



Palestine Technical University – Kadoorie  
College of Engineering and Technology  
Department of Computer Systems Engineering

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Software Engineering

Project title:

**DEVELOPING A CENTRALIZED COURSE PORTAL FOR  
EDUCATIONAL CENTERS IN PALESTINE**

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# Abstract

In response to the educational challenges faced by students in Palestine due to the COVID-19 pandemic and subsequent regional conflicts, our project introduces an online educational platform designed to mitigate the impact of these disruptions. Our platform empowers students, educational institutions, and learners by promoting accessibility, transparency, and efficiency. By leveraging technology, we aim to enhance the educational journey despite existing challenges. The platform's purpose is to facilitate the discovery and reservation of educational sessions, providing a centralized repository of information on educational centers. Our methodology employs a user-centric approach, emphasizing ease of access and communication. We have developed a system that allows students to reserve sessions based on their preferences, gather detailed information about educational centers, and utilize an intuitive search and booking process. The platform also establishes direct communication channels between students and centers. The main result of this initiative is an accessible, efficient, and responsive educational environment that adapts to the needs of students and educators alike. The conclusion drawn from the project is that technology can significantly bridge the educational gaps caused by unforeseen circumstances, ensuring continuity in learning and academic growth.

## Abstract

بالنظر إلى التّحديات التّعليمية التي واجهها الطلاب في فلسطين بسبب جائحة كوفيد-١٩ واليّزاعات الإقليمية اللاحقة، يُقدم مشروعنا منصة تعليمية عبر الإنترنت مُصممة للتخفيف من تأثير هذه الاضطرابات. تُمكن منصتنا الطلاب والمؤسسات التّعليمية والمُتعلمين من خلال تعزيز الوصوليّة والشفافية والكفاءة. من خلال استغلال التكنولوجيا، نهدف إلى تعزيز رحلة التعليم على الرغم من التحديات القائمة. كما و يهدف النظام إلى تسهيل اكتشاف وحجز الجلسات التعليمية، وتوفير مستودع مركزيّ للمعلومات عن المراكز التعليمية. كما نستخدم نهجًا محوريًا يؤكد سهولة الوصول والتواصل. لقد طورنا نظامًا يسمح للطلاب بحجز الجلسات بناءً على تفضيلاتهم، وجمع معلومات مُفصّلة عن المراكز التعليمية، واستخدام عملية بحث وحجز بديهية. تنشئ المنصة أيضًا قنوات اتصال مباشرة بين الطلاب والمراكز. النتيجة الرئيسية لهذه المبادرة هي بيئة تعليمية مُتاحة وفعّالة ومتجاوبة تتكيّف مع احتياجات الطلاب والمعلمين على حد سواء. وخلصنا من هذا المشروع إلى أن التكنولوجيا يُمكن أن تسد الفجوات التعليمية الناجمة عن الظروف غير المتوقعة، مما يضمن استمرارية التّعلم والنّمو الأكاديمي.

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# Chapter 1: Introduction

## 1.1 General Background

Over the past four years, students in Palestine have faced significant challenges in their educational journey. These challenges began with the outbreak of the COVID pandemic in 2020, which disrupted and slowed down the educational process. With the aftermath of the COVID-19 pandemic, Palestine witnessed a series of negative events that adversely affected education, including the 2021 war on Gaza, the teachers' strike, and the 2023 war. Students have been affected during this period by a reduction in the quality of education and a decline in their academic performance, as testified by parents and teachers.

Additionally, these challenges have not been limited to school students alone, but have extended to university students and learners in training centers and educational institutions. Everyone has been affected by the disruption of classes and the discontinuation of the educational process, leading to a decline in academic performance and an increase in the educational gap.

## 1.2 Problem Statement

The impact of these adverse conditions on the educational process in Palestine is alarming, leading to a decline in students' academic levels and a deterioration in the quality of education. Therefore, it is imperative to search for technological educational solutions that contribute to enhancing the quality of education and motivating students to learn and grow academically despite the existing challenges.

### 1.3 General Objective

Our goal through our website is to streamline the process of finding suitable educational courses, whether for school students or others. This will be achieved by establishing an organized platform that facilitates searches based on educational materials, geographical location, or the method of course delivery (in-person or online). Simultaneously, it aims to simplify the organization of educational courses within educational institutions, while at the same time enabling them to advertise their services effectively.

### 1.4 Objectives

1. **Educational Session Reservation:** Create a system where students can reserve educational sessions\ Allow them to choose sessions based on their preferences and availability\ Implement booking features to secure their spots.
2. **Educational Center Information:** Gather comprehensive details about educational centers\Include information such as courses offered, schedules, and physical locations\Ensure accurate and up-to-date data.
3. **Student-Friendly Search and Booking:** Design an intuitive search function for students\ Enable easy exploration of available sessions\ Streamline the booking process.
4. **Seamless Communication:** Build channels for communication between students and centers\ Provide support for inquiries, updates, and assistance\ Foster a collaborative environment.

## 1.5 Scope of Work

On this system we will focus on developing an online educational platform that aims to facilitate the reservation of educational sessions and provide information about educational centers in **major cities in Palestine**. The platform will include features such as searching for educational centers, viewing available sessions, and booking sessions online. Additionally, the platform will enable communication between students and educational centers, ensuring a seamless experience for both parties.



## Chapter 2: System Analysis& Requirements

### 2-1 Functional Requirement

#### 2-1-1 Admin:

##### 1- The Admin shall be able to add a course.

**1.1** To add a course the admin shall enter course name, description and appointment to this course.

**1.2** The system shall ensure that this admin has the authority to add a course to this particular center.

**1.3** After adding the course, a message shall appear to the admin stating that the course has been added successfully.

**1.4** The system shall verify that this course doesn't exist previously, If it exists, the process of adding the course will be rejected and a message will appear to the admin.

**1.5** The system shall allow the admin to add any number of courses he wants.

##### 2- The Admin shall be able to delete a course.

**2.1** Before deleting the course, a warning message shall appear to the admin, so that the deletion process does not occur until he/she click to confirmation message.

