JARIYA ISLAM SUKSA SCHOOL MANAGEMENT SYSTEM

MAN VOKHORY

FATONI UNIVERSITY

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A PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY

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TITLE

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ABSTRACT

This project study about web-based management for Jariya Islam Suksa School is developed from manual system to be digital or online system. Web-based management for Jariya Islam Suksa School is consisted of two sub-system such as administrator and teacher in Jariya Islam Suksa School. This is the good way that will give comfortable to the users of the school.

In the system there are two users as administrator and teacher. Administrator can control all functions which are related within the system such as add, delete and update like delete teacher, student information, subject, timetable and so on. the function for teacher can view timetable, group, personal information and only update grade and so on. The developer developed by using the System Development Life Cycle method for developing school management because this method is suited to web-based management and the process is simple and uncomplicated, there are five of concept are Planning, Analysis, Design, Implementation, and Maintenance.

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บทคัดย่อ

สารนิพนธ์เล่มนี้เป็นการศึกษา วิเคราะห์และวิจัยถึงระบบการจัดการกับข้อมูลพื้นฐาน ซึ่งเกี่ยวกับเวปไซต์ของโรงเรียนจริยอิสลามศึกษาอนุสรณ์ ต.บ่อทอง อ.หนองจิก จ.ปัตตานี เวปไซต์นี้ผู้พัฒนาได้จัดทำขึ้นเพื่อการเปลี่ยนแปลงจัดการกับระบบในการจัดเก็บข้อมูลภายในโรงเรียนแห่งงนี้ เป้าหมายของการพัฒนาระบบในครั้งนี้เนื่องจากทาโรงเรียนมีการจัดเก็บข้อมูลในรูปแบบของเอกสารเท่านั้น ทำให้ยากต่อการค้นหาและกู้ข้อมูลกลับคืนเมื่อมีการสูญหาย ระบบออนไลน์โดยผ่านการใช้อินเตอร์เนต จึงเป็นแนวทางเพื่อพัฒนาระบบการจัดการข้อมูลขอโรงเรียน

ดังนั้นจึงได้มีการพัฒนาเวปไซต์ขึ้นมา โดยกลุ่มที่สามาถรใช้เวปไซต์นี้ได้ประกอบไปด้วยผู้ดูแลระบบ และครู ของโรงเรียนจริยอิสลามศึกษาอนุสรณ์ และผู้ที่สนใจทั่วไปสำหรับผู้ดูแลระบบจะสามารถเข้าสู่ระบบการจัดการข้อมูลโดยการลงชื่อเข้าและสามารถจัดการลบเพิ่มและแก้ไขในส่วนของครู ห้องเรียน วิชา ตารางสอน ตารางเรียนและข้อมูลข่าวสาร ส่วนครูสามารถเข้าสู่ระบบโดยการลงชื่อเข้าใช้และจัดการข้อมูลในส่วนของผลการเรียนและแสดงข้อมูลทั่วไปเกี่ยวข้องกับครู และสำหรับข้อมูลทั่วไปบนหน้าเว็บเพจบุคคลที่สนใจทุกคนสามารถเข้าไปเยี่ยมชมได้ และนักพัฒนาซอฟต์แวร์พัฒนาระบบโดยใช้ System Development Life Cycle ในการพัฒนาระบบจัดการข้อมูลเนื่องจากวิธีนี้เหมาะสมกับการใช้งานบนเว็บและกระบวนการนี้ง่ายและไม่ซับซ้อนคือการวางแผน การวิเคราะห์ การออกแบบ การนำไปใช้ และการบำรุงรักษา ระบบนี้ช่วยให้เจ้าหน้าที่

และผู้ดูแลระบบสามารถดำเนินการเพิ่มอัปเดตลบค้นหาและดูข้อมูลระบบจัดการข้อมูลจากระบบผ่านอินเตอร์เนตได้.

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CHAPTER I

INTRODUCTION

1.1 PROJECT OVERVIEW

Nowadays internet is a global system of interconnected computer networks that use the standard Internet protocol suite often called TCP/IP (Transmission Control Protocol/Internet Protocol), although not all protocols use TCP to serve billions of users worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless and optical networking technologies. Internet has been the most useful technology of the modern times which helps us not only in our daily lives, but also our personal and professional lives developments. The internet helps us achieve this in several different ways. For the students and educational purposes, the internet is widely used to gather information so as to do the research or add to the knowledge of various subjects. Even the business professionals and the professions like doctors, access the internet to filter the necessary information for their use. The internet is therefore the largest encyclopedia for everyone, in all age categories. The internet has served to be more useful in maintaining business, agriculture sector, government office, researching and development, management, organization, health sector, information, communication, entertainment, marketing, and individual. Moreover, each of the networks provides an abundance of resource and uses. (Karthik/2016), Web-based school management system is design to provide more suitable between Admin, teachers and students. It's very gracefully handles all requirements for school management easier. As the member of student increase, so the manual system is no longer efficient and difficult to update or search information. So, it's better than if the school takes the web base management system to used replace the manual system. Web-based school management system can be accessed anytime and anywhere in the world. It enables the school's director, teachers, students and the manager to contact with each other all time. (Deena, 2010)

According to Jariya Islam Suksa School at Moo 2 Huvainamyen Tambon Botong Nongjik District Pattani Province 94170 was established in 1992 by Mr. Muhammadjafa and Mrs. Fatimah Waesame-ae find out the network to construct the school for the poor children in rural areas as a free education. To offer the equal chance with the children in town community. By using the integrate curriculum of Islamic studies from Bangkok which developed for more than twenty years, and extend to Pattani province. Present, this school compose of two building of one floor, under constructing one building of second floors. Lack of comfort room and bathroom. Teaching free for all. Parents who have enough money donate for food and milk/snack 300 Bath/month. Orphanage and poor children are excepted. The income of the school is from the selling of the books which the school produce for using in school and sell in network school both in Bangkok and in provincial. (Waesama, 1992)

1.2 PROBLEM STATEMENT

Nowadays, Jariya Islam Suksa School use manual system to manage information. This school doesn't have centralized database to keep information. So, sometime the information might be lost or complicated to recovery of admin, teachers, data or information it will take long time to perform every process because data store by different part and no longer efficiency. Admin, teachers at Jariya Islam Suksa School face the problem that they cannot check any information of school.

According to this web base we will replace from the manual system to be Web-Based School Management System that use technology of database to keep a large date of the admin, teachers, students and information of the school and much more and also students can check or see the grad as well as they can improve their skill in the term of using technology internet.

1.3 RESEARCH OBJECTIVE

The objective of the project will help to achieve as the result as following:

1. To develop a Web-Based School Management System for Jariya Islam Suksa School.
2. To create centralizes database that can keep data in one place and produce high efficiency system for searching, processing information by using a computer.

1.4 SCOPE AND LIMITATION

The scope and limitation of the project are as the followings:

- Project will be created Web-Based School Management System for Jariya Islam Suksa School and will develop in Thai language.
- In addition, system will be helped to arrange all information about school that is involved to admin, teachers and other data.

1.5 SIGNIFICANT OF STUDY

It is our hope that the work will achieve the followings:

- This project will help to manage all information and aid to promote of the school by online after completing the system.
- After completing this system, the user's workload will be reduced and increase the efficiency in their tasks and user can access anytime and anyplace.
- Comfortable for users to see or check any information.

1.6 ORGANIZATION REPORT

Chapter 1: Introduction

This chapter is describing introduction about Web-Based School Management System for Jariya Islam Suksa School to be digital system. And the problem statement that we try to improve it.

Chapter 2: Literature Review

This chapter is describing about the various theories and book that relate to this and we used it as a guide line to develop Jariya Islam Suksa School Management System as Web-Based.

Chapter 3: Methodology

This chapter is describing about the methods in which the study uses to develop Web-Based School Management System**.**

CHAPTER II

LITERATURE REVIEW

The school management system of Jariya Islam Suksa School at Botong Sub-district, Nongjik District, Pattani Province is the scope of this study the documents and works related to the research as follows.

2.1 SCHOOL MANAGEMENT

School management is a necessary section in any instructional system. School administrators all over the world are constantly working in many activities effectiveness manage school works and give a better educational activities to students while education is provision of a number of learning activities to students in order to provide knowledge, morality, values, attitudes, and skills with the ultimate goal of making them useful part of society, this method includes the method of planning, organizing, directing and controlling the activities of an educational institution or any school. (Sebestine, 2013)

2.2 SCHOOL MANAGEMENT SYSTEM

School Management System is a big database system that can use for controlling the school's day to day business. School Management System permits users to keep all their school's information electronically, involving information on students, employees, properties, teaching materials, etc. Most significantly, this information can be easily shared with permitted users, records can be easily searched, and reports can be easily generated. (Praveen, 2011)

School Management Information Systems are digital technology that has been utilized in schools to assist many administrative works such as checking attendance, evaluation records, statements, budget management, and resource and staff allocation. As stated by information systems in schools can give administrators with the information required for informed planning, policy-making, and assessment (Visscher, 1996). Moreover, management information systems have transferred school management in the sectors of leadership, decision-making, workload, human resource management, communication, responsibility, and planning (Gurr,200). Also, these systems can help the school manager in deciding the aims of the school, expressing strategic plans, administering resources, and assessing staff review as well as organizational achievement. (Telem and Buvitski, 1999)

In the beginning 2000s, principals started the use of information systems improving to manage daily duties. Usually, to improve managerial effectiveness by preparing information, and getting preponderance in competitions by directing strategies to support ongoing student evaluation, particularly by facilitating formative and summative evaluations to manage changes in the instruction method, the learning environment, and deciding the needs of students. In many positions, school management information system is used to simplify or automate routine classroom managerial tasks such as reporting attendance and keep communication with parents. Strategically, school management information system assists managers to decide the purposes of schools, make long-time plans, share resources, form instructional methods of the future, and evaluate shows of teachers and the success of the school. Schools use SMISs to make arrangements such as student placing in courses and programs at the middle and high school levels.

School management information systems are too beneficial to digitize data, easier communication between teachers, administrators, parents, and other stakeholders, and grant easy entree to data about student achievement, whereby progressing administrative efficiency and decreasing educator's workload. In other words, school management information systems increase effectiveness and efficiency by saving time and facilitating development of alternative solutions for complicated problems. (Vissher and Wild, 1997; Pegler, 1992)

2.3 RELATED WORK

2.3.1 Learning management system

Learning Management Systems (LMS) play an important role in the Web-based e-learning situation. It relates learning contents and learners with each other in a standardized way. It controls users, learning equipment in the form of aims in Content Management System and learning events. It manages and managers learning to improve and maintain track of learning achievement. It manages and managers administrative duties. LMS is a software system that is easy for managerial duties as well as student participation in e-learning materials. (Recesso, 2001)

2.3.2 learning management system and higher education

Higher education is operating to combine next-generation instruction technology into its learning activities and to get effectively in higher education because of technology is critical and universality; in special, technologies such as Learning Management System are no longer mere assistants to teaching and learning, but have become important tools for the educational method. Furthermore, LMSs have appeared from a basic function to a critical one in higher education. Present college students are technologically savvy and demand their faculty to use technology and Learning Management Systems. (Ganjalizadeh and Molina, 2006)

2.3.3 Why learning management system

LMS increases the classroom and its activities online, whereby connecting students to each other and their teachers; enabling web-based sharing of research materials, library resources, and even textbooks; and combining learning activities with administrative systems. Through LMS technology faculty members can now expand their teaching with powerful online tools, and students can use these tools to increase their contact with teachers, fellow students, and information (Klonoski, 2008). Higher education institutions, especially those with funds restrictions are very attracted to open source LMS because of their cost savings and more control (Ganjalizadeh and Molina, 2006). Next-generation LMSs provide student information system combination, learning object containers, branding, content sharing, and an enhanced user interface (Klonoski, 2008). Higher education institutions and their faculty members must continue to examine and explore new pedagogical methods and the technologies to assist them. Open-source software movements are in tune with the collaborative nature and intelligent freedom quality of academic institutions worldwide. After all, learning management systems, especially open-source ones, have a necessary role in closing the digital divide through education. At the same time, however, educations must defend themselves with suitable technical, right, and organizational plans in opposition to possible patent lawsuit (Ganjalizadeh and Molina, 2006). Learning management systems is a software application for the management, documentation, tracking, and reporting of training programs, classroom and online events, e-learning programs, and training content (Ellis, 2009). States that: “Learning Management Systems (LMSs) play a central role in the Web-based e-learning plan. It joins learning contents and learners together in a standardized way. It controls users, learning materials in the form of objects in Content Management System (CMS) and learning events. It controls and administers learning progress and maintain track of learning achievement. It manages and administers administrative tasks. LMS is a software system created to make easier administrative tasks as well as student participation in e-learning materials (Recesso,2001).

Learning management system is software created and produced to track and administer computer-based practice and education. Education is key to productivity and that means way to the right content and the right program for the content. Crucial to a learning management system are the objects of developing knowledge, developing new skills and knowledge, and increasing productivity on the job. Ellis (2009) states, while there are various meanings of a learning management system, the basic description is a software application that automates the management, tracking, and recording of training events. Nevertheless, it is not that simple. A strong LMS should be able to follow:

- centralize and automate management
- use self-service and self-guided services
- gather and deliver learning content quickly
- unite training initiatives on a scalable web-based program
- help portability and standards
- personalize content and permit knowledge reuse (Ellis, 2009)

Learning Management System contains features for management, evaluation, course administration, probably content management, and authoring. All Learning Management Systems manage the log-in of registered users, manage course catalogs, timetable, news, photos, class, teachers, students, record data from learners, provide reports to management and other information. A learning management system is described as software that has been used in a learning content presentation that has an important role and complexity in the e-learning situation. A forward e-learning system has to carry out with the following conditions (Kis, 2007 ; Kritikou, 2008). In many institutions, LMSs are doing used to help and improve learning. As stated by Lookout on Borderless Higher Education, some higher education institutions continue to develop in-house systems or buy into open source alternatives, but an ever-larger majority is buying licenses for proprietary programs.

In another learn that supports the results of Observatory on Borderless Higher Education saw that many institutions find it quite easy to start with a business LMS, but they face many obstacles such as; linguistic, evaluation tools, rightness to destination groups and pricing. Nevertheless, open-source LMS may have an influence on the future of the LMS market with its cost-effectiveness and advanced features. In this study, we focus on Learning Management Systems that are more and more often used to build online learning. LMS is a software system created to facilitate managerial tasks as well as student participation in e-learning subjects. This term explains a wide range of systems that create and grants into online education services for students, teachers, and administrators. These services normally include access control, provision of learning content, communication tools, and administration of user groups. (Renaux, 2005)

2.3.4 Effective of learning content management system

Organizations that have a big quantity of learning content that they want to use in numerous subjects and different formats may need a Learning Content Management System. Hall (2001) explains that learning content management system is an environment where developers can create, store, reuse, manage and deliver learning content from a central object repository, normally a database. LCMS usually work with content that is based on a learning object model. These systems normally have good search abilities, enabling developers to find immediately the text or media needed to build training content. Learning Content Management Systems frequently try to achieve a division of content which is often designated in XML from the exhibition. This enables many LCMS to announce to a wide range of arrangements, programs, or devices such as print, Web, and even Wireless Information Devices (WID) such as Palm and Windows CE handhelds, all from the same source material (Hall, 2001). Learning content management systems provide online content to be stored, managed, and reused through combined database functionality. The LCMS is a complicated piece of software

that marks learning objects then prepares and gives them in endless combinations (Jones, 2001). A different definition of learning content management system is a software application that enables trainers and training managers to manage both the administrative and content-related functions of training. An LCMS combines the subject management abilities of an LMS (learning management system) with the content production and storage abilities of the Content Management System. (Leiserson, 2003)

2.3.5 Feature of learning management system and learning content management system

Learning Content Management System indicates content management, authoring and includes many specialties of an LMS. LCMS is a system used to arrange and easier collaborative content making. Newly, the term has been connected almost completely with programs for controlling the content of web sites (Renaux, 2005) LCMS and LMS can be integral and each solves a uniquely different challenge. LMS focus on creating learning possible and tracking learners. LCMS focus on stored online content to be managed and reused through combined database functionality. While there is some overlap in the functionality between an LMS and an LCMS, the two enterprise applications have a different focus: LMS makes the process of scheduling classes, creating catalogs and registering learners more effective. LCMS on the other hand, focus only on transfer. In the broadest terms, the LMS helps get you to the classroom door and the LCMS manages the experience inside the classroom (Jones, 2001). LMS and LCMS could each be a suitable solution depending on the needs of virtual school or universities. By surely understanding the differences, the core functionalities of each and the benefits of combining or keeping applications separate, training and education professionals can help guide decision-makers toward the best solution.

2.3.6 Education management system in small primary school

The study of conceptual framework of Development of Educational Management System in Small Primary School, The researcher found that the factors of Development of Educational Management System in Small Primary School composed of four aspects, each aspect had sub-factor as follows: Input consisted of eight sub-factors: administrator, teachers, parents and community, curriculum, budgeting, media and technology, learning sources and students; Process consisted of four sub-factors: academic administration, budgeting administration, personnel administration and general administration that each sub-factor had been driven by PDCA process; Output comprised one sub-factor: the quality of school educational management; Feedback consisted of one sub-factor; proceeding report as the follows:

1. Input aspect including with eight sub-factors as follows: Administrators, Teachers, Parents and Communities, Budgeting, Curriculum, Media and Technology, Learning Sources, Learners.
2. Process aspect including with four sub-factors as follows: Academic Administration, Budgeting Administration, General Administration and General Administration;
3. Output aspect including with one sub-factors: The Quality of School Educational Management;
4. Feedback aspect including with one sub-aspect: Proceeding Report as shown in Conceptual Framework.

Thus, the researcher realizes that it is the most essential to develop small primary school in order to be sustainability with community by developing teachers in learning management about learner center learning, to develop curriculum to suit learning and teaching, develop media and technology to support learning, to develop learning sources inside and outside schools, to administer budget effectively, to supervise and follow up quality of students continuously and to coordinate parents and communities to be a part of develop educational management. This is a choice way to develop educational management in small primary school. (Doug Thomas, 2005)

2.3.7 LPU-B High School

The goals of this project included: designing and developing LPU-B High School Website. Both applications were built as web applications. It comprises of three aspects: a database component, the use of a programming/scripting language, the design and implementation of the graphical user interface (GUI). These components tie together to form the complete web applications. The two applications involved were designed and developed sequentially. The user interface was written primarily in Hypertext Mark-up Language (HTML) and Cascading Style Sheet (CSS) and is accessible via any web browser. The processing application handles request/tasks performed by the user on the server side using PHP content management system technology such as WordPress. The server then returns the appropriate information from the database. The data storage is in the form of relational databases using MySQL that stores data needed by the application in its tables. All components of the application, which include the user interface, processing scripts and database reside on the server. (Abner, 2015)

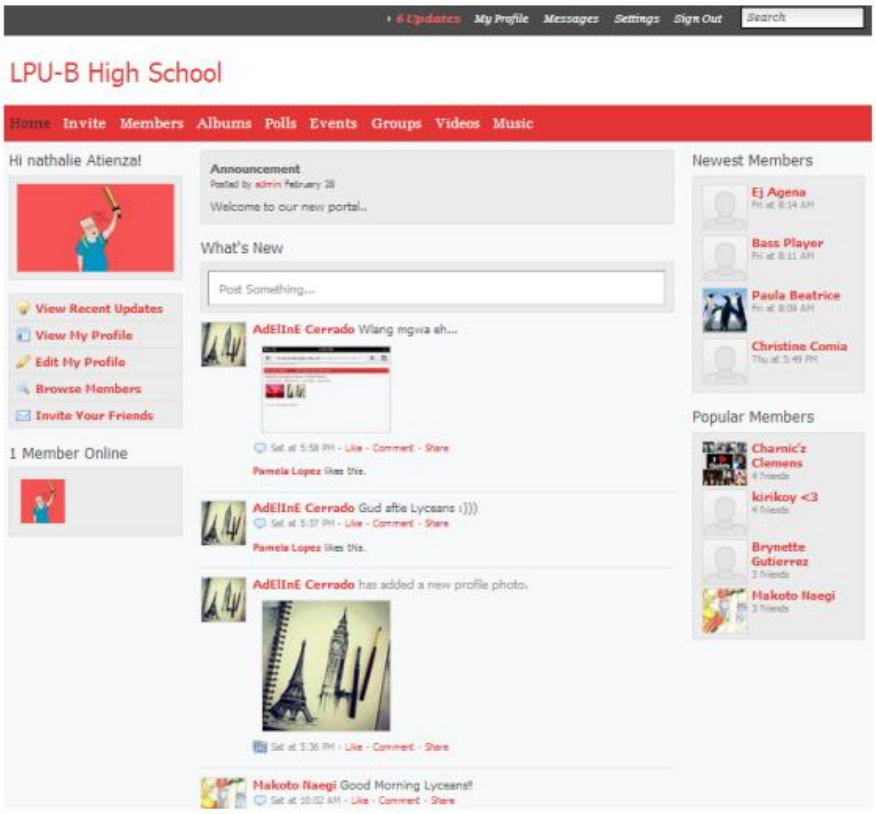

Figure 2.1. Design of 'Student Portal' Page

2.3.8 Web-base project-based learning support system

The use of the Web (World Wide Web) has had many positive effects on education. It overcomes time and space limitations in traditional schools. Web-Based Project Learning is a model for classroom activities that shift away from the traditional classroom practices of short, isolated, teacher-centered lessons, and instead, emphasizes learning activities that are long-term, interdisciplinary, student centered, and integrated with real-world issues and practices and it provides many unique opportunities for teachers to build relationship with students. Teachers may fill the varied roles of coach, facilitator, and co-learner. In the school and beyond, Web-Based Project Learning also provides opportunities for teachers to build relationships with each other and with those in the larger community. Student' work, which includes documentation of the learning process as well as the students' final projects, can be shared with other teachers, parents, mentors, and the business community who all have a stake in the students' education.

In teaching, the Web fits very well with the Project-Based Learning Model. The Web can be an organizer, a research tool, a ready source of data, a means for people to communicate with each other, and a repository for artifacts. Because the Web is a part of the real world, and artifacts on the Web can readily be placed in the world beyond school, projects have a scope for authenticity not usually found in the school environment. The Web Project Learning can motivate both students and teachers as it provides an appealing way for students to gain Internet skills while being engaged in regular classroom activities.

Lastly, the system is to make teachers and students carry out projects wherever and whenever they may work. It helps teachers and students begin developing an overall plan for managing their project. For Project-Based Learning to be ensured as student centered learning, the system must give students experience in planning for the project and in working in team or class, and have students create their assignments as form of HTML documents or reports. (Giovanni, 1999)

2.3.9 Web-based learning

Web based learning is often called online learning or e-learning because it includes online course content. Discussion forums via email, videoconferencing, and live lectures (video streaming) are all possible through the web. Web based courses may also provide static pages such as printed course materials. One of the values of using the web to access course materials is that web pages may contain hyperlinks to other parts of the web, thus enabling access to a vast amount of web-based information. One of the values of using the web to access course materials is that web pages may contain hyperlinks to other parts of the web, thus enabling access to a vast amount of web-based information. A “virtual” learning environment (VLE) or managed learning environment (MLE) is an all in one teaching and learning software package. A VLE typically combines functions such as discussion boards, chat rooms, online assessment, tracking of students' use of the web, and course administration. VLEs act as any other learning environment in that they distribute information to learners. VLEs can, for example, enable learners to collaborate on projects and share information. However, the focus of web-based courses must always be on the learner—technology is not the issue, nor necessarily the answer. (Javed, 2014)

2.4 TOOL USED

2.4.1 html 5

HTML5 was developed to solve compatibility problems that affect the current standard, HTML4. One of the biggest differences between HTML5 and previous versions of the standard is that older versions of HTML require proprietary plugins and APIs. (This is why a Web page that was built and tested in one browser may not load correctly in another browser.) HTML5 provides one common interface to make loading elements easier. For example, there is no need to install a Flash plugin in HTML5 because the element will run by itself (Margaret, 2014).

2.4.2 CSS

CSS stands for Cascading Style Sheets with an emphasis placed on "Style." While HTML is used to structure a web document (defining things like headlines and paragraphs, and allowing you to embed images, video, and other media), CSS comes through and specifies your document's style—page layouts, colors, and fonts are all determined with CSS. Think of HTML as the foundation (every house has one), and CSS as the aesthetic choices there's a big difference between a Victorian mansion and a mid-century modern home (Morris, 2018).

2.4.3 XAMPP

XAMPP is Apache web server to simulate the web server to test script or website in our machine without internet connection.

2.4.4 Adobe Photoshop CS 6

Adobe Photoshop CS 6 is a program to create and edit image professionally. Photoshop is program that has many tools to support the creation of publication, video, presentation, multimedia as well as the design and development of the website used to edit, decorate the photos to bring the images to use in creating system.

2.4.5 PHP (Hypertext Preprocessor)

Many languages can be use in developing a web site such as ASP, JSP, and PERL. PHP is one of popular language. PHP become more popular because it has an advantage more than other languages. PHP can access many database systems, either commercial or non-commercial. The database that people always use will using PHP language are Informix, Microsoft SQL Server, MySQL, MySQL, ODBC, Oracle and Sybase. PHP is easy to use compare to PERL and ASP. This is because in PHP, the code is easy to maintain and update. PHP scripts work on any of the existing Internet servers, including Apache, Microsoft and Netscape service solutions. PUP is free and readily available. PHP is very efficient. It is faster to code and faster to execute. Using a single inexpensive server, millions of hits per day can be served. Because PHP was designed for use on the Web, it has many built-in functions for performing many useful Web-related tasks. These include generation of GHF images on-the-fly, connecting to other network services, sending email, working with cookies, generating PDF documents.

2.4.6 MYSQL

MySQL is a multithreaded, multi-user, SQL (Structured Query Language) Database Management System (DBMS). MySQL is easy to learn rather than another database. MySQL is available as free software. A privilege and password systems that is very flexible and secure, because all password traffic is encrypted when connect to server and it allows host-based verification. MySQL is an extremely fast and efficient relational database management system to handle large databases. MySQL is available at no cost, under an Open Source license, or at a low cost under a commercial license if required. Anyone can download MySQL at interface without paying anything. MySQL data load and search are very important business requirements in any Windows or Internet web application development. In general, any application needs to show a result set of data and/or a single record to the end-users.

CHAPTER III

METHODOLOGY

In this chapter explains about all process of analyzed and design in this system. According to the methodology for this project, the developer used Software Development Life Cycle (SDLC) because it breaks down the entire life cycle of software development thus make is easier to evaluate each part of software development and also makes it easier for programmers to work concurrently on each phase.

This model is a kind of software development life cycle (SDLC) that is framework defines tasks performed at each step in the software development process. As show in figure 2.1 below (Sainab, 2018)

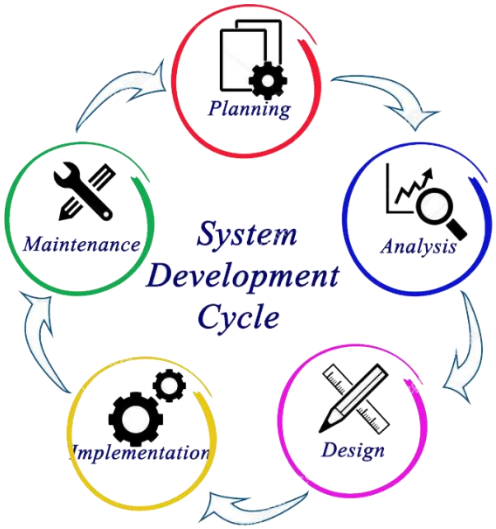

Figure 3.1: SDLC Phase

(From: VAEEMA, February 26, 2017)

3.1 PLANNING

The first step in the planning process is to determine the idea that I am going to develop, the idea is web-based school management system. This idea is gained when I was working in Jariyah Islam Suksa School. I studied and search for preview studied, do interview with end user to find out the problem and solution in develop web-based school management system. In the of planning step, I create a project schedule or Grantt chart to set the task that should be done at a specific time.

3.2 ANALYSIS

The proposed web-based school management system was designed purely from the users' viewpoint without considering the restraint of hardware (such as computers hardware and software). In addition, system frameworks required to attain such designs was clarified. After checking requirement specifications included in the basic plan, the overview of the project structure was represented through the system architecture, system structure chart, use case diagram, use case specification, sequence diagram, and activity diagram (Figures: 3.1-3.72) so that the alternation and flows of data can be easily assumed.

