdbcTemplateObject.query(SQL,
82             new MapsMapper());
83
84         int total = 0;
85         for(Maps m : map) {
86             total += m.getPopulation();
87         }
88
89         return total;
90     }
91
92     public List<Maps> listOfCPatients() throws
93         Exception {
94
95         jdbcTemplateObject = new JdbcTemplate(
96             dataSource);
97         Connection dbConnect = getMySqlConnection();
98         PreparedStatement pSt = null;
99
100        DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
101        Date date = new Date();
102        Date late = new Date();
103        late.setDate(1);
104        Calendar cal = Calendar.getInstance();
105        date.setDate(cal.getActualMaximum(Calendar.
106            DAY_OF_MONTH));
107
108        String SQL = "SELECT * FROM patientrecords
109             NATURAL LEFT JOIN maps where diseaseID =
110                 '" + 0 + "' AND dateSubmitted =
111                 '" + dateFormat.format(late) + "' AND
112                 dateSubmitted <= '" + dateFormat.format(
113                     date) + "' GROUP BY barangay ORDER BY
114                 dateSubmitted DESC";
115
116        pSt = (PreparedStatement) dbConnect.
117             prepareStatement(SQL);
118        ResultSet rs = pSt.executeQuery();
119        List<Maps> map = new ArrayList<Maps>();
120
121        while(rs.next()) {
122            Maps maps = new Maps();
123            maps.setBarangay(rs.getString("barangay"));
124            try {
125                maps.setMuncity(rs.getString("muncity"));
126                maps.setProvince(rs.getString("province"));
127                maps.setRegion(rs.getString("region"));
128            }
129            catch(Exception es) {
130
131                SQL = "SELECT COUNT(*) AS count FROM
132                    patientrecords WHERE barangay = '" + rs.
133                    getString("barangay") + "'"
134                    + " AND dateSubmitted >= '" + dateFormat.
135                    format(late) + "' AND dateSubmitted <= '" +
136                    dateFormat.format(date) + "'";
137                maps.setCountCases(jdbcTemplateObject.
138                    queryForInt(SQL));
139
140                SQL = "SELECT COUNT(*) AS count FROM
141                    patientrecords WHERE barangay = '" + rs.
142                    getString("barangay") + "' AND "
143                    + "outcome = 'Died' AND dateSubmitted >= '" +
144                    dateFormat.format(late) + "' AND
145                    dateSubmitted <= '" + dateFormat.format(
146                        date) + "'";
147                maps.setCountDeaths(jdbcTemplateObject.
148                    queryForInt(SQL));
149
150            }
151        }
152    }
153
154 }

```

```

123     maps.setX(rs.getDouble("x"));
124     maps.setY(rs.getDouble("y"));
125     maps.setPopulation(rs.getInt("population"));
126     map.add(maps);
127 }
128
129 pSt.close();
130 dbConnect.close();
131
132 return map;
133 }
134 }
135
136 public List<Maps> listOfDPatients() throws
137     Exception {
138
139     jdbcTemplateObject = new JdbcTemplate(
140         dataSource);
141
142     Connection dbConnect = getMySqlConnection();
143     PreparedStatement pSt = null;
144
145     String SQL = "SELECT * FROM patientrecords
146         NATURAL LEFT JOIN maps where diseaseID =
147             '" + 1 + "' GROUP BY barangay ORDER BY
148             dateSubmitted DESC";
149     pSt = (PreparedStatement) dbConnect.
150         prepareStatement(SQL);
151     ResultSet rs = pSt.executeQuery();
152
153     List<Maps> map = new ArrayList<Maps>();
154
155     while(rs.next()) {
156         Maps maps = new Maps();
157         maps.setBarangay(rs.getString("barangay"));
158         maps.setMuncity(rs.getString("muncity"));
159         maps.setProvince(rs.getString("province"));
160         maps.setRegion(rs.getString("region"));
161
162         SQL = "SELECT COUNT(*) AS count FROM
163             patientrecords WHERE barangay = '" + rs.
164             getString("barangay") + "'";
165
166         maps.setCountCases(jdbcTemplateObject.
167             queryForInt(SQL));
168         maps.setCountDeaths(jdbcTemplateObject.
169             queryForInt(SQL));
170
171         return map;
172     }
173 }
174
175 public List<Maps> listOfMPatients() throws
176     Exception {
177
178     jdbcTemplateObject = new JdbcTemplate(
179         dataSource);
180     Connection dbConnect = getMySqlConnection();
181     PreparedStatement pSt = null;
182
183     String SQL = "SELECT * FROM patientrecords
184         NATURAL LEFT JOIN maps where diseaseID =
185             '" + 2 + "' GROUP BY barangay ORDER BY
186             dateSubmitted DESC";
187     pSt = (PreparedStatement) dbConnect.
188         prepareStatement(SQL);
189     ResultSet rs = pSt.executeQuery();
190
191     List<Maps> map = new ArrayList<Maps>();
192
193     while(rs.next()) {
194         Maps maps = new Maps();
195         maps.setBarangay(rs.getString("barangay"));
196         maps.setMuncity(rs.getString("muncity"));
197         maps.setProvince(rs.getString("province"));
198         maps.setRegion(rs.getString("region"));
199
200         SQL = "SELECT COUNT(*) AS count FROM
201             patientrecords WHERE barangay = '" + rs.
202             getString("barangay") + "'";
203
204         maps.setCountCases(jdbcTemplateObject.
205             queryForInt(SQL));
206         maps.setCountDeaths(jdbcTemplateObject.
207             queryForInt(SQL));
208
209         map.add(maps);
210     }
211
212     pSt.close();
213     dbConnect.close();
214
215     return map;
216 }
217
218 public static Connection getMySqlConnection()
219     throws Exception {
220
221     Connection conn = null;
222     String driver = "com.mysql.jdbc.Driver";
223     String url = "jdbc:mysql://localhost:3306/vbd?";
224     String zeroDateTimeBehavior="convertToNull";
225     String username = "root";
226     String password = "";
227     Class.forName(driver);
228
229     conn = (Connection) DriverManager.
230         getConnection(url, username, password);
231
232     return conn;
233 }
234
235 public List<Place> getAllMuncity(String region)
236     {
237
238     jdbcTemplateObject = new JdbcTemplate(
239         dataSource);
240
241     String SQL = "SELECT DISTINCT muncity FROM
242         maps WHERE region = '" + region + "'";
243
244     List<Place> place = jdbcTemplateObject.query(
245         SQL, new PlaceMapper());
246
247     return place;
248 }
249
250
251 public List<Place> getAllProvince(String region)
252     {
253
254     jdbcTemplateObject = new JdbcTemplate(
255         dataSource);
256
257     String SQL = "SELECT DISTINCT province FROM
258         maps WHERE region = '" + region + "'";
259
260     List<Place> place = jdbcTemplateObject.query(
261         SQL, new PlaceMapper());
262
263     for(Place p : place) {
264         p.setRegion(region);
265     }
266
267     return place;
268 }
269
270 public List<Place> getAllBarangay(String
271         muncity, String province, String region) {
272
273     jdbcTemplateObject = new JdbcTemplate(
274         dataSource);
275
276     int n = muncity.indexOf(",");
277     if(n > 0) {
278         String ne = "";
279         ne += muncity.substring(0, n);
280         ne += "\\";
281         ne += muncity.substring(n);

```

```

278     muncity = ne;
279 }
280 String SQL = "SELECT DISTINCT barangay FROM
281     maps WHERE muncity = '" + muncity + "' AND
282     province = '" + province + "' AND region =
283     '" + region + "', ORDER BY barangay";
284     p.setMuncity(muncity);
285     p.setProvince(province);
286     p.setRegion(region);
287 }
288     return place;
289 }
290 }
291 }
292 }

List<Place> place = jdbcTemplateObject.query(
    SQL, new PlaceMapper());
for(Place p : place) {

    Listing 9: NewUserDAO.java
1 package dao;
2
3 import java.math.BigInteger;
4 import java.security.SecureRandom;
5
6 import mapper.RegistrationMapper;
7 import mapper.UserChangeMapper;
8 import mapper.UserProfileMapper;
9 import objects.Registrants;
10 import objects.UserChange;
11 import objects.UserProfile;
12
13 import org.springframework.beans.factory.
14     annotation.Autowired;
14 import org.springframework.jdbc.core.
15     JdbcTemplate;
15 import org.springframework.security.crypto.
16     bCrypt.BCryptPasswordEncoder;
16 import org.springframework.security.crypto.
17     password.PasswordEncoder;
17
18 public class NewUserDAO {
19
20     @Autowired
21     private javax.sql.DataSource dataSource;
22     private JdbcTemplate jdbcTemplateObject;
23     private SecureRandom random;
24
25     public void insert(String firstname, String
26         middlename, String surname, String gender,
27         String address,
28         String userType, int userTypeInt, String
29             region, String province,
30             String muncity, String barangay, String
31             institution,
32             String instAddr, String email, String number)
33     {
34
35         jdbcTemplateObject = new JdbcTemplate(
36             dataSource);
37
38         int status = 0;
39
40         String SQL = "insert into registrations (
41             firstname, middlename, surname, gender,
42             address, userType, userTypeInt, region,
43             province, muncity, barangay, institution,
44             instAddr, email, number, status) values (?, ?,
45             ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?,
46             ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
47
48         jdbcTemplateObject.update(SQL, new Object
49             []{firstname, middlename, surname, gender,
50                 address, userType, userTypeInt,
51                 region, province, muncity, barangay,
52                 institution, instAddr, email, number,
53                 status});
54
55     public String getUser(int id) {
56
57         jdbcTemplateObject = new JdbcTemplate(
58             dataSource);
59
59         String SQL = "UPDATE registrations SET status
60             = ? where regID = ?";
61
62         jdbcTemplateObject.update(SQL, new Object
63             []{id});
64
65     public UserChange getAccount(int id) {
66
67         jdbcTemplateObject = new JdbcTemplate(
68             dataSource);
69
69         String SQL = "select * from users where
70             accountID = ?";
71
71         UserChange user = jdbcTemplateObject.
72             queryForObject(SQL, new Object[]{id}, new
73             UserChangeMapper());
74
75         return user;
76
77     public String insertNewUser(Registrants reg) {
78
79
80         random = new SecureRandom();
81         String pass = new BigInteger(130, random).
82             toString(32);
83         pass = pass.substring(0, 10);
84
84         PasswordEncoder passwordEncoder = new
85             BCryptPasswordEncoder();
85         String encodedPassword = passwordEncoder.
86             encode(pass);
87
87         jdbcTemplateObject = new JdbcTemplate(
88             dataSource);
88
88         String SQL = "insert into accounts (
89             accountID, firstname, middlename, surname,
90             username, gender, address, userType,
91             userTypeInt, region, province, muncity,
92             barangay, institution, instAddr, email,
93             number) values (?, ?, ?, ?, ?, ?, ?, ?, ?,
94             ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
95
95         jdbcTemplateObject.update(SQL, new Object
96             []{reg.getAccountID(), reg.getFirstname(),
97                 reg.getMiddlename(), reg.getSurname(), reg.
98                 getUsername(), reg.getGender(),
99                 reg.getAddress(), reg.getUserType(), reg.
100                getUserTypeInt(), reg.getRegion(), reg.
101                getProvince(), reg.getMuncity(),
102                reg.getBarangay(), reg.getInstitution(),
103                reg.getInstAddr(), reg.getEmail(),
104                reg.getNumber()});
105
105         SQL = "UPDATE registrations SET status = ?
106             where regID = ?";
107
107         int status = 1;
108
108         jdbcTemplateObject.update(SQL, status, reg.
109             getAccountID());
110
110         String authorities = "";
111         if(reg.getUserTypeInt() == 0)
112             authorities = "ROLE_BHWorker";
113         else if(reg.getUserTypeInt() == 1)
114             authorities = "ROLE_MCHWorker";
115         else if(reg.getUserTypeInt() == 2)
116             authorities = "ROLE_MCOfficial";
117         else if(reg.getUserTypeInt() == 3)
118             authorities = "ROLE_PHWorker";
119         else if(reg.getUserTypeInt() == 4)
120             authorities = "ROLE_PHOfficial";
121         else if(reg.getUserTypeInt() == 5)
122             authorities = "ROLE_NHOfficial";
123         else if(reg.getUserTypeInt() == 6)
124             authorities = "ROLE_Researcher";
125         else
126             authorities = "ROLE_USER";
127
127         SQL = "insert into users (accountID,
128             username, password, authorities) values (?, ?,
129             ?, ?, ?)";
130
130         jdbcTemplateObject.update(SQL, new Object

```

```

        []{reg.getAccountID(), reg.getUsername(),
        encodedPassword, authorities);
122    }
123    return pass;
124  }
125 }
126 }
127
128 public boolean editUser(String name, UserChange
129 user) {
130     PasswordEncoder passwordEncoder = new
131         BCryptPasswordEncoder();
132     String encodedPassword = passwordEncoder.
133         encode(user.getAccountPassword2());
134     jdbcTemplateObject = new JdbcTemplate(
135         dataSource);
136     String SQL = "UPDATE users SET username =
137     ?, password = ? where username = ?";
138     jdbcTemplateObject.update(SQL, user.

```

Listing 10: PatientsDAO.java

```

1 package dao;
2
3 import java.text.DateFormat;
4 import java.text.SimpleDateFormat;
5 import java.util.Calendar;
6 import java.util.Date;
7 import java.util.List;
8
9 import mapper.PatientsFormMapper;
10 import mapper.PatientsMapper;
11 import objects.Patients;
12 import objects.PatientsForm;
13
14 import org.springframework.beans.factory.
15     annotation.Autowired;
15 import org.springframework.jdbc.core.
16     JdbcTemplate;
17
18 public class PatientsDAO {
19     @Autowired
20     private javax.sql.DataSource dataSource;
21     private JdbcTemplate jdbcTemplateObject;
22
23     public List<Patients> listAllPatients() {
24
25         jdbcTemplateObject = new JdbcTemplate(
26             dataSource);
27         DateFormat dateFormat = new SimpleDateFormat(""
28             .yyyy-MM-dd");
29         Date date = new Date();
30         Date late = new Date();
31         late.setDate(1);
32         Calendar cal = Calendar.getInstance();
33         date.setDate(cal.getActualMaximum(Calendar.
34             DAY_OF_MONTH));
35         String SQL = "select * from patientrecords
36             where dateSubmitted >= '" + dateFormat.
37             format(date) + "' AND dateSubmitted <= '" +
38             dateFormat.format(late) + "'";
39
40     List<Patients> allPatients =
41         jdbcTemplateObject.query(SQL,
42             new PatientsMapper());
43
44     return allPatients;
45 }
46
47 public List<Patients> listOldPatients() {
48
49     jdbcTemplateObject = new JdbcTemplate(
50         dataSource);
51     DateFormat dateFormat = new SimpleDateFormat(""
52         .yyyy-MM-dd");
53     Date date = new Date();
54     Date late = new Date();
55     late.setDate(1);
56     late.setYear(113);
57
58     Calendar cal = Calendar.getInstance();
59     date.setDate(cal.getActualMaximum(Calendar.
60         DAY_OF_MONTH));
61     date.setYear(113);
62     String SQL = "select * from patientrecords
63         where dateSubmitted >= '" + dateFormat.
64             format(date) + "' AND dateSubmitted <= '" +
65             dateFormat.format(late) + "'";
66
67     List<Patients> allPatients =
68         jdbcTemplateObject.query(SQL,
69             new PatientsMapper());
70
71     return allPatients;
72 }
73
74 public List<PatientsForm> listAllPatients(
75     String dateFrom, String dateTo, String
76     disease) {
77
78     jdbcTemplateObject = new JdbcTemplate(
79         dataSource);
80     int diseaseID = -1;
81     if(disease.equalsIgnoreCase("Chikungunya"))
82         diseaseID = 0;
83     else if(disease.equalsIgnoreCase("Dengue"))
84         diseaseID = 1;
85     else if(disease.equalsIgnoreCase("Malaria"))
86         diseaseID = 2;
87
88     String SQL = "select * from patientrecords
89         where dateSubmitted >= '" + dateFrom + "'"
90         AND dateSubmitted <= '" + dateTo + "'"
91         AND diseaseID = '" + diseaseID + "'";
92
93     List<PatientsForm> allPatients =
94         jdbcTemplateObject.query(SQL,
95             new PatientsFormMapper());
96
97     return allPatients;
98 }
99
100 public List<PatientsForm> listAllPatients(
101     String dateFrom, String dateTo) {
102
103     jdbcTemplateObject = new JdbcTemplate(
104         dataSource);
105     String SQL = "select * from patientrecords
106         where dateSubmitted >= '" + dateFrom + "'"
107         AND dateSubmitted <= '" + dateTo + "'";
108
109     List<PatientsForm> allPatients =
110         jdbcTemplateObject.query(SQL,
111             new PatientsFormMapper());
112
113     return allPatients;
114 }
115
116 public List<Registrants> listAllRegistrations(
117     int classify) {
118
119     jdbcTemplateObject = new JdbcTemplate(

```

Listing 11: RegistrationDAO.java

```

1 package dao;
2
3 import java.util.List;
4
5 import mapper.RegistrationMapper;
6 import objects.Registrants;
7
8 import org.springframework.beans.factory.
8     annotation.Autowired;
8 import org.springframework.jdbc.core.

```

```

        dataSource);
20    String SQL = "";
21    if(classify != 5)
22        SQL = "select * from registrations where
23            userTypeInt < '" + classify + "'";
24    else
25        SQL = "select * from registrations where
26            userTypeInt < '" + classify + "' OR
27            userTypeInt = 6";
28    List<Registrants> allRegs = jdbcTemplateObject
29        .query(SQL,
30        new RegistrationMapper());
31    return allRegs;
32}
33 public int countPending(int classify) {
34    jdbcTemplateObject = new JdbcTemplate(
35        dataSource);
36    String SQL = "";
37
38    if(classify != 5 && classify != 7)
39        SQL = "select count(*) from registrations
40            where status = '0' AND userTypeInt < '" +
41            classify + "'";
42    else
43        SQL = "select count(*) from registrations
44            where status = '0' AND userTypeInt > 0 AND
45            ( userTypeInt < '" + classify + "' OR
46            userTypeInt = 6 )";
47    int rowCount = jdbcTemplateObject.queryForInt(
48        SQL);
49    return rowCount;
50}
51 public int countApproved(int classify) {
52    jdbcTemplateObject = new JdbcTemplate(
53        dataSource);
54
55    if(classify != 5 && classify != 7)
56        SQL = "select count(*) from registrations
57            where status = '1' AND userTypeInt < '" +
58            classify + "'";
59    else
60        SQL = "select count(*) from registrations
61            where status = '1' AND userTypeInt > 0 AND
62            ( userTypeInt < '" + classify + "' OR
63            userTypeInt = 6 )";
64    int rowCount = jdbcTemplateObject.queryForInt(
65        SQL);
66    return rowCount;
67}
68 public int countRejected(int classify) {
69    jdbcTemplateObject = new JdbcTemplate(
70        dataSource);
71    String SQL = "";
72    if(classify != 5 && classify != 7)
73        SQL = "select count(*) from registrations
74            where status = '2' AND userTypeInt < '" +
75            classify + "'";
76    else
77        SQL = "select count(*) from registrations
78            where status = '2' AND userTypeInt > 0 AND
79            ( userTypeInt < '" + classify + "' OR
80            userTypeInt = 6 )";
81    int rowCount = jdbcTemplateObject.queryForInt(
82        SQL);
83    return rowCount;
84}

```

Listing 12: UserProfileDAO.java

```

1 package dao;
2
3 import java.sql.DriverManager;
4 import java.sql.ResultSet;
5 import java.text.DateFormat;
6 import java.text.SimpleDateFormat;
7 import java.util.ArrayList;
8 import java.util.Date;
9 import java.util.List;
10 import java.util.Map;
11
12 import mapper.DiseaseMapper;
13 import mapper.RegistrationMapper;
14 import mapper.UserChangeMapper;
15 import mapper.UserProfileMapper;
16 import objects.Diseases;
17 import objects.Maps;
18 import objects.Registrants;
19 import objects.UserChange;
20 import objects.UserLogs;
21 import objects.UserProfile;
22
23 import org.springframework.beans.factory.
24     annotation.Autowired;
25 import org.springframework.jdbc.core.
26     JdbcTemplate;
27 import org.springframework.security.core.
28     Authentication;
29 import org.springframework.security.core.context
30     .SecurityContextHolder;
31
32 public class UserProfileDAO {
33
34     @Autowired
35     private javax.sql.DataSource dataSource;
36     private JdbcTemplate jdbcTemplateObject;
37
38     public List<String> getAllUserNames() {
39         jdbcTemplateObject = new JdbcTemplate(
40             dataSource);
41         String SQL = "select username from users";
42         List<String> userN = jdbcTemplateObject.
43             queryForList(SQL, String.class);
44         return userN;
45}
46
47     public List<String> getAllRegNames() {
48
49         jdbcTemplateObject = new JdbcTemplate(
50             dataSource);
51         String SQL = "select username from
52             registrations";
53         List<String> userN = jdbcTemplateObject.
54             queryForList(SQL, String.class);
55         return userN;
56}
57
58     public List<String> getAllUserNumbers() {
59
60         jdbcTemplateObject = new JdbcTemplate(
61             dataSource);
62         String SQL = "select number from accounts";
63         List<String> numbers = jdbcTemplateObject.
64             queryForList(SQL, String.class);
65         return numbers;
66}
67
68     public List<String> getAllRegNumbers() {
69
70         jdbcTemplateObject = new JdbcTemplate(
71             dataSource);
72         String SQL = "select number from registrations
73             ";
74         List<String> numbers = jdbcTemplateObject.
75             queryForList(SQL, String.class);
76         return numbers;
77}
78
79     public List<String> getAllEmails() {
80
81         jdbcTemplateObject = new JdbcTemplate(
82             dataSource);
83         String SQL = "select email from accounts";
84         List<String> email = jdbcTemplateObject.
85             queryForList(SQL, String.class);
86         return email;
87}
88
89     public List<UserProfile> allUsers(String
90         barangay, String muncity, String province,

```

```

        String region) {
88    jdbcTemplateObject = new JdbcTemplate(
89        dataSource);
90
91    String SQL = "select * from accounts where (
92        barangay = ? OR muncity = ?) AND province =
93        ? AND region = ?";
94    List<UserProfile> allU = jdbcTemplateObject.
95        query(SQL, new Object[]{barangay, muncity,
96        province, region}, new UserProfileMapper());
97    return allU;
98}
99 public int getUserAccID(String username) {
100
101    jdbcTemplateObject = new JdbcTemplate(
102        dataSource);
103    String SQL = "select accountID from users
104        where username ='" + username + "'";
105    int accountID = jdbcTemplateObject.queryForInt
106        (SQL);
107    return accountID;
108}
109 public UserChange getUserDetails(String
110        username) {
111    jdbcTemplateObject = new JdbcTemplate(
112        dataSource);
113    String SQL = "select * from users where
114        username = ?";
115    UserChange user = jdbcTemplateObject.
116        queryForObject(SQL, new Object[]{username},
117        new UserChangeMapper());
118    return user;
119}
120 public String changeUserDetails(UserProfile
121        prof, UserChange user) {
122    jdbcTemplateObject = new JdbcTemplate(
123        dataSource);
124    String SQL = "UPDATE users SET username = ?,
125        password = ? where accountID = ?";
126    jdbcTemplateObject.update(SQL, user.
127        getAccountName(), user.getAccountPassword()
128        , prof.getAccID());
129    return user.getAccountName();
130}
131}
132}
133}
134}
135 public UserProfile getUser(String username) {
136
137    jdbcTemplateObject = new JdbcTemplate(
138        dataSource);
139    String SQL = "select accountID from users
140        where username ='" + username + "'";
141    int accountID = jdbcTemplateObject.queryForInt
142        (SQL);
143    String SQL2 = "select * from accounts where
144        accountID = ?";
145    UserProfile prof = jdbcTemplateObject.
146        queryForObject(SQL2, new Object[]{accountID},
147        new UserProfileMapper());
148    return prof;
149}
150
151 public UserProfile getUser(int id) {
152
153    jdbcTemplateObject = new JdbcTemplate(
154        dataSource);
155    String SQL2 = "select * from accounts where
156        accountID = ?";
157    UserProfile prof = jdbcTemplateObject.
158        queryForObject(SQL2, new Object[]{id}, new
        UserProfileMapper());
159    return prof;
160}
161
162 public UserProfile getRejectedUser(int id) {
163
164    jdbcTemplateObject = new JdbcTemplate(
165        dataSource);
166    String SQL2 = "select * from registrations
167        where regID = ?";
168    UserProfile prof = jdbcTemplateObject.
169        queryForObject(SQL2, new Object[]{id}, new
        UserProfileMapper());
170
171    return prof;
172}
173
174 public List<UserProfile> listAllUsers(int
175        classify) {
176
177    jdbcTemplateObject = new JdbcTemplate(
178        dataSource);
179    String SQL = "";
180    if(classify != 5)
181        SQL = "select * from accounts where
182            userTypeInt < '" + classify + "'";
183    else
184        SQL = "select * from accounts where
185            userTypeInt < '" + classify + "' OR
186            userTypeInt = 6";
187
188    List<UserProfile> allProf = jdbcTemplateObject
189        .query(SQL,
190        new UserProfileMapper());
191
192    return allProf;
193}
194
195 public boolean deactivateUser(int id, String
196        username) {
197
198    jdbcTemplateObject = new JdbcTemplate(
199        dataSource);
200    String SQL = "UPDATE accounts SET status = 0
201        where accountID = ?";
202    jdbcTemplateObject.update(SQL, id);
203
204    String SQL = "UPDATE users SET authorities = ,
205        'ROLE_NONE' where accountID = ?";
206    jdbcTemplateObject.update(SQL, id);
207
208    DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
209    Date date = new Date();
210
211    DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
212    Date time = new Date();
213
214    SQL = "select accountID from users where
215        username ='" + username + "'";
216
217    int accountID = jdbcTemplateObject.queryForInt
218        (SQL);
219
220    //String action = "Deactivated a user.";
221    //SQL = "insert into userlogs (accountID,
222        action, date, time) values (?, ?, ?, ?)";
223    //jdbcTemplateObject.update(SQL, new Object[]{
224        accountID, action, dateFormat.format(date),
225        dateFormat.format(time)});
226
227    return true;
228}
229
230 public boolean activateUser(int id, String
231        username) {
232
233    jdbcTemplateObject = new JdbcTemplate(
234        dataSource);
235
236    String SQL = "UPDATE accounts SET status = 1
237        where accountID = ?";
238
239    jdbcTemplateObject.update(SQL, id);
240
241    SQL = "SELECT userTypeInt FROM accounts WHERE
242        accountID = '" + id + "'";
243
244    int x = jdbcTemplateObject.queryForInt(SQL);
245
246    String authorities = "";
247    if(x == 0)
248        authorities = "ROLE_BHWWorker";
249    else if(x == 1)
250
```

```

233     authorities = "ROLE_MCHWorker";
234     else if(x == 2)
235         authorities = "ROLE_MCOfficial";
236     else if(x == 3)
237         authorities = "ROLE_PHWorker";
238     else if(x == 4)
239         authorities = "ROLE_PHOfficial";
240     else if(x == 5)
241         authorities = "ROLE_NHOfficial";
242     else if(x == 6)
243         authorities = "ROLE_Researcher";
244     else
245         authorities = "ROLE_USER";
246
247     SQL = "UPDATE users SET authorities = '" +
248         authorities + "' WHERE accountID = '" + id
249         + "'";
250
251     jdbcTemplateObject.update(SQL);
252
253     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
254     Date date = new Date();
255
256     DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
257     Date time = new Date();
258
259     SQL = "select accountID from users where
260         username ='" + username + "'";
261
262     //String action = "Activated a user.";
263     //SQL = "insert into userlogs (accountID,
264     //    action, date, time) values (?, ?, ?, ?)";
265     //jdbcTemplateObject.update(SQL, new Object[]{accountID, action, dateFormat.format(date),
266     //    dateFormat.format(time)});
267
268     return true;
269 }
270
271 public List<UserLogs> allLogs() throws
272     Exception {
273
274     jdbcTemplateObject = new JdbcTemplate(
275         dataSource);
276     Connection dbConnect = getMySqlConnection();
277     PreparedStatement pSt = null;
278
279     String SQL = "SELECT * FROM userlogs";
280     pSt = (PreparedStatement) dbConnect.
281         prepareStatement(SQL);
282     ResultSet rs = pSt.executeQuery();
283
284     List<UserLogs> logs = new ArrayList<UserLogs>
285         >();
286
287     while(rs.next()) {
288         UserLogs log = new UserLogs();
289         log.setAccountID(rs.getInt("accountID"));
290         log.setAction(rs.getString("action"));
291         log.setDate(rs.getString("date"));
292         log.setTime(rs.getString("time"));
293         log.setRecordID(rs.getInt("recordID"));
294         log.setRecordtable(rs.getString("recordtable"));
295         log.setEditStatus(rs.getInt("editStatus"));
296         log.setRecordtype(rs.getInt("recordtype"));
297     }
298
299     pSt.close();
300     dbConnect.close();
301
302     return logs;
303 }
304
305     public void insertReportLog(String username) {
306
307     String SQL = "select accountID from users
308         where username ='" + username + "'";
309
310     int accountID = jdbcTemplateObject.queryForInt
311         (SQL);
312
313     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
314     Date date = new Date();
315
316     DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
317     Date time = new Date();
318
319     String action = "Generated report.";
320     SQL = "insert into userlogs (accountID, action
321         , date, time, recordID, recordtable,
322         recordtype) values (?, ?, ?, ?, ?, ?, ?)";
323
324     jdbcTemplateObject.update(SQL, new Object[]{accountID, action, dateFormat.format(date),
325         timeFormat.format(time), "", "", ""});
326
327     public void insertDataSetLog(String username) {
328
329     jdbcTemplateObject = new JdbcTemplate(
330         dataSource);
331
332     String SQL = "select accountID from users
333         where username ='" + username + "'";
334
335     int accountID = jdbcTemplateObject.queryForInt
336         (SQL);
337
338     DateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
339     Date date = new Date();
340
341     DateFormat timeFormat = new SimpleDateFormat("HH:mm:ss");
342     Date time = new Date();
343
344     String action = "Exported dataset.";
345     SQL = "insert into userlogs (accountID, action
346         , date, time, recordID, recordtable,
347         recordtype) values (?, ?, ?, ?, ?, ?, ?)";
348
349     jdbcTemplateObject.update(SQL, new Object[]{accountID, action, dateFormat.format(date),
350         timeFormat.format(time), "", "", ""});
351
352     public static Connection getMySqlConnection()
353         throws Exception {
354
355     Connection conn = null;
356     String driver = "com.mysql.jdbc.Driver";
357     String url = "jdbc:mysql://localhost:3306/vbd?";
358     zeroDateTimeBehavior=convertToNull";
359     String username = "root";
360     String password = "";
361     Class.forName(driver);
362
363     conn = (Connection) DriverManager.
364         getConnection(url, username, password);
365
366     return conn;
367 }
368
369     BarangayRecords brgy = new BarangayRecords();
370     brgy.setAccID(rs.getInt("accountID"));
371     brgy.setRegion(rs.getString("region"));
372     brgy.setProvince(rs.getString("province"));
373     brgy.setMuncity(rs.getString("munCity"));
374     brgy.setBarangay(rs.getString("barangay"));
375     brgy.setName(rs.getString("name"));
376     brgy.setAge(rs.getString("age"));
377     brgy.setGender(rs.getString("gender"));
378     brgy.setDeceased(rs.getString("deceased"));
379     brgy.setDate(rs.getString("date"));
380     brgy.setNumEntries(rs.getInt("numEntries"))
381     ;;
382     brgy.setDiseaseID(rs.getInt("diseaseID"));
383     brgy.setSymptoms(rs.getString("symptoms"));
384     brgy.setDateApproved(rs.getString("dateApproved"));

```

Listing 13: BarangayRecordsMapper.java

```

1 package mapper;
2
3 import java.sql.ResultSet;
4 import java.sql.SQLException;
5
6 import org.springframework.jdbc.core.RowMapper;
7
8 import objects.BarangayRecords;
9
10 public class BarangayRecordsMapper implements
11     RowMapper {
12
13     public BarangayRecords mapRow(ResultSet rs, int
14         rowNum) throws SQLException {
15
16         BarangayRecords brgy = new BarangayRecords();
17         brgy.setAccID(rs.getInt("accountID"));
18         brgy.setRegion(rs.getString("region"));
19         brgy.setProvince(rs.getString("province"));
20         brgy.setMuncity(rs.getString("munCity"));
21         brgy.setBarangay(rs.getString("barangay"));
22         brgy.setName(rs.getString("name"));
23         brgy.setAge(rs.getString("age"));
24         brgy.setGender(rs.getString("gender"));
25         brgy.setDeceased(rs.getString("deceased"));
26         brgy.setDate(rs.getString("date"));
27         brgy.setNumEntries(rs.getInt("numEntries"))
28         ;;
29         brgy.setDiseaseID(rs.getInt("diseaseID"));
30         brgy.setSymptoms(rs.getString("symptoms"));
31         brgy.setDateApproved(rs.getString("dateApproved"));
32
33     }
34
35 }

```

```

29     brgy.setStatus(rs.getInt("status"));
30     brgy.setHealthworker(rs.getString(
31         "healthworker"));
32     brgy.setDisease(rs.getInt("diseaseID"));
33     brgy.setRecordID(rs.getInt("recordID"));
34     try {
35         brgy.setMuncityHW(rs.getString(
36             "muncityhealthworker"));
37         brgy.setDateAppr(rs.getString("dateApproved2"));
38     } catch (Exception e) {
39     }
40     return brgy;
41 }
42 }
43 }
44 }

10    public class DiseaseMapper implements RowMapper<
11        Diseases>{
12        public Diseases mapRow(ResultSet rs, int rowNum
13            ) throws SQLException {
14            Diseases disease = new Diseases();
15            disease.setDiseaseID(rs.getInt("diseaseID"));
16            disease.setDiseaseName(rs.getString("diseaseName"));
17            return disease;
18        }
19    }

20    public PatientsFormMapper implements
21        RowMapper {
22        public PatientsForm mapRow(ResultSet rs, int
23            rowNum) throws SQLException {
24            PatientsForm patient = new PatientsForm();
25            patient.setName(rs.getString("name"));
26            patient.setDateofbirth(rs.getString("birthDate
27                "));
28            patient.setGender(rs.getString("gender"));
29            patient.setAddress(rs.getString("address"));
30            patient.setAdmitted(rs.getString("admitted"));
31            patient.setDateAdmitted(rs.getString("dateAdmitted"));
32            patient.setOutcome(rs.getString("outcome"));
33            patient.setDateDied(rs.getString("dateDied"));
34            if(rs.getInt("diseaseID") == 0)
35                patient.setDisease("Chikungunya");
36            else if(rs.getInt("diseaseID") == 1)
37                patient.setDisease("Dengue");
38            else if(rs.getInt("diseaseID") == 2)
39                patient.setDisease("Malaria");
40            patient.setDateOnset(rs.getString("dateOnset"));
41            patient.setSymptoms(rs.getString("symptoms"));
42            patient.setCaseType("");
43            patient.setHospital(rs.getString("hospital"));
44            patient.setHospitalType(rs.getString("hospi
45                talType"));
46            patient.setHospitalAddr(rs.getString("hospi
47                talAddr"));
48            patient.setDateSubmitted(rs.getString("dateSubmitted"));
49            patient.setDateApproved(rs.getString("dateApproved"));
50        } catch (Exception e) {
51        }
52    }

53    public RegistrationMapper implements
54        RowMapper {
55        public Registrants mapRow(ResultSet rs, int
56            rowNum) throws SQLException {
57            Registrants regs = new Registrants();
58            regs.setAccountID(rs.getInt("regID"));
59            regs.setFirstname(rs.getString("firstName"));
60            regs.setMiddlename(rs.getString("middleName"));
61            regs.setSurname(rs.getString("surName"));
62            regs.setUsername(rs.getString("username"));
63            regs.setGender(rs.getString("gender"));
64            regs.setAddress(rs.getString("address"));
65            regs.setUserType(rs.getString("userType"));
66            regs.setRegion(rs.getString("region"));
67            regs.setProvince(rs.getString("province"));
68            regs.setMuncity(rs.getString("muncCity"));
69            regs.setBarangay(rs.getString("barangay"));
70            regs.setInstitution(rs.getString("institution"));
71            regs.setInstitutionAddr(rs.getString("instAddr"));
72            regs.setEmail(rs.getString("email"));
73            regs.setNumber(rs.getString("number"));
74            regs.setStatus(rs.getInt("status"));
75        } catch (Exception e) {
76        }
77    }

78    public PatientsFormMapper implements
79        RowMapper {
80        public PatientsForm mapRow(ResultSet rs, int
81            rowNum) throws SQLException {
82            PatientsForm patient = new PatientsForm();
83        } catch (Exception e) {
84        }
85    }

86    public RegistrationMapper implements
87        RowMapper {
88        public Registrants mapRow(ResultSet rs, int
89            rowNum) throws SQLException {
90            Registrants regs = new Registrants();
91            regs.setAccountID(rs.getInt("regID"));
92            regs.setFirstname(rs.getString("firstName"));
93            regs.setMiddlename(rs.getString("middleName"));
94            regs.setSurname(rs.getString("surName"));
95            regs.setUsername(rs.getString("username"));
96            regs.setGender(rs.getString("gender"));
97            regs.setAddress(rs.getString("address"));
98            regs.setUserType(rs.getString("userType"));
99            regs.setRegion(rs.getString("region"));
100           regs.setProvince(rs.getString("province"));
101           regs.setMuncity(rs.getString("muncCity"));
102           regs.setBarangay(rs.getString("barangay"));
103           regs.setInstitution(rs.getString("institution"));
104           regs.setInstitutionAddr(rs.getString("instAddr"));
105           regs.setEmail(rs.getString("email"));
106           regs.setNumber(rs.getString("number"));
107           regs.setStatus(rs.getInt("status"));
108       } catch (Exception e) {
109       }
110   }

111 }
```

Listing 14: DiseaseMapper.java

```

1 package mapper;
2
3 import java.sql.ResultSet;
4 import java.sql.SQLException;
5
6 import org.springframework.jdbc.core.RowMapper;
7
8 import objects.Diseases;
9
10 }
```

Listing 15: PatientsFormMapper.java

```

1 package mapper;
2
3 import java.sql.ResultSet;
4 import java.sql.SQLException;
5
6 import org.springframework.jdbc.core.RowMapper;
7
8 import objects.PatientsForm;
9
10 public class PatientsFormMapper implements
11     RowMapper {
12
13     public PatientsForm mapRow(ResultSet rs, int
14         rowNum) throws SQLException {
15         PatientsForm patient = new PatientsForm();
16         patient.setName(rs.getString("name"));
17         patient.setDateofbirth(rs.getString("birthDate
18             "));
19         patient.setGender(rs.getString("gender"));
20         patient.setAddress(rs.getString("address"));
21         patient.setAdmitted(rs.getString("admitted"));
22         patient.setDateAdmitted(rs.getString("dateAdmitted"));
23         patient.setOutcome(rs.getString("outcome"));
24         patient.setDateDied(rs.getString("dateDied"));
25
26         if(rs.getInt("diseaseID") == 0)
27             patient.setDisease("Chikungunya");
28         else if(rs.getInt("diseaseID") == 1)
29             patient.setDisease("Dengue");
30         else if(rs.getInt("diseaseID") == 2)
31             patient.setDisease("Malaria");
32
33         patient.setDateOnset(rs.getString("dateOnset"));
34         patient.setSymptoms(rs.getString("symptoms"));
35         patient.setCaseType("");
36         patient.setHospital(rs.getString("hospital"));
37         patient.setHospitalType(rs.getString("hospi
38             talType"));
39         patient.setHospitalAddr(rs.getString("hospi
40             talAddr"));
41
42         patient.setDateSubmitted(rs.getString("dateSubmitted"));
43         patient.setDateApproved(rs.getString("dateApproved"));
44
45     } catch (Exception e) {
46     }
47
48     try {
49         patient.setDateApproved2(rs.getString("dateApproved2"));
50     } catch (Exception e) {
51     }
52
53     try {
54         patient.setDateEdited(rs.getString("dateEdited
55             "));
55     } catch (Exception e) {
56     }
57
58     try {
59         patient.setEdittedBy(rs.getString("edittedBy
60             "));
61     } catch (Exception fas) {}
62
63     try {
64         patient.setMuncityHW(rs.getString("muncityH
65             eworker"));
66     } catch (Exception fas2) {}
67
68     try {
69         patient.setProvinceHW(rs.getString("provinc
70             eHealthworker"));
71     } catch (Exception fas3) {}
72
73     try {
74         patient.setRecordID(rs.getInt("recordID"));
75         patient.setHealthworker(rs.getString("heal
76             thworker"));
77     } catch (Exception fas4) {}
78
79     return patient;
80
81 }
82
83 }
```

Listing 16: RegistrationMapper.java

```

1 package mapper;
2
3 import java.sql.ResultSet;
4 import java.sql.SQLException;
5
6 import org.springframework.jdbc.core.RowMapper;
7
8 import objects.Registrants;
9
10 public class RegistrationMapper implements
11     RowMapper {
12
13     public Registrants mapRow(ResultSet rs, int
14         rowNum) throws SQLException {
15         Registrants regs = new Registrants();
16         regs.setAccountID(rs.getInt("regID"));
17         regs.setFirstname(rs.getString("firstName"));
18         regs.setMiddlename(rs.getString("middleName"));
19         regs.setSurname(rs.getString("surName"));
20         regs.setUsername(rs.getString("username"));
21         regs.setGender(rs.getString("gender"));
22         regs.setAddress(rs.getString("address"));
23         regs.setUserType(rs.getString("userType"));
24         regs.setRegion(rs.getString("region"));
25         regs.setProvince(rs.getString("province"));
26         regs.setMuncity(rs.getString("muncCity"));
27         regs.setBarangay(rs.getString("barangay"));
28         regs.setInstitution(rs.getString("institution"));
29         regs.setInstitutionAddr(rs.getString("instAddr"));
30         regs.setEmail(rs.getString("email"));
31         regs.setNumber(rs.getString("number"));
32         regs.setStatus(rs.getInt("status"));
33     } catch (Exception e) {
34     }
35 }
```

Listing 17: UserProfileMapper.java

```

1 package mapper;
2
3 import java.sql.ResultSet;
4 import java.sql.SQLException;
5
6 import org.springframework.jdbc.core.RowMapper;
7
8 import objects.UserProfile;
9
10 public class UserProfileMapper implements
11     RowMapper {
12
13     public UserProfile mapRow(ResultSet rs, int
14         rowNum) throws SQLException {
15         UserProfile user = new UserProfile();
16         try {
17             user.setAccID(rs.getInt("regID"));
18         } catch(Exception e) {}
19         try {
20             user.setAccID(rs.getInt("accountID"));
21         } catch(Exception e) {}
22
23         user.setFirstname(rs.getString("firstName"));
24         user.setMiddleName(rs.getString("middleName"))
25             ;
26         user.setSurname(rs.getString("surName"));
27         user.setUsername(rs.getString("username"));
28         user.setGender(rs.getString("gender"));
29         user.setAddress(rs.getString("address"));
30         user.setUserType(rs.getString("userType"));
31         user.setRegion(rs.getString("region"));
32         user.setProvince(rs.getString("province"));
33         user.setMuncity(rs.getString("munCity"));
34         user.setBarangay(rs.getString("barangay"));
35         user.setInstitution(rs.getString("institution"));
36         user.setInstitutionAddr(rs.getString("instAddr"));
37         user.setEmail(rs.getString("email"));
38         user.setNumber(rs.getString("number"));
39         user.setStatus(rs.getInt("status"));
40     }

```

Listing 18: Alerts.java

```

1 package objects;
2
3 public class Alerts {
4     private String barangay;
5     private String muncity;
6     private String province;
7     private String region;
8     private String date;
9     private String disease;
10    private int diseaseID;
11    private double outbreak;
12    private int status;
13
14    public String getDisease() {
15        return disease;
16    }
17    public void setDisease(String disease) {
18        this.disease = disease;
19    }
20    public int getDiseaseID() {
21        return diseaseID;
22    }
23    public void setDiseaseID(int diseaseID) {
24        this.diseaseID = diseaseID;
25    }
26    public String getBarangay() {
27        return barangay;
28    }
29    public void setBarangay(String barangay) {
30        this.barangay = barangay;
31    }
32    public String getMuncity() {
33        return muncity;
34    }

```

```

35    public void setMuncity(String muncity) {
36        this.muncity = muncity;
37    }
38    public String getProvince() {
39        return province;
40    }
41    public void setProvince(String province) {
42        this.province = province;
43    }
44    public String getRegion() {
45        return region;
46    }
47    public void setRegion(String region) {
48        this.region = region;
49    }
50    public String getDate() {
51        return date;
52    }
53    public void setDate(String date) {
54        this.date = date;
55    }
56    public double getOutbreak() {
57        return outbreak;
58    }
59    public void setOutbreak(double outbreak) {
60        this.outbreak = outbreak;
61    }
62    public int getStatus() {
63        return status;
64    }
65    public void setStatus(int status) {
66        this.status = status;
67    }
68}
70}

```

Listing 19: BarangayRecords.java

```

1 package objects;
2
3 import java.text.DateFormat;
4 import java.text.SimpleDateFormat;
5
6 public class BarangayRecords {
7
8     private String barangay;
9     private String muncity;
10    private String province;
11    private String region;
12    private String name;
13    private String age;
14    private String gender;
15    private String deceased;
16    private String date;
17    private String dateApproved;
18    private String dateAppr;
19    private int accID;
20    private int numEntries;
21    private int diseaseID;
22    private int status;
23    private int recordID;
24    private String healthworker;
25    private String muncityHW;
26    private String provinceHW;
27    private String disease;
28    private String symptoms;
29
30    public int getAccID() {
31        return accID;
32    }
33    public void setAccID(int accID) {
34        this.accID = accID;
35    }
36    public String getBarangay() {
37        return barangay;
38    }
39    public void setBarangay(String barangay) {
40        this.barangay = barangay;
41    }
42    public String getMuncity() {
43        return muncity;
44    }
45    public void setMuncity(String muncity) {
46        this.muncity = muncity;
47    }
48    public String getProvince() {
49        return province;
50    }
51    public void setProvince(String province) {
52        this.province = province;
53    }
54    public String getRegion() {
55        return region;
56    }
57    public void setRegion(String region) {
58        this.region = region;
59    }
60    public String getName() {
61        return name;
62    }
63    public void setName(String name) {
64        this.name = name;
65    }
66    public String getAge() {
67        return age;
68    }
69    public void setAge(String age) {

```

```

70     this.age = age;
71 }
72 public String getGender() {
73     return gender;
74 }
75 public void setGender(String gender) {
76     this.gender = gender;
77 }
78 public String getDeceased() {
79     return deceased;
80 }
81 public void setDeceased(String deceased) {
82     this.deceased = deceased;
83 }
84 public String getDate() {
85     return date;
86 }
87 public void setDate(String date) {
88     this.date = date;
89 }
90 }
91 public int getNumEntries() {
92     return numEntries;
93 }
94 public void setNumEntries(int numEntries) {
95     this.numEntries = numEntries;
96 }
97 public int getDiseaseID() {
98     return diseaseID;
99 }
100 public void setDiseaseID(int diseaseID) {
101     this.diseaseID = diseaseID;
102 }
103 public String getSymptoms() {
104     return symptoms;
105 }
106 public void setSymptoms(String symptoms) {
107     this.symptoms = symptoms;
108 }
109 public String getDisease() {
110     return disease;
111 }
112 public void setDisease(int disease) {
113     if(diseaseID == 0)
114         this.disease = "Chikungunya";
115     else if(diseaseID == 1)
116         this.disease = "Dengue";
117     else if(diseaseID == 2)
118         this.disease = "Malaria";
119 }
120 public String getDateApproved() {
121     return dateApproved;
122 }
123 public void setDateApproved(String dateApproved) {
124     this.dateApproved = dateApproved;
125 }
126 public String getDateAppr() {
127     return dateAppr;
128 }
129 public void setDateAppr(String dateAppr) {
130     this.dateAppr = dateAppr;
131 }
132 public int getStatus() {
133     return status;
134 }
135 public void setStatus(int status) {
136     this.status = status;
137 }
138 public String getHealthworker() {
139     return healthworker;
140 }
141 public void setHealthworker(String healthworker) {
142     this.healthworker = healthworker;
143 }
144 public int getRecordID() {
145     return recordID;
146 }
147 public void setRecordID(int recordID) {
148     this.recordID = recordID;
149 }
150 public String getMuncityHW() {
151     return muncityHW;
152 }
153 public void setMuncityHW(String muncityHW) {
154     this.muncityHW = muncityHW;
155 }
156 public String getProvinceHW() {
157     return provinceHW;
158 }
159 public void setProvinceHW(String provinceHW) {
160     this.provinceHW = provinceHW;
161 }
162 }
163 }
```

Listing 20: Diseases.java

```

1 package objects;
2
3 public class Diseases {
4
5     private String diseaseName;
6     private int diseaseID;
7
8     public void setDiseaseName(String name){
9         this.diseaseName = name;
10    }
11 }
```

```

12     public String getDiseaseName(){
13         return diseaseName;
14     }
15
16     public void setDiseaseID(int id){
17         this.diseaseID = id;
18     }
19
20     public int getDiseaseID(){
21         return diseaseID;
22     }
23 }
24 }
```

Listing 21: PatientsForm.java

```

1 package objects;
2
3 import java.text.DateFormat;
4 import java.text.SimpleDateFormat;
5 import java.util.Date;
6 import java.util.List;
7
8 import javax.validation.constraints.Pattern;
9
10 import org.hibernate.validator.constraints.
11     NotBlank;
11 import org.hibernate.validator.constraints.
12     NotEmpty;
12 import org.hibernate.validator.constraints.Range
13 ;
14
14 public class PatientsForm {
15
16     private String name;
17
18     @NotEmpty
19     private String address;
20
21     private int age;
22
23     @NotEmpty
24     private String dateofbirth;
25
26     @NotEmpty
27     private String gender;
28
29     @NotEmpty
30     private String admitted;
31
32     @NotEmpty
33     private String dateOnset;
34
35     private String dateAdmitted;
36
37     @NotEmpty
38     private String disease;
39
40     @NotEmpty
41     private String symptoms;
42
43     @NotEmpty
44     private String outcome;
45
46     private String dateDied;
47
48     private String caseType;
49     private String hospital;
50     private String hospitalType;
51     private String hospitalAddr;
52
53     private String region;
54     private String province;
55
56     @NotEmpty
57     private String muncity;
58
59     @NotEmpty
60     private String barangay;
61
62     private String dateSubmitted;
63     private String dateApproved;
```

```

64     private String dateApproved2;
65     private String dateEdited;
66     private String edittitedBy;
67
68     private String healthworker;
69     private String muncityHW;
70     private String provinceHW;
71     private int recordID;
72     private int status;
73     private int editStatus;
74
75     public PatientsForm() {
76
77     }
78     public String getName() {
79         return name;
80     }
81     public void setName(String name) {
82         this.name = name;
83     }
84     public String getAddress() {
85         return address;
86     }
87     public void setAddress(String address) {
88         this.address = address;
89     }
90     public int getAge() {
91         return age;
92     }
93     public String getDateofbirth() {
94         return dateofbirth;
95     }
96     public void setDateofbirth(String dateofbirth) {
97         this.dateofbirth = dateofbirth;
98         try {
99             String birthday[] = dateofbirth.split("-");
100            DateFormat d = new SimpleDateFormat("yyyy-MM-
dd");
101            Date da = new Date();
102            String toDay[] = d.format(da).split("-");
103            if(Integer.parseInt(birthday[1]) < Integer.
parseInt(toDay[1]))
104                this.age = Integer.parseInt(toDay[0]) -
Integer.parseInt(birthday[1]);
105            else if(Integer.parseInt(birthday[1]) >
Integer.parseInt(toDay[1]))
106                this.age = Integer.parseInt(toDay[0]) -
Integer.parseInt(birthday[0]);
107            else {
108                if(Integer.parseInt(birthday[2]) < Integer.
parseInt(toDay[2]))
109                    this.age = Integer.parseInt(toDay[0]) -
Integer.parseInt(birthday[0]) - 1;
110                else
111                    this.age = Integer.parseInt(toDay[0]) -
Integer.parseInt(birthday[0]);
112            }
113        }
114        catch(Exception e) {
115
116        }
117    }
118    public String getGender() {
119        return gender;
120    }
121    public void setGender(String gender) {
122        this.gender = gender;
123    }
124    public String getAdmitted() {
125        return admitted;
126    }
127    public void setAdmitted(String admitted) {
128        this.admitted = admitted;
129    }
130    public String getDateOnset() {
131        return dateOnset;
132    }
133    public void setDateOnset(String dateOnset) {
134        this.dateOnset = dateOnset;
135    }
136    public String getDateAdmitted() {
137        return dateAdmitted;
138    }
139    public void setDateAdmitted(String dateAdmitted)
140        {
141            this.dateAdmitted = dateAdmitted;
142        }
143    public String getDateDied() {
144        return dateDied;
145    }
146    public void setDateDied(String dateDied) {
147        this.dateDied = dateDied;
148    }
149    public String getDisease() {
150        return disease;
151    }
152    public void setDisease(String disease) {
153        this.disease = disease;
154    }
155    public String getCaseType() {
156        return caseType;
157    }
158    public void setCaseType(String caseType) {
159        this.caseType = caseType;
160    }
161    public String getSymptoms() {
162        return symptoms;
163    }
164    public void setSymptoms(String symptoms) {
165        this.symptoms = symptoms;
166    }
167    public String getOutcome() {
168        return outcome;
169    }
170    public void setOutcome(String outcome) {
171        this.outcome = outcome;
172    }
173    public String getHospital() {
174        return hospital;
175    }
176    public void setHospital(String hospital) {
177        this.hospital = hospital;
178    }
179    public String getHospitalType() {
180        return hospitalType;
181    }
182    public void setHospitalType(String hospitalType)
183        {
184        this.hospitalType = hospitalType;
185    }
186    public String getHospitalAddr() {
187        return hospitalAddr;
188    }
189    public void setHospitalAddr(String hospitalAddr)
190        {
191        this.hospitalAddr = hospitalAddr;
192    }
193    public String getRegion() {
194        return region;
195    }
196    public void setRegion(String region) {
197        this.region = region;
198    }
199    public String getProvince() {
200        return province;
201    }
202    public void setProvince(String province) {
203        this.province = province;
204    }
205    public String getMuncity() {
206        return muncity;
207    }
208    public void setMuncity(String muncity) {
209        this.muncity = muncity;
210    }
211    public String getBarangay() {
212        return barangay;
213    }
214    public void setBarangay(String barangay) {
215        this.barangay = barangay;
216    }
217    public void setDateSubmitted(String
dateSubmitted) {
218        this.dateSubmitted = dateSubmitted;
219    }
220    public String getHealthworker() {
221        return healthworker;
222    }
223    public void setHealthworker(String healthworker)
224        {
225        this.healthworker = healthworker;
226    }
227    public String getMuncityHW() {
228        return muncityHW;
229    }
230    public void setMuncityHW(String muncityHW) {
231        this.muncityHW = muncityHW;
232    }
233    public int getRecordID() {
234        return recordID;
235    }
236    public void setRecordID(int recordID) {
237        this.recordID = recordID;
238    }
239    public String getDateApproved() {
240        return dateApproved;
241    }
242    public void setDateApproved(String dateApproved)
243        {
244        this.dateApproved = dateApproved;
245    }
246    public String getDateEdited() {
247        return dateEdited;
248    }

```

```

247     public void setDateEdited(String dateEdited) { 264     }
248     this.dateEdited = dateEdited; 265     public void setProvinceHW(String provinceHW) {
249   } 266     this.provinceHW = provinceHW;
250     public String getEdittedBy() { 267   }
251     return edittedBy; 268     public int getStatus() {
252   } 269     return status;
253     public void setEdittedBy(String edittedBy) { 270   }
254     this.edittedBy = edittedBy; 271     public void setStatus(int status) {
255   } 272     this.status = status;
256     public String getDateApproved2() { 273   }
257     return dateApproved2; 274     public int getEditStatus() {
258   } 275     return editStatus;
259     public void setDateApproved2(String 276   }
260     dateApproved2) { 277     public void setEditStatus(int editStatus) {
261     this.dateApproved2 = dateApproved2; 278     this.editStatus = editStatus;
262   } 279   }
263     public String getProvinceHW() { 280   }
264     return provinceHW;

```

Listing 22: Registrants.java