**2.2** After the deletion process occurs, it shall appear immediately to all users.

##### 3- The Admin shall be able to edit a course.

**3.1** Before editing the course, a warning message shall appear to the admin.

**3.2** After the course edit it shall appear immediately to all users.

**4- The Admin shall be able to edit his account.**

**4.1** Before the admin edit his account he will be asked to enter the original password and a code will be sent to him on his email that shall be entered then he can edit his account.

**5- The Admin shall able to generate a report.**

**5.1** The report must include a summary of all the courses offered, the number of students in each course, and their dates

**6-The Admin shall be able to keep track for each course offer.**

**6.1** The admin shall be able to know the number of students in each course, and if a student registers, a notification will be sent to the admin.

**7- The Admin shall be able to offer a job.**

**7.1** If the center needs a teacher, for example, the admin will submit this request on the home page of our website.

**7.2** A notification shall be sent to all people who have an account on our website.

**8- The Admin shall be able to see feedback about the center and about each course.**

**9- The Admin shall be able to register a new Teacher.**

**9.1** Admin fills out the form for registering new Teacher with the required data .

**10- The Admin shall be able to revoke permission from Teacher.**

**2-1-2 User:**

**1-The user shall be able to create account.**

**1.1** To access all the features offered by the site the user shall have account to achieve this, a screen will appear asking the user to information.

**1.2** The process of create account can be in 2 ways. In the first way, the user enters both his email and password, and the other way by using Gmail or Facebook .

**1.3** If the user forgot his password, he will get the password through a message on his email after click "forget my password".

## **2- The user shall be able to see every center displayed on the website.**

**2.1**After the user creates his account, he will be taken to the main page of our website, which includes several centers.

**2.2** If the user is searching for a center in a specific city, he can choose the city and then see the centers in the city he chose.

**2.3** If the user wants to see additional information about the center in terms of the date of establishment, educational staff, etc. he shall click on the center he wants.

## **3- The user shall be able to see the courses available in each center.**

**3.1** If the user is searching for a course and does not know the centers that offer it, our website will display all the available courses, and after clicking on the course he wants, he will be taken to a page containing all the centers that offer this course. If he is interested in a course offered in which a specific center is offered, he can click on the name of center only.

**3.2** After accessing the course he wants, he can click on it to see information about it dates, description and its completion period, etc.

## **4- The user shall be able to register for the course he wants.**

**4.1**In order for the user to register, he shall enter some information also the course must be open.

**4.2** The user will not be able to see any materials within the course until he pays a certain amount according to the center's system.

**4.3** After registering and fulfilling all conditions, the user will be able to access the displayed materials and can download them as needed.

**4.4** If any material is added, the user shall be notified.

**5- The user shall be able to pay through the website .**

**5.1** If the user wants to make the payment process, he will be taken page designated for making the payment after entering some information, and a warning message will be sent before carrying out the process.

**6- The user shall be able to edit his account.**

**6.1** Before the user edit his account he will be asked to enter the original password and a code will be sent to him on his email that shall be entered then he can edit his account.

**7- The user shall be able to follow the centers he is interested in.**

**7.1** By clicking a button within each center, any user will be able to know if a course has been added in the center he is interested in.

**8- The user shall be able to provide feedback to the center.**

**8.1** The user shall be registered in at least one course to be able to provide feedback to the center.

**9- The user shall be able to download any material he wants.**

**9.1** The system shall be able recognize this user as having the authority to access the course materials.

**10- The user shall be able to apply a job.**

**10.1** Our website shall send notifications to all users, so if the user has the qualifications, he can apply for the job by filling out some information, and if he is accepted, a message will be sent to him.

**11- The user shall be able to see the location of each center.**

**11.1** In order for the user to be able to do this, he shall click on a dedicated button on the page, then choose the city in which the center is located. Then our page will describe how to reach the center in the shortest possible way.

## **2-1-3 Teacher:**

### **1- The user shall be able to login as a Teacher.**

**1.1** The system shall be to distinguish that this account belongs to a teacher, and this teacher also belongs to a specific center and cannot perform any operations except for the center affiliated with him.

### **2- The Teacher shall be able add material.**

**2.1** The system shall be able to distinguish that this teacher has permission to add materials to this particular course.

**2.2** To add materials, some information shall be written, such as the name of this material, a description, etc.

**2.3** After adding the material , a message shall appear to the teacher stating that the material has been added successfully also a notification shall be sent to the admin that material has been added to a specific course .

**2.4** The teacher shall be able to add any number of materials in any type: pdf, word, video, etc.

### **3- The Teacher shall be able delete material.**

**3.1** Before deleting a material, a warning message shall appear to the teachers

**3.2** After the deletion process occurs, it shall appear immediately to all users

### **4- The Teacher shall be able edit material.**

**4.1** Before editing the material, a warning message shall appear to the teacher.

**4.2** After the material edit it shall appear immediately to all users.

### **5- The Teacher shall be able to edit account.**

**5.1** Before the user edit his account he will be asked to enter the original password and a code will be sent to him on his email that shall be entered then he can edit his account.

### **6- The teacher shall be able to contact with student.**

## 2-2 Non-Functional Requirements:

**1-Usability:** The system shall have a simple user interface (so any user can deal with our website easily without any help frames).

**2-Security:** The system shall contain login page and the user sign up to create account and login for the system and the password must be at least 9 characters.

**3-Portability:** The system shall be compatible with various devices, such as phones, tablets, etc.

**4-Availability:** The system shall be always available for access by users 24 hours for each day.

**5-Performance:** The system shall respond to user requests in a short time, and the user can perform many operations in a short time.

### **6-Scalability**

The system shall be able to handle an increasing number of users, courses.

