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BOARDING HOUSE LOCATOR AND STUDENT MONITORING SYSTEM IN NAVAL, BILIRAN PROVINCE, PILIPPINES

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ABSTRACT
This study aimed to develop an effective Student's Boarding House Locator and Monitoring System in Naval, Biliran. The spiral model presented in this project is for improving the software process model situation. The major distinguishing feature of spiral model is that it creates a risk-driven approach to the software process rather than a primarily document driven or code driven process. It incorporates many of the strengths of other models and resolves many of their difficulties. The said system helps the Students Affair Service Office to monitor students to be safe and secured with their respective renting Boarding Houses and the system can perform online service it is a system, it has a complete list of services and information. To identify the profile of the students and determine the type of boarding houses or dormitories students are renting. The administrator (SASO) and landlord/landlady of boarding house should collaborate and cooperate for updates of information. The methods used in gathering data required for the study are conducting interviews, observations and researches, the proponents found out that planning, analyzing ,implementing of constructing an organize monitoring is advantage form on creating the system. In realization of this study the proponents encountered multiple things to consider. Confidentiality and credibility of the information should be updated and verified. Functionality for efficient and effective operation of services must be emphasis.

KEYWORDS: Boarding House; Locator; Student Monitoring System.

INTRODUCTION
The Boarding House Locator and Student's Monitoring System provides you all relevant services with regards to monitoring the students. It is an advance way of location one's boarding house and would be beneficial to the parents as well. Parents now have the power to look into the security of their children by means of having the geographical profile of the boarding where the child resides, (Brilliantes, et. al. 2012).

Locator and Monitoring System is one of the examples of tracking a person or establishment, and it is not easy especially with in the vital issue of privacy. However, it is primarily developed to enhance information system that can accessed only by the authorized personnel for security.   This include the living conditions of university students in boarding houses existing features of the boarding houses documents of the corresponding lifestyle of the students who rented boarding house. The assessment is a significant effort in order to promote policies and guidelines that will address the growing concerns of these clients living in boarding house.

The perennial problems or issues encountered by the new students are hard to find boarding houses especially those have safety, registered and have nice amenities. Also, parents would look into their children's situation and other parents but no idea where to stay in. They need such tool or system to find his/her student where do they stay easily.

With the help of this system, Students Affairs and Services Offices have now an advance mechanism of carrying out students monitoring effectively and efficiently. Services of this system can be able to perform only by the authorized person and he has the power to do both viewing and editing of information, on the other hand, the development of this Information System must be carefully planned and monitored for the security of the students Management Information

System. Students particularly those living far from Naval, Biliran and currently studying in Naval State University can be benefited from this system. It is intended for the convenience of accommodation for the temporary dwellings of the student.

OBJECTIVES OF THE STUDY

This study aimed to develop an effective Student's Boarding House Locator and Monitoring System in Naval, Biliran. Specifically, it sought to attain the following objectives:

1. Identify the profile of the students in terms of: Photo; Student ID Number; .Student Name; Course; Boarding House; Department; Scholarship; and Contact Number.
2. Identify the students rented in registered boarding houses in Naval Biliran: Address; Picture/Image of amenities; Contact Number; Rules & Regulations and Name of owner of the Boarding House.
3. Helped parents/guardians in locating their students;
4. Guide Naval State University to locate and monitor the registered boarding houses; and
5. Promote boarding houses around Naval through this system.

FRAMEWORK OF THE STUDY

This study aimed to determine the Boarding House Locator and Students Monitoring System. The study quantifies the following parameters to wit: a system with the capability of tracking Google map to locate the specific boarding house. And maintain the monitoring supervising of the data of students and boarding house in progress to ensure they are on-course on their current renting boarding house. The proponents used Photoshop for digital editing of photographic, Dream weaver enables the programmer to build complex website using HTML, JavaScript and server side programming services, Google map to locate the geographical sites, DBMS Database Management System store the data collection, creation, querying, update, and administration of database, J-Query designed to simplify the client side scripting of HTML and JavaScript, Cake PHP a software engineering over configuration model view controller, active record, association data mapping. Figure 1.0 illustrate the conceptual framework of the study.
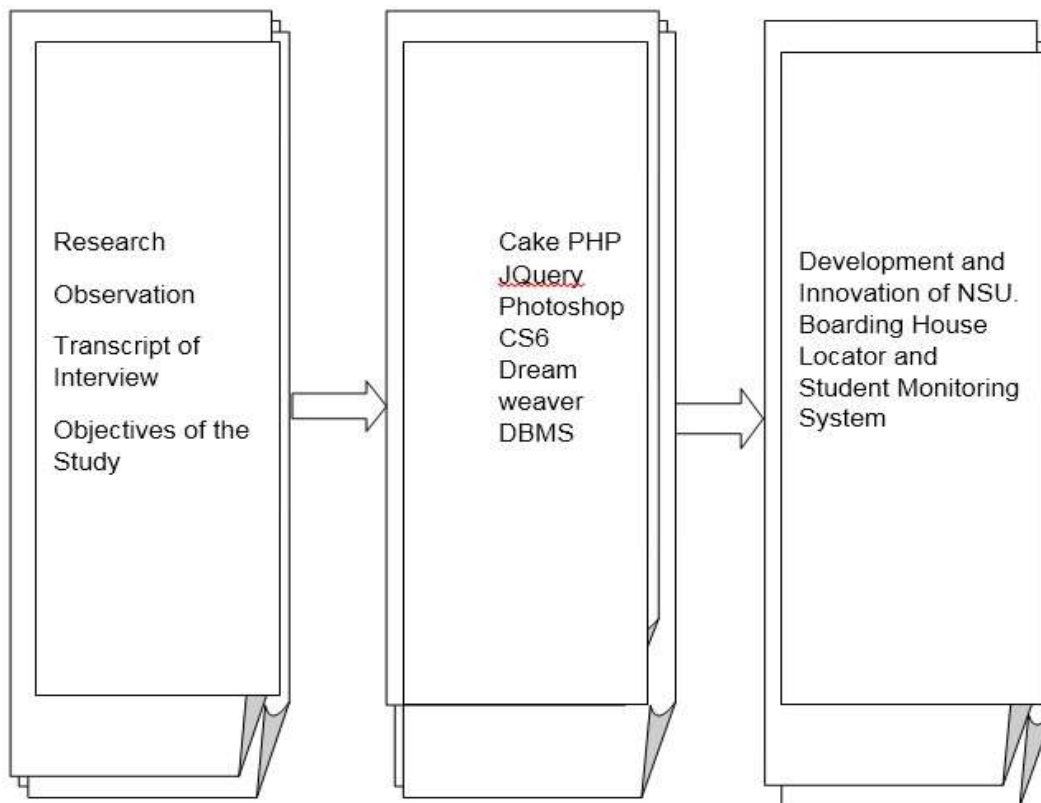