3.2.1 SYSTEM ARCHITECTURE OVERVIEW

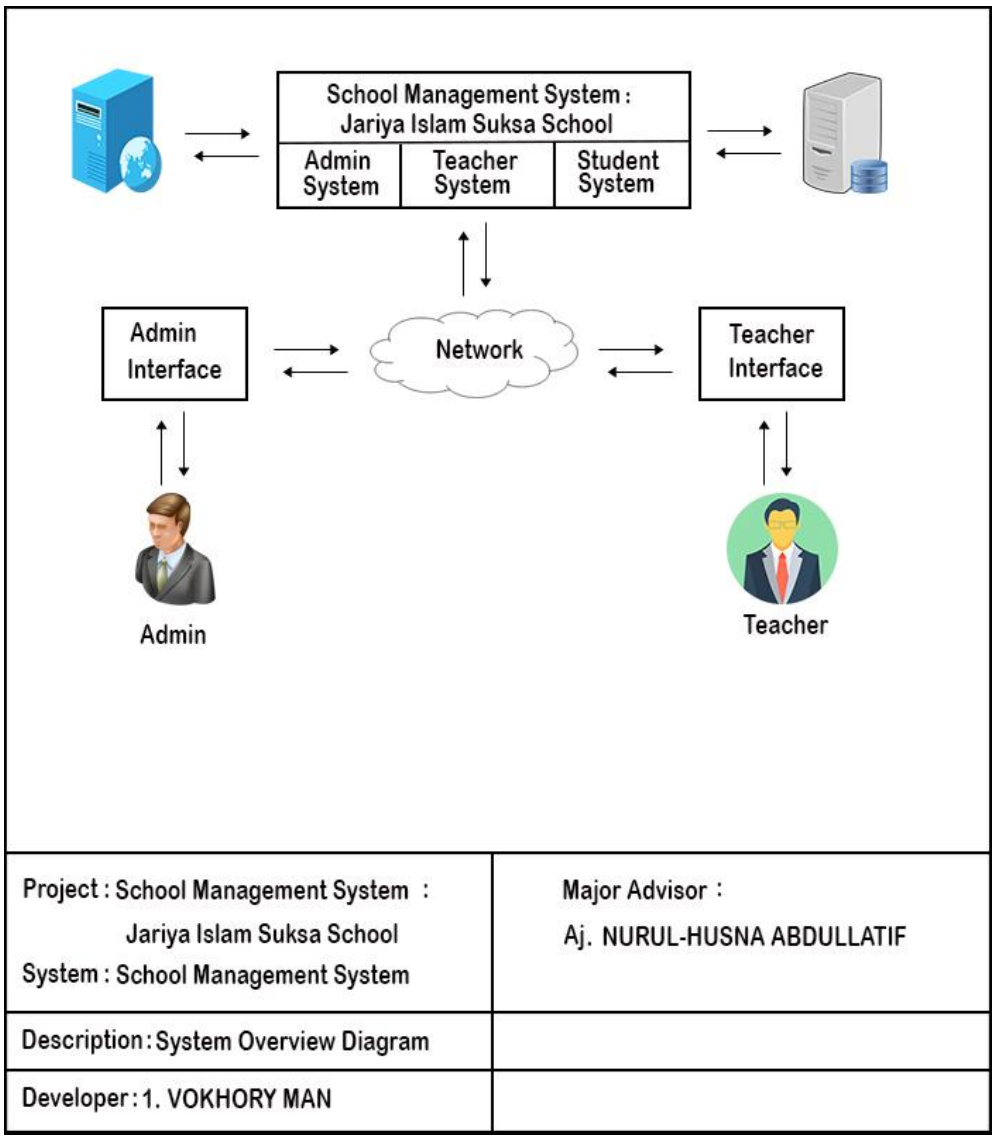

Figure 3.2: *System Architecture Overview of JIS management system*

3.2.2 SYSTEM STRUCTURE CHART

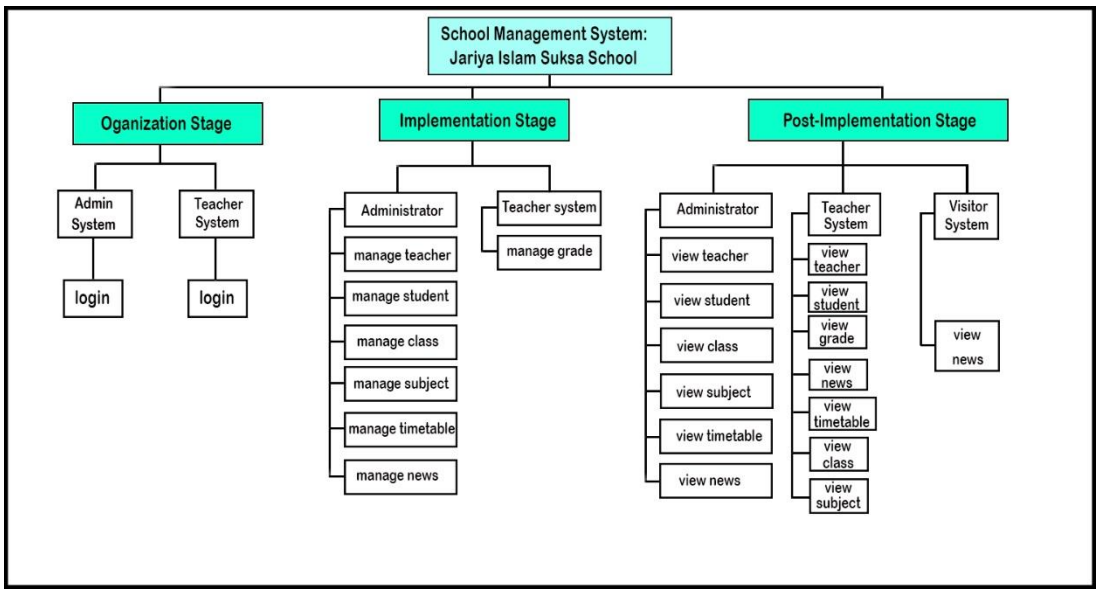

Figure 3.3: System Structure Chart of JIS management system

The figure about show that school management system is divided into three stages which are organization stage, operation stage, and post-operation stage

1. **Preparation Stage:** this stage contains the action of two system; administrator system and teacher system.

A. Administrator System

a) Login: This process provide authentication to administrator so that will be secure and reliable.

B. Teacher System

a) Login: This process provide authentication to teacher so that will be secure and reliable.

2. Operation Stage: this stage contains the action of two system; administrator system, teacher system.

A. Administrator System

a) This process allows the administrator to manage teacher, student, class, subject, timetable, news such as add, update and delete.

B. Teacher System

a) This process allows teacher to manage grade such as update.

3. Post-Operation Stage: this stage contains the action of three system; administrator system, teacher system and visitor system.

A. Administrator System

a). This process allows administrator to view; teacher, student, class, subject, timetable, news.

B. Teacher System

a). This process allows teacher to view; teacher, student, grade, class, subject, timetable, news.

C. Visitor System

– This process allows visitor to view; news.

3.2.3 PROCESS ANALYSIS AND DESIGN

LIST OF REQUIREMENTS

- M-Mandatory requirement (something the system must do)
- D-desirable requirement (something the system preferably should do)
- O-optional requirement (something the system may do)

NO	Requirement ID	Requirement Description	Priority
	REQ-01	**Log in**	
1.	REQ-01-01	Admin log in	M
2.	REQ-01-02	Teacher log in	M
	REQ-02	**Manage the students**	
3.	REQ-02-01	Admin can add new student.	M
4.	REQ-02-02	Admin can update the student's information.	O
5.	REQ-02-03	Admin can delete the students from the system.	O
	REQ-03	**Manage the Teacher**	
6.	REQ-03-01	Admin can add new teacher.	M
7.	REQ-03-02	Admin can update the teacher's information.	O
8.	REQ-03-03	Admin can delete the teacher's information.	O
	REQ-04	**Manage class**	
9.	REQ-04-01	Admin can add the class	M
10.	REQ-04-02	Admin can update the class	D
11.	REQ-04-03	Admin can delete the class	O

	REQ-05	**Manage subject**	
12.	REQ-05-01	Admin can add the subject	M
13.	REQ-05-02	Admin can update the subject	D
14.	REQ-05-03	Admin can delete the subject	O
	REQ-06	**Manage time table**	
15.	REQ-06-01	Admin can add the time table	M
16.	REQ-06-02	Admin can update the time table	D
17.	REQ-06-03	Admin can delete the time table	O
	REQ-07	**Manage news**	
18.	REQ-07-01	Admin can add the news	M
19.	REQ-07-02	Admin can update the news	D
20	REQ-07-03	Admin can delete the news	O
	REQ-08	**Manage grade**	
21.	REQ-08-02	Teacher can update the grade	D
	REQ-09	**View student**	
22.	REQ-09-01	Admin can view the student	D
23.	REQ-09-02	Teacher can view the student	D
	REQ-10	**View teachers**	
24.	REQ-10-01	Admin can view teacher	D
25.	REQ-10-02	Teacher can view teacher	O
	REQ-11	**View time table**	
26.	REQ-11-01	Admin can view the time table	D
27.	REQ-11-02	Teachers can view the time table	D

	REQ-12	**View class**	
28.	REQ-12-01	Admin can view the class	D
29.	REQ-12-02	Teachers can view the class	D
	REQ-13	**View subject**	
30.	REQ-13-01	Admin can view the subject	D
31.	REQ-13-02	Teachers can view the subject	D
	REQ-14	**View grade**	
32.	REQ-14-01	Teachers can view grade	D
	REQ-15	**View News**	
33.	REQ-15-01	Admin can view news	O
34.	REQ-15-02	Teachers can view news	O
35.	REQ-15-03	Students can view news	O
36.	REQ-116-04	Visitors can view news	O

Table 3.1: List of Requirement of JIS management system

3.2.4 USE CASE DIAGRAM

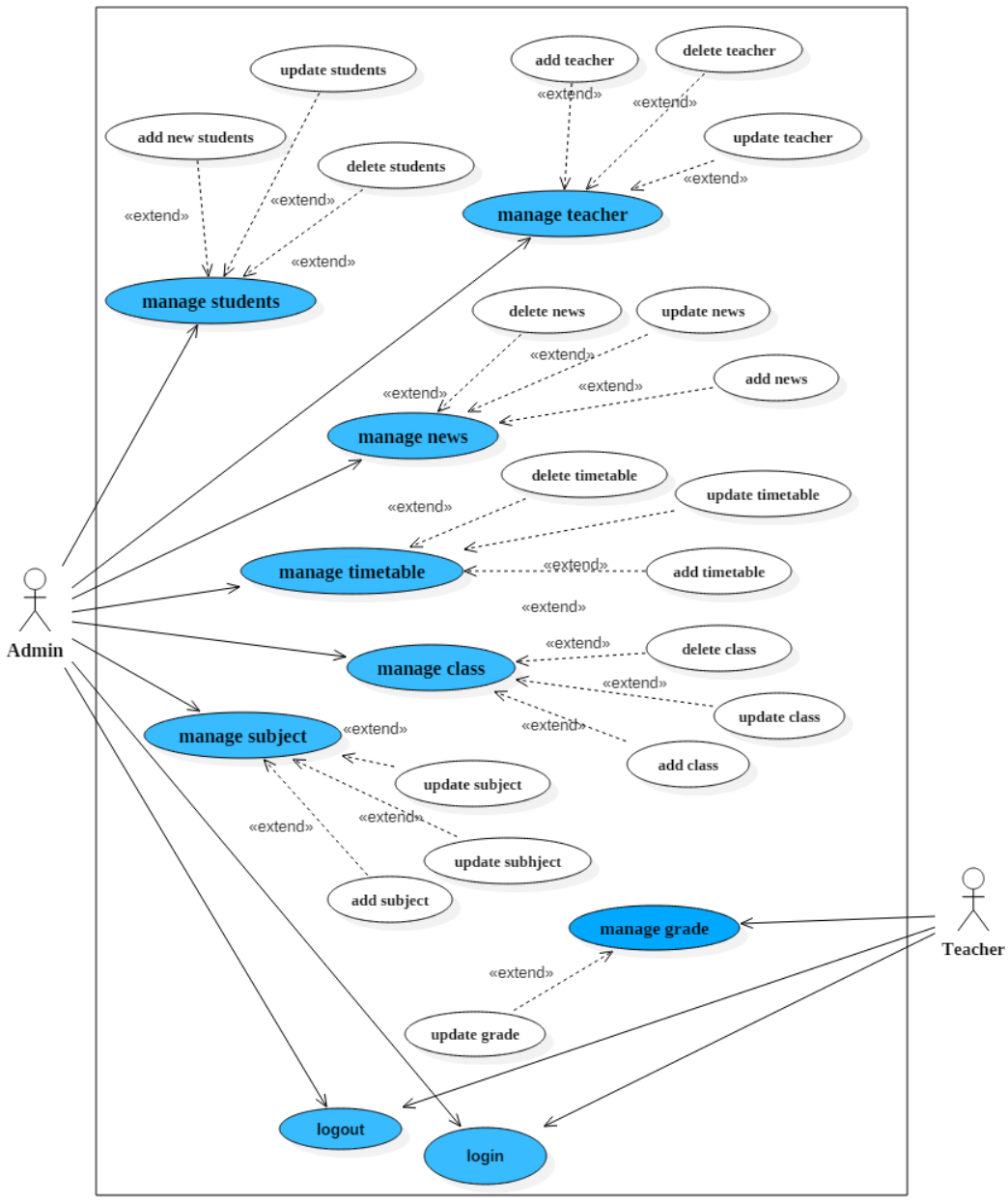

Figure 3.4: Use Case Diagram of JIS Management System

❖ **Use Case Diagram of users view page**

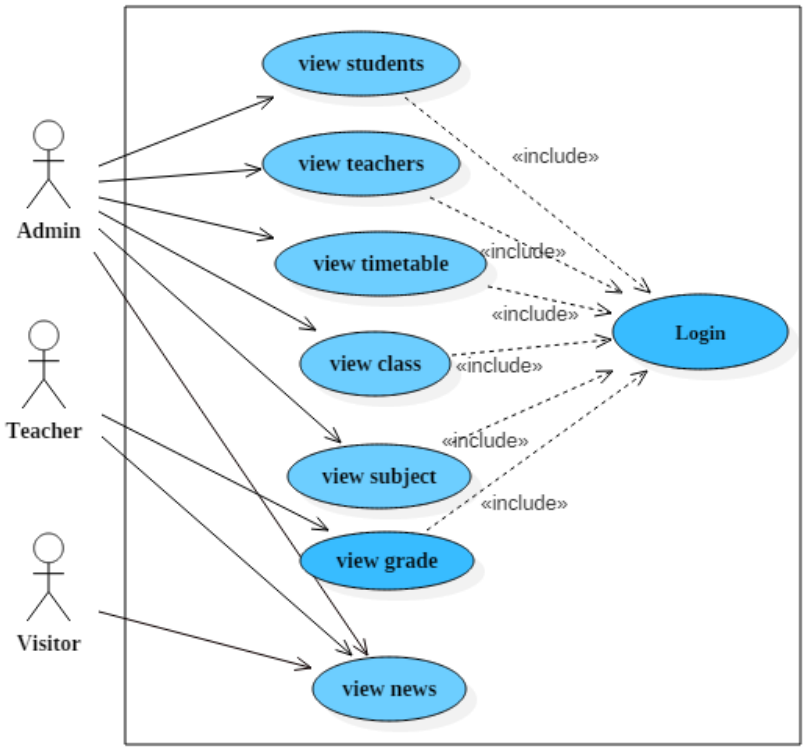

Figure 3.5: Use Case Diagram of user view for JIS Management System

3.2.5 USE CASE SPECIFICATION

I. USE Case: Login (ER_01)

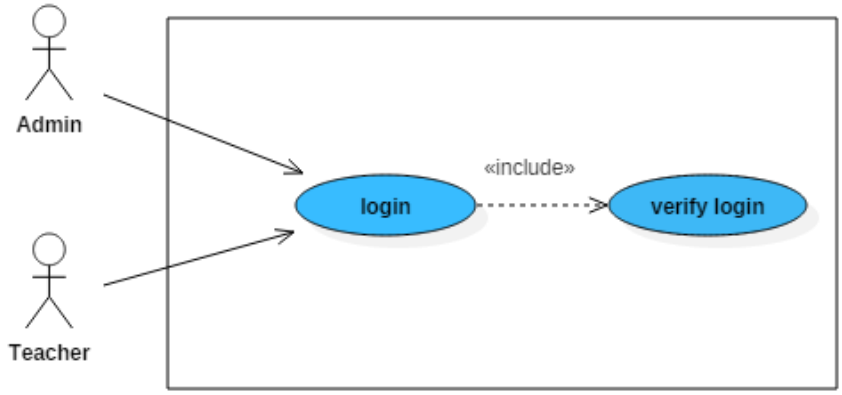

Figure: 3.6: Use Case Diagram of the users' login page

1) Brief Description

This use case will be used to allow user (Admin, Teachers) to enter system

2) Precondition

The users must have user id and password to log in.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_01_01)

- This use case process when user type key board in user id and password on main page.
- User enter user id and password on the user login page.
- Users press login button.
- The system will run to check the user id and password.

- This use case end when the system displays the control panel page.

4.2 Alternative Flow:

A-1: Cancel

The system will cross out the login process.

4.3 Exception Flow:

E-1: Invalid user id and password

This system will disclose error message to the users.

5) Post Condition

The users can enter to system.

6) Limitation

The password must hold at least 6 characters.

II. Use Case: Manage Student (ER_02)

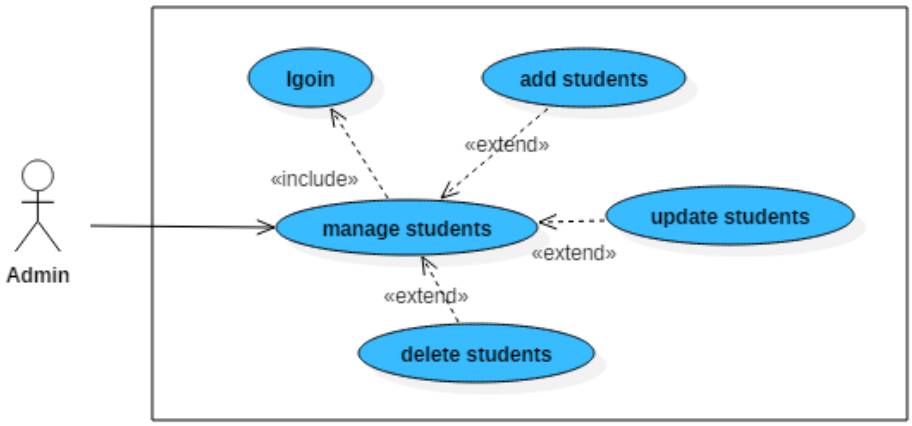

Figure: 3.7: Use Case Diagram of the admin manage students page

1) Brief Description

This use case will permit admin to arrange students consist of add, update, delete student's information students of the system.

2) Precondition

The Admin need to login to the system.

3) Characteristic of Activation

Implementation depends on Admin demand.

4) Flow of Control

4.1 Basic Flow (ER_02_01)

- The Admin selects managing the information of student link on the control panel page.
- The Admin press on button to add new student. [A-1: Update student], [A-2: Delete student]
- The system show adds student form to permit Admin to add student detail.
- The Admin inserts the student's information.
- The Admin presses OK button.
- The system will run to check the entering data. [E-1: Invalid entering data]
- This use case end when the system shows successful message that new students has done add.

4.2 Alternative Flow:

A-1: Update students (ER_02_02)

This system will update students process.

A-2: delete students (ER_02_03)

This system will delete students process.

A-3: Cancel

This system will cancel add students process.

4.3 Exception Flow:

E-1: Invalid entering data the system will perform error message and Admin have to re-enter data.

5) Post Condition

The Admin can manage students (add new students).

6) Limitation

No limitation

III. Use Case: Manage Teacher (ER_03)

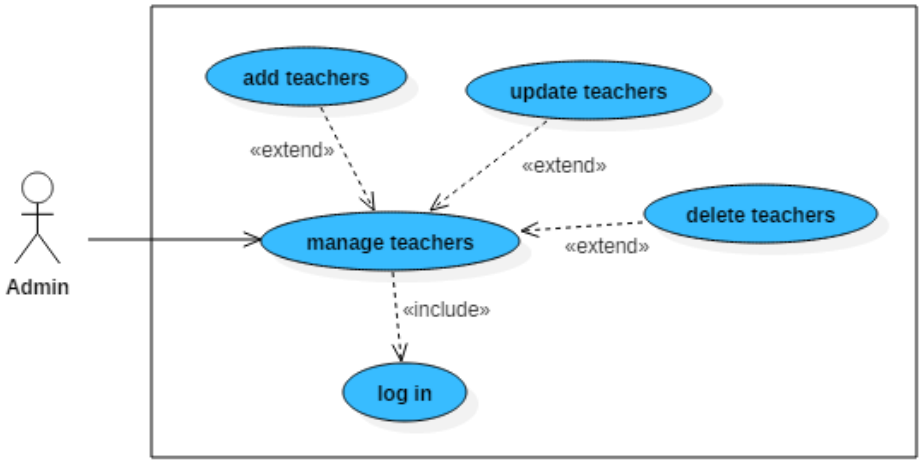

Figure: 3.8: Use Case Diagram of the admin manage teachers page

1) Brief Description

This use case will use to permit Admin to arrange teachers such as, add, update new teacher's information and delete the teacher from the system.

2) Precondition

The Admin need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_03_01)

- The Admin selects managing the information of teacher link on the control panel page.
- The Admin press adds new teachers. [A-1: update teachers], [A-2: delete teachers].
- The system shows update teachers form page to allow the director update new teachers information.
- The Admin inserts the teacher's information.
- The Admin presses OK button **(**cancel).
- The system will check the entering data. [E-1: Invalid entering data]
- This use case end when the system performs successful message that teacher has done updated.

4.2 Alternative Flow:

A-1: Update teachers (ER_03_02)

This system will update teacher's process.

A-2: delete teacher (ER_03_03)

This system will delete teacher process.

A-3: Cancel

This system will cancel update teacher.

4.3 Exception Flow:

E-1: Invalid entering data.

The system will show error message and the user have to re-enter the information.

5) Post Condition

The Admin can manage teacher's information.

6) Limitation

No limitation

IV. Use Case: Manage the Class (ER_04)

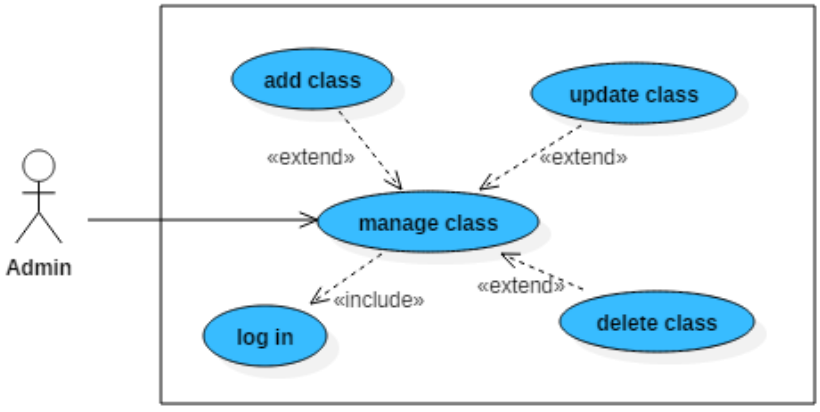

Figure: 3.9: Use Case Diagram of the admin manage class page

1) Brief Description

This use case will use to permit the Admin to arrange class consist of add new detail of the class, update detail of the class and delete detail of the class.

2) Precondition

The Admin need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_04_01)

- The Admin selects to manage the class link on the control panel page.
- The Admin press inserts detail of class. [A-1: Update class], [A-2: Delete class].
- The system shows the add the class form to allow the director to add new detail.
- The Admin inserts class information.
- The Admin presses OK button **(**cancel).
- The system will check the entering data. [E-1: Invalid entering data]
- This use case end when the system performs successful message that new class has done update.

4.2 Alternative Flow:

A-1: Update class (ER_04_02)

This system will update class process.

A-2: delete class (ER_04_03)

This system will delete class process.

A-3: Cancel

This system will cancel add the class process.

4.3 Exception Flow:

E-1: Invalid entering data.

The system will show error message and the Admin have to re-enter the information.

5) Post Condition

The Admin can manage class's information.

6) Limitation

No limitation

V. Use Case: Manage the subject (ER_05)

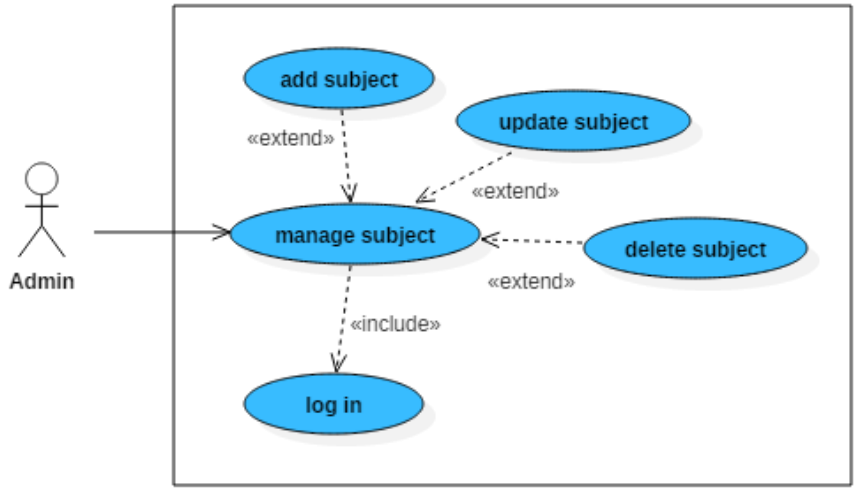

Figure: 3.10: Use Case Diagram of the admin manage subject page

1) Brief Description

This use case will use to permit the Admin to arrange subject consist of add new detail of the subject, update detail of the subject and delete detail of the subject from the system.

2) Precondition

The Admin need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_05_01)

- The Admin selects to manage the subject link on the control panel page.
- The Admin press inserts detail of subject. [A-1: Update subject], [A-2: Delete subject].
- The system shows the add the subject form page to permit the Admin to add new detail of subject.
- The Admin inserts subject's information.
- The Admin presses OK button **(**cancel).
- The system will check the entering data. [E-1: Invalid entering data]
- This use case end when the system performs successful message that new subject has done update.

4.2 Alternative Flow:

A-1: Update subject (ER_05_02)

This system will update subject process.

A-2: delete subject (ER_05_03)

This system will delete subject process.

A-3: Cancel

This system will cancel add the subject process.

4.3 Exception Flow:

E-1: Invalid entering data.

The system will show error message and the Admin have to re-enter the information.

5) Post Condition

The Admin can manage inserts subject's information.

6) Limitation

No limitation

VI. Use Case: Manage the time table (ER_06)

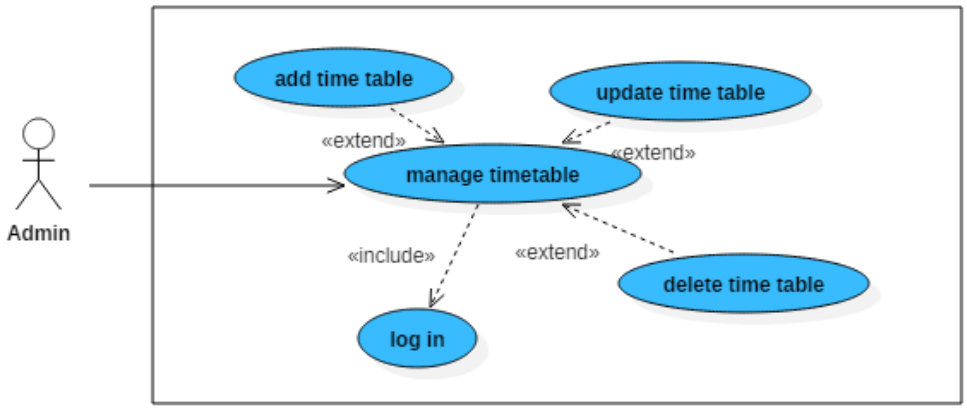

Figure: 3.11: Use Case Diagram of the admin manage time table page

1) Brief Description

This use case will use to permit the Admin to arrange time table consist of add new the time table, update time table and delete the time table from the system.

2) Precondition

The Admin need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_06_01)

- The Admin selects to manage the time table link on the control panel page.
- The Admin press inserts detail of time table. [A-1: Update subject], [A-2: Delete subject].
- The Admin selects new the time table's file.

- The Admin presses OK button **(**cancel A-3).
- The system will check the entering data. [E-1: Invalid entering data]
- This use case end when the system performs successful message that new time table has done insert.

4.2 Alternative Flow:

A-1: Update time table (ER_06_02)

This system will update time table process.

A-2: delete time table (ER_06_03)

This system will delete time table process.

A-3: Cancel

This system will cancel add the time table process.

4.3 Exception Flow:

E-1: Invalid entering data.

The system will show error message and the director have to re-enter the formation.

5) Post Condition

The Admin can manage inserts time table's information.

6) Limitation

No limitation

VII. Use Case: Manage News (ER_07)

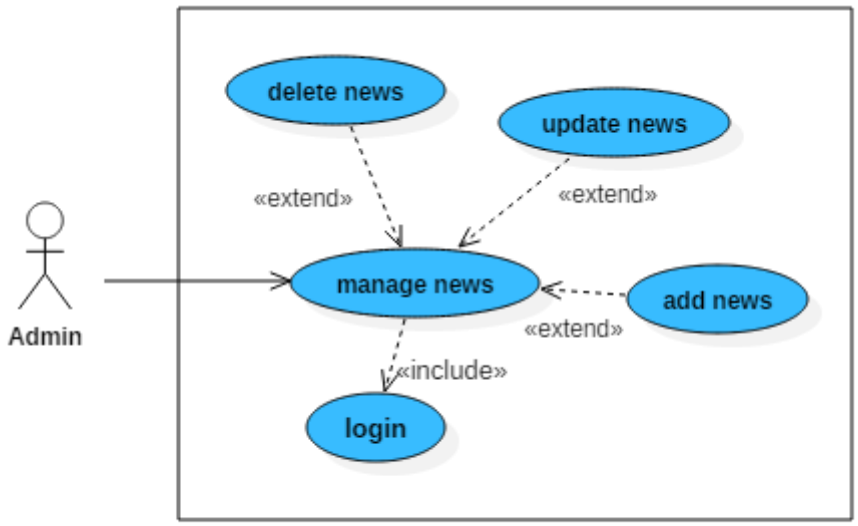

Figure: 3.12: Use Case Diagram of the admin manage news page

1) Brief Description

This use case will permit to the Admin to arrange news consist of add news, update news and delete news from the system.

2) Precondition

The Admin need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_07_01)

- The Admin selects to manage the news on the control panel page.
- The Admin press inserts news. [A-1: Update news], [A-2: Delete news].

- The system shows update news form page to permit the Admin to insert new news.
- Admin add the news.
- The Admin presses OK button **(**A-3: cancel).
- The system will check the entering data. [E-1: Invalid entering data]
- This use case end when the system performs successful message that information has done inserted.

4.2 Alternative Flow:

A-1: Update news (ER_07_01)

This system will update news process.

A-2: Delete news (ER_07_03)

This system will delete news process.

A-3: Cancel

This system will cancel the add news process.

4.3 Exception Flow:

E-1: Invalid entering data.