```

1 package objects;
2
3 public class Registrants {
4
5     private int accountID;
6     private String firstname;
7     private String middlename;
8     private String surname;
9     private String gender;
10    private String address;
11    private String userType;
12    private int userTypeInt;
13    private String username;
14    private String region;
15    private String province;
16    private String muncity;
17    private String barangay;
18    private String institution;
19    private String institutionAddr;
20    private String email;
21    private String number;
22    private int status;
23
24    public int getAccountID() {
25        return accountID;
26    }
27    public void setAccountID(int accountID) {
28        this.accountID = accountID;
29    }
30    public String getFirstname() {
31        return firstname;
32    }
33    public void setFirstname(String firstname) {
34        this.firstname = firstname;
35    }
36    public String getMiddlename() {
37        return middlename;
38    }
39    public void setMiddlename(String middlename) {
40        this.middlename = middlename;
41    }
42    public String getSurname() {
43        return surname;
44    }
45    public void setSurname(String surname) {
46        this.surname = surname;
47    }
48    public String getUsername() {
49        return username;
50    }
51    public void setUsername(String username) {
52        this.username = username;
53    }
54    public String getGender() {
55        return gender;
56    }
57    public void setGender(String gender) {
58        this.gender = gender;
59    }
60    public String getAddress() {
61        return address;
62    }
63    public void setAddress(String address) {
64        this.address = address;
65    }
66    public String getUserType() {
67        return userType;
68    }
69    public int getUserTypeInt() {
70        return userTypeInt;
71    }
72    public void setUserType(String userType) {
73        this.userType = userType;
74        if(userType.equalsIgnoreCase("Barangay Health
           Worker"))
75            this.userTypeInt = 0;
76        else if(userType.equalsIgnoreCase("Municipal/
           City Health Worker"))

```

```

77        this.userTypeInt = 1;
78        else if(userType.equalsIgnoreCase("Municipal/
           City Health Official"))
79            this.userTypeInt = 2;
80        else if(userType.equalsIgnoreCase("Provincial
           Health Worker"))
81            this.userTypeInt = 3;
82        else if(userType.equalsIgnoreCase("Provincial
           Health Official"))
83            this.userTypeInt = 4;
84        else if(userType.equalsIgnoreCase("National
           Health Official"))
85            this.userTypeInt = 5;
86        else if(userType.equalsIgnoreCase("Researcher
           "))
87            this.userTypeInt = 6;
88        else if(userType.equalsIgnoreCase("Administrator"))
89            this.userTypeInt = 7;
90        else
91            this.userTypeInt = 8;
92    }
93    public String getRegion() {
94        return region;
95    }
96    public void setRegion(String region) {
97        this.region = region;
98    }
99    public String getProvince() {
100       return province;
101      }
102    public void setProvince(String province) {
103        this.province = province;
104      }
105    public String getMuncity() {
106        return muncity;
107      }
108    public void setMuncity(String muncity) {
109        this.muncity = muncity;
110      }
111    public String getBarangay() {
112        return barangay;
113      }
114    public void setBarangay(String barangay) {
115        this.barangay = barangay;
116      }
117    public String getInstitution() {
118        return institution;
119      }
120    public void setInstitution(String institution)
121        {
122            this.institution = institution;
123        }
124    public String getInstitutionAddr() {
125        return institutionAddr;
126        }
127    public void setInstitutionAddr(String
           institutionAddr)
128        {
129            this.institutionAddr = institutionAddr;
130        }
131    public String getEmail() {
132        return email;
133      }
134    public void setEmail(String email) {
135        this.email = email;
136      }
137    public String getNumber() {
138        return number;
139      }
140    public void setNumber(String number) {
141        this.number = number;
142      }
143    public int getStatus() {
144        return status;
145      }
146    public void setStatus(int status) {
147        this.status = status;
148      }

```

Listing 23: UserChange.java

```

1 package objects;
2
3 import org.hibernate.validator.constraints.
4     Length;
5 import org.hibernate.validator.constraints.
6     NotBlank;
7 import org.hibernate.validator.constraints.
8     NotEmpty;
9
10 public class UserChange {
11
12     private int accountID;
13
14     @NotEmpty
15     private String accountName;
16
17     @NotBlank
18     @Length(min = 8)
19     private String accountPassword;
20
21     @NotBlank
22     @Length(min = 8)
23     private String accountPassword2;
24
25     @NotEmpty
26     private String oldAccPassWord;
27
28     public int getAccountID() {
29         return accountID;
30     }
31
32     public void setAccountID(int accountID) {
33
34         this.accountID = accountID;
35     }
36
37     public String getAccountName() {
38         return accountName;
39     }
40
41     public void setAccountName(String accountName) {
42
43         this.accountName = accountName;
44     }
45
46     public String getAccountPassword() {
47         return accountPassword;
48     }
49
50     public void setAccountPassword(String
51         accountPassword) {
52
53         this.accountPassword = accountPassword;
54     }
55
56     public String getAccountPassword2() {
57         return accountPassword2;
58     }
59
60     public void setAccountPassword2(String
61         accountPassword2) {
62
63         this.accountPassword2 = accountPassword2;
64     }
65
66     public String getAccountPassword3() {
67         return accountPassword3;
68     }
69
70     public void setAccountPassword3(String
71         accountPassword3) {
72
73         this.accountPassword3 = accountPassword3;
74     }
75
76     public String getAddress() {
77         return address;
78     }
79
80     public void setAddress(String address) {
81
82         this.address = address;
83     }
84
85     public String getUserType() {
86         return userType;
87     }
88
89     public int getUserTypeInt() {
90         return userTypeInt;
91     }
92
93     public void setStatus(int status) {
94
95         this.status = status;
96     }
97
98     public void setUserType(String userType) {
99
100        this.userType = userType;
101
102        if(userType.equalsIgnoreCase("Barangay Health
103            Worker"))
104
105            this.userTypeInt = 0;
106
107        else if(userType.equalsIgnoreCase("Municipal/
108            City Health Worker"))
109
110            this.userTypeInt = 1;
111
112        else if(userType.equalsIgnoreCase("Municipal/
113            City Health Official"))
114
115            this.userTypeInt = 2;
116
117        else if(userType.equalsIgnoreCase("Provincial
118            Health Worker"))
119
120            this.userTypeInt = 3;
121
122        else if(userType.equalsIgnoreCase("Provincial
123            Health Official"))
124
125            this.userTypeInt = 4;
126
127        else if(userType.equalsIgnoreCase("National
128            Health Official"))
129
130            this.userTypeInt = 5;
131
132        else if(userType.equalsIgnoreCase("Researcher
133            "))
134
135            this.userTypeInt = 6;
136
137        else if(userType.equalsIgnoreCase("Administrator"))
138
139            this.userTypeInt = 7;
140
141        else
142
143            this.userTypeInt = 8;
144
145    }
146
147    public String getRegion() {
148        return region;
149    }
150
151    public void setRegion(String region) {
152
153        this.region = region;
154    }
155
156    public String getProvince() {
157        return province;
158    }
159
160    public void setProvince(String province) {
161
162        this.province = province;
163    }
164
165    public String getMuncity() {
166        return muncity;
167    }
168
169}
```

Listing 24: UserProfile.java

```

1 package objects;
2
3 public class UserProfile {
4
5     private int accID;
6     private int status;
7     private String username;
8     private String firstname;
9     private String middlename;
10    private String surname;
11    private String gender;
12    private String address;
13    private String userType;
14    private int userTypeInt;
15    private String region;
16    private String province;
17    private String muncity;
18    private String barangay;
19    private String institution;
20    private String institutionAddr;
21    private String email;
22    private String number;
23
24
25    public int getAccID() {
26        return accID;
27    }
28
29    public void setAccID(int accID) {
30        this.accID = accID;
31    }
32
33    public String getFirstname() {
34        return firstname;
35    }
36
37    public void setFirstname(String firstname) {
38        this.firstname = firstname;
39    }
40
41    public String getMiddlename() {
42        return middlename;
43    }
44
45    public void setMiddlename(String middlename) {
46        this.middlename = middlename;
47    }
48
49    public String getSurname() {
50        return surname;
51    }
52
53    public void setSurname(String surname) {
54        this.surname = surname;
55    }
56
57    public String getUsername() {
58        return username;
59    }
60
61    public void setUsername(String username) {
62        this.username = username;
63    }
64
65    public String getGender() {
66        return gender;
67    }
68
69    public void setGender(String gender) {
70        this.gender = gender;
71    }
72
73    public String getAddress() {
74        return address;
75    }
76
77    public void setAddress(String address) {
78        this.address = address;
79    }
80
81    public String getUserType() {
82        return userType;
83
84        if(userType.equalsIgnoreCase("Barangay Health
85            Worker"))
86
87            this.userTypeInt = 0;
88
89        else if(userType.equalsIgnoreCase("Municipal/
90            City Health Worker"))
91
92            this.userTypeInt = 1;
93
94        else if(userType.equalsIgnoreCase("Municipal/
95            City Health Official"))
96
97            this.userTypeInt = 2;
98
99        else if(userType.equalsIgnoreCase("Provincial
100            Health Worker"))
101
102            this.userTypeInt = 3;
103
104        else if(userType.equalsIgnoreCase("Provincial
105            Health Official"))
106
107            this.userTypeInt = 4;
108
109        else if(userType.equalsIgnoreCase("National
110            Health Official"))
111
112            this.userTypeInt = 5;
113
114        else if(userType.equalsIgnoreCase("Researcher
115            "))
116
117            this.userTypeInt = 6;
118
119        else if(userType.equalsIgnoreCase("Administrator"))
120
121            this.userTypeInt = 7;
122
123        else
124
125            this.userTypeInt = 8;
126
127    }
128
129    public String getRegion() {
130        return region;
131    }
132
133    public void setRegion(String region) {
134
135        this.region = region;
136    }
137
138    public String getProvince() {
139        return province;
140    }
141
142    public void setProvince(String province) {
143
144        this.province = province;
145    }
146
147    public String getMuncity() {
148        return muncity;
149    }
150
151}
```

```

115     }
116     public void setMuncity(String muncity) {
117         this.muncity = muncity;
118     }
119     public String getBarangay() {
120         return barangay;
121     }
122     public void setBarangay(String barangay) {
123         this.barangay = barangay;
124     }
125     public String getInstitution() {
126         return institution;
127     }
128     public void setInstitution(String institution)
129     {
130         this.institution = institution;
131     }
132     public String getInstitutionAddr() {
133         return institutionAddr;
134     }
135     public void setInstitutionAddr(String
136         institutionAddr) {
137         this.institutionAddr = institutionAddr;
138     }
139     public String getEmail() {
140         return email;
141     }
142     public void setEmail(String email) {
143         this.email = email;
144     }
145     public String getNumber() {
146         return number;
147     }
148     public void setNumber(String number) {
149         this.number = number;
150     }

```

4. Utilities

Listing 25: SendEmail.java

```

1 package misc;
2
3 import java.util.Properties;
4
5 import javax.mail.Message;
6 import javax.mail.MessagingException;
7 import javax.mail.PasswordAuthentication;
8 import javax.mail.Session;
9 import javax.mail.Transport;
10 import javax.mail.internet.InternetAddress;
11 import javax.mail.internet.MimeMessage;
12
13 public class SendEmail {
14
15     public void sendmail(String recipient, String
16         username, String password, String userType,
17         boolean success) {
18         final String user = "vbdomsdev@gmail.com";
19         final String pass = "adminpass2014";
20
21         Properties props = new Properties();
22         props.put("mail.smtp.host", "smtp.gmail.com");
23         props.put("mail.smtp.socketFactory.port",
24             "465");
25         props.put("mail.smtp.socketFactory.class",
26             "javax.net.ssl.SSLSocketFactory");
27         props.put("mail.smtp.auth", "true");
28         props.put("mail.smtp.port", "465");
29
30         Session session = Session.getDefaultInstance(
31             props,
32             new javax.mail.Authenticator() {
33                 protected PasswordAuthentication
34                     getPasswordAuthentication() {
35                     return new PasswordAuthentication(user,
36                         pass);
37                 }
38             });
39         System.out.println("Username: " + user +
40             "Password: " + pass);
41         try {
42             Message message = new MimeMessage(
43                 session);
44             message.setFrom(new InternetAddress(
45                 user));
46             message.setRecipients(Message.
47                 RecipientType.TO,
48                 InternetAddress.parse(recipient)
49             );
49             message.setSubject("Login
50             Credentials!");
51             String body = "";
52             if(success) {
53                 body = "You are now successfully
54                 registered to Vector"
55                 + "-Borne Diseases Monitoring System as " +
56                 userType + "\n\n"
57                 + "Here are your login credentials:\n"
58                 + "Username: " + username + "\n"
59                 + "Password: " + password + "\n"
60                 + "\n\nHave a nice day! :)";
61             } else {
62                 body = "We are to sorry to inform
63                 you that your registration has been turned
64                 down for some reasons."
65                 + " You are welcome to re-apply
66                 again some time. Thank you.";
67             }
68             message.setText(body);
69             Transport.send(message);
70             System.out.println("Done");
71         } catch (MessagingException e) {
72             throw new RuntimeException(e);
73         }
74     }

```

Listing 26: SendSMS.java

```

1 package misc;
2
3 import java.io.BufferedReader;
4 import java.io.InputStreamReader;
5 import java.io.OutputStreamWriter;
6 import java.net.URL;
7 import java.netURLConnection;
8 import java.net.URLEncoder;
9 import java.util.Date;
10 import java.util.List;
11 import java.util.Properties;
12
13 import javax.mail.Message;
14 import javax.mail.Session;
15 import javax.mail.Transport;
16 import javax.mail.internet.InternetAddress;
17 import javax.mail.internet.MimeMessage;
18
19 import objects.UserProfile;
20
21 public class SendSMS {
22
23     public void msgsend(String disease, String
24         barangay, String muncity, String province,
25         List<? extends UserProfile> up) {
26         try {
27             String data = "";
28             String numb = "";
29             int count = 0;
30             for(UserProfile u : up) {
31                 if(count == up.size() - 1)
32                     numb += ("+63" + u.getNumber().
33                     substring(1));
34                 else
35                     numb += ("+63" + u.getNumber().
36                     substring(1) + ", ");
37                 count++;
38             }
39             System.out.println(numb);
40             //String cont = u.getNumber().
41             //substring(1, u.getNumber().length() + 1);
42             data += "username=" + URLEncoder.
43             encode("vbdomsdev", "ISO-8859-1");
44             data += "&password=" + URLEncoder.
45             encode("adminpass2014", "ISO-8859-1");
46             data += "&message=" + URLEncoder.
47             encode("VBDOMS Alert!\nUrgent health
48             concern\n" +
49                 disease + "\ outbreak in Barangay
50                 " + barangay + ", " + muncity + ", " +
51                 province + ". Please verify and
52                 report to other health authorities.", "ISO
53                 -8859-1");
54             data += "&want_report=1";
55         }
56     }

```

```

45         data += "&msisdn=" + numb;
46
47         URL url = new URL("http://bulksms.
48             vsms.net:5567/eapi/submission/send_sms
49             /2/2.0");
50         URLConnection conn = url.
51         openConnection();
52         conn.setDoOutput(true);
53         OutputStreamWriter wr = new
54             OutputStreamWriter(conn.getOutputStream());
55         wr.write(data);
56         wr.flush();
57
58         BufferedReader rd = new
59             BufferedReader(new InputStreamReader(conn.
60             getInputStream()));
61
62         String line;
63         while ((line = rd.readLine()) !=
64             null)
65             System.out.println(line);
66         wr.close();
67         rd.close();
68
69     } catch (Exception e) {
70         e.printStackTrace();
71     }
72 }
```

Listing 27: GenerateExcel.java

```

1 package pdf;
2
3 import java.io.ByteArrayOutputStream;
4 import java.util.List;
5
6 import objects.Patients;
7 import objects.PatientsForm;
8 import objects.Reports;
9
10 import org.apache.poi.hssf.usermodel.HSSFCell;
11 import org.apache.poi.hssf.usermodel.
12     HSSFCStyle;
13 import org.apache.poi.hssf.usermodel.HSSFRow;
14 import org.apache.poi.hssf.usermodel.HSSFSheet;
15 import org.apache.poi.hssf.usermodel.
16     HSSFWorkbook;
17 import org.apache.poi.ss.usermodel.CellStyle;
18
19 public class GenerateExcel {
20     public ByteArrayOutputStream generateExcel(List
21         <? extends PatientsForm> patients, Reports
22         report) {
23
24     ByteArrayOutputStream baosEXC = new
25         ByteArrayOutputStream();
26
27     HSSFWorkbook workbook = new HSSFWorkbook();
28     HSSFSheet sheet = workbook.createSheet("FirstSheet");
29     HSSFRow row = sheet.createRow((short) 0);
30     HSSFCell cell12;
31     HSSFCell cell = row.createCell((short) 0);
32     HSSFCStyle style = workbook.createCellStyle();
33
34     String symp = "";
35     for(PatientsForm pat : patients) {
36         symp = pat.getSymptoms();
37     }
38
39     if(report.isSpecRegion()) {
40         style = workbook.createCellStyle();
41         style.setAlignment(CellStyle.ALIGN_CENTER);
42         cell.setCellValue("Datasets for " + report.
43             getRegion());
44         cell.setCellStyle(style);
45     }
46
47     if(report.isSpecRegion())
48         row = sheet.createRow((short) 1);
49
50     style = workbook.createCellStyle();
51     style.setAlignment(CellStyle.ALIGN_LEFT);
52     cell.setCellValue("Disease:");
53     cell = row.createCell((short) 1);
54     cell.setCellValue(report.getDisease());
55
56     sheet.autoSizeColumn(1);
57     cell = row.createCell((short) 3);
58     cell.setCellValue("From");
59
60     if(report.isSpecRegion())
61         row = sheet.createRow((short) 2);
62     else
63         row = sheet.createRow((short) 1);
64
65     style = workbook.createCellStyle();
66     style.setAlignment(CellStyle.ALIGN_LEFT);
67
68     try {
69
70         style = workbook.createCellStyle();
71         style.setAlignment(CellStyle.ALIGN_CENTER);
72 }
```

```

73
74     cell = row.createCell((short) 0);
75     cell.setCellValue("Record No");
76     cell.setCellStyle(style);
77     sheet.autoSizeColumn(0);
78
79     cell = row.createCell((short) 1);
80     cell.setCellValue("Age");
81     cell.setCellStyle(style);
82     sheet.autoSizeColumn(1);
83
84     cell = row.createCell((short) 2);
85     cell.setCellValue("Gender");
86     cell.setCellStyle(style);
87     sheet.autoSizeColumn(2);
88
89     cell = row.createCell((short) 3);
90     cell.setCellValue("Symptoms");
91     cell.setCellStyle(style);
92     sheet.autoSizeColumn(3);
93
94     cell = row.createCell((short) 4);
95     cell.setCellValue("Date Onset");
96     cell.setCellStyle(style);
97     sheet.autoSizeColumn(4);
98
99     cell = row.createCell((short) 5);
100    cell.setCellValue("Outcome");
101    cell.setCellStyle(style);
102    sheet.autoSizeColumn(5);
103
104    cell = row.createCell((short) 6);
105    cell.setCellValue("Date Died");
106    cell.setCellStyle(style);
107    sheet.autoSizeColumn(6);
108
109    cell = row.createCell((short) 7);
110    cell.setCellValue("Barangay");
111    cell.setCellStyle(style);
112    sheet.autoSizeColumn(6);
113
114    cell = row.createCell((short) 8);
115    cell.setCellValue("Muncity");
116    cell.setCellStyle(style);
117    sheet.autoSizeColumn(7);
118
119    cell = row.createCell((short) 9);
120    cell.setCellValue("Province");
121    cell.setCellStyle(style);
122    sheet.autoSizeColumn(8);
123
124    if(!report.isSpecRegion()) {
125        cell = row.createCell((short) 10);
126        cell.setCellValue("Region");
127        cell.setCellStyle(style);
128    }
129    int i = 2;
130    if(report.isSpecRegion())
131        i = 3;
132
133    for(PatientsForm pat : patients) {
134
135        sheet.autoSizeColumn(i);
136
137        style = workbook.createCellStyle();
138        style.setAlignment(CellStyle.ALIGN_CENTER);
139
140        if(report.isSpecRegion())
141            row = sheet.createRow(i+1);
142        else
143            row = sheet.createRow(i);
144
145        cell = row.createCell((short) 0);
146        cell.setCellValue(i-1);
147        cell.setCellStyle(style);
148
149        cell = row.createCell((short) 1);
150        cell.setCellValue(pat.getAge());
151        cell.setCellStyle(style);
152
153        cell = row.createCell((short) 2);
154        cell.setCellValue(pat.getGender());
```

```

155     cell.setCellStyle(style);
156     cell = row.createCell((short) 3);
157     cell.setCellValue(pat.getSymptoms());
158     cell.setCellStyle(style);
159
160     cell = row.createCell((short) 4);
161     cell.setCellValue(pat.getDateOnset());
162     cell.setCellStyle(style);
163
164     cell = row.createCell((short) 5);
165     cell.setCellValue(pat.getOutcome());
166     cell.setCellStyle(style);
167
168     cell = row.createCell((short) 6);
169     cell.setCellValue(pat.getDateDied());
170     cell.setCellStyle(style);
171
172     cell = row.createCell((short) 7);
173     cell.setCellValue(pat.getBarangay());
174     cell.setCellStyle(style);
175
176     sheet.autoSizeColumn(7);
177
178     cell = row.createCell((short) 8);
179     cell.setCellValue(pat.getMuncity());
180     cell.setCellStyle(style);
181
182     sheet.autoSizeColumn(8);
183
184     cell = row.createCell((short) 9);
185
186     cell.setCellValue(pat.getProvince());
187     cell.setCellStyle(style);
188
189     if(!report.isSpecRegion()) {
190         cell = row.createCell((short) 10);
191         cell.setCellValue(pat.getRegion());
192         cell.setCellStyle(style);
193         sheet.autoSizeColumn(10);
194     }
195     i++;
196 }
197
198     row = sheet.createRow(i+1);
199     cell = row.createCell((short) 0);
200     cell.setCellValue("Vector-Borne Disease
Monitoring System");
201
202     workbook.write(baosEXC);
203
204 } catch (Exception dex) {
205     dex.printStackTrace();
206 }
207
208     return baosEXC;
209
210 }
211 }
```

Listing 28: GenerateReports.java

```

1 package pdf;
2
3 import java.awt.BasicStroke;
4 import java.awt.Color;
5 import java.awt.Graphics2D;
6 import java.awt.geom.Rectangle2D;
7 import java.awt.image.BufferedImage;
8 import java.io.ByteArrayOutputStream;
9 import java.io.File;
10 import java.io.IOException;
11 import java.net.MalformedURLException;
12 import java.net.URL;
13 import java.nio.file.Files;
14 import java.nio.file.Path;
15 import java.nio.file.Paths;
16 import java.nio.file.attribute.FileTime;
17 import java.text.DateFormat;
18 import java.text.SimpleDateFormat;
19 import java.util.ArrayList;
20 import java.util.Collections;
21 import java.util.Comparator;
22 import java.util.Date;
23 import java.util.HashMap;
24 import java.util.LinkedList;
25 import java.util.List;
26 import java.util.Map;
27 import java.util.Map.Entry;
28 import java.util.Stack;
29
30 import javax.imageio.ImageIO;
31
32 import objects.Patients;
33 import objects.PatientsForm;
34 import objects.Place;
35 import objects.Reports;
36
37 import org.jfree.chart.ChartFactory;
38 import org.jfree.chart.JFreeChart;
39 import org.jfree.chart.axis.CategoryAxis;
40 import org.jfree.chart.axis.CategoryLabelPositions;
41 import org.jfree.chart.axis.DateAxis;
42 import org.jfree.chart.plot.CategoryPlot;
43 import org.jfree.chart.plot.PlotOrientation;
44 import org.jfree.chart.plot.XYPlot;
45 import org.jfree.chart.renderer.category.
        CategoryItemRenderer;
46 import org.jfree.chart.renderer.category.
        LineAndShapeRenderer;
47 import org.jfree.chart.renderer.xy.
        XYItemRenderer;
48 import org.jfree.chart.renderer.xy.
        XYLineAndShapeRenderer;
49 import org.jfree.chart.title.TextTitle;
50 import org.jfree.data.category.CategoryDataset;
51 import org.jfree.data.category.
        DefaultCategoryDataset;
52 import org.jfree.data.time.Month;
53 import org.jfree.data.time.TimeSeries;
54 import org.jfree.data.time.TimeSeriesCollection;
55 import org.jfree.data.xy.XYSeries;
56 import org.jfree.data.xy.XYSeriesCollection;
57 import org.jfree.ui.RectangleInsets;
58 import org.springframework.core.io.
        FileSystemResource;
59 import org.springframework.core.io.Resource;
```

```

60 import org.springframework.core.io.
        ResourceLoader;
61
62 import com.itextpdf.awt.DefaultFontMapper;
63 import com.itextpdf.text.Document;
64 import com.itextpdf.text.DocumentException;
65 import com.itextpdf.text.Element;
66 import com.itextpdf.text.Font;
67 import com.itextpdf.text.Image;
68 import com.itextpdf.text.PageSize;
69 import com.itextpdf.text.Paragraph;
70 import com.itextpdf.textPhrase;
71 import com.itextpdf.text.pdf.PdfContentByte;
72 import com.itextpdf.text.pdf.PdfPCell;
73 import com.itextpdf.text.pdf.PdfPTable;
74 import com.itextpdf.text.pdf.PdfTemplate;
75 import com.itextpdf.text.pdf.PdfWriter;
76
77 public class GenerateReports {
78
79     private ResourceLoader reLoad;
80
81     public ByteArrayOutputStream generateReports(
82             List<? extends PatientsForm> newPatients,
83             Reports report,
84             List<? extends Place> place, List<? extends
85             PatientsForm> pd1, List<? extends
86             PatientsForm> pd2) throws DocumentException
87             , MalformedURLException, IOException {
88
89     Document doc = new Document();
90
91     PdfWriter docWriter = PdfWriter.getInstance(doc,
92             baosPDF);
93
94     doc.addProducer();
95     doc.addCreator(this.getClass().getName());
96     doc.addTitle("jfreechart pdf");
97
98     doc.setPageSize(PageSize.A4);
99
100    doc.open();
101
102    Font font1 = new Font(Font.FontFamily.
103        TIMES_ROMAN, 20, Font.BOLD);
104
105    URL imageUrl = getClass().getClassLoader().
106        getResource("/img/logo2.jpg");
107    Image image = Image.getInstance(imageUrl);
108    image.scaleToFit(100, 100);
109    doc.add(image);
110
111    DateFormat dateFormat = new
112        SimpleDateFormat("dd-MM-yyyy");
113    Date dateNow = new Date();
114    DateFormat timeFormat = new
115        SimpleDateFormat("HH:mm:ss");
116    Date timeNow = new Date();
117
118    Paragraph p = new Paragraph("Vector-
Borne Diseases Monitoring System", new Font
119        (Font.FontFamily.TIMES_ROMAN, 10, Font.
120        ITALIC));
```

```

113     doc.add(p);
114     p = new Paragraph(dateFormat.format(dateNow)
115                     + ", " + timeFormat.format(timeNow), new
116                     Font(Font.FontFamily.TIMES_ROMAN, 10, Font.
117                        ITALIC));
118     doc.add(p);
119
120     URL imageUrl2 = getClass().getResource("/img/doh-logo
121         .jpg");
122     Image image2 = Image.getInstance(imageUrl2);
123     image2.scaleToFit(100, 100);
124     image2.setAbsolutePosition(450, 720);
125     doc.add(image2);
126     Paragraph paragraph = new Paragraph(
127         report.getDisease() + " Cases", font1);
128     paragraph.setAlignment(Element.ALIGN_CENTER);
129     paragraph.setSpacingAfter(50);
130     paragraph.setSpacingBefore(20);
131     doc.add(paragraph);
132
133     Font font2 = new Font(Font.FontFamily.
134                     TIMES_ROMAN, 15, Font.BOLD);
135     Paragraph ph = new Paragraph("Trend\n", font2
136         );
137     ph.setIndentationLeft(40);
138     doc.add(ph);
139
140     String parts[] = splitTheString(report.
141         getDateFrom());
142     String parts2[] = splitTheString(report
143         .getDateTo());
144
145     String d1[] = report.getDateFrom().
146         split("-");
147     String d2[] = report.getDateTo().split
148         ("-");
149     System.out.println("Year: " + d1[0] +
150         "\tMonth: " + d1[1] + "\tDay: " + d1[2]);
151     System.out.println("Year: " + d2[0] +
152         "\tMonth: " + d2[1] + "\tDay: " + d2[2]);
153
154     String phrase = "A total of " + newPatients.
155     size() + " " + report.getDisease() + "
156     cases was reported nationwide from "
157     + parts[1] + " " + parts[2] + ", " + parts
158     [0] + " to " + parts2[1] + " " + parts2[2]
159     + ", " + parts2[0] + ".";
160
161     Font font3 = new Font(Font.FontFamily.
162                     TIMES_ROMAN, 15, Font.NORMAL);
163
164     ph = new Paragraph(phrase, font3);
165     ph.setIndentationLeft(40);
166     ph.setSpacingAfter(15);
167     doc.add(ph);
168
169     int countReg[] = new int[17];
170     for(PatientsForm pat : newPatients)
171     {
172         if(pat.getRegion().
173             equalsIgnoreCase("region I"))
174             countReg[0]++;
175         else if(pat.getRegion().
176             equalsIgnoreCase("region II"))
177             countReg[1]++;
178         else if(pat.getRegion().
179             equalsIgnoreCase("region III"))
180             countReg[2]++;
181         else if(pat.getRegion().
182             equalsIgnoreCase("region IV-A"))
183             countReg[3]++;
184         else if(pat.getRegion().
185             equalsIgnoreCase("region IV-B"))
186             countReg[4]++;
187         else if(pat.getRegion().
188             equalsIgnoreCase("region V"))
189             countReg[5]++;
190         else if(pat.getRegion().
191             equalsIgnoreCase("region VI"))
192             countReg[6]++;
193         else if(pat.getRegion().
194             equalsIgnoreCase("region VII"))
195             countReg[7]++;
196         else if(pat.getRegion().
197             equalsIgnoreCase("region VIII"))
198             countReg[8]++;
199         else if(pat.getRegion().
200             equalsIgnoreCase("region IX"))
201             countReg[9]++;
202         else if(pat.getRegion().
203             equalsIgnoreCase("region X"))
204             countReg[10]++;
205         else if(pat.getRegion().
206             equalsIgnoreCase("region XI"))
207             countReg[11]++;
208         else if(pat.getRegion().
209             equalsIgnoreCase("region XII"))
210             countReg[12]++;
211         else if(pat.getRegion().
212             equalsIgnoreCase("ARM"))
213             countReg[13]++;
214         else if(pat.getRegion().
215             equalsIgnoreCase("CAR"))
216             countReg[14]++;
217         else if(pat.getRegion().
218             equalsIgnoreCase("Region XIII"))
219             countReg[15]++;
220         else if(pat.getRegion().
221             equalsIgnoreCase("NCR"))
222             countReg[16]++;
223     }
224
225     Map <Integer, Integer> map = new
226     HashMap<Integer, Integer>();
227     for(int k = 0; k < countReg.length;
228         k++)
229         map.put(k, countReg[k]);
230
231     List<Map.Entry<Integer, Integer>>
232     list =
233         new LinkedList<Map.Entry<
234             Integer, Integer>>(map.entrySet());
235
236     Collections.sort(list, new
237         Comparator<Map.Entry<Integer, Integer>>()
238         {
239             @Override
240             public int compare(
241                 Entry<Integer, Integer>
242                 e1,
243                 Entry<Integer, Integer>
244                 e2) {
245                 return e2.getValue().-
246                     compareTo(e1.getValue());
247             }
248
249             int indices[] = new int[17];
250             int l = 0;
251             int total = 0;
252             for(Entry<Integer, Integer> lValue:
253                 list) {
254                 indices[l] = lValue.getKey();
255                 total += countReg[l];
256                 l++;
257             }
258
259             String regn[] = {"Region I", "Region
260                 II", "Region III", "Region IV-A",
261                 "Region IV-B", "Region V", "Region
262                 VI", "Region VII", "Region VIII",
263                 "Region IX", "Region X", "Region
264                 XI", "Region XII", "Autonomous Region
265                 of Muslim Mindanao",
266                 "Cordillera Administrative Region
267                 ", "CARAGA/Region XIII", "National Capital
268                 Region"};
269
270             ph = new Paragraph("Geographic
271                 Distribution\n", font2);
272             ph.setIndentationLeft(40);
273             doc.add(ph);
274
275             phrase = "Most of the " + report.getDisease().
276                 toLowerCase() + " cases were from the
277                 following regions: "
278                 + regn[indices[0]] + " (" +
279                 (countReg[indices[0]]/total)*100 + "%)";
280             if(countReg[indices[1]] > 0) {
281                 phrase += ", " + regn[indices[1]] + " (" +
282                 (countReg[indices[1]]/total)*100 + "%), "
283                 + regn[indices[0]] + " (" +
284                 (countReg[indices[0]]/total)*100 + "%). ";
285             }
286
287             ph = new Paragraph(phrase, font3);
288             ph.setIndentationLeft(40);
289             doc.add(ph);
290
291             String[] month = {"", "January", "February",
292                 "March", "April", "May", "June", "July",
293                 "August", "September", "October",
294                 "November", "December"};
295             String month2[] = {"", "Jan", "Feb", "Mar",
296                 "Apr", "May", "Jun", "Jul", "Aug", "Sep",
297                 "Oct", "Nov", "Dec"};
298             Stack months = new Stack();
299             int count[];
300             String dateCopy = "";
301             int ci = 1;
302             months.add(0, "");
303             if(!d1[0].equalsIgnoreCase(d2[0])) {

```

```

248     for(int i = Integer.parseInt(d1[1]); i <=
249         12; i++) {
250         System.out.println("Month: " + month2[i] +
251             "\ti is: " + i);
252         months.add(ci, month2[i]);
253         ci++;
254     }
255     int diff = Integer.parseInt(d2[0]) - Integer.
256         .parseInt(d1[0]);
257     while(diff > 0) {
258         for(int i = 1; i <= 12; i++) {
259             if(diff == i) {
260                 if(i <= Integer.parseInt(d2[1])) {
261                     System.out.println("Month: " + month2[i]
262                         );
263                     months.add(ci, month2[i]);
264                     ci++;
265                 }
266             }
267         }
268         diff--;
269     }
270     count = new int[months.size()];
271     System.out.println("Num Months: " + months.
272         size());
273     for(PatientsForm pat : newPatients) {
274         String date[] = splitTheString(pat.
275             getDateSubmitted());
276         dateCopy = date[0];
277         String da[] = pat.getDateSubmitted().split
278             ("-");
279         if(Integer.parseInt(d2[0]) - Integer.
280             parseInt(d1[0]) > 1) {
281             int nus = 0;
282             int diff2 = Integer.parseInt(d2[0]) -
283                 Integer.parseInt(d1[0]);
284             for(int k = 0; k < diff; k++) {
285                 if(k == 0) {
286                     for(int i = Integer.parseInt(d1[1]); i
287                         <= 12; i++) {
288                         if(Integer.parseInt(da[0]) == Integer.
289                             parseInt(d1[0])) {
290                             if(Integer.parseInt(da[1]) == i)
291                                 count[nus]++;
292                         }
293                         nus++;
294                     }
295                 }
296             }
297             else {
298                 for(int i = 1; i <= 12; i++) {
299                     if(Integer.parseInt(da[0]) == (Integer.
300                         parseInt(d1[0]) + k)) {
301                         if(Integer.parseInt(da[1]) == i)
302                             count[nus]++;
303                         }
304                         nus++;
305                     }
306                 }
307             }
308         }
309     else {
310         int nu = 0;
311         for(int i = Integer.parseInt(d1[1]); i <=
312             12; i++) {
313             if(Integer.parseInt(da[1]) == i) {
314                 count[nu]++;
315                 System.out.println("Count index: " + nu)
316                     ;
317                     nu++;
318                 }
319             for(int i = 1; i <= Integer.parseInt(d2
320                 [1]); i++) {
321                 if(Integer.parseInt(da[1]) == i) {
322                     count[nu]++;
323                     System.out.println("Count index: " + nu)
324                         ;
325                     }
326                 }
327             }
328         }
329     else {
330         count = new int[12];
331         for(PatientsForm pat : newPatients) {
332             String date[] = splitTheString(pat.
333                 getDateSubmitted());
334             dateCopy = date[0];
335             for(int i = 1; i <= Integer.parseInt(d2[1])
336                 ; i++) {
337                 if(date[1].equals(month[i])) {
338                     count[i]++;
339                     System.out.println("Count here: " + count
340                         [i]);
341                 }
342             }
343         }
344         DefaultCategoryDataset dataset = new
345             DefaultCategoryDataset();
346         String tit = "";
347         if(parts[0].equalsIgnoreCase(parts2[0])) {
348             tit = report.getDisease() + " Cases by Month
349                 , Philippines, " + dateCopy;
350             for(int i = 1; i <= Integer.parseInt(d2[1]);
351                 i++) {
352                 dataset.addValue(count[i], report.
353                     getDisease() + " cases", month2[i] + " (" +
354                         count[i] + ")");
355             }
356         }
357     else {
358         tit = report.getDisease() + " Cases by Month
359                 , Philippines, " + d1[0] + " - " + d2[0];
360         for(int i = 1; i < months.size(); i++) {
361             dataset.addValue(count[i+1], report.
362                 getDisease() + " cases", months.get(i+1) +
363                     " (" + count[i+1] + ")");
364         }
365     }
366     JFreeChart chart = ChartFactory.
367         createLineChart(tit, // chart title
368             null, // domain axis label
369             "Number of Cases", // range axis
370             label
371             dataset, // data
372             PlotOrientation.VERTICAL, // orientation
373             true, // include legend
374             true, // tooltips
375             false // urls
376         );
377     // trick to change the default font of the
378     chart.setTitle(new TextTitle(tit, new java.
379             awt.Font("Serif", Font.BOLD, 12)));
380     chart.setBackgroundPaint(Color.white);
381     chart.setDomainAxis().setLabelFont(new java.
382             awt.Font("Serif", Font.NORMAL, 13));
383     plot.getDomainAxis().setMaximumCategoryLabelWidthRatio(0.5f);
384     plot.getDomainAxis().setCategoryLabelPositions(
385         CategoryLabelPositions.UP_45);
386     CategoryItemRenderer catRen = plot.
387         getRenderer();
388     if(catRen instanceof LineAndShapeRenderer) {
389         LineAndShapeRenderer renderer = (
390             LineAndShapeRenderer) catRen;
391         renderer.setBaseShapesFilled(true);
392         renderer.setBaseShapesVisible(true)
393             ;
394         renderer.setShapesVisible( true );
395         renderer.setDrawOutlines( true );
396     }
397     PdfContentByte dc = docWriter.
398         getDirectContent();
399     PdfTemplate tp = dc.createTemplate(width,
400         height);
401     Graphics2D g2 = tp.createGraphics(width-100,
402         height-50,
403         new DefaultFontMapper());
404     Rectangle2D r2D = new Rectangle2D.Double(0,
405         0, width-100, height-50);
406     chart.draw(g2, r2D, null);
407     g2.dispose();

```

```

401 dc.addTemplate(tp, 38, docWriter.  

402     getVerticalPosition(true) - height);  

403 if(report.isAgeGroup()) {  

404     String category1 = "Unspecified";  

405     String category2 = "< 1";  

406     String category3 = "1-10";  

407     String category4 = "11-20";  

408     String category5 = "21-30";  

409     String category6 = "31-40";  

410     String category7 = "> 40";  

411  

412     DefaultCategoryDataset barData = new  

413         DefaultCategoryDataset();  

414     int barCount[] = new int[7];  

415     for(PatientsForm pat : newPatients) {  

416         if(pat.getAge() < 1)  

417             barCount[1]++;  

418         else if(pat.getAge() >= 1 && pat.getAge()  

419             <= 10)  

420             barCount[2]++;  

421         else if(pat.getAge() >= 11 && pat.getAge()  

422             <= 20)  

423             barCount[3]++;  

424         else if(pat.getAge() >= 21 && pat.getAge()  

425             <= 30)  

426             barCount[4]++;  

427         else if(pat.getAge() >= 31 && pat.getAge()  

428             <= 40)  

429             barCount[5]++;  

430         else if(pat.getAge() > 40)  

431             barCount[6]++;  

432         else  

433             barCount[0]++;  

434     }  

435     barData.addValue(barCount[0], "Age",  

436         category1);  

437     barData.addValue(barCount[1], "Age",  

438         category2);  

439     barData.addValue(barCount[2], "Age",  

440         category3);  

441     barData.addValue(barCount[3], "Age",  

442         category4);  

443     barData.addValue(barCount[4], "Age",  

444         category5);  

445     barData.addValue(barCount[5], "Age",  

446         category6);  

447     barData.addValue(barCount[6], "Age",  

448         category7);  

449  

450     final JFreeChart barChart = ChartFactory.  

451         createBarChart(  

452             report.getDisease() + " Cases by  

453                 Age Group" + report.getDateFrom() + " - "  

454                 + report.getDateTo(), // chart  

455                 title  

456                 null, // domain  

457                 axis label  

458                 "Number of Cases", // range axis label  

459                 barData, // data  

460                 PlotOrientation.VERTICAL, // orientation  

461                 true, // include legend  

462                 true, // tooltips?  

463                 false // URLs?  

464             );  

465  

466     barChart.setTitle(new TextTitle(report.  

467         getDisease() + " Cases by Age Group", new  

468         java.awt.Font("Serif", Font.BOLD, 12)));  

469     barChart.setBackgroundPaint(Color.white);  

470     barChart.setBorderPaint(Color.black);  

471     barChart.setBorderStyle(new BasicStroke(1))  

472     );  

473     barChart.setBorderVisible(true);  

474  

475     width = 550;  

476     height = 350;  

477  

478     doc.newPage();  

479     PdfContentByte dcB = docWriter.  

480     getDirectContent();  

481     PdfTemplate tpB = dcB.createTemplate(width,  

482         height);  

483     Graphics2D g2B = tpB.createGraphics(width  

484         -100, height-50,  

485         new DefaultFontMapper());  

486     Rectangle2D r2DB = new Rectangle2D.Double  

487         (0, 0, width-100, height-50);  

488     barChart.draw(g2B, r2DB, null);  

489     g2B.dispose();  

490     dcB.addTemplate(tpB, 38, docWriter.  

491         getVerticalPosition(true) - height);  

492 }  

493 if(report.isFatalAgeGroup()) {  

494     String category1 = "Unspecified";  

495     String category2 = "< 1";  

496     String category3 = "1-10";  

497     String category4 = "11-20";  

498     String category5 = "21-30";  

499     String category6 = "31-40";  

500     String category7 = "> 40";  

501  

502     DefaultCategoryDataset barData = new  

503         DefaultCategoryDataset();  

504     int barCount[] = new int[7];  

505     int barCountD[] = new int[7];  

506     for(PatientsForm pat : newPatients) {  

507         if(pat.getAge() < 1) {  

508             barCount[1]++;  

509             if(pat.getOutcome().equalsIgnoreCase("  

510                 Died"))  

511                 barCountD[1]++;  

512             else if(pat.getAge() >= 1 && pat.getAge()  

513                 <= 10) {  

514                 barCount[2]++;  

515                 if(pat.getOutcome().equalsIgnoreCase("  

516                     Died"))  

517                     barCountD[2]++;  

518             }  

519             else if(pat.getAge() >= 11 && pat.getAge()  

520                 <= 20) {  

521                 barCount[3]++;  

522                 if(pat.getOutcome().equalsIgnoreCase("  

523                     Died"))  

524                     barCountD[3]++;  

525             }  

526             else if(pat.getAge() >= 21 && pat.getAge()  

527                 <= 30) {  

528                 barCount[4]++;  

529                 if(pat.getOutcome().equalsIgnoreCase("  

530                     Died"))  

531                     barCountD[4]++;  

532             }  

533             else if(pat.getAge() >= 31 && pat.getAge()  

534                 <= 40) {  

535                 barCount[5]++;  

536                 if(pat.getOutcome().equalsIgnoreCase("  

537                     Died"))  

538                     barCountD[5]++;  

539             }  

540             else if(pat.getAge() > 40) {  

541                 barCount[6]++;  

542                 if(pat.getOutcome().equalsIgnoreCase("  

543                     Died"))  

544                     barCountD[6]++;  

545             }  

546             else {  

547                 barCount[0]++;  

548                 if(pat.getOutcome().equalsIgnoreCase("  

549                     Died"))  

550                     barCountD[0]++;  

551             }  

552         }  

553         try {  

554             barData.addValue((barCountD[0]/barCount  

555                 [0])*100, "Age", category1);  

556         } catch(Exception ds1) {  

557             barData.addValue(0, "Age", category1);  

558         }  

559         try {  

560             barData.addValue((barCountD[1]/barCount  

561                 [1])*100, "Age", category2);  

562         } catch(Exception ds2) {  

563             barData.addValue(0, "Age", category2);  

564         }  

565         try {  

566             barData.addValue((barCountD[2]/barCount  

567                 [2])*100, "Age", category3);  

568         } catch(Exception ds3) {  

569             barData.addValue(0, "Age", category3);  

570         }  

571         try {  

572             barData.addValue((barCountD[3]/barCount  

573                 [3])*100, "Age", category4);  

574         } catch(Exception ds4) {  

575             barData.addValue(0, "Age", category4);  

576         }  

577         try {  

578             barData.addValue((barCountD[4]/barCount  

579                 [4])*100, "Age", category5);  

580         } catch(Exception ds5) {  

581             barData.addValue(0, "Age", category5);  

582         }  

583     }

```

```

550     }
551     try {
552         barData.addValue((barCountD[5]/barCount
553 [5])*100, "Age", category6);
554     } catch(Exception ds6) {
555         barData.addValue(0, "Age", category6);
556     }
557     try {
558         barData.addValue((barCountD[6]/barCount
559 [6])*100, "Age", category7);
560     } catch(Exception ds7) {
561         barData.addValue(0, "Age", category7);
562     }
563     final JFreeChart barChart = ChartFactory.
564     createBarChart(
565         report.getDisease() + " Cases by
566         Age Group" + report.getDateFrom() + " - "
567         + report.getDateTo(), // chart
568         title
569         null, // domain
570         axis label
571         "Number of Cases",
572         // range axis label
573         barData, // data
574         PlotOrientation.VERTICAL, // orientation
575         true, // include legend
576         true, // tooltips?
577         false // URLs?
578     );
579     barChart.setTitle(new TextTitle(report.
580     getDisease() + " Case Fatality Ration by
581     Age Group", new java.awt.Font("Serif", Font
582     .BOLD, 12)));
583     barChart.setBackgroundPaint(Color.white);
584     barChart.setBorderPaint(Color.black);
585     barChart.setBorderStroke(new BasicStroke(1)
586     );
587     barChart.setBorderVisible(true);
588     width = 550;
589     height = 350;
590     doc.newPage();
591     PdfContentByte dcBS = docWriter.
592     getDirectContent();
593     // get the direct pdf content
594     PdfTemplate tpBS = dcBS.createTemplate(
595     width, height);
596     Graphics2D g2BS = tpBS.createGraphics(width
597     -100, height-50,
598     new DefaultFontMapper());
599     Rectangle2D r2DBS = new Rectangle2D.Double
600     (0, 0, width-100, height-50);
601     barChart.draw(g2BS, r2DBS, null);
602     g2BS.dispose();
603     dcBS.addTemplate(tpBS, 38, docWriter.
604     getVerticalPosition(true) - height);
605 }
606 if(report.isGenderGroup()) {
607     String categorys1 = "Unspecified";
608     String categorys2 = "Female";
609     String categorys3 = "Male";
610     DefaultCategoryDataset barDatas = new
611     DefaultCategoryDataset();
612     int barCount2[] = new int[3];
613     for(PatientsForm pat : newPatients) {
614         if(pat.getGender().equalsIgnoreCase("Female"))
615             barCount2[1]++;
616         else if(pat.getGender().equalsIgnoreCase("Male"))
617             barCount2[2]++;
618         else
619             barCount2[0]++;
620     }
621     final JFreeChart barChart = ChartFactory.
622     createBarChart(
623         report.getDisease() + " Cases by
624         Gender Group", // chart title
625         null, // domain
626         axis label
627         "Number of Cases",
628         // range axis label
629         barDatas, // data
630         PlotOrientation.VERTICAL, // orientation
631         true, // include legend
632         true, // tooltips?
633         false // URLs?
634     );
635     barChart.setBackgroundPaint(Color.white);
636     barChart.setBorderPaint(Color.black);
637     barChart.setBorderStroke(new BasicStroke(1)
638     );
639     barChart.setBorderVisible(true);
640     width = 550;
641     height = 350;
642     doc.newPage();
643     PdfContentByte dcB2 = docWriter.
644     getDirectContent();
645     PdfTemplate tpB2 = dcB2.createTemplate(
646     width, height);
647     Graphics2D g2B2 = tpB2.createGraphics(width
648     -100, height-50,
649     new DefaultFontMapper());
650     Rectangle2D r2DB2 = new Rectangle2D.Double
651     (0, 0, width-100, height-50);
652     barChart.draw(g2B2, r2DB2, null);
653     g2B2.dispose();
654     dcB2.addTemplate(tpB2, 38, docWriter.
655     getVerticalPosition(true) - height);
656 }
657 if(report.isByRegion()) {
658     doc.newPage();
659     Font font4 = new Font(Font.FontFamily.
660     TIMES_ROMAN, 13, Font.BOLD);
661     ph = new Paragraph(report.getDisease() + "
662     Cases and Deaths by Region", font4);
663     ph.setAlignment(Element.ALIGN_CENTER);
664     doc.add(ph);
665     ph = new Paragraph("Philippines, " + report.
666     getDateFrom() + " - " + report.getDateTo(),
667     font2);
668     ph.setAlignment(Element.ALIGN_CENTER);
669     ph.setSpacingAfter(30);
670     doc.add(ph);
671     PdfPTable table = new PdfPTable(4); // 3
672     columns.
673     table.setHorizontalAlignment(Element.
674     ALIGN_CENTER);
675     PdfPCell cell1 = new PdfPCell(new Paragraph
676     ("Region"));
677     PdfPCell cell2 = new PdfPCell(new
678     Paragraph("Cases"));
679     PdfPCell cell3 = new PdfPCell(new
680     Paragraph("Deaths"));
681     PdfPCell cell4 = new PdfPCell(new
682     Paragraph("CFR(%")));
683     float[] columnWidths = new float[]
684     {4f, 4f, 4f, 4f};
685     table.addCell(cell1);
686     table.addCell(cell2);
687     table.addCell(cell3);
688     table.addCell(cell4);
689     String reg[] = {"I", "II", "III", "IV-A",
690     "IV-B", "V", "VI", "VII", "VIII", "IX",
691     "X", "XI", "XII", "ARMM", "CAR", "CARAGA",
692     "NCR"};
693     int countReg1[] = new int[17];
694     int countDi[] = new int[17];
695     for(PatientsForm pat : pd1) {
696         if(pat.getRegion().
697         equalsIgnoreCase("region I")) {
698             countReg1[0]++;
699             if(pat.getOutcome().
700             equalsIgnoreCase("Died"))
701

```

```

689             countD1[0]++;
690         } else if(pat.getRegion() .
691             equalsIgnoreCase("region II")) {
692             countReg1[1]++;
693             if(pat.getOutcome() .
694                 equalsIgnoreCase("Died"))
695                 countD1[1]++;
696             } else if(pat.getRegion() .
697                 equalsIgnoreCase("region III")) {
698                 countReg1[2]++;
699                 if(pat.getOutcome() .
700                     equalsIgnoreCase("Died"))
701                     countD1[2]++;
702                 } else if(pat.getRegion() .
703                     equalsIgnoreCase("region IV-A")) {
704                     countReg1[3]++;
705                     if(pat.getOutcome() .
706                         equalsIgnoreCase("Died"))
707                         countD1[3]++;
708                     } else if(pat.getRegion() .
709                         equalsIgnoreCase("region IV-B")) {
710                         countReg1[4]++;
711                         if(pat.getOutcome() .
712                             equalsIgnoreCase("Died"))
713                             countD1[4]++;
714                         } else if(pat.getRegion() .
715                             equalsIgnoreCase("region VI")) {
716                             countReg1[6]++;
717                             if(pat.getOutcome() .
718                                 equalsIgnoreCase("Died"))
719                                 countD1[6]++;
720                             } else if(pat.getRegion() .
721                                 equalsIgnoreCase("region VII")) {
722                                 countReg1[7]++;
723                                 if(pat.getOutcome() .
724                                     equalsIgnoreCase("Died"))
725                                     countD1[7]++;
726                                 } else if(pat.getRegion() .
727                                     equalsIgnoreCase("region VIII")) {
728                                     countReg1[8]++;
729                                     if(pat.getOutcome() .
730                                         equalsIgnoreCase("Died"))
731                                         countD1[8]++;
732                                     } else if(pat.getRegion() .
733                                         equalsIgnoreCase("region IX")) {
734                                         countReg1[9]++;
735                                         if(pat.getOutcome() .
736                                             equalsIgnoreCase("Died"))
737                                             countD1[9]++;
738                                         } else if(pat.getRegion() .
739                                             equalsIgnoreCase("ARM")) {
740                                             countReg1[10]++;
741                                             if(pat.getOutcome() .
742                                                 equalsIgnoreCase("Died"))
743                                                 countD1[10]++;
744                                             } else if(pat.getRegion() .
745                                                 equalsIgnoreCase("CAR")) {
746                                                 countReg1[11]++;
747                                                 if(pat.getOutcome() .
748                                                     equalsIgnoreCase("Died"))
749                                                     countD1[11]++;
750                                                 } else if(pat.getRegion() .
751                                                     equalsIgnoreCase("NCR")) {
752                                                     countReg1[12]++;
753                                                     if(pat.getOutcome() .
754                                                         equalsIgnoreCase("Died"))
755                                                         countD1[12]++;
756         }
757     }
758     int countN = 0;
759     int countM = 0;
760     for(int i = 0; i < 17; i++) {
761         table.addCell(reg[i]);
762         table.addCell(countReg1[i] + "");
763         table.addCell(countD1[i] + "");
764         try {
765             table.addCell((countD1[i]/
766             countReg1[i])*100 + "");
767         } catch(Exception asna) {
768             table.addCell("0");
769         }
770         countN += countReg1[i];
771         countM += countD1[i];
772     }
773     table.addCell("Total");
774     table.addCell(countN + "");
775     table.addCell(countM + "");
776     try {
777         table.addCell((countM/countN) *
778             100 + "");
779     } catch(Exception asna) {
780         table.addCell("0");
781     }
782     doc.add(table);
783 }
784 if(report.isCaseAndDeath()) {
785     Stack stackMun = new Stack();
786     Stack stackCou = new Stack(); //Count of
787     Cases
788     Stack stackDea = new Stack(); //Count of
789     Deaths
790     int index = 0;
791     for(PatientsForm pat : pd1) {
792         if(pat.getRegion().equalsIgnoreCase(report.
793             getRegion())) {
794             if(!stackMun.contains(pat.getMuncity())) {
795                 stackMun.add(index, pat.getMuncity());
796                 stackCou.add(index, 1);
797                 if(pat.getOutcome().equalsIgnoreCase("
798                     Died"))
799                     stackDea.add(index, 1);
800                 else
801                     stackDea.add(index, 0);
802             index++;
803         } else {
804             int num = (int) stackCou.get(stackMun.
805             indexOf(pat.getMuncity()));
806             stackCou.remove(stackMun.indexOf(pat.
807             getMuncity()));
808             stackCou.add(stackMun.indexOf(pat.
809             getMuncity()), (num+1));
810             int num2 = (int) stackDea.get(stackMun.
811             indexOf(pat.getMuncity()));
812             if(pat.getOutcome().equalsIgnoreCase("
813                 Died"))
814                 stackDea.remove(stackMun.indexOf(pat.
815                 getMuncity()));
816                 stackDea.add(stackMun.indexOf(pat.
817                 getMuncity()), (num2+1));
818             }
819         }
820     }
821     Stack stackMun2 = new Stack();
822     Stack stackCou2 = new Stack(); //Count of
823     Cases
824     Stack stackDea2 = new Stack(); //Count of
825     Deaths
826     int index2 = 0;
827     for(PatientsForm pat : pd2) {
828         if(pat.getRegion().equalsIgnoreCase(report.
829             getRegion())) {
830             if(!stackMun2.contains(pat.getMuncity()))
831                 stackMun2.add(index2, pat.getMuncity());
832                 stackCou2.add(index2, 1);
833                 if(pat.getOutcome().equalsIgnoreCase("
834                     Died"))
835                     stackDea2.add(index2, 1);
836                 else
837                     stackDea2.add(index2, 0);
838             index2++;
839         } else {
840             }
841     }
842 }

```