## Chapter 3: System Design

### 3-1 MVC model design:

#### 3-1-1 Overview:

The MVC (Model-View-Controller) model for a would involve the following components:

- 1. Model:** This layer would handle the data logic and represent the structure of the database where all course information, user accounts, roles, permissions, and other data are stored. It would include:
  - Course data models with properties like name, description, and appointment.
  - User models with different roles (admin, user, teacher) and their respective permissions.
  - Authentication models to handle login credentials and password resets.
- 2. View:** This layer would be responsible for the presentation logic, displaying the user interface where admins, users, and teachers interact with the system. It would include:
  - Interfaces for admins to add, delete, or edit courses, generate reports, and view feedback.
  - User interfaces for account creation, course browsing, registration, payment, and material downloads.
  - Teacher interfaces for adding, deleting, and editing course materials and managing their accounts.
- 3. Controller:** This layer would manage the application logic, processing user input, and interacting with the Model to render the final output in the View. It would include:
  - Controllers to handle requests for adding, deleting, and editing courses.
  - Controllers to manage user authentication, registration, and profile editing.
  - Controllers for teachers to manage course materials and communicate with students.

### 3-1-2 MVC Diagram:

considering the functionalities required, the system include:

- A **web server** to handle HTTP requests.
- An **application server** where the MVC application runs.
- A **database server** to store and manage all the data.
- **Authentication services** for secure login and user management.

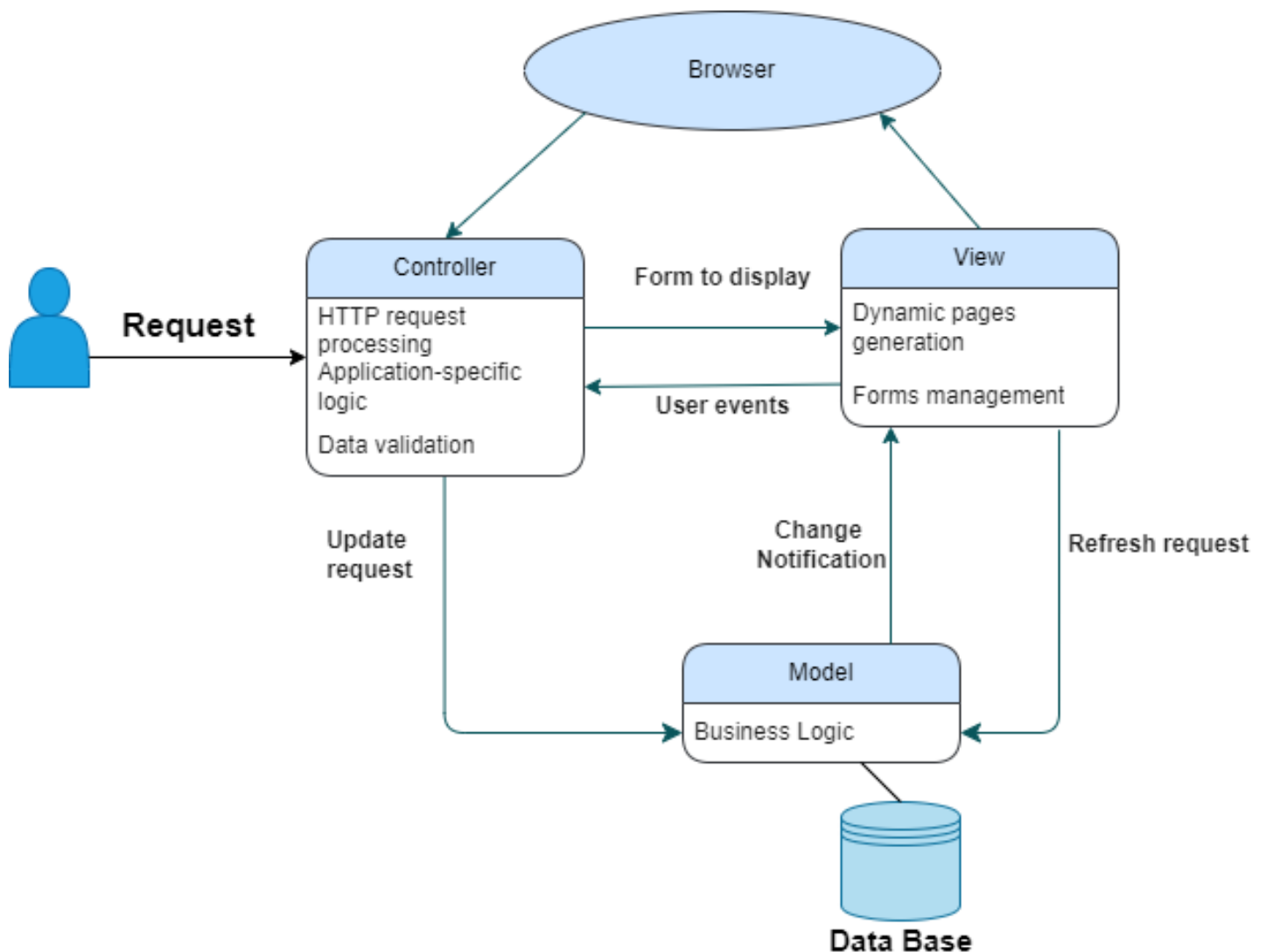


Figure 3-1



## 3-2 State Machine Diagram:

In this part, we delve into the use of state diagrams as a powerful tool for modeling system behavior. We will examine the different states that our system can occupy, the events that trigger transitions between these states, and the actions that occur as a result of these transitions.