Figure 1.1The Conceptual Framework of the Study

Scope and Delimitation of the Study
This study is limited to Boarding House Locator and Monitoring System version 2.0. The purpose is to ensure the system functionally well operated effective and efficient by simplifying a friendly user website. The guardians and students will collaborate from the administrator of Students Affair Services Office to inquire the services of Boarding House Locator. The administrator can update and modify the data of the students and the boarding houses in the system through their registered username and password. The personnel account needs the precise username and password to be able view the information containing the student's current boarding house address together with his or her pertinent data and the boarding houses information. The students/guardians their account is only allowed to view the boarding houses' information. It delimits the project study only the consent of parents/guardians are authorized to inquire the profile of a specific student with a valid id's. The students who are renting only in registered boarding house are the main advantage of monitoring on their respective boarding houses. This study covered the School Year 2015-2016.

METHODOLOGY

In this study, the researchers developed system design that is based on the popular software process models. It utilized the spiral model presented in this project to improving the software process model situation. The major distinguishing feature of spiral model is that it creates a risk-driven approach to the software process rather than a primarily document driven or code driven process. It incorporates many of the strengths of other models and resolves many of their difficulties. The initial mission opportunity coincided with a corporate initiative to improve productivity in all appropriate corporate operation and an initial hypothesis that software engineering was an attractive area to investigate. The spiral models determine the feasibility of increasing software productivity at a reasonable corporate cost and reduce the ranger of alternative solutions quickly and inexpensively. This model was appropriate to this study because it determines the costs and risk evaluation, good for large mission critical projects, potential changes priorities requirements, strong approval and documentation control, additional functionality can be added. Each process follows a particular order like the spiral concept to ensure the success in the process of software development model is present in fig. 3.0.First, is a Planning Phase that helps to manage project life cycle by its time management, cost quality, change, risk and issues. Next, is to Evaluate risk that will determines which risk may affect the objectives and evaluated the legal requirements cost and to take action to prevent or minimize the encountered problem. And to Determine Goals the process of identifying something we want to accomplish and establishing measurable goals and time frames. Finally, is Developed and Test for it is the process that involves synchronized application of a broad spectrum of defect prevention and detection strategies in order to reduce software development risk, time, and cost .Development testing may include prototype, requirements, SW design, detailed design, code, SW verification, system verification, system validation. Figure 2.0 presents the Spiral Model.
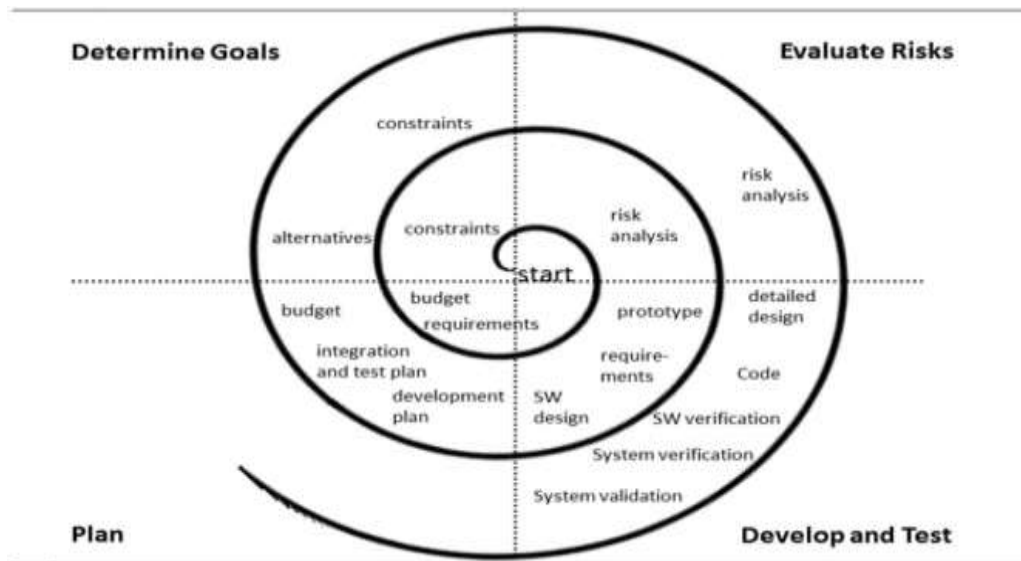