```

837     int num = (int) stackCou2.get(stackMun2. 903             table2.addCell("0");
838     indexOf(pat.getMuncity()));
839     stackCou.remove(stackMun2.indexOf(pat. 904             }
840     getMuncity()));
841     stackCou.add(stackMun2.indexOf(pat. 905             try {
842     getMuncity()), (num+1));
843     int num2 = (int) stackDea2.get(stackMun2. 906             countNN += (double) stackCou.get(
844     indexOf(pat.getMuncity()));
845     if(pat.getOutcome().equalsIgnoreCase(" 907             result);
846     Died")) {
847     stackDea2.remove(stackMun2.indexOf(pat. 908             result = -1;
848     getMuncity()));
849     stackDea2.add(stackMun2.indexOf(pat. 909             }
850     getMuncity()), (num2+1));
851     }
852     }
853     doc.newPage();
854     Font font4 = new Font(Font.FontFamily. 910             catch(Exception e) {
855     TIMES_ROMAN, 13, Font.BOLD);
856     ph = new Paragraph(report.getDisease() + " 911             }
857     Cases and Deaths by Muncity", font4);
858     ph.setAlignment(Element.ALIGN_CENTER);
859     doc.add(ph);
860     ph = new Paragraph(report.getRegion() + ", " 912             try {
861     + (Integer.parseInt(d1[0]) - 1) + " & " + 913             countNN2 += (double) stackDea.get(
862     d1[0], font2);
863     ph.setAlignment(Element.ALIGN_CENTER);
864     ph.setSpacingAfter(30);
865     doc.add(ph);
866     PdfPTable table2 = new PdfPTable(4); // 3 914             result);
867     columns.
868     table2.setHorizontalAlignment(Element. 915             result = -1;
869     ALIGN_CENTER);
870     PdfPCell cell11 = new PdfPCell(new Paragraph 916             }
871     ("Muncity"));
872     PdfPCell cell12 = new PdfPCell(new Paragraph("Cases"));
873     PdfPCell cell33 = new PdfPCell(new Paragraph("Deaths"));
874     PdfPCell cell14 = new PdfPCell(new Paragraph("CFR(%"));
875     float[] columnWidths = new float[] 917             *100 + ""));
876     {4f, 4f, 4f, 4f};
877     table2.setWidths(columnWidths);
878     table2.addCell(cell11);
879     table2.addCell(cell12);
880     table2.addCell(cell33);
881     table2.addCell(cell14);
882     double countNN = 0;
883     double countNN2 = 0;
884     int result = -1;
885     for(Place pl : place) {
886     table2.addCell(pl.getMuncity() + 918             }
887     "");
888     for(int i = 0; i < stackMun.size() 919             }
889     ; i++) {
890     if(((String) stackMun.get(i)). 920             public String[] splitTheString(String dates) {
891     equalsIgnoreCase(pl.getMuncity()))
892     result = i;
893     else
894     result = -1;
895     try {
896     table2.addCell(stackCou.get( 921             {
897     result) + "");
898     }
899     catch(Exception e) {
900     table2.addCell("0");
901     }
902     try {
903     table2.addCell(stackDea.get( 922             String parts[] = dates.split("-");
904     result) + ""));
905     }
906     catch(Exception e) {
907     table2.addCell("0");
908     }
909     try {
910     table2.addCell(Double.parseDouble( 923             if(parts[1].equals("01"))
911     (stackDea.get(result).toString())/Double. 912             parts[1] = "January";
912     parseDouble(stackCou.get(result).toString() 913             else if(parts[1].equals("02"))
913     )*100 + ""));
914             parts[1] = "February";
915             }
916             }
917             }
918             }
919             }
920             }
921             }
922             }
923             }
924             }
925             }
926             }
927             }
928             }
929             }
930             }
931             }
932             }
933             }
934             }
935             }
936             }
937             }
938             }
939             }
940             }
941             }
942             }
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975             }
976             }
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981             }
982             }
983             }
984             }
985             }
986             }
987             }
988             }
989             }
990             }

```

5. Views

Listing 29: header.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <!DOCTYPE html>
5  <html>
6  <head>
7    <title>Vector-Borne Diseases Monitoring System
     </title>
8    <meta name="viewport" content="width=device-
     width, initial-scale=1.0">
9    <jsp:include page="css.jsp"/>
10   <script type="text/javascript">
11     // When the document is ready
12     $(document).ready(function () {
13       $('#dp1').datepicker({
14         format: "yyyy-mm-dd"
15       });
16       $('#dp2').datepicker({
17         format: "yyyy-mm-dd"
18       });
19       $('#dp3').datepicker({
20         format: "yyyy-mm-dd"
21     });
22     $('#dp4').datepicker({
23       format: "yyyy-mm-dd"
24     });
25   });
26   </script>
27   <script type="text/javascript">
28     function changeSelect5() {
29       //var sel = document.getElementById("checks")
30       //checked;
31       if(document.getElementById("checks").checked)
32         document.getElementById("select2").disabled
33       else
34         document.getElementById("select2").disabled
35       = true;
36     }
37   </script>
38   /* Table initialisation */
39   jQuery(document).ready(function($) {
40     $('#alertTable').dataTable( {
41       "bSort": false,           // Disable sorting
42       "iDisplayLength": 10,    // records per
43       "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
44       >>",
45       "sPaginationType": "bootstrap"
46     });
47   </script>
48   </head>
49   <body>
50     <div class = "container">
51       <div class = "navbar navbar-default" role = "n
      avigation">
52         <div class = "container-fluid">
53           <div class = "navbar-header">
54             <button type = "button" class = "navbar-
              toggle" data-toggle = "collapse" data-
              target = "#navbar-collapse">
55               <span class = "sr-only">Toggle Navigation
56               </span>
57               <span class = "icon-bar"></span>
58               <span class = "icon-bar"></span>
59               <span class = "icon-bar"></span>
59             </button>
60             <a href = "<%= request.getContextPath()
              %>/home"><img src = "<%= request.
              getContextPath() %>/resources/dist/img/
              logo2.jpg" alt = "VBDMs Logo" height = "30
              px;" width = "93px;" class = "img-
              responsive"/></a>
61             <!-- <a href = "<%= request.getContextPath()
              %>/home" class = "navbar-brand">VBDMs</a
              > -->
62           </div>
63           <div class = "collapse navbar-collapse">
64             <ul class = "nav navbar-nav">
65               <li <c:if test = "${pages == 'home'}">
66                 class = "active"</c:if>
67                 <a href = "<%= request.getContextPath()
              %>/home">Home</a></li>
68               <li class = "dropdown">
69                 <a href = "" data-toggle = "dropdown"
                  class = "dropdown-toggle">
70                   Diseases <b class = "caret"></b>
71                 </a>
72                 <ul class="dropdown-menu">
73                   <c:forEach var="dis" items="${disease
                  }">

```

```

    ROLE_BHWorker', 'ROLE_PHWorker', ,
    ROLE_MHWorker', 'ROLE_USER')">
135      <li><a href = "<%= request.
    getContextPath() %>/pages/system">Manage
    Records</a></li>
136      </sec:authorize>
137      <sec:authorize access="hasAnyRole('
        ROLE_MCOfficial', 'ROLE_PHOfficial', '
        ROLE_NHOfficial', 'ROLE_USER')">
138          <li><a href = "<%= request.getContextPath()
        () %>/pages/workers">Workers</a></li>
139      </sec:authorize>
140      <sec:authorize access="isAuthenticated()">
141          <li><a href = "<%= request.getContextPath()
        () %>/pages/reports">Reports</a></li>
142      </sec:authorize>
143      <li><a href = "<%= request.getContextPath()
        %>/j_spring_security_logout">Log Out</a></
        li>
144      </ul>
145  </div>
146  </sec:authorize>
147 </ul>
148 </div>
149 </div>
150 </div>
151 <div id = "loginForm" class = "modal fade"
    tabindex = "-1">
152   <div class="modal-header">
153     <button type="button" class="close" data-
        dismiss="modal" aria-hidden="true"> </
        button>
154   <div class = "panel-header">
155     <h4 class = "form-signin-head">Vector Borne
        Diseases Monitoring System</h4>
156   </div>
157 </div>
158 <div class = "modal-body">
159   <form method="post" class = "form-signin"

```

Listing 30: css.jsp

```

1  <link href = "<%= request.getContextPath() %>/
    resources/dist/css/jquery-ui.css" rel =
    "stylesheet" media = "screen">
2  <link href = "<%= request.getContextPath() %>/
    resources/dist/css/bootstrap.css" rel =
    "stylesheet" media = "screen">
3  <link href = "<%= request.getContextPath() %>/
    resources/dist/css/bootstrap.min.css" rel =
    "stylesheet" media = "screen">
4  <link href = "<%= request.getContextPath() %>/
    resources/daterangepicker/css/daterangepicker.css"
    rel = "stylesheet" media = "screen">
5  <link href = "<%= request.getContextPath() %>/
    resources/bootstrap-modal-master/css/
    bootstrap-modal-bs3patch.css" rel =
    "stylesheet" media = "screen">
6  <link href = "<%= request.getContextPath() %>/
    resources/bootstrap-modal-master/css/
    bootstrap-modal.css" rel = "stylesheet"
    media = "screen">
7  <link href = "<%= request.getContextPath() %>/
    resources/daterangepicker/css/jquery.datepick.
    css" rel = "stylesheet" media = "screen">
8  <script src = "<%= request.getContextPath() %>/
    resources/bootstrap/js/jquery-1.10.2.min.js
    " type = "text/javascript"></script>
9  <script src = "<%= request.getContextPath() %>/
    resources/dist/js/clickAdd.js" type = "text
    /javascript"></script>
10 <script src = "<%= request.getContextPath() %>/
    resources/dist/js/bootstrap.min.js" type =
    "text/javascript"></script>
11 <script src = "<%= request.getContextPath() %>/
    resources/dist/js/moment.min.js" type =
    "text/javascript"></script>
12 <script src = "<%= request.getContextPath() %>/
    resources/dist/js/combodate.js" type =
    "text/javascript"></script>
13 <script src = "<%= request.getContextPath() %>/
    resources/daterangepicker/js/bootstrap-
    datepicker.js" type = "text/javascript"></
    script>

```

Listing 31: home.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
    jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
    functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
    springframework.org/security/tags" %>

```

```

        action = "j_spring_security_check">
160 <table class = "table" >
161   <tr>
162     <td style = "border: none;">
163       <label for="login_username">Username</
        label>
164     </td>
165     <td style = "border: none;">
166       <input type="text" name="j_username" id="
        login_username" class="form-control field
        required" title="Please provide your
        username" />
167     </td>
168   </tr>
169   <tr>
170     <td style = "border: none;">
171       <label for="login_password">Password</
        label>
172     </td>
173     <td style = "border: none;">
174       <input type="password" name="j_password"
        id="login_password" class="form-control
        field required" title="Password is required
        " />
175     </td>
176   </tr>
177   <tr>
178     <td style = "border: none;"><button class =
        "btn btn-primary" type="submit" value =
        "submit">Log in</button></td>
179     <!-- <td style = "border: none;"><a href =
        "<%= request.getContextPath() %>/
        forgotPassword" class = "pull-right">Forgot
        Password?</a></td> -->
180   </tr>
181 </table>
182 </form>
183 </div>
184 </div>

```

```

14 <script src = "<%= request.getContextPath() %>/
    resources/daterangepicker/js/jquery.plugin.js"
    type = "text/javascript"></script>
15 <script src = "<%= request.getContextPath() %>/
    resources/daterangepicker/js/jquery.datepick.js"
    type = "text/javascript"></script>
16 <script src = "<%= request.getContextPath() %>/
    resources/bootstrap-modal-master/js/
    bootstrap-modalmanager.js" type = "text/
    javascript"></script>
17 <script src = "<%= request.getContextPath() %>/
    resources/bootstrap-modal-master/js/
    bootstrap-modal.js" type = "text/javascript
    "></script>
18 <script src = "<%= request.getContextPath() %>/
    resources/bootstrap/js/jquery.dataTables.
    min.js" type = "text/javascript"></script>
19 <script src = "<%= request.getContextPath() %>/
    resources/bootstrap/js/jquery-DT-pagination
    .js" type = "text/javascript"></script>
20 <script src = "<%= request.getContextPath() %>/
    resources/maps/loca.js" type = "text/
    javascript"></script>
21 <script src = "<%= request.getContextPath() %>/
    resources/maps/maps.js" type = "text/
    javascript"></script>
22 <script src = "<%= request.getContextPath() %>/
    resources/dist/js/checkPass.js" type =
    "text/javascript"></script>
23 <script src = "<%= request.getContextPath() %>/
    resources/charts/highcharts.js" type =
    "text/javascript"></script>
24 <script src = "<%= request.getContextPath() %>/
    resources/charts/modules/exporting.js" type
    = "text/javascript"></script>
25 <script src = "<%= request.getContextPath() %>/
    resources/maps/dataTab.js" type = "text/
    javascript"></script>
26 <script src = "http://maps.google.com/maps/api/js?
    sensor=false&libraries=geometry" type="text
    /javascript"></script>
27 <script type="text/javascript" src="<%= request.
    getContextPath() %>/resources/dist/js/
    snapshotcontrol.js"></script>

```

```

4  <jsp:include page="header.jsp"/>
5  <div class = "container-fluid well-lg" style =
    "border: 1px solid #ddd; background-color: #
    eee;">
6  <jsp:include page = "ybd.jsp" />
7  </div>
8  </div>
9  <jsp:include page="footer.jsp"/>

```

Listing 32: campaigns.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <!DOCTYPE html>
5  <html>
6  <head>
7    <title>Vector-Borne Diseases Monitoring System
     </title>
8    <meta name="viewport" content="width=device-
     width, initial-scale=1.0">
9    <jsp:include page="css.jsp"/>
10 </head>
11 <body>
12   <div class = "container">
13     <div class = "navbar navbar-default" role =
      "navigation">
14       <div class = "container-fluid">
15         <div class = "navbar-header">
16           <button type = "button" class = "navbar-
            toggle" data-toggle = "collapse" data-
            target = ".navbar-collapse">
17             <span class = "sr-only">Toggle Navigation
              </span>
18             <span class = "icon-bar"></span>
19             <span class = "icon-bar"></span>
20             <span class = "icon-bar"></span>
21           </button>
22           <a href = "<%= request.getContextPath() %>/
            home" class = "navbar-brand">VBDMMS</a>
23         </div>
24         <div class = "collapse navbar-collapse">
25           <ul class = "nav navbar-nav">
26             <li><a href = "<%= request.getContextPath()
            () %>/home">Home</a></li>
27             <li class = "dropdown" style = "width: 150
            px; text-align: center;">
28               <a href = "" data-toggle = "dropdown"
                  class = "dropdown-toggle">
29                 Disease <span class = "caret"></span>
30               </a>
31               <ul class="dropdown-menu" style = "text-
                  align: left;">
32                 <c:forEach var="dis" items="${disease}">
33                   <li><a href = "<%= request.
                      getContextPath() %>/disease/${dis.
                      diseaseName}">${dis.diseaseName}</a></li>
34                 </c:forEach>
35               </ul>
36             </li>
37             <li class = "dropdown">
38               <a href = "" data-toggle = "dropdown"
                  class = "dropdown-toggle">
39                 Disease Statistics <b class = "caret"></b
                  >
40               </a>
41               <ul class="dropdown-menu">
42                 <c:forEach var="dis" items="${disease}">
43                   <li><a href = "<%= request.getContextPath()
                      () %>/statistics/${dis.diseaseName}">${dis.
                      diseaseName}</a></li>
44                 </c:forEach>
45               </ul>
46             </li>
47             <li class = "active"><a href = "<%= request.
                getContextPath() %>/campaigns">Awareness
                  Campaigns</a></li>
48           </ul>
49           <ul class = "nav navbar-nav navbar-right">
50             <sec:authorize access="isAnonymous()">
51               <c:if test = "${pages != 'register'}">
52                 <li><a data-toggle = "modal" href = "#
                    loginForm">Login</a></li>
53                 <li><a href = "<%= request.getContextPath()
                      () %>/register">Register</a></li>
54               </c:if>
55             </sec:authorize>
56             <sec:authorize access="isAuthenticated()">
57               <div class = "btn-group">
58                 <button href="#" data-toggle="dropdown" class
                   = "btn dropdown-toggle" >
59                   <span class = "glyphicon glyphicon-user"></
                     span> <span class = "caret"></span>
60                 </button>
61                 <ul class="dropdown-menu">
62                   <li><a href = "<%= request.getContextPath()
                      () %>/pages/profile"><span>Profile</span></a
                      ></li>
63                     !!--
64                     <li><a href = "<%= request.
                      getContextPath() %>/pages/messages">
                      Messages</a></li>
65                     -->
66                     <sec:authorize access="hasAnyRole(
                      ROLE_MCOfficial', 'ROLE_PHOfficial', '

```

```

134      <div class = "panel panel-info">
135          <div class = "panel-body">
136              <div class="thumbnail with-caption pull-
137                  right img-responsive" style = "margin-left:
138                      20px;">
139                  <img src = "<%= request.getContextPath() %>/resources/dist/img/chik.jpg"
140                  width="350" height = "250" class = "img-
141                      responsive" />
142          </div>
143          <p class = "text-justify">
144              Chikungunya is a viral disease that is
145              transmitted to people by mosquitoes.
146              Symptoms
147              usually appear 3-7 days after the
148              infection and these may include
149              sudden high fever, severe joint and muscle
150              pain. Often headaches,
151              fatigue, joint swelling and skin rash
152              could also be experienced.
153          </p>
154          <p class = "text-justify">
155              There is no vaccine or drugs to prevent
156              this infection. However,
157              medication is used to reduce the symptoms.
158              Even though chikungunya
159              usually doesn't cause death, some infected
160              people may develop long-
161              term joint pain.
162          </p>
163          <p class = "text-justify"><strong>
164              The best way to prevent Chikungunya viral
165              infection is to avoid
166              mosquito bites along with getting rid of
167              all potential mosquito
168              breeding sites from your surroundings.
169          </strong></p>
170          <p>
171              Additionally, you can:
172          </p>
173          <ul>
174              <li>Use insect repellent on exposed skin.
175              Always follow the directions on the package
176              .</li>
177              <li>Wear long sleeves and long pants
178              particularly when going out doors.</li>
179              <li>Sleep under a mosquito net.</li>
180              <li>Have secure screens on windows and
181              doors to keep mosquitoes out.</li>
182              <li>Cooperate with local vector control
183              initiatives.</li>
184          </ul>
185          <p class = "text-justify"><strong>
186              A person with chikungunya fever should
187              limit their exposure to
188              mosquito bites to avoid further spreading
189              the infection.
190          </strong></p>
191          <p class = "text-justify">
192              Stored water for agriculture and gardening
193              purposes are potential breeding
194              sites for mosquitoes. Therefore, all water
195              holding receptacles such
196              as buckets, drums, black PVC tanks should
197              be covered with mesh or
198              cloth-nets. Fishes also can be placed in
199              these reservoirs as a
200              mosquito control measure, since they feed
201              on mosquito larvae.
202          </p>
203          <p class = "text-justify">
204              Likewise swimming pools can pose a hazard
205              if they are not properly
206              maintained or neglected. If you are unable
207              to maintain your swimming
208              pool, ask the Vector Control Unit about
209              using fish as a mosquito
210              control measure.
211          </p>
212          <p class = "text-left">
213              <small><em><strong>Source: </strong> <a
214                  href = "http://www.gov.ms/2014/01/31/
215                  health-bulletin-chikungunya-awareness-and-
216                  prevention/">http://www.gov.ms/2014/01/31/
217                  health-bulletin-chikungunya-awareness-and-
218                  prevention/</a></em></small>
219          </p>
220          </div>
221      </div>
222  </div>
223  </div>
224  <p class = "text-justify">
225      A person with chikungunya fever should
226      limit their exposure to
227      mosquito bites to avoid further spreading
228      the infection.
229  </p>
230  <p class = "text-justify">
231      Stored water for agriculture and gardening
232      purposes are potential breeding
233      sites for mosquitoes. Therefore, all water
234      holding receptacles such
235      as buckets, drums, black PVC tanks should
236      be covered with mesh or
237      cloth-nets. Fishes also can be placed in
238      these reservoirs as a
239      mosquito control measure, since they feed
240      on mosquito larvae.
241  </p>
242  </div>
243  </div>
244  </div>
245  </div>
246  </div>
247  <div class = "tab-pane" id = "tabDeng">
248      <br />
249      <div class = "container-fluid well well-lg"
250          style = "border: 1px solid #ddd; background
251              -color: #eee;">
252          <div class = "panel panel-info">
253              <div class = "panel-body">
254                  <div class="thumbnail with-caption pull-
255                      right img-responsive" style = "margin-left:
256                          20px;">
257                      <img src = "<%= request.getContextPath() %>/resources/dist/img/doh-dengue.jpg"
258                      width="450" height = "350" class = "img-
259                          responsive" />
260                  </div>
261                  <p class = "text-justify">
262                      To prevent the spread of dengue fever,
263                      you must first prevent the breeding of its
264                      vector, the Aedes mosquitoes. The Aedes
265                      mosquito is easily identifiable by its
266                      distinctive black and white stripes on
267                      their body. It prefers to breed in clean,
268                      stagnant water easily found in our homes.
269                      You can get rid of the Aedes mosquito by
270                      frequently checking and removing stagnant
271                      water in your premises.
272                      The guidelines below will give you an
273                      overview of how you can prevent the Aedes
274                      mosquito from breeding.
275                  </p>
276                  <ul>
277                      <li>Keep your homes and offices protected
278                      against mosquitoes.</li>
279                      <li>Keep homes and offices airy, bright
280                      and safe from moisture.</li>
281                      <li>Fix nets on doors and windows.</li>
282                      <li>Wear full sleeves clothes.</li>
283                      <li>Use mosquito nets while sleeping.</li>
284                  >
285                      <li>Don't leave the overhead tanks open
286                      .</li>
287                      <li>Don't keep water in containers for
288                      more than a week. Instead, empty them every
289                      week, let them dry and then fill again.</li>
290                      <li>Don't let the water falling from the
291                      overhead tanks to accumulate permanently.
292                      Instead dry it.</li>
293                      <li>Don't let the water accumulate in any
294                      case both inside or outside the home.</li>
295                      <li>Be mindful of your home's cleanliness
296                      .</li>
297                      <li>Be mindful of your home's cleanliness
298                      .</li>
299                      <li>Keep the fence and hedge boundaries
300                      duly cut both inside and outside the home,
301                      and spray over them with insecticides,
302                      particularly in the evening.</li>
303                      <li>Don't let the water stay all the time
304                      in the flower pots, gamias of plants.
305                      Instead water them only in the morning
306                      every alternate day.</li>
307                      <li>The best way to fight dengue is
308                      through sustained cleanliness and
309                      sanitation.</li>
310                  </ul>
311                  <p class = "text-left">
312                      <small><em><strong>Source: </strong> <a
313                          href = "http://www.taclobanhotels.com/
314                          CAMPAIGN-AGAINST-DENGUE.htm">http://www.
315                          taclobanhotels.com/CAMPAIGN-AGAINST-DENGUE.
316                          htm</a></em></small>
317                  </p>
318                  </div>
319              </div>
320          </div>
321          <div class = "tab-pane" id = "tabMal">
322              <br />
323              <div class = "container-fluid well well-lg"
324                  style = "border: 1px solid #ddd; background
325                      -color: #eee;">
326                  <div class = "panel panel-info">
327                      <div class = "panel-body">
328                          <div class="thumbnail with-caption pull-
329                              right img-responsive" style = "margin-left:
330                                  20px;">
331                              <img src = "<%= request.getContextPath() %>/resources/dist/img/malariacycle.jpg"
332                              width="400" height = "300" class = "img-
333                                  responsive" />
334                          </div>
335                          <p class = "text-justify">
336                              <strong>Malaria in the Philippines</strong>
337                          </p>
338                          <p class = "text-justify">
339                              Philippines is a country known for its

```

```

252     rich ecosystem. The biological      283     consistent advocacy of the the
253     environment in this country is      284     international organiztion,
254     prosperous enough that more        285     malaria cases in this country was said
255     tourists and researchers are flocking in      286     to have plummeted every
256     this Pacific country.            287     year. WHO and the government provided
257     Philippines boasts of biodiversities and      288     millions of dollars to put
258     conservations like      289     this project up. Every effort made by
259     forests, mountains, hills, coral reefs,      290     the joining parties paid
260     caves, waterfalls and      291     off when Cebu, Catanduanes, and Leyte
261     more. Because of the rich ecosystem,      292     were declared of being a
262     there are a lot of species      293     malaria-free city. Currently, the World
263     too. But sometimes, some of these      294     Health Organization
264     species can be really      295     keeps on eliminating this virus in
265     dangerous especially the insects.      296     various parts of the country
266     Are you familiar with      297     and other countries as well.
267     Malaria?                      298     </p>
268     </p>                           299     <p class = "text-justify"><strong>
269     <p class = "text-justify">          300     People must remember these simple
270     In a statistics by World Health      301     prevention steps from the World Health
271     Organization, over 12      302     Organization:
272     million people in the Philippines (      303     </strong></p>
273     almost 13% of the population)      304     <p class = "text-justify">
274     are at high-risk of malaria causing      305     Sleep in a
275     death. Most malaria cases in      306     room that has screens that can protect
276     the country occur in swampy, hilly,      307     you from mosquitos. If
277     mountainous regions and      308     there are a lot of mosquitos in your
278     forested area that is infested with      309     place, be sure to have
279     Plasmodium and any other      310     mosquito repellent sprays or lotion for
280     deadly species. Plasmodium species can      311     protection. Practice
281     transfer virus by      312     hygiene and sanitation. If you see some
282     puncturing the human skin where the      313     signs and symptoms of
283     virus will then flow on the      314     malaria, rush the individual to the
284     human's bloodstream, spreading in the      315     nearest clinic or hospital.
285     whole body. Malaria can      316     Make sure that the authorities in your
286     kill an individual in just an hour, if      317     place will know about the
287     the one being infected is      318     malaria outbreak (if there is such) as
288     not aware that he's been bitten. So in      319     soon as possible. They
289     order to stop the      320     say that prevention is better than cure
290     increasing cases of malaria, the World      321     so make sure that you're
291     Health Organization,      322     taking precautionary measures to avoid
292     together with the Department of Health      323     being infected with
293     created various programs      324     malaria.
294     that tackled about treatments and      325     </p>
295     awareness about the disease.      326     <p class = "text-left">
296     </p>                           327     <small><em><strong>Source: </strong> <a
297     <p class = "text-justify">          328     href = "http://www.who.org.ph/malaria.
298     In the year 1990, 86,200+ cases of      329     html">http://www.who.org.ph/malaria.html</a
299     malaria in the Philippines      330     ></em></small>
300     were recorded. It's a very alarming      331     </p>
301     report that made WHO act      332     </div>
302     immediately. Nurses and doctors were      333     </div>
303     deployed on community areas      334     </div>
304     with malaria outbreak. Equipment were      335     </div>
305     also transferred on these      336     </div>
306     places to treat the affected patients      337     </div>
307     more effectively. The      338     </div>
308     operation went well and successful.      339     <jsp:include page = "footer.jsp" />
309     Because of the the

```

Listing 33: diseases.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <!DOCTYPE html>
5  <html>
6  <head>
7    <title>Vector-Borne Diseases Monitoring System
       </title>
8    <meta name="viewport" content="width=device-
       width, initial-scale=1.0">
9    <jsp:include page="css.jsp"/>
10   <style type="text/css">
11     .style1 {background-color:#ffffff;font-weight:
       bold; border:2px #006699 solid;}
12   </style>
13   <script src="<%= request.getContextPath() %>/
       resources/maps/maps3.js" type="text/
       javascript"></script>
14   <script type = "text/javascript">
15   function initialize() {
16     var cityCircle;
17     var latlng = new google.maps.LatLng(9.1732164,
       124.7298765);
18     var num = '<c:out value = "${fn:length(maps)}" />';
19     var i = 0;
20     var arrayX = new Array(num);
21     var arrayY = new Array(num);
22     var gry = new Array(num);
23     var countCases = new Array(num);
24     var countDeaths = new Array(num);
25     var pops = new Array(num);
26     var coords = new Array(num);
27     <c:forEach var = "map" items = "${maps}">

```

```

28     arrayX[i] = '<c:out value = "${map.x}" />';
29     arrayY[i] = '<c:out value = "${map.y}" />';
30     gry[i] = '<c:out value = "${map.barangay}" />';
31     countCases[i] = '<c:out value = "${map.
       countCases}" />';
32     countDeaths[i] = '<c:out value = "${map.
       countDeaths}" />';
33     pops[i] = '<c:out value = "${map.population
       }" />';
34     coords[i] = new google.maps.LatLng(arrayY[i],
       arrayX[i]);
35     i++;
36   </c:forEach>
37
38   var myOptions = {
39     zoom: 5,
40     center: latlng,
41     mapTypeId: google.maps.MapTypeId.ROADMAP
42   };
43
44   var map = new google.maps.Map(document.
     getElementById("map_canvas"),
45     myOptions);
46
47   // add control
48   var snapOpts = {
49     map: map
50   };
51   var snapShotControl = new SnapShotControl(
52     snapOpts);
53
54   for(var j = 0; j < num; j++) {
55     marker = new google.maps.Marker({
56       map:map,
57       title: "Barangay " + gry[j] + "\nNo. of
       Cases: " + countCases[j] + "\nNo. of Deaths
       : " + countDeaths[j] +
       "\nPopulation: " + pops[j],

```

```

59      draggable: false,
60      animation: google.maps.Animation.DROP,
61      position: coords[j],
62      icon: new google.maps.MarkerImage(
63        "http://chart.googleapis.com/chart?chst=d_bubble_text_small&chld=bb|" + gry[j]+ "|FF8080|000000",
64        null, null, new google.maps.Point(0, 42)),
65      shadow: new google.maps.MarkerImage(
66        "http://chart.googleapis.com/chart?chst=d_bubble_text_small_shadow&chld=bb|" + gry[j]+ "|",
67        null, null, new google.maps.Point(0, 45))
68    );
69  }
70 }
71
72 for(var j = 0; j < num; j++) {
73   var stroke = "";
74   var fill = "";
75   //##FF0000
76   //##FF0000
77
78   if(countCases < pops[j]/5){
79     stroke = "#91D8EE";
80     fill = "#91D8EE";
81   }
82   else if(countCases < pops[j]/4){
83     stroke = "#C1F3F3";
84     fill = "#C1F3F3";
85   }
86   else if(countCases < pops[j]/3){
87     stroke = "#FFC398";
88     fill = "#FFC398";
89   }
90   else if(countCases < pops[j]/2){
91     stroke = "#FAA99A";
92     fill = "#FAA99A";
93   }
94   else {
95     stroke = "#E68C98";
96     fill = "#E68C98";
97   }
98
99   var populationOptions = {
100     strokeColor: "#FAA99A",
101     strokeOpacity: 0.8,
102     strokeWeight: 2,
103     fillColor: "#FAA99A",
104     fillOpacity: 0.35,
105     map: map,
106     center: coords[j],
107     radius: 350
108   };
109   cityCircle = new google.maps.Circle(
110     populationOptions);
111 }
112 </script>
113 </head>
114 <body onload = "initialize()">
115 <div class = "container">
116   <div class = "navbar navbar-default" role = "navigation">
117     <div class = "container-fluid">
118       <div class = "navbar-header">
119         <button type = "button" class = "navbar-toggle" data-toggle = "collapse" data-target = ".navbar-collapse">
120           <span class = "sr-only">Toggle Navigation</span>
121           <span class = "icon-bar"></span>
122           <span class = "icon-bar"></span>
123           <span class = "icon-bar"></span>
124         </button>
125         <a href = "<%= request.getContextPath()%>/home"><img src = "<%= request.getContextPath()%>/resources/dist/img/logo2.jpg" alt = "VBDMS Logo" height = "30px;" width = "93px;" class = "img-responsive"/></a>
126       </div>
127       <div class = "collapse navbar-collapse">
128         <ul class = "nav navbar-nav">
129           <li><a href = "<%= request.getContextPath()%>/home">Home</a></li>
130           <li class = "active dropdown" style = "width: 150px; text-align: center;">
131             <a href = "" data-toggle = "dropdown" class = "dropdown-toggle">
132               ${diseaseName} <span class = "caret"></span>
133             </a>
134             <ul class="dropdown-menu" style = "text-align: left;">
135               <c:forEach var="dis" items="${disease}">
136                 <c:if test = "${dis.diseaseName != diseaseName}">
137                   <li><a href = "<%= request.getContextPath()%>/disease/${dis.diseaseName}">${dis.diseaseName}</a></li>
138                 </c:if>
139               </c:forEach>
140             </ul>
141           </li>
142           <li class = "dropdown">
143             <a href = "" data-toggle = "dropdown" class = "dropdown-toggle">
144               Disease Statistics <b class = "caret"></b>
145             </a>
146             <ul class="dropdown-menu">
147               <c:forEach var="dis" items="${disease}">
148                 <li><a href = "<%= request.getContextPath()%>/statistics/${dis.diseaseName}">${dis.diseaseName}</a></li>
149               </c:forEach>
150             </ul>
151           </li>
152           <li><a href = "<%= request.getContextPath()%>/campaigns">Awareness Campaigns</a></li>
153         </ul>
154         <ul class = "nav navbar-right">
155           <c:authorize access="isAnonymous()"%>
156             <c:if test = "${pages != 'register'}">
157               <li><a data-toggle = "modal" href = "#loginForm">Login</a></li>
158               <li><a href = "<%= request.getContextPath()%>/register">Register</a></li>
159             </c:if>
160           </c:authorize>
161           <c:authorize access="isAuthenticated()"%>
162             <div class = "btn-group">
163               Logged in as:
164               <c:authorize access="hasAnyRole('ROLE_BHWorker')"%>
165                 <a href = "<%= request.getContextPath()%>/pages/profile">Barangay Health Worker</a>
166               </c:authorize>
167               <c:authorize access="hasAnyRole('ROLE_MHWorker')"%>
168                 <a href = "<%= request.getContextPath()%>/pages/profile">Municipal/City Health Worker</a>
169               </c:authorize>
170               <c:authorize access="hasAnyRole('ROLE_MCOOfficial')"%>
171                 <a href = "<%= request.getContextPath()%>/pages/profile">Municipal/City Health Official</a>
172               </c:authorize>
173               <c:authorize access="hasAnyRole('ROLE_PHWorker')"%>
174                 <a href = "<%= request.getContextPath()%>/pages/profile">Provincial Health Worker</a>
175               </c:authorize>
176               <c:authorize access="hasAnyRole('ROLE_PHOfficial')"%>
177                 <a href = "<%= request.getContextPath()%>/pages/profile">Provincial Health Official</a>
178               </c:authorize>
179               <c:authorize access="hasAnyRole('ROLE_NHOOfficial')"%>
180                 <a href = "<%= request.getContextPath()%>/pages/profile">National Health Official</a>
181               </c:authorize>
182               <c:authorize access="hasAnyRole('ROLE_USER')"%>
183                 <a href = "<%= request.getContextPath()%>/pages/profile">Administrator</a>
184               </c:authorize>
185               <c:authorize access="hasAnyRole('ROLE_Researcher')"%>
186                 <a href = "<%= request.getContextPath()%>/pages/profile">Researcher</a>
187               </c:authorize>
188             </div>
189             <div class = "btn-group">
190               <button href="#" data-toggle="dropdown" class="btn dropdown-toggle">
191                 <span class = "glyphicon glyphicon-user"></span> <span class = "caret"></span>
192               </button>
193             <ul class="dropdown-menu">
194               <li><a href = "<%= request.getContextPath()%>/pages/profile">Profile</a></li>
195               <!--
196                 <li><a href = "<%= request.getContextPath()%>/pages/messages">Messages</a></li>
197               -->
198               <c:authorize access="hasAnyRole('ROLE_MCOOfficial', 'ROLE_PHOfficial', 'ROLE_NHOOfficial', 'ROLE_USER')"%>
199                 <li><a href = "<%= request.getContextPath()%>/pages/notifications">Notifications</a></li>

```

```

201     Notifications </a></li>
202         <sec:authorize>
203             <sec:authorize access="hasAnyRole('
204                 ROLE_BHWorker', 'ROLE_PHWorker', '
205                 ROLE_MHWorker', 'ROLE_USER')">
206                 <li><a href = "<%= request.
207                     getContextPath() %>/pages/system">Manage
208                     Records</a></li>
209             </sec:authorize>
210             <sec:authorize access="hasAnyRole('
211                 ROLE_MCOfficial', 'ROLE_PHOfficial', '
212                 ROLE_NHOOfficial', 'ROLE_USER')">
213                 <li><a href = "<%= request.getContextPath()
214                     () %>/pages/workers">Workers</a></li>
215             </sec:authorize>
216             <sec:authorize access="isAuthenticated()">
217                 <li><a href = "<%= request.getContextPath()
218                     () %>/pages/reports">Reports</a></li>
219             </sec:authorize>
220             <li><a href = "<%= request.getContextPath()
221                     %>/j_spring_security_logout">Log Out</a></
222                 li>
223             </ul>
224         </div>
225     </div>
226 </div>
227 <div id = "loginForm" class = "modal fade"
228     tabindex = "-1">
229     <div class="modal-header">
230         <button type="button" class="close" data-
231             dismiss="modal" aria-hidden="true"> </
232             button>
233         <div class = "panel-header">
234             <h4 class = "form-signin-head">Vector Borne
235                 Diseases Monitoring System</h4>
236         </div>
237     <div class = "modal-body">
238         <form method="post" class = "form-signin"
239             action = "/j_spring_security_check">
240             <table class = "table" >
241                 <tr>
242                     <td style = "border: none;">
243                         <label for="login_username">Username</
244                             label>
245                     </td>
246                     <td style = "border: none;">
247                         <input type="text" name="j_username" id="
248                             login_username" class="form-control field
249                             required" title="Please provide your
250                             username" />
251                     </td>
252                 </tr>
253                 <td style = "border: none;">
254                     <label for="login_password">Password</
255                         label>
256                     <td style = "border: none;">
257                         <input type="password" name="j_password"
258                             id="login_password" class="form-control
259                             field required" title="Password is required
260                             " />
261                     </td>
262                 </tr>
263             </table>
264         </div>
265     </div>
266 </div>
267 <jsp:include page = "footer.jsp" />
```

Listing 34: chikungunya.jsp

```

1  <div class="center-block well-lg" style = "
2      background-color: #fff;">
3      <h2>Chikungunya</h2>
4      <p class = "text-justify">
5          <strong><em>Chikungunya</em></strong> is a
6              viral disease that
7              causes fever and severe joint pain. Sharing
8                  clinical signs with
9                  dengue, it is usually misdiagnosed in areas
10                 where dengue is common. It
11                 is transmitted by infected mosquitoes, usually
12                     the genus Aedes.
13             </p>
14             <br />
15             <ol type = "a">
16                 <li><strong>Signs and Symptoms</strong></li>
17                 <br />
18                 <p class = "text-justify">
19                     Aside from abrupt onset of fever frequently
20                     accompanied by joint pains, other signs and
21                     symptoms of chikungunya
22                     include muscle pain, headache, nausea,
23                     fatigue and rash. Joint pain
24                     usually lasts within a few days or weeks and
25                     while most patients
26                     recover fully from this, some cases may
27                     persist for several months, or
28                     even years. Occasionally, cases of eye,
29                     neurological and heart
30                     complications as well as gastrointestinal
31                     complaints have been
32                     reported. This disease not often cause
33                     serious complications but can
34                     contribute to death among older population.
35             </ol>
36             <br />
37             <li><strong>Mode Of Transmission</strong></li>
38         </ol>
39     </div>
40 
```

Listing 35: dengue.jsp

```

1  <div class="center-block well-lg" style = "
2      background-color: #fff;">
3      <h2>Dengue</h2>
4      <p class = "text-justify"><strong><em>Dengue</
5          em></strong> is a mosquito-borne viral
6              infection
7              that causes u-like illness, and occa-sionally
8                  develops into a
9                  potentially lethal complication called severe
10                 dengue. It is 12 found
11             </p>
12         </div>
13 
```

```

6   in tropical and sub-tropical climates and
7   mostly in urban and
8   semi-urban areas. It is transmitted by an
9   infected Aedes mosquito
10  (Aedes aegypti or Aedes albopictus).
11  </p>
12  <br />
13  <ol type = "a">
14  <li><strong>Signs and Symptoms</strong></li>
15  <p class = "text-justify">
16  When running a high fever (40°C/100°F)
17  and is accompanied by two symptoms,
18  namely, severe headache, pain behind the eyes
19  , muscle and joint pains,
20  nausea, vomiting, swollen glands or rash,
21  dengue should be suspected.
22  These symptoms usually last for 2 to 7 days;
23  that is after 4-10 days
24  of incubation period after the bite from an
25  infected mosquito. A
26  potentially deadly complication from dengue,
27  severe dengue, is due to
28  plasma leaking, uid accommodation,
29  respiratory diseases, severe
30  bleeding, or organ impairment. After 3-7 days
31  when the first symptoms in
32  conjunction with a decrease in temperature of
33  below 38°C/100°F, warning
34  sign occurs that includes severe abdominal
35  pain, persistent vomiting,
36  rapid breathing, bleeding gums, fatigue,
37  restlessness and blood in
38  vomit. Proper medical care is needed to avoid
39  complications and risk
40  of death especially in the next 24-48 hours
41  of the critical stage.
42  </p>
43  <br />
44  <li><strong>Mode of Transmission</strong></li>
45  <p class = "text-justify">
46  <br />
47  Dengue is transmitted by the bite of an
48  infected mosquito,
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
```

Listing 36: malaria.jsp

```

1  <div class = "center-block well-lg" style =
2    background-color: #fff;">
3  <h2>Malaria</h2>
4  <p class = "text-justify">
5  <strong><em>Malaria</em></strong>, though
6  preventable and curable, is
7  a life-threatening disease caused by parasites
8  that are transmitted to
9  people through the bites of infected
10  mosquitoes. The burden of malaria
11  in many places has been dramatically reduced
12  by increased malaria
13  prevention and control measures. The
14  Plasmodium parasite causes malaria
15  to humans and is transmitted by Anopheles
16  mosquitoes.
17  </p>
18  <br />
19  <ol type = "a">
20  <li><strong>Signs and Symptoms</strong></li>
21  <p class = "text-justify">
22  <br />
23  Malaria is an illness characterized with
```

acute fever. Symptoms appear 7 days or more (10-15 days) for non-immune individuals after being bitten by an infected mosquito. The first symptoms include fever, headache, chills and vomiting which may be mild and difficult to be recognized as malaria. Residents in malaria endemic areas may develop partial immunity which allows asymptomatic infections to occur.

</p>

Treatment

<p class = "text-justify">

Early diagnosis and treatment of malaria reduces disease and prevents deaths. It also contributes to reducing malaria transmission. The best available treatment, particularly for P. falciparum malaria, is artemisinin-based combination therapy (ACT).

Listing 37: statistics.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2   jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4   functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6   springframework.org/security/tags" %>
7  <%@ taglib prefix="fmt" uri="http://java.sun.com
8   /jsp/jstl/fmt" %>
9  <!DOCTYPE html>
10 <html>
11 <head>
12 <title>Vector-Borne Diseases Monitoring System
13 </title>
14 <meta name="viewport" content="width=device-
15 width, initial-scale=1.0">
16 <jsp:include page="css.jsp"/>
17 <script type="text/javascript">
18 $(function () {
19   var d=new Date();
20   var month=new Array();
21   month[0]="January";
22   month[1]="February";
23   month[2]="March";
24   month[3]="April";
25   month[4]="May";
26   month[5]="June";
27   month[6]="July";
28   month[7]="August";
29   month[8]="September";
30   month[9]="October";
31   month[10]="November";
32   month[11]="December";
33   var n = month[d.getMonth()];
34   var years = d.getFullYear();
35   $('#containsLine').highcharts({
36     title: {
37       text: '<c:out value = "${titles}" />',
38       x: -20 //center
39     },
40     subtitle: {
41       text: 'Philippines, ' + n + ", " +
42       years,
43       x: -20
44     },
45     xAxis: {
46       categories: ['Jan', 'Feb', 'Mar',
47       'Apr', 'May', 'Jun',
48       'Jul', 'Aug', 'Sep', 'Oct', 'Nov',
49       'Dec']
50     }
51   });
52 
```

```

    'Dec']
41     },
42     yAxis: {
43       title: {
44         text: 'Number of Person'
45       },
46       plotLines: [{
47         value: 0,
48         width: 1,
49         color: '#808080',
50       }]
51     },
52     tooltip: {
53       valueSuffix: ''
54     },
55     legend: {
56       layout: 'vertical',
57       align: 'right',
58       verticalAlign: 'middle',
59       borderWidth: 0
60     },
61     series: [{
62       name: 'Cases',
63       data: <c:out value = "${data1}" />
64     }, {
65       name: 'Deaths',
66       data: <c:out value = "${data2}" />
67     }]
68   );
69 });
70 </script>
71 </head>
72 <body>
73   <div class = "container">
74     <div class = "navbar navbar-default" role = "navigation">
75       <div class = "container-fluid">
76         <div class = "navbar-header">
77           <button type = "button" class = "navbar-toggle" data-toggle = "collapse" data-target = ".navbar-collapse">
78             <span class = "sr-only">Toggle Navigation</span>
79             <span class = "icon-bar"></span>
80             <span class = "icon-bar"></span>
81             <span class = "icon-bar"></span>
82           </button>
83           <a href = "<%= request.getContextPath() %>/home"><img src = "<%= request.getContextPath() %>/resources/dist/img/logo2.jpg" alt = "VBDMS Logo" height = "30px;" width = "93px;" class = "img-responsive"/></a>
84         </div>
85       <div class = "collapse navbar-collapse">
86         <ul class = "nav navbar-nav">
87           <li <c:if test = "{$pages == 'home'}">
88             <a href = "<%= request.getContextPath() %>/home">Home</a></li>
89             <li class = "dropdown">
90               <a href = "" data-toggle = "dropdown" class = "dropdown-toggle">
91                 Diseases <b class = "caret"></b>
92               </a>
93               <ul class = "dropdown-menu">
94                 <c:forEach var="dis" items="${disease}">
95                   <li><a href = "<%= request.getContextPath() %>/disease/${dis.diseaseName}">${dis.diseaseName}</a></li>
96                 </c:forEach>
97               </ul>
98             </li>
99           <li class = "active dropdown" style = "width: 150px; text-align: center;">
100             <a href = "" data-toggle = "dropdown" class = "dropdown-toggle">
101               ${diseaseName} <span class = "caret"></span>
102             </a>
103             <ul class = "dropdown-menu" style = "text-align: left;">
104               <c:forEach var="dis" items="${disease}">
105                 <c:if test = "{$dis.diseaseName != diseaseName}">
106                   <li><a href = "<%= request.getContextPath() %>/statistics/${dis.diseaseName}">${dis.diseaseName}</a></li>
107                 </c:if>
108               </c:forEach>
109             </ul>
110           </li>
111           <li><a href = "<%= request.getContextPath() %>/campaigns">Awareness Campaigns</a></li>
112         </ul>
113         <ul class = "nav navbar-nav navbar-right">
114           <sec:authorize access="isAnonymous()">
115
116             <c:if test = "{$pages != 'register'}">
117               <li><a data-toggle = "modal" href = "#loginForm">Login</a></li>
118               <li><a href = "<%= request.getContextPath() %>/register">Register</a></li>
119             </c:if>
120           </sec:authorize>
121           <sec:authorize access="isAuthenticated()">
122             <div class = "btn-group">
123               Logged in as:
124               <sec:authorize access="hasAnyRole('ROLE_BHWorker')">
125                 <a href = "<%= request.getContextPath() %>/pages/profile">Barangay Health Worker</a>
126               </sec:authorize>
127               <sec:authorize access="hasAnyRole('ROLE_MHWorker')">
128                 <a href = "<%= request.getContextPath() %>/pages/profile">Municipal/City Health Worker</a>
129               </sec:authorize>
130               <sec:authorize access="hasAnyRole('ROLE_MCOfficial')">
131                 <a href = "<%= request.getContextPath() %>/pages/profile">Municipal/City Health Official</a>
132               </sec:authorize>
133               <sec:authorize access="hasAnyRole('ROLE_PHWorker')">
134                 <a href = "<%= request.getContextPath() %>/pages/profile">Provincial Health Worker</a>
135               </sec:authorize>
136               <sec:authorize access="hasAnyRole('ROLE_PHOfficial')">
137                 <a href = "<%= request.getContextPath() %>/pages/profile">Provincial Health Official</a>
138               </sec:authorize>
139               <sec:authorize access="hasAnyRole('ROLE_NHOfficial')">
140                 <a href = "<%= request.getContextPath() %>/pages/profile">National Health Official</a>
141               </sec:authorize>
142               <sec:authorize access="hasAnyRole('ROLE_USER')">
143                 <a href = "<%= request.getContextPath() %>/pages/profile">Administrator</a>
144               </sec:authorize>
145               <sec:authorize access="hasAnyRole('ROLE_Researcher')">
146                 <a href = "<%= request.getContextPath() %>/pages/profile">Researcher</a>
147               </sec:authorize>
148             </div>
149             <div class = "btn-group">
150               <button href="#" data-toggle = "dropdown" class = "btn dropdown-toggle">
151                 <span class = "glyphicon glyphicon-user"></span>
152                 <span class = "caret"></span>
153               </button>
154               <ul class = "dropdown-menu">
155                 <li><a href = "<%= request.getContextPath() %>/pages/profile">Profile</a></li>
156                 <sec:authorize access="hasAnyRole('ROLE_MCOfficial', 'ROLE_PHOfficial', 'ROLE_NHOfficial', 'ROLE_USER')">
157                   <li><a href = "<%= request.getContextPath() %>/pages/notifications">Notifications</a></li>
158                   </sec:authorize>
159                   <sec:authorize access="hasAnyRole('ROLE_BHWorker', 'ROLE_PHWorker', 'ROLE_MHWorker', 'ROLE_USER')">
160                     <li><a href = "<%= request.getContextPath() %>/pages/system">Manage Records</a></li>
161                     </sec:authorize>
162                     <sec:authorize access="hasAnyRole('ROLE_MCOfficial', 'ROLE_PHOfficial', 'ROLE_NHOfficial', 'ROLE_USER')">
163                       <li><a href = "<%= request.getContextPath() %>/pages/workers">Workers</a></li>
164                       </sec:authorize>
165                       <sec:authorize access="isAuthenticated()">
166                         <li><a href = "<%= request.getContextPath() %>/pages/reports">Reports</a></li>
167                       </sec:authorize>
168                       <li><a href = "<%= request.getContextPath() %>/j_spring_security_logout">Log Out</a></li>
169                     </c:if>
170                   </c:forEach>
171                 </sec:authorize>
172               </ul>
173             </div>
174           </div>
175         </div>
176         <div class = "modal fade" id = "loginForm">
177           <div class = "modal-dialog" style = "background

```

```

178     -color: #fff;">
179 <div class = "modal-body panel panel-info">
180   <div class = "panel panel-heading">
181     <h4 class = "form-signin-head">Vector Borne
182       Diseases Monitoring System</h4>
183   </div>
184   <form method="post" class = "form-signin"
185     action = "j_spring_security_check">
186     <table class = "table" id = "oTable">
187       <tr>
188         <td style = "border: none;">
189           <label for="login_username">Username</
190             label>
191           </td>
192           <td style = "border: none;">
193             <input type="text" name="j_username" id="
194               login_username" class="form-control field
195               required" title="Please provide your
196               username" />
197             </td>
198           </td>
199         </tr>
200         <tr>
201           <td style = "border: none;">
202             <label for="login_password">Password</
203               label>
204             </td>
205             <td style = "border: none;">
206               <input type="password" name="j_password"
207                 id="login_password" class="form-control
208                 field required" title="Password is required
209                 " />
210             </td>
211           </tr>
212           <tr>
213             <td style = "border: none;"><button class
214               = "btn btn-primary" type="submit" value =
215                 "submit">Log in</button></td>
216           </tr>
217           </table>
218         </form>
219       </div>
220     </div>
221   </div>
222 <c:forEach var="i" begin="0" end="${fn:length(
223   regions) - 1}">
224 <div id = "region_${i}" class = "modal fade"
225   data-width = "760">
226   <div class = "modal-body">
227     <div class = "panel panel-info">
228       <div class = "panel-heading">
229         ${regions[i]}
230       </div>
231       <div class = "panel-body">
232         <table class = "table table-striped" id = "
233           nTable_${i}">
234           <thead>
235             <tr>
236               <td>
237                 <strong>Municipality/City</strong>
238               </td>
239               <td>
240                 <strong>Population</strong>
241               </td>
242               <td>
243                 <strong>Cases</strong>
244               </td>
245               <td>
246                 <strong>Deaths</strong>
247               </td>
248               <td>
249                 <strong>Incidence Rate</strong>
250               </td>
251               <td>
252                 <strong>Outbreak Percentage</strong>
253               </td>
254               <td>
255                 <strong><fmt:formatNumber type="number"
256                   maxFractionDigits="5" groupingUsed="false"
257                   value="${m.countMCases/m.population * 100}" /></strong>
258               </td>
259             <tr>
260               <td>
261                 <strong>
262                   <c:if test = "${m.count0Cases != 0}">
263                     <fmt:formatNumber type="number"
264                       maxFractionDigits="5" groupingUsed="false"
265                       value="${m.countMCases/m.count0Cases *
266                         100}" />%
267                   </c:if>
268                   <c:if test = "${m.count0Cases == 0}">
269                     -
270                   </c:if>
271                 </strong>
272               </td>
273             </tr>
274           </c:forEach>
275         </tbody>
276       </div class = "container-fluid well-lg" style = "
277         background-color: #eee;">
278       <div class = "panel panel-info">
279         <div class = "panel-heading">
280           <div class = "panel-body" id = "containsLine">
281             </div>
282           </div>
283           <div class = "panel panel-info" style = "
284             background-color: #fff;">
285             <table class = "table" style = "text-align:
286               center;">
287               <tr class = "success">
288                 <td>
289                   <strong>Region</strong>
290                 </td>
291                 <td>
292                   <strong>Population<font color="red">*</font
293                     ></strong>
294                 </td>
295                 <td>
296                   <strong>No. of Deaths</strong>
297                 </td>
298                 <td>
299                   <strong>Monthly Incidence Rate</strong>
300                 </td>
301                 <td>
302                   <strong>Outbreak Percentage</strong>
303                 </td>
304               </tr>
305             <c:forEach var="i" begin="0" end="${fn:length(
306               regions) - 1}">
307               <tr>
308                 <td>
309                   <button type = "button" data-toggle =
310                     "modal" href = "#region_${i}" class =
311                       "btn
312                         brn-primary" style = "background-color:
313                           #428BCA;"><font color = "white"><strong>${
314                             regions[i]}</strong></font></button>
315                 </td>
316                 <td>
317                   ${cases[i]}
318                 </td>
319                 <td>
320                   <fmt:formatNumber type="number"
321                     maxFractionDigits="5" groupingUsed="false"
322                     value="${cases[i]/popula[i] * 100}" />%
323                 </td>
324                 <td>
325                   <c:if test = "${oldCases[i] != 0}">
326                     <fmt:formatNumber type="number"
327                       maxFractionDigits="5" groupingUsed="false"
328                       value="${cases[i]/oldCases[i] * 100}" />%
329                   </c:if>
330                   <c:if test = "${oldCases[i] == 0}">
331                     -
332                   </c:if>
333                 </td>
334               </tr>
335             </c:forEach>
336           </table>
337           <div class = "alert alert-info">
338             *Philippine Population as of May 1, 2010;
339             <p class = "text-left">
340               <small><em><strong>Source: </strong> <a
341                 href = "http://www.census.gov.ph/content

```

```

/2010-census-population-and-housing-reveals      341  </div>
-philippine-population-9234-million">http      342  </div>
://www.census.gov/ph/content/2010-census-      343  </div>
population-and-housing-reveals-philippine-      344  </div>
population-9234-million</a></em></small>      345  <jsp:include page="footer.jsp"/>
340  </p>

```

Listing 38: vbd.jsp

```

1   <div class="center-block well-lg" style = "      341  </div>
2     background-color: #fff;">                  342  </div>
3     <h2>Vector-Borne Diseases</h2>            343  </div>
4     <div class="thumbnail with-caption pull-right      344  </div>
5       img-responsive" style = "margin-left: 20px      345  <jsp:include page="footer.jsp"/>
6       ;">                                   
7       <img src = "<%= request.getContextPath()%>/      341  </div>
8         resources/dist/img/images.jpg"           342  </div>
9         width="320" class = "img-responsive" />      343  </div>
10    <p>          <small>www.philstar.com</small>      344  </div>
11    </p>                                   
12    <p class="text-justify">          <br/>
13      <strong>Vector-borne disease</strong></        345  </div>
14        em> is the term commonly used to      341  </div>
15        describe an illness caused by an infectious      342  </div>
16        microbe that is      343  </div>
17        transmitted to people by blood-sucking      344  </div>
18        arthropods. The arthropods      345  </div>
19        (insects or arachnids) that most commonly      341  </div>
20        serve as vectors include:      342  </div>
21          <ul>          <li>blood sucking insects such as mosquitoes,      343  </div>
22            fleas, lice, biting      344  </div>
23            flies and bugs, and</li>      345  </div>
24          <li>blood sucking arachnids such as mites      341  </div>
25            and ticks.</li>      342  </div>
26        </ul>                                   
27        The term "vector" refers to any arthropod      343  </div>
28