The system will perform error message and the teacher have to re-enter the information.

5) Post Condition

The Admin can manage inserts grade's information.

6) Limitation

No limitation

VIII. Use Case: Manage grade (ER_08)

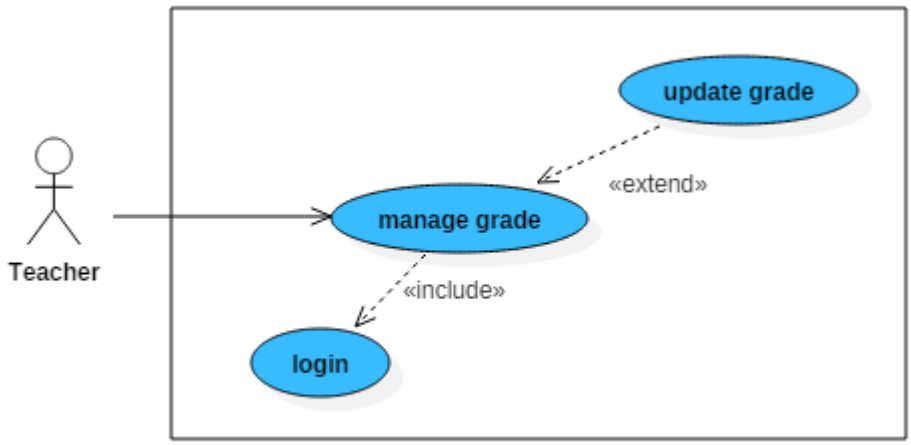

Figure: 3.13: Use Case Diagram of the manage grade page

7) Brief Description

This use case will permit to the teachers to arrange grade only update new grade from the system.

8) Precondition

The teachers need to login to the system.

9) Characteristic of Activation

Implementation depends on user's need.

10) Flow of Control

4.1 Basic Flow (ER_08_01)

- The teacher selects to update the grade link on the control panel page.
- The teacher press inserts grade. [A-1: Update grade].
- Teacher insert the grade's information.
- The teacher presses OK button **(**cancel).
- The system will check the entering data. [E-1: Invalid entering data]

- This use case end when the system performs successful message that information has done inserted.

4.2 Alternative Flow:

A-1: Update grade (ER_08_02)

This system will update grade process.

A-3: Cancel

This system will cancel the add grade process.

4.3 Exception Flow:

E-1: Invalid entering data.

The system will perform error message and the teacher have to re-enter the information.

11) Post Condition

The teacher can manage inserts grade's information.

12) Limitation

No limitation

IX. Use Case: View students (ER_09)

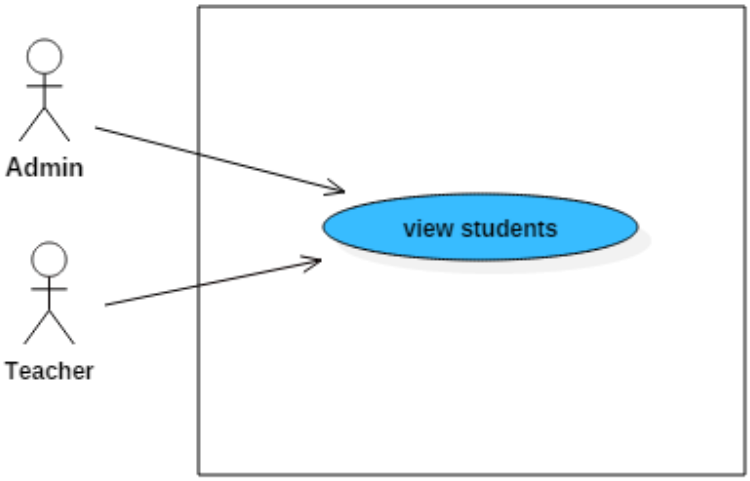

Figure: 3.14: Use Case Diagram of view students page

1) Brief Description

This use case will permit to the admin, teachers to view the student's information.

2) Precondition

The users need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_09_01)

- The users press on student's information link on users control panel page.
- Users search student by using class id.
- This use case end when the system performs student's information page.

5) Post Condition

The users may view the student's information.

X. Use Case: View Teachers (ER_10)

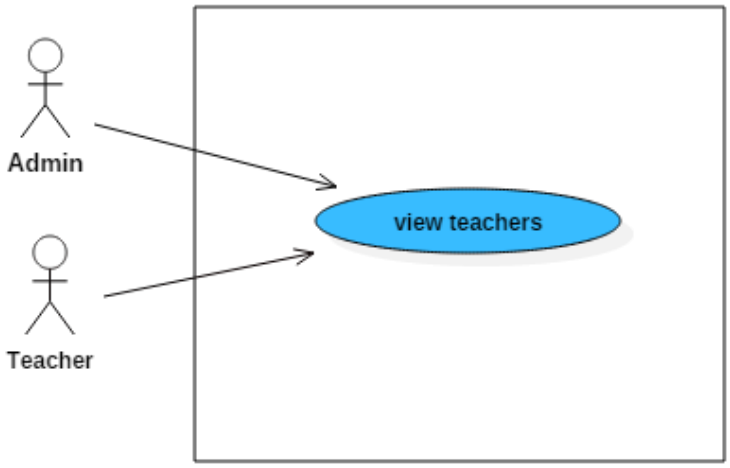

Figure: 3.15: Use Case Diagram of view teacher page

1) Brief Description

This use case will permit to the admin, teachers to view the teacher's information.

2) Precondition

The users need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_10_01)

- Users select teacher's information link on users control panel page.

- Users search teachers by using teacher's department.
- This use case will end when system performs teacher's information.

5) Post Condition

The users may view the teacher's information.

XI. Use Case: View the time table (ER_11)

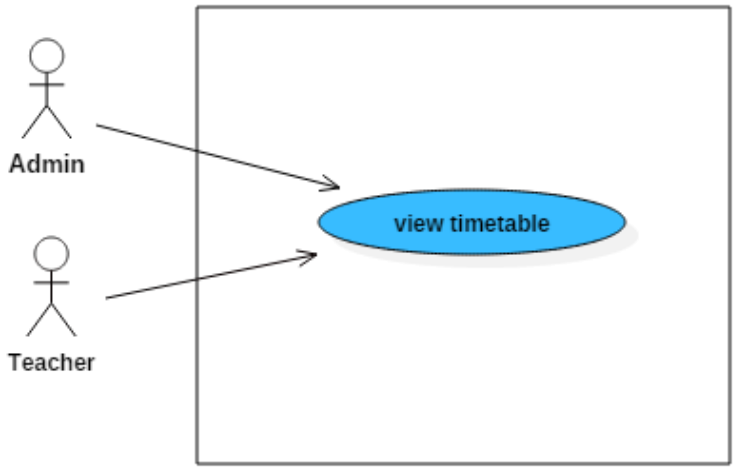

Figure: 3.16: Use Case Diagram of view time table page

6) Brief Description

This use case will permit to the admin, teachers to view the time table information.

7) Precondition

The users need to login to the system.

8) Characteristic of Activation

Implementation depends on user's need.

9) Flow of Control

4.1 Basic Flow (ER_11_01)

- Users select download time table link on main page.
- Users select download file.
- This use case will end when system performs time table file.

10) Post Condition

The users may view the time table's information.

XII. Use Case: View class (ER_12)

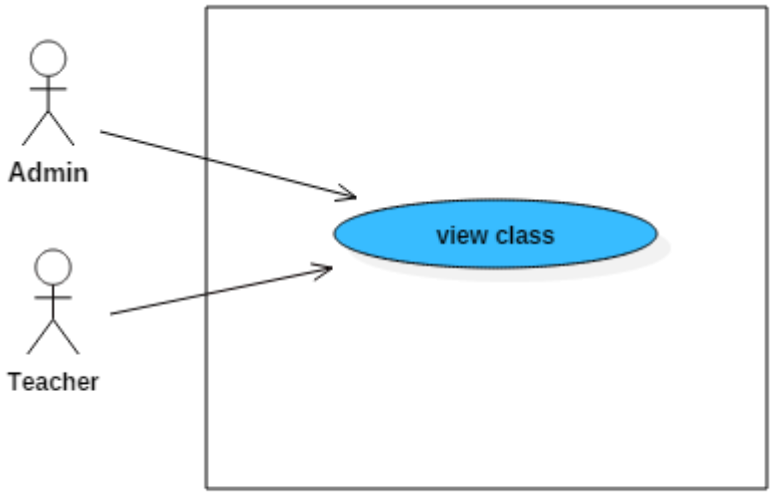

Figure: 3.17: Use Case Diagram of view class page

1) Brief Description

This use case will permit to the admin, teachers, view the class's information.

2) Precondition

The users need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_12_01)

- Users select view class link on users control panel page.
- Users search teachers by using class ID.
- This use case will end when system performs class's information.

5) Post Condition

The users may view the class's information.

XIII. Use Case: View Subject (ER_13)

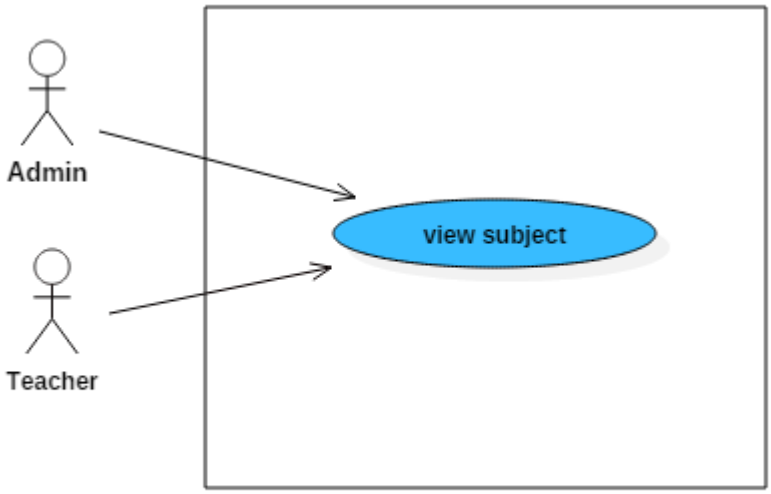

Figure: 3.18: Use Case Diagram of view subject page

1) Brief Description

This use case will permit to the admin, teachers to view the subject's information.

2) Precondition

The users need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_13_01)

- Users select view subject link on users control panel page.
- Users search subject by using subject's name.
- This use case will end when system performs subject's information.

5) Post Condition

The users may view the subject's information.

XIV. Use Case: View grade (ER_14)

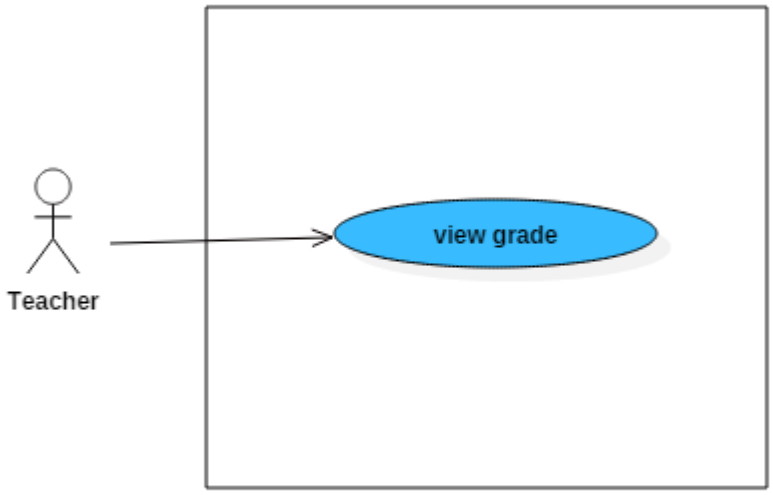

Figure: 3.19: Use Case Diagram of view grade page

1) Brief Description

This use case will permit only the teachers to view the grade's information.

2) Precondition

The teachers and students need to login to the system.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_14_01, ER_14_02)

- Teachers select view grade link on teacher main page and student select view grade link on student control page.
- Teacher and students search student's grade by using semester id, class id, and course id.
- This use case will end when system performs grade's information page.

5) Post Condition

The teachers and students may view the student's grade.

XV. Use Case: View News (ER_15)

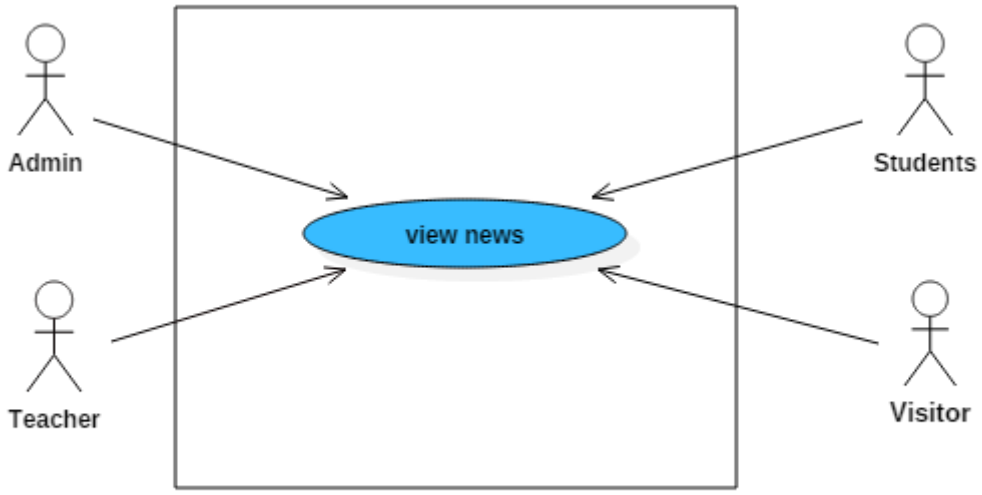

Figure 3.20: Use Case Diagram of view news page

1) Brief Description

This use case will permit to admin, teachers, student and visitor to view the news.

2) Precondition

The users have to enter website before this use case beings.

3) Characteristic of Activation

Implementation depends on user's need.

4) Flow of Control

4.1 Basic Flow (ER_15_01)

- Users press news link on main page.
- This use case will end when system performs news page.

5) Post Condition

The users may view the news.

3.2.6 SEQUENCE DIAGRA

Sequence Diagrams are interaction diagrams that detail how operations are carried out. It is captured the interaction between objects in the context of a collaboration. Sequence Diagrams are time focus and show the order of the interaction visually by using the vertical axis of the diagram to represent time what messages are sent and when. This sequence diagrams, that illustrate the different parts of a system interact with each other to carry out a main function of this web-based school management system. Some of the main function was illustrated in this sequence diagrams are Manage student, manage teacher, manage class, manage subject, manage timetable, teacher mange grade, teacher mange attendance, and user view subject as shown in figure 3.25-3.32