### 3-2-1 User Interface:

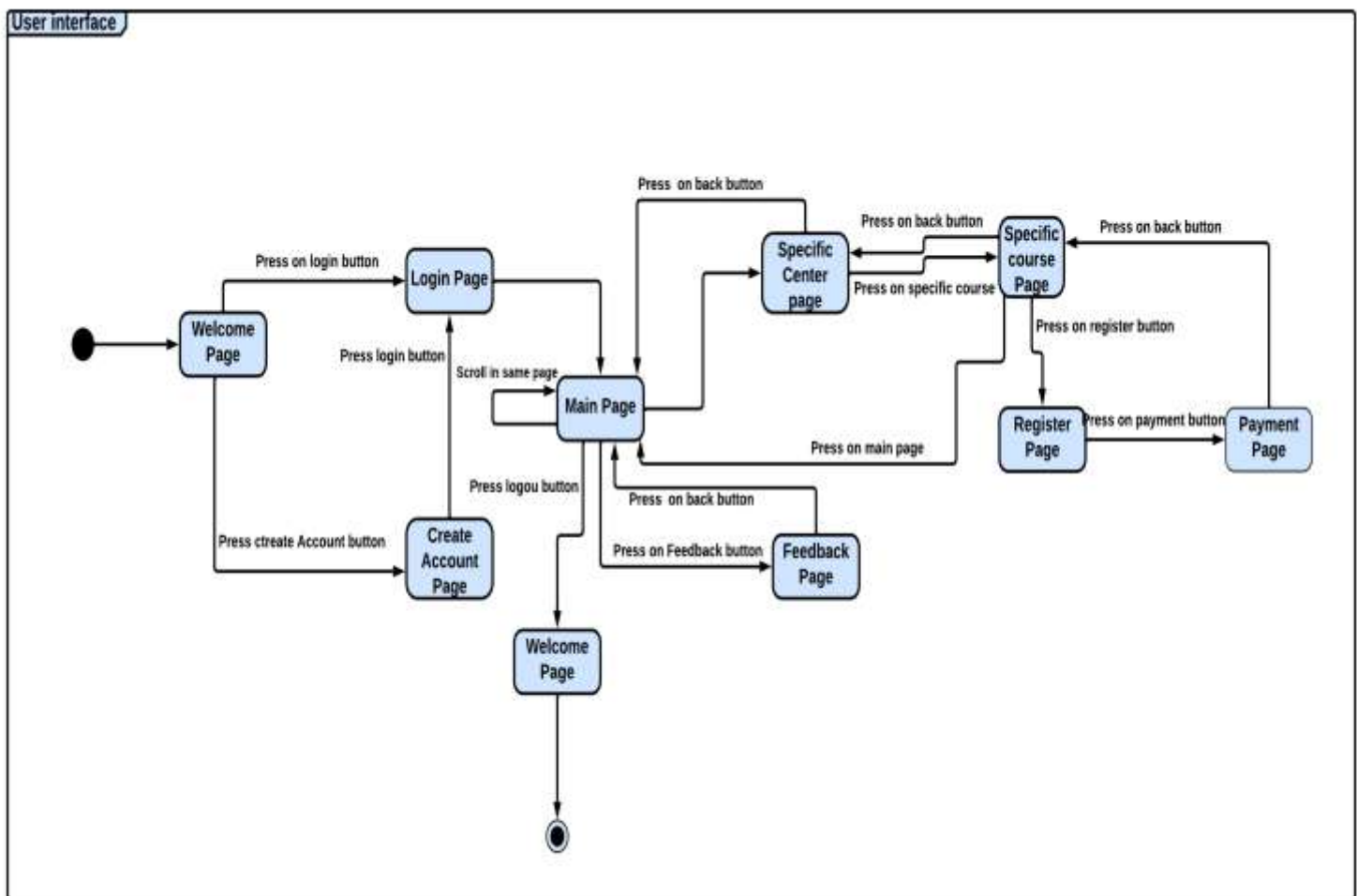


Figure 3-2

### 3-2-2 Admin Interface:

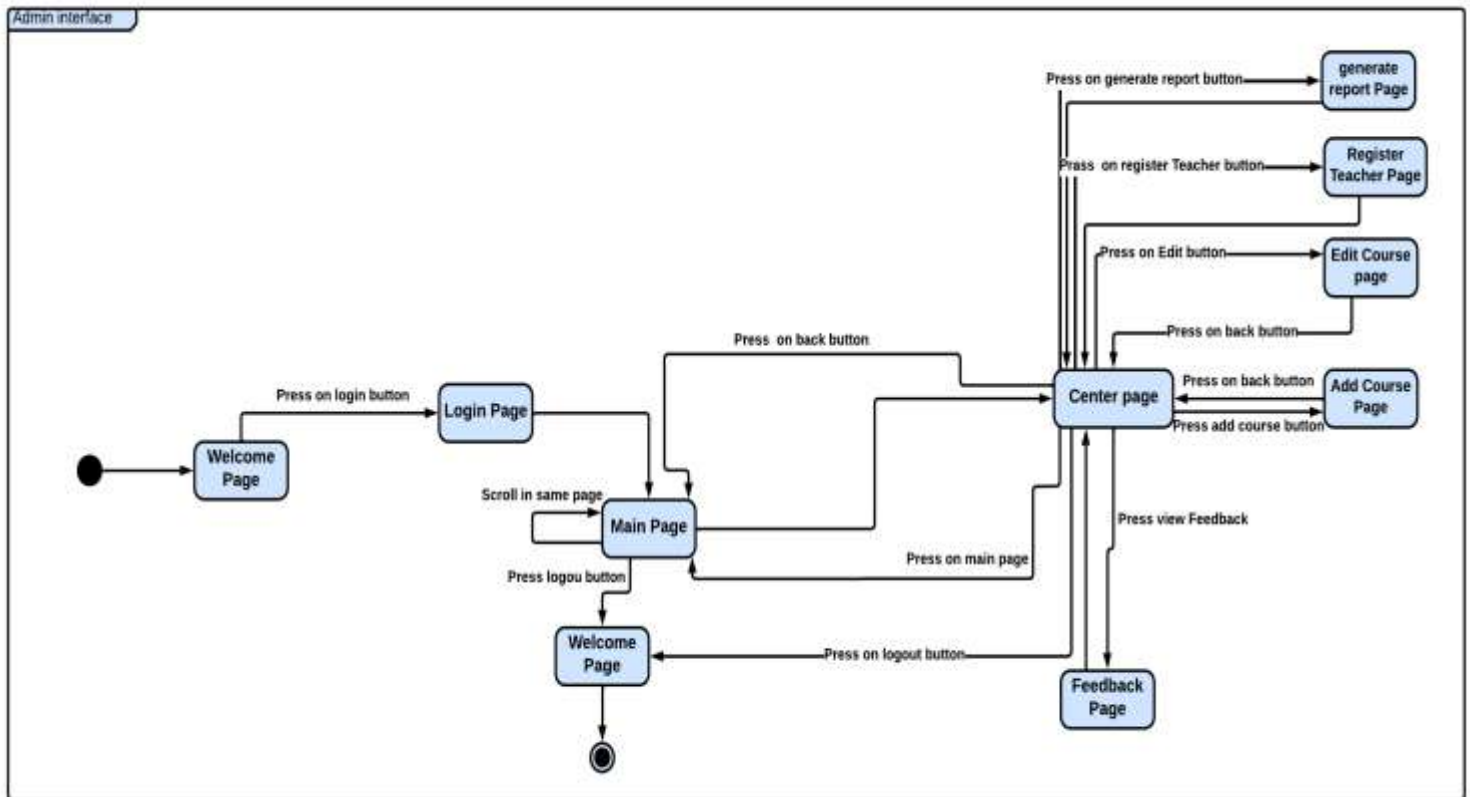


Figure 3-3

### 3-2-3 Teacher Interface:

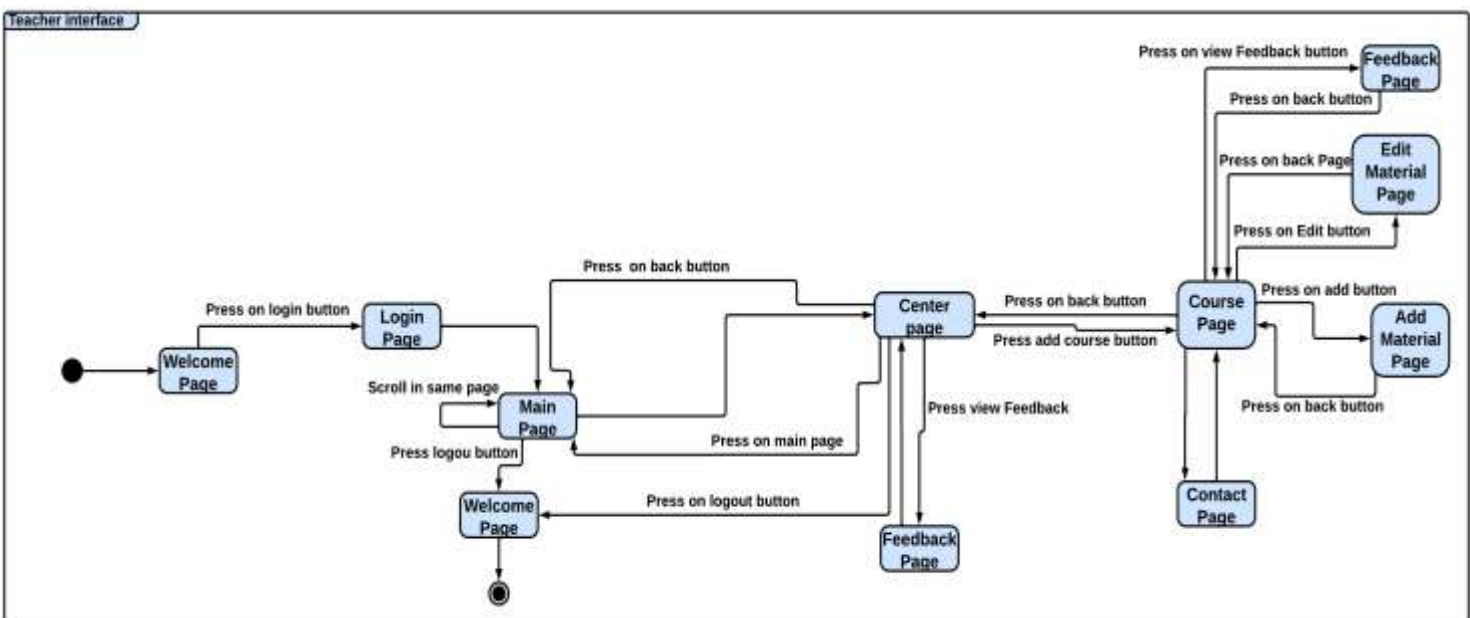


Figure 3-4

## 3-3 Entity Relationship Data Model:

### 3-3-1 Entities:

To make our database ER diagram simpler to understand, we have divided the entities into several functional groups:

- **User Management:** Student, UserAccount, Admin, Teacher.
- **Course Management:** Course, Center, CourseMaterials, CourseSchedule.
- **User Preference:** CenterForSchoolStudent, AcademicCenter.
- **Scheduling:** CourseSchedule, Classroom.
- **Notifications & Communications:** Notifications, Phone.
- **Financial Transactions:** Payment.
- **Feedback:** Feedback.

### 3-3-2 Entities Description

**UserAccount:** Manages login credentials and user profiles. Attributes often include username, password, and user role.

**Admin:** Users with elevated privileges to manage the system. Attributes could include admin ID and access level.

**Teacher:** Instructors responsible for teaching courses. Attributes may include teacher ID, name, and subject expertise.

**Student:** Represents individuals enrolled in the academic center. Holds personal information, academic major, and enrollment status.

**Course:** Contains details of courses offered, including name, associated class rooms, and related materials like syllabus.