```

Listing 39: register.jsp

```

1   <%@ taglib uri="http://www.springframework.org/      341  </div>
2     tags/form" prefix="form"%>                  342  </div>
3   <%@ taglib prefix="c" uri="http://java.sun.com/      343  </div>
4     jsp/jstl/core" %>                         344  </div>
5   <%@ taglib uri="http://java.sun.com/jsp/jstl/      345  </div>
6     functions" prefix="fn"%>                     341  </div>
7   <jsp:include page="header.jsp"/>                342  </div>
8   <div class="panel panel-info">                  343  </div>
9     <div class="panel-heading">Registration Form</      344  </div>
10    div>
11    <div class = "panel-body">                    345  </div>
12      <div class = "alert alert-info">          <font color = "red">* </font><i>Required      341  </div>
13        fields</i>                            342  </div>
14      </div>                                   
15      <form:form method = "POST" action = "      343  </div>
16        registerUser" modelAttribute = "registers"      344  </div>
17        id = "regist">                      345  </div>
18        <table class = "table table-striped">      341  </div>
19          <tbody>
20            <tr>
21              <td>
22                <label for="firstname" >First Name<font      342  </div>
23                  color = "red"> * </font></label>      343  </div>
24                </td>
25                <td>
26                  <form:input path="firstname" type = "text"      344  </div>
27                    class = "form-control" id = "firstname"      345  </div>
28                    required = "true" maxlength = "50"/>
29                  <c:if test="#{not empty eFirstname}">
30                    <div class = "alert alert-danger alert-      341  </div>
31                      dismissable">
32                      <button type="button" class="close" data-      342  </div>
33                        dismiss="alert" aria-hidden="true">&times;      343  </div>
34                      ;</button>
35                      <strong><form:errors path = "firstname      344  </div>
36                        "></form:errors></strong>      345  </div>
37                    </div>
38                  </c:if>
39                </td>
40              <td>
41                <label for = "middlename">Middle Name</      342  </div>
42                  label>      343  </div>
43                <form:input path = "middlename" type = "      344  </div>
44                  text" class = "form-control"/>      345  </div>
45                <c:if test="#{not empty eMiddlename}">
46                  <div class = "alert alert-danger alert-      341  </div>
47                      dismissable">
48                      <button type="button" class="close" data-      342  </div>
49                        dismiss="alert" aria-hidden="true">&times;      343  </div>
50                      ;</button>
51                      <strong><form:errors path = "surname"></      344  </div>
52                        form:errors></strong>      345  </div>
53                    </div>
54                  </c:if>
55                </td>
56              <td>
57                <label for="gender" >Gender</label>      342  </div>
58              </td>
59              <td>
60                <form:select path = "gender" class = "form-      343  </div>
61                  control">
62                  <option></option>
63                  <option>Male</option>
64                  <option>Female</option>
65                </form:select>
66                <c:if test="#{not empty eGender}">
67                  <div class = "alert alert-danger alert-      341  </div>
68                      dismissable">
69                      <button type="button" class="close" data-      342  </div>
70                        dismiss="alert" aria-hidden="true">&times;      343  </div>
71                      ;</button>
72                      <strong><form:errors path = "gender"></form:      344  </div>
73                        errors></strong>      345  </div>
74                    </div>
75                  </c:if>
76                <td>
77                  <label for="address" >Home Address</label>

```

```

77   </td>
78   <td colspan = '6'>
79     <form:textarea path = "address" type = "text"
80       class = "form-control" rows = "3"/>
81     <c:set var="eAddress"><form:errors path="
82       address"/></c:set>
83     <c:if test="${not empty eAddress}">
84       <div class = "alert alert-danger alert-
85        -dismissible">
86         <button type="button" class="close" data-
87           dismiss="alert" aria-hidden="true">&times;
88       </button>
89     <strong><form:errors path = "address"></form:
90       errors></strong>
91     </div>
92   </c:if>
93 </td>
94 </tr>
95 <td>
96   <label for="usertype">Register as<font color =
97     "red"> *</font></label>
98 </td>
99 <td>
100  <form:select path = "userType" class = "form-
101    control" id = "usertype" required = "true"
102      >
103        <option></option>
104        <option <c:if test = "${registers.userType ==
105          'Barangay Health Worker'}">selected = "
106            selected"</c:if>>Barangay Health Worker</
107          option>
108        <option <c:if test = "${registers.userType ==
109          'Municipal/City Health Worker'}">selected = "
110            selected"</c:if>>Municipal/City Health
111          Worker</option>
112        <option <c:if test = "${registers.userType ==
113          'Municipal/City Health Official'}">selected = "
114            selected"</c:if>>Municipal/City Health
115          Official</option>
116        <option <c:if test = "${registers.userType ==
117          'Provincial Health Worker'}">selected = "
118            selected"</c:if>>Provincial Health Worker</
119          option>
120        <option <c:if test = "${registers.userType ==
121          'Provincial Health Official'}">selected = "
122            selected"</c:if>>Provincial Health Official</
123          option>
124        <option <c:if test = "${registers.userType ==
125          'National Health Official'}">selected = "
126            selected"</c:if>>National Health Official</
127          option>
128        <option <c:if test = "${registers.userType ==
129          'Researcher'}">selected = "selected"</c:if
130            >>Researcher</option>
131   </form:select>
132   <c:set var="eUserType"><form:errors path="
133     userType"/></c:set>
134   <c:if test="${not empty eUserType}">
135     <div class = "alert alert-danger alert-
136      -dismissible">
137       <button type="button" class="close" data-
138         dismiss="alert" aria-hidden="true">&times;
139     <strong><form:errors path = "userType"></form:
140       errors></strong>
141   </c:if>
142   <label for = "region">Region<font color = "red
143     "> *</font></label>
144   <form:select path = "region" class = "form-
145     control" id = "region" onChange = "
146       regionSelect()" required = "true">
147     <option></option>
148     <option value = "ARMM" <c:if test = "${
149       registers.region == 'ARMM'}">selected = "
150         selected"</c:if>>ARMM</option>
151     <option value = "CAR" <c:if test = "${
152       registers.region == 'CAR'}">selected = "
153         selected"</c:if>>CAR</option>
154     <option value = "NCR" <c:if test = "${
155       registers.region == 'NCR'}">selected = "
156         selected"</c:if>>NCR</option>
157     <option value = "Region I" <c:if test = "${
158       registers.region == 'Region I'}">selected =
159         selected"</c:if>>Region I</option>
160     <option value = "Region II" <c:if test = "${
161       registers.region == 'Region II'}">selected =
162         selected"</c:if>>Region II</option>
163     <option value = "Region III" <c:if test = "${
164       registers.region == 'Region III'}">selected =
165         selected"</c:if>>Region III</option>
166     <option value = "Region IV-A" <c:if test = "${
167       registers.region == 'Region IV-A'}">selected =
168         selected"</c:if>>Region IV-A</
169       option>
170     <option value = "Region IV-B" <c:if test = "${
171       registers.region == 'Region IV-B'}">selected =
172         selected"</c:if>>Region IV-B</
173       option>
174     <option value = "Region V" <c:if test = "${
175       registers.region == 'Region V'}">selected =
176         selected"</c:if>>Region V</option>
177     <option value = "Region VI" <c:if test = "${
178       registers.region == 'Region VI'}">selected =
179         selected"</c:if>>Region VI</option>
180     <option value = "Region VII" <c:if test = "${
181       registers.region == 'Region VII'}">selected =
182         selected"</c:if>>Region VII</option>
183     <option value = "Region VIII" <c:if test = "${
184       registers.region == 'Region VIII'}">selected =
185         selected"</c:if>>Region VIII</
186       option>
187     <option value = "Region IX" <c:if test = "${
188       registers.region == 'Region IX'}">selected =
189         selected"</c:if>>Region IX</option>
190     <option value = "Region X" <c:if test = "${
191       registers.region == 'Region X'}">selected =
192         selected"</c:if>>Region X</option>
193     <option value = "Region XI" <c:if test = "${
194       registers.region == 'Region XI'}">selected =
195         selected"</c:if>>Region XI</option>
196     <option value = "Region XII" <c:if test = "${
197       registers.region == 'Region XII'}">selected =
198         selected"</c:if>>Region XII</option>
199     <option value = "Region XIII" <c:if test = "${
200       registers.region == 'Region XIII'}">selected =
201         selected"</c:if>>Region XIII</
202       option>
203   </form:select>
204   <c:set var="eRegion"><form:errors path="region
205     "/></c:set>
206   <c:if test="${not empty eRegion}">
207     <div class = "alert alert-danger alert-
208      -dismissible">
209       <button type="button" class="close" data-
210         dismiss="alert" aria-hidden="true">&times;
211     <strong><form:errors path = "region"></form:
212       errors></strong>
213   </c:if>
214   <label for = "province">Province<font color = "
215     red"> *</font></label>
216   <form:select path = "province" type = "text"
217     class = "form-control" id = "province"
218       onChange = "provSelect()" required = "true"
219       disabled = "${empty registers.province}">
220     <c:if test = "${not empty registers.province}">
221       <option>${registers.province}</option>
222     </c:if>
223     <form:select>
224       <c:set var="eProvince"><form:errors path =
225         "province"/></c:set>
226       <c:if test="${not empty eProvince}">
227         <div class = "alert alert-danger alert-
228          -dismissible">
229           <button type="button" class="close" data-
230             dismiss="alert" aria-hidden="true">&times;
231         <strong>${nameTaken}</strong>
232       </div>
233     </c:if>
234   </td>

```

```

        dismiss="alert" aria-hidden="true">>&times;
    </button>
<strong><form:errors path = "province"></form:
    errors></strong>
</div>
</c:if>
</td>
</tr>
<tr>
<td>
<label for = "muncity">City/Municipality<font
    color = "red"> *</font></label>
</td>
<td>
<form:select path = "muncity" type = "text"
    class = "form-control" id = "muncity"
    onChange = "muncityChange()" required = "
    true" disabled = "${empty registers.muncity
    }">
    <c:if test = "${not empty registers.muncity}">
    <option>${registers.muncity}</option>
    </c:if>
</form:select>
<c:set var="eMuncity"><form:errors path="muncity
    "/></c:set>
<c:if test = "${not empty eMuncity}">
    <div class = "alert alert-danger alert-
   -dismissible">
        <button type="button" class="close" data-
            dismiss="alert" aria-hidden="true">&times;
        ;</button>
    <strong><form:errors path = "muncity"></form:
        errors></strong>
</div>
</c:if>
</td>
<td>
<label for = "barangay">Barangay<font color =
    red"> *</font></label>
</td>
<td>
<form:select path = "barangay" type = "text"
    class = "form-control" id = "barangay"
    required = "true" disabled = "${empty
    registers.barangay}">
    <c:if test = "${not empty registers.barangay}">
    <option>${registers.barangay}</option>
    </c:if>
</form:select>
<c:set var="eBarangay"><form:errors path="
    barangay"/></c:set>
<c:if test = "${not empty eBarangay}">
    <div class = "alert alert-danger alert-
   -dismissible">
        <button type="button" class="close" data-
            dismiss="alert" aria-hidden="true">&times;
        ;</button>
    <strong><form:errors path = "barangay"></form:
        errors></strong>
</div>
</c:if>
</td>
</tr>
<tr>
<td>
<label for="institution">Institution<font
    color = "red"> *</font></label>
</td>
<td colspan = '6'>
<form:textarea path = "institution" class =
    "form-control" rows = "2" type = "text" id =
    "institution" required = "true" maxlength
    = "50" />
<c:set var="eInstitution"><form:errors path="
    institution"/></c:set>
<c:if test = "${not empty eInstitution}">
    <div class = "alert alert-danger alert-
   -dismissible">
        <button type="button" class="close" data-
            dismiss="alert" aria-hidden="true">&times;
        ;</button>
    <strong><form:errors path = "institution"></form:
        errors></strong>
</div>
</c:if>
</td>
</tr>
<tr>
<td>
<label for="institutionAddr">Institution's

```

Address *</label>

```

    </td>
    <td colspan = '6'>
        <form:textarea path = "institutionAddr" type =
            "text" class = "form-control" rows = "3"
            id = "institutionAddr" required = "true"
            maxlength = "100"/>
        <c:if test = "${not empty eInstitutionAddr}">
            <div class = "alert alert-danger alert-
           -dismissible">
                <button type="button" class="close" data-
                    dismiss="alert" aria-hidden="true">&times;
                ;</button>
            <strong><form:errors path = "institutionAddr
                "></form:errors></strong>
        </div>
        </c:if>
    </td>
    </tr>
    <tr>
    <td>
        <label for="email">Email<font color = "red">
            *</font></label>
    </td>
    <td>
        <form:input path = "email" type = "email"
            class = "form-control" id = "email"
            required = "true" maxlength = "30"/>
        <c:set var="eEmail"><form:errors path="email
            "/></c:set>
        <c:if test = "${not empty eEmail}">
            <div class = "alert alert-danger alert-
           -dismissible">
                <button type="button" class="close" data-
                    dismiss="alert" aria-hidden="true">&times;
                ;</button>
            <strong><form:errors path = "email"></form:
                errors></strong>
        </div>
        </c:if>
    </td>
    <td>
        <label for="number">Contact Number<font color =
            "red"> *</font></label>
    </td>
    <td>
        <form:input path = "number" type = "text" class
            = "form-control" maxlength = "11" id =
            "number" required = "true"/>
        <c:set var="eNumber"><form:errors path="number
            "/></c:set>
        <c:if test = "${not empty eNumber}">
            <div class = "alert alert-danger alert-
           -dismissible">
                <button type="button" class="close" data-
                    dismiss="alert" aria-hidden="true">&times;
                ;</button>
            <strong><form:errors path = "number"></form:
                errors><br />${numTaken}</strong>
        </div>
        </c:if>
        <c:if test = "${not empty numTaken}">
            <div class = "alert alert-danger alert-
           -dismissible">
                <button type="button" class="close" data-
                    dismiss="alert" aria-hidden="true">&times;
                ;</button>
            <strong>${numTaken}</strong>
        </c:if>
    </td>
    <td>
        <center><button type="submit" class = "btn btn-
            primary" value="Registration" id = "sBut">
            Register</button></center>
    <br />
    <br />
    <br />
    </div>
    </form:form>
    </div>
    </div>
    <jsp:include page="footer.jsp"/>

```

Listing 40: successRegister.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.

```

```

springframework.org/security/tags" %>
4  <jsp:include page="header.jsp"/>
5
6  <div class = "modal-dialog">
7      <div class = "panel panel-info">
8          <div class = "panel-heading">Successful
              Registration!</div>

```

```

9   <div class = "panel-body">
10  Thank you for registering! You will receive
11    an email for your registration's approval
12    together with the
13    system generated username and password which
14    you can modify anytime.
15   </div>
16   </div>
17   </div>
18   <jsp:include page="footer.jsp"/>

15 </li>
16 </sec:authorize>
17 <sec:authorize access="hasAnyRole('
18   ROLE_MCOfficial', 'ROLE_PHOfficial', ,
19   ROLE_NHOfficial', 'ROLE_USER')">
20   <li <c:if test = "${thePage == 'workers'}">class
21     = "active"</c:if>
22   ><a href = "<%= request.getContextPath() %>/"
23     pages/workers">Health Workers and Officials
24   </a>
25   </li>
26 </sec:authorize>
27 <sec:authorize access="isAuthenticated()">
28   <li <c:if test = "${thePage == 'reports'}">class
29     = "active"</c:if>
30   ><a href = "<%= request.getContextPath() %>/"
31     pages/reports">Reports </a>
32   </li>
33 </sec:authorize>
34 <sec:authorize access="isAuthenticated()">
35   <li <c:if test = "${thePage == 'profile'}">class
36     = "active"</c:if>
37   ><a href = "<%= request.getContextPath() %>/"
38     pages/profile">Profile </a>
39   </li>
40 </sec:authorize>
41 </ul>

```

Listing 41: linkings.jsp

```

1 <%@ taglib prefix="c" uri="http://java.sun.com/
2   jsp/jstl/core" %>
3 <%@ taglib uri="http://java.sun.com/jsp/jstl/
4   functions" prefix="fn"%>
5 <%@ taglib prefix="sec" uri="http://www.
6   springframework.org/security/tags" %>
7 <%@ taglib prefix="form" uri="http://www.
8   springframework.org/tags/form" %>
9 <ul class = "nav nav-tabs">
10  <sec:authorize access="hasAnyRole('
11    ROLE_BHWorker', 'ROLE_MCHWorker', ,
12    ROLE_PHWorker')">
13  <li <c:if test = "${thePage == 'system'}">class
14    = "active"</c:if>
15  ><a href = "<%= request.getContextPath() %>/"
16    pages/system">Manage Records </a>
17  </li>
18 </sec:authorize>
19 <sec:authorize access="hasAnyRole('
20   ROLE_MCOfficial', 'ROLE_PHOfficial', ,
21   ROLE_NHOfficial', 'ROLE_USER')">
22   <li <c:if test = "${thePage == 'notifications
23   '}">class = "active"</c:if>
24   ><a href = "<%= request.getContextPath() %>/"
25     pages/notifications">Notifications </a>
26   </li>
27 </sec:authorize>
28 <sec:authorize access="isAuthenticated()">
29   <li <c:if test = "${thePage == 'reports'}">class
30     = "active"</c:if>
31   ><a href = "<%= request.getContextPath() %>/"
32     pages/reports">Reports </a>
33   </li>
34 </sec:authorize>
35 <sec:authorize access="isAuthenticated()">
36   <li <c:if test = "${thePage == 'profile'}">class
37     = "active"</c:if>
38   ><a href = "<%= request.getContextPath() %>/"
39     pages/profile">Profile </a>
40   </li>
41 </sec:authorize>
42 </ul>

```

Listing 42: profile.jsp

```

1 <%@ taglib prefix="c" uri="http://java.sun.com/
2   jsp/jstl/core" %>
3 <%@ taglib uri="http://java.sun.com/jsp/jstl/
4   functions" prefix="fn"%>
5 <%@ taglib prefix="sec" uri="http://www.
6   springframework.org/security/tags" %>
7 <%@ taglib prefix="form" uri="http://www.
8   springframework.org/tags/form" %>
9 <jsp:include page = "../header.jsp" />
10 <div class = "modal fade" id = "changeUP">
11  <div class = "modal-header">
12    <button type="button" class="close" data-
13      dismiss="modal" aria-hidden="true"> </
14      button>
15  <h4 class = "form-signin-head">Vector Borne
16    Diseases Monitoring System</h4>
17  </div>
18  <form:form method="post" class = "form-signin"
19    action = "${pageContext.request.
20      contextPath}/pages/changeUserDetails"
21    modelAttribute = "changeUser">
22    <div class = "modal-body">
23      <table class = "table" >
24        <tr>
25          <td style = "border: none;">
26            <label for="login_password">Old Password:</
27            label>
28          </td>
29          <td style = "border: none;">
30            <form:input path = "accountPassword" type="-
31              password" class="form-control" title="
32              Password is required" />
33          </td>
34        </tr>
35        <tr>
36          <td style = "border: none;">
37            <label for="login_password">New Password:</
38            label>
39          </td>
40          <td style = "border: none;">
41            <form:input path = "accountPassword2" type
42              ="password" id = "oldPassword" class="form-
43              control" title="Password is required" />
44          </td>
45        </tr>
46        <tr>
47          <td style = "border: none;">
48            <label for="login_password">New Password:</
49            label>
50          </td>
51          <td style = "border: none;">
52            <form:input path = "accountPassword3" type
53              ="password" id = "newPassword" class="form-
54              control" title="Password is required" />
55          </td>
56        </tr>
57      </table>
58    </div>
59    <div class = "modal-footer">
60      <button class = "btn btn-primary" type="submit
61        " value = "submit">Change </button>
62    </div>
63  </div>
64 </div>
65 <div class = "modal fade" id = "changeContacts">
66  <div class = "modal-header">
67    <button type="button" class="close" data-
68      dismiss="modal" aria-hidden="true"> </
69      button>
70  <h4 class = "form-signin-head">Vector Borne
71    Diseases Monitoring System</h4>
72  </div>
73  <form:form method="post" class = "form-signin"
74    action = "${pageContext.request.
75      contextPath}/pages/changeUserContacts"
76    modelAttribute = "changeContacts">
77    <div class = "modal-body">
78      <table class = "table" >
79        <tr>
80          <td style = "border: none;">
81            <label for="login_password">Contact Number
82              :</label>
83          </td>
84          <td style = "border: none;">
85            <form:input path = "number" type="text"
86              class="form-control" value = "${user.number
87              }" />
88          </td>
89        </tr>
90      </table>
91    </div>
92    <div class = "modal-footer">
93      <button class = "btn btn-primary" type="submit
94        " value = "submit">Change </button>
95    </div>
96  </div>
97 </div>
98 <jsp:include page = "linkings.jsp" />
99 <div class = "tab-content">
100  <div class = "tab-pane active">
101    <br />
102    <div class = "container-fluid well-lg" style
103      = "background-color: #eee;">

```

```

89      <div class = "panel panel-default">                               150      <label>Municipality/City:</label>
90          <br /><br />                                         151      </div>
91          <center><img src = "<%= request.           152      <div class = "col-lg-6">
92              getContextPath() %>/resources/dist/img/doh- 153          ${user.muncity}
93              logo.jpg" alt = "Profile Picture" height = 154      </div>
94              "150" width = "150" class = "img-responsive 155      </div>
95          "/></center>                                         156      <br />
96          <br />                                         157      <div class = "row">
97          <div class = "modal-dialog">                           158      <div class = "col-lg-6">
98              <div class = "container-fluid well-lg"        159          <label>Barangay:</label>
99                  style = "background-color: #eee;">       160      </div>
100                 <div class = "panel panel-info">             161      <div class = "col-lg-6">
101                     <div class = "panel-heading">            162          ${user.barangay}
102                         Account Information           163      </div>
103                     </div>                                         164      <br />
104                     <div class = "panel-body">             165      </div>
105                         <div class = "row">                   166      </div>
106                             <div class = "col-lg-6">           167      </div>
107                                 <label>Username: </label>        168      <br />
108                             </div>                                         169      <div class = "panel panel-info">
109                         <br />                                         170          <div class = "panel-heading">
110                         <div class = "row">               171              Contact Information
111                             <button type = "button" data-toggle = 172          </div>
112                             "modal" href = "#changeUP" class = 173      <div class = "panel-body">
113                             "btn btn-primary pull-right">Change 174          <c:if test = "${not empty success"
114                             Password</button>           175          >
115                         </div>                                         176          <div class = "alert alert-success
116                         </div>                                         177          >
117                         </div>                                         178          <strong>${success}</strong>
118                         <br />                                         179          </div>
119                         <div class = "panel panel-info">           180          <c:if>
120                             <div class = "panel-heading">           181          <div class = "row">
121                                 Institutional Information           182          <div class = "col-lg-6">
122                             </div>                                         183          <label>Email: </label>
123                             <div class = "panel-body">             184          </div>
124                                 <div class = "row">                   185          <div class = "col-lg-6">
125                                     <div class = "col-lg-6">           186          ${user.email}
126                                         <label>User Type: </label>        187          </div>
127                                         </div>                                         188          <br />
128                                     <br />                                         189          <div class = "row">
129                                     <div class = "row">               190          <div class = "col-lg-6">
130                                         <div class = "col-lg-6">           191          <label>Contact Number:</label>
131                                             <label>Region: </label>           192          </div>
132                                         </div>                                         193          <div class = "col-lg-6">
133                                         <br />                                         194          ${user.number}
134                                         <div class = "row">               195          </div>
135                                             <div class = "col-lg-6">           196          <div class = "row">
136                                                 ${user.region}           197          <button type = "button" data-
137                                         </div>                                         198          toggle = "modal" href = "#changeContacts"
138                                         <br />                                         199          class = "btn btn-primary pull-right">Change
139                                         <div class = "row">               200          Contact Details</button>
140                                             <div class = "col-lg-6">           201          </div>
141                                                 <label>Province:</label>         202          </div>
142                                         </div>                                         203          <br />
143                                         <div class = "col-lg-6">           204          <br />
144                                             ${user.province}           205          </div>
145                                         </div>                                         206          </div>
146                                         <br />                                         207          </div>
147                                         <div class = "row">               208          </div>
148                                             <div class = "col-lg-6">           209          </div>
149                                         <br />                                         210          </div>
150                                         <div class = "tab-content">           211          </div>
151                                         <div class = "tab-pane active">        212          <jsp:include page = ".../footer.jsp" />
152                                         <div class = "tabbable">
153                                             <ul class = "nav nav-pills">
154                                                 <li <c:if test = "${empty reportsPage}">
155                                                     class = "active" </c:if>>
156                                                     <a href = "#taba" data-toggle = "tab">
157                                                         Export Reports</a>
158                                                 </li <c:if test = "${not empty reportsPage"
159                                                 }">class = "active" </c:if>>

```

Listing 43: reports.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/    15      <li>
2      jsp/jstl/core" %>                            16          <a href = "#tabb" data-toggle = "tab">
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/    17              Export Data</a>
4      functions" prefix="fn" %>                    18          </li>
5  <%@ taglib prefix="sec" uri="http://www.        19          </ul>
6      springframework.org/security/tags" %>      20          </div>
7  <%@ taglib prefix="form" uri="http://www.        21          <br />
8      springframework.org/tags/form" %>           22          <div class = "tab-content">
9  <jsp:include page = ".../header.jsp" />          23              <div class = 'tab-pane <c:if test = "${empty
10     <div class = "tabbable">                      24                  reportsPage}">active</c:if>' id = "taba">
11         <jsp:include page = "linkings.jsp" />        25              <jsp:include page = "reports/pdf.jsp" />
12         <div class = "tab-content">                26          </div>
13             <div class = "tab-pane active">           27              <div class = 'tab-pane <c:if test = "${not
14                 <div class = "tabbable">             28                  empty reportsPage}">active</c:if>' id = "
15                     <ul class = "nav nav-pills">          29                      tabb">
16                         <li <c:if test = "${empty reportsPage}">    30              <jsp:include page = "reports/excel.jsp" />
17                             class = "active" </c:if>>        31          </div>
18                             <a href = "#taba" data-toggle = "tab">  32          </div>
19                             Export Reports</a>           33          <jsp:include page = ".../footer.jsp" />
20                         </li <c:if test = "${not empty reportsPage"
21                         }">class = "active" </c:if>>

```

Listing 44: excel.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5
6  <div class = "container-fluid well-lg" style = "
   background-color: #eee;">
7  <div class = "panel panel-default">
8  <div class = "panel-heading">
9   Generate reports
10 </div>
11 <div class = "panel-body">
12 <form:form action = "${pageContext.request.
   contextPath}/pages/generateExcel" id = "
   form1" modelAttribute = "forExcel" method =
   "POST">
13 <div class = "row">
14 <div class = "col-lg-6">
15   <label>INCLUDE DATES</label>
16 </div>
17 </div>
18 <div class = "row">
19 <div class = "col-lg-3">
20   <label>From:</label>
21 </div>
22 <div class = "col-lg-3">
23   <div class="input-group date" id="dp3" data-
   date="12-2012" data-date-format="yyyy-mm-
   dd">
24     <form:input path = "dateFrom" class="form-
   control" type="text" value="2014-01-01" />
25     <span class="input-group-addon"><i class="
   glyphicon glyphicon-calendar"></i></span>
26   </div>
27   <c:set var="eDateFrom"><form:errors path =
   dateFrom"/></c:set>
28   <c:if test="${not empty eDateFrom}">
29     <div class = "alert alert-danger alert-
   dismissable">
30       <button type="button" class="close" data-
   dismiss="alert" aria-hidden="true">&times;
31     ;</button>
32     <strong><form:errors path = "dateFrom"></
   form:errors></strong>
33   </div>
34 </c:if>
35 <div class = "col-lg-3">
36   <label>To:</label>
37 </div>
38 <div class = "col-lg-3">
39   <div class="input-group date" id="dp4" data-
   date="12-2012" data-date-format="yyyy-mm-dd
   ">
40     <form:input path = "dateTo" class="form-
   control" type="text" value="2014-01-01" />
41     <span class="input-group-addon"><i class="
   glyphicon glyphicon-calendar"></i></span>
42   </div>
43   <c:set var="eDateTo"><form:errors path =
   dateTo"/></c:set>
44   <c:if test="${not empty eDateTo}">
45     <div class = "alert alert-danger alert-
   dismissable">
46       <button type="button" class="close" data-
   dismiss="alert" aria-hidden="true">&times;
47     ;</button>
48     <strong><form:errors path = "dateTo"></form
   :errors></strong>
49   </div>
50 </c:if>
51 </div>
52 <br />
53 <div class = "row">
54 <div class = "col-lg-3">
55   <label>Disease</label>
56 </div>
57 <div class = "col-lg-3">
58   <form:select path = "disease" class = "form-
   control" >
59     <option></option>
60     <option>Chikungunya</option>
61     <option>Dengue</option>
62     <option>Malaria</option>
63   </form:select>
64   <c:set var="eDisease"><form:errors path =
   disease"/></c:set>
65   <c:if test="${not empty eDisease}">
66     <div class = "alert alert-danger alert-
   dismissable">
67       <button type="button" class="close" data-
   dismiss="alert" aria-hidden="true">&times;
68     ;</button>
69   <strong><form:errors path = "disease"></form:
   errors></strong>
70 </div>
71 </c:if>
72 </div>
73 <br />
74 <sec:authorize access="hasAnyRole('
   ROLE_Researcher')">
75 <div class = "row">
76 <div class = "col-lg-6">
77   <div class = "input-group">
78     <span class = "input-group-addon">
79       <form:checkbox path = "specRegion" id = "
   checksNew"/>
80     </span>
81     <input type = "text" value = "For Specific
   Region: " class = "form-control" style = "
   background-color: #fff;" disabled />
82   </div>
83 </div>
84 <div class = "col-lg-6">
85   <form:select path = "region" class = "form-
   control" disabled = "disabled" id = "
   select4">
86     <option></option>
87     <option>ARM&lt;/option>
88     <option>CAR</option>
89     <option>NCR</option>
90     <option>Region I</option>
91     <option>Region II</option>
92     <option>Region III</option>
93     <option>Region IV-A</option>
94     <option>Region IV-B</option>
95     <option>Region V</option>
96     <option>Region VI</option>
97     <option>Region VII</option>
98     <option>Region VIII</option>
99     <option>Region IX</option>
100    <option>Region X</option>
101    <option>Region XI</option>
102    <option>Region XII</option>
103    <option>Region XIII</option>
104  </form:select>
105  <c:set var="eRegion"><form:errors path="region
   "/></c:set>
106  <c:if test="${not empty eRegion}">
107    <div class = "alert alert-danger alert-
   dismissable">
108      <button type="button" class="close" data-
   dismiss="alert" aria-hidden="true">&times;
109    ;</button>
110    <strong><form:errors path = "region"></form:
   errors></strong>
111  </div>
112 </c:if>
113 <c:if test="${not empty error}">
114   <div class = "alert alert-danger alert-
   dismissable">
115     <button type="button" class="close" data-
   dismiss="alert" aria-hidden="true">&times;
116   ;</button>
117   <strong>${error}</strong>
118 </c:if>
119 </div>
120 </div>
121 <sec:authorize>
122 <br />
123 <div class = "row">
124 <div class = "col-lg-4">
125   </div>
126 <div class = "col-lg-4">
127   <button class = "btn btn-primary" type = "
   submit">Generate Excel</button>
128 </div>
129 </div>
130 </div>
131 </form:form>
132 </div>
133 </div>

```

Listing 45: pdf.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3
4  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
5
6  <div class = "container-fluid well-lg" style = "

```

```

        background-color: #eee;">
7   <div class = "panel panel-default">
8     <div class = "panel-heading">
9       Generate reports
10    </div>
11   <div class = "panel-body">
12     <form:form action = "${pageContext.request.
13       contextPath}/pages/generateReports" id = "
14       form1" modeAttribute = "forReports" method
15       = "POST">
16     <div class = "row">
17       <div class = "col-lg-6">
18         <label>INCLUDE DATES</label>
19       </div>
20     </div>
21     <div class = "row">
22       <div class = "col-lg-3">
23         <div class="input-group date" id="dp1" data-
24           -date="12-2012" data-date-format="yyyy-mm-
25           dd">
26           <form:input path = "dateFrom" class="form-
27             control" type="text" value="2014-01-01" />
28           <span class="input-group-addon"><i class="
29             glyphicon glyphicon-calendar"></i></span>
30         <c:set var="eDateFrom"><form:errors path="
31           dateFrom"/></c:set>
32         <c:if test="${not empty eDateFrom}">
33           <div class = "alert alert-danger alert-
34             dismissable">
35             <button type="button" class="close" data-
36               dismiss="alert" aria-hidden="true">&times;
37             </button>
38             <strong><form:errors path = "dateFrom"></
39               form:errors></strong>
40           </div>
41         </c:if>
42       </div>
43       <div class = "col-lg-3">
44         <label>To:</label>
45       </div>
46       <div class = "col-lg-3">
47         <div class="input-group date" id="dp2" data-
48           -date="12-2012" data-date-format="yyyy-mm-dd
49           ">
50           <form:input path = "dateTo" class="form-
51             control" type="text" value="2014-01-01" />
52           <span class="input-group-addon"><i class="
53             glyphicon glyphicon-calendar"></i></span>
54         <c:set var="eDateTo"><form:errors path="
55           dateTo"/></c:set>
56         <c:if test="${not empty eDateTo}">
57           <div class = "alert alert-danger alert-
58             dismissable">
59             <button type="button" class="close" data-
60               dismiss="alert" aria-hidden="true">&times;
61             </button>
62             <strong><form:errors path = "dateTo"></form:
63               errors></strong>
64           </div>
65         </c:if>
66       </div>
67       <br />
68       <div class = "row">
69         <div class = "col-lg-3">
70           <label>Disease</label>
71         </div>
72       </div>
73       <br />
74       <div class = "row">
75         <div class = "col-lg-6">
76           <label>Include following charts:</label>
77         </div>
78       </div>
79     <br />
80     <div class = "row">
81       <div class = "col-lg-6">
82         <div class = "input-group">
83           <span class = "input-group-addon">
84             <form:checkbox path = "ageGroup" />
85           </span>
86           <input type = "text" value = "Disease Case by
87             Age Group" class = "form-control" style =
88             "background-color: #fff;" disabled />
89         </div>
90       </div>
91       <div class = "col-lg-6">
92         <div class = "input-group">
93           <span class = "input-group-addon">
94             <form:checkbox path = "fatalAgeGroup" />
95           </span>
96           <input type = "text" value = "Cases Fatality
97             Ratio by Age Group" class = "form-control"
98             style = "background-color: #fff;" disabled
99         </div>
100        <br />
101        <div class = "row">
102          <div class = "col-lg-6">
103            <div class = "input-group">
104              <span class = "input-group-addon">
105                <form:checkbox path = "genderGroup" />
106              </span>
107              <input type = "text" value = "Disease Case by
108                Gender Group" class = "form-control" style =
109                "background-color: #fff;" disabled />
110            </div>
111          </div>
112          <div class = "col-lg-6">
113            <div class = "input-group">
114              <span class = "input-group-addon">
115                <form:checkbox path = "byRegion" />
116              </span>
117              <input type = "text" value = "Cases and Death
118                by Region" class = "form-control" style =
119                "background-color: #fff;" disabled />
120            </div>
121          <br />
122          <div class = "row">
123            <div class = "col-lg-6">
124              <div class = "input-group">
125                <span class = "input-group-addon">
126                  <form:checkbox path = "caseAndDeath" id = "
127                    checks" onChange = "changeSelect5()"/>
128                </span>
129                <input type = "text" value = "Cases and Death
130                  by Municipality/City" class = "form-
131                    control" style = "background-color: #fff;" 
132                    disabled />
133            </div>
134          </div>
135          <br />
136          <div class = "row">
137            <div class = "col-lg-6">
138              <form:select path = "region" class = "form-
139                control" disabled = "${!forReports.
140                  caseAndDeath}" id = "select2">
141                <option></option>
142                <option>ARM&lt;/option>
143                <option>CAR</option>
144                <option>NCR</option>
145                <option>Region I</option>
146                <option>Region II</option>
147                <option>Region III</option>
148                <option>Region IV-A</option>
149                <option>Region IV-B</option>
150                <option>Region V</option>
151                <option>Region VI</option>
152                <option>Region VII</option>
153                <option>Region VIII</option>
154                <option>Region IX</option>
155                <option>Region X</option>
156                <option>Region XI</option>
157                <option>Region XII</option>
158                <option>Region XIII</option>
159            </form:select>
160            <c:if var="eRegion"><form:errors path="region
161              "/></c:if>
162            <c:if test="${not empty eRegion}">
163              <div class = "alert alert-danger alert-
164                dismissable">
165                <button type="button" class="close" data-
166                  dismiss="alert" aria-hidden="true">&times;
167                </button>
168                <strong><form:errors path = "region"></form:
169                  errors></strong>
170              </div>
171            </c:if>
172          </div>
173          <br />
174          <div class = "row">
175            <div class = "col-lg-6">
176              <label>Include following charts:</label>
177            </div>
178          </div>
179        </div>
180      </div>
181    </div>
182  </div>
183
```

```

157     dismissable">
158     <button type="button" class="close" data-
159         dismiss="alert" aria-hidden="true">&times;
160     </button>
161   <strong>$[error]</strong>
162 </div>
163 </div>
164 <br />
165 <div class = "row">
166   <div class = "col-lg-4">
167   </div>
168   <div class = "col-lg-4">
169     <button class = "btn btn-primary" type =
170         "submit">Generate Report</button>
171   </div>
172 </div>
173 </form:>
174 </div>
175 </div>

```

Listing 46: system.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2    jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4    functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6    springframework.org/security/tags" %>
7  <%@ taglib prefix="form" uri="http://www.
8    springframework.org/tags/form" %>
9  <!DOCTYPE html>
10 <html>
11 <head>
12   <title>Vector-Borne Diseases Monitoring System
13   </title>
14   <meta name="viewport" content="width=device-
15     width, initial-scale=1.0">
16   <jsp:include page="../css.jsp"/>
17   <script type="text/javascript">
18   function changeSelect() {
19     var sel = document.getElementById("admitted").
20       value;
21     if(sel == "Yes") {
22       document.getElementById("datE3").disabled =
23         false;
24       document.getElementById("hospital").disabled =
25         false;
26       document.getElementById("hospitalType").
27         disabled = false;
28       document.getElementById("hospitalAddr").
29         disabled = false;
30     }
31   </script>
32   <script type="text/javascript">
33   function changeSelect2() {
34     var sel = document.getElementById("theDisease").
35       ".value";
36     if(sel == "Dengue") {
37       document.getElementById("caseType").options.
38         length = 0;
39       var element2 = document.getElementById(".
40         caseType");
41       var option2 = document.createElement("option".
42         "");
43       option2.appendChild(document.createTextNode(".
44         Dengue Without Warning Signs"));
45       var option3 = document.createElement("option".
46         "");
47       option3.appendChild(document.createTextNode(".
48         Dengue With Warning Signs"));
49       var option4 = document.createElement("option".
50         "");
51       option4.appendChild(document.createTextNode(".
52         Severe Dengue"));
53       element2.appendChild(option);
54       element2.appendChild(option3);
55       element2.appendChild(option4);
56     }
57   else {
58     document.getElementById("caseType").disabled =
59       true;
60     document.getElementById("caseType").options.
61       length = 0;
62   }
63   </script>
64   <script type="text/javascript">
65   function changeSelect4() {
66     var sel = document.getElementById("outcome")..
67       value;
68     if(sel == "Died") {
69       document.getElementById("datE4").disabled =
70         false;
71     }
72   }
73 </script>
74 <script>
75 $(function(){
76   $('#datE1').combodate();
77   $('#datE2').combodate();
78 });
79 </script>
80   <script type = "text/javascript">
81   function changeSelect3() {
82     var sel = document.getElementById(".
83       theSelect").value;
84     if(sel != "") {
85       document.getElementById(".
86       theSelected").disabled = false;
87       document.getElementById(".
88       theSelected").options.length = 0;
89       var element2 = document.
90         getElementById("theSelected");
91       var option2 = document.
92         createElement("option");
93       option2.appendChild(document.
94         createTextNode(""));
95       element2.add(option2);
96       <c:forEach var = "nic" items = "${.
97         munci}" varStatus = "stu">
98         <c:forEach var = "br" items = "${.
99           brgys[stu.index]}">
100           if(sel == "<c:out value = '${.
101             muncity}' />") {
102             var option = document.
103               createElement("option");
104             option.appendChild(document.
105               createTextNode(".
106                 Dengue Without Warning Signs"));
107             var option3 = document.createElement("option".
108               "");
109             option3.appendChild(document.createTextNode(".
110               Dengue With Warning Signs"));
111             var option4 = document.createElement("option".
112               "");
113             option4.appendChild(document.createTextNode(".
114               Severe Dengue"));
115             element2.appendChild(option);
116             element2.appendChild(option3);
117             element2.appendChild(option4);
118           }
119         }
120       </c:forEach>
121     }
122   }
123 </script>
124   <script type="text/javascript">
125   /* Table initialisation */
126   jQuery(document).ready(function($){
127     $('#example1').dataTable( {
128       "bSort": false,          // Disable sorting
129       "iDisplayLength": 10,    // records per
130       "page": "first",        // page
131       "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
132         >>",
133       "sPaginationType": "bootstrap"
134     });
135     <c:forEach var = "mc" items = "${.
136       munci}" varStatus = "stat">
137       <c:if test = "${fn:toLowerCase(mc.
138         muncity)} == fn:toLowerCase(user.muncity)">
139         <c:if test = "chosenMun" value = "${.
140           stat.index}" />
141       

```

```

119             <c:out value = '${chosenMun}' />
120         </c:if>
121         </c:forEach>
122         <c:out value = '${chosenMun}' />
123         var example = new Array(<c:out
124             value = '${fn:length(brgys[chosenMun])}'>
125         />);
126             for(var i = 0; i < <c:out value = ,
127                 ${fn:length(brgys[chosenMun])}>; i++) {
128                 example[i] = "#example2_" + i;
129                 $(example[i]).dataTable( {
130                     "bSort": false,           // Disable sorting
131                     "iDisplayLength": 10,   // records per
132                     page
133                     "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
134                     >>",
135                     "sPaginationType": "bootstrap"
136                 });
137             }
138         $('#example3').dataTable( {
139             "bSort": false,           // Disable sorting
140             "iDisplayLength": 10,   // records per
141             page
142             "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
143             >>",
144             "sPaginationType": "bootstrap"
145         });
146             for(var i = 0; i < <c:out value = ,
147                 ${fn:length(brgys[chosenMun])}>; i++) {
148                 example[i] = "#example4_" + i;
149                 $(example[i]).dataTable( {
150                     "bSort": false,           // Disable sorting
151                     "iDisplayLength": 10,   // records per
152                     page
153                     "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
154                     >>",
155                     "sPaginationType": "bootstrap"
156                 });
157             }
158         $('#example5').dataTable( {
159             "bSort": false,           // Disable sorting
160             "iDisplayLength": 10,   // records per
161             page
162             "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
163             >>",
164             "sPaginationType": "bootstrap"
165         });
166             for(var i = 0; i < <c:out value = ,
167                 ${fn:length(brgys[chosenMun])}>; i++) {
168                 example[i] = "#example6_" + i;
169                 $(example[i]).dataTable( {
170                     "bSort": false,           // Disable sorting
171                     "iDisplayLength": 10,   // records per
172                     page
173                     "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
174                     >>",
175                     "sPaginationType": "bootstrap"
176                 });
177             }
178         
```

</script>

```

180     <script type="text/javascript">
181     /* Table initialisation */
182     jQuery(document).ready(function($) {
183         $('#examplePV1').dataTable( {
184             "bSort": false,           // Disable sorting
185             "iDisplayLength": 10,   // records per
186             page
187             "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
188             >>",
189             "sPaginationType": "bootstrap"
190         });
191
192         var example = new Array(<c:out value = '${fn:
193             length(munci)}' />);
194         <c:set var = "countsAll" value = "0" />
195         for(var i = 0; i < <c:out value = '${fn:length(
196             munci)}' />; i++) {
197             example[i] = "#examplePV2_" + i;
198             $(example[i]).dataTable( {
199                 "bSort": false,           // Disable sorting
200                 "iDisplayLength": 5,   // records per
201                 page
202                 "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
203                 >>",
204                 "sPaginationType": "bootstrap"
205             });
206             var exampleP = new Array(<c:out value = '${fn:
207                 length(brgys[countsAll])}' />);
208             for(var j = 0; j < <c:out value = '${fn:length(
209                 brgys[countsAll])}' />; j++) {
210                 exampleP[j] = "#exampleBP1_" + i + "_" + j;
211                 $(exampleP[j]).dataTable( {
212                     "bSort": false,           // Disable
213                     sorting
214                     "iDisplayLength": 10,   // records per
215                     page
216                     "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
217                     >>",
218                     "sPaginationType": "bootstrap"
219             });
220             <c:if value = "countsAll" value = "${countsAll
221                 + 1}" />
222         }
223         $('#examplePV3').dataTable( {
224             "bSort": false,           // Disable sorting
225             "iDisplayLength": 10,   // records per
226             page
227             "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
228             >>",
229             "sPaginationType": "bootstrap"
230         });
231         <c:if value = "countsAll" value = "0" />
232         for(var i = 0; i < <c:out value = '${fn:length(
233             munci)}' />; i++) {
234             example[i] = "#examplePV4_" + i;
235             $(example[i]).dataTable( {
236                 "bSort": false,           // Disable sorting
237                 "iDisplayLength": 10,   // records per
238                 page
239                 "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
240                 >>",
241                 "sPaginationType": "bootstrap"
242             });
243             <c:if value = "countsAll" value = "${countsAll
244                 + 1}" />
245         }
246         $('#examplePV5').dataTable( {
247             "bSort": false,           // Disable sorting
248             "iDisplayLength": 10,   // records per
249             page
250             "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
251             >>",
252             "sPaginationType": "bootstrap"
253         });
254         <c:if value = "countsAll" value = "0" />
255         for(var i = 0; i < <c:out value = '${fn:length(
256             munci)}' />; i++) {
257             example[i] = "#examplePV6_" + i;
258             $(example[i]).dataTable( {
259                 "bSort": false,           // Disable sorting
260                 "iDisplayLength": 10,   // records per
261                 page
262                 "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
263                 >>",
264                 "sPaginationType": "bootstrap"
265             });
266             var exampleP = new Array(<c:out value = '${fn:
267                 length(brgys[countsAll])}' />);
268             for(var j = 0; j < <c:out value = '${fn:length(
269                 brgys[countsAll])}' />; j++) {
270                 exampleP[j] = "#exampleBP3_" + i + "_" + j;
271                 $(exampleP[j]).dataTable( {
272                     "bSort": false,           // Disable
273                     sorting
274                     "iDisplayLength": 10,   // records per
275                     page
276                     "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
277                     >>",
278                     "sPaginationType": "bootstrap"
279             });
280             <c:if value = "countsAll" value = "${countsAll
281                 + 1}" />
282         }
283     
```

```

267     sorting
268         "iDisplayLength": 10, // records per
269         page
270         "sDom": "t<'row'<'col-md-6'i><'col-md-6',
271     p>>",
272         "sPaginationType": "bootstrap"
273     );
274     <c:set var = "countsAll" value = "${countsAll
275         + 1}" />
276 }
277
278 $('#examplePv7').dataTable( {
279     "bSort": false, // Disable sorting
280     "iDisplayLength": 10, // records per
281     page
282     "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
283     >>",
284     "sPaginationType": "bootstrap"
285 });
286
287 <c:set var = "countsAll" value = "0" />
288 for(var i = 0; i < <c:out value = '${fn:length(
289     munci)}'; >>; i++) {
290     example[i] = "#examplePv8_" + i;
291     $(example[i]).dataTable( {
292         "bSort": false, // Disable sorting
293         "iDisplayLength": 10, // records per
294         page
295         "sDom": "t<'row'<'col-md-6'i><'col-md-6'p
296         >>",
297         "sPaginationType": "bootstrap"
298     );
299     var exampleP = new Array(<c:out value = '${fn:
300         length(brgys[countsAll])}' />);
301     for(var j = 0; j < <c:out value = '${fn:length
302         (brgys[countsAll])}' />; j++) {
303         exampleP[j] = "#exampleBP4_" + i + "_" + j;
304     $(exampleP[j]).dataTable( {
305         "bSort": false, // Disable
306         sorting
307         "iDisplayLength": 10, // records per
308         page
309         "sDom": "t<'row'<'col-md-6'i><'col-md-6',
310     p>>",
311         "sPaginationType": "bootstrap"
312     );
313     <c:set var = "countsAll" value = "${countsAll
314         + 1}" />
315     });
316     </script>
317     </head>
318     <body>
319     <div class = "container">
320         <div class = "navbar navbar-default" role =
321             "navigation">
322             <div class = "container-fluid">
323                 <div class = "navbar-header">
324                     <button type = "button" class = "navbar-
325                         toggle" data-toggle = "collapse" data-
326                         target = ".navbar-collapse">
327                         <span class = "sr-only">Toggle Navigation
328                         </span>
329                         <span class = "icon-bar"></span>
330                         <span class = "icon-bar"></span>
331                         <span class = "icon-bar"></span>
332                     </button>
333                     <a href = "<%= request.getContextPath() %>/
334                         home"><img src = "<%= request.
335                         getContextPath() %>/resources/dist/img/
336                         logo2.jpg" alt = "VBDMIS Logo" height = "30
337                         px;" width = "93px;" class = "img-
338                         responsive"/></a>
339                 </div>
340                 <div class = "collapse navbar-collapse">
341                     <ul class = "nav navbar-nav">
342                         <li <c:if test = "${pages == 'home'}">
343                             class = "active"</c:if>
344                             <a href = "<%= request.getContextPath()
345                             %>/home">Home</a></li>
346                         <li class = "dropdown">
347                             <a href = "" data-toggle = "dropdown"
348                             class = "dropdown-toggle">
349                                 Diseases <b class = "caret"></b>
350                             </a>
351                             <ul class="dropdown-menu">
352                                 <c:forEach var="dis" items="${disease
353                                     }">
354                                     <li><a href = "<%= request.
355                                         getContextPath() %>/disease/${dis.
356                                         diseaseName}">${dis.diseaseName}</a></li>
357                                 </c:forEach>
358                             </ul>
359                         </li>
360                     </ul>
361                 </div>
362             </div>
363             <li class = "dropdown">
364                 <a href = "" data-toggle = "dropdown"
365                 class = "dropdown-toggle">
366                     Disease Statistics <b class = "caret"></b>
367                 </a>
368                 <ul class="dropdown-menu">
369                     <c:forEach var="dis" items="${disease
370                                     }">
371                         <li><a href = "<%= request.getContextPath()
372                                         ${dis.diseaseName}">${dis.diseaseName}</a></li>
373                     </c:forEach>
374                 </ul>
375             </li>
376             <li><a href = "<%= request.getContextPath()
377                                         %>/campaigns">Awareness Campaigns</a></li>
378         </ul>
379         <ul class = "nav navbar-nav navbar-right">
380             <sec:authorize access="isAnonymous()">
381                 <c:if test = "${pages != 'register'}">
382                     <li><a data-toggle = "modal" href = "#
383                         loginForm">Login</a></li>
384                     <li><a href = "<%= request.getContextPath()
385                                         %>/register">Register</a></li>
386                 </c:if>
387             </sec:authorize>
388             <sec:authorize access="isAuthenticated()">
389                 <div class = "btn-group">
390                     Logged in as:
391                     <sec:authorize access="hasAnyRole('
392                         ROLE_BHWorker')">
393                         <a href = "<%= request.getContextPath() %>/
394                             pages/profile">Barangay Health Worker</a>
395                     </sec:authorize>
396                     <sec:authorize access="hasAnyRole('
397                         ROLE_MCHWorker')">
398                         <a href = "<%= request.getContextPath() %>/
399                             pages/profile">Municipal/City Health Worker
400                         </a>
401                     </sec:authorize>
402                     <sec:authorize access="hasAnyRole('
403                         ROLE_MCOfficial')">
404                         <a href = "<%= request.getContextPath() %>/
405                             pages/profile">Municipal/City Health
406                             Official</a>
407                     </sec:authorize>
408                     <sec:authorize access="hasAnyRole('
409                         ROLE_PHWorker')">
410                         <a href = "<%= request.getContextPath() %>/
411                             pages/profile">Provincial Health Worker</a>
412                     </sec:authorize>
413                     <sec:authorize access="hasAnyRole('
414                         ROLE_PHOfficial')">
415                         <a href = "<%= request.getContextPath() %>/
416                             pages/profile">Provincial Health Official</a>
417                     </sec:authorize>
418                     <sec:authorize access="hasAnyRole('
419                         ROLE_NHOfficial')">
420                         <a href = "<%= request.getContextPath() %>/pages
421                             /profile">National Health Official</a>
422                     </sec:authorize>
423                     <sec:authorize access="hasAnyRole('
424                         ROLE_USER')">
425                         <a href = "<%= request.getContextPath() %>/pages
426                             /profile">Administrator</a>
427                     </sec:authorize>
428                     <sec:authorize access="hasAnyRole('
429                         ROLE_Researcher')">
430                         <a href = "<%= request.getContextPath() %>/pages
431                             /profile">Researcher</a>
432                     </sec:authorize>
433                     </div>
434                     <div class = "btn-group">
435                         <button href="#" data-toggle="dropdown" class="
436                             btn dropdown-toggle" >
437                             <span class = "glyphicon glyphicon-user"></span>
438                             <span class = "caret"></span>
439                         </button>
440                         <ul class="dropdown-menu">
441                             <li><a href = "<%= request.getContextPath()
442                                         %>/pages/profile">Profile</a></li>
443                         </ul>
444                     </div>
445                     <sec:authorize access="hasAnyRole('
446                         ROLE_BHWorker', 'ROLE_PHOfficial', ,
447                         ROLE_MCHWorker', 'ROLE_USER')">
448                         <li><a href = "<%= request.getContextPath()
449                                         %>/pages/notifications">Notifications</a></li>
450                     </sec:authorize>
451                     <sec:authorize access="hasAnyRole('
452                         ROLE_MCOfficial', 'ROLE_PHOfficial', ,
453                         ROLE_NHOfficial', 'ROLE_USER')">
454                         <li><a href = "<%= request.getContextPath()
455                                         %>/pages/system">Manage Records</a></li>
456                     </sec:authorize>
457                     <sec:authorize access="hasAnyRole('
458                         ROLE_MCOfficial', 'ROLE_PHOfficial', ,
459                         ROLE_NHOfficial', 'ROLE_USER')">
460                         <li><a href = "<%= request.getContextPath() %>/
461                             pages/system">Manage Records</a></li>
462                     </sec:authorize>
463                     <li><a href = "<%= request.getContextPath() %>/>
464                         </li>
465                     </ul>
466                 </div>
467             </li>
468         </ul>
469     </div>
470 
```

```

    pages/workers" data-toggle = "tab">Workers
    </a></li>
398 </sec:authorize>
399 <li><a href = "<%= request.getContextPath() %>/"
    pages/reports">Reports</a></li>
400 <li><a href = "<%= request.getContextPath() %>/"
    j_spring_security_logout">Log Out</a></li>
401 </ul>
402 </div>
403 </sec:authorize>
404 </ul>
405 </div>
406 </div>
407 </div>
408 <div class = "modal fade" id = "loginForm">
409 <div class = "modal-dialog" style = "background
    -color: #fff;">
410     <div class = "modal-body panel panel-info">
411         <div class = "panel panel-heading">
412             <h4 class = "form-signin-head">Vector Borne
                Diseases Monitoring System</h4>
413         </div>
414         <form method="post" class = "form-signin">
415             action = "j_spring_security_check">
416             <table class = "table" >
417                 <tr>
418                     <td style = "border: none;">
419                         <label for="login_username">Username</
                            label>
420                     </td>
421                     <td style = "border: none;">
422                         <input type="text" name="j_username" id="
                            login_username" class="form-control" field
                            required" title="Please provide your
                            username" />
423                     </td>
424                 </tr>
425                 <tr>
426                     <td style = "border: none;">
427                         <label for="login_password">Password</
                            label>
428                     </td>
429                     <td style = "border: none;">
430                         <input type="password" name="j_password" id="
                            login_password" class="form-control" field
                            required" title="Please provide your
                            password" />
431                 </tr>
432             </table>
433             <div style = "border: none; margin-top: 20px;">
434                 <button class = "btn btn-primary" type="submit" value =
                            "submit">Log in</button></div>
435             </div>
436         </form>
437     </div>
438     </div>
439 </div>
440 <div class = "tabbable">
441     <jsp:include page = "linkings.jsp" />
442     <div class = "tab-content">
443         <br />
444         <sec:authorize access="hasAnyRole('
            ROLE_BHWorker')">
445             <c:if test = "${empty success}">
446                 <jsp:include page = "systems/barangay.jsp" />
447             </c:if>
448             <c:if test = "${not empty success}">
449                 <jsp:include page = "systems/
                    addRecordSuccessful.jsp" />
450             </c:if>
451         </sec:authorize>
452         <sec:authorize access="hasAnyRole('
            ROLE_MCHWorker')">
453             <jsp:include page = "systems/muncity.jsp" />
454         </sec:authorize>
455         <sec:authorize access="hasAnyRole('ROLE_PHWorker
            ')">
456             <jsp:include page = "systems/province.jsp" />
457         </sec:authorize>
458     </div>
459     </div>
460 </div>
461 </div>
462 <jsp:include page = ".../footer.jsp" />

```

Listing 47: barangay.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5
6 <div class = "tab-pane active">
7     <div class = "container-fluid well-lg" style =
        "background-color: #eee;">
8         <div class="panel panel-info">
9             <div class = "panel-heading">Inserting
                Barangay Patient Record</div>
10            <:if test = "${not empty success}">
11                <div class = "alert alert-success alert-
                    dismissable">
12                    <button type="button" class="close" data-
                        dismiss="alert" aria-hidden="true">&times;
                    ;</button>
13                    <strong>${success}</strong>
14                </div>
15            </:if>
16            <form:form method = "POST" action = "${
                pageContext.request.contextPath}/pages/
                system/toInsertRecord" modelAttribute =
                "patientForm" id = "barangay">
17                <div class = "panel-body">
18                    <div class = "panel panel-success">
19                        <div class = "panel-heading">
20                            <label>Patient's Record Information</label>
21                        </div>
22                        <div class = "panel-body">
23                            <div class = "row">
24                                <div class = "col-lg-2">
25                                    <label>Default Region:</label>
26                                </div>
27                                <div class = "col-lg-4">
28                                    <form:input path = "region" class = "form-
                                        control" name = "region" value = "${user.
                                        region}" readonly = "true" style =
                                        "background-color: #fff;" />
29                                </div>
30                                <div class = "col-lg-2">
31                                    <label>Default Province:</label>
32                                </div>
33                                <div class = "col-lg-4">
34                                    <form:input path = "province" class =
                                        "form-control" name = "province" value = "${
                                        user.province}" readonly = "true" style =
                                        "background-color: #fff;" />
35                                </div>
36                            </div>
37                            <br />
38                            <div class = "row">
39                                <div class = "col-lg-2">
40                                    <strong>Municipality/City:</strong>
41                                </div>
42                                <div class = "col-lg-4">
43                                    <form:select path = "muncity" id =
                                        "theSelect" onChange = "changeSelect3()">
44                                        <option></option>
45                                        <c:forEach var = "mc" items = "${munci}">
46                                            <option>${mc.muncity}</option>
47                                        </c:forEach>
48                                    </form:select>
49                                </div>
50                                <div class = "col-lg-2">
51                                    <strong>Barangay:</strong>
52                                </div>
53                                <div class = "col-lg-4">
54                                    <form:select path = "barangay" id =
                                        "theSelected" class = "form-control"
                                        disabled = "true">
55                                        <option></option>
56                                    </form:select>
57                                </div>
58                            </div>
59                            </div>
60                        </div>
61                        <br />
62                        <div class = "panel panel-success">
63                            <div class = "panel-heading">
64                                <label>Patient's General Information</label>
65                            </div>
66                            <div class = "panel-body">
67                                <div class = "row">
68                                    <div class = "col-lg-1">
69                                        <label>Name:</label>
70                                    </div>
71                                    <div class = "col-lg-5">
72                                        <form:input path = "name" class = "form-
                                            control"/>
73                                    </div>
74                                </div>
75                                <div class = "col-lg-2">
76                                    <label>Complete Address:</label>
77                                </div>
78                                <div class = "col-lg-4">
79                                    <form:textarea path = "address" class =
                                        "form-control"/>
80                                </div>

```

```

81      <br />
82      <div class = "row">
83          <div class = "col-lg-2">
84              <label>Date of Birth:</label>
85          </div>
86          <div class = "col-lg-4">
87              <form:input path = "dateofbirth" type="text"
88                  id="datE1" data-format="YYYY-MM-DD" data-
89                  template="D MMM YYYY" value="" />
90          </div>
91          <div class = "col-lg-2">
92              <label>Gender:</label>
93          </div>
94          <div class = "col-lg-4">
95              <form:select path = "gender" class = "form-
96                  control">
97                  <option></option>
98                  <option>Male</option>
99                  <option>Female</option>
100             </form:select>
101         </div>
102         <br />
103     <div class = "panel panel-success">
104         <div class = "panel-heading">
105             <strong>Patient's Clinical Information</strong>
106             >
107         <div class = "panel-body">
108             <div class = "row">
109                 <div class = "col-lg-2">
110                     <label>Select disease:</label>
111                 </div>
112                 <div class = "col-lg-4">
113                     <form:select path = "disease" id = "
114                         theDisease" onChange = "changeSelect2()"
115                         class = "form-control">
116                         <option></option>
117                         <option
118                             <c:if test = "${cBrgyForm.disease == '"
119                             Chikungunya'}">
120                             selected = "selected"
121                         </c:if>
122                         >Chikungunya</option>
123                         <option<c:if test = "${cBrgyForm.disease == '"
124                             Dengue'}">
125                             selected = "selected"
126                         </c:if>
127                         >Dengue</option>
128                     </form:select>
129                 </div>
130                 <div class = "col-lg-2">
131                     <label>Date Onset:</label>
132                 </div>
133                 <div class = "col-lg-4">
134                     <form:input path = "dateOnset" type="text" id=""
135                         datE2" data-format="YYYY-MM-DD" data-
136                         template="D MMM YYYY" value="" />
137                 </div>
138                 <br />
139                 <div class = "row">
140                     <div class = "col-lg-2">
141                         <label>Symptoms</label>
142                     </div>
143                     <div class = "col-lg-4">
144                         <form:textarea path = "symptoms" class = "form-
145                             -control"></form:textarea>
146                     </div>
147                     <div class = "col-lg-2">
148                         <label>Case Classification</label>
149                     </div>
150                     <div class = "col-lg-4">
151                         <form:select path = "caseType" id = "caseType"
152                             class = "form-control" disabled = "${
153                             patientForm.disease != 'Dengue'}">
154                             <option></option>
155                         </form:select>
156                     </div>
157                     <br />
158                     <div class = "row">
159                         <div class = "col-lg-2">
160                             <label>Patient Admitted?:</label>
161                         </div>
162                         <div class = "col-lg-4">
163                             <form:select path = "admitted" id = "admitted"
164                                 &nbsp;" onChange = "changeSelect()" class = "form-
165                                     -control">
166                             <option></option>
167                             <option>Yes</option>
168                             <option>No</option>
169                         </form:select>
170                     </div>
171                     <br />
172                 </div>
173                 <br />
174             <div class = "row">
175                 <div class = "col-lg-2">
176                     <label>Hospital/Clinic:</label>
177                 </div>
178                 <div class = "col-lg-5">
179                     <form:textarea path = "hospital" id = "
180                         hospital" class = "form-control" disabled =
181                         "${patientForm.admitted != 'Yes'}"></form:
182                         textarea>
183                 </div>
184                 <div class = "col-lg-2">
185                     <label>Hospital/Clinic Type:</label>
186                     <form:select path = "hospitalType" id = "
187                         hospitalType" class = "form-control"
188                         disabled = "${patientForm.admitted != 'Yes
189                         '}">
190                         <option></option>
191                         <option>Level 1</option>
192                         <option>Level 2</option>
193                         <option>Level 3</option>
194                         <option>Level 4</option>
195                         <option>Barangay Health Center</option>
196                     </form:select>
197                 </div>
198                 <div class = "col-lg-3">
199                     <label>Hospital/Clinic Address:</label>
200                 </div>
201                     <form:textarea path = "hospitalAddr" id = "
202                         hospitalAddr" class = "form-control"
203                         disabled = "${patientForm.admitted != 'Yes
204                         '}"></form:textarea>
205                 </div>
206                 <div class = "col-lg-2">
207                     <label>Outcome:</label>
208                 </div>
209                 <div class = "col-lg-4">
210                     <form:select path = "outcome" id = "outcome"
211                         onChange = "changeSelect4()" class = "form-
212                             -control">
213                         <option></option>
214                         <option>Recovered</option>
215                         <option>Died</option>
216                     </form:select>
217                     <div class = "col-lg-2">
218                         <label>Date Died:</label>
219                     </div>
220                     <form:input path = "dateDied" type="text" id=""
221                         datE4" data-format="YYYY-MM-DD" data-
222                         template="D MMM YYYY" value="" disabled =
223                         "${patientForm.outcome != 'Died'}" />
224                 </div>
225                 <br />
226                 <br />
227                 </div>
228                 <div class = "panel-footer">
229                     <center>
230                         <button type = "submit" class = "btn btn-
231                             primary" value = "Create Record">Submit</
232                             button>
233                     <!--
234                         <div id = "yesNo" class = "modal
235                             fade">
236                             <div class = "modal-header">
237                                 <button type="button" class="
238                                     close" data-dismiss="modal" aria-hidden="
239                                     true"> </button>
240                             <div class = "modal-body">
241                                 Are you sure you want to add this
242                                 patient record?