Figure 2.0. The Spiral model

The local point of the study was conducted in Municipality of Naval, specifically within the town central area of business surroundings registered boarding houses near the Naval State University Main-campus. The target subject of the study were the students of Naval State University, who rent room among the nearby and along with the owner or the caretakers of the available registered boarding houses near the specified educational institution. This study was not being possible without the approval of Dean CIICT, before the gathering of the information. The proponents conducted a survey question regarding to the Boarding Houses and how the system will fit to its work. The proponents also survey SASO on what information that they need in a Boarding House. The proponents employed questionnaires and interviews that provides with information about the registered boarding houses and the students who occupied on it. These questionnaires allow the owner or the caretaker to answer pertinent questions. The study is substantially based on the descriptive survey research design was employed in the study, the data gathering instrument is the decision methods of statistical mechanics, 60 percent of the subject owner/caretakers and students are certainly approved by this project proposal. And 40 percent are not interested on the said system. This research based on observable experience. It demands accurate observation and description .And the proponents also did surfing research over the internet, study and research in University Learning Resource Center, Brainstorming and observation inside/outside the school premises. In addition, the information gathered was treated as confidential for security purpose of the occupants. In order to obtain necessary information, the proponents conducted a survey among the selected registered boarding houses near the campus of Naval State University.

RESULTS AND DISCUSSION

This chapter includes the presentation analysis and interpretation of data based on the objectives of the study. Data are represented in two separate formats: according to the student's information and according to the boarding house's information. The first requires data of the student profile and the student's lodging information. The last stores data of location, number of rooms occupied and unoccupied, and characteristics of lodging lease. The Boarding House Locator and Student Monitoring System is an automated system wherein, it allows to add, edit, delete and monitor the data. This will also serve as a communication access by the parent to school and school to the boarding house owner for the security and whereabouts of the student. Promote a monitoring device that will serve as automated system and most of all, help the SASO personnel to have a well-organized monitoring system as how to locate the registered students and boarding houses. This system will also promote for the image of Naval State University Student Affairs Services Office.

Accessibility of Information
As one of the significant objectives of the study, the proponents ensure that the accessibility of information is present on the system. Information that a certain individual could possibly ask about.
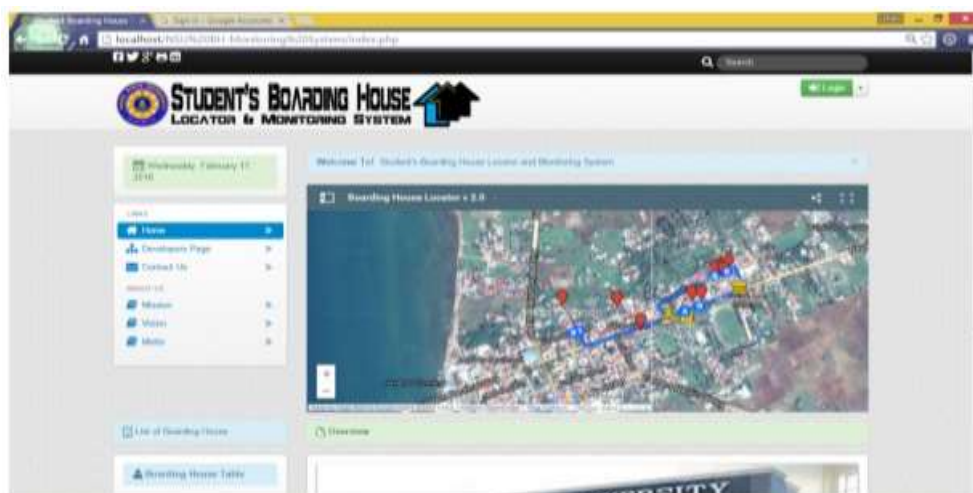
Homepage

Figure 11.0 Homepage

Figure 11.0 displays the location and route of all Registered Boarding House, including its information with thelive streaming of theGoogle mapwith the current time and date.The blue lines indicates the routes from Naval State University to every Boarding Houses (A-Gate 1, B-Gate 2). At the left side locates the Home, Developer Page (System creator), Contact us (Information contacts), the Mission, Vision and Motto of the Naval State university.

Boarding House List

Figure 11.1 Boarding House List

Figure 11.1 showsthe short slide of NSU Student photo while in the left side are the list of registered boarding houses in the system. The user will click the boarding house table to see the list of every registered boarding houses input in the system. All the boarding house records in the list must be registered to municipality of Naval Biliran.

Boarding House Locator
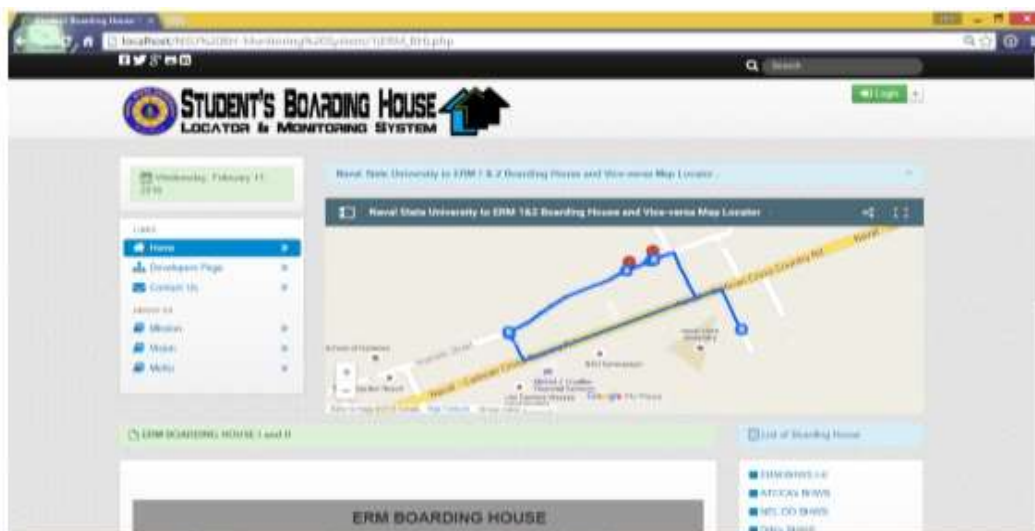
Figure 11.2 Boarding House Locator