- **Log in**

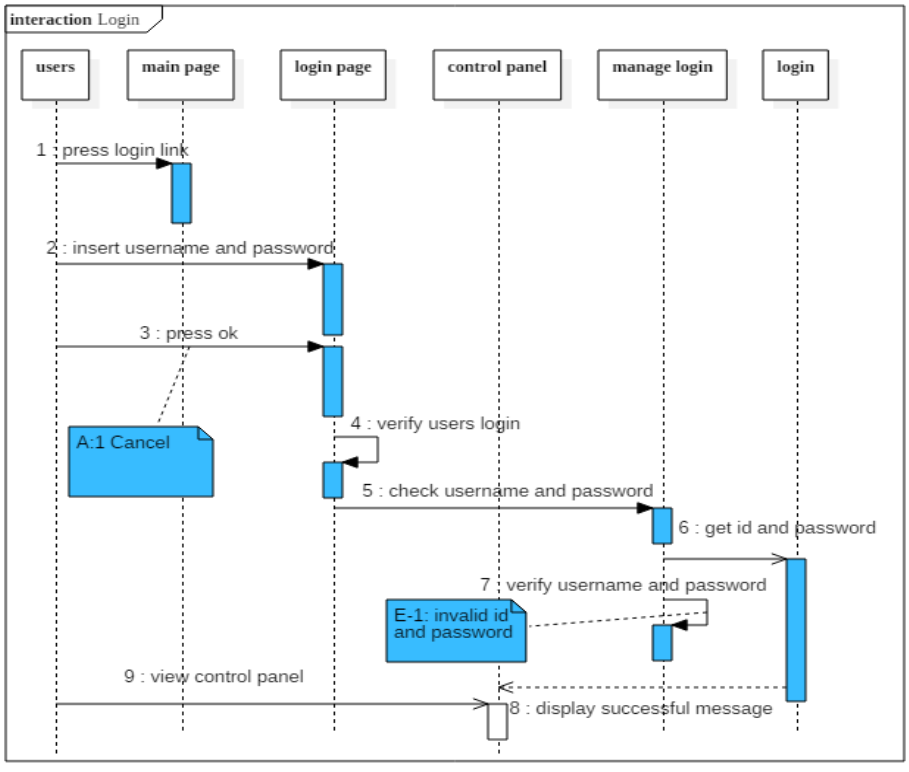

Figure: 3.21: Sequence diagram of user's login page

❖ Manage Student

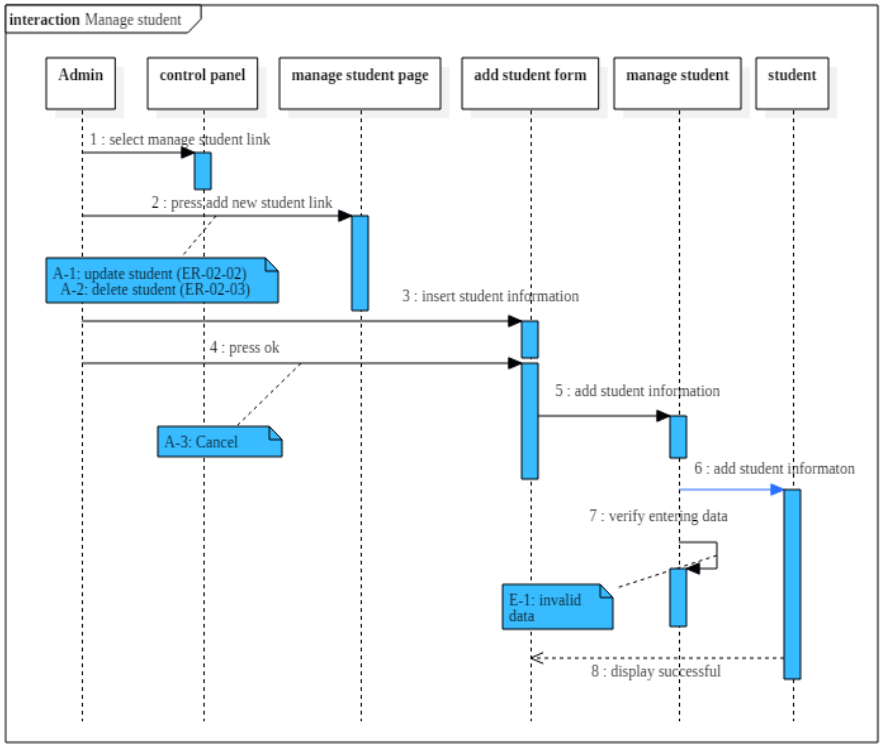

Figure: 3.22: Sequence diagram of manage student page

❖ Manage Teacher

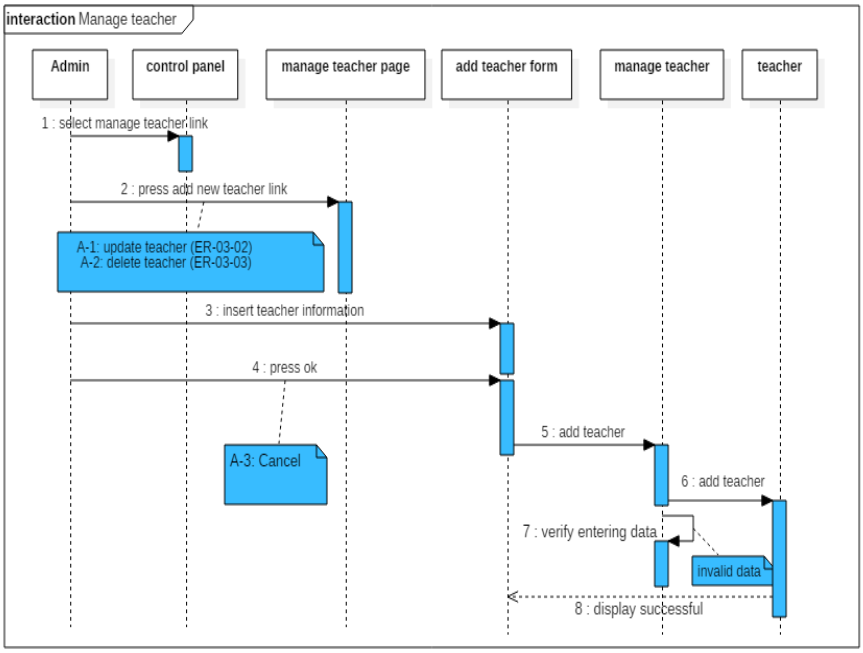

Figure: 3.23: Sequence diagram of manage teacher page

❖ Manage class

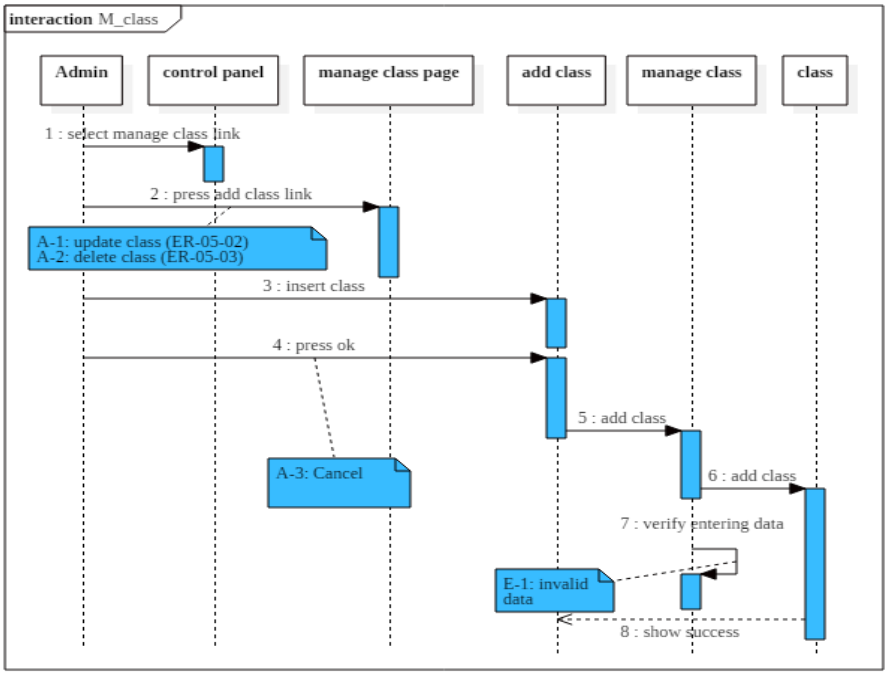

Figure: 3.24: Sequence diagram of manage class page

❖ Manage Subject

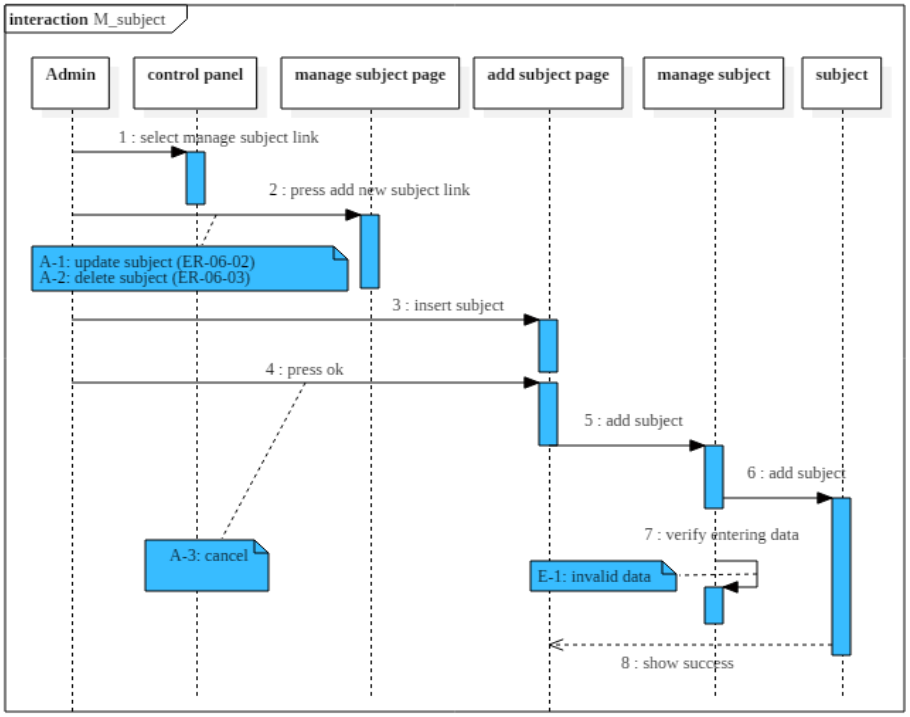

Figure: 3.25: Sequence diagram of manage subject page

❖ Manage timetable

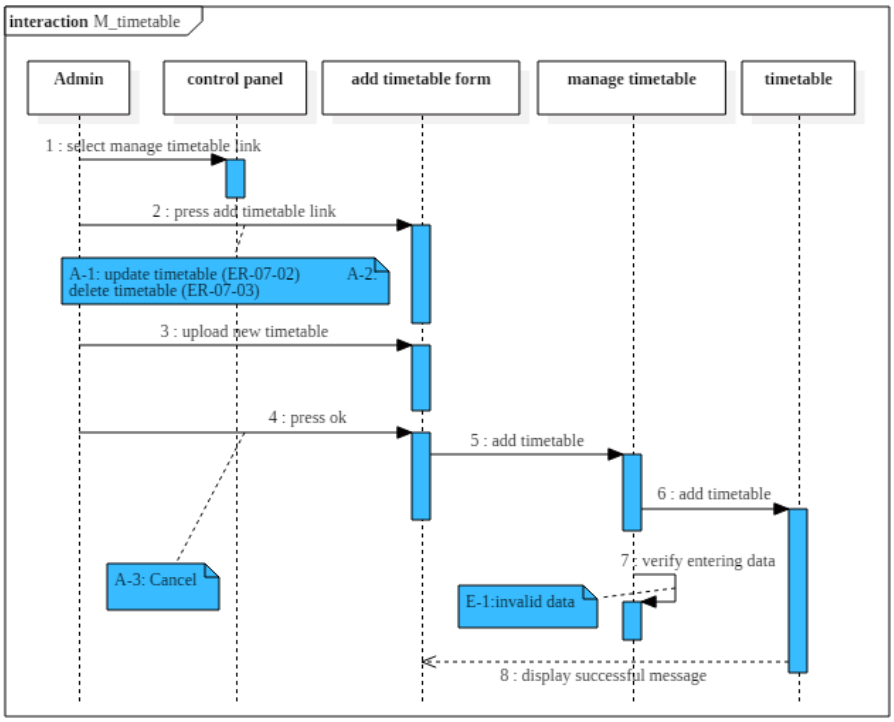

Figure: 3.26: Sequence diagram of manage time table page

❖ Manage News

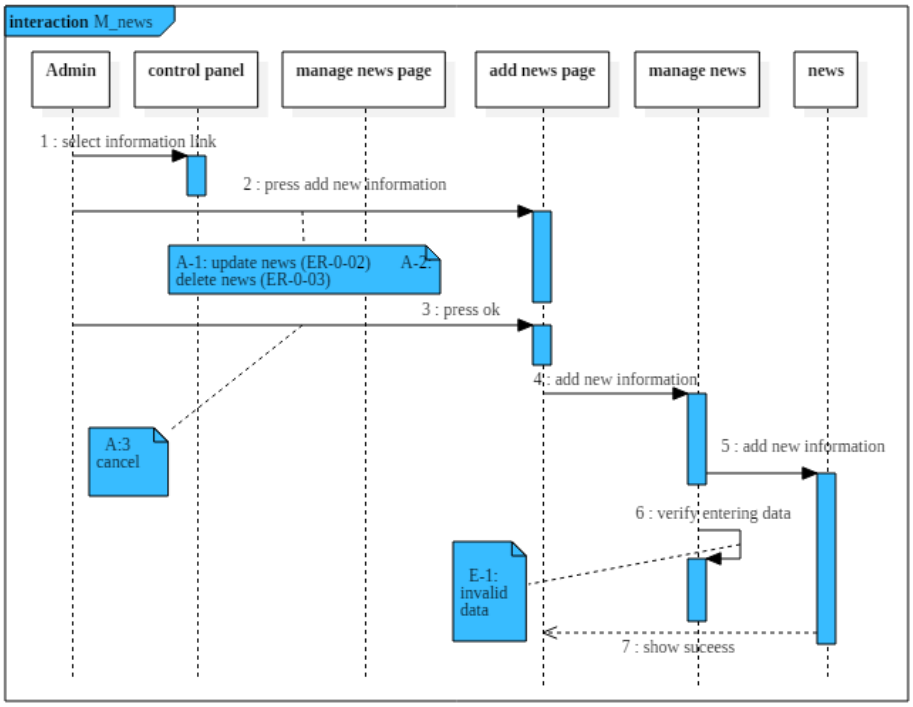

Figure: 3.27: Sequence diagram of manage News page

❖ **Teacher manage grade**

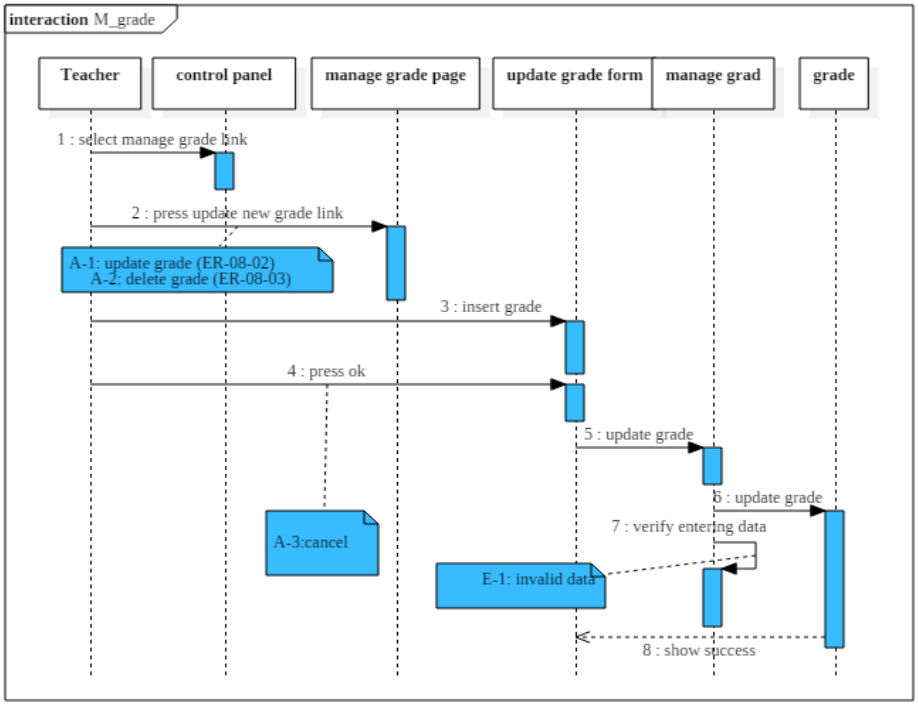

Figure: 3.28: Sequence diagram of teacher manage grade page

❖ **Sequence diagram of users view student**

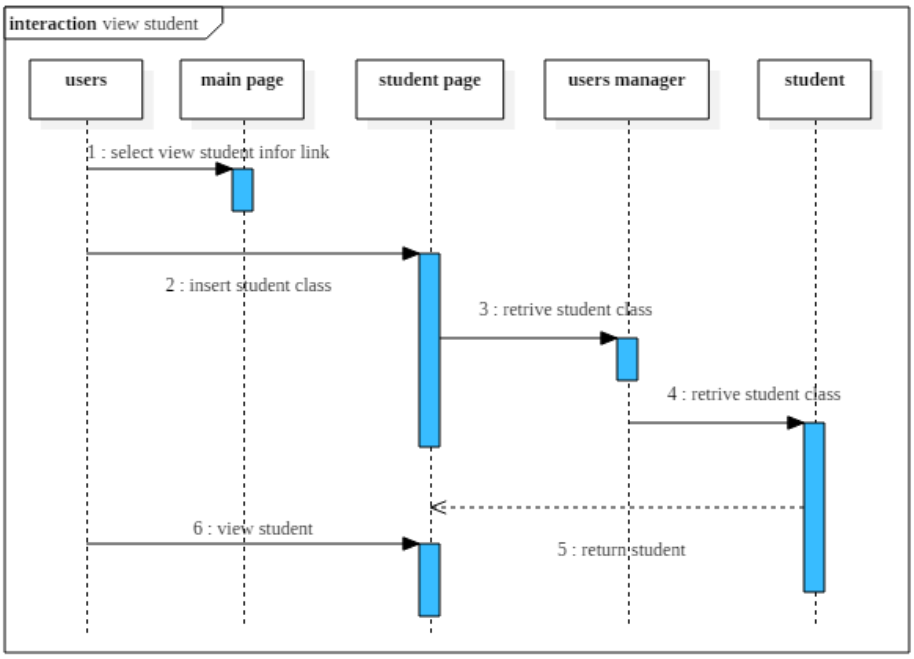

Figure: 3.29: Sequence diagram of users view student page

❖ **Sequence diagram of users view teacher**

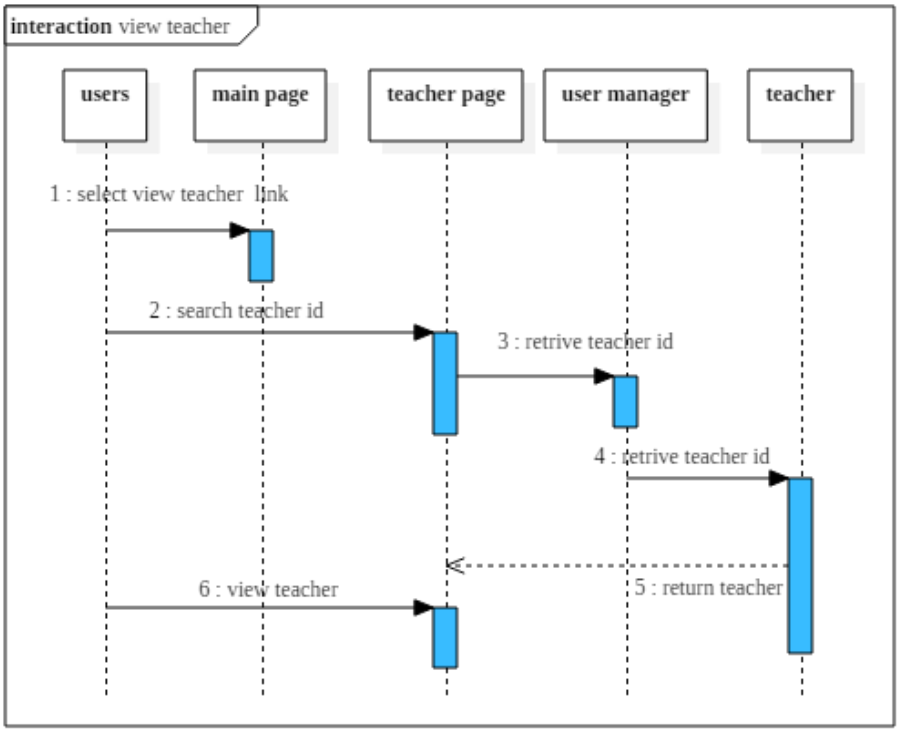

Figure: 3.30: Sequence diagram of users view teacher page

❖ **Sequence diagram of users view timetable**

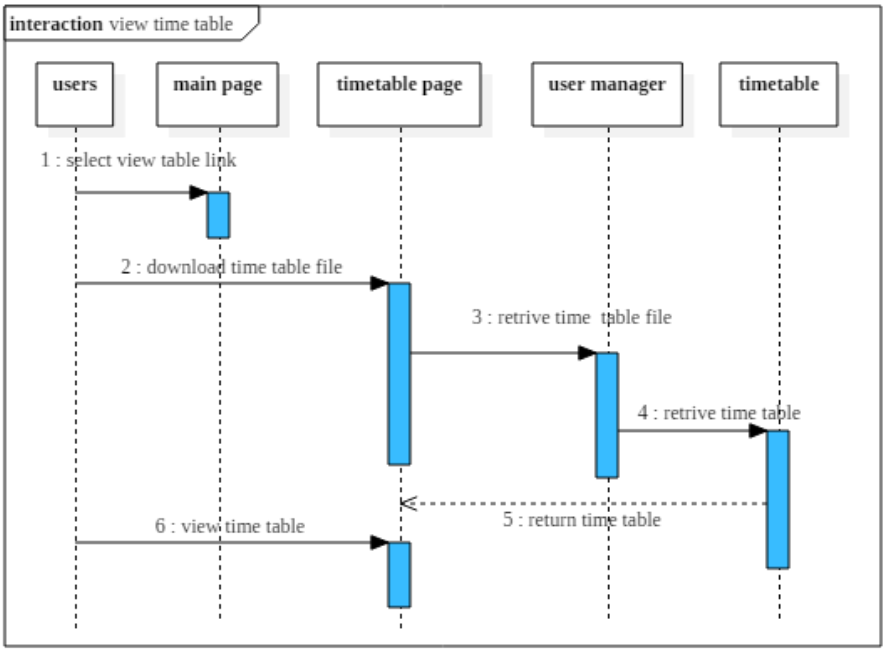

Figure: 3.31: Sequence diagram of users view time table page

❖ **Sequence diagram of users view class**

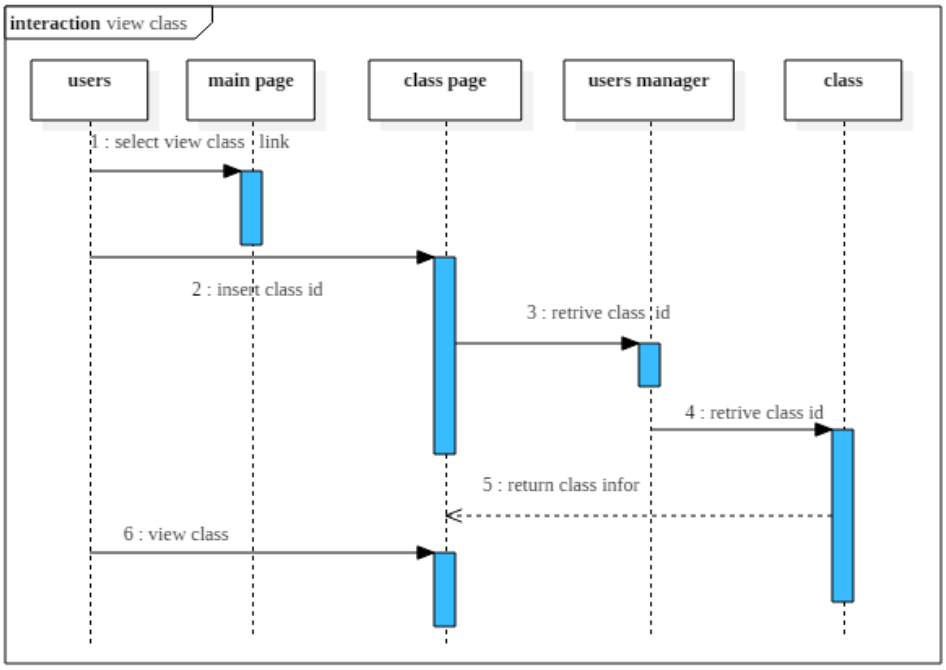

Figure: 3.32: Sequence diagram of users view class page

❖ **Sequence diagram of users view subject**

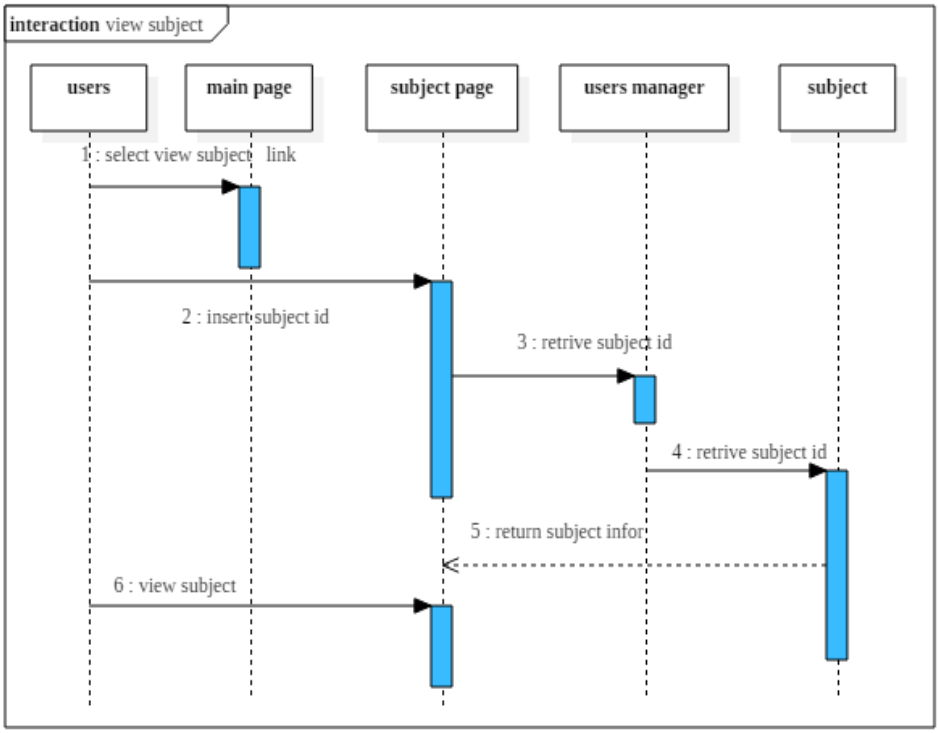

Figure: 3.33: Sequence diagram of users view subject page

❖ **Sequence diagram of users view grade**

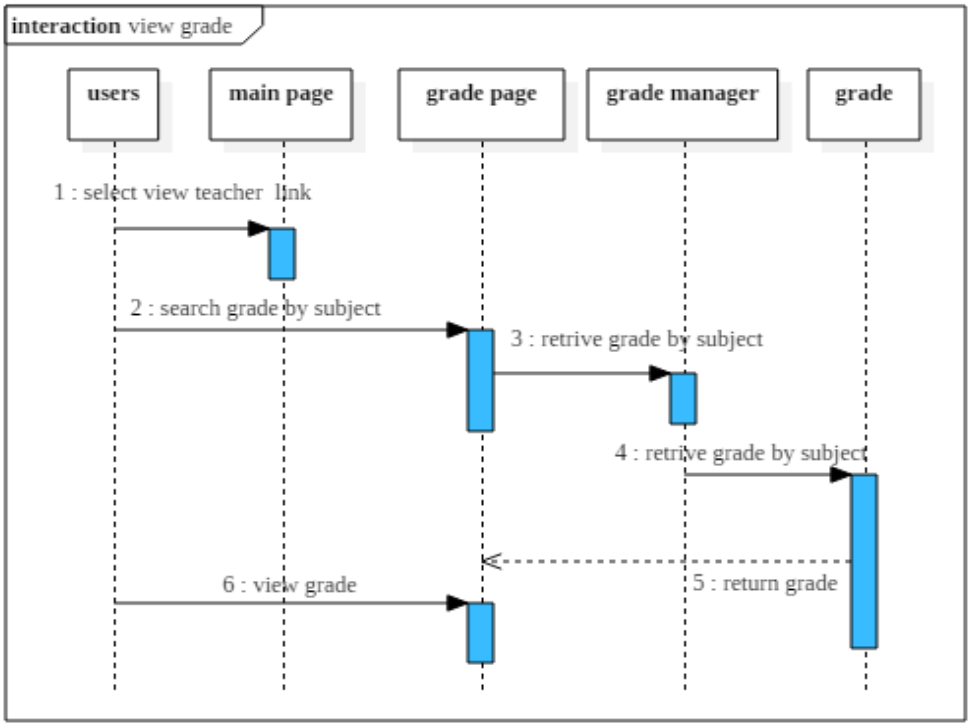

Figure: 3.34: Sequence diagram of users view grade page

❖ **Sequence diagram of users view News**

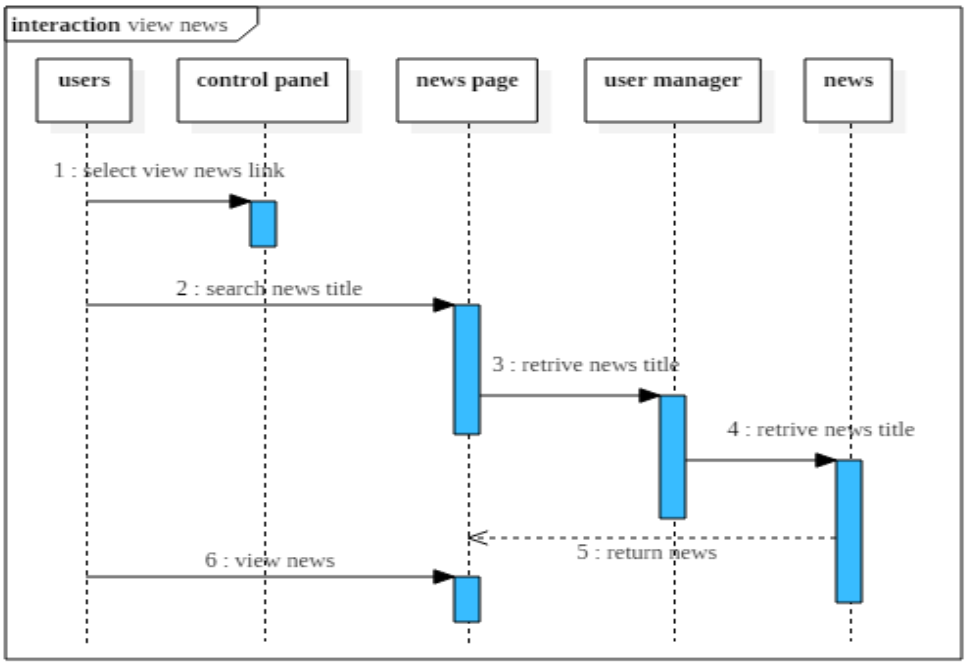

Figure: 3.35: Sequence diagram of users view news page

3.2.7 ACTIVITY DIAGRAM

An activity diagram visually presents a series of actions or flow of control in a system similar to a flowchart or a data flow diagram. Activity diagrams are often used in business process modeling. They can also describe the steps in a use case diagram. In this part of activity, is explained some of the main function of this system were admin manage teacher, which include of add teacher, update teacher, and delete teacher. and other function is admin manage subject which include of add subject, update subject, and delete subject as shown is figure 3.33-3.38 below.