**CourseMaterials:** Educational content provided for courses.

**CourseSchedule:** Timetable details for courses- Manages when and where courses are held.

**CenterForSchoolStudent:** Specialized in strengthening courses for school students.

**AcademicCenter:** Specialized centers focused on academic excellence.

**Notifications:** Sends messages to users, such as reminders or alerts, and tracks whether they have been read.

**Phone:** Contact information for communication.

**Payment:** Handles financial transactions related to course enrollments, including payment amounts and methods.

**Feedback:** User-submitted evaluations and comments.

### 3-3-3 Relationships

- **Student to CourseSchedule:** student can be scheduled for many course sessions, and a course schedule can include many students.
- **Student to Course:** A student can review multiple courses, and a course can have multiple reviews.
- **Student to Course:** students can list multiple course they wish to take, and a courses can be in many students wish list.
- **Payment to Student:** Each student has a payment record.
- **Teacher to CourseSchedule:** A teacher can teach many course appointments, and a course can be taught by many teachers.
- **UserAccount to Students/Admins/Teacher:** A user account is linked to one subclass which represented by disjoint specialization.
- **Notifications to UserAccount:** A user account can receive multiple notifications.
- **Feedback to UserAccount:** A user can submit multiple feedback entries.
- **Phone to UserAccount:** A user can have multiple phone numbers.

- **Center** to **Course**: A center offers multiple courses.
- **Center** to **UserAccount**: multiple users can visit multiple centers.
- **Center** to **AcademicCenter\ CenterForSchoolStudent**: A center is linked to one subclass which represented by disjoint specialization.
- **CourseSchedule** to **Courses**: Each course has multiple schedules.
- **CourseSchedule** to **ClassRoom**: A classroom can be used for many course schedules.
- **CourseMaterials** to **Courses**: A course can have multiple materials.

### 3-3-4 Entity Relationship Model for Educational Center

Our Entity Relationship model serves as a foundation for building a robust and efficient database system that supports educational processes, user interactions, and administrative tasks. By understanding these entities and their relationships, we can create a well-structured and reliable database to meet our system's requirements (shown in Figure **3-3-1** below).