Figure 11.2 shows the location of the Boarding House, after clicking the ERM boarding house connected to the live streaming of Google map. The blue lines represent the route of the boarding house from Naval State University. The red pinpoints are the location of the boarding house (e.g. ERM1, ERM2). The yellow line is the main road of Naval going to Caibiran.
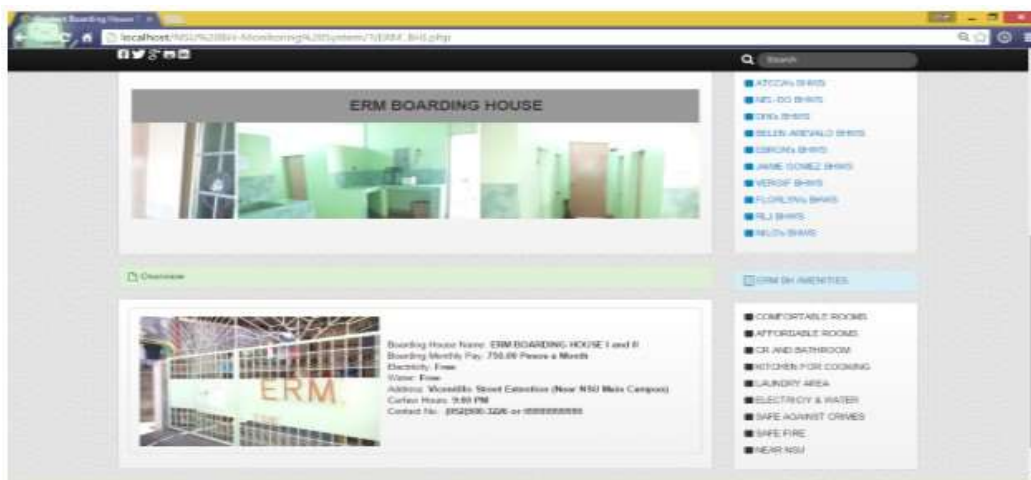
Boarding House Information

Figure 11.3 Boarding House Information

Figure 11.3 shows the image of the boarding house he/she has chosen including the personal information such as the name of the owner; boarding house monthly pay; electricity fee; curfew hours; available room space and contact numbers. Aside from the image of the boarding house, he/she can also see the images of the rooms inside like the comfort rooms and kitchen area.

Personnel Log-in andAdministrator
The student's information requires confidentiality where the only available access is confined to the administrative personnel. The parents/guardian can view only if they will present an I.D. However, the parents can view after the admin has already logged in. Moreover, it is the administrator that is given the privilege to update the file. Guests can only perceive the boarding houses' file.
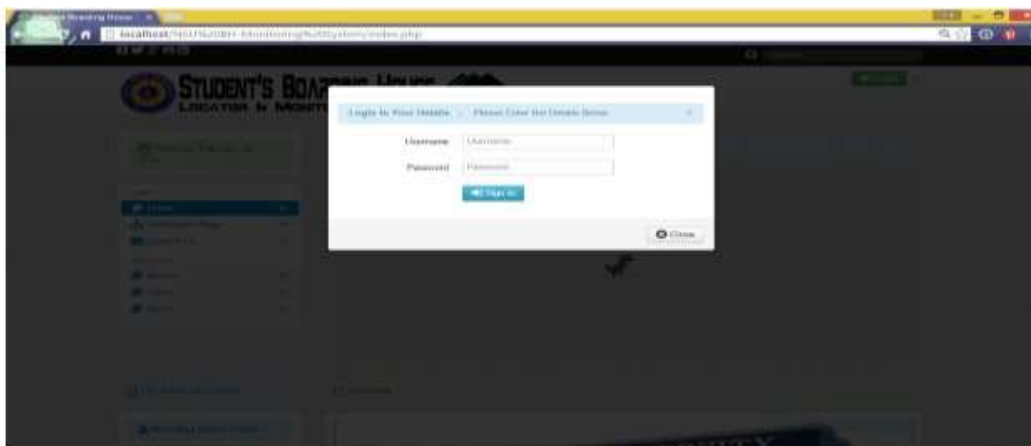
Personnel login

Figure 11.4 Personnel login

Figure 11.4 shows thepersonnel log-in. After clicking the log in button, the personnel log in will appear. The user must log in his username and password to access the student information system. The SASO is the authorize person that can loginthe personnel log in for the safety and security of every student.

Admin Login

Figure 11.5 Admin Login

The figure 11.5 displays the administration log in. The administrator must log in his username and password to access the system. The difference between the administration log-in to the personnel log-in is the accessibility of each other. The administrator can access the function of all system from adding, editing to deleting the data while the personnel log in is to view only data record in the system. The authorize person must be in the SASO or the MIS personnel.