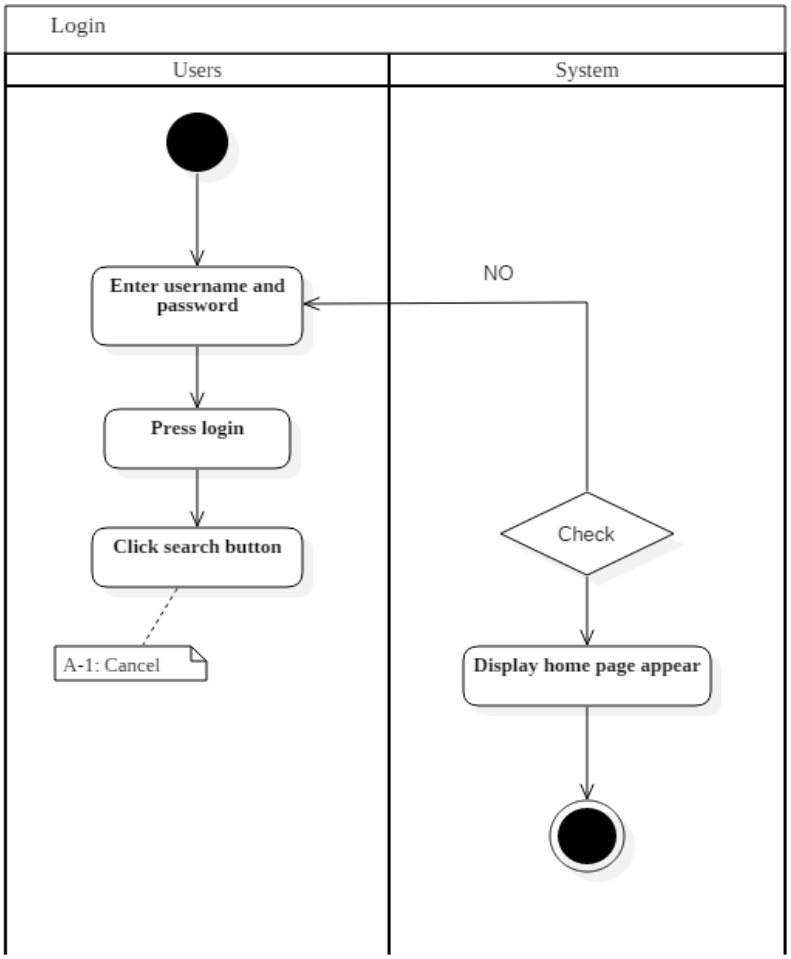

Figure: 3.36: Activity Diagram of Admin and Teacher login

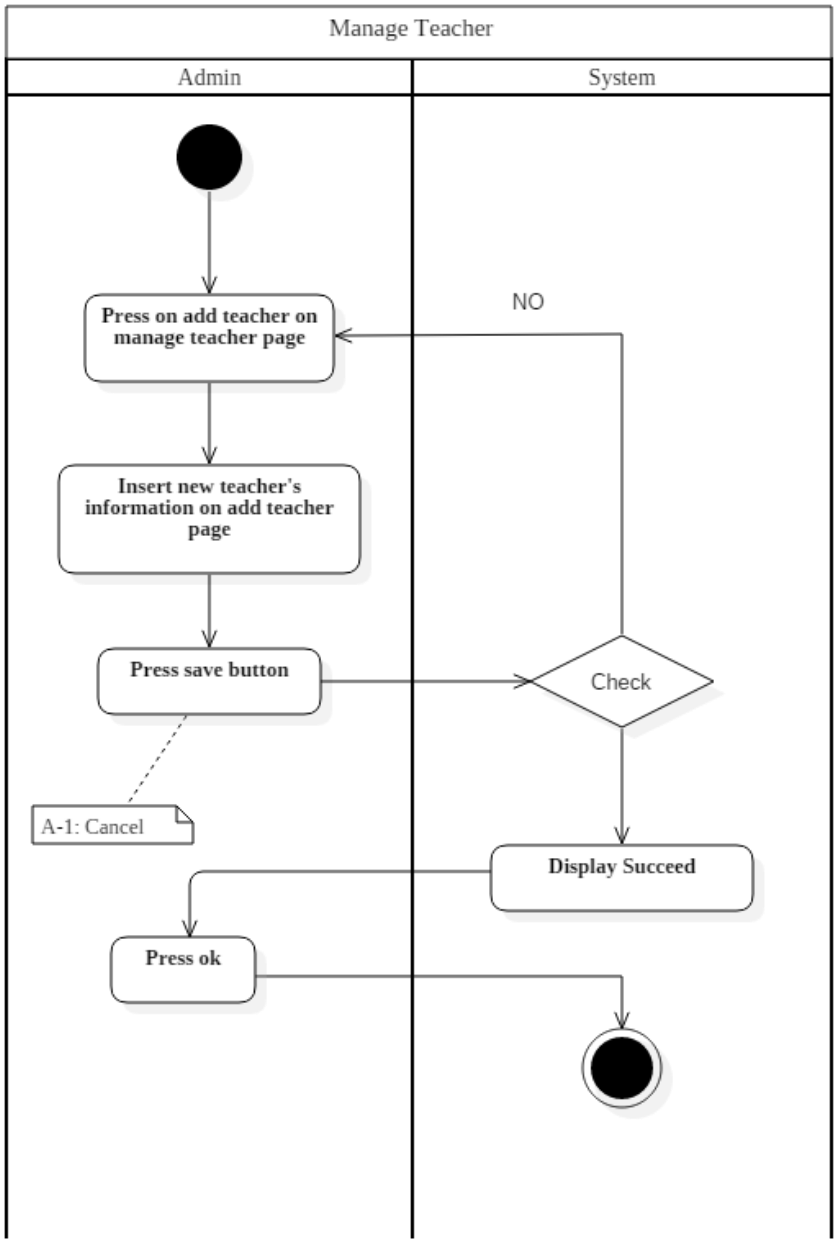

*Figure: 3.37: Activity Diagram of Admin manage **Add** teacher*

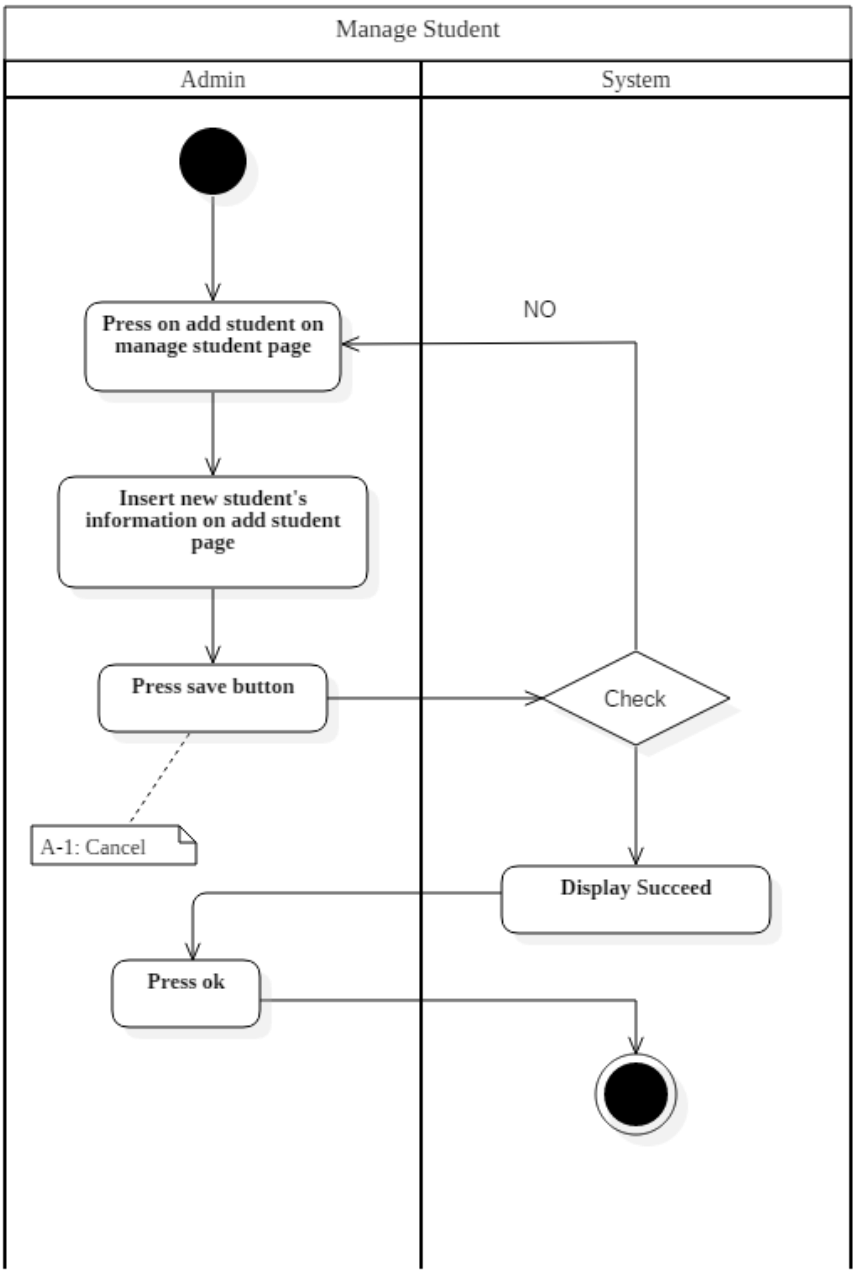

*Figure: 3.38: Activity Diagram of Admin manage **Add** student*

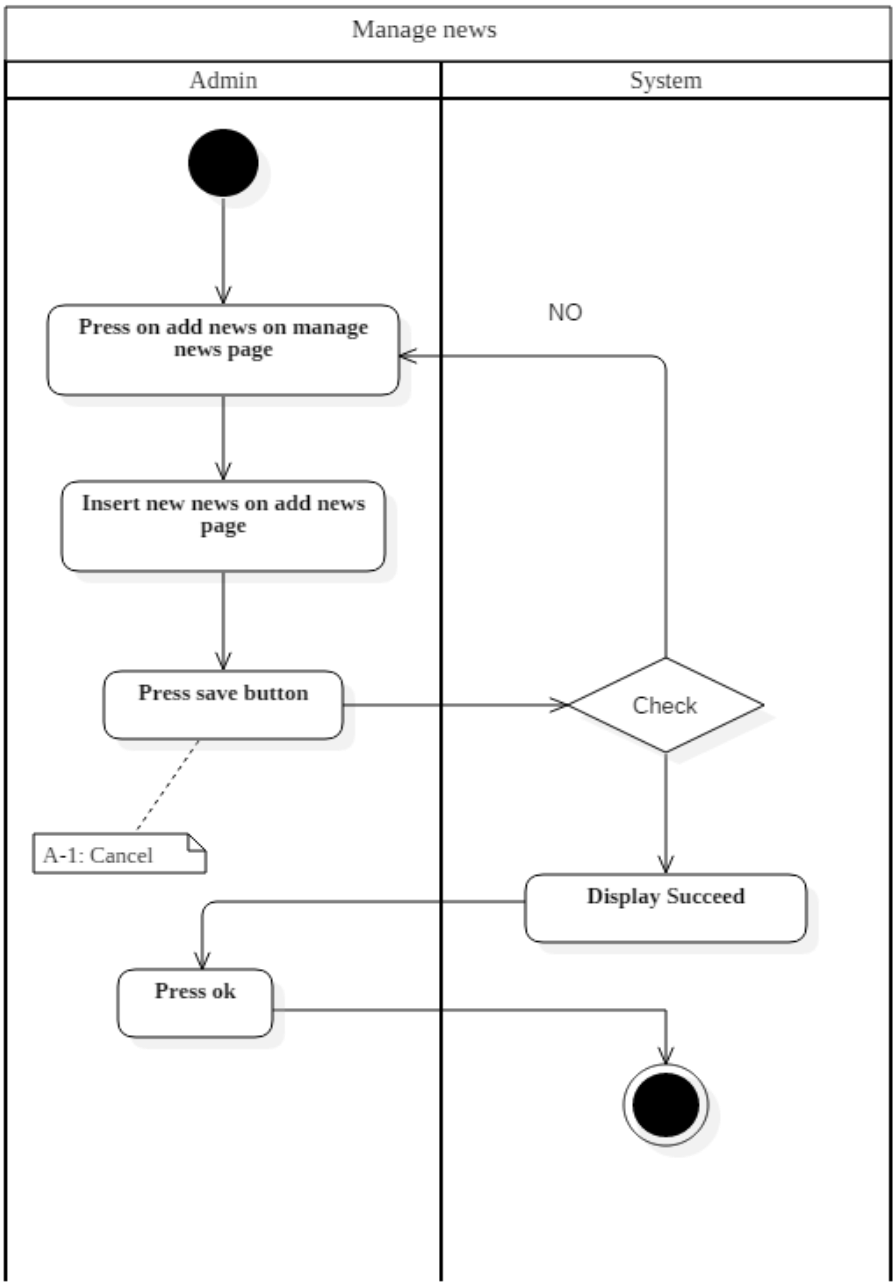

*Figure: 3.39: Activity Diagram of Admin manage **Add** news*

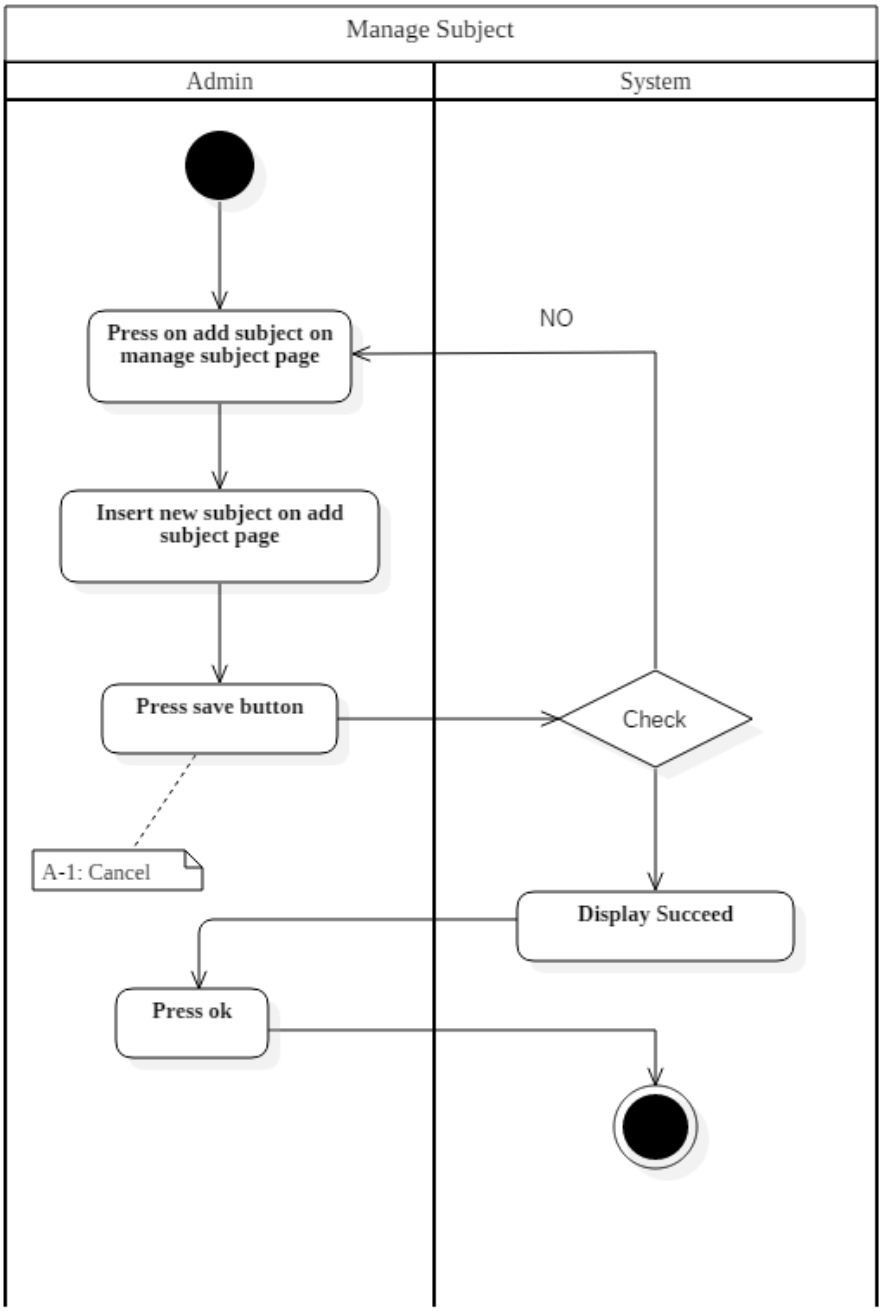

*Figure: 3.40: Activity Diagram of Admin manage **Add** subject*

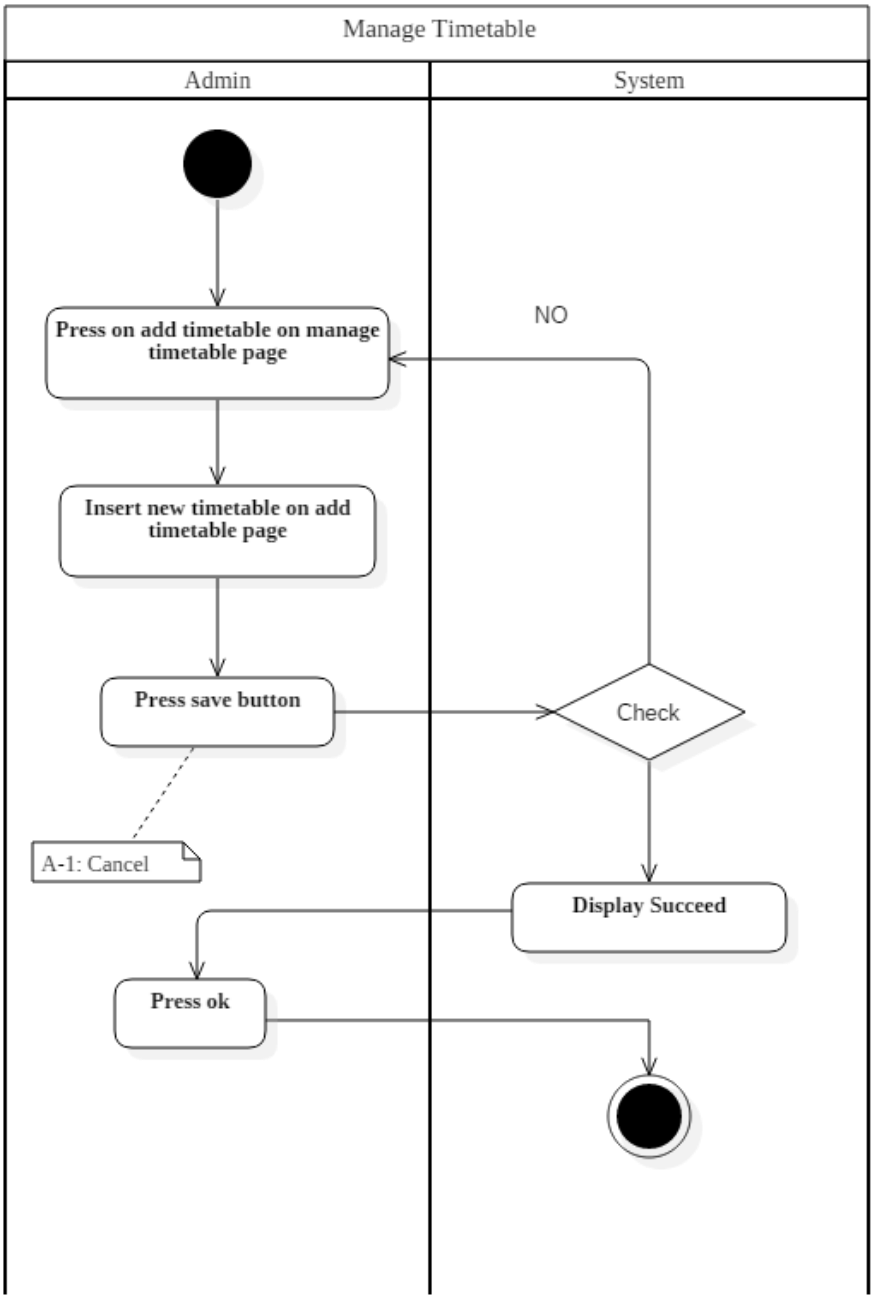

*Figure: 3.41: Activity Diagram of Admin manage **Add** timetable*

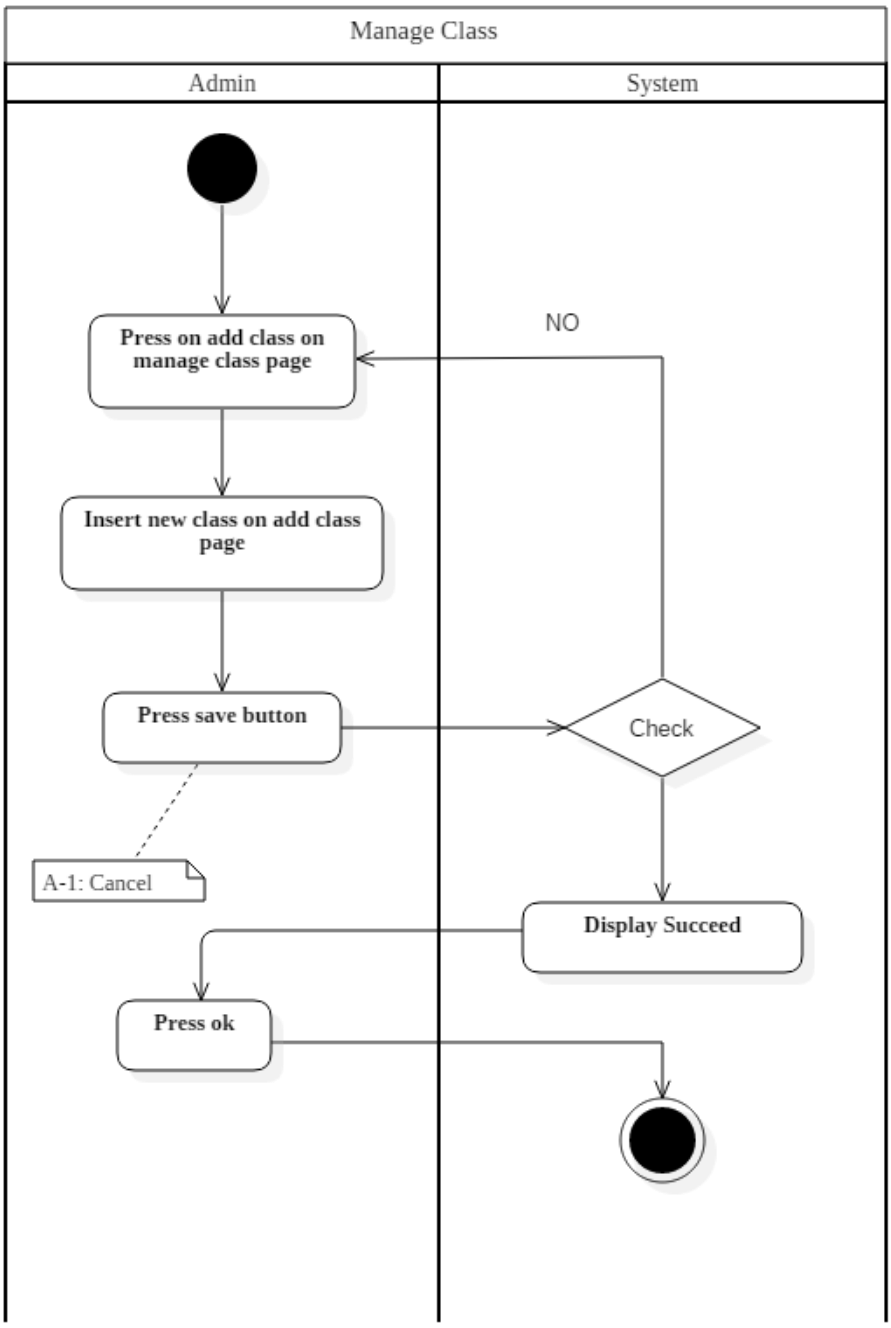

*Figure: 3.42: Activity Diagram of Admin manage **Add** class*

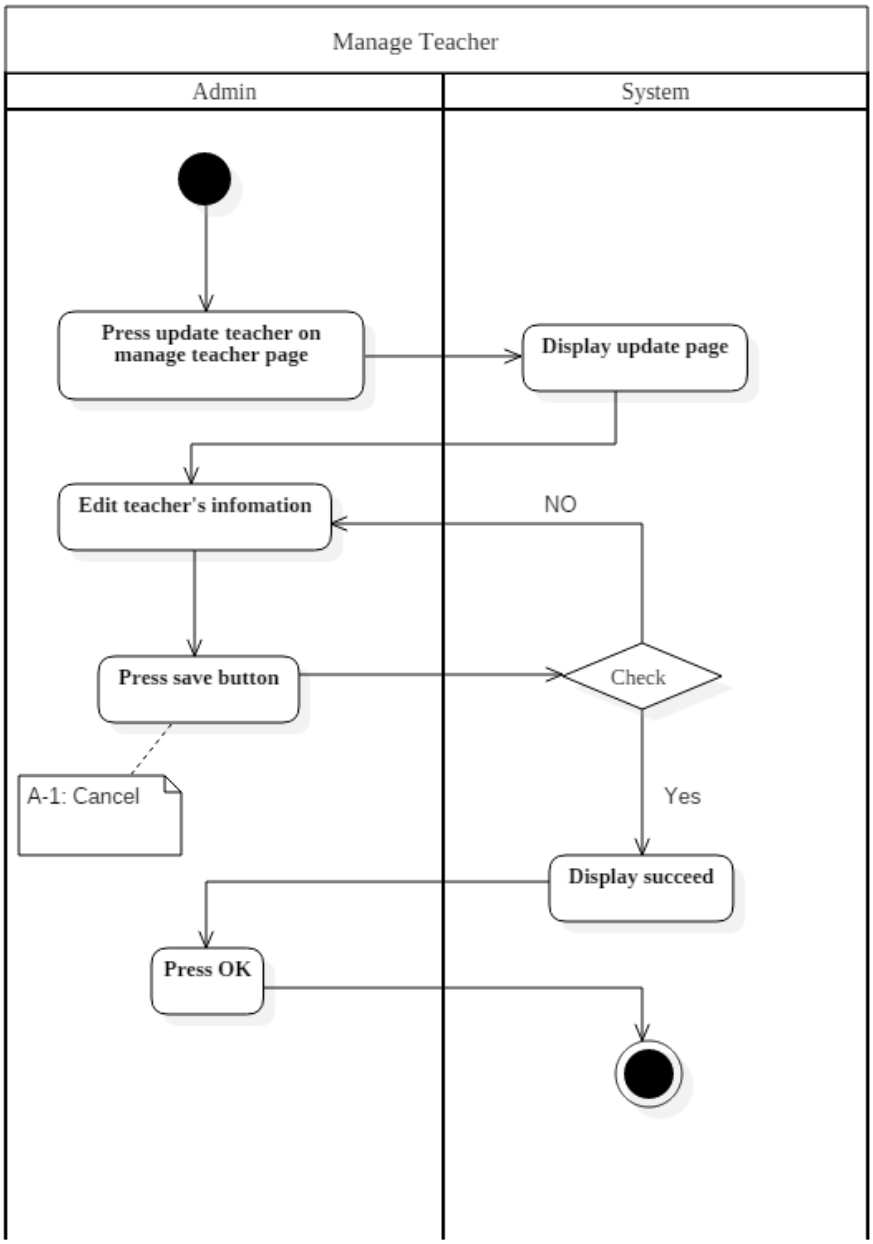

*Figure: 3.43: Activity Diagram of Admin manage **Update** teacher*

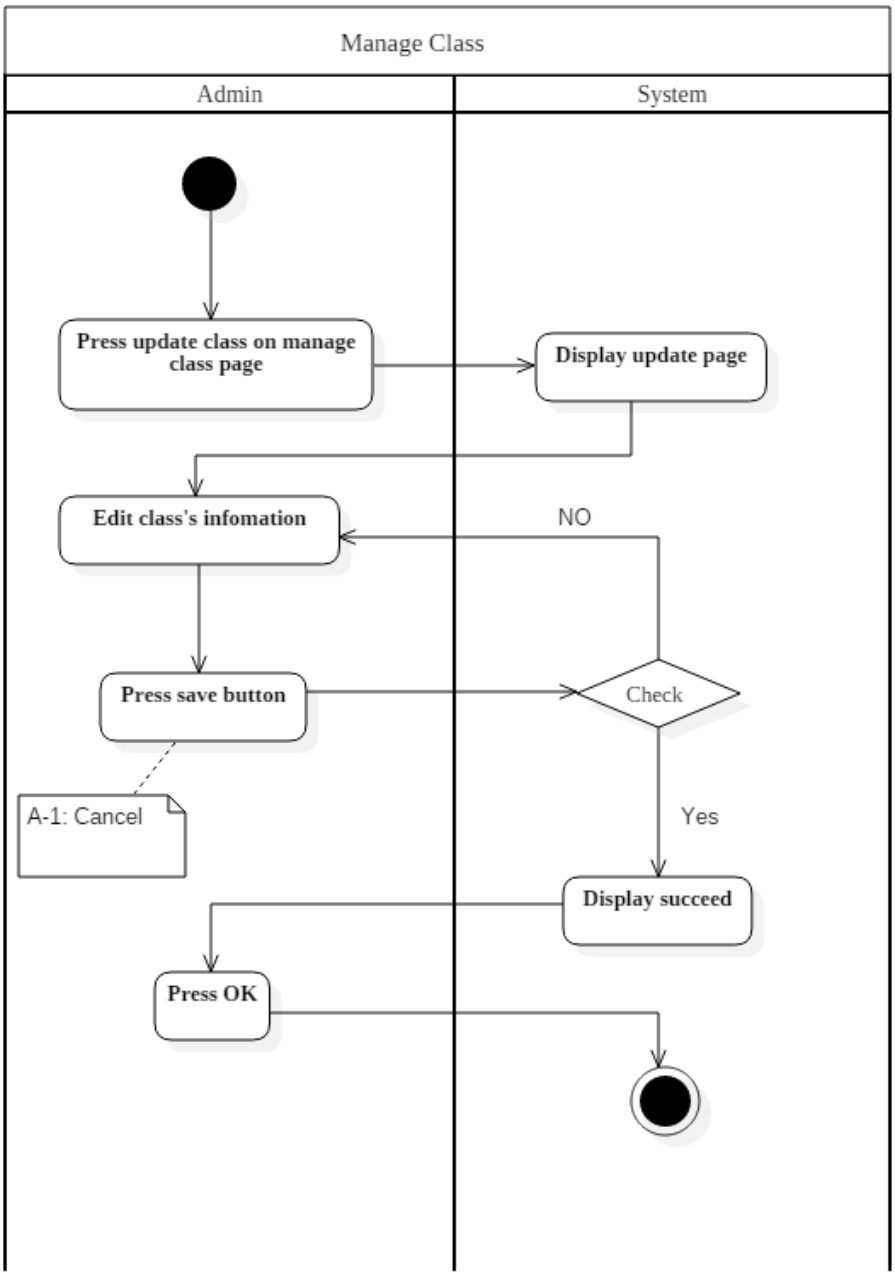

*Figure: 3.44: Activity Diagram of Admin manage **Update** class*

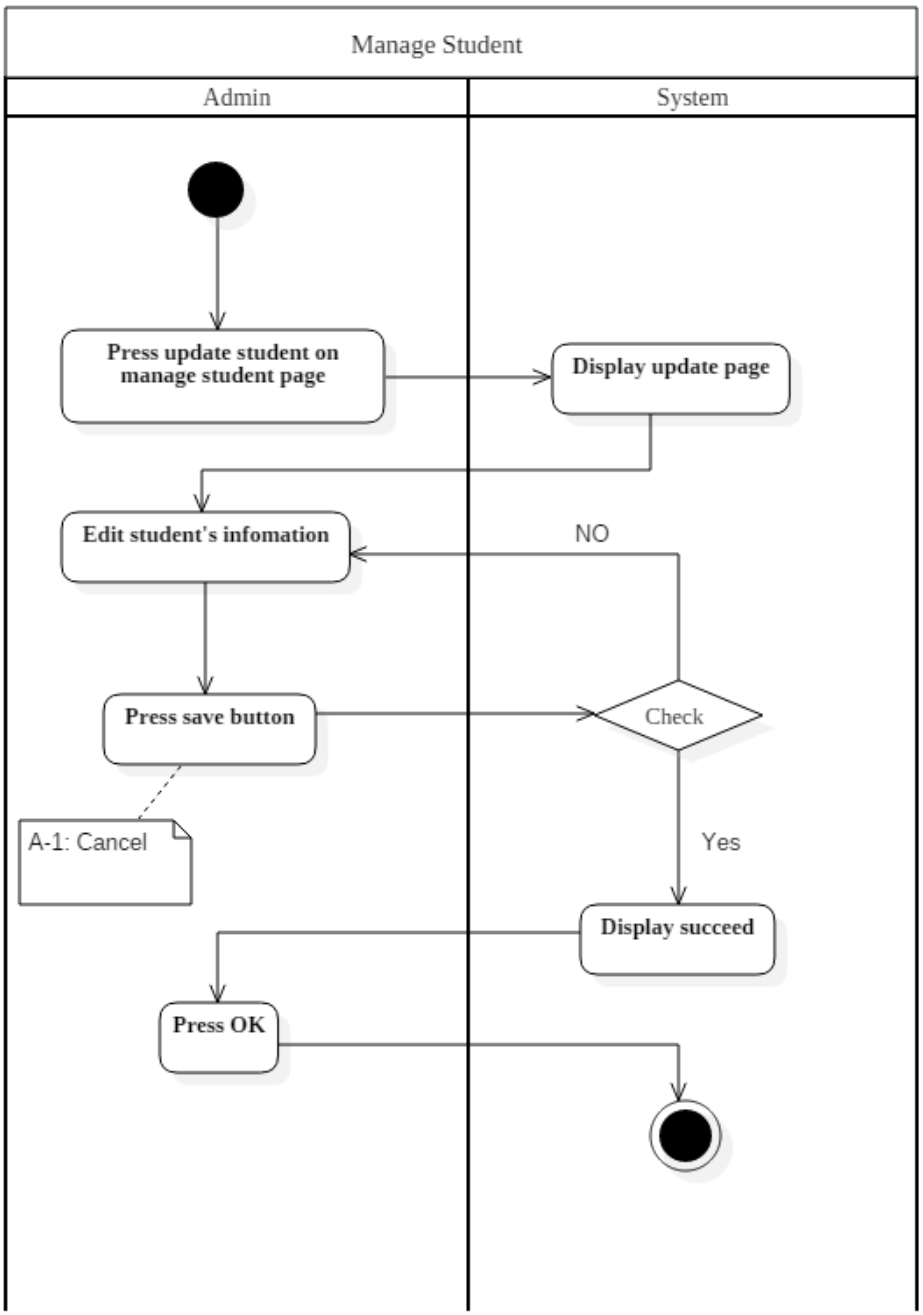

*Figure: 3.45: Activity Diagram of Admin manage **Update** student*

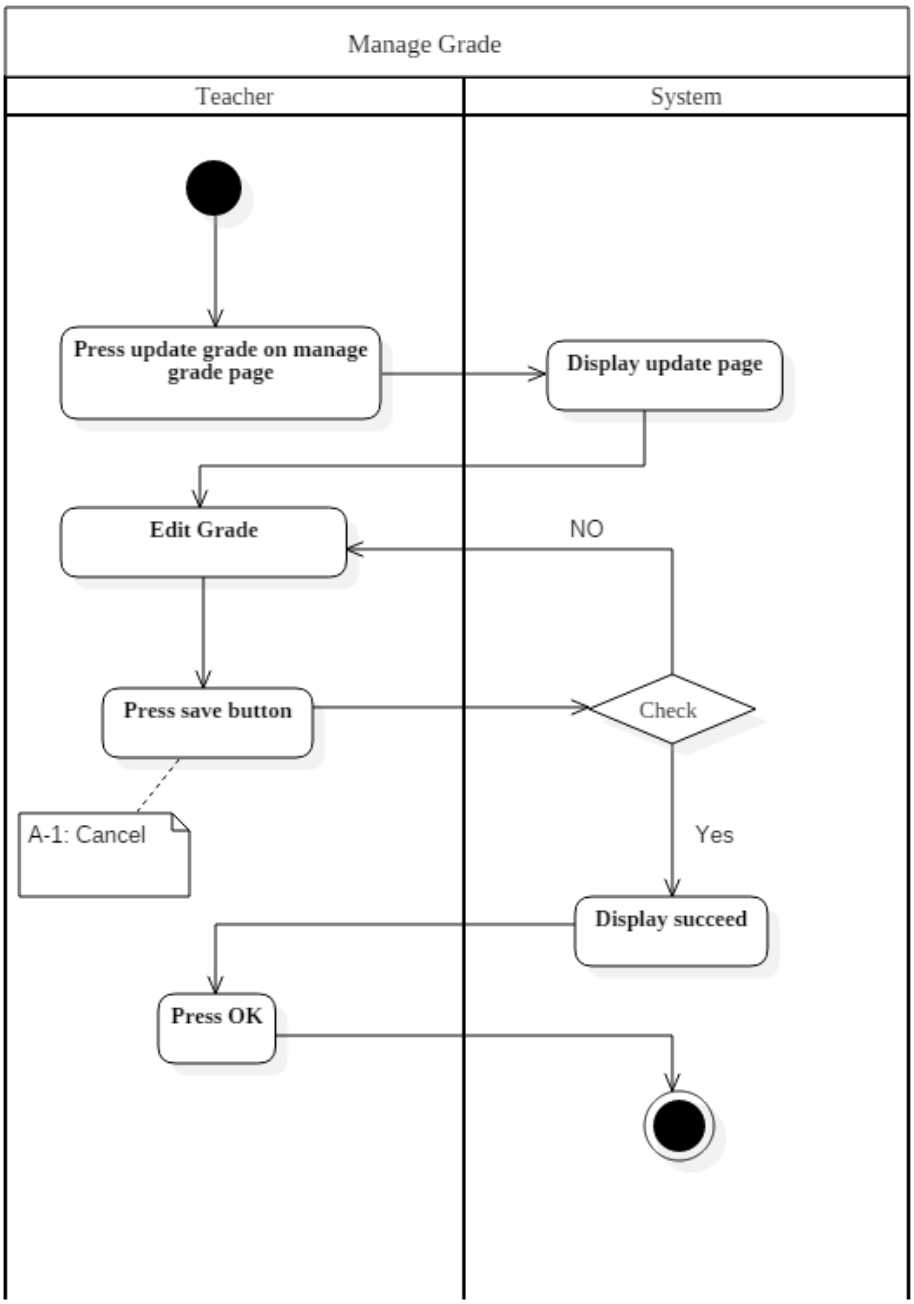

*Figure: 3.46: Activity Diagram of Teacher manage **Update** grade*

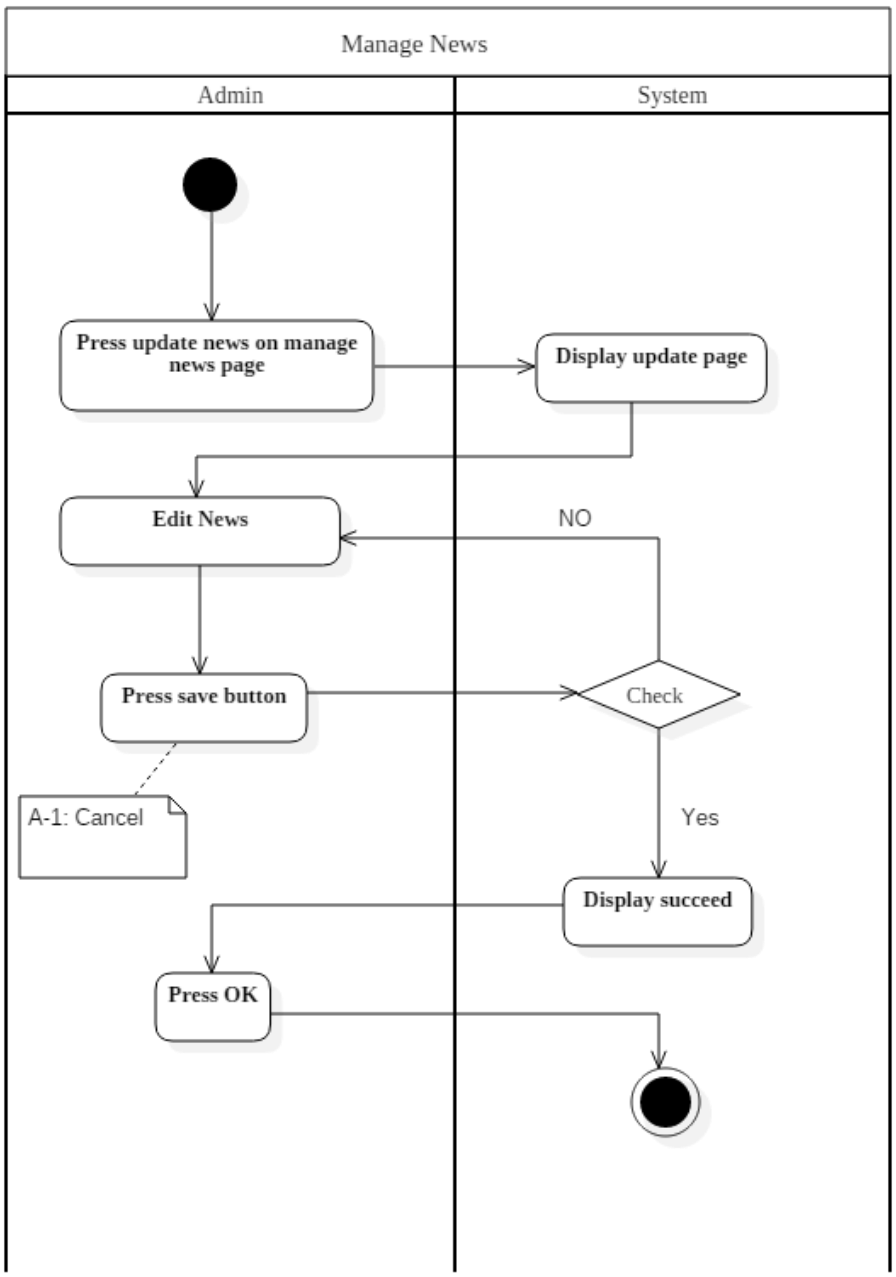

*Figure: 3.47: Activity Diagram of Admin manage **Update** news*

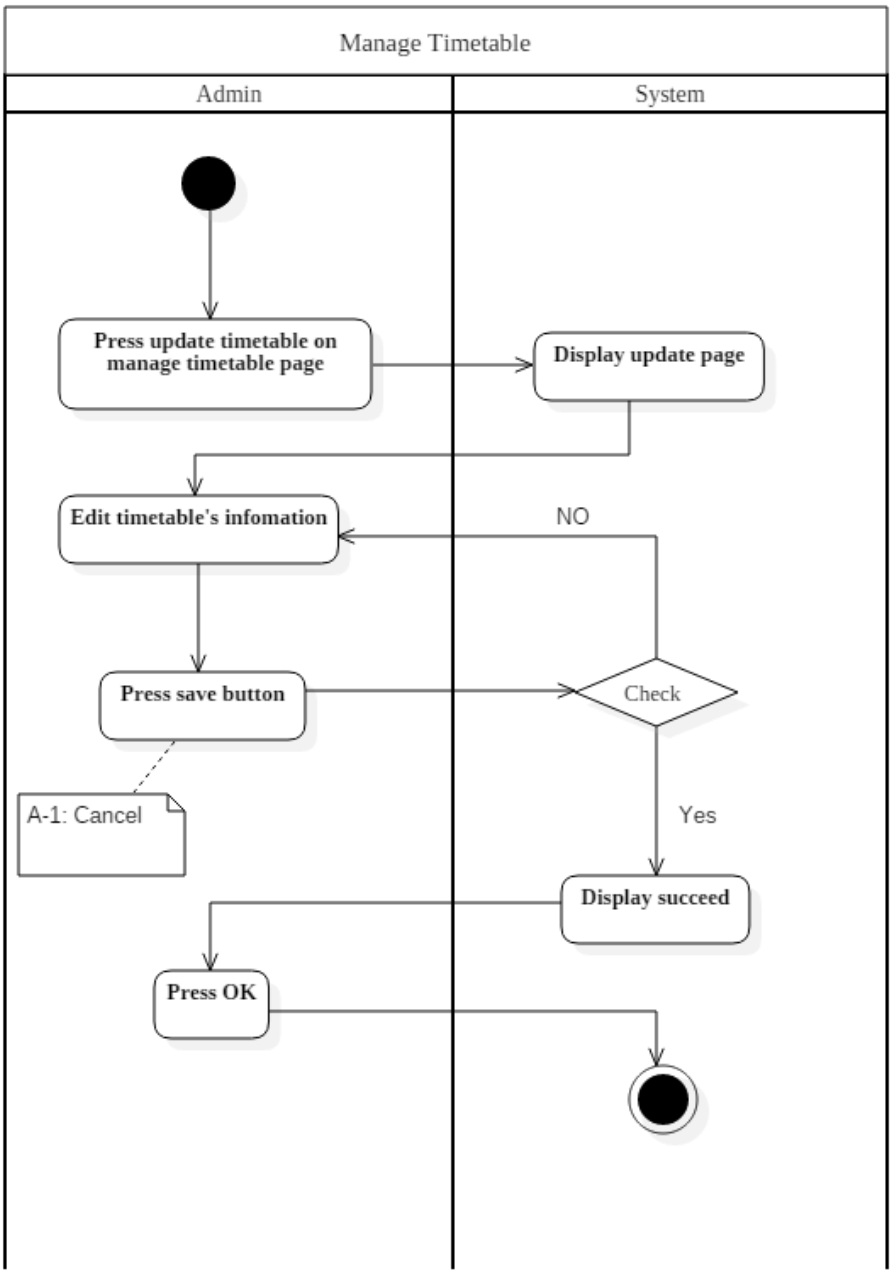

*Figure: 3.48: Activity Diagram of Admin manage **Update** timetable*

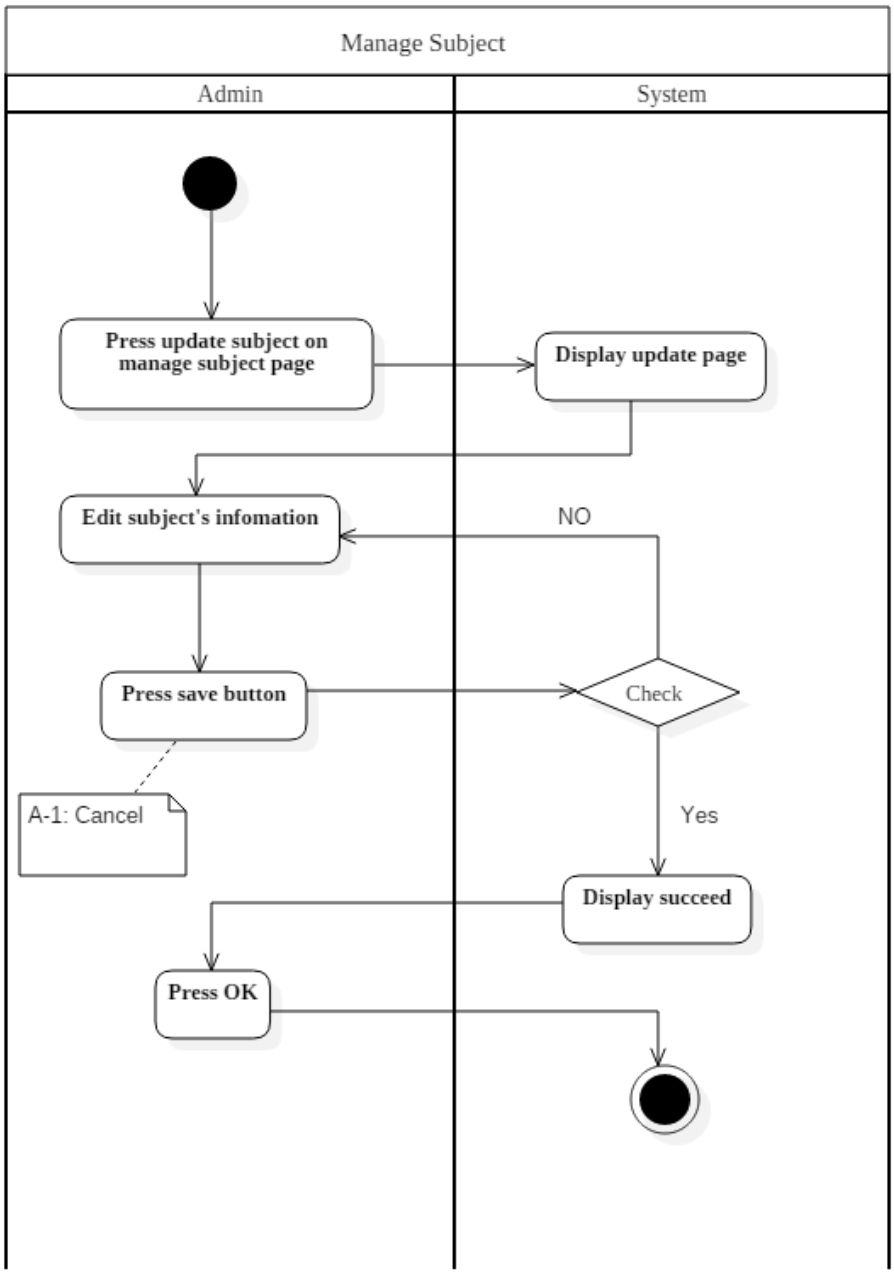