```

```

240           </div>                                         244           </div>
241           <div class = "modal-footer">                         245           </div>
242             <a href = "${pageContext.request.          246             -->
243               contextPath}/pages/system/toInsertRecord"    247             </form:form>
244             class = "btn btn-primary">Yes</a>            248           </div>
245             <a href = "" class = "btn btn-          249           </div>
246               primary" data-dismiss="modal">No</a>          250           </div>

  Listing 48: records.jsp

1  <%@ taglib prefix="c" uri="http://java.sun.com/      75
2   jsp/jstl/core" %>                               76           </div>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/      77           <div class = "col-lg-2">
4   functions" prefix="fn"%>                           78             <label>Province:</label>
5  <%@ taglib prefix="sec" uri="http://www.          79           </div>
6   springframework.org/security/tags" %>            80             <div class = "col-lg-4">
7  <%@ taglib prefix="form" uri="http://www.          81             <input type = "text" class = "form-control"
8   springframework.org/tags/form" %>                82             " readonly = "true" value = "${bR1.province
9
10 <thead>                                         83           }" />
11   <tr>                                         84           </div>
12     <th>Barangay</th>                           85           <br />
13     <th>Date Submitted</th>                     86           <div class = "row">
14     <th>Submitted by</th>                      87             <div class = "col-lg-2">
15     <c:if test = "${whatStat == 1}">              88               <label>Municipality/City:</label>
16       <th>Date Approved</th>                    89             </div>
17       <th>Approved by</th>                     90             <div class = "col-lg-4">
18     </c:if>                                         91               <input type = "text" class = "form-control"
19     <c:if test = "${whatStat == 2}">              92               " readonly = "true" value = "${bR1.muncity
20       <th>Date Rejected</th>                   93           }" />
21       <th>Rejected by</th>                     94           </div>
22     </c:if>                                         95           <div class = "col-lg-2">
23     <th>View</th>                                96             <label>Barangay</label>
24   </tr>                                         97           </div>
25 </thead>                                         98           <div class = "col-lg-4">
26 <tbody>                                         99             <input type = "text" class = "form-control"
27   <c:forEach var="bR1" items="${allBRecords}"      100            " readonly = "true" value = "${bR1.barangay
28     varStatus = "status">                         101           }" />
29     <c:if test = "${barangay == bR1.barangay && (      102           </div>
30       bR1.status == whatStat || (whatStat == 3 &&      103           <div class = "row">
31       bR1.editStatus == editStat)) }">            104             <div class = "col-lg-2">
32       <tr>                                         105               <label>Barangay Health Worker:</label>
33         <td>${bR1.barangay}>                         106           </div>
34         <td>${bR1.dateSubmitted}>                     107           <div class = "col-lg-4">
35         <td>${bR1.healthworker}>                     108             <input type = "text" class = "form-control"
36         <td>${bR1.dateApproved}>                     109             " readonly = "true" value = "${bR1.
37       <c:if test = "${whatStat == 1 || whatStat ==      110             dateSubmitted}" />
38         2}">                                         111           </div>
39         <td>${bR1.dateApproved}>                     112           <c:if test = "${whatStat == 1}">
40       <c:if>                                         113             <br />
41         <c:if test = "${editStat == 1}">            114           <div class = "row">
42           <td>${bR1.edittedBy}>                      115             <div class = "col-lg-2">
43           <td>${bR1.dateApproved}>                     116               <label>Municipality/City Health Worker:</
44         </c:if>                                         117             label>
45         <td>${bR1.muncityHW}>                      118           </div>
46       </c:if>                                         119           <div class = "col-lg-4">
47       <c:if test = "${editStat == 1}">            120             <input type = "text" class = "form-control"
48         <td>${bR1.dateEdited}>                      121             " readonly = "true" value = "${bR1.
49       </c:if>                                         122             muncityHW}" />
50         <td>${bR1.edittedBy}>                      123           </div>
51         <td>${bR1.edittedBy}>                      124           <label>Date Approved:</label>
52       </c:if>                                         125           </div>
53         <td>                                         126           <div class = "col-lg-4">
54           <button type = "button" class = "btn btn-      127             <input type = "text" class = "form-control"
55             primary" data-toggle = "modal" href = "#      128             " readonly = "true" value = "${bR1.
56             stack1_${status.index}">View</button>        129             dateApproved}" />
57         </td>                                         130           </div>
58       </tr>                                         131           <c:if test = "${whatStat == 2}">
59       <div id = "stack1_${status.index}" class="modal      132             <br />
60         fade" tabindex="-1" data-width = "860">        133           <div class = "row">
61         <div class="modal-header">                  134             <div class = "col-lg-2">
62           <button type="button" class="close" data-      135               <label>Municipality/City Health Worker:</
63             dismiss="modal" aria-hidden="true"> </      136             label>
64           </div>                                         137             </div>
65           <div class = "panel panel-info">            138           <div class = "col-lg-4">
66             <div class = "panel-heading">          139             <input type = "text" class = "form-control"
67               Record Information                  140             " readonly = "true" value = "${bR1.muncityHW
68             </div>                                         141           }" />
69             <div class = "panel-body">          142           </div>
70               <div class = "row">                      143           <div class = "col-lg-2">
71                 <div class = "col-lg-2">          144             <label>Date Rejected:</label>
72                   <label>Region:</label>          145           </div>
73                 </div>                                         146           <div class = "col-lg-4">
74               <div class = "col-lg-4">          147             <input type = "text" class = "form-control"
75                 <input type = "text" class = "form-control" 148             " readonly = "true" value = "${bR1.region}"
76                 " readonly = "true" value = "${bR1.region}" 149           }" />

```

```

144      </div>
145      </div>
146    </c:if>
147    <c:if test = "${bR1.editStatus == 1}">
148      <br />
149      <div class = "row">
150        <div class = "col-lg-2">
151          <label>Edited by:</label>
152        </div>
153        <div class = "col-lg-4">
154          <input type = "text" class = "form-control"
155            readonly = "true" value = "${bR1.edittedBy}"
156            />
157        </div>
158        <div class = "col-lg-2">
159          <label>Date Edited:</label>
160        </div>
161      </div>
162    </div>
163  </c:if>
164 </div>
165 </div>
166 <div class = "panel panel-info">
167   <div class = "panel-heading">
168     <label>Patient's Information</label>
169   </div>
170   <div class = "panel-body">
171     <c:if test = "${not empty bR1.name}">
172       <div class = "row">
173         <div class = "col-lg-1">
174           <label>Name:</label>
175         </div>
176         <div class = "col-lg-5">
177           <input type = "text" class = "form-control"
178             readonly = "true" value = "${bR1.name}"/>
179       </div>
180       <br />
181     </c:if>
182     <c:if test = "${not empty bR1.address}">
183       <div class = "row">
184         <div class = "col-lg-1">
185           <label>Complete Address:</label>
186         </div>
187         <div class = "col-lg-5">
188           <textarea class = "form-control" readonly = "
189             true" value = "${bR1.address}">${bR1.
190             address}</textarea>
191       </div>
192     </c:if>
193     <div class = "row">
194       <div class = "col-lg-1">
195         <label>Age:</label>
196       </div>
197       <div class = "col-lg-2">
198         <input type = "text" class = "form-control"
199           readonly = "true" value = "${bR1.age}"/>
200       </div>
201       <div class = "col-lg-1">
202         <label>Date of Birth:</label>
203       </div>
204       <input class="form-control" type="text"
205         readonly = "true" value="${bR1.dateofbirth}
206         />
207     </div>
208     <div class = "col-lg-1">
209       <label>Gender:</label>
210     </div>
211     <div class = "col-lg-3">
212       <input class = "form-control" type = "text"
213         readonly = "true" value = "${bR1.gender}"/>
214     </div>
215   <div class = "panel panel-info">
216     <div class = "panel-heading">
217       <label>Patient's Clinical Information</label>
218     </div>
219     <div class = "panel-body">
220       <div class = "row">
221         <div class = "col-lg-2">
222           <label>Disease:</label>
223         </div>
224         <div class = "col-lg-4">
225           <input type = "text" class = "form-control"
226             readonly = "true" value = "${bR1.disease}
227             />
228         </div>
229         <div class = "col-lg-2">
230           <label>Date Onset:</label>
231         </div>
232       </div>
233     </div>
234     <br />
235     <div class = "row">
236       <div class = "col-lg-2">
237         <label>Symptoms:</label>
238       </div>
239       <div class = "col-lg-4">
240         <input type = "text" class = "form-control"
241           readonly = "true" value = "${bR1.symptoms}
242             />
243       </div>
244     </div>
245     <div class = "col-lg-4">
246       <input class="form-control" type="text"
247         readonly = "true" value = "${bR1.caseType}"/>
248     </div>
249     <br />
250     <c:if test = "${bR1.admitted == 'No'}">
251       <div class = "row">
252         <div class = "col-lg-2">
253           <label>Patient Admitted?:</label>
254         </div>
255         <div class = "col-lg-4">
256           <input type = "text" class = "form-control"
257             readonly = "true" value = "${bR1.admitted}
258             />
259         </c:if>
260     <c:if test = "${bR1.admitted == 'Yes'}">
261       <div class = "row">
262         <div class = "col-lg-2">
263           <label>Patient Admitted?:</label>
264         </div>
265         <div class = "col-lg-4">
266           <input type = "text" class = "form-control"
267             readonly = "true" value = "${bR1.admitted}
268             />
269       </div>
270     </c:if>
271     <div class = "col-lg-4">
272       <input class="form-control" type="text"
273         readonly = "true" value = "${bR1.dateAdmitted}
274             />
275     </div>
276     <br />
277     <div class = "row">
278       <div class = "col-lg-2">
279         <label>Hospital/Clinic:</label>
280       </div>
281       <div class = "col-lg-5">
282         <input type = "text" class = "form-control"
283           readonly = "true" value = "${bR1.hospital}
284             />
285       </div>
286       <div class = "col-lg-3">
287         <input class="form-control" type="text"
288           readonly = "true" value = "${bR1.hospitalType}
289             />
290     <br />
291     <div class = "row">
292       <div class = "col-lg-3">
293         <label>Hospital/Clinic Address:</label>
294       </div>
295       <div class = "col-lg-9">
296         <input type = "text" class = "form-control"
297           readonly = "true" value = "${bR1.
298             hospitalAddr}"/>
299     </div>
300     <br />
301     <div class = "row">
302       <div class = "col-lg-2">
303         <label>Outcome:</label>
304       </div>
305       <div class = "col-lg-4">
306         <input type = "text" class = "form-control"
307           readonly = "true" value = "${bR1.outcome}
308             />
309     </div>
310   <c:if test = "${bR1.outcome == 'Died'}">
```

```

309 <div class = "col-lg-2">
310   <label>Date Died:</label>
311 </div>
312 <div class = "col-lg-4">
313   <input type = "text" class = "form-control"
314     readonly = "true" value = "${bR1.dateDied
315   }"/>
316 </div>
317 <br />
318 </div>
319 </div>
320 </div>
321 <c:if test = "${whatStat == 0 || whatStat == 3)
322   && (bR1.editStatus == 0 || bR1.editStatus
323   == 1)}">
324 <div class="modal-footer">
325   <button type = "button" data-toggle = "modal"
326     href = "#editIt_${status.index}" class =
327     "btn btn-primary">Edit</button>
328   <button type = "button" data-toggle = "modal"
329     href = "#rejectIt_${status.index}" class =
330     "btn btn-primary">Reject</button>
331   <button type = "button" data-toggle = "modal"
332     href = "#submitIt_${status.index}" class =
333     "btn btn-primary">Submit</button>
334 </div>
335 </c:if>
336 </div>
337 <div id = "editIt_${status.index}" class =
338   "modal fade" tabindex = "-1" data-focus-on =
339   "input:first">
340 </div>
341 <div id = "rejectIt_${status.index}" class =
342   "modal fade" tabindex = "-1" data-focus-on =
343   "input:first">
344 <div class = "modal-header">
345   <button type="button" class="close" data-
346     dismiss="modal" aria-hidden="true"> /
347 </div>
348 <div class = "modal-body">
349   Are you sure you want to reject this patient
350   record?
351 </div>
352 <div class = "modal-footer">
353   <a href = "${pageContext.request.contextPath}/
354     pages/system/rejectMunCityRecords/${bR1.
355     recordID}" class = "btn btn-primary">Yes</a>
356   <a href = "" class = "btn btn-primary" data-
357     dismiss="modal">No</a>
358 </div>
359 <div id = "submitIt_${status.index}" class =
360   "modal fade" tabindex = "-1" data-focus-on =
361   "input:first">
362 <div class = "modal-header">
363   <button type="button" class="close" data-
364     dismiss="modal" aria-hidden="true"> /
365 </div>
366 <c:forEach>
367 </tbody>

```

Listing 49: muncity.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2    jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4    functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6    springframework.org/security/tags" %>
7  <%@ taglib prefix="form" uri="http://www.
8    springframework.org/tags/form" %>
9
10 <div class = "tab-pane active">
11   <div class = "tabbable">
12     <ul class = "nav nav-pills">
13       <li <c:if test = "${empty rejected}">class =
14         "active"</c:if>
15         <a href = "#tab4a" data-toggle = "tab">
16           Pending Records <span class="badge pull-
17             right"></span></a>
18       </li>
19       <li <c:if test = "${not empty rejected}">
20         class = "active"</c:if>
21         <a href = "#tab4b" data-toggle = "tab">
22           Approved Records <span class="badge pull-
23             right"></span></a>
24       </li>
25       <li <c:if test = "${not empty rejected}">
26         active</c:if> id = "tab4a">
27         <a href = "#tab4d" data-toggle = "tab">
28           Edited Records <span class="badge pull-
29             right"></span></a>
30       </li>
31     </ul>
32   </div>
33   <div class = "tab-content">
34     <div class = "tab-pane <c:if test = "${empty
35       rejected}">active</c:if>" id = "tab4a">
36       <br />
37       <div class = "container-fluid well-lg" style
38         = "background-color: #eee;">
39         <div class = "panel panel-info">
40           <div class = "panel-heading">
41             Pending Barangay Records
42           </div>
43           <br />
44         </div>
45       </div>
46     </div>
47   </div>
48 </div>
49 <div class = "panel-body">
50   <c:if test = "${not empty success}">
51     <div class = "alert alert-success">
52       ${success}
53     </div>
54   </c:if>
55   <table class="table table-striped" id="example1">
56     <thead>
57       <tr>
58         <th>Barangay</th>
59         <th>Pending Records</th>
60       </tr>
61     </thead>
62     <tbody>
63       <c:forEach var = "mc" items = "${munci}">
64         <tr>
65           <td>${fn:toLowerCase(mc.muncity)}
66             <c:if test = "${fn:toLowerCase(mc.muncity)
67               == fn:toLowerCase(user.muncity)}">
68               <c:set var = "chosenMun" value = "${stat.
69                 index}" />
70             </c:if>
71           </td>
72           <c:forEach var = "br" items = "${brgys[chose
73             nMun]}>
74             <td>${br.barangay}</td>
75             <td>
76               <button type = "button" class = "btn btn-
77                 primary" data-toggle = "modal" href = "#
78                 allStack1_${sts.index}">See All</button>
79             </td>
80           </tr>
81         </c:forEach>
82       </tbody>
83     </table>
84   </div>
85 </div>
86 <c:forEach var = "br" items = "${brgys[chosenMun
87   ]}">
88   <div id = "allStack1_${sts.index}" class =
89     "modal fade" data-width = "600">
90     <c:if var = "whatStat" value = "0" scope =
91       "request" />
92     <c:if var = "barangay" value = "${br.barangay
93       }" scope = "request" />
94     <div class = "modal-body">
95       <table class="table table-striped" id="

```

```

    example2_${sts.index}">
70     <jsp:include page = "records.jsp" />
71   </table>
72 </div>
73 </div>
74 </c:forEach>
75 </div>
76 <div class = "tab-pane" id = "tab4b">
77   <br />
78   <div class = "container-fluid well-lg" style =
      "background-color: #eee;">
79     <div class = "panel panel-info">
80       <div class = "panel-heading">
81         Approved Barangay Records
82       </div>
83       <br />
84       <div class = "panel-body">
85         <c:if test = "${not empty success}">
86           <div class = "alert alert-success">
87             ${success}
88           </div>
89         </c:if>
90         <table class="table table-striped" id="example3">
91           <thead>
92             <tr>
93               <th>Barangay</th>
94               <th>Approved Records</th>
95             </tr>
96           </thead>
97           <tbody>
98             <c:forEach var = "mc" items = "${munci}">
99               varStatus = "stat">
100             <c:if test = "${fn:toLowerCase(mc.muncity) ==
      fn:toLowerCase(user.muncity)}">
101               <c:set var = "chosenMun" value = "${stat.
      index}" />
102             </c:if>
103             <c:forEach var = "br" items = "${brgys[
      chosenMun]}">
104               varStatus = "sts">
105               <tr>
106                 <td>${br.barangay}</td>
107                 <td>
108                   <button type = "button" class = "btn btn-
                     primary" data-toggle = "modal" href = "#
                     allStack2_${sts.index}">See All</button>
109                 </td>
110               </tr>
111             </c:forEach>
112           </tbody>
113         </div>
114       </div>
115       <c:forEach var = "br" items = "${brgys[chosenMun
      ]}">
116         <div id = "allStack2_${sts.index}" class =
            "modal fade" data-width = "700">
117           <c:set var = "whatStat" value = "1" scope =
              "request" />
118           <c:set var = "barangay" value = "${br.barangay
      }" scope = "request" />
119           <div class = "modal-body">
120             <table class="table table-striped" id="example4_-${sts.index}">
121               <jsp:include page = "records.jsp" />
122             </table>
123           </div>
124         </c:forEach>
125       </div>
126     </div>
127   </div>
128   <div class = "tab-pane" id = "tab4b">
129     <br />
130     <div class = "container-fluid well-lg" style =
      "background-color: #eee;">
131       <div class = "panel panel-info">
132         <div class = "panel-heading">
133           Rejected Barangay Records
134         </div>
135         <br />
136         <div class = "panel-body">
137           <c:if test = "${not empty success}">
138             <div class = "alert alert-success">
139               ${success}
140             </div>
141           </c:if>
142           <table class="table table-striped" id="example5">
143             <thead>
144               <tr>
145                 <th>Barangay</th>
146                 <th>Rejected Records</th>
147               </tr>
148             </thead>
149             <tbody>
150               <c:forEach var = "mc" items = "${munci}">
151                 varStatus = "stat">
152                 <c:if test = "${fn:toLowerCase(mc.muncity) ==
      fn:toLowerCase(user.muncity)}">
153                   <c:set var = "chosenMun" value = "${stat.
      index}" />
154                 </c:if>
155                 <c:forEach var = "br" items = "${brgys[
      chosenMun]}">
156                   varStatus = "sts">
157                   <tr>
158                     <td>${br.barangay}</td>
159                     <td>
160                       <button type = "button" class = "btn btn-
                         primary" data-toggle = "modal" href = "#
                         allStack3_${sts.index}">See All</button>
161                     </td>
162                   </tr>
163                 </c:forEach>
164               </tbody>
165             </div>
166           </div>
167           <c:forEach var = "br" items = "${brgys[chosenMun
      ]}">
168             varStatus = "sts">
169             <div id = "allStack3_${sts.index}" class =
               "modal fade" data-width = "700">
170               <c:set var = "whatStat" value = "2" scope =
                  "request" />
171               <c:set var = "barangay" value = "${br.barangay
      }" scope = "request" />
172             <div class = "modal-body">
173               <jsp:include page = "records.jsp" />
174             </div>
175           </div>
176         </c:forEach>
177       </div>
178     </div>
179   </div>
180   <div class = "tab-pane <c:if test = "${not empty
      rejected}">active</c:if>" id = "tab4c">
181     <br />
182     <div class = "container-fluid well-lg" style =
      "background-color: #eee;">
183       <div class = "panel panel-info">
184         <div class = "panel-heading">
185           Rejected Barangay Records
186         </div>
187         <br />
188         <div class = "panel-body">
189           <c:if test = "${not empty rej}">
190             <div class = "alert alert-success">
191               ${rej}
192             </div>
193           </c:if>
194           <table class="table table-striped" id="example5">
195             <thead>
196               <tr>
197                 <th>Barangay</th>
198                 <th>Rejected Records</th>
199               </tr>
200             </thead>
201             <tbody>
202               <c:forEach var = "mc" items = "${munci}">
203                 varStatus = "stat">
204                 <c:if test = "${fn:toLowerCase(mc.muncity) ==
      fn:toLowerCase(user.muncity)}">
205                   <c:set var = "chosenMun" value = "${stat.
      index}" />
206                 </c:if>
207                 <c:forEach var = "br" items = "${brgys[
      chosenMun]}">
208                   varStatus = "sts">
209                   <tr>
210                     <td>${br.barangay}</td>
211                     <td>
212                       <button type = "button" class = "btn btn-
                         primary" data-toggle = "modal" href = "#
                         allStack3_${sts.index}">See All</button>
213                     </td>
214                   </tr>
215                 </c:forEach>
216               </tbody>
217             </div>
218           </div>
219           <c:forEach var = "br" items = "${brgys[chosenMun
      ]}">
220             varStatus = "sts">
221             <div id = "allStack3_${sts.index}" class =
               "modal fade" data-width = "700">
222               <c:set var = "whatStat" value = "2" scope =
                  "request" />
223               <c:set var = "barangay" value = "${br.barangay
      }" scope = "request" />
224             <div class = "modal-body">
225               <jsp:include page = "records.jsp" />
226             </div>

```

```

227   </div>
228 </div>
229 </c:forEach>
230 </div>
231 </div>
232 <div class = "tab-pane" id = "tab4d">
233   <br />
234   <div class = "container-fluid well-lg" style =
235     "background-color: #eee;">
236     <div class = "panel panel-info">
237       <div class = "panel-heading">
238         Edited Barangay Records
239       </div>
240       <br />
241       <div class = "panel-body">
242         <c:if test = "${not empty success}">
243           <div class = "alert alert-success">
244             ${success}
245           </div>
246         </c:if>
247         <table class="table table-striped" id="example7">
248           <thead>
249             <tr>
250               <th>Barangay</th>
251               <th>Edited Records</th>
252             </tr>
253           </thead>
254           <tbody>
255             <c:forEach var = "mc" items = "${munci}">
256               <c:if test = "${fn:toLowerCase(mc.muncity)">
257                 == fn.toLowerCase(user.muncity)}>
258                 <c:set var = "chosenMun" value = "${stat.
259                   index}" />
260             </c:if>
261           </c:forEach>

```

Listing 50: province.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2    jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4    functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6    springframework.org/security/tags" %>
7  <%@ taglib prefix="form" uri="http://www.
8    springframework.org/tags/form" %>
9
9  <div class = "tab-pane active">
10   <div class = "tabbable">
11     <ul class = "nav nav-pills">
12       <li <c:if test = "${empty rejected}">class =
13         "active"</c:if>
14         <a href = "#tab4a" data-toggle = "tab">
15           Pending Records <span class="badge pull-
16             right">${fn:length(rejected)}</span></a>
17       </li>
18       <li <c:if test = "${not empty rejected}">
19         class = "active"</c:if>
20         <a href = "#tab4b" data-toggle = "tab">
21           Approved Records <span class="badge pull-
22             right">${fn:length(approved)}</span></a>
23       </li>
24       <li <c:if test = "${empty approved}">
25         class = "active"</c:if>
26         <a href = "#tab4c" data-toggle = "tab">
27           Rejected Records <span class="badge pull-
28             right">${fn:length(rejected)}</span></a>
29       </li>
30       <li <c:if test = "${empty rejected}">
31         class = "active"</c:if>
32         <a href = "#tab4d" data-toggle = "tab">
33           Edited Records <span class="badge pull-
34             right">${fn:length(edited)}</span></a>
35       </li>
36     </ul>
37   </div>
38   <div class = "tab-content">
39     <div class = "tab-pane <c:if test = "${empty
40       rejected}">active</c:if>" id = "tab4a">
41       <br />
42       <div class = "container-fluid well-lg" style =
43         "background-color: #eee;">
44         <div class = "panel panel-info">
45           <div class = "panel-heading">
46             Pending Municipal/City Records
47           </div>
48           <br />
49           <div class = "panel-body">
50             <c:if test = "${not empty success}">
51               <div class = "alert alert-success">
52                 ${success}
53               </div>
54             </c:if>
55             <table class="table table-striped" id="examplePV1">
56               <thead>
57                 <tr>
58                   <th>Pending Records</th>
59                 </tr>
60               </thead>
61               <tbody>
62                 <c:forEach var = "mc" items = "${munci}">
63                   <c:if test = "${fn:toLowerCase(mc.muncity)">
64                     == fn.toLowerCase(user.muncity)}>
65                     <c:set var = "chosenMun" value = "${stat.
66                       index}" />
67                   </c:if>
68                 </c:forEach>
69               </tbody>
70             </table>
71           </div>
72         </div>
73       </div>
74     </div>
75   </div>
76 </c:forEach>
77 </tbody>
78 </table>
79 </div>
80 </div>
81 </c:forEach>
82 <c:forEach var = "mc" items = "${munci}">
83   <c:if test = "${fn:toLowerCase(mc.muncity)">
84     == fn.toLowerCase(user.muncity)}>
85     <c:set var = "whatStat" value = "3" scope =
86       "request" />
87     <c:if test = "${fn:toLowerCase(mc.muncity)">
88       == fn.toLowerCase(user.muncity)}>
89       <c:forEach var = "br" items = "${brgys[chose
90         nMun]}>
91         <c:if test = "${fn:toLowerCase(br.bara
92           ngay)">
93             == fn.toLowerCase(user.bara
94               ngay)}>
95             <c:forEach var = "sts" items = "${br
96               .barangays[br.bara
97                 ngay]}>
98               <c:if test = "${fn:toLowerCase(sts.i
99                 ndex)">
100                  == fn.toLowerCase(user.bara
101                    ngay)}>
102                    <c:forEach var = "br" items = "${br
103                      rgys[sts.index]}>
104                      <c:if test = "${fn:toLowerCase(br.bara
105                        ngay)">
106                          == fn.toLowerCase(user.bara
107                            ngay)}>
108                          <c:forEach var = "sts" items = "${br
109                            .barangays[br.bara
110                              ngay]}>
111                            <c:if test = "${fn:toLowerCase(sts.i
112                              ndex)">
113                                == fn.toLowerCase(user.bara
114                                  ngay)}>
115                                <c:forEach var = "br" items = "${br
116                                  rgys[sts.index]}>
117                                  <c:if test = "${fn:toLowerCase(br.bara
118                                    ngay)">
119                                    == fn.toLowerCase(user.bara
120                                      ngay)}>
121                                      <c:forEach var = "sts" items = "${br
122                                        .barangays[br.bara
123                                          ngay]}>
124                                          <c:if test = "${fn:toLowerCase(sts.i
125                                            ndex)">
126                                              == fn.toLowerCase(user.bara
127                                                ngay)}>
128                                              <c:forEach var = "br" items = "${br
129                                                rgys[sts.index]}>
130                                              <c:if test = "${fn:toLowerCase(br.bara
131                                                ngay)">
132                                                == fn.toLowerCase(user.bara
133                                                  ngay)}>
134                                                  <c:forEach var = "sts" items = "${br
135                                                    .barangays[br.bara
136                                                      ngay]}>
137                                                      <c:if test = "${fn:toLowerCase(sts.i
138                                                        ndex)">
139                                                        == fn.toLowerCase(user.bara
140                                                          ngay)}>
141                                                          <c:forEach var = "br" items = "${br
142                                                            rgys[sts.index]}>
143                                                            <c:if test = "${fn:toLowerCase(br.bara
144                                                              ngay)">
145                                                              == fn.toLowerCase(user.bara
146                                                                ngay)}>
147                                                                <c:forEach var = "sts" items = "${br
148          .barangays[br.bara
149            ngay]}>
150            <c:if test = "${fn:toLowerCase(sts.i
151              ndex)">
152                == fn.toLowerCase(user.bara
153                  ngay)}>
154                  <c:forEach var = "br" items = "${br
155                    rgys[sts.index]}>
156                    <c:if test = "${fn:toLowerCase(br.bara
157                      ngay)">
158                        == fn.toLowerCase(user.bara
159                          ngay)}>
160                          <c:forEach var = "sts" items = "${br
161                            .barangays[br.bara
162                              ngay]}>
163                              <c:if test = "${fn:toLowerCase(sts.i
164                                ndex)">
165                                  == fn.toLowerCase(user.bara
166                                    ngay)}>
167                                    <c:forEach var = "br" items = "${br
168                                      rgys[sts.index]}>
169                                      <c:if test = "${fn:toLowerCase(br.bara
170                                        ngay)">
171                                        == fn.toLowerCase(user.bara
172                                          ngay)}>
173                                          <c:forEach var = "sts" items = "${br
174                                            .barangays[br.bara
175                                              ngay]}>
176                                              <c:if test = "${fn:toLowerCase(sts.i
177                                                ndex)">
178                                                == fn.toLowerCase(user.bara
179                                                  ngay)}>
180                                                  <c:forEach var = "br" items = "${br
181                                                    rgys[sts.index]}>
182                                                    <c:if test = "${fn:toLowerCase(br.bara
183                                                      ngay)">
184                                                        == fn.toLowerCase(user.bara
185                                                          ngay)}>
186                                                          <c:forEach var = "sts" items = "${br
187                .barangays[br.bara
188                  ngay]}>
189                  <c:if test = "${fn:toLowerCase(sts.i
190                    ndex)">
191                      == fn.toLowerCase(user.bara
192                        ngay)}>
193                        <c:forEach var = "br" items = "${br
194                          rgys[sts.index]}>
195                          <c:if test = "${fn:toLowerCase(br.bara
196                            ngay)">
197                            == fn.toLowerCase(user.bara
198                              ngay)}>
199                              <c:forEach var = "sts" items = "${br
200                                .barangays[br.bara
201                                  ngay]}>
202                                  <c:if test = "${fn:toLowerCase(sts.i
203                                    ndex)">
204                                    == fn.toLowerCase(user.bara
205                                      ngay)}>
206                                      <c:forEach var = "br" items = "${br
207                                        rgys[sts.index]}>
208                                        <c:if test = "${fn:toLowerCase(br.bara
209                                          ngay)">
210                                            == fn.toLowerCase(user.bara
211                                              ngay)}>
212                                              <c:forEach var = "sts" items = "${br
213                                                .barangays[br.bara
214                                                  ngay]}>
215                                                  <c:if test = "${fn:toLowerCase(sts.i
216                                                    ndex)">
217                                                    == fn.toLowerCase(user.bara
218                                                      ngay)}>
219                                                      <c:forEach var = "br" items = "${br
220                                                        rgys[sts.index]}>
221                                                        <c:if test = "${fn:toLowerCase(br.bara
222                                                          ngay)">
223                                                            == fn.toLowerCase(user.bara
224                                                              ngay)}>
225                                                              <c:forEach var = "sts" items = "${br
226        .barangays[br.bara
227          ngay]}>
228          <c:if test = "${fn:toLowerCase(sts.i
229            ndex)">
230              == fn.toLowerCase(user.bara
231                ngay)}>
232                <c:forEach var = "br" items = "${br
233                  rgys[sts.index]}>
234                  <c:if test = "${fn:toLowerCase(br.bara
235                    ngay)">
236                      == fn.toLowerCase(user.bara
237                        ngay)}>
238                        <c:forEach var = "sts" items = "${br
239                          .barangays[br.bara
240                            ngay]}>
241                            <c:if test = "${fn:toLowerCase(sts.i
242                              ndex)">
243                                == fn.toLowerCase(user.bara
244                                  ngay)}>
245                                  <c:forEach var = "br" items = "${br
246                                    rgys[sts.index]}>
247                                    <c:if test = "${fn:toLowerCase(br.bara
248                                      ngay)">
249                                        == fn.toLowerCase(user.bara
250                                          ngay)}>
251                                          <c:forEach var = "sts" items = "${br
252                                            .barangays[br.bara
253                                              ngay]}>
254                                              <c:if test = "${fn:toLowerCase(sts.i
255                                                ndex)">
256                                                == fn.toLowerCase(user.bara
257                                                  ngay)}>
258                                                  <c:forEach var = "br" items = "${br
259                                                    rgys[sts.index]}>
260                                                    <c:if test = "${fn:toLowerCase(br.bara
261                                                      ngay)">
262                                                        == fn.toLowerCase(user.bara
263                                                          ngay)}>
264                                                          <c:forEach var = "sts" items = "${br
265                .barangays[br.bara
266                  ngay]}>
267                  <c:if test = "${fn:toLowerCase(sts.i
268                    ndex)">
269                      == fn.toLowerCase(user.bara
270                        ngay)}>
271                        <c:forEach var = "br" items = "${br
272                          rgys[sts.index]}>
273                          <c:if test = "${fn:toLowerCase(br.bara
274                            ngay)">
275                                == fn.toLowerCase(user.bara
276                                  ngay)}>
277                                  <c:forEach var = "sts" items = "${br
278                                    .barangays[br.bara
279                                      ngay]}>
280                                      <c:if test = "${fn:toLowerCase(sts.i
281                                        ndex)">
282                                        == fn.toLowerCase(user.bara
283                                          ngay)}>
284                                          <c:forEach var = "br" items = "${br
285                                            rgys[sts.index]}>

```

```

88      scope = "request" />
89      <c:set var = "barangay" value = "${br.barangay
90          }" scope = "request" />
91      <table class="table table-striped" id="exampleBP1_${stat.index}_${sts.index}">
92          <jsp:include page = "records2.jsp" />
93      </table>
94  </div>
95 </c:forEach>
96 </div>
97 </div>
98 <div class = "tab-pane" id = "tab4b">
99     <br />
100    <div class = "container-fluid well-lg" style =
101        "background-color: #eee;">
102        <div class = "panel panel-info">
103            Approved Municipal/City Records
104        </div>
105        <br />
106        <div class = "panel-body">
107            <c:if test = "${not empty success}">
108                <div class = "alert alert-success">
109                    ${success}
110                </div>
111            </c:if>
112            <table class="table table-striped" id="examplePV3">
113                <thead>
114                    <tr>
115                        <th>Municipality/City</th>
116                        <th>Approved Records</th>
117                    </tr>
118                </thead>
119                <tbody>
120                    <c:forEach var = "mc" items = "${munci}">
121                        varStatus = "stat">
122                            <td>${mc.muncity}</td>
123                            <td>
124                                <button type = "button" class = "btn btn-primary" data-toggle = "modal" href = "#newStack2_${stat.index}">See All</button>
125                            </td>
126                        </tr>
127                    </c:forEach>
128                </tbody>
129            </table>
130        </div>
131    </div>
132    <c:forEach var = "mc" items = "${munci}">
133        varStatus = "stat">
134        <div class = "modal fade" id = "newStack2_${stat.index}" data-width = "600">
135            <table class="table table-striped" id = "examplePV4_${stat.index}">
136                <thead>
137                    <tr>
138                        <th>Barangay</th>
139                        <th>Approved Records</th>
140                    </tr>
141                </thead>
142                <tbody>
143                    <c:forEach var = "br" items = "${brgyss[stat.index]}">
144                        varStatus = "sts">
145                            <td>${br.barangay}</td>
146                            <td>
147                                <button type = "button" class = "btn btn-primary" data-toggle = "modal" href = "#allStack2_${stat.index}_${sts.index}">See All</button>
148                            </td>
149                        </tr>
150                    </c:forEach>
151                </tbody>
152            </table>
153        </div>
154    </c:forEach>
155    <c:forEach var = "mc" items = "${munci}">
156        varStatus = "stat">
157        <c:forEach var = "br" items = "${brgyss[stat.index]}">
158            varStatus = "sts">
159            <div class = "modal fade" id = "allStack2_${stat.index}_${sts.index}" data-width = "850">
160                <c:set var = "whatStat" value = "1" scope = "request" />
161                <c:set var = "muncity" value = "${mc.muncity}" scope = "request" />
162                <c:set var = "barangay" value = "${br.barangay}" scope = "request" />
163                <table class="table table-striped" id="exampleBP2_${stat.index}_${sts.index}">
164                    <jsp:include page = "records2.jsp" />
165                </table>
166            </div>
167        </c:forEach>
168    </c:forEach>
169    </div>
170 </div>
171 </div>
172 <div class = "tab-pane <c:if test = "${not empty rejected}">active</c:if>" id = "tab4c">
173     <br />
174     <div class = "container-fluid well-lg" style =
175         "background-color: #eee;">
176         <div class = "panel panel-info">
177             Rejected Municipal/City Records
178         </div>
179         <br />
180         <div class = "panel-body">
181             <c:if test = "${not empty rej}">
182                 <div class = "alert alert-success">
183                     ${rej}
184                 </div>
185             </c:if>
186             <table class="table table-striped" id="examplePV5">
187                 <thead>
188                     <tr>
189                         <th>Municipality/City</th>
190                         <th>Rejected Records</th>
191                     </tr>
192                 </thead>
193                 <tbody>
194                     <c:forEach var = "mc" items = "${munci}">
195                         varStatus = "stat">
196                         <td>${mc.muncity}</td>
197                         <td>
198                             <button type = "button" class = "btn btn-primary" data-toggle = "modal" href = "#newStack3_${stat.index}">See All</button>
199                         </td>
200                     </tr>
201                 </c:forEach>
202             </tbody>
203         </div>
204     </div>
205     <c:forEach var = "mc" items = "${munci}">
206         varStatus = "stat">
207         <div class = "modal fade" id = "newStack3_${stat.index}" data-width = "600">
208             <div class = "modal-body">
209                 <table class="table table-striped" id = "examplePV6_${stat.index}">
210                     <thead>
211                         <tr>
212                             <th>Barangay</th>
213                             <th>Rejected Records</th>
214                         </tr>
215                     </thead>
216                     <tbody>
217                         <c:forEach var = "br" items = "${brgyss[stat.index]}">
218                             varStatus = "sts">
219                             <td>${br.barangay}</td>
220                             <td>
221                                 <button type = "button" class = "btn btn-primary" data-toggle = "modal" href = "#allStack3_${stat.index}_${sts.index}">See All</button>
222                             </td>
223                         </tr>
224                     </c:forEach>
225                 </tbody>
226             </div>
227         </div>
228     </c:forEach>
229     <c:forEach var = "mc" items = "${munci}">
230         varStatus = "stat">
231         <c:forEach var = "br" items = "${brgyss[stat.index]}">
232             varStatus = "sts">
233             <div class = "modal fade" id = "allStack3_${stat.index}_${sts.index}" data-width = "850">
234                 <c:set var = "whatStat" value = "2" scope = "request" />
235                 <c:set var = "muncity" value = "${mc.muncity}" scope = "request" />
236                 <c:set var = "barangay" value = "${br.barangay}" scope = "request" />
237                 <table class="table table-striped" id="exampleBP3_${stat.index}_${sts.index}">
238                     <jsp:include page = "records2.jsp" />
239                 </table>
240             </div>
241         </c:forEach>
242     </c:forEach>
243     </c:forEach>

```

```

244 </div>
245 </div>
246 <div class = "tab-pane" id = "tab4d">
247 <br />
248 <div class = "container-fluid well-lg" style =
249   "background-color: #eee;">
250   <div class = "panel panel-info">
251     Edited Municipal/City Records
252   </div>
253   <br />
254   <div class = "panel-body">
255     <:if test = "${not empty success}">
256       ${success}
257     </div>
258   </c:if>
259   <table class="table table-striped" id="examplePV7">
260     <thead>
261       <tr>
262         <th>Municipality/City</th>
263         <th>Edited Records</th>
264       </tr>
265     </thead>
266     <tbody>
267       <c:forEach var = "mc" items = "${munci}">
268         varStatus = "stat"
269         <tr>
270           <td>${mc.muncity}</td>
271           <td>
272             <button type = "button" class = "btn btn-primary" data-toggle = "modal" href = "#newStack4_${stat.index}">See All</button>
273           </td>
274         </tr>
275       </c:forEach>
276     </tbody>
277   </table>
278 </div>
279 </div>
280 <c:forEach var = "mc" items = "${munci}">
281   varStatus = "stat"
282   <div class = "modal fade" id = "newStack4_${stat.index}" data-width = "600">
283     <div class = "modal-body">
284       <table class="table table-striped" id = "examplePV8_${stat.index}">
285         <thead>

```

286 <th>Barangay</th>
287 <th>Edited Records</th>
288 </tr>
289 </thead>
290 <tbody>
291 <c:forEach var = "br" items = "\${brgys[stat.index]}" varStatus = "sts">
292 <tr>
293 <td>\${br.barangay}</td>
294 <td>
295 <button type = "button" class = "btn btn-primary" data-toggle = "modal" href = "#allStack4_\${stat.index}_\${sts.index}">See All</button>
296 </td>
297 </tr>
298 </c:forEach>
299 </tbody>
300 </table>
301 </div>
302 </div>
303 </c:forEach>
304 <c:forEach var = "mc" items = "\${munci}">
305 varStatus = "stat"
306 <div class = "modal fade" id = "allStack4_\${stat.index}_\${sts.index}" data-width = "850">
307 <div class = "modal-body">
308 <c:set var = "whatStat" value = "3" scope = "request" />
309 <c:set var = "editStat" value = "1" scope = "request" />
310 <c:set var = "muncity" value = "\${mc.muncity}" scope = "request" />
311 <c:set var = "barangay" value = "\${br.barangay}" scope = "request" />
312 <table class="table table-striped" id = "exampleBP4_\${stat.index}_\${sts.index}">
313 <jsp:include page = "records2.jsp" />
314 </table>
315 </div>
316 </div>
317 </c:forEach>
318 </c:forEach>
319 </div>
320 </div>
321 </div>
322 </div>

Listing 51: records.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2    jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4    functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6    springframework.org/security/tags" %>
7  <%@ taglib prefix="form" uri="http://www.
8    springframework.org/tags/form" %>
9
10 <thead>
11   <tr>
12     <th>Barangay</th>
13     <th>Date Submitted</th>
14     <th>Submitted by</th>
15     <:if test = "${whatStat == 1}">
16       <th>Date Approved</th>
17       <th>Approved by</th>
18     </:if>
19     <:if test = "${whatStat == 2}">
20       <th>Date Rejected</th>
21       <th>Rejected by</th>
22     </:if>
23     <th>View</th>
24   </tr>
25 </thead>
26 <tbody>
27   <c:forEach var="bR1" items="${allBRecords}">
28     varStatus = "status"
29     <:if test = "${barangay == bR1.barangay && (
30       bR1.status == whatStat || (whatStat == 3 &&
31       bR1.editStatus == editStat)) }">
32       <tr>
33         <td>${bR1.barangay}</td>
34         <td>${bR1.dateSubmitted}</td>
35         <td>${bR1.healthworker}</td>
36       </tr>
37     </:if>
38   </c:forEach>
39   <c:if test = "${whatStat == 1 || whatStat ==
40     2}">
41     <td>${bR1.dateApproved}</td>
42   </c:if>
43   <td>${bR1.muncityHW}</td>
44 </c:if>
45   <c:if test = "${editStat == 1}">
46     <td>${bR1.dateEdited}</td>
47   </c:if>
48   <td>${bR1.editedBy}</td>
49   <td>
50     <button type = "button" class = "btn btn-primary" data-toggle = "modal" href = "#stack1_${status.index}">View</button>
51   </td>
52 </c:if>
53 </c:if>
54 <div id = "stack1_${status.index}" class="modal
55   fade" tabindex="-1" data-width = "860">
56   <div class="modal-header">
57     <button type="button" class="close" data-
58       dismiss="modal" aria-hidden="true"> </button>
59   </div>
60   <div class="modal-body">
61     <div class = "panel panel-info">
62       <div class = "panel-heading">
63         Record Information
64       </div>
65       <div class = "panel-body">
66         <div class = "row">
67           <div class = "col-lg-2">
68             <label>Region:</label>
69           </div>
70           <div class = "col-lg-4">
71             <input type = "text" class = "form-control"
72               readonly = "true" value = "${bR1.region}" />
73           </div>
74           <div class = "col-lg-2">
75             <label>Province:</label>
76           </div>
77         </div>

```

```

78      </div>
79      <div class = "col-lg-4">
80          <input type = "text" class = "form-control"
81          " readonly = "true" value = "${bR1.province}
82      }" />
83  </div>
84  <br />
85  <div class = "row">
86      <div class = "col-lg-2">
87          <label>Municipality/City:</label>
88      </div>
89      <div class = "col-lg-4">
90          <input type = "text" class = "form-control"
91          " readonly = "true" value = "${bR1.muncity}
92      }" />
93  </div>
94  <div class = "col-lg-2">
95      <label>Barangay</label>
96  </div>
97  <br />
98  <div class = "row">
99      <div class = "col-lg-2">
100         <label>Barangay Health Worker:</label>
101     </div>
102     <div class = "col-lg-4">
103         <input type = "text" class = "form-control"
104         " readonly = "true" value = "${bR1.
105         healthworker}" />
106     </div>
107     <div class = "col-lg-2">
108         <label>Date Submitted:</label>
109     </div>
110     <div class = "col-lg-4">
111         <input type = "text" class = "form-control"
112         " readonly = "true" value = "${bR1.
113         dateSubmitted}" />
114     </div>
115     <c:if test = "${whatStat == 1}">
116     <br />
117     <div class = "row">
118         <div class = "col-lg-2">
119             <label>Municipality/City Health Worker:</
120             label>
121         </div>
122         <div class = "col-lg-4">
123             <input type = "text" class = "form-control"
124             " readonly = "true" value = "${bR1.
125             muncityHW}" />
126         </div>
127         <div class = "col-lg-2">
128             <label>Date Approved:</label>
129         </div>
130         <c:if test = "${whatStat == 2}">
131         <br />
132         <div class = "row">
133             <div class = "col-lg-2">
134                 <label>Municipality/City Health Worker:</
135                 label>
136             </div>
137             <div class = "col-lg-4">
138                 <input type = "text" class = "form-control"
139                 " readonly = "true" value = "${bR1.muncityHW}
140             }" />
141         </div>
142         <div class = "col-lg-2">
143             <label>Date Rejected:</label>
144         </div>
145         <c:if test = "${bR1.editStatus == 1}">
146         <br />
147         <div class = "row">
148             <div class = "col-lg-2">
149                 <label>Edited by:</label>
150             </div>
151             <div class = "col-lg-4">
152                 <input type = "text" class = "form-control"
153                 " readonly = "true" value = "${bR1.edittedBy}
154             }" />
155         </div>
156         <div class = "col-lg-2">
157             <label>Date Edited:</label>
158         </div>
159         <div class = "col-lg-4">
160             <input type = "text" class = "form-control"
161             " readonly = "true" value = "${bR1.dateEdited}
162         }" />
163     </c:if>
164     </div>
165     </div>
166     <div class = "panel panel-info">
167         <div class = "panel-heading">
168             <label>Patient's Information</label>
169         </div>
170         <div class = "panel-body">
171             <c:if test = "${not empty bR1.name}">
172                 <div class = "row">
173                     <div class = "col-lg-1">
174                         <label>Name:</label>
175                     </div>
176                     <div class = "col-lg-5">
177                         <input type = "text" class = "form-control"
178                         " readonly = "true" value = "${bR1.name}" />
179                     </div>
180                 <br />
181             </c:if>
182             <c:if test = "${not empty bR1.address}">
183                 <div class = "row">
184                     <div class = "col-lg-1">
185                         <label>Complete Address:</label>
186                     </div>
187                     <div class = "col-lg-5">
188                         <textarea class = "form-control" readonly =
189                         "true" value = "${bR1.address}">${bR1.
190                         address}</textarea>
191                     </div>
192                 </c:if>
193                 <div class = "row">
194                     <div class = "col-lg-1">
195                         <label>Age:</label>
196                     </div>
197                     <div class = "col-lg-2">
198                         <input type = "text" class = "form-control"
199                         " readonly = "true" value = "${bR1.age}" />
200                     </div>
201                     <div class = "col-lg-1">
202                         <label>Date of Birth:</label>
203                     </div>
204                     <div class = "col-lg-3">
205                         <input class="form-control" type="text"
206                         " readonly = "true" value="${bR1.dateofbirth}
207                         }" />
208                     </div>
209                     <div class = "col-lg-1">
210                         <label>Gender:</label>
211                     </div>
212                     <div class = "col-lg-3">
213                         <input class = "form-control" type = "text"
214                         " readonly = "true" value = "${bR1.gender}" />
215                     </div>
216                 </div>
217                 <div class = "panel panel-info">
218                     <div class = "panel-heading">
219                         <label>Patient's Clinical Information</label>
220                     </div>
221                     <div class = "panel-body">
222                         <div class = "row">
223                             <div class = "col-lg-2">
224                                 <label>Disease:</label>
225                             </div>
226                             <div class = "col-lg-4">
227                                 <input type = "text" class = "form-control"
228                                 " readonly = "true" value = "${bR1.disease}
229                             }" />
230                             <div class = "col-lg-2">
231                                 <label>Date Onset:</label>
232                             </div>
233                             <br />
234                             <div class = "row">
235                                 <div class = "col-lg-2">
236                                     <label>Symptoms:</label>
237                                 </div>
238                                 <div class = "col-lg-4">
239                                     <input type = "text" class = "form-control"
240                                     " readonly = "true" value = "${bR1.symptoms}" />

```