Admin Homepage

Figure 11.6 Admin Homepage

Figure 11.6 illustratethe administration homepage display the photos of the Naval State University most especially the CIICT department, building and facilities. The home, student entry, student history records, entry user and log out are found in this page where the administrator can access.

Personnel Homepage

Figure 11.7 Personnel Homepage

Figure 11.7 shows the list of boarding houses, student history records, college department list, course list, boarding house record list and scholarship records list.The user can choose the desired folder by just clicking it. All the information is there by just looking into it. The user can use the search box to easily find the desired data.
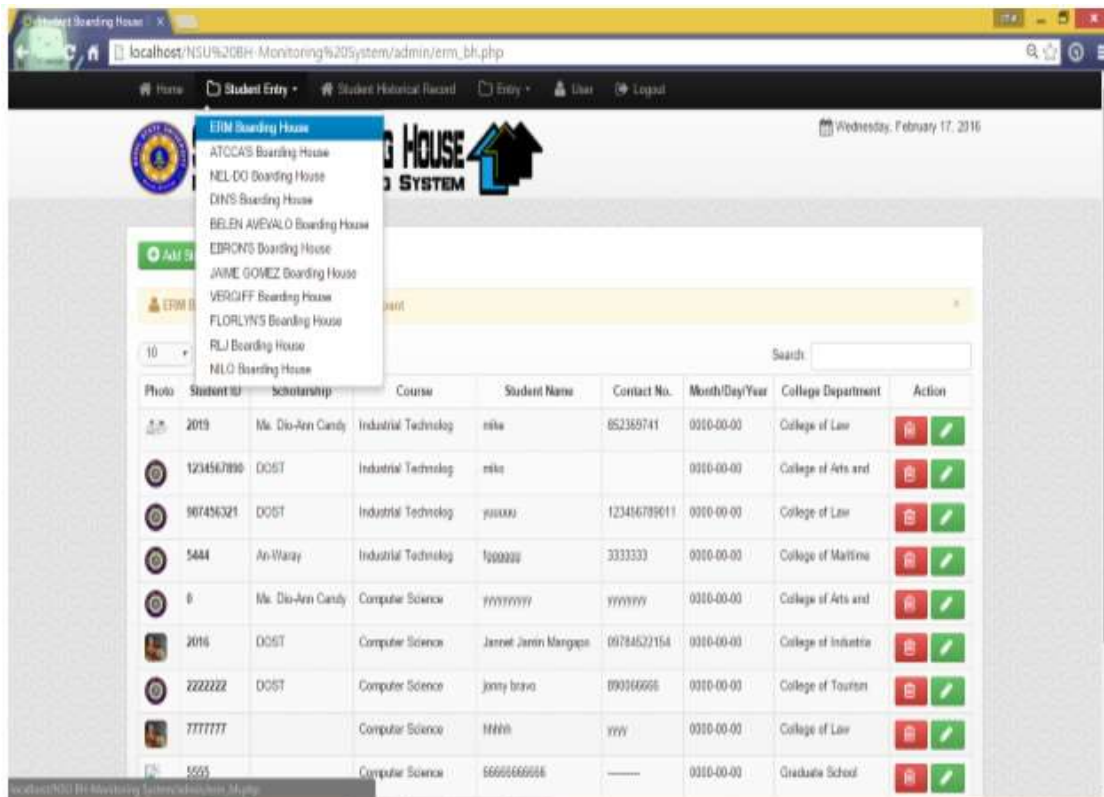
Students' Information under Admin Accessibility of Students'File

Figure 11.8 Students' Information under AdminAccessibility of Students'File

Figure 11.8 showsthe records of the students under the admin accessibility. The user or admin can add, edit and delete the information or the records of the student according to the update done by the SASO. Adding and editing can affect the history record of the student except of deleting.
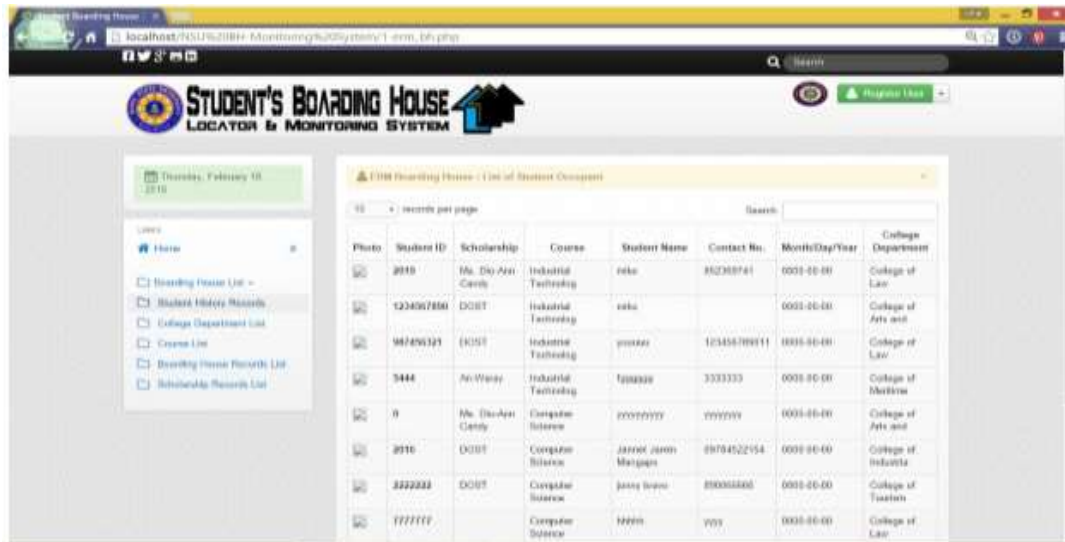
Student's Information

Figure 11.9 Student's Information

Figure 11.9 shows the page where the student's photo, ID number, scholarship, course, name, contact number, college department and other personal information can be seen. The aim of this page is to see the records of all the students boarding/ renting in a registered boarding house from beginning up to the present. All the records recorded here are cannot be removed or edited.