*Figure: 3.49: Activity Diagram of Admin manage **Update** subject*

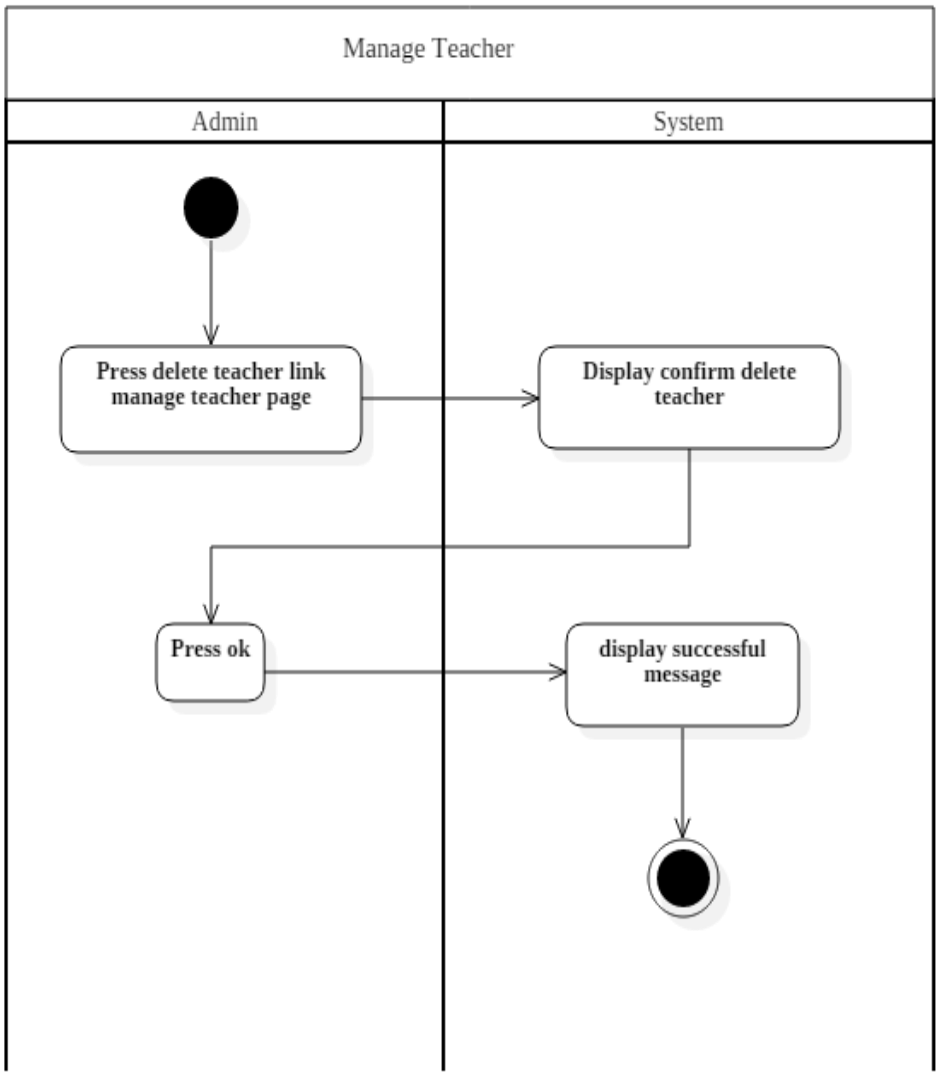

*Figure: 3.50: Activity Diagram of Admin manage **DELETE** teacher*

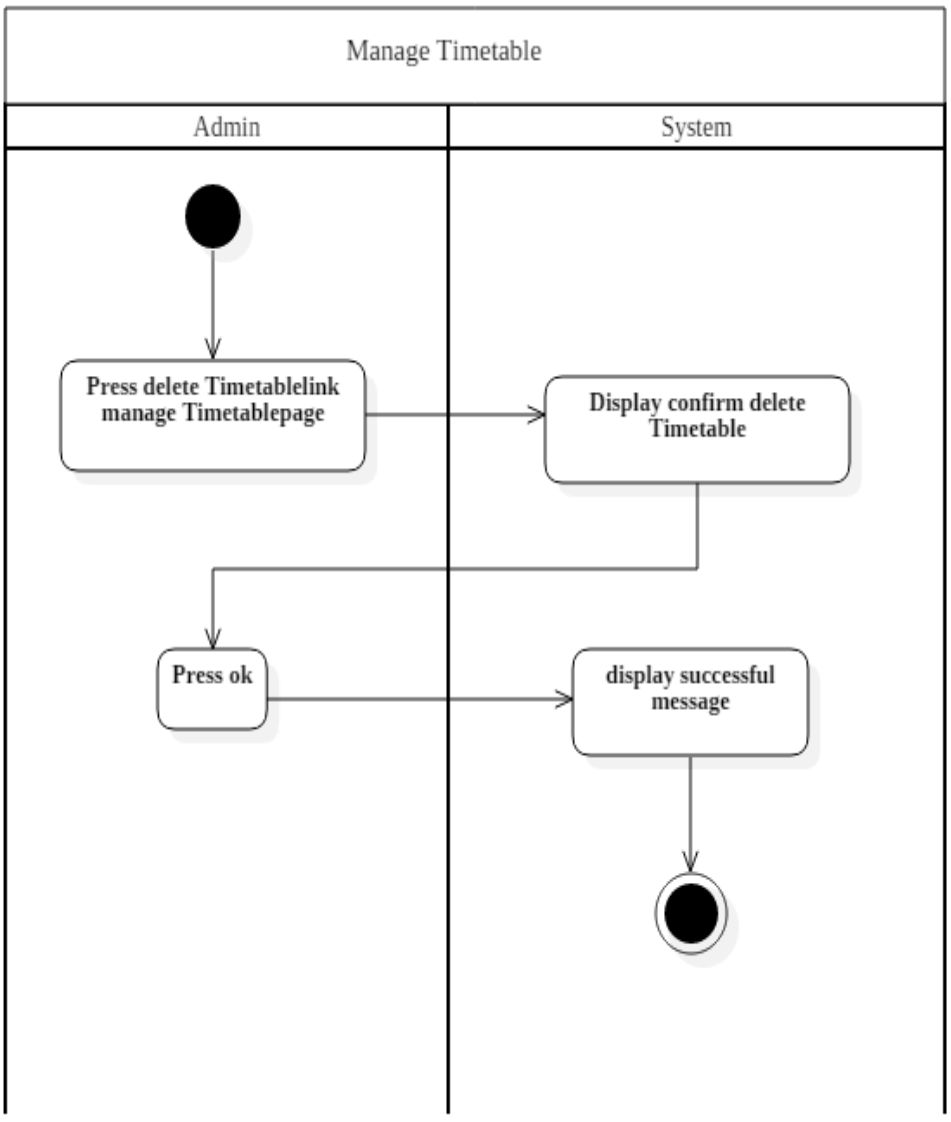

*Figure: 3.51: Activity Diagram of Admin manage **DELETE** timetable*

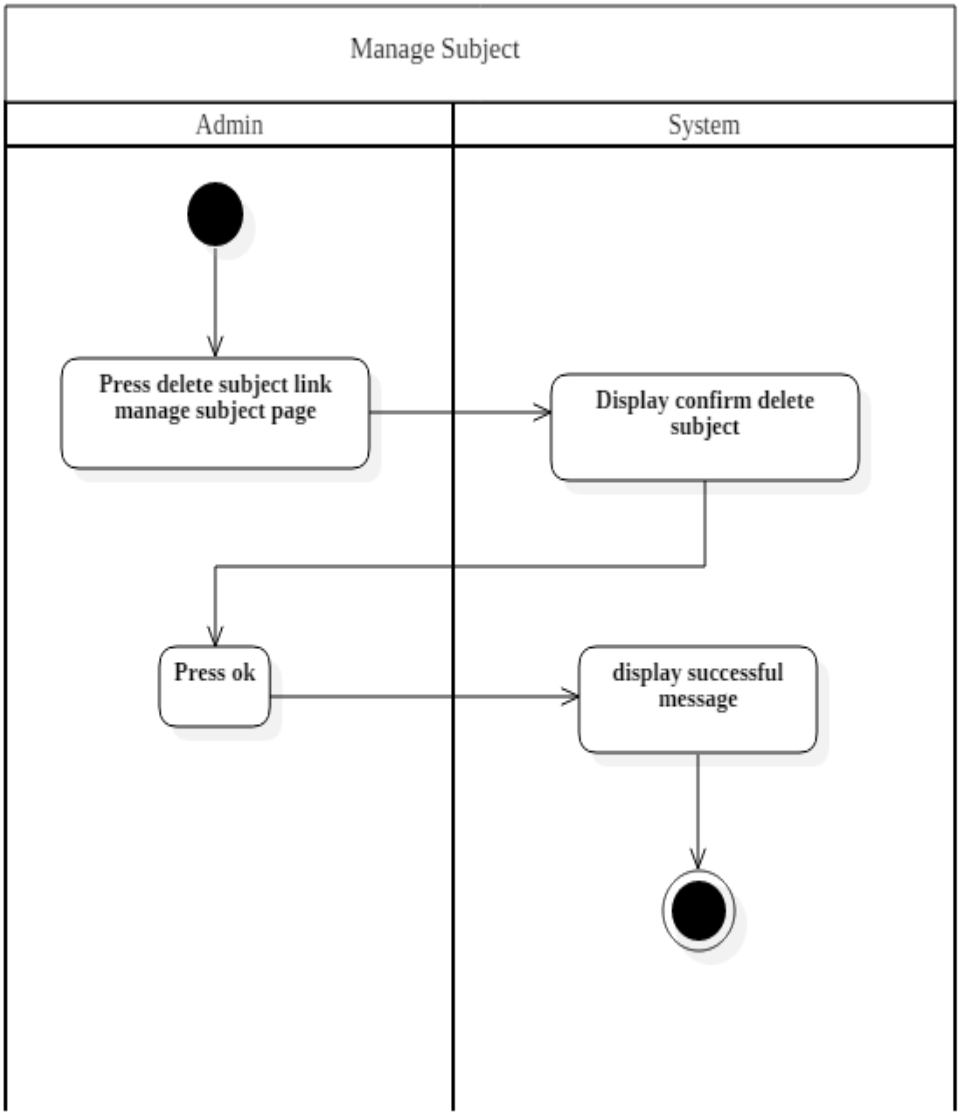

*Figure 3.52: Activity Diagram of Admin manage **DELETE** subject*

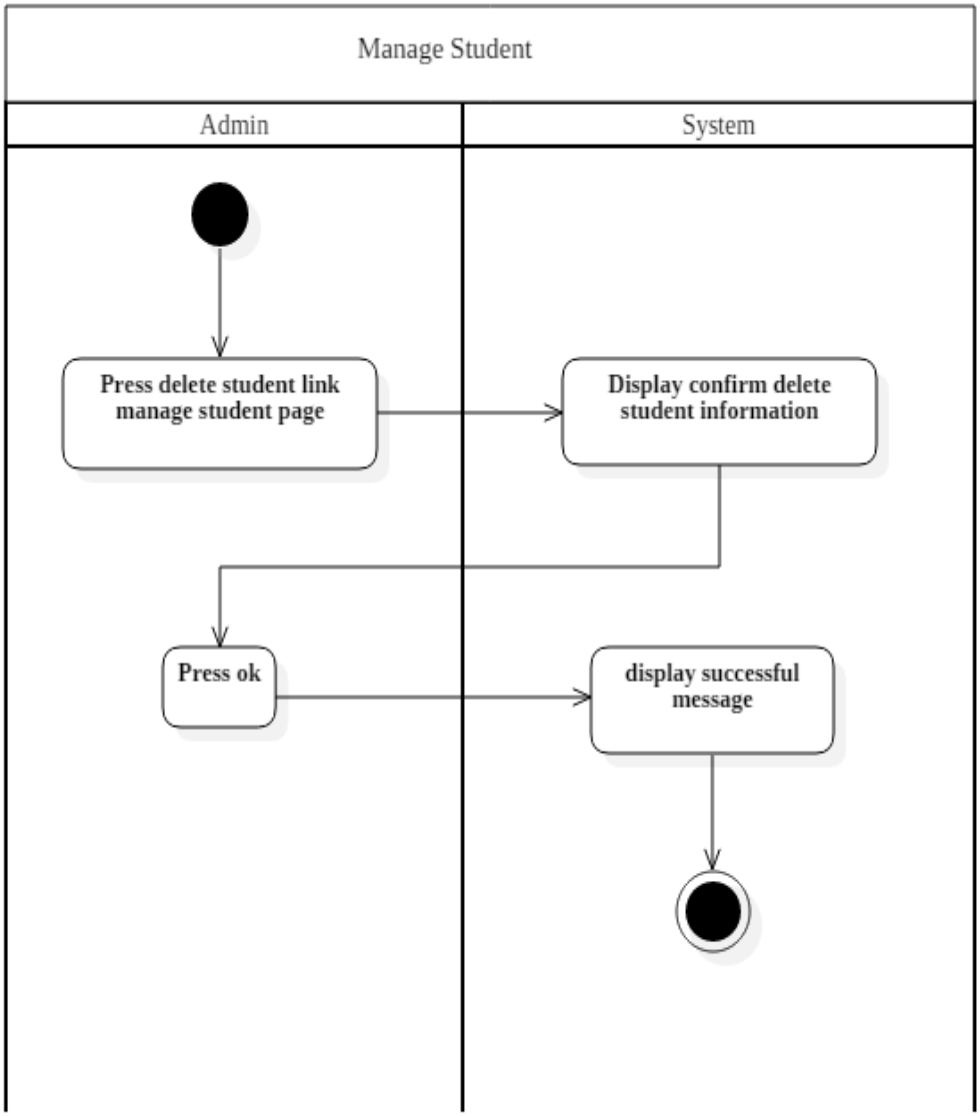

*Figure: 3.53: Activity Diagram of Admin manage **DELETE** students*

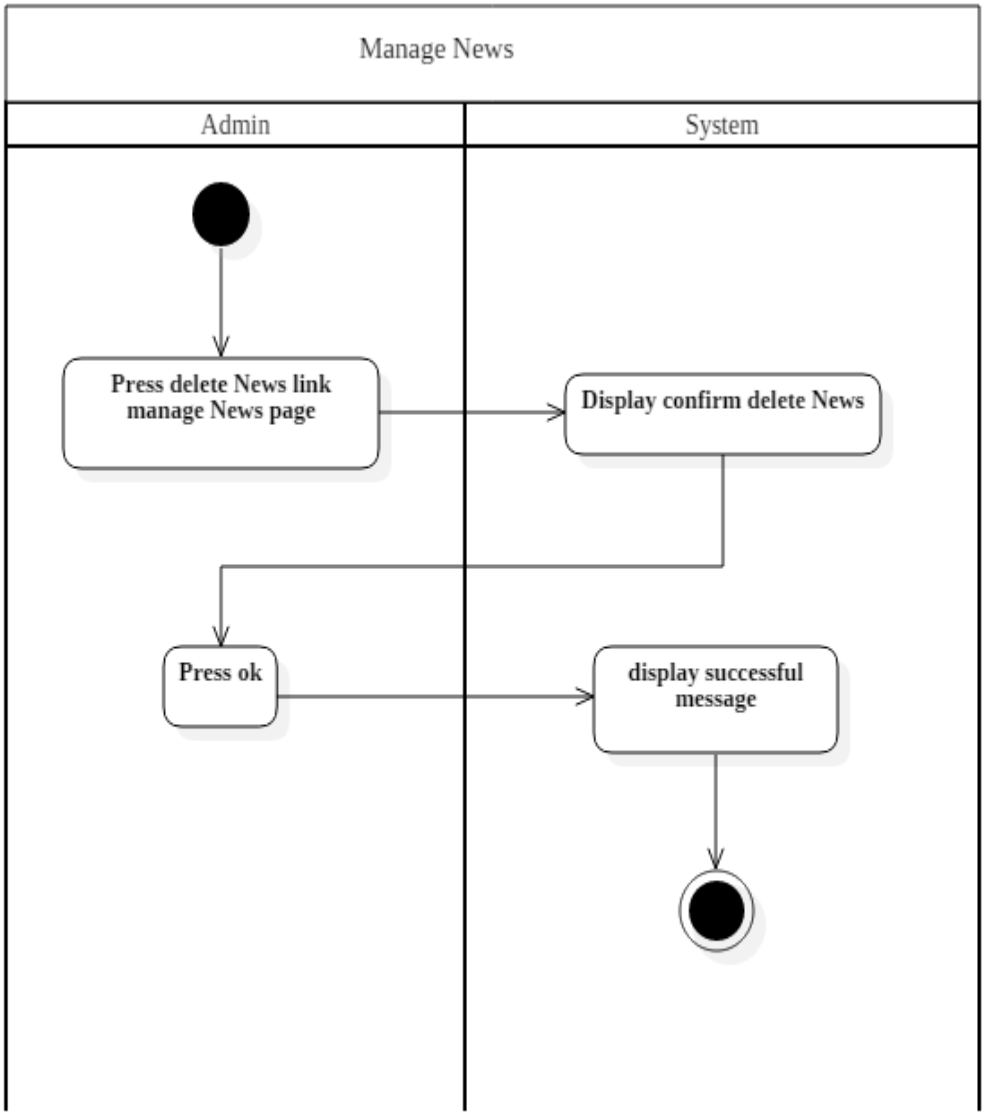

*Figure 3.54: Activity Diagram of Admin manage **DELETE** news*

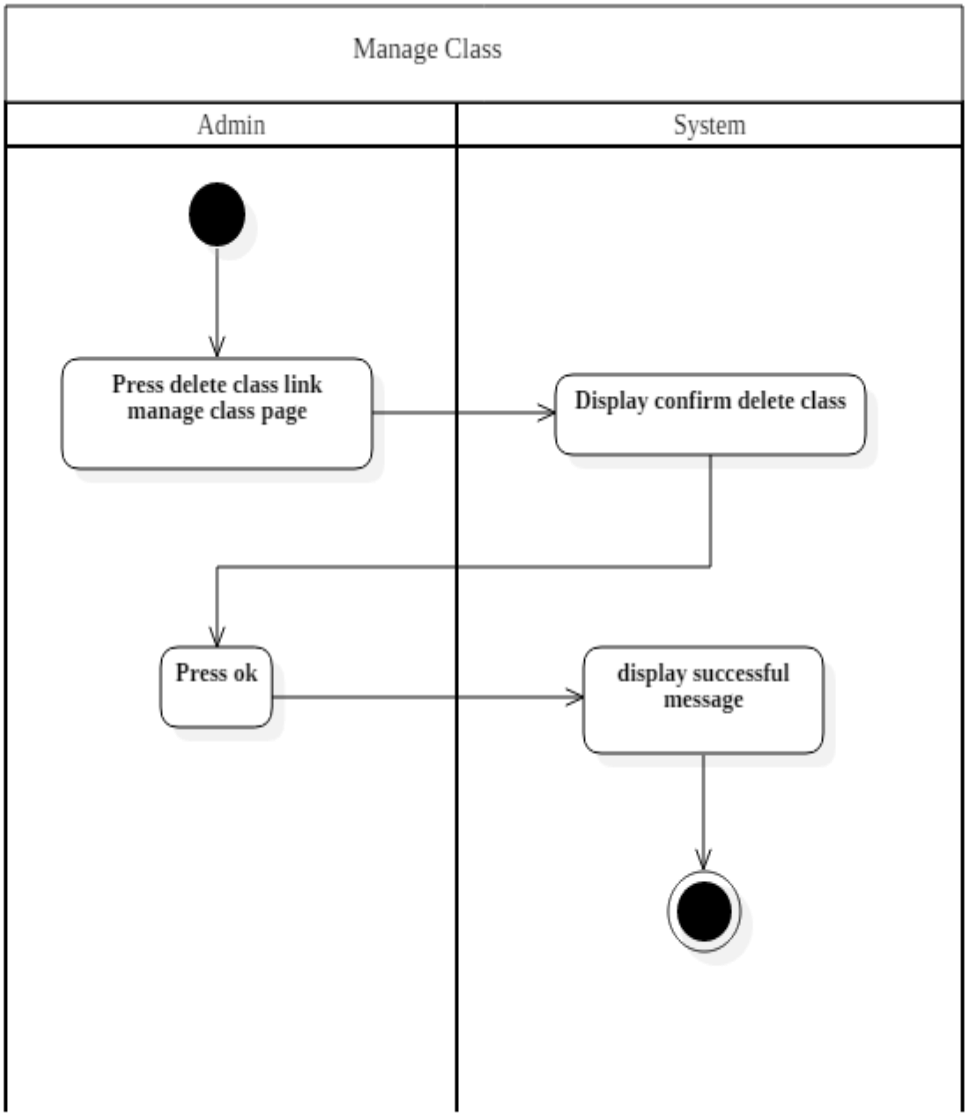

*Figure 3.55: Activity Diagram of Admin manage **DELETE** class*

3.2.8 ER-Diagram

An entity-relationship diagram (ERD) is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events within system. An ERD is a data modeling technique that can help define business processes and can be used as the foundation for a relational databased. (Margaret, 2014)

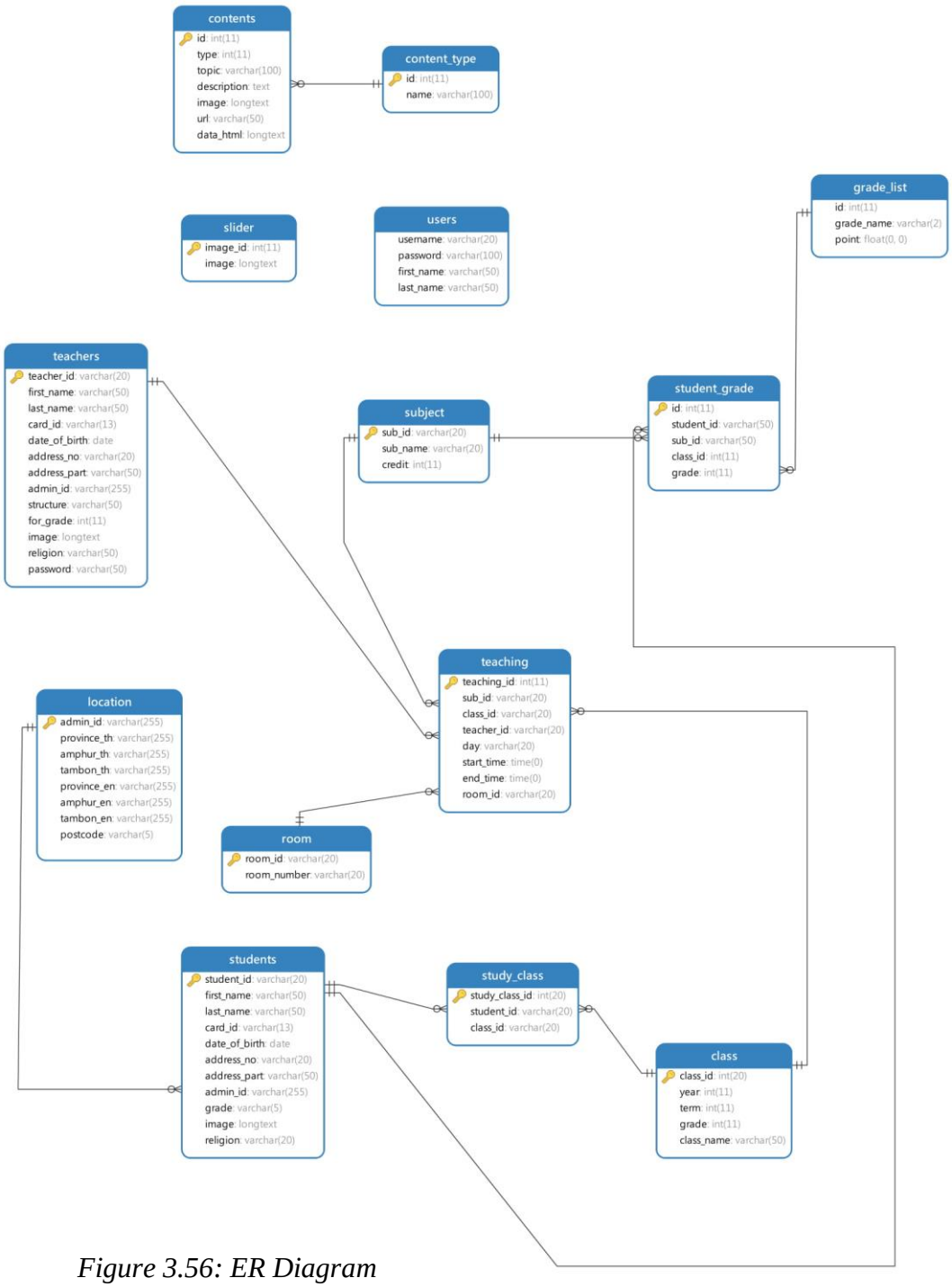

Figure 3.56: ER Diagram

3.3 DESIGN

For the third step design phase, I started to design databased and user interfaces by following the requirements, and also designing phase with divided into two parts as follow:

3.3.1 File Structure

File Structure provides a detailed accounting of all tables found within the user designer-created database. It contains all the attribute names and characteristics of each table in the system.