```

        readonly = "true" value = "${bR1.symptoms
    }"/>
241   </div>
242   <div class = "col-lg-2">
243     <label>Case Classification:</label>
244   </div>
245   <div class = "col-lg-4">
246     <input class="form-control" type="text"
247       readonly = "true" value="${bR1.caseType}"
248     />
249   <br />
250   <c:if test = "${bR1.admitted == 'No'}">
251     <div class = "row">
252       <div class = "col-lg-2">
253         <label>Patient Admitted?:</label>
254       </div>
255       <div class = "col-lg-4">
256         <input type = "text" class = "form-control"
257           readonly = "true" value = "${bR1.admitted
258         }"/>
259       </div>
260   <c:if test = "${bR1.admitted == 'Yes'}">
261     <div class = "row">
262       <div class = "col-lg-2">
263         <label>Patient Admitted?:</label>
264       </div>
265       <div class = "col-lg-4">
266         <input type = "text" class = "form-control"
267           readonly = "true" value = "${bR1.admitted
268         }"/>
269       </div>
270       <div class = "col-lg-2">
271         <label>Date Admitted:</label>
272       </div>
273       <div class = "col-lg-4">
274         <input class="form-control" type="text"
275           readonly = "true" value="${bR1.dateAdmitted
276         }" />
277       </div>
278     <div class = "col-lg-2">
279       <label>Hospital/Clinic:</label>
280     </div>
281     <div class = "col-lg-5">
282       <input type = "text" class = "form-control"
283         readonly = "true" value = "${bR1.hospital
284         }"/>
285     </div>
286     <div class = "col-lg-2">
287       <label>Hospital/Clinic Type:</label>
288     </div>
289     <div class = "col-lg-3">
290       <input class="form-control" type="text"
291         readonly = "true" value = "${bR1.hospitalType
292         }" />
293     </div>
294     <div class = "col-lg-9">
295       <input type = "text" class = "form-control"
296         readonly = "true" value = "${bR1.
297           hospitalAddr}"/>
298     </div>
299   <c:if>
300   <br />
301   <div class = "row">
302     <div class = "col-lg-2">
303       <label>Outcome:</label>
304     </div>
305     <div class = "col-lg-4">
306       <input type = "text" class = "form-control"
307         readonly = "true" value = "${bR1.outcome
308         }"/>
309   <c:if test = "${bR1.outcome == 'Died'}">
310     <div class = "col-lg-2">
311       <label>Date Died:</label>
312     </div>
313     <div class = "col-lg-4">
314       <input type = "text" class = "form-control"
315         readonly = "true" value = "${bR1.dateDied
316         }"/>
317     <br />
318   <c:if test = "$((whatStat == 0 || whatStat == 3)
319     && (bR1.editStatus == 0 || bR1.editStatus
320     == 1))">
321     <div class="modal-footer">
322       <button type = "button" data-toggle = "modal"
323         href = "#editIt_${status.index}" class =
324           btn btn-primary"Edit</button>
325       <button type = "button" data-toggle = "modal"
326         href = "#rejectIt_${status.index}" class =
327           btn btn-primary"Reject</button>
328       <button type = "button" data-toggle = "modal"
329         href = "#submitIt_${status.index}" class =
330           btn btn-primary"Submit</button>
331     </div>
332     <div id = "editIt_${status.index}" class =
333       modal fade" tabindex = "-1" data-focus-on =
334         input:first">
335       <div class = "modal-header">
336         <button type="button" class="close" data-
337           dismiss="modal" aria-hidden="true"> </
338           button>
339       </div>
340       <div class = "modal-body">
341         Are you sure you want to edit this patient
342         record?
343       </div>
344       <div class = "modal-footer">
345         <a href = "${pageContext.request.contextPath}/
346           pages/system/editRecord/${bR1.recordID}"
347           class = "btn btn-primary" Yes</a>
348         <a href = "" class = "btn btn-primary" data-
349           dismiss="modal">No</a>
350       </div>
351     </div>
352     <div id = "rejectIt_${status.index}" class =
353       modal fade" tabindex = "-1" data-focus-on =
354         input:first">
355       <div class = "modal-header">
356         <button type="button" class="close" data-
357           dismiss="modal" aria-hidden="true"> </
358           button>
359       </div>
360       <div class = "modal-body">
361         Are you sure you want to reject this patient
362         record?
363       </div>
364       <div class = "modal-footer">
365         <a href = "${pageContext.request.contextPath}/
366           pages/system/rejectMunCityRecords/${bR1.
367             recordID}" class = "btn btn-primary" Yes</a>
368         <a href = "" class = "btn btn-primary" data-
369           dismiss="modal">No</a>
370       </div>
371     </div>
372     <div id = "submitIt_${status.index}" class =
373       modal fade" tabindex = "-1" data-focus-on =
374         input:first">
375       <div class = "modal-header">
376         <button type="button" class="close" data-
377           dismiss="modal" aria-hidden="true"> </
378           button>
379       </div>
380       <div class = "modal-body">
381         Are you sure you want to submit this patient
382         record?
383       </div>
384       <div class = "modal-footer">
385         <a href = "${pageContext.request.contextPath}/
386           pages/system/addToMunCityRecords/${bR1.
387             recordID}" class = "btn btn-primary" Yes</a>
388         <a href = "" class = "btn btn-primary" data-
389           dismiss="modal">No</a>
390       </div>
391     </div>
392   </c:forEach>
393 </tbody>

```

Listing 52: notifications.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2    jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
3    functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
4    springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
5    springframework.org/tags/form" %>
5  <%@ taglib prefix="fmt" uri="http://java.sun.com
6    /jsp/jstl/fmt" %>

```

```

6      <jsp:include page = "../header.jsp" />
7      <div class = "tabbable">
8          <jsp:include page = "linkings.jsp" />
9          <div class = "tab-content">
10             <div class = "tab-pane active">
11                 <div class = "tabbable">
12                     <ul class = "nav nav-pills">
13                         <li <c:if test = "${empty success}">class =
14                             "active"</c:if>
15                         <a href = "#taba" data-toggle = "tab">
16                             Alerts<span class="badge pull-right">${
17                                 numAlerts}</span></a>
18                         </li>
19                         <li class = "dropdown <c:if test = "${not
20                             empty success}">active</c:if>">
21                             <a href = "" data-toggle = "dropdown"
22                                 class = "dropdown-toggle">Registrations <
23                                 span class = "caret"></span></a>
24                             <ul class="dropdown-menu" style = "text-
25                                 align: left;">
26                                 <li <c:if test = "{$not empty success}">
27                                     class = "active"</c:if><a href = "#tabb1"
28                                         data-toggle = "tab">Pending<span class="badge
29                                         pull-right">${pending}</span></a></li>
30                                 <li><a href = "#tabb2" data-toggle = "tab">Approved<span class="badge pull-right">${
31                                     approved}</span></a></li>
32                                 <li><a href = "#tabb3" data-toggle = "tab">Rejected<span class="badge pull-right">${
33                                     rejected}</span></a></li>
34                         </ul>
35                     </li>
36             </div>
37             <div class = "tab-content" style = "height:
38                 800px;">
39                 <div class = "tab-pane <c:if test = "${empty
40                     success}">active</c:if>" id = "taba">
41                     <br />
42                     <table class = "table table-striped" id = "
43                         alertTable">
44                         <thead>
45                             <tr>
46                                 <th>Date</th>
47                                 <th>Disease</th>
48                                 <th>Outbreak Percentage</th>
49                                 <th>Barangay</th>
50                                 <th>Municipality</th>
51                                 <th>Province</th>
52                                 <th>Region</th>
53                         </tr>
54                     </thead>
55                     <tbody>
56                         <c:forEach var = "alertS" items = "${
57                             alerts}">
58                             <tr <c:if test = "${alertS.status == 0}">
59                                 class = "danger"</c:if>
60                                 <td>${alertS.date}</td>
61                                 <td>${alertS.disease}</td>
62                                 <td><fmt:formatNumber type="number"
63                                     maxFractionDigits="5" groupingUsed="false"
64                                     value ="${alertS.outbreak * 100}" /%></td>
65                                 <td>${alertS.barangay}</td>
66                                 <td>${alertS.muncity}</td>
67                                 <td>${alertS.province}</td>
68                                 <td>${alertS.region}</td>
69                         </tr>
70                         </c:forEach>
71                     </tbody>
72                 </table>
73             </div>
74             <div class = "tab-pane" id = "tabb1">
75                 <div class = "tabbable">
76                     <ul class = "nav nav-pills">
77                         <sec:authorize access="hasAnyRole('
78                             ROLE_PHOfficial', 'ROLE_MCOfficial', ,
79                             ROLE_NHOfficial', 'ROLE_USER')">
80                             <li <c:if test = "{$pageVisit == 'no
81                                 fficial' || pageVisit == 'mofficial'}">
82                                 class = "active"</c:if>
83                                 <a href = "#tabbia" data-toggle = "tab">
84                                     Barangay<span class="badge pull-right"></span></a>
85                                 </li>
86                         <sec:authorize>
87                         <sec:authorize access="hasAnyRole(
88                             'ROLE_NHOfficial', 'ROLE_USER')">
89                             <li><a href = "#tabb1d" data-toggle = "tab">
90                                 National<span class="badge pull-right"></span></a>
91                             </li>
92                         <sec:authorize>
93                         <sec:authorize access="hasAnyRole(
94                             'ROLE_NHOfficial', 'ROLE_USER')">
95                             <li><a href = "#tabbie" data-toggle = "tab">
96                                 Researchers<span class="badge pull-right
97                                     "></span></a>
98                         </li>
99                         </ul>
100                        </div>
101                        <div class = "tab-content">
102                            <div class = "tab-pane <c:if test = "${
103                                pageVisit == 'pofficial' || pageVisit == 'm
104                                    official'}">active</c:if>" id = "tabbia">
105                                <div class = "container-fluid well-lg" style =
106                                    "background-color: #eee;">
107                                    <div class = "panel panel-info">
108                                        <div class = "panel-heading"><h3>Pending
109                                            Registrations</h3></div>
110                                        <c:if test = "{$pageVisit == 'pofficial'}">
111                                            <jsp:include page = "notifs/barangay.jsp" />
112                                        </c:if>
113                                    </div>
114                                    <div class = "tab-pane" id = "tabb1c">
115                                        <div class = "container-fluid well-lg" style =
116                                            "background-color: #eee;">
117                                            <div class = "panel panel-info">
118                                                <div class = "panel-heading"><h3>Pending
119                                                    Registrations</h3></div>
120                                                <jsp:include page = "notifs/province.jsp" />
121                                            </div>
122                                            <div class = "tab-pane" id = "tabb1d">
123                                                <div class = "container-fluid well-lg" style =
124                                                    "background-color: #eee;">
125                                                    <div class = "panel panel-info">
126                                                        <div class = "panel-heading"><h3>Pending
127                                                            Registrations</h3></div>
128                                                        <jsp:include page = "notifs/national.jsp" />
129                                                    </div>
130                                                    <div class = "tab-pane" id = "tabbie">
131                                                        <div class = "container-fluid well-lg" style =
132                                                            "background-color: #eee;">
133                                                            <div class = "panel panel-info">
134                                                                <div class = "panel-heading"><h3>Pending
135                                                                    Registrations</h3></div>
136                                                                <jsp:include page = "notifs/researcher.jsp"
137                                                                    />
138                                                                </div>
139                                                        </div>
140                                                    </div>
141                                                </div>

```

```

142 <div class = "tab-pane" id = "tabb2">
143   <div class = "tabbable">
144     <ul class = "nav nav-pills">
145       <sec:authorize access="hasAnyRole(
146         'ROLE_PHOfficial', 'ROLE_MCOfficial')">
147         <li <c:if test = "${pageVisit == 'pofficial' ||
148           pageVisit == 'mofficial'}">class =
149             active</c:if>>
150           <a href = "#tabb2a" data-toggle = "tab">
151             Barangay<span class="badge pull-right"></
152             span></a>
153         </li>
154       </sec:authorize>
155       <sec:authorize access="hasAnyRole(
156         'ROLE_MCOfficial', 'ROLE_PHOfficial', ,
157         'ROLE_NHOfficial', 'ROLE_USER')">
158         <li <c:if test = "${pageVisit == 'nofficial' ||
159           pageVisit == 'admin'}">class = "active
160             "</c:if>>
161           <a href = "#tabb2b" data-toggle = "tab">
162             Municipal/City<span class="badge pull-right
163             "></span></a>
164         </li>
165       </sec:authorize>
166       <sec:authorize access="hasAnyRole('ROLE_USER')">
167         <li>
168           <a href = "#tabb2c" data-toggle = "tab">
169             Provincial<span class="badge pull-right"></
170             span></a>
171         </li>
172       </sec:authorize>
173       <sec:authorize access="hasAnyRole(
174         'ROLE_NHOfficial', 'ROLE_USER')">
175         <li>
176           <a href = "#tabb2e" data-toggle = "tab">
177             Researchers<span class="badge pull-right
178             "></span></a>
179         </li>
180       </sec:authorize>
181     </ul>
182   </div>
183 </div>
184 </div>
185 </div>
186 <div class = "tab-pane <c:if test = "${pageVisit
187   == 'nofficial' || pageVisit == 'admin'}">
188   <active></c:if>" id = "tabb2b">
189   <div class = "container-fluid well-lg" style =
190     "background-color: #eee;">
191     <div class = "panel panel-info">
192       <div class = "panel-heading"><h3>Approved
193         Registrations</h3></div>
194       <c:if test = "${pageVisit == 'pofficial' ||
195         pageVisit == 'admin' || pageVisit == 'n
196         official'}">
197         <jsp:include page = "notifs/muncityA.jsp" />
198       </c:if>
199       <c:if test = "${pageVisit == 'mofficial'}">
200         <jsp:include page = "notifs/munA.jsp" />
201       </c:if>
202     </div>
203   </div>
204 </div>
205 </div>
206 <div class = "tab-pane" id = "tabb2d">
207   <div class = "tab-content">
208     <div class = "tab-pane" id = "tabb2e">
209       <div class = "container-fluid well-lg" style =
210         "background-color: #eee;">
211         <div class = "panel panel-info">
212           <div class = "panel-heading"><h3>Approved
213             Registrations</h3></div>
214           <jsp:include page = "notifs/nationalA.jsp" />
215         </div>
216       </div>
217       <div class = "tab-pane" id = "tabb3">
218         <div class = "container-fluid well-lg" style =
219           "background-color: #eee;">
220           <div class = "panel panel-info">
221             <div class = "panel-heading"><h3>Approved
222               Registrations</h3></div>
223             <jsp:include page = "notifs/researcherA.jsp"
224             />
225           </div>
226         </div>
227         <div class = "tab-pane" id = "tabb3b">
228           <div class = "container-fluid well-lg" style =
229             "background-color: #eee;">
230             <div class = "panel panel-info">
231               <div class = "panel-heading"><h3>Approved
232                 Registrations</h3></div>
233               <jsp:include page = "notifs/barangayA.jsp"
234               />
235             </div>
236           </div>
237         </sec:authorize>
238         <sec:authorize access="hasAnyRole(
239           'ROLE_PHOfficial', 'ROLE_MCOfficial', ,
240           'ROLE_NHOfficial', 'ROLE_USER')">
241           <li <c:if test = "${pageVisit == 'nofficial' ||
242             pageVisit == 'admin'}">class = "active
243               "</c:if>>
244           <a href = "#tabb3c" data-toggle = "tab">
245             Provincial<span class="badge pull-right"></
246             span></a>
247         </sec:authorize>
248         <sec:authorize access="hasAnyRole('ROLE_USER')">
249           <li>
250             <a href = "#tabb3d" data-toggle = "tab">
251               National<span class="badge pull-right"></
252               span></a>
253           </li>
254         </sec:authorize>
255         <div class = "tab-content">
256           <div class = "tab-pane <c:if test = "${pageVisit
257             == 'pofficial' || pageVisit == 'm
258             official'}">active</c:if>" id = "tabb3a">
259             <div class = "container-fluid well-lg" style =
260               "background-color: #eee;">
261               <div class = "panel panel-info">
262                 <div class = "panel-heading"><h3>Rejected
263                   Registrations</h3></div>
264                 <c:if test = "${pageVisit == 'pofficial'}">
265                   <jsp:include page = "notifs/barangayP.jsp"
266                   />
267                 </c:if>
268               </div>
269             </div>
270             <div class = "tab-pane <c:if test = "${pageVisit
271               == 'nofficial' || pageVisit == 'admin'}">
272               <active></c:if>" id = "tabb3b">
273                 <div class = "container-fluid well-lg" style =
274                   "background-color: #eee;">
275                   <div class = "panel panel-info">
276                     <div class = "panel-heading"><h3>Rejected
277                       Registrations</h3></div>

```

```

273      <c:if test = "${pageVisit == 'pofficial' ||  

274          pageVisit == 'admin' || pageVisit == '  

275          nofficial'}">  

276          <jsp:include page = "notifs/muncityP.jsp" />  

277      </c:if>  

278      <c:if test = "${pageVisit == 'mofficial'}">  

279          <jsp:include page = "notifs/munP.jsp" />  

280      </c:if>  

281  </div>  

282  <div class = "tab-pane" id = "tabb3c">  

283      <div class = "container-fluid well-lg" style =  

284          "background-color: #eee;">  

285          <div class = "panel panel-info">  

286              <div class = "panel-heading"><h3>Rejected  

287                  Registrations</h3></div>  

288              <jsp:include page = "notifs/provinceP.jsp" />  

289          </div>  

290      <div class = "tab-pane" id = "tabb3d">  

291          <div class = "container-fluid well-lg" style =  

292              "background-color: #eee;">  

293          <div class = "panel panel-info">

```

Listing 53: barangay.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/  

   jsp/jstl/core" %>  

2  <%@ taglib uri="http://java.sun.com/jsp/jstl/  

   functions" prefix="fn"%>  

3  <%@ taglib prefix="sec" uri="http://www.  

   springframework.org/security/tags" %>  

4  <%@ taglib prefix="form" uri="http://www.  

   springframework.org/tags/form" %>  

5  

6  

7  <c:forEach var = "i" begin = "0" end = "16">  

8      <c:forEach var = "provs" items = "${prov[i]}"  

9          varStatus = "stat">  

9      <c:if test = "${fn:toLowerCase(user.province) ==  

10          fn:toLowerCase(provs.province)}">  

10          <table class="table table-striped" id = "  

11              example1">  

11      <thead>  

12          <tr>  

13              <th>Municipality/City</th>  

14              <th>No. of Barangay Health Workers</th>  

15          </tr>  

16      </thead>  

17      <tbody>  

18  

19          <c:forEach var = "j" begin = "0" end = "${fn:  

20              length(mun) - 1}">  

20              <c:forEach var = "mun" items = "${mun[j]}"  

21                  varStatus = "munSt">  

21                  <c:if test = "${fn:toLowerCase(user.province)  

22                      == fn:toLowerCase(mun.province) && mun.  

22                      region == regions[i]}">  

22                      <c:set var = "counter" value = "0" />  

23                      <c:forEach var = "reg" items = "${  

23                          registrations}" varStatus = "st">  

24                          <c:if test = "${fn:toLowerCase(reg.province)  

24                          == fn:toLowerCase(provs.province) && fn:  

24                          toLowerCase(reg.muncity) == fn:toLowerCase(  

24                          mun.muncity)  

25                          && reg.userType == 'Barangay Health Worker' &&  

25                          reg.status == 0}">  

26                          <c:set var = "counter" value = "${counter +  

26                              1}" />  

27                  </c:if>  

28              </c:forEach>  

29          <tr>  

30              <th>  

31                  <button type = "button" class = "btn btn-  

31                      primary" href = "#muncityModal1_${i}_${stat  

31                          .index}_${j}_${munSt.index}" data-toggle =  

31                          "modal">${mun.muncity}</button>  

32              </th>  

33              <th>${counter}</th>  

34          </tr>  

35      </c:if>  

36      </c:forEach>  

37      </c:forEach>  

38  </tbody>  

39  </table>  

40  </c:if>  

41  </c:forEach>  

42  </c:forEach>  

43  <c:forEach var = "i" begin = "0" end = "16">  

44      <c:forEach var = "provs" items = "${prov[i]}"  

44          varStatus = "stat">  

45          <c:if test = "${fn:toLowerCase(user.province) ==  

45              fn:toLowerCase(provs.province)}">  

46              <c:forEach var = "j" begin = "0" end = "${fn:  

46                  length(mun) - 1}">  

47                  <c:forEach var = "mun" items = "${mun[j]}"  

48          <c:if test = "${fn:toLowerCase(user.province) ==  

48              fn:toLowerCase(provs.province)}">  

49              <div class = "modal fade" id = "muncityModal1_${  

49                  i}_${stat.index}_${j}_${munSt.index}" data-  

49                  width = "700">  

50                  <div class = "modal-body">  

51                      <table class="table table-striped" id = "  

51                          example1">  

52                          <thead>  

53                              <tr>  

54                                  <th>Barangay</th>  

55                                  <th>No. of Barangay Health Workers</th>  

56                                  <th>View All Users</th>  

57                              </tr>  

58                      </thead>  

59                      <tbody>  

60  

61                          <c:forEach var = "k" begin = "0" end = "${fn:  

61                              length(brgy) - 1}">  

62                              <c:forEach var = "brgy" items = "${brgy[k]}"  

62                                  varStatus = "brgySt">  

63                                  <c:if test = "${fn:toLowerCase(user.muncity)  

63                                      == fn:toLowerCase(brgy.muncity) && fn:  

63                                      toLowerCase(user.province) == fn:  

63                                      toLowerCase(mun.province) && mun.region ==  

63                                      regions[i]}">  

64                                      <c:set var = "counter" value = "0" />  

65                                      <c:forEach var = "reg" items = "${  

65                          registrations}" varStatus = "st">  

66                                      <c:if test = "${fn:toLowerCase(reg.province)  

66                                          == fn:toLowerCase(provs.province) && reg.  

66                                          region == regions[i]  

66                                          && fn:toLowerCase(reg.muncity) == fn:  

66                                          toLowerCase(mun.muncity) && reg.barangay ==  

66                                          brgy.barangay  

66                                          && reg.userType == 'Barangay Health Worker'  

66                                          && reg.status == 0}">  

67                                      <c:set var = "counter" value = "${counter +  

67                                          1}" />  

68                                      </c:if>  

69                                  </c:forEach>  

70                              <tr>  

71                                  <th>${brgy.barangay}</th>  

72                                  <th>${counter}</th>  

73                                  <th>  

74                                      <button type = "button" class = "btn btn-  

74                          primary" href = "#usersModal1_${i}_${stat  

74                          .index}_${j}_${munSt.index}_${k}_${brgySt.  

74                          index}" data-toggle = "modal">See All</  

74                                      button>  

75                                  </th>  

76                              </tr>  

77                      </tbody>  

78                  </table>  

79          </c:if>  

80      </c:forEach>  

81      </c:forEach>  

82  </tbody>  

83  </table>  

84  </div>  

85  </div>  

86      <c:if>  

87          <c:forEach>  

88              <c:forEach>  

89                  <c:if>  

90                      <c:forEach>  

91                          <c:if>  

92                              <c:forEach var = "i" begin = "0" end = "16">  

93                                  <c:forEach var = "provs" items = "${prov[i]}"  

93                                      varStatus = "stat">  

94                                  <c:if test = "${fn:toLowerCase(user.province) ==  

94                                      fn:toLowerCase(provs.province)}">

```

```

95   <c:forEach var = "j" begin = "0" end = "${fn:
96     length(mun) - 1}">
97   <c:forEach var = "mun" items = "${mun[j]}">
98     varStatus = "munSt">
99   <c:if test = "${fn:toLowerCase(user.province) ==
100    fn:toLowerCase(mun.province) && mun.region
101    == regions[i]}">
102   <c:forEach var = "k" begin = "0" end = "${fn:
103     length(brgy) - 1}">
104   <c:forEach var = "brgy" items = "${brgy[k]}">
105     varStatus = "brgySt">
106   <c:if test = "${fn:toLowerCase(user.muncity) ==
107    fn:toLowerCase(brgy.muncity) && fn:
108      toLowerCase(user.province) == fn:
109      toLowerCase(mun.province) && mun.region ==
110      regions[i]}">
111   <div class = "modal fade" id = "usersModal1_${i}
112     _${stat.index}_${j}_${munSt.index}_${k}_${{
113       brgySt.index}" data-width = "700">
114   <div class = "modal-body">
115     <table class="table table-striped" id =
116       example1">
117       <thead>
118         <tr>
119           <th>Name</th>
120           <th>User Type</th>
121           <th>Profile</th>
122           <th>Approve</th>
123           <th>Reject</th>
124         </tr>
125       </thead>
126       <tbody>
127         <c:forEach var = "reg" items = "${{
128           registrations}" varStatus = "st">
129         <c:if test = "${fn:toLowerCase(reg.province)
130           == fn:toLowerCase(provs.province) && reg.
131             region == regions[i]
132             && fn:toLowerCase(reg.muncity) == fn:
133               toLowerCase(mun.muncity) && reg.barangay ==
134                 brgy.barangay
135                 && reg.userType == 'Barangay Health Worker'
136                 && reg.status == 0}">
137           <tr>
138             <td>${reg.firstname} ${reg.middlename} ${{
139               reg.surname}</td>
140             <td>${reg.userType}</td>
141             <td><button class = "btn btn-primary" href
142               = "#profile1_${i}_${stat.index}_${j}_${{
143                 munSt.index}_${k}_${brgySt.index}_${st.index
144                 }" data-toggle = "modal">View</button></td>
145             <td><button class = "btn btn-primary" href
146               = "#approvel1_${st.index}" data-toggle =
147                 "modal">Approve</button></td>
148             <td><button class = "btn btn-primary" href
149               = "#reject1_${st.index}" data-toggle =
150                 "modal">Reject</button></td>
151           </tr>
152         <div class = "modal fade" id = "approvel1_${{
153           st.index}">
154           <div class = "modal-body">
155             Are you sure you want to approve this
156             application?
157           </div>
158         <div class = "modal-footer">
159           <a href = "<%= request.getContextPath()
160             %>/pages/addUser/${reg.accountID}" class =
161               "btn btn-primary">Yes</a>
162           <a href = "" class = "btn btn-primary"
163             data-dismiss="modal">No</a>
164         </div>
165       </c:if>
166     </tbody>
167   </table>
168 </div>
169 </div>
170 </c:if>
171 </c:if>
172 </c:if>
173 </c:if>
174 </c:if>
175 </c:if>
176 </c:if>
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229 </c:if>
230 </c:if>
231 </c:if>
232 </c:if>
233 </c:if>
234 </c:if>
```

```

235   </div>
236   </div>
237   </c:if>
238   </c:forEach>
239   </c:if>
240   </c:forEach>
241   </c:forEach>
242   </c:if>
243   </c:forEach>
244   </c:forEach>
245   </c:if>
246   </c:forEach>
247   </c:forEach>

    Listing 54: muncity.jsp
1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5
6  <div class = "panel-body">
7   <c:if test = "${not empty successD}">
8    <div class = "alert alert-success">
9     <strong>${successD}</strong>
10   </div>
11  </c:if>
12  <c:if test = "${pageVisit == 'admin' ||
   pageVisit == 'nofficial'}">
13   <table class="table table-striped" id="example1
   ">
14    <thead>
15     <tr>
16      <th>Region</th>
17      <th>No. of Municipal/City Users</th>
18     </tr>
19   </thead>
20   <tbody>
21    <c:forEach var = "i" begin = "0" end = "16">
22     <tr>
23      <th>
24        <button type = "button" class = "btn btn-
         primary" href = "#regionModal2_${i}" data-
         toggle = "modal">${regions[i]}</button>
25      </th>
26      <c:set var = "counter" value = "0" />
27      <c:forEach var = "reg" items = "${
         registrations}">
28       <c:if test = "${reg.region == regions[i] &&
         reg.userType == 'Municipal/City Health
         Worker' || reg.userType == 'Municipal/City
         Health Official' && reg.status == 0}">
29        <c:set var = "counter" value = "${counter +
         1}" />
30       </c:if>
31     </c:forEach>
32     <th>
33      ${counter}
34     </th>
35   </tr>
36  </c:forEach>
37  </tbody>
38  </table>
39  <c:forEach var = "i" begin = "0" end = "16">
40  <div class = "modal fade" id = "regionModal2_${i
   }">
41   <div class = "modal-body">
42    <table class="table table-striped" id="
   example1">
43     <thead>
44      <tr>
45        <th>Province</th>
46        <th>No. of Municipal/City Users</th>
47      </tr>
48    </thead>
49    <tbody>
50     <c:forEach var = "provs" items = "${prov[i
   ]}" varStatus = "stat">
51     <c:set var = "counter" value = "0" />
52     <c:forEach var = "reg" items = "${{
         registrations}">
53      <c:if test = "${fn:toLowerCase(reg.province)
         == fn:toLowerCase(provs.province) && reg.
         region == regions[i]
         && (reg.userType == 'Municipal/City Health
         Worker' || reg.userType == 'Municipal/City
         Health Official' && reg.status == 0)">
54        <c:set var = "counter" value = "${counter +
         1}" />
55       </c:if>
56     </c:forEach>
57   </c:forEach>
58   <tr>
59     <th>
60      <button type = "button" class = "btn btn-
         primary" href = "#provinceModal2_${i}_${{
         stat.index}" data-toggle = "modal">${provs.
         province}</button>
61   </th>
62   <th>${counter}</th>
63   </tr>
64   </c:forEach>
65   </tbody>
66   </table>
67   </div>
68   </div>
69   </c:forEach>
70   </c:if>
71   <c:if test = "${pageVisit == 'nofficial'}">
72    <c:forEach var = "i" begin = "0" end = "16">
73     <c:forEach var = "provs" items = "${prov[i]}">
         varStatus = "stat">
74     <c:if test = "${fn:toLowerCase(user.province) ==
         fn:toLowerCase(provs.province)}">
75      <table class="table table-striped" id="example1
         ">
76       <thead>
77        <tr>
78          <th>Municipality/City</th>
79          <th>No. of Municipal/City Health Workers/
           Officials</th>
80          <th>View All Users</th>
81        </tr>
82      </thead>
83      <tbody>
84       <c:forEach var = "j" begin = "0" end = "${fn:
         length(mun) - 1}">
85        <c:forEach var = "mun" items = "${mun[j]}">
         varStatus = "munSt">
86        <c:if test = "${fn:toLowerCase(user.province)
         == fn:toLowerCase(mun.province) && mun.
         region == regions[i]}">
87          <c:set var = "counter" value = "0" />
88          <c:forEach var = "reg" items = "${{
         registrations}"> varStatus = "st">
89          <c:if test = "${fn:toLowerCase(reg.province)
         == fn:toLowerCase(provs.province) && reg.
         region == regions[i]
         && fn:toLowerCase(reg.muncity) == fn:
         toLowerCase(mun.muncity) && (reg.userType
         == 'Municipal/City Health Worker' ||
         reg.userType == 'Municipal/City Health
         Official') && reg.status == 0}">
90            <c:set var = "counter" value = "${counter +
         1}" />
91           </c:if>
92           </c:forEach>
93         </c:if>
94       </c:forEach>
95       <tr>
96         <th>${mun.muncity}</th>
97         <th>${counter}</th>
98         <th>
99           <button class = "btn btn-primary" href = "#
             usersModal2_${i}_${stat.index}_${j}_${munSt
             .index}" data-toggle = "modal">See All</
             button>
100        </th>
101      </tr>
102      <c:if test = "${pageVisit == 'admin' ||
         pageVisit == 'nofficial'}">
103        <c:forEach var = "i" begin = "0" end = "16">
104         <c:forEach var = "provs" items = "${prov[i]}">
             varStatus = "stat">
105         <div class = "modal fade" id = "provinceModal2_${i
             }_${stat.index}" data-width = "700">
106          <div class = "modal-body">
107            <table class="table table-striped" id="
             example1">
108              <thead>
109                <tr>
110                  <th>Municipality/City</th>
111                  <th>No. of Municipal/City Health Workers/
                   Officials</th>
112                  <th>View All Users</th>
113                </tr>
114              </thead>
115              <tbody>
116                <c:forEach var = "j" begin = "0" end = "${fn:
                   length(mun) - 1}">
117                  <c:forEach var = "mun" items = "${mun[j]}">
                     varStatus = "munSt">
118                  <c:if test = "${fn:toLowerCase(provs.
                     province) == fn:toLowerCase(mun.province) && mun.
                     region == regions[i]
                     && (reg.userType == 'Municipal/City Health
                     Worker' || reg.userType == 'Municipal/City
                     Health Official') && reg.status == 0}">
119                    <c:set var = "counter" value = "${counter +
                     1}" />
120                   </c:if>
121                   </c:forEach>
122                   </c:if>
123                   </tbody>
124                 </table>
125               <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
126                   <c:set var = "counter" value = "${counter +
                     1}" />
127                   </c:if>
128                   <c:forEach var = "reg" items = "${{
                     registrations}"> varStatus = "regSt">
129                   <c:if test = "${fn:toLowerCase(reg.province)
                     == fn:toLowerCase(mun.province) && reg.
                     region == regions[i]
                     && (reg.userType == 'Municipal/City Health
                     Worker' || reg.userType == 'Municipal/City
                     Health Official') && reg.status == 0}">
130                     <c:set var = "counter" value = "${counter +
                     1}" />
131                     </c:if>
132                     </c:forEach>
133                     </c:if>
134                     </tbody>
135                   </table>
136                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
137                     <c:set var = "counter" value = "${counter +
                     1}" />
138                     </c:if>
139                     </c:forEach>
140                     </c:if>
141                     </tbody>
142                   </table>
143                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
144                     <c:set var = "counter" value = "${counter +
                     1}" />
145                     </c:if>
146                     </c:forEach>
147                     </c:if>
148                     </tbody>
149                   </table>
150                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
151                     <c:set var = "counter" value = "${counter +
                     1}" />
152                     </c:if>
153                     </c:forEach>
154                     </c:if>
155                     </tbody>
156                   </table>
157                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
158                     <c:set var = "counter" value = "${counter +
                     1}" />
159                     </c:if>
160                     </c:forEach>
161                     </c:if>
162                     </tbody>
163                   </table>
164                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
165                     <c:set var = "counter" value = "${counter +
                     1}" />
166                     </c:if>
167                     </c:forEach>
168                     </c:if>
169                     </tbody>
170                   </table>
171                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
172                     <c:set var = "counter" value = "${counter +
                     1}" />
173                     </c:if>
174                     </c:forEach>
175                     </c:if>
176                     </tbody>
177                   </table>
178                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
179                     <c:set var = "counter" value = "${counter +
                     1}" />
180                     </c:if>
181                     </c:forEach>
182                     </c:if>
183                     </tbody>
184                   </table>
185                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
186                     <c:set var = "counter" value = "${counter +
                     1}" />
187                     </c:if>
188                     </c:forEach>
189                     </c:if>
190                     </tbody>
191                   </table>
192                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
193                     <c:set var = "counter" value = "${counter +
                     1}" />
194                     </c:if>
195                     </c:forEach>
196                     </c:if>
197                     </tbody>
198                   </table>
199                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
200                     <c:set var = "counter" value = "${counter +
                     1}" />
201                     </c:if>
202                     </c:forEach>
203                     </c:if>
204                     </tbody>
205                   </table>
206                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
207                     <c:set var = "counter" value = "${counter +
                     1}" />
208                     </c:if>
209                     </c:forEach>
210                     </c:if>
211                     </tbody>
212                   </table>
213                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
214                     <c:set var = "counter" value = "${counter +
                     1}" />
215                     </c:if>
216                     </c:forEach>
217                     </c:if>
218                     </tbody>
219                   </table>
220                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
221                     <c:set var = "counter" value = "${counter +
                     1}" />
222                     </c:if>
223                     </c:forEach>
224                     </c:if>
225                     </tbody>
226                   </table>
227                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
228                     <c:set var = "counter" value = "${counter +
                     1}" />
229                     </c:if>
230                     </c:forEach>
231                     </c:if>
232                     </tbody>
233                   </table>
234                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
235                     <c:set var = "counter" value = "${counter +
                     1}" />
236                     </c:if>
237                     </c:forEach>
238                     </c:if>
239                     </tbody>
240                   </table>
241                 <c:if test = "${fn:toLowerCase(provs.
                   province) == fn:toLowerCase(mun.province) && mun.
                   region == regions[i]
                   && (reg.userType == 'Municipal/City Health
                   Worker' || reg.userType == 'Municipal/City
                   Health Official') && reg.status == 0}">
242                     <c:set var = "counter" value = "${counter +
                     1}" />
243                     </c:if>
244                     </c:forEach>
245                     </c:if>
246                     </tbody>
247                   </table>

```

```

    province) == fn:toLowerCase(mun.province)
    && mun.region == regions[i])>
129   <:set var = "counter" value = "0" />
130   <:forEach var = "reg" items = "${{
131     registrations}" varStatus = "st">
132   <c:if test = "${fn:toLowerCase(reg.muncity)
133     == fn:toLowerCase(mun.muncity) && fn:
134       toLowerCase(reg.province) == fn:toLowerCase
135       (provs.province) && reg.region == regions[i]
136     ]}>
137     && (reg.userType == 'Municipal/City Health
138       Worker' || reg.userType == 'Municipal/City
139       Health Official') && reg.status == 0)">
140     <c:set var = "counter" value = "${counter +
141       1}" />
142   </c:if>
143   </c:forEach>
144   <tr>
145     <th>${mun.muncity}</th>
146     <th>${counter}</th>
147     <th>
148       <button class = "btn btn-primary" href = "#"
149         usersModal2_${i}_${stat.index}_${j}_${munSt
150         .index}" data-toggle = "modal">See All</
151       button>
152     </th>
153   </tr>
154   <c:if>
155     <c:forEach var = "i" begin = "0" end = "16">
156       <c:forEach var = "provs" items = "${prov[i]}"
157         varStatus = "stat">
158         <c:forEach var = "j" begin = "0" end = "${fn:
159           length(mun) - 1}">
160           <c:forEach var = "mun" items = "${mun[j]}"
161             varStatus = "munSt">
162               <c:if test = "${fn:toLowerCase(provs.province)
163                 == fn:toLowerCase(mun.province) && mun.
164                   region == regions[i]}">
165                 <div class = "modal fade" id = "usersModal2_${i}
166                   _${stat.index}_${j}_${munSt.index}" data-
167                     width = "700">
168                   <div class = "modal-body">
169                     <table class="table table-striped" id=""
170                       example1">
171                       <thead>
172                         <tr>
173                           <th>Name</th>
174                           <th>Type of User Applied</th>
175                           <th>Profile</th>
176                           <th>Approve</th>
177                           <th>Reject</th>
178                         </tr>
179                       </thead>
180                       <tbody>
181                         <c:forEach var = "reg" items = "${{
182                           registrations}" varStatus = "st">
183                           <c:if test = "${fn:toLowerCase(reg.province)
184                             == fn:toLowerCase(provs.province) && reg.
185                               region == regions[i]
186                               && fn:toLowerCase(reg.muncity) == fn:
187                                 toLowerCase(mun.muncity) && (reg.userType
188                                   == 'Municipal/City Health Worker' ||
189                                     reg.userType == 'Municipal/City Health
190                                     Official') && reg.status == 0)">
191                             <tr>
192                               <td>${reg.firstname} ${reg.middlename} ${
193                                 reg.surname}</td>
194                               <td>${reg.usertype}</td>
195                               <td>
196                                 <button class = "btn btn-primary" href =
197                                   "#profile2_${i}_${stat.index}_${j}_${{
198                                     munSt.index}_${st.index}" data-toggle =
199                                       "modal">View</button></td>
200                               <td>
201                                 <button class = "btn btn-primary" href =
202                                   "#approve2_${st.index}" data-toggle =
203                                     "modal">Approve</button></td>
204                               <td>
205                                 <button class = "btn btn-primary" href =
206                                   "#reject2_${st.index}" data-toggle =
207                                     "modal">Reject</button></td>
208                               </td>
209                           </tr>
210                         </tbody>
211                       </table>
212                     <div class = "modal fade" id = "reject2_${st
213           .index}">
214                         <a href = "" class = "btn btn-primary"
215                           data-dismiss="modal">No</a>
216                         </div>
217                         <div class = "modal-body">
218                           Are you sure you want to reject this
219                           application?
220                         </div>
221                         <div class = "modal-footer">
222                           <a href = "${request.getContextPath()/
223                             pages/rejectUser/${reg.accountID}" class
224                             = "btn btn-primary">Yes</a>
225                           <a href = "" class = "btn btn-primary"
226                             data-dismiss="modal">No</a>
227                         </div>
228                       </div>
229                     </div>
230                   </div>
231                   <table class = "table table-striped">
232                     <tr>
233                       <td>First Name:</td>
234                       <td>${reg.firstname}</td>
235                     </tr>
236                     <tr>
237                       <td>Middle Name:</td>
238                       <td>${reg.middlename}</td>
239                     </tr>
240                     <tr>
241                       <td>Surname:</td>
242                       <td>${reg.surname}</td>
243                     </tr>
244                     <tr>
245                       <td>Region:</td>
246                       <td>${reg.region}</td>
247                     </tr>
248                     <tr>
249                       <td>Province:</td>
250                       <td>${reg.province}</td>
251                     </tr>
252                     <tr>
253                       <td>Institution:</td>
254                       <td>${reg.institution}</td>
255                     </tr>
256                   </table>
257                 </div>
258               </div>
259             </div>
260           </div>
261         </div>
262       </div>
263     </div>
264   </div>
265   <div class = "modal-footer">
266     <a href = "${request.getContextPath()/
267       pages/addUser/${reg.accountID}" class =

```

```

268      <tr>
269          <td>Institution's Address:</td>
270          <td>
271              ${reg.institutionAddr}
272          </td>
273      </tr>
274      <tr>
275          <td>Email:</td>
276          <td>
277              ${reg.email}
278          </td>
279      </tr>
280      <tr>
281          <td>Contact Number:</td>
282          <td>
283              ${reg.number}
284      </td>
285  </tr>
286  </table>
287  </div>
288  </div>
289  </div>
290  </div>
291  </c:if>
292  </c:forEach>
293  </c:if>
294  </c:forEach>
295  </c:forEach>
296  </c:forEach>
297  </c:forEach>
298  </div>

Listing 55: province.jsp

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5  <c:if test = "${not empty successD}">
6  <div class = "alert alert-success">
7  <strong>${successD}</strong>
8  </div>
9  </c:if>
10 <c:if test = "${pageVisit == 'admin' ||
   pageVisit == 'nofficial'}">
11 <table class="table table-striped" id="example1
   ">
12 <thead>
13 <tr>
14 <th>Region</th>
15 <th>No. of Provincial Users</th>
16 </tr>
17 </thead>
18 <tbody>
19 <c:forEach var = "i" begin = "0" end = "16">
20 <tr>
21 <th>
22     <button type = "button" class = "btn btn-
       primary" href = "#regionModal14_${i}" data-
       toggle = "modal">${regions[i]}</button>
23 </th>
24 <c:set var = "counter" value = "0" />
25 <c:forEach var = "reg" items = "${
   registrations}">
26 <c:if test = "${reg.region == regions[i] &&
   reg.userType == 'Provincial Health Worker'
   || reg.userType == 'Provincial Health
   Official') && reg.status == 0}">
27 <c:set var = "counter" value = "${counter +
   1}" />
28 </c:if>
29 </c:forEach>
30 <th>
31   ${counter}
32 </th>
33 </tr>
34 </c:forEach>
35 </tbody>
36 </table>
37 <c:forEach var = "i" begin = "0" end = "16">
38 <div class = "modal fade" id = "regionModal14_${
   i}">
39   <div class = "modal-body">
40     <table class="table table-striped" id="
       example1">
41       <thead>
42         <tr>
43           <th>Province</th>
44           <th>No. of Provincial Workers/Officials</th>
45           <th>View All Users</th>
46         </tr>
47       </thead>
48       <tbody>
49         <c:forEach var = "provs" items = "${prov[i
   ]}" varStatus = "stat">
50           <c:set var = "counter" value = "0" />
51           <c:forEach var = "reg" items = "${
   registrations}">
52             <c:if test = "${fn:toLowerCase(reg.province)
   == fn:toLowerCase(provs.province) && reg.
   region == regions[i]
   && (reg.userType == 'Provincial Health
   Worker' || reg.userType == 'Provincial
   Health Official') && reg.status == 0}">
53               <c:set var = "counter" value = "${counter +
   1}" />
54             </c:if>
55           </c:forEach>
56         </c:forEach>
57       </tbody>
58     </table>
59   <th>${provs.province}</th>
60   <th>${counter}</th>
61   <th>
62     <button type = "button" class = "btn btn-
       primary" href = "#usersModal14_${i}_${stat.
       index}" data-toggle = "modal">See All</
       button>
63   </th>
64   </tr>
65   </c:forEach>
66 </tbody>
67 </table>
68 </div>
69 </c:forEach>
70 </c:if>
71 <c:if test = "${pageVisit == 'oofficial'}">
72 <table class="table table-striped" id="example1
   ">
73   <thead>
74     <tr>
75       <th>Province</th>
76       <th>No. of Provincial Workers/Officials</th>
77       <th>View All Users</th>
78     </tr>
79   </thead>
80   <tbody>
81     <c:forEach var = "i" begin = "0" end = "${fn:
       length(prov) - 1}">
82       <c:forEach var = "provs" items = "${prov[i]}">
83         <varStatus = "stat">
84           <c:if test = "${fn:toLowerCase(user.province)
   == fn:toLowerCase(provs.province)}">
85             <c:set var = "counter" value = "0" />
86             <c:forEach var = "reg" items = "${
   registrations}">
87               <c:if test = "${fn:toLowerCase(reg.province)
   == fn:toLowerCase(provs.province) && reg.
   region == regions[i]
   && (reg.userType == 'Provincial Health Worker
   || reg.userType == 'Provincial Health
   Official') && reg.status == 0}">
88                 <c:set var = "counter" value = "${counter +
   1}" />
89               </c:if>
90             </c:forEach>
91           </c:if>
92         </c:forEach>
93       <tr>
94         <th>${provs.province}</th>
95         <th>${counter}</th>
96         <th>
97           <button type = "button" class = "btn btn-
       primary" href = "#usersModal14_${i}_${stat.
       index}" data-toggle = "modal">See All</
       button>
98         </th>
99       </tr>
100      </c:if>
101      </c:forEach>
102      </c:forEach>
103    </tbody>
104  </table>
105  </c:if>
106  <c:forEach var = "i" begin = "0" end = "16">
107    <c:forEach var = "provs" items = "${prov[i]}">
108      <varStatus = "stat">
109        <div class = "modal fade" id = "usersModal14_${i
   }_${stat.index}" data-width = "700">
110          <div class = "modal-body">
111            <table class="table table-striped" id="
       example1">
112              <thead>
113                <tr>
114                  <th>Name</th>
115                  <th>Type of User Applied</th>
116                  <th>Profile</th>
117                  <th>Approve</th>
118                  <th>Reject</th>
119                </tr>

```

```

119      </thead>
120      <tbody>
121          <:forEach var = "reg" items = "${{
122              registrations}" varStatus = "st">
123              <c:if test = "${fn:toLowerCase(reg.province)
124                  == fn:toLowerCase(provs.province) && reg.
125                  region == regions[1]
126                  && (reg.userType == 'Provincial Health
127                      Worker' || reg.userType == 'Provincial
128                      Health Official') && reg.status == 0}">
129                  <tr>
130                      <td>${reg.firstname} ${reg.middlename} ${
131                          reg.surname}</td>
132                      <td>${reg.userType}</td>
133                      <td><button class = "btn btn-primary" href
134                          = "#profile14_${i}_${stat.index}_${st.index
135                          }" data-toggle = "modal">View</button></td>
136                      <td><button class = "btn btn-primary" href
137                          = "#approve14_${st.index}" data-toggle = "
138                              modal">Approve</button></td>
139                      <td><button class = "btn btn-primary" href
140                          = "#reject14_${st.index}" data-toggle = "
141                              modal">Reject</button></td>
142                  </tr>
143                  <div class = "modal fade" id = "approve14_${{
144                      st.index}">
145                      <div class = "modal-body">
146                          Are you sure you want to approve this
147                          application?
148                      </div>
149                      <div class = "modal-footer">
150                          <a href = "<%= request.getContextPath()
151                          %>/pages/addUser/${reg.accountID}" class =
152                              "btn btn-primary">Yes</a>
153                          <a href = "" class = "btn btn-primary"
154                              data-dismiss="modal">No</a>
155                      </div>
156                  <div class = "modal fade" id = "reject14_${{
157                      st.index}">
158                      <div class = "modal-body">
159                          Are you sure you want to reject this
160                          application?
161                      </div>
162                      <div class = "modal-footer">
163                          <a href = "<%= request.getContextPath()
164                          %>/pages/rejectUser/${reg.accountID}" class =
165                              "btn btn-primary">Yes</a>
166                          <a href = "" class = "btn btn-primary"
167                              data-dismiss="modal">No</a>
168                      </div>
169                  </div>
170          </tbody>
171      </table>
172      <:forEach var = "i" begin = "0" end = "16">
173          <c:forEach var = "provs" items = "${prov[i]}"
174              varStatus = "stat">
175              <c:forEach var = "reg" items = "${allUsers}"
176                  varStatus = "st">
177                  <div class = "modal fade" id = "profile14_${i}_${{
178                      stat.index}_${st.index}">
179                      <div class = "panel panel-info">
180                          <div class = "panel-heading">
181                              <h4>User Profile (${reg.firstname} ${reg.
182                                  middlename} ${reg.surname})</h4>
183                          </div>
184                          <div class = "panel-body">
185                              <table class = "table table-striped">
186                                  <tr>
187                                      <td>First Name:</td>
188                                      <td>${reg.firstname}</td>
189                                  </tr>
190                                  <tr>
191                                      <td>Middle Name:</td>
192                                      <td>${reg.middlename}</td>
193                                  </tr>
194                                  <tr>
195                                      <td>Surname:</td>
196                                      <td>${reg.surname}</td>
197                                  </tr>
198                                  <tr>
199                                      <td>Region:</td>
200                                      <td>${reg.region}</td>
201                                  </tr>
202                                  <tr>
203                                      <td>Province:</td>
204                                      <td>${reg.province}</td>
205                                  </tr>
206                                  <tr>
207                                      <td>Institution:</td>
208                                      <td>${reg.institution}</td>
209                                  </tr>
210                                  <tr>
211                                      <td>Institution's Address:</td>
212                                      <td>${reg.institutionAddr}</td>
213                                  </tr>
214                                  <tr>
215                                      <td>Email:</td>
216                                      <td>${reg.email}</td>
217                                  </tr>
218                                  <tr>
219                                      <td>Contact Number:</td>
220                                      <td>${reg.number}</td>
221                                  </tr>
222                                  <tr>
223                                      <td>${reg.regions}</td>
224                                  </tr>
225                                  </table>
226                              </div>
227                          </div>
228                      </div>
229                  </c:if>
230              </div>
231          </div>
232      </c:forEach>
233      </c:forEach>
234      </c:forEach>

```

Listing 56: national.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2      jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4      functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6      springframework.org/security/tags" %>
7  <%@ taglib prefix="form" uri="http://www.
8      springframework.org/tags/form" %>
9
10 <table class="table table-striped" id="example1
11     ">
12     <thead>
13         <tr>
14             <th>Name</th>
15             <th>User Type</th>
16             <th>Profile</th>
17             <th>Approve</th>
18             <th>Reject</th>
19         </tr>
20     </thead>
21     <tbody>
22         <:forEach var = "reg" items = "${{
23             registrations}" varStatus = "st">
24             <c:if test = "${reg.userType == 'National
25                 Health Official' && reg.status == 0}">
26                 <tr>
27                     <td>${reg.firstname} ${reg.middlename} ${reg.
28                         surname}</td>
29                     <td>${reg.userType}</td>
30                     <td><button class = "btn btn-primary" href =
31                         "#profile5_${st.index}" data-toggle =
32                             "modal">View</button></td>
33                     <td><button class = "btn btn-primary" href =
34                         "#approve5_${reg.accountID}" data-toggle =
35                             "modal">Approve</button></td>
36                     <td><button class = "btn btn-primary" href =
37                         "#reject5_${reg.accountID}" data-toggle =
38                             "modal">Reject</button></td>
39                 </tr>
40                 <div class = "modal fade" id = "approve5_${reg
41                     .accountID}">
42                     <div class = "modal-body">
43                         Are you sure you want to approve this
44                         application?
45                     </div>
46                     <div class = "modal-footer">

```

```

31      <a href = "<%= request.getContextPath() %>/
32          pages/addUser/${reg.accountID}" class =
33          "btn btn-primary">Yes</a>
34      <a href = "" class = "btn btn-primary" data-
35          dismiss="modal">No</a>
36  </div>
37  </div>
38 <div class = "modal fade" id = "reject5_${reg.
39     accountID}">
40     <div class = "modal-body">
41         Are you sure you want to reject this
42         application?
43     </div>
44     <div class = "modal-footer">
45         <a href = "<%= request.getContextPath() %>/
46             pages/rejectUser/${reg.accountID}" class =
47             "btn btn-primary">Yes</a>
48         <a href = "" class = "btn btn-primary" data-
49             dismiss="modal">No</a>
50     </div>
51  </div>
52  </c:if>
53 </c:forEach>
54 </tbody>
55 </table>
56 <c:forEach var = "reg" items = "${registrations
57     }" varStatus = "st">
58 <c:if test = "${reg.userType == 'National Health
59     Official' && reg.status == 0}">
60 <div class = "modal fade" id = "profile5_${st.
61     index}" data-width = "700">
62     <div class = "modal-body">
63         <div class = "panel panel-info">
64             <div class = "panel-heading">
65                 <h4>User Profile ${reg.firstname} ${reg.
66                     middlename} ${reg.surname}</h4>
67             </div>
68             <div class = "panel-body">
69                 <br />
70                 <table class = "table table-striped">
71                     <tr>
72                         <td>First Name:</td>
73                         <td>${reg.firstname}</td>
74                     </tr>
75                     <tr>
76                         <td>Middle Name:</td>
77                         <td>${reg.middlename}</td>
78                     </tr>
79                     <tr>
80                         <td>Last Name:</td>
81                         <td>${reg.surname}</td>
82                     </tr>
83                     <tr>
84                         <td>Email:</td>
85                         <td>${reg.email}</td>
86                     </tr>
87                     <tr>
88                         <td>Contact Number:</td>
89                         <td>${reg.number}</td>
90                     </tr>
91                     <tr>
92                         <td>Institution:</td>
93                         <td>${reg.institution}</td>
94                     </tr>
95                     <tr>
96                         <td>Institution's Address:</td>
97                         <td>${reg.institutionAddr}</td>
98                     </tr>
99                     <tr>
100                         <td>Institution's Email:</td>
101                         <td>${reg.institutionEmail}</td>
102                     </tr>
103                     <tr>
104                         <td>Institution's Contact Number:</td>
105                         <td>${reg.institutionNumber}</td>
106                     </tr>
107                     <tr>
108                         <td>Institution's Address:</td>
109                         <td>${reg.institutionAddress}</td>
110                     </tr>
111                     <tr>
112                         <td>Institution's Email:</td>
113                         <td>${reg.institutionEmail}</td>
114                     </tr>
115                     <tr>
116                         <td>Institution's Contact Number:</td>
117                         <td>${reg.institutionNumber}</td>
118                     </tr>
119 </c:forEach>
```

Listing 57: researcher.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2      jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4      functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6      springframework.org/security/tags" %>
7  <%@ taglib prefix="form" uri="http://www.
8      springframework.org/tags/form" %>
9
10 <table class="table table-striped" id="example1
11     ">
12     <thead>
13         <tr>
14             <th>Name</th>
15             <th>User Type</th>
16             <th>Profile</th>
17             <th>Approve</th>
18             <th>Reject</th>
19         </tr>
20     </thead>
21     <tbody>
22         <c:forEach var = "reg" items = "${
23             registrations}" varStatus = "st">
24         <c:if test = "${reg.userType == 'Researcher'
25             && reg.status == 0}">
26             <tr>
27                 <td>${reg.firstname} ${reg.middlename} ${reg.
28                     surname}</td>
29                 <td>${reg.userType}</td>
30                 <td><button class = "btn btn-primary" href =
31                     "#profile6_${st.index}" data-toggle =
32                     "modal">View</button></td>
33                 <td><button class = "btn btn-primary" href =
34                     "#approve6_${reg.accountID}" data-toggle =
35                     "modal">Approve</button></td>
36                 <td><button class = "btn btn-primary" href =
37                     "#reject6_${reg.accountID}" data-toggle =
38                     "modal">Reject</button></td>
39             </tr>
40         </c:if>
41     </c:forEach>
42     </tbody>
43 </table>
44 <c:forEach var = "reg" items = "${registrations
45     }" varStatus = "st">
46 <c:if test = "${reg.userType == 'Researcher' &&
47     reg.status == 0}">
48 <div class = "modal fade" id = "profile6_${st.
49     index}" data-width = "700">
50     <div class = "modal-body">
51         <div class = "panel panel-info">
52             <div class = "panel-heading">
53                 <h4>User Profile ${reg.firstname} ${reg.
54                     middlename} ${reg.surname}</h4>
55             </div>
56             <div class = "panel-body">
57                 <br />
58                 <table class = "table table-striped">
59                     <tr>
60                         <td>First Name:</td>
61                         <td>${reg.firstname}</td>
62                     </tr>
```