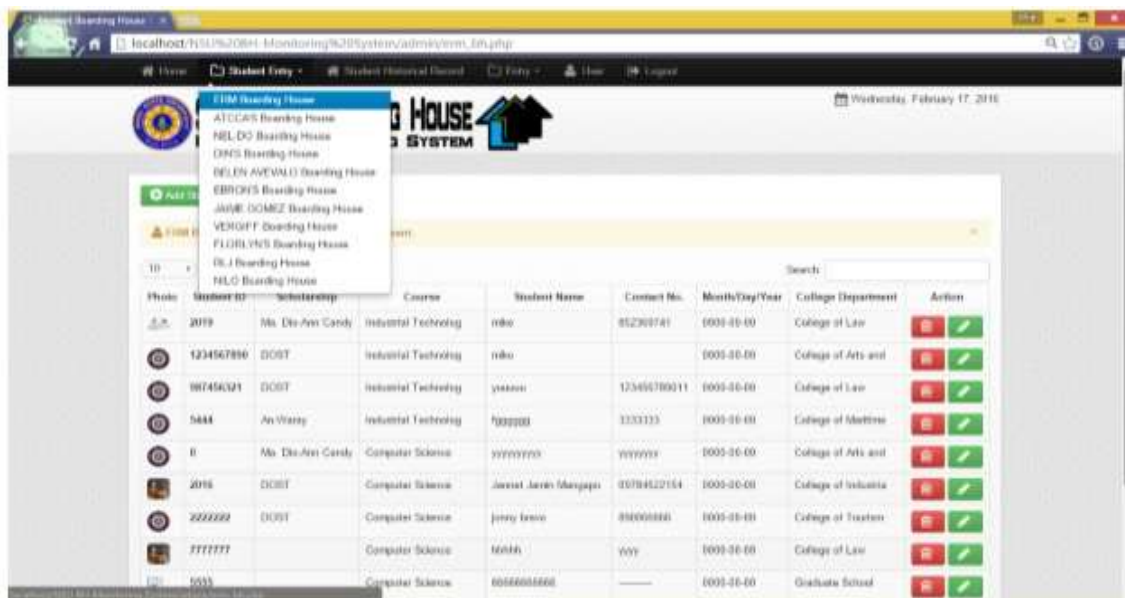**Adding students in every Boarding House**

Figure 12.0 Adding students in every Boarding House

Figure 12.0 shows the student entry which you can edit/delete students in a specified Boarding house (e.g. ERM Boarding House). The user can view the current student boarding or renting in a registered boarding house. He can see the image, student number, full name, contact number, date of renting, and colleges.
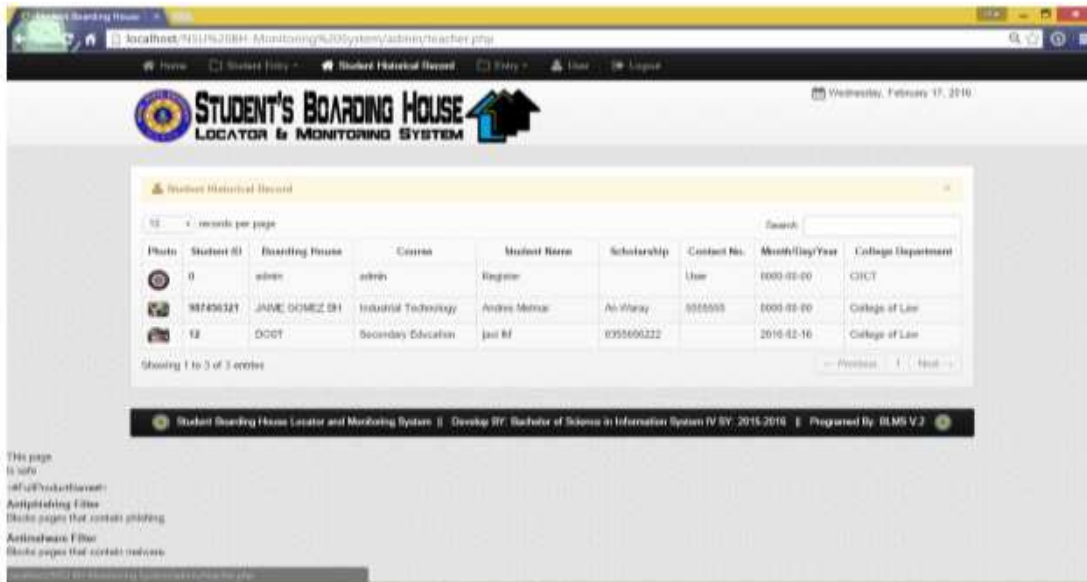
Student's History Record