- **Table: users**

Table name: users						
Description: this table use to keep users's information						
Name	Type	Length	Description	Null	Key	Reference
username	Varchar	20	Username	No	-	-
password	Varchar	100	Password	No	-	-
first-name	Varchar	50	First name users	No	-	-
last_name	Varchar	50	Last name user	No	-	-
Sum		220	Bytes			

Table 3.2: users

- **Table: slider**

Table name: slider						
Description: this table use to keep slider's information						
Name	Type	Length	Description	Null	Key	Reference
image_id	Int	11	Slider's image id	No	primary	-
image	longtext		Slider's image	No	-	-
Sum		11	Bytes			

Table 3.3: slider

- **Table: contents**

Table name: contents						
Description: this table use to keep content's information						
Name	Type	Length	Description	Null	Key	Reference
id	Int	11	Content's id	No	primary	-
Type	Int	11	Content's type	No	-	-
Topic	varchar	100	Content's topic	No	-	-
description	Text		Content's description	No	-	-
Image	Longtext		Content's image	No	-	-
url	Varchar	50	Content's url	No	-	-
data_html	Longtext		Content's data	No	-	-
Sum		161	Bytes			

Table 3.4: contents

- **Table: content_type**

Table name: content_type						
Description: this table use to keep content_type's information						
Name	Type	Length	Description	Null	Key	Reference
id	Int	11	Content_type's id	No	primary	-
Name	Varchar	100	Content_type'sname	No	-	-
Sum		111	Bytes			

Table 3.5: content_type

- **Table: subject**

Table name: subject						
Description: this table use to keep subject's information						
Name	Type	Length	Description	Null	Key	Reference
sub_id	Varchar	20	Subject's id	No	primary	-
sub_name	Varchar	20	Subject name	No	-	-
Credit	Int	11	Subject's credit	No	-	-
Sum		51	Bytes			

Table 3.6: subject

- **Table: grade_list**

Table name: grade_list						
Description: this table use to keep grade_list's information						
Name	Type	Length	Description	Null	Key	Reference
id	Int	11	Grade list's list	No	PK	-
grade_name	Varchar	2	Grade name	No	-	-
point	Float	0,0	Grade list's point	No	-	-
Sum		12	Bytes			

Table 3.7: grade_list

- **Table: student_grade**

Table name: student_grade						
Description: this table use to keep student_grade's information						
Name	Type	Length	Description	Null	Key	Reference
id	Int	11	Student grade's id	No	PK	-
student_id	Varchar	50	Student id	No	FK	Student
class_id	Int	11	Class id	No	FK	Class
Grade	Int	11	Grade	No	FK	Grade list
sub_id	Varchar	50	Subject id	No	FK	subject
Sum		133	Bytes			

Table 3.8: student_grade

- **Table: room**

Table name: room						
Description: this table use to keep room's information						
Name	Type	Length	Description	Null	Key	Reference
rom_id	Varchar	20	Room's id	No	PK	-
room_number	Varchar	20	Room number	No	-	-
Sum		40	Bytes			

Table 3.9: room

- **Table: teaching**

Table name: teaching						
Description: this table use to keep teaching's information						
Name	Type	Length	Description	Null	Key	Reference
teaching_id	Int	11	Teaching id	No	PK	-
sub_id	Varchar	20	Subject id	No	FK	Subject
class_id	Varchar	20	Class id	No	FK	Class
teacher_id	Varchar	20	Teacher id	No	FK	Teacher
Day	Varchar	20	Teaching 's day	No	-	-
start_time	Time	0	Teaching start_time	No	-	-
end_time	Time	0	Teaching end_time	No	-	-
room_id	Varchar	20	Teaching 's room id	No	FK	-
Sum		101	Bytes			

Table 3.10: teaching

- **Table: location**

Table name: location						
Description: this table use to keep location's information						
Name	Type	Length	Description	Null	Key	Reference
location_id	Varchar	255	Location id	No	PK	-
province_th	Varchar	255	Location Province th	No	-	-
amphur_th	Varchar	255	Location Amphur th	No	-	-
tambon_th	Varchar	255	Location Tambon_th	No	-	-
province_en	Varchar	255	Location Amphur_en	No	-	-
tambon_en	Varchar	255	Location Tambon_en	No	-	-
Postcode	Varchar	255	Location's postcode	No	-	-
Sum		1785	Bytes			

Table 3.11: location

- **Table: teachers**

Table name: teachers						
Description: this table use to keep teachers's information						
Name	Type	Length	Description	Null	Key	Reference
teacher_id	Varchar	20	Teacher 's id	No	PK	-
first_name	Varchar	50	Teacher's firstname	No	-	-
last_name	Varchar	50	Teacher's lastname	No	-	-
card_id	Varchar	13	Teacher's card_id	No	-	-
date_of_birth	Date		Teacher's db	No	-	-
address_no	Varchar	20	Teacher's address no	No	-	-
address_part	Varchar	50	Teacher's address part	No	-	-
Location_id	Varchar	255	Teacher location	No	FK	Location
Structure	Varchar	50	Teacher's structure	No	-	-
for_grade	Int	11	Teacher's for grade	No	-	-
Image	Longtext		Teacher's image	No	-	-
Religion	Varchar	50	Teacher's religion	No	-	-
Password	Varchar	50	Teacher's password	No	-	-
Sum		619	Bytes			

Table 3.12: teacher

- **Table: study_class**

Table name: study_class						
Description: this table use to keep study_class's information						
Name	Type	Length	Description	Null	Key	Reference
study_class_id	Int	20	Study class's id	No	PK	-
student_id	Varchar	20	Student id	No	FK	student
class_id	Varchar	20	Class id	No	FK	Class
Sum		60	Bytes			

Table 3.13: study_class

- **Table: class**

Table name: student						
Description: this table use to keep studt's information						
Name	Type	Length	Description	Null	Key	Reference
class_id	Int	20	Class's id	No	PK	-
Year	Int	11	Class's year	No	-	-
term	Int	11	Class's term	No	-	-
grade	Int	11	Class's grade	No	-	-
class_name	Varchar	50	Class's name	No	-	-
Sum		103	Bytes			

Table 3.14: class

- **Table: student**

Table name: student						
Description: this table use to keep student's information						
Name	Type	Length	Description	Null	Key	Reference
student_id	Varchar	20	Student's id	No	PK	-
first_name	Varchar	50	Student firstname	No	-	-
last_name	Varchar	50	Student lastname	No	-	-
card_id	Varchar	13	Student card	No	-	-
data_of_birth	Date		Student db	No	-	-
address_no	Varchar	20	Student address no	No	-	-
address_part	Varchar	50	Student address	No	-	-
location_id	Varchar	255	Student_location	No	FK	location
Grade	Varchar	5	Student grade	No	-	-
Image	Longtext		Student image	No	-	-
religion	Varchar	20	Student religion	No	-	-
Sum		103	Bytes			

Table 3.16: students

3.3.2 INTERFACE DESIGN

Before implementing the actual design of the picture, a few interface designs were constructed to visualize the user interaction with the system

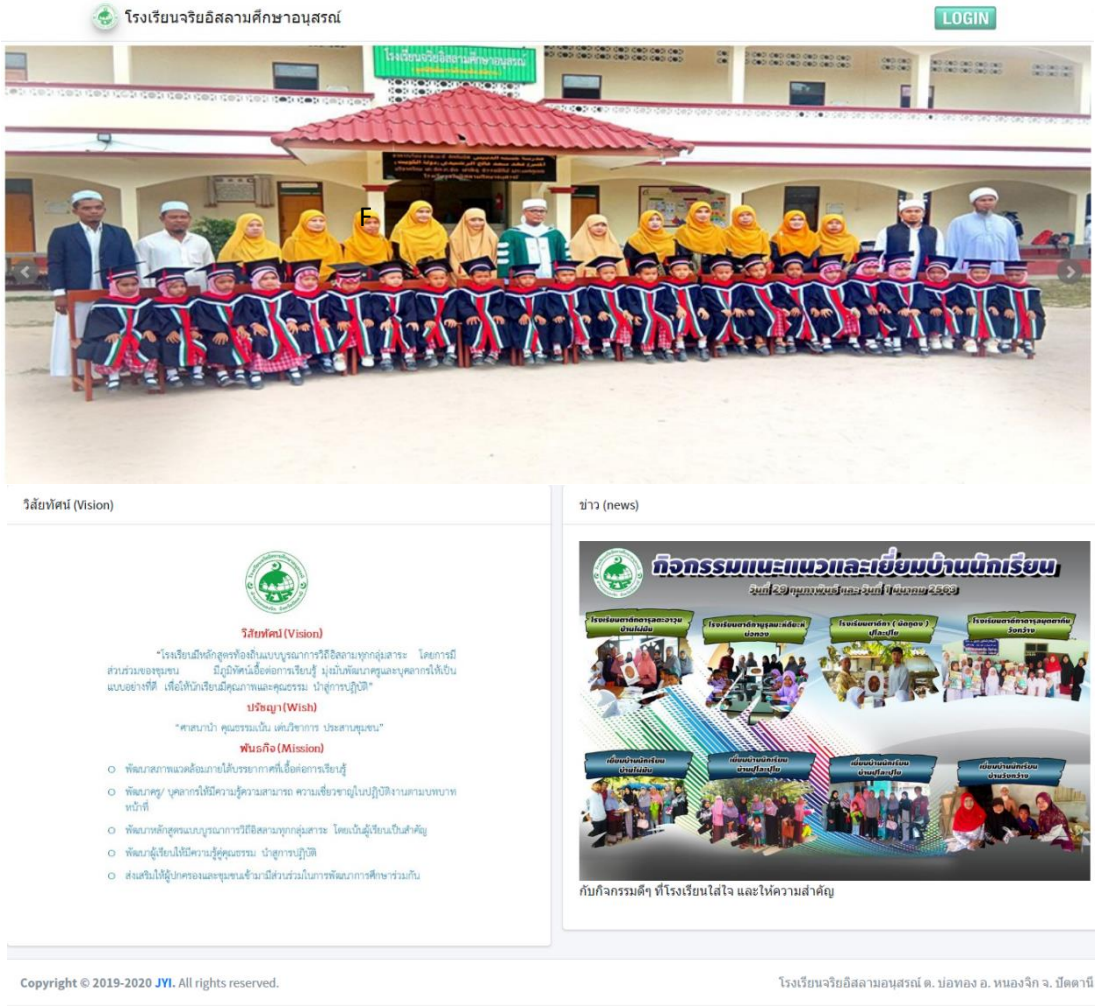

Figure 3.57: Home page

Home page shows the homepage before admin teacher and student make login, it's the page that show about general information about School Management System.

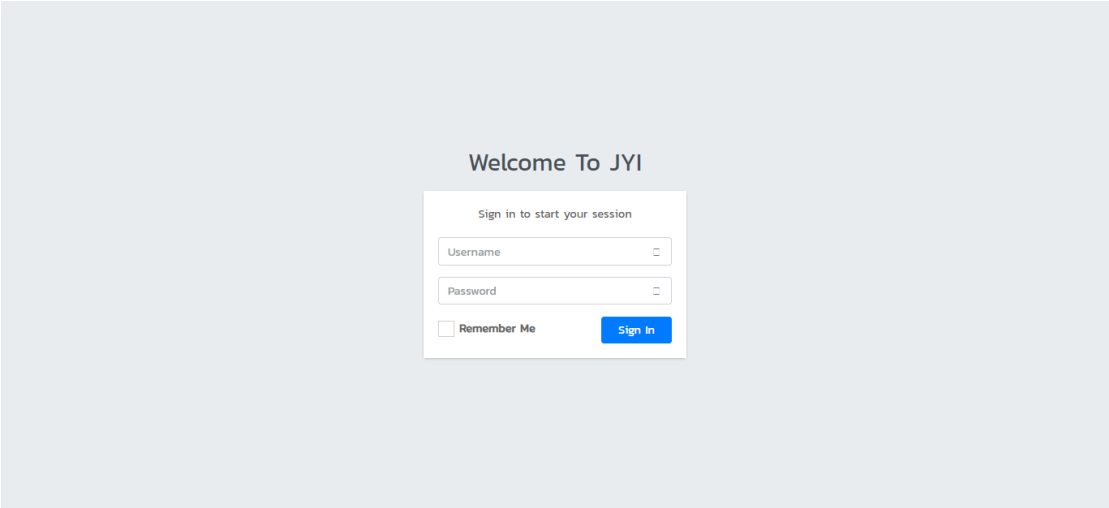

Figure 3.58: Login page

Users' login page must login before going to use the system by entering username (id) and password.

3.4 IMPLEMENTATION

Implementation phase as steps four after finished design phase and this phase present about the programmer or developer start to writing and testing code and install server hosting and doing until complete the code.

3.5 MAINTENACNE

For the maintenance phase, I have to upload and get feedback from user. If the system get feedback, we may improve and develop to be better than.

CHAPTER IV

FINDING AND IMPLEMENTATION

This chapter discusses the implementation of the design and development of school management system. This chapter presents the project findings and coding of developing school management system for Jariya Islam Suksa School.

4.1 IMPLEMENTATION

After finished design phase that will continue to the implementation phase and this phase will perform two processes. This first one is coding; the developer writes the code by using php and java script. The second one is the developer have to make a testing and check the code out to see that the system work duly completed not. If there are any mistakes found so the developer has to solve that problem till the system is working well.

Before the developer perform the implementation of system, the developer has been installed the server hosting to be as a virtual server of web-based system, selected Xampp server to be web server and the create the database by using phpMyAdmin database management. Developer selected to coding PHP with Sublime Text 3.

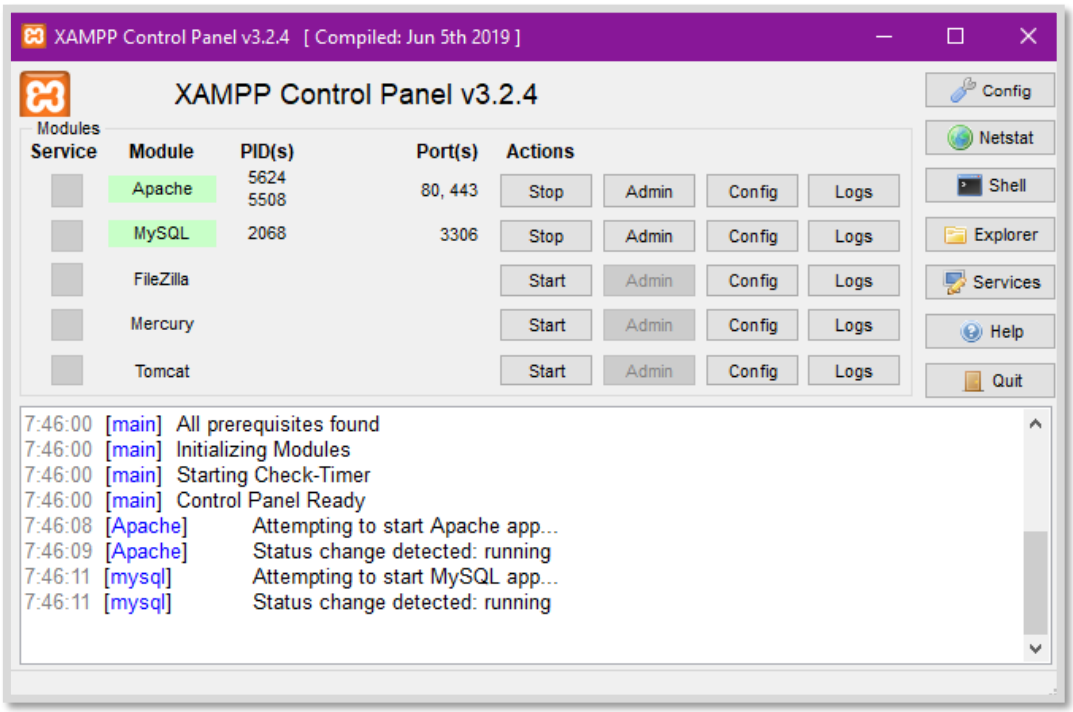

Figure 4.1: Xampp Virtual Server

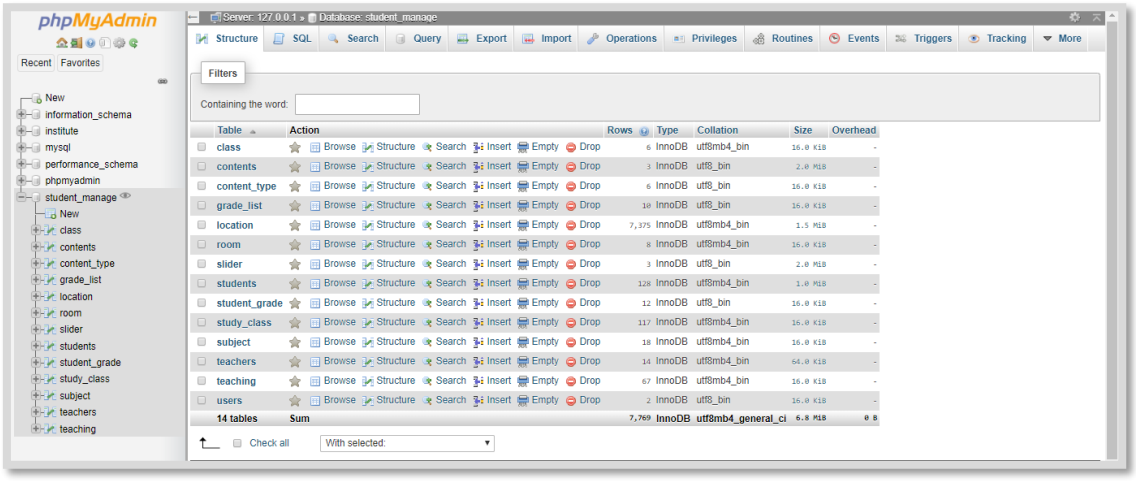

Figure 4.2: Database with phpMyadmin

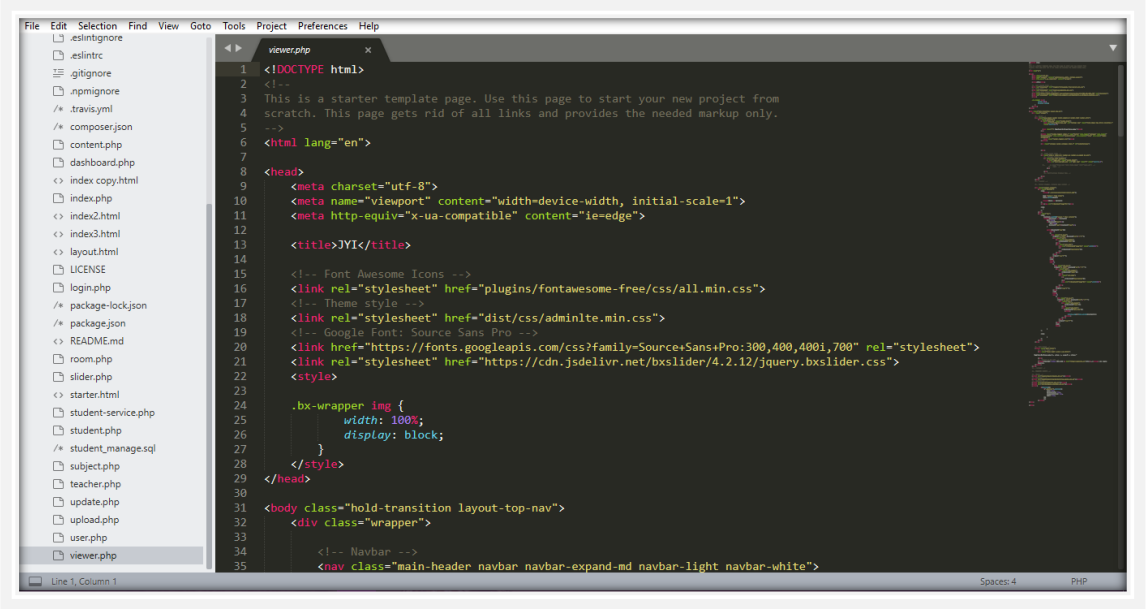

Figure 4.3: Coding PHP with Sublime Program

In the first page of school management system for Jariya Islam Suksa School is home page. This page will show the general information of website such as news, vision and others.

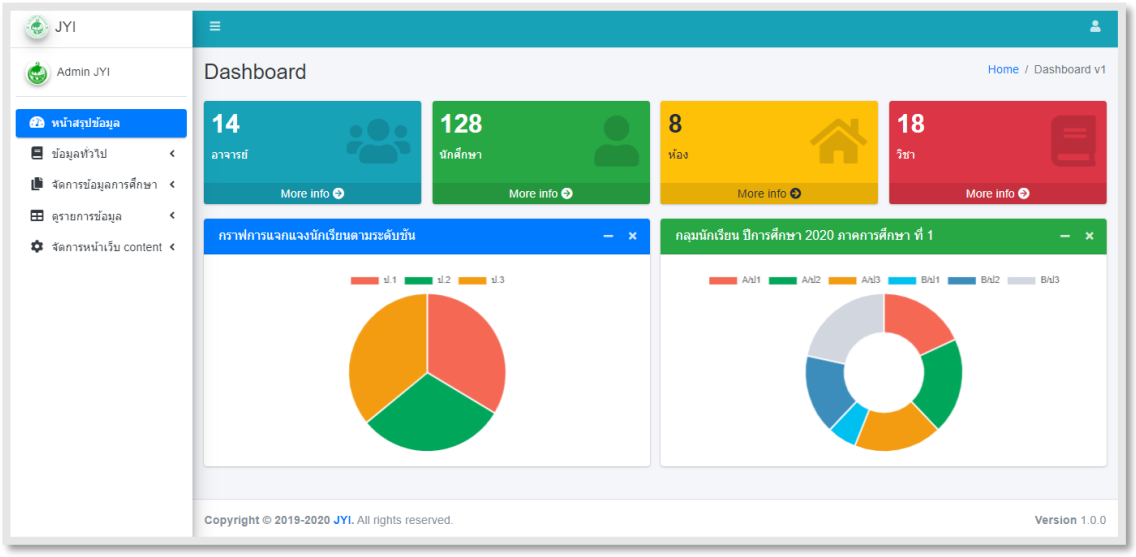

Figure 4.4: Administrator control panel page

In the administrator control panel page can manage general information, manage information education, display information report, and manage content for home page.

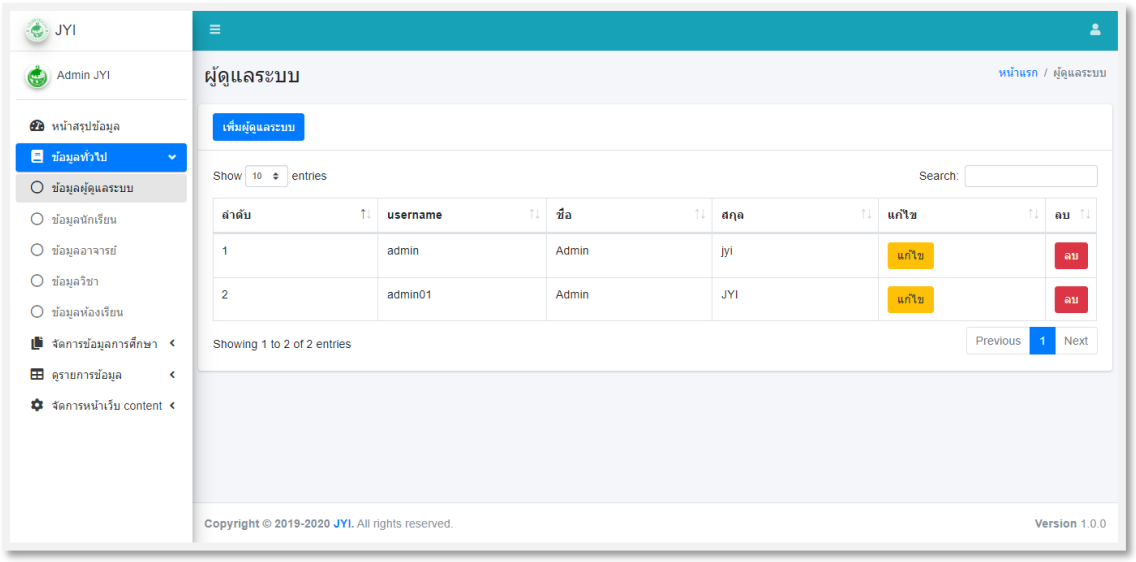

Figure 4.5: system administrator page

System administrator page is allowed to administrator can edit, delete and put more administrators into system by giving the first-name, last-name, username and password.

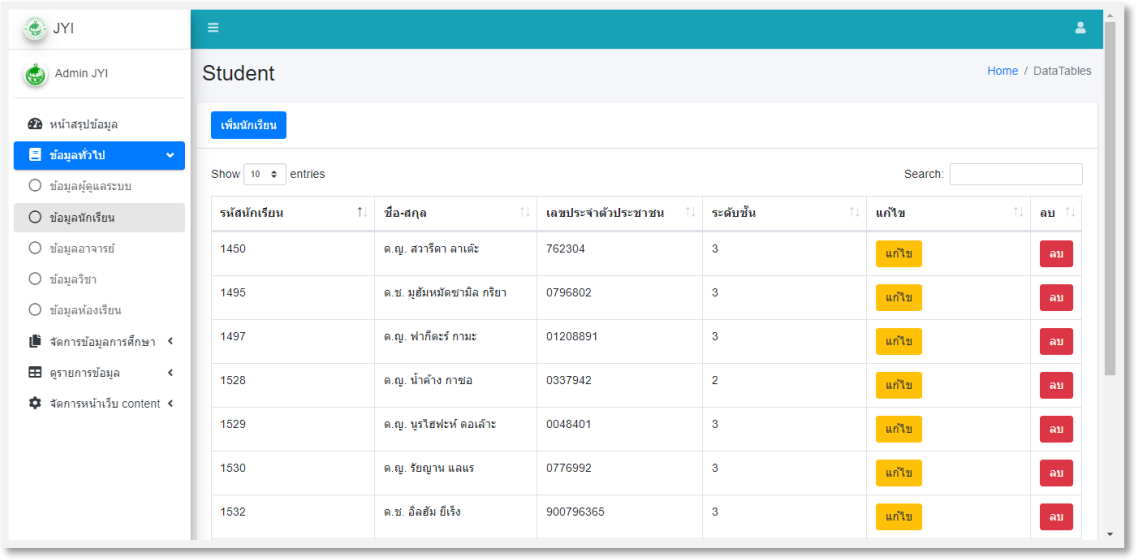

Figure 4.6: Student information administration page

Student information administration page is allowed to administer view, edit, delete, and put more student information.

.

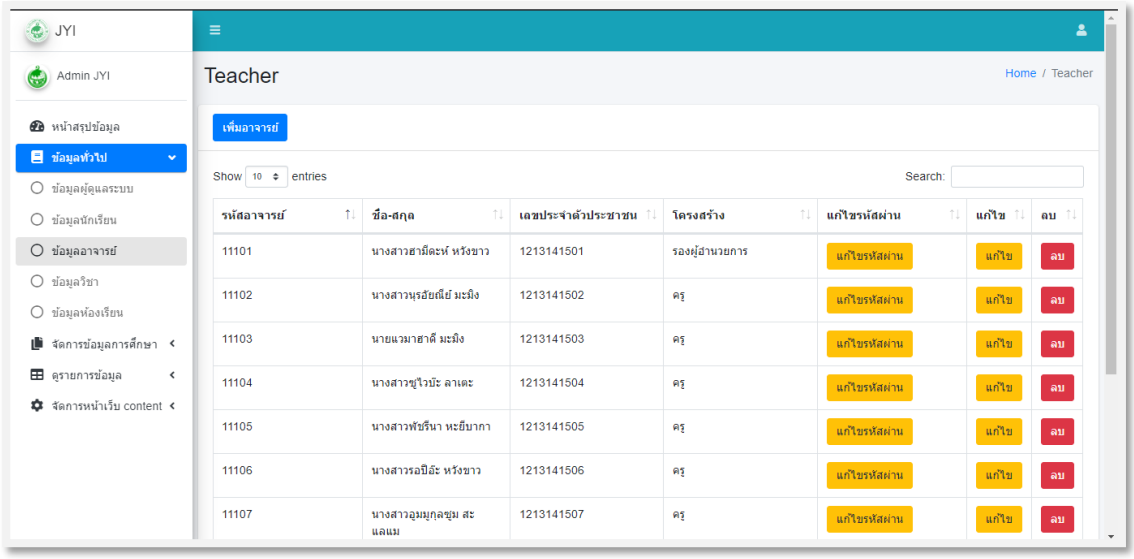

Figure 4.7: Teacher information administration page

Teacher information administration page is allowed to administrator view, edit, delete and put more teacher information.