```

63      </td>
64      </tr>
65      <tr>
66          <td>Middle Name:</td>
67          <td>
68              ${reg.middlename}
69          </td>
70      </tr>
71      <tr>
72          <td>Surname:</td>
73          <td>
74              ${reg.surname}
75          </td>
76      </tr>
77      <tr>
78          <td>Region:</td>
79          <td>
80              ${reg.region}
81          </td>
82      </tr>
83      <tr>
84          <td>Province:</td>
85          <td>
86              ${reg.province}
87          </td>
88      </tr>
89      <tr>
90          <td>Institution:</td>
91          <td>
92              ${reg.institution}
93          </td>
94      </tr>
95      <tr>
96          <td>Institution's Address:</td>
97          <td>
98              ${reg.institutionAddr}
99          </td>
100     </tr>
101     <tr>
102     <td>Email:</td>
103     <td>
104         ${reg.email}
105     </td>
106     </tr>
107     <tr>
108     <td>Contact Number:</td>
109     <td>
110         ${reg.number}
111     </td>
112     </tr>
113     </table>
114     </div>
115     </div>
116     </div>
117     </div>
118     </c:if>
119     </c:forEach>
```

Listing 58: workers.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <!DOCTYPE html>
5  <html>
6  <head>
7      <title>Vector-Borne Diseases Monitoring System
       </title>
8      <meta name="viewport" content="width=device-
       width, initial-scale=1.0">
9      <jsp:include page="../css.jsp"/>
10     <script type="text/javascript">
11         // When the document is ready
12         $(document).ready(function () {
13             $('#dp1').datepicker({
14                 format: "yyyy-mm-dd"
15             });
16             $('#dp2').datepicker({
17                 format: "yyyy-mm-dd"
18             });
19             $('#dp3').datepicker({
20                 format: "yyyy-mm-dd"
21             });
22             $('#dp4').datepicker({
23                 format: "yyyy-mm-dd"
24             });
25         });
26     </script>
27     <script type="text/javascript">
28     /* Table initialisation */
29     jQuery(document).ready(function($) {
30
31         <c:forEach var = "i" begin = "0"
32             end = "16">
33             <c:forEach var = "provs" items = "$
34             {prov[i]}>" varStatus = "stat">
35                 var nameTag = "#examplei_" + <c:out
36                     value = "${i}" /> + "_" + <c:out value =
37                         ${stat.index}>"/>;
38                 $nameTag).dataTable( {
39                     "bSort": false,           // Disable
40                     sorting
41                     "iDisplayLength": 10,    // records per
42                     page
43                     "sDom": "t<'row'<'col-md-6'i><'col-md
44                     -6'p>>",
45                     "sPaginationType": "bootstrap"
46                 );
47                 <c:forEach>
48                 </c:forEach>
49             </c:forEach>
50             </c:forEach>
51             </c:forEach>
52             </c:forEach>
53             <c:forEach var="dis" items="${diseases}>
54                 <a href = "<%= request.
55                 getServletContext() %>/home"><img src =
56                     <%= request.getServletContext() %>/resources/dist
57                     img/logo2.jpg" alt = "VBDMs Logo" height =
58                     "30px;" width = "93px;" class = "img-
59                     responsive"/></a>
60                 <!-- <a href = "<%= request.
61                 getServletContext() %>/home" class = "navbar-
62                 brand">VBDMs</a> -->
63                 <div class = "collapse navbar-
64                 collapse">
65                     <ul class = "nav navbar-nav">
66                         <li <c:if test = "${pages == 'home
67                         '}> class = "active"</c:if>>
68                             <a href = "<%= request.
69                             getServletContext() %>/home">Home</a></li>
70
71                         <li class = "dropdown">
72                             <a href = "" data-toggle =
73                                 "dropdown" class = "dropdown-toggle">
74                                 Diseases <b class = "caret"></b>
75                         </a>
76                         <ul class="dropdown-menu">
77                             <c:forEach var="dis" items="${diseases}>
78                                 <li><a href = "<%= request.
79                                 getServletContext() %>/disease/${dis.
80                                 diseaseName}">${dis.diseaseName}</a></li>
81
82                                 <c:forEach>
83                                     </ul>
84                                     </li>
85                                     <li class = "dropdown">
86                                         <a href = "" data-toggle =
87                                             "dropdown" class = "dropdown-toggle">
88                                             Disease Statistics <b class =
89                                             "caret"></b>
90                                         </a>
91                                         <ul class="dropdown-menu">
92                                             <c:forEach var="dis" items="${diseases}>
93                                                 <li><a href = "<%= request.
94                                                 getServletContext() %>/statistics/${dis.
95                                                 diseaseName}">${dis.diseaseName}</a></li>
96
97                                                 <c:forEach>
98                                     </ul>
99                                     </li>
100                                     <li><a href = "<%= request.
101                                     getServletContext() %>/campaigns">Awareness
102                                         Campaigns</a></li>
103                                         </ul>
104                                         <ul class = "nav navbar-nav navbar-
105                                         right">
106                                             <sec:authorize access="isAnonymous
107                                             ()">
108                                                 <c:if test = "${pages != 'register
109                                                 '}>
110                                                     <li><a data-toggle =
111                                                         "modal" href =
112                                                         "#loginForm">Login</a></li>
113                                                     <li><a href = "<%= request.
```

```

        getContextPath() %>/register">Register</a
    ></li>
        </c:if>
        <sec:authorize>
            <sec:authorize access="isAuthenticated()">
                <div class = "btn-group">
                    Logged in as:
                    <sec:authorize access="hasAnyRole('
                    ROLE_BHWorker')">
                        <a href = "<%= request.
                    getContextPath() %>/pages/profile">Barangay
                    Health Worker</a>
                    </sec:authorize>
                    <sec:authorize access="hasAnyRole('
                    ROLE_MHWorker')">
                        <a href = "<%= request.getContextPath()
                    () %>/pages/profile">Municipal/City Health
                    Worker</a>
                    </sec:authorize>
                    <sec:authorize access="hasAnyRole('
                    ROLE_MCOfficial')">
                        <a href = "<%= request.getContextPath()
                    () %>/pages/profile">Municipal/City Health
                    Official</a>
                    </sec:authorize>
                    <sec:authorize access="hasAnyRole('
                    ROLE_PHWorker')">
                        <a href = "<%= request.getContextPath()
                    %>/pages/profile">Provincial Health Worker
                    </a>
                    </sec:authorize>
                    <sec:authorize access="hasAnyRole('
                    ROLE_PHOfficial')">
                        <a href = "<%= request.getContextPath()
                    %>/pages/profile">Provincial Health
                    Official</a>
                    </sec:authorize>
                    <sec:authorize access="hasAnyRole('
                    ROLE_NHOfficial')">
                        <a href = "<%= request.getContextPath() %>/
                    pages/profile">National Health Official</a>
                    </sec:authorize>
                    <sec:authorize access="hasAnyRole('
                    ROLE_Researcher')">
                        <a href = "<%= request.getContextPath() %>/pages
                    /profile">Administrator</a>
                    </sec:authorize>
                    <sec:authorize access="hasAnyRole('
                    ROLE_Researcher')">
                        <a href = "<%= request.getContextPath() %>/pages
                    /profile">Researcher</a>
                    </sec:authorize>
                </div>
                <div class = "btn-group">
                    <button href="#" data-toggle="dropdown" class="
                    btn dropdown-toggle" >
                        <span class = "glyphicon glyphicon-user"></
                    span> <span class = "caret"></span>
                    </button>
                    <ul class="dropdown-menu">
                        <li><a href = "<%= request.
                    getContextPath() %>/pages/notifications">Notifications
                    </a></li>
                        <sec:authorize>
                            <sec:authorize access="hasAnyRole('
                            ROLE_MCOfficial', 'ROLE_PHOfficial', ,
                            ROLE_NHOfficial', 'ROLE_USER')">
                                <li><a href = "<%= request.
                    getContextPath() %>/pages/system">Manage
                    Records</a></li>
                            <sec:authorize>
                                <sec:authorize access="hasAnyRole('
                                ROLE_MCOfficial', 'ROLE_PHOfficial', ,
                                ROLE_NHOfficial', 'ROLE_USER')">
                                    <li><a href = "<%= request.getContextPath()
                    () %>/pages/workers" data-toggle = "tab">
                    Workers</a></li>
                                    </sec:authorize>
                                    <li><a href = "<%= request.getContextPath()
                    () %>/pages/reports">Reports</a></li>
                                    <li><a href = "<%= request.getContextPath()
                    () %>/j_spring_security_logout">Log Out</a>
                                    </li>
                                </sec:authorize>
                            </li>
                        </sec:authorize>
                    </ul>
                </div>
                </div>
            </div>
        <div id = "loginForm" class = "modal fade"
            tabindex = "-1">

```

149 <div class="modal-header">
150 <button type="button" class="close" data-
 dismiss="modal" aria-hidden="true"> </
 button>
151 <div class = "panel-header">
152 <h4 class = "form-signin-head">Vector Borne
 Diseases Monitoring System</h4>
153 </div>
154 </div>
155 <div class = "modal-body">
156 <form method="post" class = "form-signin"
 action = "j_spring_security_check">
157 <table class = "table" >
158 <tr>
 <td style = "border: none;">
 <label for="login_username">Username</
 label>
 </td>
 <td style = "border: none;">
 <input type="text" name="j_username" id="
 login_username" class="form-control field
 required" title="Please provide your
 username" />
 </td>
 </tr>
 <tr>
 <td style = "border: none;">
 <label for="login_password">Password</
 label>
 </td>
 <td style = "border: none;">
 <input type="password" name="j_password"
 id="login_password" class="form-control
 field required" title="Password is required
 " />
 </td>
 </tr>
 <tr>
 <td style = "border: none;"><button class =
 "btn btn-primary" type="submit" value =
 "submit">Log in</button></td>
 </tr>
 </table>
 </form>
</div>
<div class = "tabbable">
<jsp:include page = "linkings.jsp" />
<div class = "tab-content">
<div class = "tab-pane active">
<div class = "tabbable">
<ul class = "nav nav-pills">
<sec:authorize access="hasAnyRole('
ROLE_PHOfficial', 'ROLE_MCOfficial')">
<li <c:if test = "\${pageVisit == 'mofficial
' || pageVisit == 'pofficial'}">class =
active</c:if>

Barangay</
span>

</sec:authorize>
<sec:authorize access="hasAnyRole('
ROLE_MCOfficial', 'ROLE_PHOfficial', ,
ROLE_NHOfficial', 'ROLE_USER')">
<li <c:if test = "\${pageVisit == 'admin' ||
pageVisit == 'nofficial'}">class = "active
"</c:if>

Municipality/City<span class="badge pull-
right">

</sec:authorize>
<sec:authorize access="hasAnyRole('
ROLE_PHOfficial', 'ROLE_NHOfficial', ,
ROLE_USER')">

Provincial</
span>

</sec:authorize>
<sec:authorize access="hasAnyRole('ROLE_USER
')">

National</
span>

</sec:authorize>
<sec:authorize access="hasAnyRole('
ROLE_NHOfficial', 'ROLE_USER')">

Researchers<span class="badge pull-right
">

</sec:authorize>


```

213 </div>
214 <br />
215 <div class = "tab-content" style = "height: 800
216   px;">
216   <div class = "tab-pane <c:if test = "${{
217     pageVisit == 'mofficial' || pageVisit == 'pofficial'}">active</c:if>" id = "taba">
218   <c:if test = "${pageVisit == 'mofficial'}">
219   <jsp:include page = "allworkers/bar.jsp" />
220   <c:if test = "${pageVisit == 'pofficial'}">
221   <jsp:include page = "allworkers/barangay.jsp"
222   />
222 </c:if>
223 </div>
224 <div class = "tab-pane <c:if test = "${pageVisit
225   == 'admin' || pageVisit == 'noficial'}">
226   active</c:if>" id = "tabb">
226   <jsp:include page = "allworkers/muncity.jsp" />
227 </c:if>
228 <c:if test = "${pageVisit == 'mofficial'}">
229   <jsp:include page = "allworkers/mun.jsp" />
230 </c:if>
231 </div>
232 <div class = "tab-pane" id = "tabc">
233   <c:if test = "${pageVisit != 'pofficial'}">
234   <jsp:include page = "allworkers/province.jsp"
234   />
235 </c:if>
236 <c:if test = "${pageVisit == 'pofficial'}">
237   <jsp:include page = "allworkers/prov.jsp" />
238 </c:if>
239 </div>
240 <div class = "tab-pane" id = "tabd">
241   <jsp:include page = "allworkers/national.jsp"
241   />
242 </div>
243 <div class = "tab-pane" id = "tabe">
244   <jsp:include page = "allworkers/researcher.jsp"
244   />
245 </div>
246 </div>
247 </div>
248 </div>
249 </div>
250 </div>
251 <jsp:include page = "../footer.jsp" />
```

Listing 59: barangay.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2   jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4   functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6   springframework.org/security/tags" %>
7  <%@ taglib prefix="form" uri="http://www.
8   springframework.org/tags/form" %>
9
10 <div class = "container-fluid well-lg" style = "
11   background-color: #eee;">
12   <div class = "panel panel-info">
13     <c:if test = "${not empty successD}">
14       <div class = "alert alert-success">
15         <strong>${successD}</strong>
16       </div>
17     </c:if>
18     <c:forEach var = "i" begin = "0" end = "16">
19       <c:forEach var = "provs" items = "${prov[i]}"
20         varStatus = "stat">
21         <c:if test = "${fn:toLowerCase(user.province)
22           == fn.toLowerCase(provs.province)}">
23           <table class="table table-striped" id = "
24             example1">
25             <thead>
26               <tr>
27                 <th>Municipality/City</th>
28                 <th>No. of Barangay Health Workers</th>
29               </tr>
30             </thead>
31             <tbody>
32               <c:forEach var = "j" begin = "0" end = "${fn:
33                 length(mun) - 1}">
34                 <c:forEach var = "mun" items = "${mun[j]}"
35                   varStatus = "munSt">
36                   <c:if test = "${fn:toLowerCase(user.province)
37                     == fn.toLowerCase(mun.province) && mun.
38                     region == regions[i]}">
39                     <c:set var = "counter" value = "0" />
40                     <c:forEach var = "user" items = "${allUsers}"
41                       varStatus = "st">
42                       <c:if test = "${fn:toLowerCase(user.province)
43                         == fn.toLowerCase(provs.province) && user.
44                           region == provs.region
45                           && fn.toLowerCase(user.muncity) == fn:
46                            toLowerCase(mun.muncity) && user.userType
47                             == 'Barangay Health Worker'}">
48                         <c:set var = "counter" value = "${counter +
49                           1}" />
50                       </c:if>
51                     </c:forEach>
52                   <tr>
53                     <th>
54                       <button type = "button" class = "btn btn-
55                         primary" href = "#muncityModal1_${i}_${stat
56                           .index}_${j}_${munSt.index}" data-toggle =
57                           "modal">${mun.muncity}</button>
58                     </th>
59                     <th>${counter}</th>
60                   </tr>
61                 </tbody>
62               </table>
63             </c:forEach>
64           <c:forEach var = "i" begin = "0" end = "16">
65             <c:forEach var = "provs" items = "${prov[i]}"
66               varStatus = "stat">
67               <c:forEach var = "j" begin = "0" end = "${fn:
68                 length(mun) - 1}">
69                 <c:forEach var = "mun" items = "${mun[j]}"
70                   varStatus = "munSt">
71                   <c:if test = "${fn:toLowerCase(user.muncity)
72                     == fn.toLowerCase(brgy.muncity) && fn:
73                      toLowerCase(user.province) == fn:
74                        toLowerCase(mun.province) && mun.region ==
75                         regions[i]}">
76                     <c:set var = "counter" value = "0" />
77                     <c:forEach var = "user" items = "${allUsers}
78                       varStatus = "st">
79                     <c:if test = "${fn:toLowerCase(user.province)
80                         == fn.toLowerCase(provs.province) && user.
81                           region == provs.region
82                           && fn.toLowerCase(user.muncity) == fn:
83                            toLowerCase(mun.muncity) && user.barangay
84                             == brgy.barangay
85                             && user.userType == 'Barangay Health Worker
86                           '}">
87                     <c:set var = "counter" value = "${counter +
88                           1}" />
89                   </c:if>
90                 </c:forEach>
91               <tr>
92                 <th>${brgy.barangay}</th>
93                 <th>${counter}</th>
94               </tr>
95             </tbody>
96           </table>
97           <c:forEach var = "i" begin = "0" end = "16">
98             <c:forEach var = "provs" items = "${prov[i]}"
98             />
```

```

    varStatus = "stat">
99   <c:forEach var = "j" begin = "0" end = "${fn:
100      length(mun) - 1}">
100     <c:forEach var = "mun" items = "${mun[j]}">
101       varStatus = "munSt">
101       <c:if test = "${fn:toLowerCase(user.province) ==
102          fn:toLowerCase(mun.province) && mun.region ==
102          regions[i]}">
102         <c:forEach var = "k" begin = "0" end = "${fn:
103            length(brgy) - 1}">
103           <c:forEach var = "brgy" items = "${brgy[k]}">
104             varStatus = "brgSt">
104             <c:if test = "${fn:toLowerCase(user.muncity) ==
105                fn:toLowerCase(brgy.muncity) && fn:
105                toLowerCase(user.province) == fn:
105                toLowerCase(mun.province) && mun.region ==
105                regions[i]}">
105               <div class = "modal fade" id = "usersModal1_${i}
105                  _${stat.index}_${j}_${munSt.index}_${k}_${brgSt.index}" data-width = "700">
106                 <div class = "modal-body">
107                   <table class="table table-striped" id =
107                      example1">
108                     <thead>
109                       <tr>
110                         <th>Name</th>
111                         <th>User Type</th>
112                         <th>Profile</th>
113                         <th>User Logs</th>
114                         <th>Account Status</th>
115                         <th>Activate or Deactivate</th>
116                     </thead>
117                   </tbody>
118                   <c:forEach var = "user" items = "${allUsers
119                      }" varStatus = "st">
120                     <c:if test = "${fn:toLowerCase(user.province
120                        ) == fn:toLowerCase(provs.province) && user
120                        .region == provs.region
121                        && fn:toLowerCase(user.muncity) == fn:
121                        toLowerCase(mun.muncity) && user.barangay
121                        == brgy.barangay
122                        && user.userType == 'Barangay Health Worker
122                        '}">
123                     <tr>
124                       <td>${user.firstname} ${user.middlename} ${
124                         user.surname}</td>
125                       <td>${user.userType}</td>
126                       <td><button class = "btn btn-primary" href
126                          = "#profile1_${i}_${stat.index}_${j}_${
126                            munSt.index}_${k}_${brgSt.index}_${st.index
126                            }" data-toggle = "modal">View</button></td>
127                       <td><button class = "btn btn-primary" href
127                          = "#logs1_${i}_${stat.index}_${j}_${munSt.
127                            index}_${k}_${brgSt.index}_${st.index
127                            }" data-toggle = "modal">View</button></td>
128                       <td><c:if test = "${user.status == 1}">
128                         Active</c:if><c:if test = "${user.status ==
128                           0}">
128                           Inactive</c:if></td>
129                       <td><c:if test = "${user.status == 0}">
129                         <button class = "btn btn-primary" data-
129                           toggle = "modal" href = "#deact_${user.
129                             accID}">Activate</button><c:if><c:if test
129                           = "${user.status == 1}"><button class =
129                             "btn btn-primary" data-toggle = "modal"
129                               href = "#deact_${user.accID}">Deactivate</
129                               button></c:if></td>
130                       </tr>
131                       <div class = "modal fade" id = "deact_${user
131                           .accID}">
132                         <div class = "modal-body">
133                           Are you sure you want to deactivate this
133                           user?
134                         </div>
135                         <div class = "modal-footer">
135                           <a href = "<%= request.getContextPath()
135                             %>/pages/deactivateUser/${user.accID}"><
135                             button class = "btn btn-primary">Yes</
135                             button></a>
136                           <button class = "btn btn-primary" data-
136                             dismiss = "modal">No</button>
137                         </div>
138                       </div>
139                     </div>
140                     <div class = "modal fade" id = "activ_${user
140                           .accID}">
141                         <div class = "modal-body">
142                           Are you sure you want to activate this
142                           user?
143                         </div>
144                         <div class = "modal-footer">
144                           <a href = "<%= request.getContextPath()
144                             %>/pages/activateUser/${user.accID}"><
144                             button class = "btn btn-primary">Yes</
144                             button></a>
145                           <button class = "btn btn-primary" data-
145                             dismiss = "modal">No</button>
146                         </div>
147                       </div>
148                     </div>
149                   </c:if>
```

```

230      <td>Contact Number:</td>
231      <td>
232          ${user.number}
233      </td>
234      </tr>
235      </table>
236      </div>
237      </div>
238  </div>
239  </div>
240 </c:if>
241 </c:forEach>
242 </c:if>
243 </c:forEach>
244 </c:forEach>
245 </c:if>
246 </c:forEach>
247 </c:forEach>
248 </c:forEach>
249 </c:forEach>
250 <c:forEach var = "i" begin = "0" end = "16">
251   <c:forEach var = "provs" items = "${prov[i]}"
252     varStatus = "stat">
253   <c:forEach var = "j" begin = "0" end = "${fn:
254     length(mun) - 1}">
255   <c:forEach var = "mun" items = "${mun[j]}"
256     varStatus = "munSt">
257   <c:if test = "${fn:toLowerCase(user.province) ==
258     fn:toLowerCase(mun.province) && mun.region ==
259     regions[i]}">
260     <c:forEach var = "k" begin = "0" end = "${fn:
261       length(brgy) - 1}">
262       <c:forEach var = "brgy" items = "${brgy[k]}"
263         varStatus = "brgSt">
264       <c:if test = "${fn:toLowerCase(user.muncity) ==
265         fn:toLowerCase(brgy.muncity) && fn:
266           toLowerCase(user.province) == fn:
267             toLowerCase(mun.province) && mun.region ==
268             regions[i]}">
269         <c:forEach var = "user" items = "${allUsers}"
270           varStatus = "st">
271         <c:if test = "${fn:toLowerCase(user.province) ==
272           fn:toLowerCase(provs.province) && user.
273             region == provs.region
274             && fn:toLowerCase(user.muncity) == fn:
275               toLowerCase(mun.muncity) && user.barangay
276                 == brgy.barangay
277                 && user.userType == 'Barangay Health Worker'>
278           <div class = "modal fade" id = "logsi_${i}_${{
279             stat.index}_${j}_${munSt.index}_${k}_${{
280               brgSt.index}_${st.index}" data-width =
281               "700">
282             <div class = "modal-body">
283               <div class = "panel panel-info">
284                 <div class = "panel-body">
285                   <br />
286                   <br />
287                   <table class = "table table-striped">
288                     <thead>
289                       <tr>
290                         <th>Date</th>
291                         <th>Time</th>
292                         <th>Action</th>
293                         <th>view Record</th>
294                     </tr>
295                   </thead>
296                   <tbody>
297                     <tr>
298                       <td>${logs.date}</td>
299                       <td>${logs.time}</td>
300                       <td>${logs.action}</td>
301                       <c:forEach var = "l" begin = "0" end = "${
302             fn:length(brgR) - 1}">
303                         <c:forEach var = "brgR" items = "${brgR[l]
304                           }" varStatus = "brgR">
305                           <c:if test = "${logs.accountID == user.
306                             accID && logs.recordID == brgR.recordID}">
307                             <td><button class = "btn btn-primary"
308                               href = "#logsRecord1_${i}_${stat.index}_${
309                                 j}_${munSt.index}_${k}_${brgSt.index}_${st.
310                                   index}_${l}_${bgR.index}" data-toggle =
311                                     "modal">View</button></td>
312                           </c:if>
313                         </c:forEach>
314                         </c:if>
315                         <c:forEach var = "k" begin = "0" end = "${fn:
316                           length(brgy) - 1}">
317                           <c:forEach var = "brgy" items = "${brgy[k]}"
318                             varStatus = "brgSt">
319                           <c:if test = "${fn:toLowerCase(user.muncity) ==
320                             fn:toLowerCase(brgy.muncity) && fn:
321                               toLowerCase(user.province) == fn:
322                                 toLowerCase(mun.province) && mun.region ==
323                                 regions[i]}">
324                             <c:forEach var = "user" items = "${allUsers}"
325                               varStatus = "st">
326                             <c:if test = "${fn:toLowerCase(user.province) ==
327                               fn:toLowerCase(provs.province) && user.
328                                 region == provs.region
329                                 && fn:toLowerCase(user.muncity) == fn:
330                                   toLowerCase(mun.muncity) && user.barangay
331                                   == brgy.barangay
332                                   && user.userType == 'Barangay Health Worker'>
333           <div class = "modal fade" id = "logsi_${i}_${{
334             stat.index}_${j}_${munSt.index}_${k}_${{
335               brgSt.index}_${st.index}" data-width =
336               "700">
337             <div class = "modal-body">
338               <div class = "panel panel-info">
339                 <div class = "panel-body">
340                   <br />
341                   <br />
342                   <table class = "table table-striped">
343                     <thead>
344                       <tr>
345                         <th>Date</th>
346                         <th>Time</th>
347                         <th>Action</th>
348                         <th>View Record</th>
349                     </tr>
350                   </thead>
351                   <tbody>
352                     <tr>
353                       <td>${logs.date}</td>
354                       <td>${logs.time}</td>
355                       <td>${logs.action}</td>
356                       <c:forEach var = "l" begin = "0" end = "${
357             fn:length(brgR) - 1}">
358                         <c:forEach var = "brgR" items = "${brgR[l]
359                           }" varStatus = "brgR">
360                           <c:if test = "${logs.accountID == user.
361                             accID && logs.recordID == brgR.recordID}">
362                             <td><button class = "btn btn-primary"
363                               href = "#logsRecord1_${i}_${stat.index}_${
364                                 j}_${munSt.index}_${k}_${brgSt.index}_${st.
365                                   index}_${l}_${bgR.index}" data-toggle =
366                                     "modal">View</button></td>
367                           </c:if>
368                         </c:forEach>
369                         </c:if>

```

```

370  <c:forEach var = "i" begin = "0" end = "16">
371    <c:forEach var = "provs" items = "${prov[i]}"
372      varStatus = "stat">
373    <c:forEach var = "j" begin = "0" end = "${fn:
374      length(mun) - 1}">
375      <c:forEach var = "mun" items = "${mun[j]}"
376        varStatus = "munSt">
377      <c:if test = "${fn:toLowerCase(user.province) ==
378        fn:toLowerCase(mun.province) && mun.region
379        == regions[i]}">
380        <c:forEach var = "k" begin = "0" end = "${fn:
381          length(brgy) - 1}">
382          <c:forEach var = "brgy" items = "${brgy[k]}"
383            varStatus = "brgySt">
384          <c:if test = "${fn:toLowerCase(user.muncity) ==
385            fn:toLowerCase(brgy.muncity) && fn:
386              toLowerCase(user.province) == fn:
387                toLowerCase(mun.province) && mun.region ==
388                  regions[i]}">
389            <c:forEach var = "user" items = "${allUsers}"
390              varStatus = "st">
391            <c:if test = "${fn:toLowerCase(user.province) ==
392              fn:toLowerCase(provs.province) && user.
393                region == provs.region
394                && fn:toLowerCase(user.muncity) == fn:
395                  toLowerCase(mun.muncity) && user.barangay
396                  == brgy.barangay
397                  && user.userType == 'Barangay Health Worker' }>
398            <c:forEach var = "logs" items = "${allLogs}"
399              varStatus = "lgStat">
400            <c:if test = "${logs.recordtable == '
401              barangayrecords'}">
402              <c:forEach var = "l" begin = "0" end = "${fn:
403                length(brgy) - 1}">
404                <c:forEach var = "brgR" items = "${brgR[l]}"
405                  varStatus = "bgR">
406                  <c:if test = "${logs.accountID == user.accID &
407                    logs.recordID == brgR.recordID}">
408                    <div class = "modal fade" id = "logsRecord1_${i}
409                      _${stat.index}_${j}_${munSt.index}_${k}_${
410                        brgSt.index}_${st.index}_${l}_${brgR.index}"
411                      data-width = "780">
412                      <div class = "modal-body">
413                        <div class = "panel panel-info">
414                          <div class = "panel-body">
415                            <div class = "row">
416                              <div class = "col-lg-2">
417                                <label>Region:</label>
418                              </div>
419                              <div class = "col-lg-4">
420                                <input type = "text" class = "form-
421                                  control" readonly = "true" value = "${brgR.
422                                    region}" />
423                                </div>
424                                <div class = "col-lg-2">
425                                  <label>Province:</label>
426                                </div>
427                                <div class = "col-lg-4">
428                                  <input type = "text" class = "form-
429                                    control" readonly = "true" value = "${brgR.
430                                      province}" />
431                                </div>
432                                <br />
433                                <div class = "row">
434                                  <div class = "col-lg-2">
435                                    <label>Municipality/City:</label>
436                                  </div>
437                                  <div class = "col-lg-4">
438                                    <input type = "text" class = "form-
439                                      control" readonly = "true" value = "${brgR.
440                                        muncity}" />
441                                </div>
442                                <div class = "col-lg-2">
443                                  <label>Barangay</label>
444                                </div>
445                                <div class = "col-lg-4">
446                                  <input type = "text" class = "form-
447                                    control" readonly = "true" value = "${brgR.
448                                      barangay}" />
449                                </div>
450                                <br />
451                                <div class = "row">
452                                  <div class = "col-lg-2">
453                                    <label>Barangay Health Worker:</label>
454                                  </div>
455                                  <div class = "col-lg-4">
456                                    <input type = "text" class = "form-
457                                      control" readonly = "true" value = "${brgR.
458                                        healthworker}" />
459                                </div>
460                                <br />
461                                <div class = "row">
462                                  <div class = "col-lg-2">
463                                    <label>Date Submitted:</label>
464                                  </div>
465                                  <div class = "col-lg-4">
466                                    <input type = "text" class = "form-
467                                      control" readonly = "true" value = "${brgR.
468                                        dateSubmitted}" />
469                                  </div>
470                                  <br />
471                                  <div class = "row">
472                                    <div class = "col-lg-2">
473                                      <label>Date Approved:</label>
474                                    </div>
475                                    <div class = "col-lg-4">
476                                      <input type = "text" class = "form-
477                                        control" readonly = "true" value = "${brgR.
478                                          dateApproved}" />
479                                    </div>
480                                    <br />
481                                    <div class = "row">
482                                      <div class = "col-lg-2">
483                                        <label>Municipality/City Health Worker:</
484                                          label>
485                                        </div>
486                                        <div class = "col-lg-4">
487                                          <input type = "text" class = "form-
488                                            control" readonly = "true" value = "${brgR.
489                                              municipalityHW}" />
490                                        </div>
491                                        <br />
492                                        <div class = "row">
493                                          <div class = "col-lg-2">
494                                            <label>Date Rejected:</label>
495                                          </div>
496                                          <div class = "col-lg-4">
497                                            <input type = "text" class = "form-
498                                              control" readonly = "true" value = "${brgR.
499                                                dateRejected}" />
500                                          </div>
501                                          <br />
502                                          <div class = "row">
503                                            <div class = "col-lg-1">
504                                              <label>Name:</label>
505                                            </div>
506                                            <div class = "col-lg-5">
507                                              <input type = "text" class = "form-control"
508                                                readonly = "true" value = "${brgR.name}" />
509                                            </div>
510                                            <br />
511                                            <c:if test = "${not empty brgR.name}">
512                                              <div class = "row">
513                                                <div class = "col-lg-1">
514                                                  <label>Complete Address:</label>
515                                                </div>

```

```

516      </div>
517      <div class = "col-lg-5">
518          <textarea class = "form-control" readonly =
519              "true" value = "${brgR.address}">${brgR.
520                  address}</textarea>
521      </div>
522      <br />
523      </c:if>
524      <div class = "row">
525          <div class = "col-lg-1">
526              <label>Age:</label>
527          </div>
528          <div class = "col-lg-2">
529              <input type = "text" class = "form-control"
530                  readonly = "true" value = "${brgR.age}">
531          </div>
532          <div class = "col-lg-1">
533              <label>Date of Birth:</label>
534          </div>
535          <div class = "col-lg-3">
536              <input class="form-control" type="text"
537                  readonly = "true" value="${brgR.dateofbirth}
538                      }" />
539          </div>
540          <div class = "col-lg-3">
541              <input class = "form-control" type = "text"
542                  readonly = "true" value = "${brgR.gender}
543                      }"/>
544      </div>
545      <div class = "panel panel-info">
546          <div class = "panel-heading">
547              <label>Patient's Clinical Information</label>
548          </div>
549          <div class = "panel-body">
550              <div class = "row">
551                  <div class = "col-lg-2">
552                      <label>Disease:</label>
553                  </div>
554                  <div class = "col-lg-4">
555                      <input type = "text" class = "form-control"
556                          readonly = "true" value = "${brgR.disease}
557                          }"/>
558                  <div class = "col-lg-2">
559                      <label>Date Onset:</label>
560                  </div>
561                  <div class = "col-lg-4">
562                      <input class="form-control" type="text"
563                          readonly = "true" value="${brgR.dateOnset}"
564                          />
565                  </div>
566                  <br />
567                  <div class = "row">
568                      <div class = "col-lg-2">
569                          <label>Symptoms:</label>
570                      </div>
571                      <div class = "col-lg-4">
572                          <input type = "text" class = "form-control"
573                              readonly = "true" value = "${brgR.symptoms}
574                              }"/>
575                  </div>
576                  <div class = "col-lg-4">
577                      <input class="form-control" type="text"
578                          readonly = "true" value="${brgR.caseType}"
579                          />
580                  </div>
581                  <c:if test = "${brgR.admitted == 'No'}">
582                      <div class = "row">
583                          <div class = "col-lg-2">
584                              <label>Patient Admitted?:</label>
585                          </div>
586                          <div class = "col-lg-4">
587                              <input type = "text" class = "form-control"
588                                  readonly = "true" value = "${brgR.admitted}
589                                  }"/>
590                  </c:if>
591                  <c:if test = "${brgR.admitted == 'Yes'}">
592                      <div class = "col-lg-2">
593                          <label>Patient Admitted?:</label>
594                      </div>
595                      <div class = "col-lg-4">
596                          <input type = "text" class = "form-control"
597                              readonly = "true" value = "${brgR.admitted}
598                                  }"/>
599                      <div class = "col-lg-2">
600                          <label>Date Admitted:</label>
601                      </div>
602                          <input class="form-control" type="text"
603                              readonly = "true" value="${brgR.
604                                  dateAdmitted}" />
605                      <br />
606                      <div class = "row">
607                          <div class = "col-lg-2">
608                              <label>Hospital/Clinic:</label>
609                          </div>
610                          <div class = "col-lg-5">
611                              <input type = "text" class = "form-control"
612                                  readonly = "true" value = "${brgR.hospital}
613                                  }"/>
614                          <div class = "col-lg-2">
615                              <label>Hospital/Clinic Type:</label>
616                          </div>
617                              <input class="form-control" type="text"
618                                  readonly = "true" value="${brgR.
619                                  hospitalType}" />
620                          <br />
621                          <div class = "row">
622                              <div class = "col-lg-3">
623                                  <label>Hospital/Clinic Address:</label>
624                              </div>
625                              <div class = "col-lg-9">
626                                  <input type = "text" class = "form-control"
627                                      readonly = "true" value = "${brgR.
628                                      hospitalAddr}" />
629                      <c:if>
630                      <br />
631                      <div class = "row">
632                          <div class = "col-lg-2">
633                              <label>Outcome:</label>
634                          </div>
635                          <div class = "col-lg-4">
636                              <input type = "text" class = "form-control"
637                                  readonly = "true" value = "${brgR.outcome}
638                                  }"/>
639                      <c:if test = "${brgR.outcome == 'Died'}">
640                          <div class = "col-lg-2">
641                              <label>Date Died:</label>
642                          </div>
643                              <input type = "text" class = "form-control"
644                                  readonly = "true" value = "${brgR.dateDied}
645                                  }"/>
646                      </c:if>
647                      <br />
648                      </div>
649                      </div>
650                      </div>
651                      </div>
652                      </div>
653                      </div>
654                      </c:if>
655                      </c:forEach>
656                      </c:forEach>
657                      </c:if>
658                      </c:forEach>
659                      </c:if>
660                      </c:forEach>
661                      </c:if>
662                      </c:forEach>
663                      </c:forEach>
664                      </c:if>
665                      </c:forEach>
666                      </c:forEach>
667                      </c:forEach>
668                      </c:forEach>
669                      </div>
670                  </div>

```

Listing 60: muncity.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5
6  <div class = "container-fluid well-lg" style = "
   background-color: #eee;">
7  <div class = "panel panel-info">
8  <c:if test = "${not empty successD}">
9  <div class = "alert alert-success">
10 <strong>${successD}</strong>
11 </div>
12 </c:if>
13 <c:if test = "${pageVisit == 'admin' ||
   pageVisit == 'nofficial'}">
14 <table class="table table-striped" id="example1
   ">
15  <thead>
16  <tr>
17    <th>Region</th>
18    <th>No. of Municipal/City Users</th>
19  </tr>
20 </thead>
21 <tbody>
22  <c:forEach var = "i" begin = "0" end = "16">
23  <tr>
24    <th>
25      <button type = "button" class = "btn btn-
         primary" href = "#regionModal2_${i}" data-
         toggle = "modal">${regions[i]}</button>
26    </th>
27    <c:set var = "counter" value = "0" />
28    <c:forEach var = "user" items = "${allUsers
   }">
29    <c:if test = "${user.region == regions[i] &&
       (user.userType == 'Municipal/City Health
       Worker' || user.userType == 'Municipal/City
       Health Official')}">
30      <c:set var = "counter" value = "${counter +
         1}" />
31    </c:if>
32  </c:forEach>
33  <th>
34    ${counter}
35  </th>
36  </tr>
37 </c:forEach>
38 </tbody>
39 </table>
40 <c:forEach var = "i" begin = "0" end = "16">
41 <div class = "modal fade" id = "regionModal2_${i
   }">
42  <div class = "modal-body">
43  <table class="table table-striped" id=""
   example1">
44  <thead>
45  <tr>
46    <th>Province</th>
47    <th>No. of Municipal/City Users</th>
48  </tr>
49 </thead>
50 <tbody>
51  <c:forEach var = "provs" items = "${prov[i
   ]}" varStatus = "stat">
52  <c:set var = "counter" value = "0" />
53  <c:forEach var = "user" items = "${allUsers
   }">
54  <c:if test = "${fn:toLowerCase(user.province
   ) == fn:toLowerCase(provs.province) && user
   .region == provs.region
55  && (user.userType == 'Municipal/City Health
   Worker' || user.userType == 'Municipal/City
   Health Official')}">
56    <c:set var = "counter" value = "${counter +
         1}" />
57  </c:if>
58 </c:forEach>
59 <tr>
60  <th>
61    <button type = "button" class = "btn btn-
         primary" href = "#provinceModal2_${i}_${
         stat.index}" data-toggle = "modal">${provs.
         province}</button>
62  </th>
63  <th>${counter}</th>
64 </tr>
65 </c:forEach>
66 </tbody>
67 </table>
68 </div>
69 </div>
70 </c:forEach>
71 </c:if>
72 <c:if test = "${pageVisit == 'pofficial'}">
73 <c:forEach var = "i" begin = "0" end = "16">
74 <c:forEach var = "provs" items = "${prov[i]}">
   varStatus = "stat">
75 <c:if test = "${fn:toLowerCase(user.province) ==
       fn:toLowerCase(provs.province)}">
76 <table class="table table-striped" id="example1
   ">
77  <thead>
78  <tr>
79    <th>Municipality/City</th>
80    <th>No. of Municipal/City Health Workers/
       Officials</th>
81    <th>View All Users</th>
82  </tr>
83 </thead>
84 <tbody>
85  <c:forEach var = "j" begin = "0" end = "${fn:
       length(mun) - 1}">
86  <c:forEach var = "mun" items = "${mun[j]}">
   varStatus = "munSt">
87  <c:if test = "${fn:toLowerCase(user.province)
       == fn:toLowerCase(mun.province) && mun.
       region == regions[i]}">
88    <c:set var = "counter" value = "0" />
89    <c:forEach var = "user" items = "${allUsers}">
   varStatus = "st">
90  <c:if test = "${fn:toLowerCase(user.province)
       == fn:toLowerCase(provs.province) && user.
       region == provs.region
91  && fn:toLowerCase(user.muncity) == fn:
      toLowerCase(mun.muncity) && (user.userType
       == 'Municipal/City Health Worker' ||
92 user.userType == 'Municipal/City Health
       Official')}">
93    <c:set var = "counter" value = "${counter +
       1}" />
94  </c:if>
95 </c:forEach>
96 <tr>
97  <th>${mun.muncity}</th>
98  <th>${counter}</th>
99 <th>
100 <button class = "btn btn-primary" href = "#
      usersModal2_${i}_${stat.index}_${j}_${munSt
      .index}" data-toggle = "modal">See All</
      button>
101 </th>
102 </tr>
103 </c:if>
104 <c:forEach>
105 <c:forEach>
106 </c:forEach>
107 </tbody>
108 </table>
109 </c:if>
110 <c:forEach>
111 <c:forEach>
112 </c:if>
113 <c:if test = "${pageVisit == 'admin' ||
   pageVisit == 'nofficial'}">
114 <c:forEach var = "i" begin = "0" end = "16">
115 <c:forEach var = "provs" items = "${prov[i]}">
   varStatus = "stat">
116 <div class = "modal fade" id = "provinceModal2_ ${
   i}_${stat.index}" data-width = "700">
117 <div class = "modal-body">
118  <table class="table table-striped" id=""
   example1">
119  <thead>
120  <tr>
121    <th>Municipality/City</th>
122    <th>No. of Municipal/City Health Workers/
       Officials</th>
123    <th>View All Users</th>
124  </tr>
125 </thead>
126 <tbody>
127  <c:forEach var = "j" begin = "0" end = "${fn:
       length(mun) - 1}">
128  <c:forEach var = "mun" items = "${mun[j]}">
   varStatus = "munSt">
129  <c:if test = "${fn:toLowerCase(user.province
       ) == fn:toLowerCase(mun.province) && mun.
       region == regions[i]}">
130    <c:set var = "counter" value = "0" />
131    <c:forEach var = "user" items = "${allUsers
   }" varStatus = "st">
132    <c:if test = "${fn:toLowerCase(user.province
       ) == fn:toLowerCase(provs.province) && user
       .region == provs.region
133  && fn:toLowerCase(user.muncity) == fn:
      toLowerCase(mun.muncity) && (user.userType
       == 'Municipal/City Health Worker' ||
134 user.userType == 'Municipal/City Health
       Official')}">
135    <c:set var = "counter" value = "${counter +
       1}" />
136  </c:if>

```

```

137   </c:forEach>
138   <tr>
139     <th>${mun.muncity}</th>
140     <th>${counter}</th>
141     <th>
142       <button class = "btn btn-primary" href = "#"
143         usersModal2_${i}_${stat.index}_${j}_${munSt
144           .index}" data-toggle = "modal">See All</
145           button>
146     </th>
147   </tr>
148 </c:forEach>
149 </tbody>
150 </table>
151 </div>
152 </div>
153 </div>
154 <c:forEach>
155 <c:forEach>
156 </c:if>
157 <c:forEach var = "i" begin = "0" end = "16">
158   <c:forEach var = "provs" items = "${prov[i]}>
159     varStatus = "stat">
160   <c:forEach var = "j" begin = "0" end = "${fn:
161     length(mun) - 1}">
160   <c:forEach var = "mun" items = "${mun[j]}>
161     varStatus = "munSt">
162   <c:if test = "${fn:toLowerCase(user.province) ==
163     fn:toLowerCase(mun.province) && mun.region
164       == regions[i]}>
165     <div class = "modal fade" id = "usersModal2_${i}
166       _${stat.index}_${j}_${munSt.index}" data-
167       width = "700">
168       <div class = "modal-body">
169         <table class="table table-striped" id="
170           example1">
171           <thead>
172             <tr>
173               <th>Name</th>
174               <th>User Type</th>
175               <th>Profile</th>
176               <th>User Logs</th>
177               <th>Account Status</th>
178               <th>Activate or Deactivate</th>
179             </tr>
180           </thead>
181           <tbody>
182             <c:forEach var = "user" items = "${allUsers
183               }" varStatus = "st">
184               <c:if test = "${fn:toLowerCase(user.province
185                 ) == fn:toLowerCase(provs.province) && user
186                   .region == provs.region
187                     && fn:toLowerCase(user.muncity) == fn:
188                       toLowerCase(mun.muncity) && (user.userType
189                         == 'Municipal/City Health Worker' ||
190                           user.userType == 'Municipal/City Health
191                             Official')}">
192               <tr>
193                 <td>${user.firstname} ${user.middlename} ${
194                   user.surname}</td>
195                 <td>${user.userType}</td>
196                 <td><button class = "btn btn-primary" href
197                   = "#profile2_${i}_${stat.index}_${j}_${{
198                     munSt.index}_${stat.index}" data-toggle =
199                     "modal">View</button></td>
200                 <td><button class = "btn btn-primary" href
201                   = "#log2_${i}_${stat.index}_${j}_${munSt.
202                     index}_${stat.index}" data-toggle = "modal">
203                     View</button></td>
204               <c:if test = "${user.status == 1}">
205                 Active</c:if><c:if test = "${user.status ==
206                   0}">Inactive</c:if></td>
207               <td><c:if test = "${user.status == 0}"><
208                 button class = "btn btn-primary" data-
209                   toggle = "modal" href = "#activ_${user.
210                     accID}">Activate</button><c:if><c:if test
211                   = "${user.status == 1}"><button class = "
212                     btn btn-primary" data-toggle = "modal" href
213                     = "#deact_${user.accID}">Deactivate</
214                     button></c:if></td>
215               <div class = "modal fade" id = "deact_${user
216                 .accID}">
217                 <div class = "modal-body">
218                   Are you sure you want to deactivate this
219                     user?
220                 </div>
221                 <div class = "modal-footer">
222                   <a href = "<%= request.getContextPath()
223                     %>/pages/deactivateUser/${user.accID}"><
224                     button class = "btn btn-primary">Yes</
225                     button></a>
226                   <button class = "btn btn-primary" data-
227                     dismiss = "modal">No</button>
228                 </div>
229               </div>
230             <c:if>
231             </c:forEach>
232           </tbody>
233         </table>
234       <div class = "modal-body">
235         <div class = "panel panel-info">
236           <div class = "panel-body">
237             <br />
238             <br />
239             <table class = "table table-striped">
240               <tr>
241                 <td>First Name:</td>
242                 <td>${user.firstname}</td>
243               </tr>
244               <tr>
245                 <td>Middle Name:</td>
246                 <td>${user.middlename}</td>
247               </tr>
248               <tr>
249                 <td>Surname:</td>
250                 <td>${user.surname}</td>
251               </tr>
252             <tr>
253               <td>Region:</td>
254               <td>${user.region}</td>
255             </tr>
256             <tr>
257               <td>Province:</td>
258               <td>${user.province}</td>
259             </tr>
260             <tr>
261               <td>Institution:</td>
262               <td>${user.institution}</td>
263             </tr>
264             <tr>
265               <td>Institution's Address:</td>
266               <td>${user.institutionAddr}</td>
267             </tr>
268             <tr>
269               <td>*</td>
270             </tr>
271             <tr>
272               <td>*</td>
273               <td>${user.institutionAddr}</td>
274             </tr>
275             <tr>
276           </tr>

```

```

277      <td>Email:</td>
278      <td>
279          ${user.email}
280      </td>
281  </tr>
282  <tr>
283      <td>Contact Number:</td>
284      <td>
285          ${user.number}
286      </td>
287  </tr>
288 </table>
289 </div>
290 </div>
291 </div>
292 </c:if>
293 <c:forEach>
294 <c:forEach>
295 <c:forEach>
296 <c:forEach>
297 <c:forEach>
298 <c:forEach>
299 <c:forEach>
300 <c:forEach var = "i" begin = "0" end = "16">
301 <c:forEach var = "provs" items = "${prov[i]}"
302     varStatus = "stat">
303 <c:forEach var = "j" begin = "0" end = "${fn:
304     length(mun) - 1}">
305 <c:forEach var = "mun" items = "${mun[j]}">
306     varStatus = "munSt">
307 <c:if test = "${fn:toLowerCase(user.province) ==
308     fn:toLowerCase(mun.province) && mun.region
309     == regions[i]}">
310 <c:forEach var = "user" items = "${allUsers}"
311     varStatus = "st">
312 <c:if test = "${fn:toLowerCase(user.province) ==
313     fn:toLowerCase(provs.province) && user.
314     region == provs.region
315     && fn:toLowerCase(user.muncity) == fn:
316        toLowerCase(mun.muncity) && (user.userType
317         == 'Municipal/City Health Worker' ||
318         user.userType == 'Municipal/City Health Official
319         ')}">
320 <div class = "modal fade" id = "logs2_${i}_${stat.
321     index}_${j}_${munSt.index}_${st.index
322     }" data-width = "700">
323     <div class = "modal-body">
324         <div class = "panel panel-info">
325             <div class = "panel-body">
326                 <br />
327                 <br />
328                 <table class = "table table-striped">
329                     <thead>
330                         <tr>
331                             <th>Date</th>
332                             <th>Time</th>
333                             <th>Action</th>
334                             <th>view Record</th>
335                         </tr>
336                     </thead>
337                     <tbody>
338                         <tr>
339                             <td>${logs.date}</td>
340                             <td>${logs.time}</td>
341                             <td>${logs.action}</td>
342                             <td>
343                                 <td>${logs.date}</td>
344                                 <td>${logs.time}</td>
345                                 <td>${logs.action}</td>
346                                 <c:forEach var = "k" begin = "${fn:length(
347                                     munR)}" end = "${fn:length(munR) + fn:
348                                     length(editB) - 1}">
349                                     <c:forEach var = "munR" items = "${editB[k - 1]}"
350                                         fn:length(munR)]}" varStatus = "mnR">
351                                         <c:if test = "${logs.recordID == munR.
352                                             recordID}">
353                                             <td><button class = "btn btn-primary" href =
354                                                 "#logsRecord2_${i}_${stat.index}_${j}_${munSt.
355                                                 index}_${st.index}_${k}_${mnR.index}">
356                                                 data-toggle = "modal">View</button></td>
357                                         </c:if>
358                                         </tbody>
359                                     </div>
360                                     </div>
361                                     </div>
362                                     </div>
363                                         <c:if>
364                                         <c:forEach>
365                                         <c:if>
366                                         <c:forEach>
367                                         <c:forEach>
368                                         <c:forEach>
369                                         <c:forEach>
370                                         <c:forEach var = "i" begin = "0" end = "16">
371                                         <c:forEach var = "provs" items = "${prov[i]}"
372                                         varStatus = "stat">
373                                         <c:forEach var = "j" begin = "0" end = "${fn:
374                                             length(mun) - 1}">
375                                         <c:forEach var = "mun" items = "${mun[j]}">
376                                         varStatus = "munSt">
377                                         <c:if test = "${fn:toLowerCase(user.province) ==
378     fn:toLowerCase(mun.province) && mun.region
379     == regions[i]}">
380                                         <c:forEach var = "user" items = "${allUsers}"
381                                         varStatus = "st">
382                                         <c:if test = "${fn:toLowerCase(user.province) ==
383     fn:toLowerCase(provs.province) && user.
384     region == provs.region
385     && fn:toLowerCase(user.muncity) == fn:
386        toLowerCase(mun.muncity) && (user.userType
387         == 'Municipal/City Health Worker' ||
388         user.userType == 'Municipal/City Health Official
389         ')}">
390                                         <c:forEach var = "logs" items = "${allLogs}"
391                                         varStatus = "lgStat">
392                                         <c:forEach var = "k" begin = "0" end = "${fn:
393                                             length(munR) - 1}">
394                                         <c:forEach var = "munR" items = "${munR[k]}"
395                                         varStatus = "mnR">
396                                         <c:if test = "${logs.accountID == user.accID &&
397                                             logs.recordID == munR.recordID}">
398                                         <div class = "modal fade" id = "logsRecord2_${i}_$.
399                                             ${stat.index}_${j}_${munSt.index}_${st.
400                                             index}_${k}_${mnR.index}" data-width =
401                                             "780">
402                                         <div class = "modal-body">
403                                             <div class = "panel panel-info">
404                                                 <div class = "panel-body">
405                                                     <div class = "panel panel-info">
406                                                         <div class = "panel-heading">
407                                                             Record Information
408                                                         </div>
409                                                         <div class = "panel-body">
410                                                             <div class = "row">
411                                                                 <div class = "col-lg-2">
412                                                                     <label>Region:</label>
413                                                                 </div>
414                                                                 <div class = "col-lg-4">
415                                                                     <input type = "text" class = "form-
416             control" readonly = "true" value = "${munR.
417             region}" />
418                                                                 </div>
419                                                                 <div class = "col-lg-2">
420                                                                     <label>Province:</label>
421                                                                 </div>
422                                                                 <div class = "col-lg-4">
423                                                                     <input type = "text" class = "form-
424             control" readonly = "true" value = "${munR.
425             province}" />
426                                                                 </div>
427                                                                 </div>
428                                                                 <div class = "row">
429                                                                 <div class = "col-lg-2">
430                                                                     <label>Municipality/City:</label>
431                                                                 </div>
432                                                                 <div class = "col-lg-4">
433                                                                     <input type = "text" class = "form-
434             control" readonly = "true" value = "${munR.
435             muncity}" />
436                                                                 </div>
437                                                                 <div class = "col-lg-2">
438                                                                     <label>Barangay</label>
439                                                                 </div>
440                                                                 <div class = "col-lg-4">
441                                                                     <input type = "text" class = "form-
442             control" readonly = "true" value = "${editB.
443             k}" />
444                                                                 </div>
445                                         </c:if>
446                                         </c:forEach>
447                                         </c:forEach>
448                                         </c:if>
449                                         </c:forEach>
450                                         </c:if>
451                                         <c:if test = "${(logs.recordtable == 'editbarangayrecords' && logs.recordtype == 0) || (logs.recordtable == 'barangayrecords' && logs.recordtype == 1)}">
452                                         <tr>
453                                             <td>${logs.date}</td>
454                                             <td>${logs.time}</td>
455                                             <td>${logs.action}</td>
456                                             <c:forEach var = "k" begin = "${fn:length(
457                                                 munR)}" end = "${fn:length(munR) + fn:
458                                                 length(editB) - 1}">
459                                                 <c:forEach var = "munR" items = "${editB[k - 1]}"

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```

418      <input type = "text" class = "form-        497      <label>Name:</label>
419      control" readonly = "true" value = "${munR.        498      </div>
420      barangay}" />        499      <div class = "col-lg-5">
421      </div>        500      <input type = "text" class = "form-control"
422      <br />        501      readonly = "true" value = "${munR.name}"/>
423      <div class = "row">        502      </div>
424      <div class = "col-lg-2">        503      <br />
425      <label>Barangay Health Worker:</label>        504      </c:if>
426      </div>        505      <::if test = "${not empty munR.address}">
427      <div class = "col-lg-4">        506      <div class = "row">
428      <input type = "text" class = "form-        507      <div class = "col-lg-1">
429      control" readonly = "true" value = "${munR.        508      <label>Complete Address:</label>
430      healthworker}" />        509      </div>
431      </div>        510      <div class = "col-lg-5">
432      <div class = "col-lg-2">        511      <textarea class = "form-control" readonly =
433      <label>Date Submitted:</label>        512      "true" value = "${munR.address}">${munR.
434      </div>        513      address}</textarea>
435      <div class = "col-lg-4">        514      </div>
436      <input type = "text" class = "form-        515      </c:if>
437      control" readonly = "true" value = "${munR.        516      <div class = "row">
438      dateSubmitted}" />        517      <div class = "col-lg-1">
439      </div>        518      <label>Age:</label>
440      <::if test = "${munR.status == 1}">        519      </div>
441      <br />        520      <div class = "col-lg-2">
442      <div class = "row">        521      <input type = "text" class = "form-control"
443      <div class = "col-lg-2">        522      readonly = "true" value = "${munR.age}"/>
444      <label>Municipality/City Health Worker        523      </div>
445      :</label>        524      <div class = "col-lg-1">
446      </div>        525      <label>Date of Birth:</label>
447      <div class = "col-lg-4">        526      </div>
448      <input type = "text" class = "form-        527      <div class = "col-lg-3">
449      control" readonly = "true" value = "${munR.        528      <input class="form-control" type="text"
450      municipalityHW}" />        529      readonly = "true" value="${munR.dateOfBirth
451      </div>        530      }"/>
452      </div>        531      </div>
453      <::if test = "${munR.status == 2}">        532      <div class = "col-lg-3">
454      <br />        533      <input class = "form-control" type = "text"
455      <div class = "row">        534      readonly = "true" value = "${munR.gender
456      <div class = "col-lg-2">        535      }"/>
457      <label>Municipality/City Health Worker:</        536      </div>
458      label>        537      </div>
459      </div>        538      <div class = "panel panel-info">
460      <div class = "col-lg-4">        539      <div class = "panel-heading">
461      <input type = "text" class = "form-        540      <label>Patient's Clinical Information</label>
462      control" readonly = "true" value = "${munR.        541      </div>
463      municipalityHW}" />        542      <div class = "panel-body">
464      </div>        543      <div class = "row">
465      <div class = "col-lg-2">        544      <div class = "col-lg-2">
466      <label>Date Rejected:</label>        545      <label>Disease:</label>
467      </div>        546      </div>
468      </div>        547      <div class = "col-lg-4">
469      <::if>        548      <input type = "text" class = "form-control"
470      <::if test = "${munR.editStatus == 1}">        549      readonly = "true" value = "${munR.disease
471      <br />        550      }"/>
472      <div class = "row">        551      <div class = "col-lg-2">
473      <div class = "col-lg-2">        552      <label>Date Onset:</label>
474      <label>Edited by:</label>        553      </div>
475      </div>        554      <div class = "col-lg-4">
476      <div class = "col-lg-4">        555      <input class="form-control" type="text"
477      <input type = "text" class = "form-control        556      readonly = "true" value="${munR.dateOnset}"
478      " readonly = "true" value = "${munR.        557      }"/>
479      editedBy}" />        558      </div>
480      </div>        559      <div class = "row">
481      <div class = "col-lg-2">        560      <div class = "col-lg-2">
482      <label>Date Edited:</label>        561      <label>Symptoms:</label>
483      </div>        562      </div>
484      <div class = "col-lg-3">        563      <div class = "col-lg-4">
485      <input type = "text" class = "form-control        564      <input type = "text" class = "form-control"
486      " readonly = "true" value = "${munR.        565      readonly = "true" value = "${munR.symptoms
487      dateEdited}" />        566      }"/>
488      </div>        567      </div>
489      </div>        568      <div class = "col-lg-2">
490      <div class = "panel panel-info">        569      <label>Case Classification:</label>
491      <div class = "panel-heading">        570      </div>
492      <label>Patient's Information:</label>        571      </div>
493      </div>        572      <br />
494      <::if test = "${not empty munR.name}">        573      <::if test = "${munR.admitted == 'No'}">
495      <div class = "row">        574      <div class = "row">
496      <div class = "col-lg-1">        575      <div class = "col-lg-2">