Figure 12.1 Student's History Record

Figure 12.1 shows the profiles of all the students. The role of this page is to record the profile of all the student who is boarding/renting to all registered boarding houses input in the system from beginning to the present. The aim of this page to find the student when and where he/she is boarding by just typing the search box above.
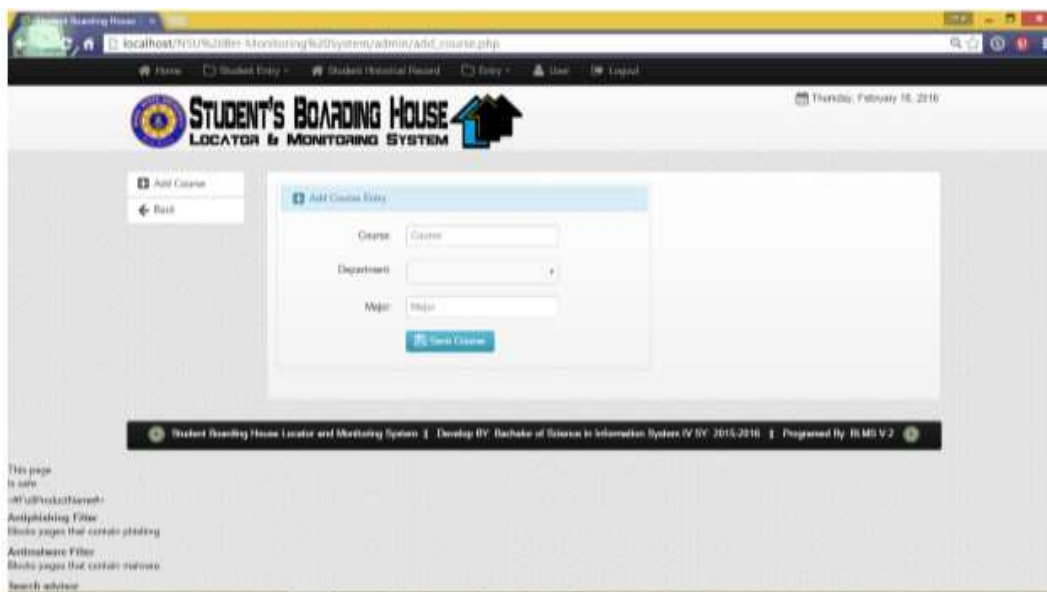
Add Course Entry

Figure 12.2 Add Course Entry

Figure 12.2 displaysadd course entry. To add a course the user must answer the three information aboutthe course, department and major. The role of this page is to add a course to the system and the course will automatically be added to the student record entry.
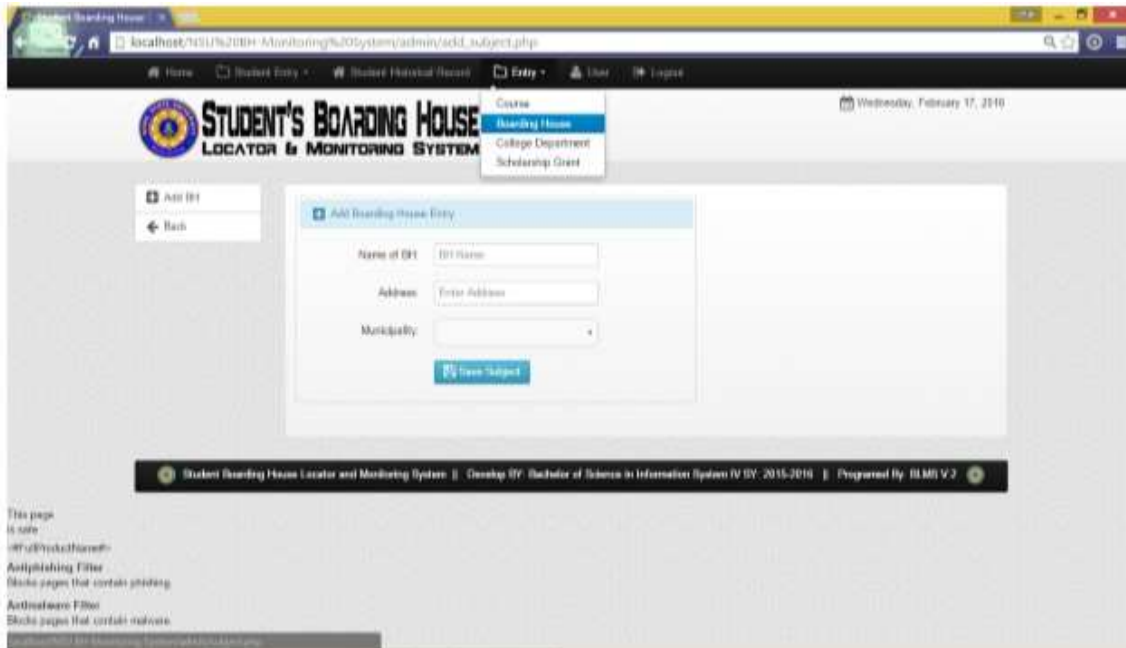
Add Boarding House Entry