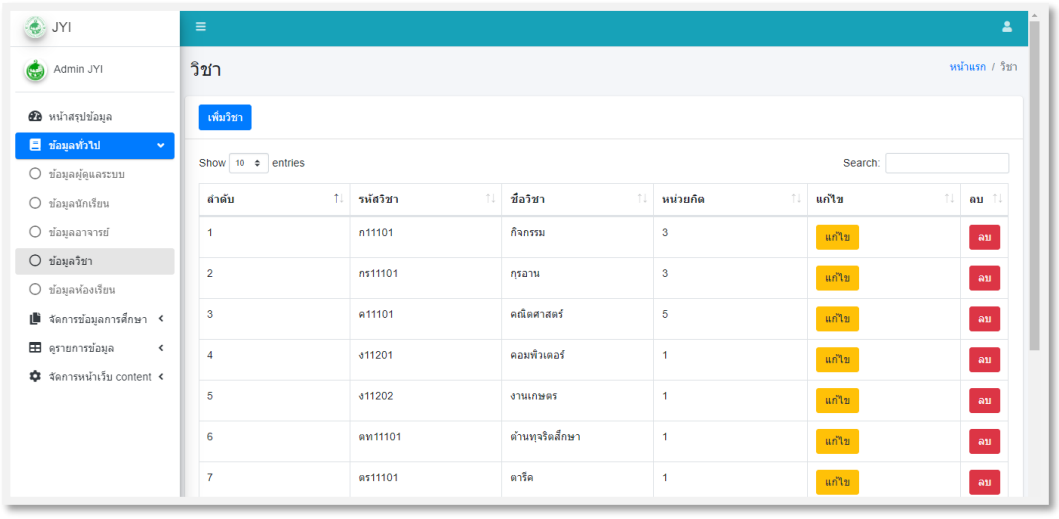

Figure 4.8: Subject information administration page

Subject information administration page is allowed to administrator view, edit, delete and put more subject information.

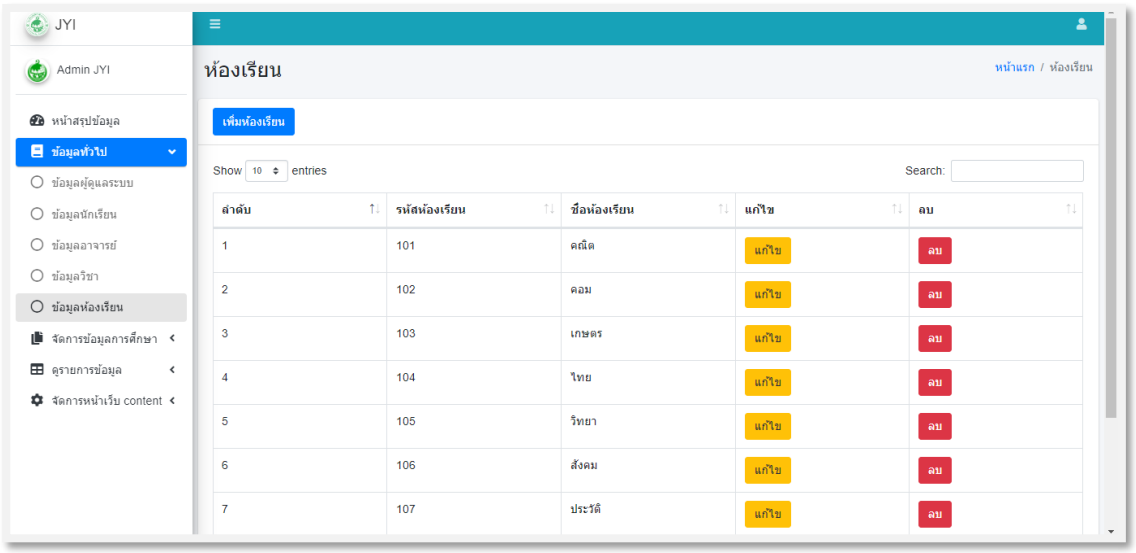

Figure 4.9: class information administration page

Class information administration page is allowed to administrator view, edit, delete and put more subject information.

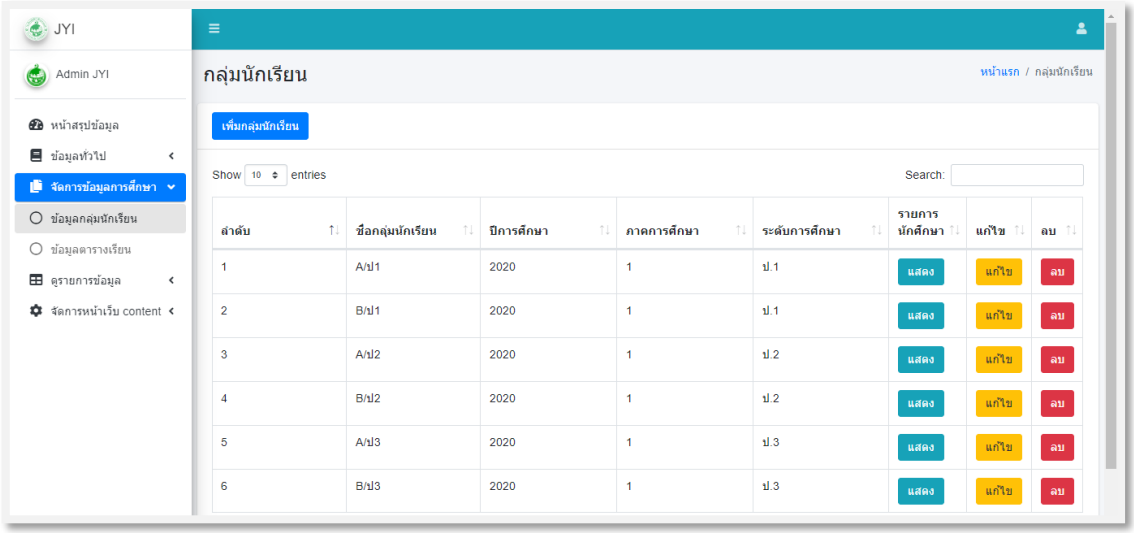

Figure 4.10: student group information page

Student group information administration page is allowed to administrator view, edit, delete and allow to put more group information.

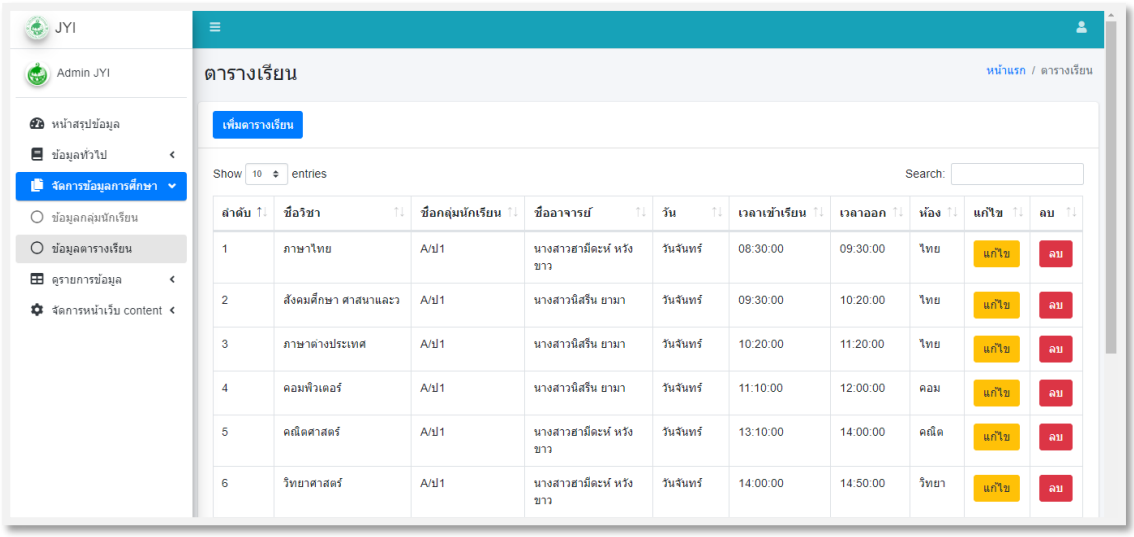

Figure 4.11: Timetable information administration page

Timetable information administration page is allowed to administrator view, edit, delete and allow to put more timetable information.

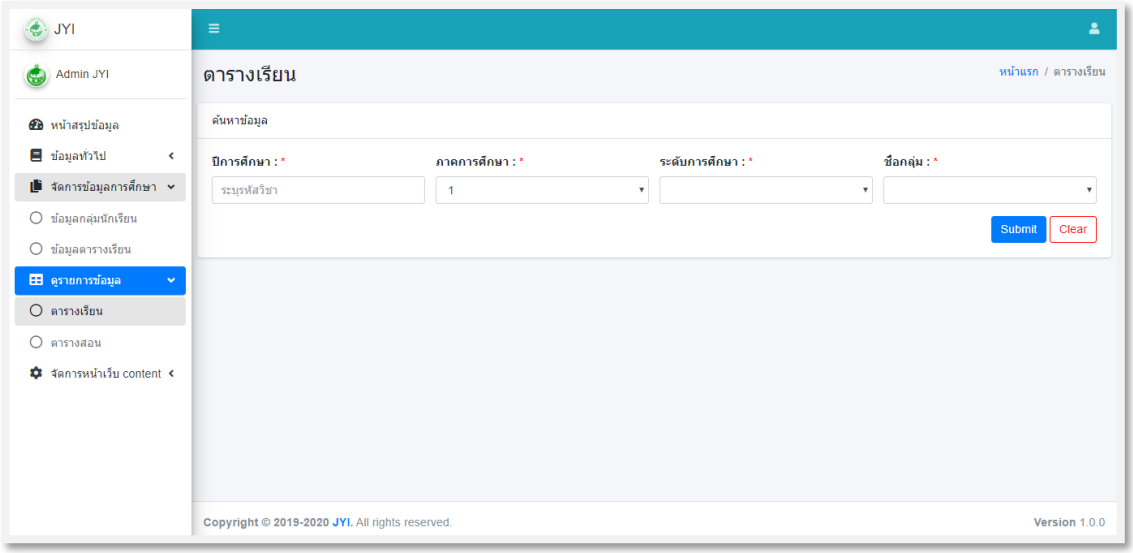

Figure 4.12: Timetable searching page

Timetable searching is allowed to administrator do searching timetable by put information such as year, semester, class and group.

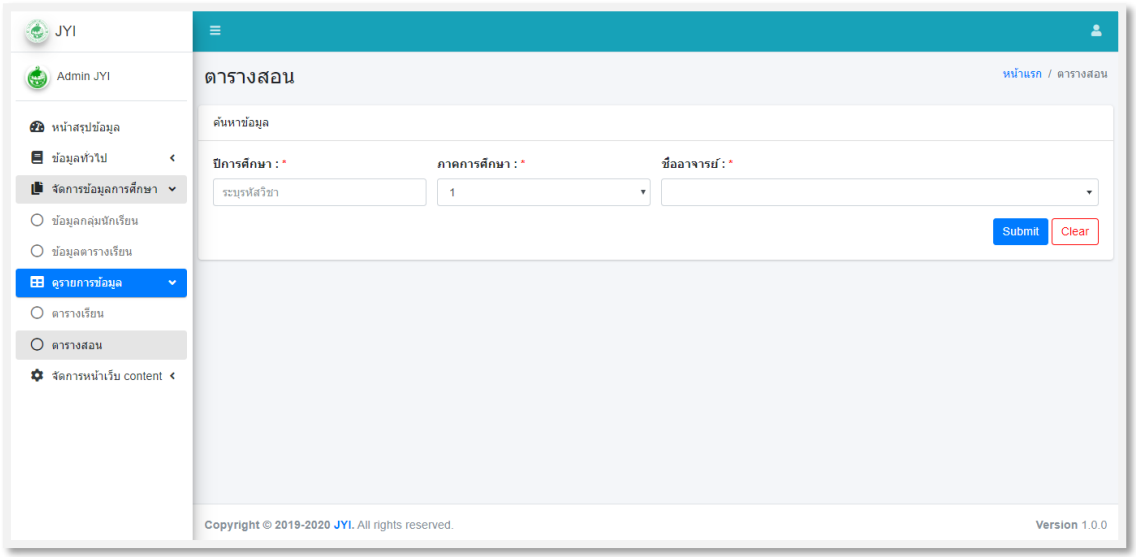

Figure 4.13: Timetable teaching searching page

Timetable teaching searching page is allowed to administrator do searching timetable teaching by put information such as year, semester, class and teacher name.

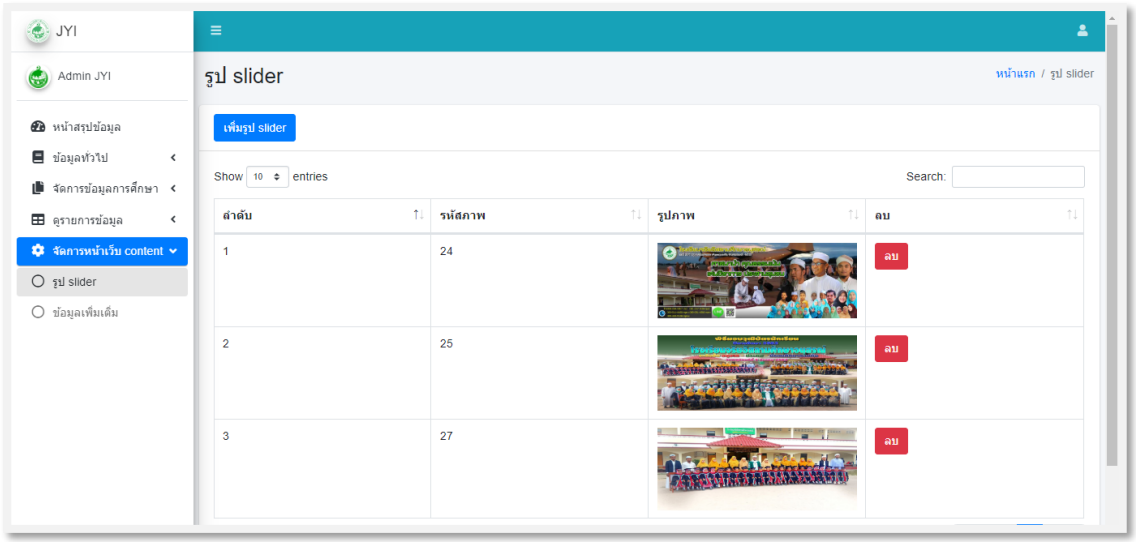

Figure 4.14: Slider administration page

Slider administration page is allowed to administrator can delete and upload new slider's image.

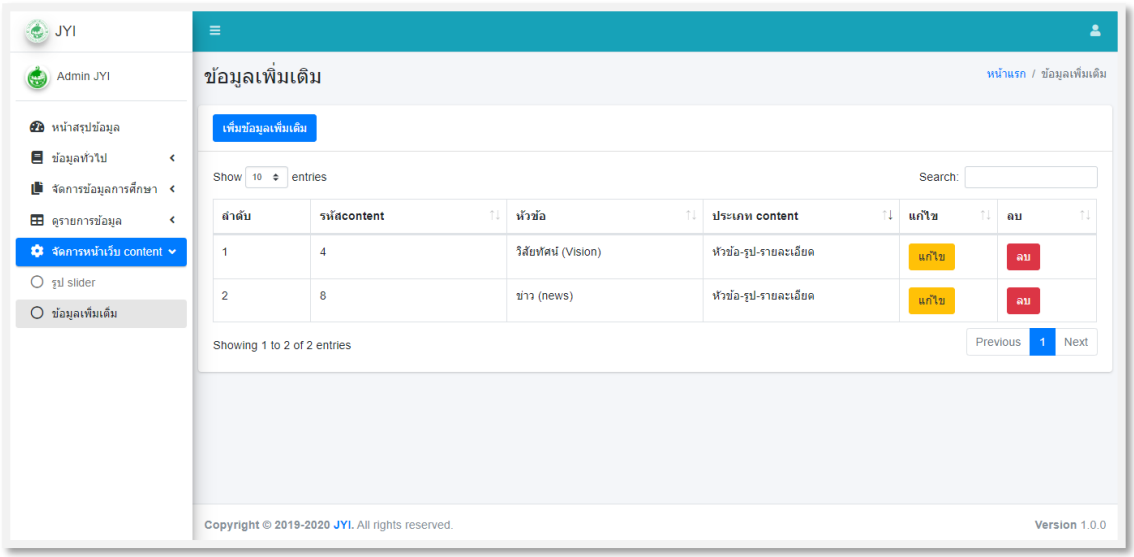

Figure 4.15: General information administration page

General information administration page is allowed to administrator can edit, delete and upload general information.

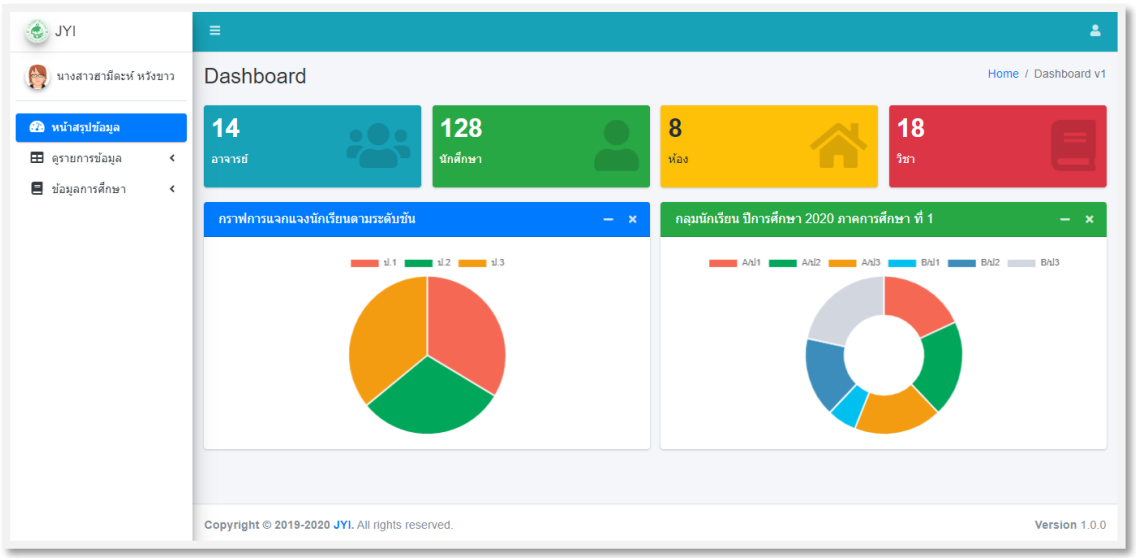

Figure 4.16: Teacher control panel page

In the teacher control panel page is allowed to teacher can display personal information, searching list information and education information.

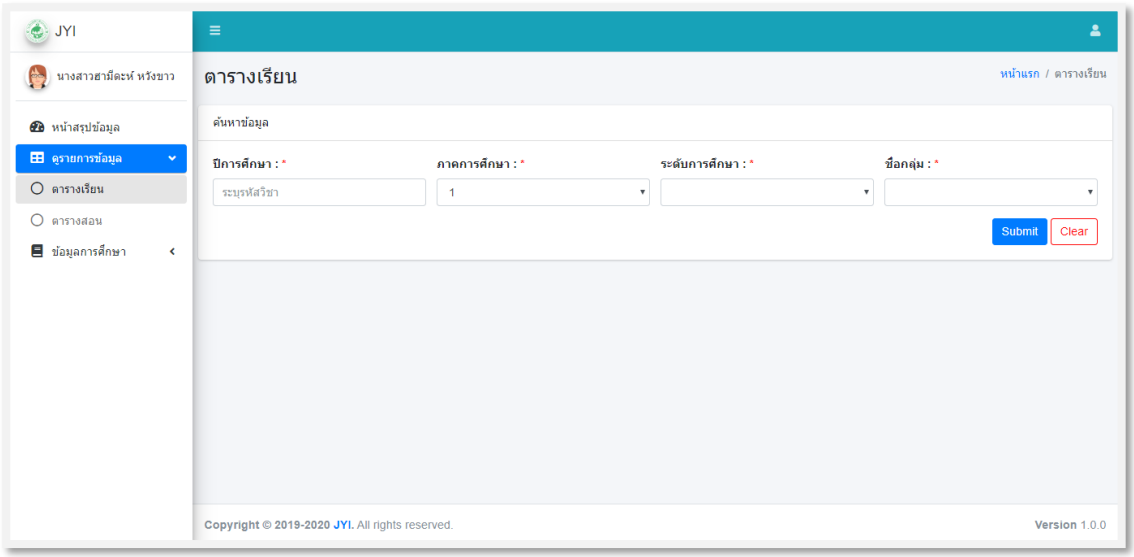

Figure 4.17: Timetable (group) page

Timetable (group) is allowed to teacher can be searching timetable group for other teacher timetable group by entering year, semester, class and **group**.

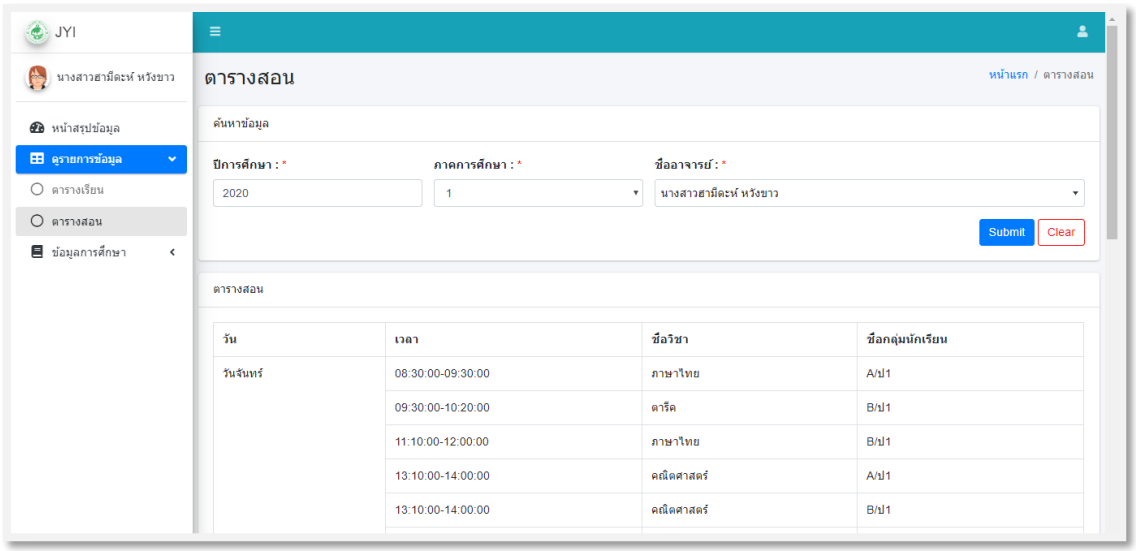

Figure 4.18: Timetable (teaching) page

Timetable (teaching) is automatically show timetable (teaching) for teacher and allowed to teacher can be searching timetable (teaching) for other teachers by entering year, semester, class and **teacher name**.

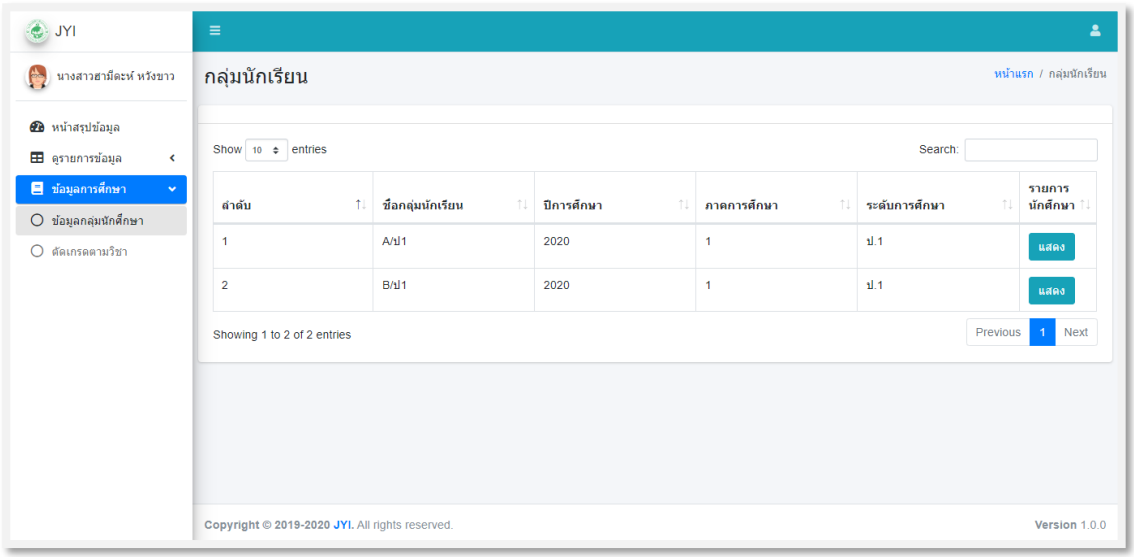

Figure 4.19: student group information page

Student group information page is automatically show group for only personal group.

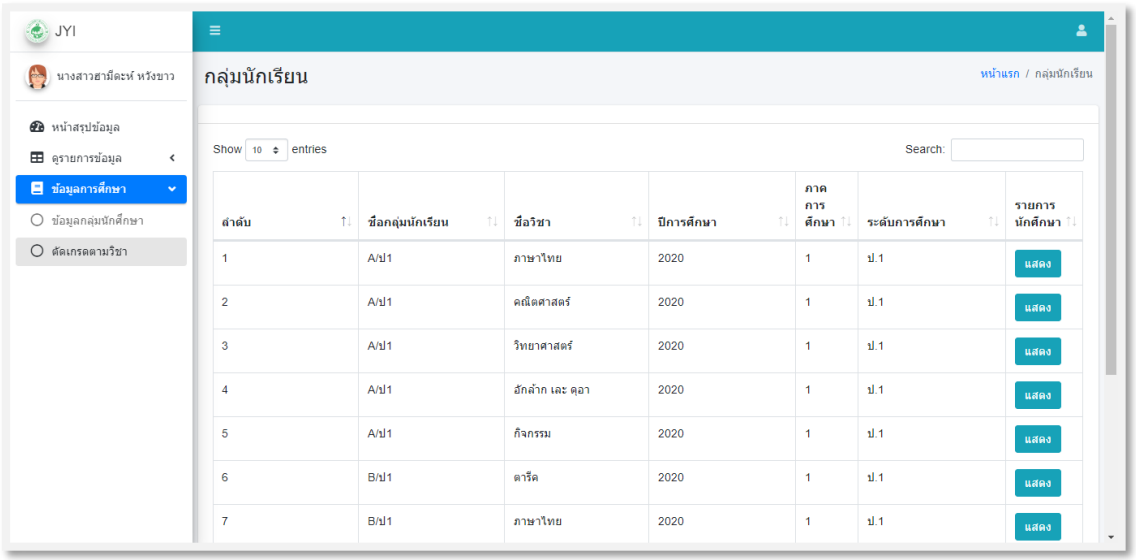

Figure 4.20: grade by subject page

The grade by subject is permitted to teacher provide grade to each student by subject and teacher can also display each personal student.

4.2 MAINTENANCE

For the maintenance phase, we have to upload website and get feedback from the user. If the system get feedback, we can improve and develop the website better than.

4.3 SUMMARY

The implementation is one important phase that use for coding and testing. By this phase, the developer will see the mistake of the system and try to correct it immediately. And for maintenance, I have to upload my website and get feedback from user that it is good feedback or not.

CHAPTER V

CONCLUSION

The aim of this project is to develop school management system for Jariya Islam Suksa School provide to administrator and teachers. The project has been done and mentioned through previous chapter. This chapter will conclude the study of this project as well as recommendation and limitation form development.

5.1 RECOMMENDATION

Presently, Jariya Islam Suksa School at Tambon Botong Nongjik District, Pattani Province has been using the manual or old system to perform and manage of school function. According to this project, there are two parts to use and manage system consist of administrator, teachers and other information. The function of administrator can be managed for all functions such add, update and delete to teachers, student, news, photo, timetable, class, subject and so on. The function of teachers update grade.

5.2 LIMITATION

School management system for Jariya Islam Suksa School is a project that converted from manual system to be done electronically. This system will collect the information or all documents that connect to school which changes from manual to be online system. In fact, the development intention wants this system to complete but not all because which the developer face to limitation time complete this work. While the developer constructs this project face several situations as following:

- Lack of programing skill
- Lack of database design skill
- The requirement always changes because of developer have not enough analysis skill

5.3 CONCLUSION

Jariya Islam Suksa School at Tambon Botong Nongjik District, Pattani Province was transfer from manual system to internet networking system or online system. This system will be collection information that related about school which convert from manual to be online or digital system. It is facility for administrator and teachers of using this system. In this way, all database and information will show or perform on the internet that allow to users can access to this system anywhere or anytime.

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APPENDIX