```

```

    readonly = "true" value = "${munR.admitted}
  }"/>
580  </div>
581  </div>
582  </c:if>
583  <c:if test = "${munR.admitted == 'Yes'}">
584  <div class = "row">
585  <div class = "col-lg-2">
586  <label>Patient Admitted?:</label>
587  </div>
588  <div class = "col-lg-4">
589  <input type = "text" class = "form-control"
  readonly = "true" value = "${munR.admitted}
  }"/>
590  </div>
591  <div class = "col-lg-2">
592  <label>Date Admitted:</label>
593  </div>
594  <div class = "col-lg-4">
595  <input class="form-control" type="text"
  readonly = "true" value="${munR.
  dateAdmitted}" />
596  </div>
597  </div>
598  <br />
599  <div class = "row">
600  <div class = "col-lg-2">
601  <label>Hospital/Clinic:</label>
602  </div>
603  <div class = "col-lg-5">
604  <input type = "text" class = "form-control"
  readonly = "true" value = "${munR.hospital
  }"/>
605  </div>
606  <div class = "col-lg-2">
607  <label>Hospital/Clinic Type:</label>
608  </div>
609  <div class = "col-lg-3">
610  <input class="form-control" type="text"
  readonly = "true" value="${munR.
  hospitalType}" />
611  </div>
612  </div>
613  <br />
614  <div class = "row">
615  <div class = "col-lg-3">
616  <label>Hospital/Clinic Address:</label>
617  </div>
618  <div class = "col-lg-9">
619  <input type = "text" class = "form-control"
  readonly = "true" value = "${munR.
  hospitalAddr}" />
620  </div>
621  </div>
622  </c:if>
623  <br />
624  <div class = "row">
625  <div class = "col-lg-2">
626  <label>Outcome:</label>
627  </div>
628  <div class = "col-lg-4">
629  <input type = "text" class = "form-control"
  readonly = "true" value = "${munR.outcome
  }"/>
630  </div>
631  <c:if test = "${munR.outcome == 'Died'}">
632  <div class = "col-lg-2">
633  <label>Date Died:</label>
634  </div>
635  <div class = "col-lg-4">
636  <input type = "text" class = "form-control"
  readonly = "true" value = "${munR.dateDied
  }"/>
637  </div>
638  </c:if>
639  </div>
640  <br />
641  </div>
642  </div>
643  </div>
644  </div>
645  </div>
646  </div>
647  </c:if>
648  </c:forEach>
649  </c:forEach>
650  <c:forEach var = "k" begin = "${fn:length(munR)
  }" end = "${fn:length(munR) + fn:length(
  editB)- 1}">
651  <c:forEach var = "munR" items = "${editB[k - fn:
  length(munR)]}" varStatus = "mnR">
652  <c:if test = "${logs.accountID == user.accID &&
  logs.recordID == munR.recordID}">
653  <div class = "modal fade" id = "logsRecord2_${i}
  _${stat.index}_${j}_${munSt.index}_${st.
  index}_${k}_${mnR.index}" data-width =
  "780">
654  <div class = "modal-body">
655  <div class = "panel panel-info">
656  <div class = "panel-body">
657  <div class = "panel panel-info">
658  <div class = "panel-heading">
  Record Information
</div>
659  <div class = "panel-body">
660  <div class = "row">
661  <div class = "col-lg-2">
662  <label>Region:</label>
</div>
663  <div class = "col-lg-4">
664  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  region}" />
665  </div>
666  <div class = "col-lg-2">
667  <label>Province:</label>
</div>
668  <div class = "col-lg-4">
669  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  province}" />
670  </div>
671  <br />
672  <div class = "row">
673  <div class = "col-lg-2">
674  <label>Municipality/City:</label>
</div>
675  <div class = "col-lg-4">
676  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  municipality}" />
677  </div>
678  <div class = "col-lg-2">
679  <label>Barangay:</label>
</div>
680  <div class = "col-lg-4">
681  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  barangay}" />
682  </div>
683  <div class = "col-lg-2">
684  <label>Barangay Health Worker:</label>
</div>
685  <div class = "col-lg-4">
686  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  barangay}" />
687  </div>
688  <br />
689  <div class = "row">
690  <div class = "col-lg-2">
691  <label>Barangay Health Worker:</label>
</div>
692  <div class = "col-lg-4">
693  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  barangay}" />
694  </div>
695  <div class = "col-lg-2">
696  <label>Health Worker:</label>
</div>
697  <div class = "col-lg-4">
698  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  healthworker}" />
699  </div>
700  <div class = "col-lg-2">
701  <label>Date Submitted:</label>
</div>
702  <div class = "col-lg-4">
703  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  dateSubmitted}" />
704  </div>
705  </div>
706  <c:if test = "${munR.status == 1}">
707  <br />
708  <div class = "row">
709  <div class = "col-lg-2">
710  <label>Municipality/City Health Worker
  :</label>
</div>
711  <div class = "col-lg-4">
712  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  municipalityHW}" />
713  </div>
714  <div class = "col-lg-2">
715  <label>Date Approved:</label>
</div>
716  <div class = "col-lg-4">
717  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  dateApproved}" />
718  </div>
719  </div>
720  <div class = "col-lg-2">
721  <label>Date Approved:</label>
</div>
722  <c:if>
723  <c:if test = "${munR.status == 2}">
724  <br />
725  <div class = "row">
726  <div class = "col-lg-2">
727  <label>Municipality/City Health Worker:</
  label>
</div>
728  <div class = "col-lg-4">
729  <input type = "text" class = "form-
  control" readonly = "true" value = "${munR.
  municipalityHW}" />
730  </div>
731  <div class = "col-lg-2">
732  <label>Date Rejected:</label>
</div>
733  </div>
734

```

```

735     <div class = "col-lg-4">
736         <input type = "text" class = "form-
737             control" readonly = "true" value = "${munR.
738                 dateApproved}" />
739     </div>
740     <c:if test = "${munR.editStatus == 1}">
741         <br />
742         <div class = "row">
743             <div class = "col-lg-2">
744                 <label>Edited by:</label>
745             </div>
746             <div class = "col-lg-4">
747                 <input type = "text" class = "form-control"
748                     " readonly = "true" value = "${munR.
749                         editedBy}" />
750             </div>
751             <div class = "col-lg-2">
752                 <label>Date Edited:</label>
753             </div>
754             <div class = "col-lg-3">
755                 <input type = "text" class = "form-control"
756                     " readonly = "true" value = "${munR.
757                         dateEdited}" />
758             </div>
759         </div>
760         <div class = "panel panel-info">
761             <div class = "panel-heading">
762                 <label>Patient's Information</label>
763             </div>
764             <c:if test = "${not empty munR.name}">
765                 <div class = "row">
766                     <div class = "col-lg-1">
767                         <label>Name:</label>
768                     </div>
769                     <div class = "col-lg-5">
770                         <input type = "text" class = "form-control"
771                             " readonly = "true" value = "${munR.name}" />
772                     </div>
773                     <br />
774                 </c:if>
775                 <c:if test = "${not empty bR1.address}">
776                     <div class = "row">
777                         <div class = "col-lg-1">
778                             <label>Complete Address:</label>
779                         </div>
780                         <div class = "col-lg-5">
781                             <textarea class = "form-control" readonly =
782                                 "true" value = "${munR.address}">${munR.
783                                 address}</textarea>
784                     </div>
785                 </c:if>
786                 <div class = "row">
787                     <div class = "col-lg-1">
788                         <label>Age:</label>
789                     </div>
790                     <div class = "col-lg-2">
791                         <input type = "text" class = "form-control"
792                             " readonly = "true" value = "${munR.age}" />
793                     </div>
794                     <div class = "col-lg-1">
795                         <label>Date of Birth:</label>
796                     </div>
797                     <div class = "col-lg-3">
798                         <input class="form-control" type="text"
799                             " readonly = "true" value = "${munR.dateOfBirth}
800                         }" />
801                     </div>
802                     <div class = "col-lg-3">
803                         <input class = "form-control" type = "text"
804                             " readonly = "true" value = "${munR.gender
805                             }" />
806                     </div>
807                 </div>
808                 <div class = "panel panel-info">
809                     <div class = "panel-heading">
810                         <label>Patient's Clinical Information</label>
811                     </div>
812                     <div class = "panel-body">
813                         <div class = "row">
814                             <div class = "col-lg-2">
815                                 <label>Disease:</label>
816                             </div>
817                             <div class = "col-lg-4">
818                                 <input type = "text" class = "form-control"
819                                     " readonly = "true" value = "${munR.disease
820                                         }" />
821                         </div>
822                         <div class = "col-lg-2">
823                             <label>Date Onset:</label>
824                         </div>
825                         </div>
826                     </div>
827                     <br />
828                     <div class = "row">
829                         <div class = "col-lg-2">
830                             <label>Symptoms:</label>
831                         </div>
832                         <div class = "col-lg-4">
833                             <input type = "text" class = "form-control"
834                                 " readonly = "true" value = "${munR.symptoms
835                                         }" />
836                         </div>
837                         <div class = "col-lg-2">
838                             <label>Case Classification:</label>
839                         </div>
840                         <div class = "col-lg-4">
841                             <input class="form-control" type="text"
842                                 " readonly = "true" value = "${munR.caseType
843                                         }" />
844                         </div>
845                         <br />
846                         <c:if test = "${munR.admitted == 'No'}">
847                             <div class = "row">
848                                 <div class = "col-lg-2">
849                                     <label>Patient Admitted?:</label>
850                                 </div>
851                                 </div>
852                         </c:if>
853                         <c:if test = "${munR.admitted == 'Yes'}">
854                             <div class = "row">
855                                 <div class = "col-lg-2">
856                                     <label>Patient Admitted?:</label>
857                                 </div>
858                                 <div class = "col-lg-4">
859                                     <input type = "text" class = "form-control"
860                                         " readonly = "true" value = "${munR.admitted
861                                         }" />
862                                     </div>
863                                     <div class = "col-lg-2">
864                                         <label>Date Admitted:</label>
865                                         </div>
866                                     <div class = "col-lg-4">
867                                         <input class="form-control" type="text"
868                                         " readonly = "true" value = "${munR.
869                                         dateAdmitted}" />
870                                     </div>
871                                     <div class = "col-lg-2">
872                                         <label>Hospital/Clinic:</label>
873                                     </div>
874                                     <div class = "col-lg-5">
875                                         <input type = "text" class = "form-control"
876                                         " readonly = "true" value = "${munR.hospital
877                                         }" />
878                                     </div>
879                                     <div class = "col-lg-2">
880                                         <label>Hospital/Clinic Type:</label>
881                                         </div>
882                                         <div class = "col-lg-3">
883                                         <input class="form-control" type="text"
884                                         " readonly = "true" value = "${munR.
885                                         hospitalType}" />
886                                         </div>
887                                         <br />
888                                         <div class = "row">
889                                         <div class = "col-lg-3">
890                                         <label>Hospital/Clinic Address:</label>
891                                         </div>
892                                         </div>
893                                         <br />
894                                         <div class = "row">
895                                         <div class = "col-lg-2">
896                                         <label>Outcome:</label>
897                                         </div>
898                                         <div class = "col-lg-4">

```

```

899   <input type = "text" class = "form-control"
      readonly = "true" value = "${munR.outcome
    }"/>
900 </div>
901 <c:if test = "${munR.outcome == 'Died'}">
902 <div class = "col-lg-2">
903   <label>Date Died:</label>
904 </div>
905 <div class = "col-lg-4">
906   <input type = "text" class = "form-control"
      readonly = "true" value = "${munR.dateDied
    }"/>
907 </div>
908 </c:if>
909 </div>
910 <br />
911 </div>
912 </div>
913 </div>
914 </div>
915 </div>
916 </div>
917 </c:if>
918 </c:forEach>
919 </c:forEach>
920 </c:forEach>
921 </c:if>
922 </c:forEach>
923 </c:if>
924 </c:forEach>
925 </c:forEach>
926 </c:forEach>
927 </c:forEach>
928 </div>
929 </div>

```

Listing 61: province.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5  <div class = "container-fluid well-lg" style = "
   background-color: #eee;">
6  <div class = "panel panel-info">
7  <c:if test = "${not empty successD}">
8  <div class = "alert alert-success">
9    <strong>${successD}</strong>
10 </div>
11 </c:if>
12 <table class="table table-striped" id="example1
   ">
13   <thead>
14     <tr>
15       <th>Region</th>
16       <th>No. of Provincial Users</th>
17     </tr>
18   </thead>
19   <tbody>
20     <:forEach var = "i" begin = "0" end = "16">
21     <tr>
22       <th>
23         <button type = "button" class = "btn btn-
           primary" href = "#regionModal3_${i}" data-
           toggle = "modal">${regions[i]}</button>
24       </th>
25       <:set var = "counter" value = "0" />
26       <:forEach var = "user" items = "${allUsers
         }">
27         <:if test = "${user.region == regions[i] &&
           (user.userType == 'Provincial Health
           Worker' || user.userType == 'Provincial
           Health Official')}">
28           <:set var = "counter" value = "${counter +
             i}" />
29         </:if>
30       </:forEach>
31       <th>
32         ${counter}
33       </th>
34     </tr>
35   </:forEach>
36   </tbody>
37 </table>
38 <:forEach var = "i" begin = "0" end = "16">
39 <div class = "modal fade" id = "regionModal3_${i
   }">
40   <div class = "modal-body">
41     <table class="table table-striped" id="
       example1">
42       <thead>
43         <tr>
44           <th>Province</th>
45           <th>No. of Provincial Workers/Officials</th>
46           <th>View All Users</th>
47         </tr>
48       </thead>
49       <tbody>
50         <:forEach var = "provs" items = "${prov[i
           ]}" varStatus = "stat">
51           <:set var = "counter" value = "0" />
52           <:forEach var = "user" items = "${allUsers
             }">
53             <:if test = "${fn:toLowerCase(user.province
               ) == fn:toLowerCase(provs.province) && user
               .region == provs.region
               && (user.userType == 'Provincial Health
               Worker' || user.userType == 'Provincial
               Health Official')}">
54               <:set var = "counter" value = "${counter +
                 }
```

```

56           1}" />
57         </:if>
58       </:forEach>
59       <tr>
60         <th>${provs.province}</th>
61         <th>${counter}</th>
62         <th>
63           <button type = "button" class = "btn btn-
             primary" href = "#usersModal3_${i}_${stat.
             index}" data-toggle = "modal">See All</
             button>
64         </th>
65       </tr>
66     </:forEach>
67   </tbody>
68 </table>
69 </div>
70 </div>
71 </:forEach>
72 <:forEach var = "i" begin = "0" end = "16">
73 <:forEach var = "provs" items = "${prov[i]}" varStatus = "stat">
74 <div class = "modal fade" id = "usersModal3_${i}_$(
       ${stat.index})" data-width = "700">
75   <div class = "modal-body">
76     <table class="table table-striped" id="
       example1">
77       <thead>
78         <tr>
79           <th>Name</th>
80           <th>User Type</th>
81           <th>Profile</th>
82           <th>User Logs</th>
83           <th>Account Status</th>
84           <th>Activate or Deactivate</th>
85         </tr>
86       </thead>
87       <tbody>
88         <:forEach var = "user" items = "${allUsers
           }" varStatus = "st">
89           <:if test = "${fn:toLowerCase(user.province
             ) == fn:toLowerCase(provs.province) && user
             .region == provs.region
             && (user.userType == 'Provincial Health
             Worker' || user.userType == 'Provincial
             Health Official')}">
90             <tr>
91               <td>${user.firstname} ${user.middlename} ${
                 user.surname}</td>
92               <td>${user.userType}</td>
93               <td><button class = "btn btn-primary" href =
                 "#profile3_${i}_${stat.index}_${st.index
                 }" data-toggle = "modal">View</button></td>
94               <td><button class = "btn btn-primary" href =
                 "#logs3_${i}_${stat.index}_${st.index}" data-
                 toggle = "modal">View</button></td>
95               <td><:if test = "${user.status == 1}">
                 Active</:if><:if test = "${user.status ==
                 0}">Inactive</:if></td>
96               <td><:if test = "${user.status == 0}">
                 <button class = "btn btn-primary" data-
                 toggle = "modal" href = "#activ_${user.
                 accID}">Activate</button></:if><:if test =
                 "${user.status == 1}"><button class = "btn
                 btn-primary" data-toggle = "modal" href =
                 "#deact_${user.accID}">Deactivate</
                 button></:if></td>
97             </tr>
98           <div class = "modal fade" id = "deact_${user.
             accID}">
99             <div class = "modal-body">
100               Are you sure you want to deactivate this
101               user?
102             </div>
103             <div class = "modal-footer">
104               <a href = "${request.getContextPath()}/pages/deactivateUser/${user.accID}">
                 <button class = "btn btn-primary">Yes</
                 button>

```

```

105      button></a>
106      <button class = "btn btn-primary" data-
107      dismiss = "modal">No</button>
108    </div>
109  </div>
110  <div class = "modal fade" id = "activ_${user
111  .accID}">
112    <div class = "modal-body">
113      Are you sure you want to activate this
114      user?
115    </div>
116    <div class = "modal-footer">
117      <a href = "<%= request.getContextPath()>
118      /pages/activateUser/${user.accID}"><
119      button class = "btn btn-primary">Yes</
120      button></a>
121      <button class = "btn btn-primary" data-
122      dismiss = "modal">No</button>
123    </div>
124  </c:forEach>
125  <c:forEach var = "i" begin = "0" end = "16">
126  <c:forEach var = "provs" items = "${prov[i]}"
127    varStatus = "stat">
128  <c:forEach var = "user" items = "${allUsers}"
129    varStatus = "st">
130  <div class = "modal fade" id = "profile3_${i}_${stat.index}_${st.index}">
131    <c:if test = "${fn:toLowerCase(user.province)
132    == fn:toLowerCase(provs.province) && user.
133    region == provs.region
134    && (user.userType == 'Provincial Health Worker
135    ' || user.userType == 'Provincial Health
136    Official')}">
137    <div class = "panel panel-info">
138      <div class = "panel-body">
139        <br />
140        <br />
141        <table class = "table table-striped">
142          <tr>
143            <td>First Name:</td>
144            <td>
145              ${user.firstname}
146            </td>
147          </tr>
148          <tr>
149            <td>Middle Name:</td>
150            <td>
151              ${user.middlename}
152            </td>
153          </tr>
154          <tr>
155            <td>Region:</td>
156            <td>
157              ${user.region}
158            </td>
159          </tr>
160          <tr>
161            <td>Province:</td>
162            <td>
163              ${user.province}
164            </td>
165          </tr>
166          <tr>
167            <td>Institution:</td>
168            <td>
169              ${user.institution}
170            </td>
171          </tr>
172          <tr>
173            <td>Institution's Address:</td>
174            <td>
175              ${user.institutionAddr}
176            </td>
177          </tr>
178          <tr>
179            <td>Email:</td>
180            <td>
181              ${user.email}
182            </td>
183          </tr>
184          <tr>
185            <td>Contact Number:</td>
186            <td>
187              ${user.number}
188            </td>
189          </td>
190        </tr>
191      </table>
192    </div>
193  </div>
194  </c:if>
195 </div>
196 </div>
197 </c:forEach>
198 </c:forEach>
199 </c:forEach>
200 <c:forEach var = "i" begin = "0" end = "16">
201   <c:forEach var = "provs" items = "${prov[i]}"
202     varStatus = "stat">
203   <c:forEach var = "user" items = "${allUsers}"
204     varStatus = "st">
205   <div class = "modal fade" id = "logs3_${i}_${stat.index}_${st.index}">
206     <c:if test = "${fn:toLowerCase(user.province)
207       == fn:toLowerCase(provs.province) && user.
208       region == provs.region
209       && (user.userType == 'Provincial Health Worker
210         ' || user.userType == 'Provincial Health
211         Official')}">
212     <div class = "panel panel-info">
213       <div class = "panel-body">
214         <br />
215         <br />
216         <table class = "table table-striped">
217           <thead>
218             <tr>
219               <th>Date</th>
220               <th>Time</th>
221               <th>Action</th>
222               <th>view Record</th>
223             </tr>
224           </thead>
225           <tbody>
226             <c:forEach var = "logs" items = "${allLogs}
227               varStatus = "lgStat">
228               <c:if test = "${logs.accountID == user.
229                 accID}">
230                 <td>${logs.date}</td>
231                 <td>${logs.time}</td>
232                 <td>${logs.action}</td>
233                 <c:if test = "${logs.recordtable == ,
234                   muncityrecords || logs.recordtable == ,
235                   editmuncityrecords }">
236                   <c:forEach var = "k" begin = "0" end = "${fn:length(provR) - 1}">
237                     <c:forEach var = "provR" items = "${provR
238                       [k]}" varStatus = "prR">
239                     <c:if test = "${logs.recordID == provR.
240                       recordID}">
241                       <td><button class = "btn btn-primary"
242                         href = "#logsRecord3_${i}_${stat.index}_${st.index}_${k}_${prR.index}" data-toggle =
243                           "modal">View</button></td>
244                     </c:if>
245                   </c:forEach>
246                 </c:if>
247               </c:forEach>
248             </c:forEach>
249             <c:forEach var = "i" begin = "0" end = "16">
250               <c:forEach var = "provs" items = "${prov[i]}"
251                 varStatus = "stat">
252               <c:forEach var = "user" items = "${allUsers}"
253                 varStatus = "st">
254               <c:if test = "${fn:toLowerCase(user.province) ==
255                 fn:toLowerCase(provs.province) && user.
256                 region == provs.region
257                   && (user.userType == 'Provincial Health Worker
258                     ' || user.userType == 'Provincial Health
259                     Official')}">
260               <c:forEach var = "logs" items = "${allLogs}"
261                 varStatus = "lgStat">
262               <c:if test = "${logs.recordtable == ,
263                 muncityrecords }">
264                 <c:forEach var = "k" begin = "0" end = "${fn:
265                   length(provR) - 1}">
266                   <c:forEach var = "provR" items = "${provR[k]}"
267                     varStatus = "prR">
268               <div class = "modal fade" id = "logsRecord3_${i}
269                 _${stat.index}_${st.index}_${k}_${prR.index
270               }">

```

```

259 <div class = "modal-body">
260   <div class = "panel panel-info">
261     <div class = "panel-body">
262       <div class = "panel panel-info">
263         <div class = "panel-heading">
264           Record Information
265         </div>
266       <div class = "panel-body">
267         <div class = "row">
268           <div class = "col-lg-2">
269             <label>Region:</label>
270           </div>
271           <div class = "col-lg-4">
272             <input type = "text" class = "form-control" readonly = "true" value = "${provR.region}" />
273           </div>
274           <div class = "col-lg-2">
275             <label>Province:</label>
276           </div>
277           <div class = "col-lg-4">
278             <input type = "text" class = "form-control" readonly = "true" value = "${provR.province}" />
279           </div>
280         </div>
281         <br />
282         <div class = "row">
283           <div class = "col-lg-2">
284             <label>Municipality/City:</label>
285           </div>
286           <div class = "col-lg-4">
287             <input type = "text" class = "form-control" readonly = "true" value = "${provR.municipality}" />
288           </div>
289           <div class = "col-lg-2">
290             <label>Barangay</label>
291           </div>
292           <div class = "col-lg-4">
293             <input type = "text" class = "form-control" readonly = "true" value = "${provR.barangay}" />
294           </div>
295         </div>
296         <br />
297         <div class = "row">
298           <div class = "col-lg-2">
299             <label>Barangay Health Worker:</label>
300           </div>
301           <div class = "col-lg-4">
302             <input type = "text" class = "form-control" readonly = "true" value = "${provR.healthworker}" />
303           </div>
304           <div class = "col-lg-2">
305             <label>Date Submitted:</label>
306           </div>
307           <div class = "col-lg-4">
308             <input type = "text" class = "form-control" readonly = "true" value = "${provR.dateSubmitted}" />
309           </div>
310         </div>
311         <::if test = "${provR.status == 1}">
312           <br />
313           <div class = "row">
314             <div class = "col-lg-2">
315               <label>Municipality/City Health Worker :</label>
316             </div>
317             <div class = "col-lg-4">
318               <input type = "text" class = "form-control" readonly = "true" value = "${provR.municipalityHW}" />
319             </div>
320             <div class = "col-lg-2">
321               <label>Date Approved:</label>
322             </div>
323             <div class = "col-lg-4">
324               <input type = "text" class = "form-control" readonly = "true" value = "${provR.dateApproved}" />
325             </div>
326           </div>
327         </::if>
328         <::if test = "${provR.status == 2}">
329           <br />
330           <div class = "row">
331             <div class = "col-lg-2">
332               <label>Municipality/City Health Worker:</label>
333             </div>
334             <div class = "col-lg-4">
335               <input type = "text" class = "form-control" readonly = "true" value = "${provR.municipalityHW}" />
336             </div>
337             <div class = "col-lg-2">
338               <label>Date Rejected:</label>
339             </div>
340             <div class = "col-lg-4">
341               <input type = "text" class = "form-control" readonly = "true" value = "${provR.dateRejected}" />
342             </div>
343           </::if>
344           <::if test = "${provR.editStatus == 1}">
345             <br />
346             <div class = "row">
347               <div class = "col-lg-2">
348                 <label>Edited by:</label>
349               </div>
350               <div class = "col-lg-4">
351                 <input type = "text" class = "form-control" readonly = "true" value = "${provR.editedBy}" />
352               </div>
353               <div class = "col-lg-2">
354                 <label>Date Edited:</label>
355               </div>
356               <div class = "col-lg-3">
357                 <input type = "text" class = "form-control" readonly = "true" value = "${provR.dateEdited}" />
358               </div>
359             </div>
360           </::if>
361           <::if test = "${not empty provR.name}">
362             <div class = "row">
363               <div class = "col-lg-1">
364                 <label>Patient's Information</label>
365               </div>
366               <div class = "panel panel-body">
367                 <div class = "row">
368                   <div class = "col-lg-2">
369                     <::if test = "${not empty provR.name}">
370                       <div class = "row">
371                         <div class = "col-lg-1">
372                           <label>Name:</label>
373                         </div>
374                         <div class = "col-lg-5">
375                           <input type = "text" class = "form-control" readonly = "true" value = "${provR.name}" />
376                         </div>
377                       </div>
378                     <br />
379                   </::if>
380                   <::if test = "${not empty provR.address}">
381                     <div class = "row">
382                       <div class = "col-lg-1">
383                         <label>Complete Address:</label>
384                       </div>
385                       <div class = "col-lg-5">
386                         <textarea class = "form-control" readonly = "true" value = "${provR.address}">${provR.address}</textarea>
387                       </div>
388                     </div>
389                     <br />
390                   </::if>
391                   <div class = "row">
392                     <div class = "col-lg-1">
393                       <label>Age:</label>
394                     </div>
395                     <div class = "col-lg-2">
396                       <input type = "text" class = "form-control" readonly = "true" value = "${provR.age}" />
397                     </div>
398                     <div class = "col-lg-1">
399                       <label>Date of Birth:</label>
400                     </div>
401                     <div class = "col-lg-3">
402                       <input class = "form-control" type = "text" readonly = "true" value = "${provR.dateofbirth}" />
403                     </div>
404                     <div class = "col-lg-1">
405                       <label>Gender:</label>
406                     </div>
407                     <div class = "col-lg-3">
408                       <input class = "form-control" type = "text" readonly = "true" value = "${provR.gender}" />
409                     </div>
410                   </div>
411                 </div>
412               </div>
413               <div class = "panel panel-info">
414                 <div class = "panel-heading">
415                   <label>Patient's Clinical Information</label>
416                 </div>
417                 <div class = "panel-body">
418                   <div class = "row">
419                     <div class = "col-lg-2">
420                       <label>Disease:</label>
421                     </div>

```

```

422      <div class = "col-lg-4">
423          <input type = "text" class = "form-control"
424              readonly = "true" value = "${provR.disease
425                  }"/>
426      </div>
427      <div class = "col-lg-2">
428          <label>Date Onset:</label>
429      </div>
430      <div class = "col-lg-4">
431          <input class="form-control" type="text"
432              readonly = "true" value ="${provR.dateOnset
433                  }" />
434      </div>
435      <br />
436      <div class = "row">
437          <div class = "col-lg-2">
438              <label>Symptoms:</label>
439          </div>
440          <div class = "col-lg-4">
441              <input type = "text" class = "form-control"
442                  readonly = "true" value = "${provR.symptoms
443                      }"/>
444          </div>
445          <div class = "col-lg-2">
446              <label>Case Classification:</label>
447          </div>
448          <c:if test = "${provR.admitted == 'No'}">
449              <div class = "row">
450                  <div class = "col-lg-2">
451                      <label>Patient Admitted?:</label>
452                  </div>
453                  <div class = "col-lg-4">
454                      <input type = "text" class = "form-control"
455                          readonly = "true" value = "${provR.admitted
456                              }"/>
457                  </div>
458              </c:if>
459              <c:if test = "${provR.admitted == 'Yes'}">
460                  <div class = "row">
461                      <div class = "col-lg-2">
462                          <label>Patient Admitted?:</label>
463                      </div>
464                      <div class = "col-lg-4">
465                          <input type = "text" class = "form-control"
466                              readonly = "true" value = "${provR.admitted
467                                  }"/>
468                  </div>
469                  <div class = "col-lg-2">
470                      <label>Date Admitted:</label>
471                  </div>
472                  <br />
473                  <div class = "row">
474                      <div class = "col-lg-2">
475                          <label>Hospital/Clinic:</label>
476                      </div>
477                      <div class = "col-lg-5">
478                          <input type = "text" class = "form-control"
479                              readonly = "true" value = "${provR.hospital
480                                  }"/>
481                      </div>
482                      <div class = "col-lg-2">
483                          <label>Hospital/Clinic Type:</label>
484                      </div>
485                      <div class = "col-lg-3">
486                          <input class="form-control" type="text"
487                              readonly = "true" value ="${provR.
488                                  hospitalType}"/>
489                  </div>
490                  <div class = "row">
491                      <div class = "col-lg-3">
492                          <label>Hospital/Clinic Address:</label>
493                      </div>
494                      <div class = "col-lg-9">
495                          <input type = "text" class = "form-control"
496                              readonly = "true" value = "${provR.
497                                  hospitalAddr}"/>
498                  </div>
499                  <div class = "row">
500                      <div class = "col-lg-2">
501                          <label>Outcome</label>
502                      </div>
503                      <div class = "col-lg-4">
504                          <input type = "text" class = "form-control"
505                              readonly = "true" value = "${provR.outcome
506                                  }"/>
507                      <c:if test = "${provR.outcome == 'Died'}">
508                          <div class = "col-lg-2">
509                              <label>Date Died:</label>
510                          </div>
511                          <input type = "text" class = "form-control"
512                              readonly = "true" value = "${provR.dateDied
513                                  }"/>
514                      </c:if>
515                      <br />
516                  </div>
517                  <c:forEach var = "i" begin = "0" end = "16">
518                      <c:forEach var = "provs" items = "${prov[i]}"
519                          varStatus = "stat">
520                          <c:forEach var = "user" items = "${allUsers}"
521                              varStatus = "st">
522                          <c:if test = "${fn:toLowerCase(user.province) ==
523                              fn:toLowerCase(provs.province) && user.
524                              region == provs.region
525                                  && (user.userType == 'Provincial Health Worker'
526                                      || user.userType == 'Provincial Health
527                                          Official')}">
528                              <c:forEach
529                                  <c:forEach
530                                      <c:forEach var = "i" begin = "0" end = "16">
531                                          <c:forEach var = "provs" items = "${prov[i]}"
532                                              varStatus = "stat">
533                                              <c:if test = "${fn:toLowerCase(user.province) ==
534                                                  fn:toLowerCase(provs.province) && user.
535                                      region == provs.region
536                                      && (user.userType == 'Provincial Health Worker'
537                                          || user.userType == 'Provincial Health
538                                              Official')}">
539                                              <div class = "modal fade" id = "logs3_${i}_${stat.
540                                                  index}_$ ${st.index}">
541                                              <div class = "modal-body">
542                                              <div class = "panel panel-info">
543                                              <div class = "panel-body">
544                                              <br />
545                                              <br />
546                                              <table class = "table table-striped">
547                                              <thead>
548                                              <tr>
549                                              <th>Date</th>
550                                              <th>Time</th>
551                                              <th>Action</th>
552                                              <th>view Record</th>
553                                              </tr>
554                                              </thead>
555                                              <tbody>
556                                              <c:forEach var = "logs" items = "${allLogs
557                                                  }" varStatus = "lgStat">
558                                              <c:if test = "${logs.recordtable == 'muncityrecords'}">
559                                              <tr>
560                                              <td>${logs.date}</td>
561                                              <td>${logs.time}</td>
562                                              <td>${logs.action}</td>
563                                              <c:forEach var = "k" begin = "0" end = "${
564                                              fn:length(provR) - 1}">
565                                              <c:forEach var = "provR" items = "${provR
566                                              [k]}" varStatus = "prR">
567                                              <c:if test = "${logs.accountID == user.
568                                              accID && logs.recordID == provR.recordID}">
569                                              <td><button class = "btn btn-primary"
570                                              href = "#logsRecord2_${i}_${stat.index}_$ ${st.
571                                              index}_$ ${k}_$ ${prR.index}" data-toggle =
572                                              "modal">View</button></td>
573                                              </c:if>
574                                              </c:forEach>
575                                              </c:forEach>
576                                              </c:if>
577                                              </c:forEach>
578                                              </div>
579                                              </div>

```

Listing 62: national.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5
6  <div class = "container-fluid well-lg" style =
   background-color: #eee;">
7  <div class = "panel panel-info">
8  <table class="table table-striped" id=
   example1">
9   <thead>
10  <tr>
11  <th>Name</th>
12  <th>User Type</th>
13  <th>Profile</th>
14  <th>User Logs</th>
15  <th>Account Status</th>
16  <th>Activate or Deactivate</th>
17  </tr>
18  </thead>
19  <tbody>
20  <cc:forEach var = "userA" items = "${allUsers
   }" varStatus = "st">
21  <cc:if test = "${userA.userType == 'National
   Health Official'}">
22  <tr>
23  <td>${userA.firstname} ${userA.middlename}
   ${userA.surname}</td>
24  <td>${userA.userType}</td>
25  <td><button class = "btn btn-primary" href
   = "#profile11_${st.index}" data-toggle =
   "modal">View</button></td>
26  <td><button class = "btn btn-primary" href
   = "#logs11_${st.index}" data-toggle =
   "modal">View</button></td>
27  <td><c:if test = "${userA.status == 1}">
   Active</c:if><c:if test = "${userA.status
   == 0}">Inactive</c:if></td>
28  <td><c:if test = "${userA.status == 0}">
   <button>Activate</button></c:if><c:if test =
   "${userA.status == 1}"><button>Deactivate
   </button></c:if></td>
29  </tr>
30  </c:if>
31  </cc:forEach>
32  </tbody>
33  </table>
34  </div>
35  <cc:forEach var = "user" items = "${allUsers}"
   varStatus = "st">
36  <cc:if test = "${user.userType == 'National
   Health Official'}">
37  <div class = "modal fade" id = "profile11_${st.
   index}" data-width = "700">
38  <div class = "modal-body">
39  <div class = "panel panel-info">
40  <div class = "panel-body">
41  <br />
42  <table class = "table table-striped">
43  <tr>
44  <td>First Name:</td>
45  <td>
46  ${user.firstname}
47  </td>
48  </tr>
49  <tr>
50  <td>Middle Name:</td>
51  <td>
52  ${user.middlename}
53  </td>
54  </tr>
55  <tr>
56  <td>Surname:</td>
57  <td>
58  ${user.surname}
59  </td>
60  </tr>
61  <tr>
62  <td>Region:</td>
63  <td>
64  ${user.region}
65  </td>
66  </tr>
67  <tr>
68  <td>Province:</td>
69  <td>
70  ${user.province}
71  </td>
72  </tr>
73  <tr>
74  <td>Institution:</td>
75  <td>
76  ${user.institution}
77  </td>
78  </tr>
79  <tr>
80  <td>Institution's Address:</td>
81  <td>
82  ${user.institutionAddr}
83  </td>
84  </tr>
85  <tr>
86  <td>Email:</td>
87  <td>
88  ${user.email}
89  </td>
90  </tr>
91  <tr>
92  <td>Contact Number:</td>
93  <td>
94  ${user.number}
95  </td>
96  </tr>
97  </table>
98  </div>
99  </div>
100 </div>
101 </div>
102 </c:if>
103 </cc:forEach>
104 <cc:forEach var = "user" items = "${allUsers}"
   varStatus = "st">
105 <cc:if test = "${user.userType == 'National
   Health Official'}">
106 <div class = "modal fade" id = "logs11_${st.
   index}" data-width = "700">
107 <div class = "modal-body">
108 <div class = "panel panel-info">
109 <div class = "panel-body">
110 <br />
111 <table class = "table table-striped">
112 <thead>
113  <tr>
114  <th>Date</th>
115  <th>Time</th>
116  <th>Action</th>
117  <th>View Record</th>
118  </tr>
119 </thead>
120 <tbody>
121 <cc:forEach var = "logs" items = "${allLogs
   }" varStatus = "lgStat">
122 <cc:if test = "${logs.accountID == user.
   accID}">
123  <tr>
124  <td>${logs.date}</td>
125  <td>${logs.time}</td>
126  <td>${logs.action}</td>
127  </tr>
128 </cc:if>
129 </cc:forEach>
130 </tbody>
131 </table>
132 </div>
133 </div>
134 </div>
135 </div>
136 </c:if>
137 </cc:forEach>
138 </div>

```

Listing 63: researcher.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5
6  <div class = "container-fluid well-lg" style =
   background-color: #eee;">
7  <div class = "panel panel-info">
8  <cc:if test = "${not empty successD}">
9  <div class = "alert alert-success">
10 <strong>${successD}</strong>
11 </div>
12 </cc:if>
13 <table class="table table-striped" id="example1
   ">
14  <thead>
15  <tr>
16  <th>Name</th>
17  <th>User Type</th>
18  <th>Profile</th>
19  <th>User Logs</th>
20  <th>Account Status</th>

```

```

21      <th>Activate or Deactivate</th>          78      <tr>
22      </tr>                                         79      <td>Institution:</td>
23  </thead>                                         80      <td>
24  <tbody>                                         81      ${user.institution}
25    <c:forEach var = "userA" items = "${allUsers}" 82      </td>
26      }" varStatus = "st">                      83      </tr>
27    <c:if test = "${userA.userType == 'Researcher'" 84      <tr>
28      }">                                         85      <td>Institution's Address:</td>
29      <td>${userA.firstname} ${userA.middlename} $ 86      <td>
30        ${userA.surname}</td>                      87      ${user.institutionAddr}
31      <td><button class = "btn btn-primary" href = 88      </td>
32        "#profile12_${st.index}" data-toggle = " 89      </tr>
33        modal">View</button></td>                90      <tr>
34      <td><button class = "btn btn-primary" href = 91      <td>Email:</td>
35        "#logs12_${st.index}" data-toggle = "modal" 92      <td>
36        ">View</button></td>                      93      ${user.email}
37    <c:if test = "${userA.status == 1}">           94      </td>
38      Active</c:if><c:if test = "${userA.status 95      </tr>
39      == 0}">Inactive</c:if></td>                96      <tr>
40    <c:if test = "${userA.status == 0}"><c:if>     97      <td>Contact Number:</td>
41      button class = ">Activate</button></c:if>< 98      <td>
42      c:if test = "${userA.status == 1}"><button> 99      ${user.number}
43      Deactivate</button></c:if></td>              100     </td>
44    </c:if>                                         101     </tr>
45  </c:forEach>                                     102     </table>
46  </tbody>                                         103     <div>
47  </table>                                         104     </div>
48  </div>                                           105     </div>
49  <c:forEach var = "user" items = "${allUsers}" 106     </div>
50    varStatus = "st">                           107     <c:if>
51  <c:if test = "${user.userType == 'Researcher'}"> 108     </c:forEach>
52  <div class = "modal fade" id = "profile12_${st. 109    <c:forEach var = "user" items = "${allUsers}"
53    index}" data-width = "700">                  110    varStatus = "st">
54    <div class = "modal-body">                     111    <c:if test = "${user.userType == 'Researcher'}">
55      <div class = "panel panel-info">             112    <div class = "modal fade" id = "logs12_${st.
56        <div class = "panel-body">                   113      index}" data-width = "700">
57          <br />                                         114      <div class = "panel panel-info">
58          <table class = "table table-striped">       115        <div class = "panel-body">
59            <tr>                                         116          <br />
60              <td>First Name:</td>                 117          <table class = "table table-striped">
61              <td>${user.firstname}</td>               118            <thead>
62            </tr>                                         119              <th>Date</th>
63            <tr>                                         120              <th>Time</th>
64              <td>Middle Name:</td>                 121              <th>Action</th>
65              <td>${user.middlename}</td>             122              <th>View Record</th>
66            </tr>                                         123            </tr>
67            <tr>                                         124            </thead>
68              <td>Surname:</td>                    125            <tbody>
69              <td>${user.surname}</td>                 126              <c:forEach var = "logs" items = "${allLogs"
70            </tr>                                         127                varStatus = "lgStat">
71            <tr>                                         128                <c:if test = "${logs.accountID == user.
72              <td>Region:</td>                    129                  accID}">
73              <td>${user.region}</td>                 130                  <td>${logs.date}</td>
74            </tr>                                         131                  <td>${logs.time}</td>
75            <tr>                                         132                  <td>${logs.action}</td>
76              <td>Province:</td>                   133                </c:if>
77              <td>${user.province}</td>              134                </c:forEach>
78            </tr>                                         135            </tbody>
79            <div class = "tab-pane active">          136            </table>
80              <div class = "container-fluid well-lg"> 137            </div>
81                <div class="panel panel-info">        138            </div>
82      </div>                                         139            </div>
83      <jsp:include page = ".../header.jsp" />    140            </div>
84      <div class = "tabbable">                     141            <c:if>
85        <jsp:include page = ".../linkings.jsp" /> 142            </c:forEach>
86        <div class = "tab-content">                 143            </div>
87          <sec:authorize access="hasAnyRole('
88            ROLE_BHWorker')">
89            <div class = "tab-pane active">
90              <div class = "container-fluid well-lg">
91                <div class="panel panel-info">

```

Listing 64: insertSuccess.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
2   jsp/jstl/core" %>
3  <%@ taglib uri="http://java.sun.com/jsp/jstl/
4   functions" prefix="fn"%>
5  <%@ taglib prefix="sec" uri="http://www.
6   springframework.org/security/tags" %>
7  <%@ taglib prefix="form" uri="http://www.
8   springframework.org/tags/form" %>
9
10 <jsp:include page = ".../header.jsp" />
11 <div class = "tabbable">
12   <jsp:include page = ".../linkings.jsp" />
13   <div class = "tab-content">
14     <sec:authorize access="hasAnyRole('
15       ROLE_BHWorker')">
16       <div class = "tab-pane active">
17         <div class = "container-fluid well-lg">
18           <div class="panel panel-info">
19             <div class = "panel-heading">Insertion of
20               Records</div>
21             <div class = "panel-body">
22               Insertion successful!
23               <br />
24               <br />
25               <a href = "<%= request.getContextPath()
26                 %>/pages/system"><button type = "button"
27                 class = "btn btn-primary">Add New Records</
28                 button></a>
29             </div>
30             </div>
31             </div>
32             </div>
33             </div>
34             </div>
35             </div>
36             </div>
37             </div>
38             </div>
39             </div>
40             </div>
41             </div>
42             </div>
43             </div>
44             </div>
45             </div>
46             </div>
47             </div>
48             </div>
49             </div>
50             </div>
51             </div>
52             </div>
53             </div>
54             </div>
55             </div>
56             </div>
57             </div>
58             </div>
59             </div>
60             </div>
61             </div>
62             </div>
63             </div>
64             </div>
65             </div>
66             </div>
67             </div>
68             </div>
69             </div>
70             </div>
71             </div>
72             </div>
73             </div>
74             </div>
75             </div>
76             </div>
77             </div>
78             </div>
79             </div>
80             </div>
81             </div>
82             </div>
83             </div>
84             </div>
85             </div>
86             </div>
87             </div>
88             </div>
89             </div>
90             </div>
91             </div>
92             </div>
93             </div>
94             </div>
95             </div>
96             </div>
97             </div>
98             </div>
99             </div>
100            </div>
101            </div>
102            </div>
103            </div>
104            </div>
105            </div>
106            </div>
107            </div>
108            </div>
109            </div>
110            </div>
111            </div>
112            </div>
113            </div>
114            </div>
115            </div>
116            </div>
117            </div>
118            </div>
119            </div>
120            </div>
121            </div>
122            </div>
123            </div>
124            </div>
125            </div>
126            </div>
127            </div>
128            </div>
129            </div>
130            </div>
131            </div>
132            </div>
133            </div>
134            </div>
135            </div>
136            </div>
137            </div>
138            </div>
139            </div>
140            </div>
141            </div>
142            </div>
143            </div>

```

Listing 65: changeContactsError.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5  <jsp:include page = "../../../header.jsp" />
6
7  <div class = "tabbable">
8    <jsp:include page = "../../../linkings.jsp" />
9    <div class = "tab-content">
10      <div class = "tab-pane active">
11        <br />
12        <div class = "container-fluid well-lg" style
           = "background-color: #eee;">
13          <div class = "panel panel-info" id = "
           changeUP">
14            <div class = "modal-dialog" style =
           background-color: #fff;">
15              <div class = "modal-body panel panel-info
           ">
16                <div class = "panel panel-heading">
17                  <h4 class = "form-signin-head">Vector
Borne Diseases Monitoring System</h4>
18                </div>
19                <form:form method="post" class = "form-
signin" action = "${pageContext.request.
contextPath}/pages/changeUserContacts"
modelAttribute = "changeContacts">
20                  <table class = "table" >
21                    <tr>
22                      <td style = "border: none;">
23                        <label for="login_password">Email:</
label>
24                      </td>
25                      <td style = "border: none;">
26                        <form:input path = "email" type="text"
class="form-control" />
27                        <c:set var = "eEmail"><form:errors
path = "email" /></c:set>
28                        <c:if test = "${not empty eEmail}">
29                          <div class = "alert alert-danger alert-
dismissible">
30                            <button type="button" class="close"
data-dismiss="alert" aria-hidden="true">&
times;</button>
31                            <strong><form:errors path =
           email
           ></form:errors></strong>
32                            </div>
33                            </c:if>
34                            </td>
35                            </tr>
36                            <td style = "border: none;">
37                              <label for="login_password">Contact
Number:</label>
38                              </td>
39                              <td style = "border: none;">
40                                <form:input path = "number" type="text"
class="form-control" />
41                                <c:set var = "eNumber"><form:errors
path = "number" /></c:set>
42                                <c:if test = "${not empty eNumber}">
43                                  <div class = "alert alert-danger alert-
dismissible">
44                                    <button type="button" class="close"
data-dismiss="alert" aria-hidden="true">&
times;</button>
45                                    <strong><form:errors path =
           number
           ></form:errors></strong>
46                                  </div>
47                                  </c:if>
48                                  </td>
49                                  </tr>
50                                  <tr>
51                                    <td style = "border: none;"><button class
= "btn btn-primary" type="submit" value =
           "submit">Change</button></td>
52                                    </tr>
53                                    </table>
54                                    </form:form>
55                                    </div>
56                                    </div>
57                                    </div>
58                                    </div>
59                                    </div>
60                                    </div>
61                                    </div>
62                                    </div>
63                                    </div>
64 <jsp:include page = "../../../footer.jsp" />
```

Listing 66: changeCredentialsError.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <%@ taglib prefix="form" uri="http://www.
   springframework.org/tags/form" %>
5  <jsp:include page = "../../../header.jsp" />
6
7  <div class = "tabbable">
8    <jsp:include page = "../../../linkings.jsp" />
9    <div class = "tab-content">
10      <div class = "tab-pane active">
11        <br />
12        <div class = "container-fluid well-lg" style
           = "background-color: #eee;">
13          <div class = "panel panel-info" id = "
           changeUP">
14            <div class = "modal-dialog" style =
           background-color: #fff;">
15              <div class = "modal-body panel panel-info
           ">
16                <div class = "panel panel-heading">
17                  <h4 class = "form-signin-head">Vector
Borne Diseases Monitoring System</h4>
18                </div>
19                <form:form method="post" class = "form-
signin" action = "${pageContext.request.
contextPath}/pages/changeUserDetails"
modelAttribute = "changeUser">
20                  <table class = "table" >
21                    <tr>
22                      <td style = "border: none;">
23                        <label for="login_password">Old
Password:</label>
24                        </td>
25                        <td style = "border: none;">
26                          <form:input path = "accountPassword"
type="password" class="form-control" title
="Password is required" />
27                          <c:set var = "eAccountPassword"><form:
errors path = "accountPassword" /></c:set>
28                          <c:if test = "${not empty
eAccountPassword}">
29                            <div class = "alert alert-danger alert-
dismissible">
30                              <button type="button" class="close"
data-dismiss="alert" aria-hidden="true">&
times;</button>
31                              <strong><form:errors path =
           accountPassword"></form:errors></strong>
32                              </div>
33                              </c:if>
34                              </td>
35                              </tr>
36                              <tr>
37                                <td style = "border: none;">
38                                  <label for="login_password">New
Password:</label>
39                                  </td>
40                                  <td style = "border: none;">
41                                    <form:input path = "accountPassword2"
type="password" id = "oldPassword" class=
"form-control" title="Password is required"
/>
42                                    <c:set var = "eAccountPassword2"><form:
errors path = "accountPassword2" /></c:set>
43                                    <c:if test = "${not empty
eAccountPassword2}">
44                                      <div class = "alert alert-danger alert-
dismissible">
45                                        <button type="button" class="close"
data-dismiss="alert" aria-hidden="true">&
times;</button>
46                                        <strong><form:errors path =
           accountPassword2"></form:errors></strong>
47                                        </div>
48                                        </c:if>
49                                        </td>
50                                        </tr>
51                                        <tr>
52                                          <td style = "border: none;">
53                                            <label for="login_password">Re-enter New
Password:</label>
54                                            </td>
55                                            <td style = "border: none;">
56                                              <form:input path = "accountPassword3"
type="password" id = "newPassword" class=
"form-control" title="Password is required"
/>
57                                              <c:set var = "eAccountPassword3"><form:
errors path = "accountPassword3" /></c:set>
58                                              <c:if test = "${not empty
eAccountPassword3}">
59                                                <div class = "alert alert-danger alert-
dismissible">
60                                                  <button type="button" class="close"

```

```

        data-dismiss="alert" aria-hidden="true">>&
    times;</button>
    <strong><form:errors path =
accountPassword3"></form:errors></strong>

```

61 </div>
62 </c:if>
63 </td>
64 </tr>
65 <c:if test = "\${not empty error || not
empty error2}">
66 <tr colspan = '6'>
67 <td style = "border: none;" colspan =
'2'>
68 <div id = "confirmPass" class = "alert
alert-danger">
69 \${error}
70

71 \${error2}
72 </div>
73

74 </td>
75 </tr>
76 </c:if>
77 <tr>
78 <td style = "border: none;"><button class =
"btn btn-primary" type="submit" value =
"submit">Change</button></td>
79 </tr>
80 </table>
81 </form:form>
82 </div>
83 </div>
84 </div>
85 </div>
86 </div>
87 </div>
88 </div>
89 </div>
90 <jsp:include page = "../../../../footer.jsp" />

Listing 67: userDeactivated.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <!DOCTYPE html>
5  <html>
6  <head>
7     <title>Vector-Borne Diseases Monitoring System
     </title>
8     <meta name="viewport" content="width=device-
     width, initial-scale=1.0">
9     <jsp:include page="../../css.jsp"/>
10  <meta http-equiv="refresh" content="5;<%
    request.getContextPath() %>
    j_spring_security_logout" />

```

11 </head>
12 <body style = "background: #777;">
13 <div class = "container">
14 <div class = "navbar navbar-default" role =
 "navigation">
15 <div class = "container-fluid">
16 <div class = "navbar-header">
17 <button type = "button" class = "navbar-
 toggle" data-toggle = "collapse" data-
 target = ".navbar-collapse">
 Toggle Navigation

20
21
22 </div>
23 VBDMMS
24 </div>
25 </div>
26 </div>
27 <div class = "modal-dialog" style =
 "background-color: #fff;">
28 <div class = "modal-body panel panel-info">
29 <div class = "panel panel-heading">
30 <h4 class = "form-signin-head">Vector Borne
 Diseases Monitoring System</h4>
31 </div>
32 <div class = "alert alert-danger">
33 <center>Sorry, your account was deactivated
 . Please contact vbdmsdev@gmail.com for
 information
 on account reactivation. Thank you, good
 day!</center>
34 <center>Attention: You will be logged out
 in 5 seconds.</center>
35 </div>
36 <div class = "alert alert-success">
37 <center>Your account has been successfully
 activated. You will be redirected to the login
 page in 5 seconds.</center>
38 </div>
39 </div>
40 </div>
41 </div>
42 </div>
43 </div>
44 <jsp:include page = "../../../../footer.jsp" />

Listing 68: loginfailed.jsp

```

1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <!DOCTYPE html>
5  <html>
6  <head>
7     <title>Vector-Borne Diseases Monitoring System
     </title>
8     <meta name="viewport" content="width=device-
     width, initial-scale=1.0">
9     <jsp:include page="css.jsp"/>
10  </head>
11 <body style = "background: #777;">
12 <div class = "container">
13     <div class = "navbar navbar-default" role =
     "navigation">
14       <div class = "container-fluid">
15         <div class = "navbar-header">
16           <button type = "button" class = "navbar-
           toggle" data-toggle = "collapse" data-
           target = ".navbar-collapse">
           <span class = "sr-only">Toggle Navigation
           </span>
           <span class = "icon-bar"></span>
           <span class = "icon-bar"></span>
           <span class = "icon-bar"></span>



32       <form method="post" class = "form-signin"
           action = "j_spring_security_check">
33         <div class = "alert alert-danger">
34           <center>Your login credentials didn't
           match! Please try again.</center>
35         </div>
36         <table class = "table" >
37           <tr>
38             <td>
39               <label for="login_username">Username</
           label>
40             </td>
41             <td>
42               <input type="text" name="j_username" id
           ="login_username" class="form-control field
           required" title="Please provide your
           username" />
43             </td>
44           </tr>
45           <tr>
46             <td>
47               <label for="login_password">Password</
           label>
48             </td>
49             <td>
50               <input type="password" name="j_password"
           id="login_password" class="form-control
           field required" title="Password is required
           " />
51             </td>
52           </tr>
53           <tr>
54             <td><button class = "btn btn-primary"
           type="submit" value = "submit">Log in</
           button></td>
55             <td><a href = "<%= request.getContextPath()
           () %>/forgotPassword" class = "pull-right">
           Forgot Password?</a></td>
56           </tr>
57         </table>
58         </form>
59     </div>
60     </div>
61     </div>
62     <jsp:include page = "footer.jsp" />


```

Listing 69: generic_error.jsp

```
1  <%@ taglib prefix="c" uri="http://java.sun.com/
   jsp/jstl/core" %>
2  <%@ taglib uri="http://java.sun.com/jsp/jstl/
   functions" prefix="fn"%>
3  <%@ taglib prefix="sec" uri="http://www.
   springframework.org/security/tags" %>
4  <jsp:include page="header.jsp"/>
5  <div class="jumbotron">
6  <c:if test="${not empty exception.errCode}">
7  <h1>${exception.errCode} : System Errors</h1>
8  </c:if>
9
10 <c:if test="${empty exception.errCode}">
11 <div class = "panel panel-info">
12  <div class = "panel-heading"><h4>System Errors
   </h4></div>
13  <div class = "panel-body">
14  <div class = "alert alert-info">
15    <p class = "text-left">
```

```
16      <small><em><strong>Error: </strong>${
   exception.errCode}</em></small>
17    </p>
18  </div>
19  <p>
20    Please contact system administrator by
      sending an email to <strong><a href = "
   vbdmsdev@gmail.com">vbdmsdev@gmail.com</a>
   </strong> with the error message. Thank
   you!
21  </p>
22  </div>
23  </div>
24 </c:if>
25
26 <c:if test="${not empty exceptionerrMsg}">
27 <h4>${exception errMsg}</h4>
28 </c:if>
29 </div>
30 </div>
31 <jsp:include page="footer.jsp"/>
```

XII. Acknowledgement

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