Figure 12.3 Add Boarding House Entry

Figure 12.3 displaysadd a Boarding House entry. The user must fill every blank in order to add a boarding house and click save subject to save.And the back arrow sign will bring you to the list of boarding houses in the record system.
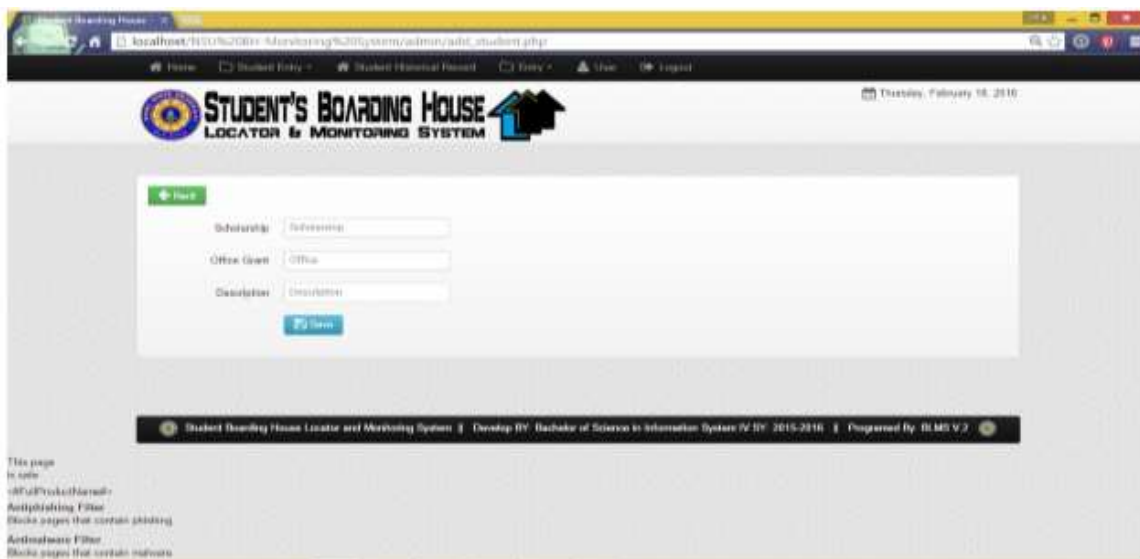
Add Scholarship Record Entry

Figure 12.4 Add Scholarship Record Entry

Figure 12.4 shows add a Scholarship,Office Grant and description to add a boarding house. The user must fill the blank in order to add the course and click save to save a new scholarship.And the record will add to the system scholarship list.

AddDepartment Record Entry

Figure 12.5 AddDepartment Record Entry

Figure 12.5 shows theAdd Department Entry. The user must fill every blank in order to add a department then click save department. And automatically it will add to the department list. The aim of this page is to input the department's name to the record list of Naval State University.
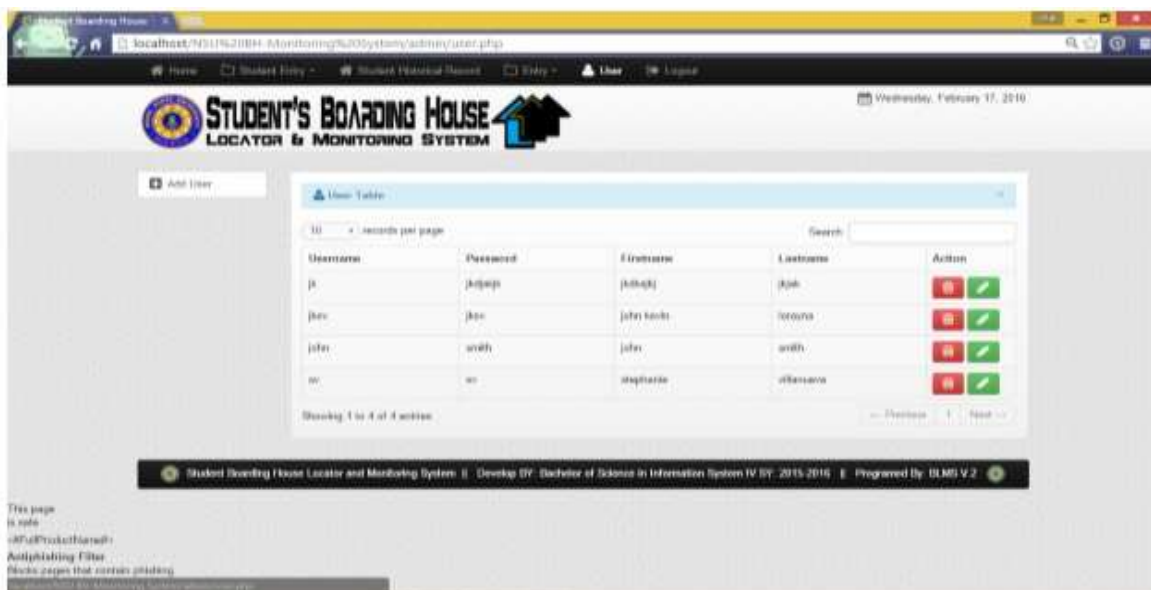
Personnel list

Figure 12.6 Personnel list

Figure 12.6 displays the personnel user list. The role of this page is to view the names of the personnel authorize to access the system. The administrator can add, edit and delete the personnel user. Changing and deleting of password can be done in this page.

CONCLUSIONS

It is concluded that the system can identify the profile of the students, through its photo, student I.D number, student name, course, boarding house, department, scholarship and contact number. The system can also identify the students rented in registered boarding house in Naval, Biliran. By the address of the boarding house, image of amenities, contact number and the name of the owner. It can help also parents and guardians in locating their students and guide the Naval State University. It can also promote registered boarding house around naval through this system.

RECOMMENDATIONS

Based on the conclusions, the recommendations below are forwarded numerous things to be consider: The Boarding House Locator and Student Monitoring System must be updated every semester to have a reliable source whether the student is still boarding in the particular boarding house or not. Documentation of the boarding houses must also updated. All boarding houses should be registered in the system to easily access and locate student. Verification of information needed in the system to function effectively must be given emphasis. Parallel studies should be conducted in order to enhance and upgrade the current system.

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