### 3-3-5 Entity Relationship Diagram:

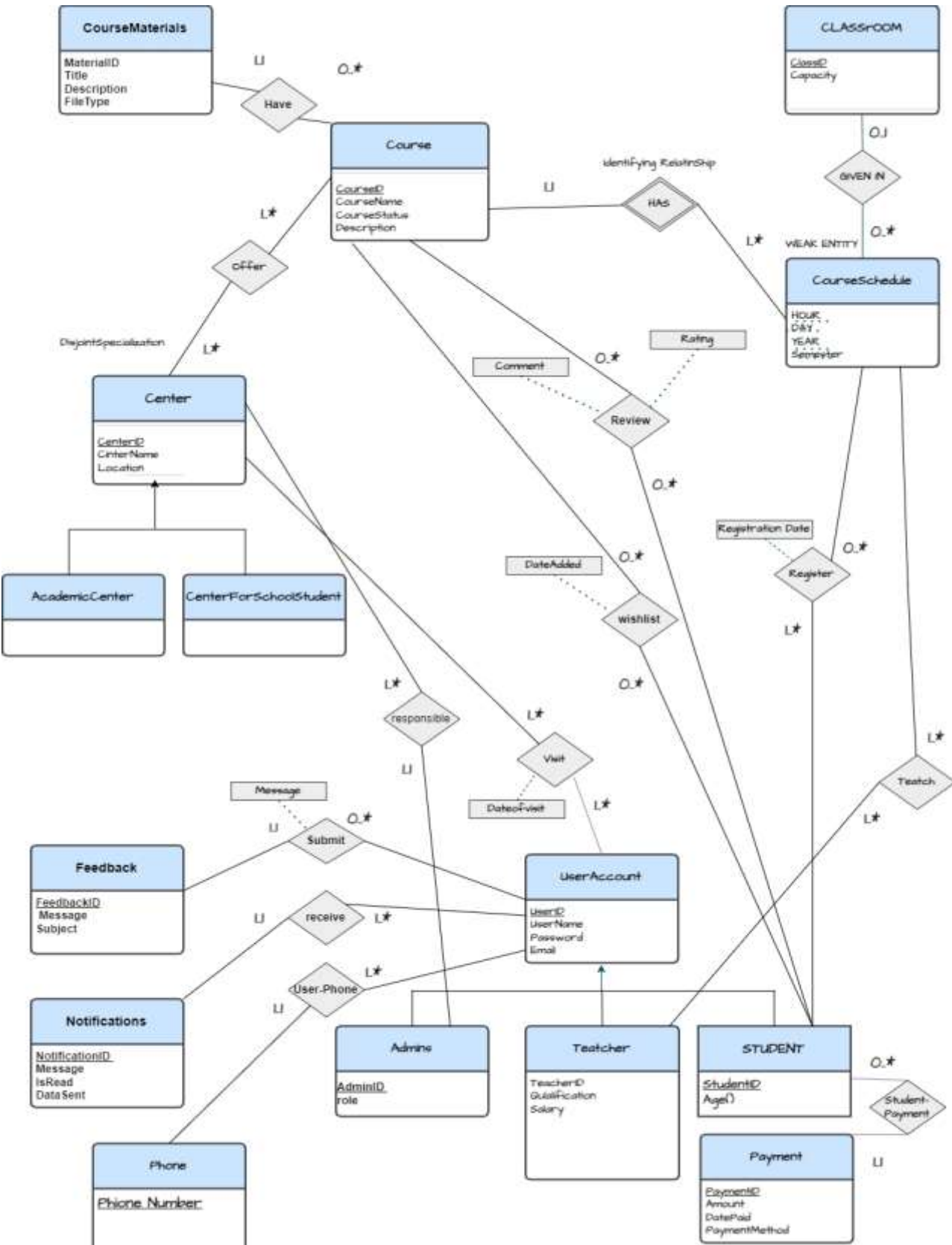


Figure 3-5

# Chapter 4: System Model

## 4-1 Use Case Diagrams

### 4-1-1 User

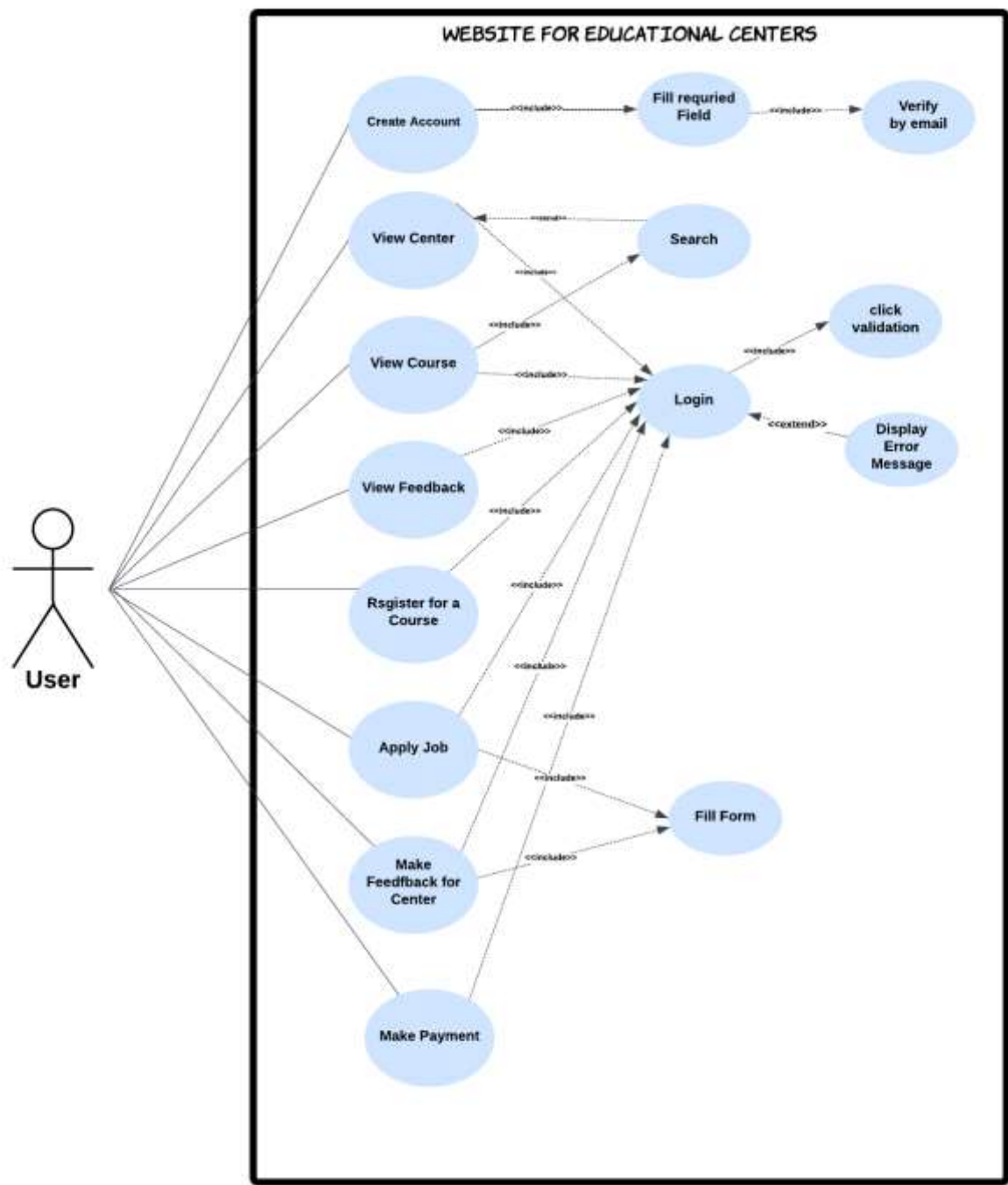


Figure 4-1

## 4-1-2 Admin

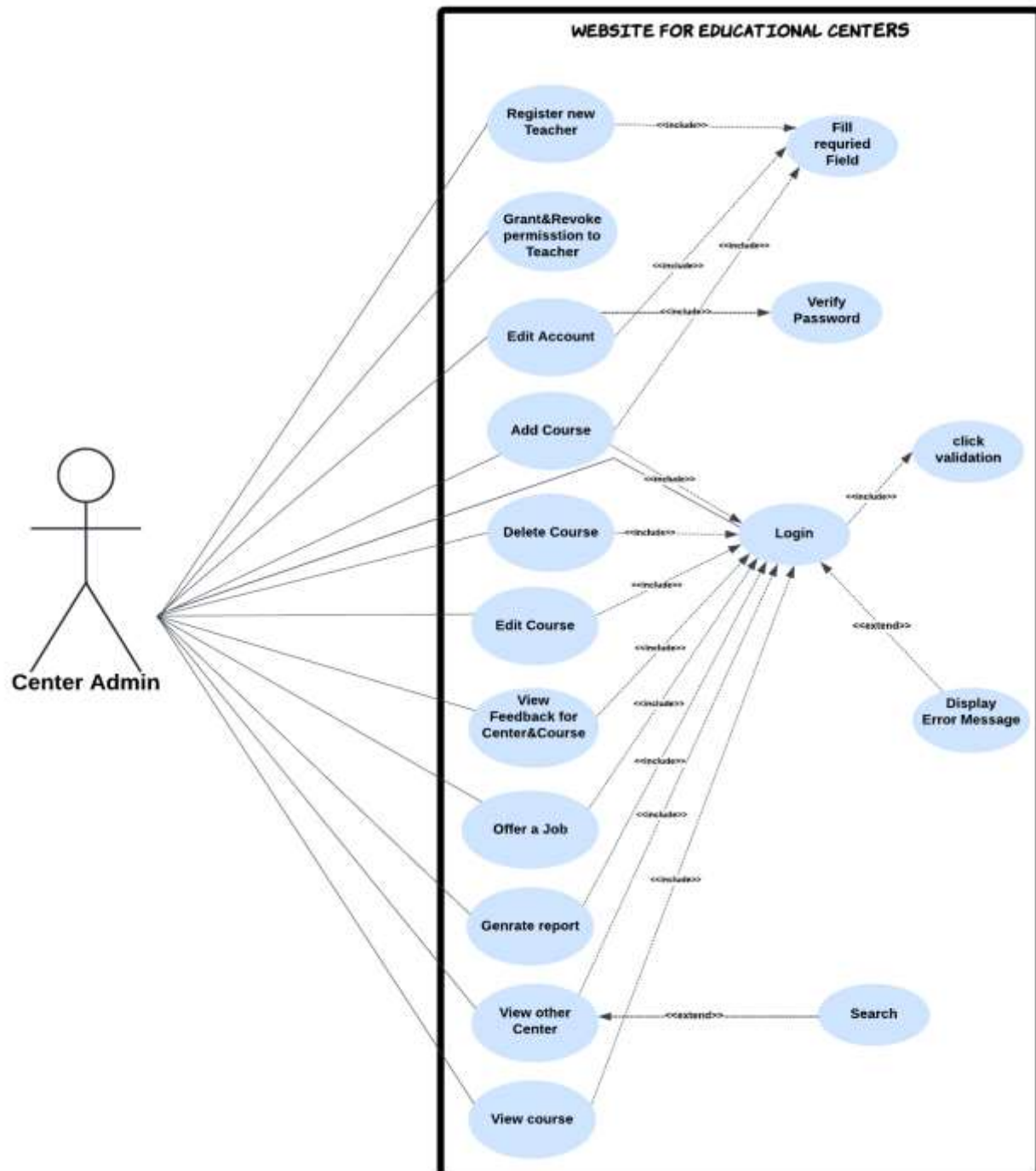


Figure 4-2



### 4-1-3 Teacher

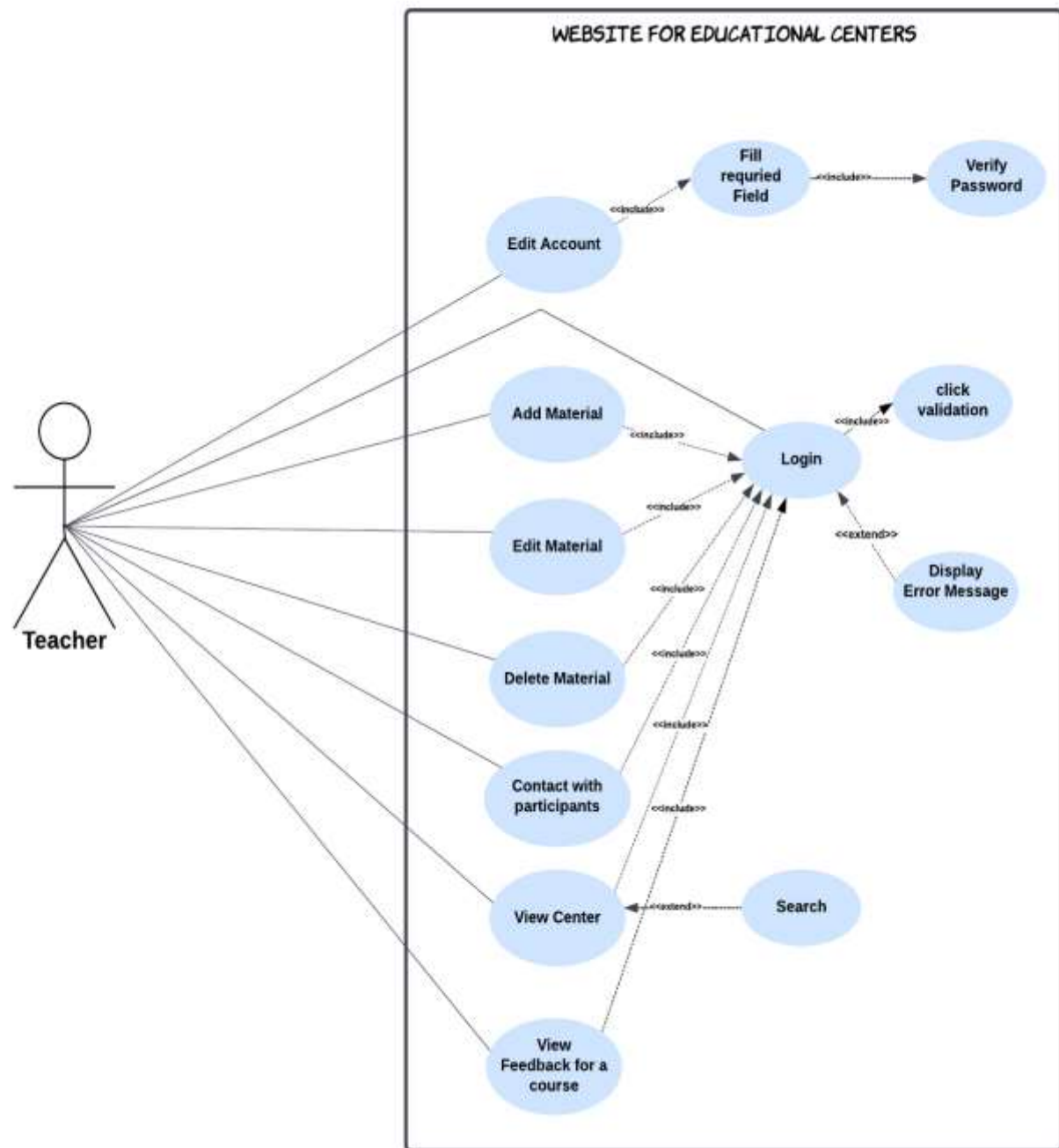


Figure 4-3

## 4-2 Use Case Descriptions

|                       |  |
|-----------------------|--|
| <b>Use case name:</b> | <b>Register new Teacher</b>  |
| <b>Actor</b>          | Admin  |
| <b>Type</b>           | Primary  |
| <b>Description</b>    | The Admin intend to create an account for a Teacher so he/she enter Teacher information then the account create          |
| <b>Stimulus</b>       | When Admin click a button(register new teacher)  |
| <b>Response</b>       | The message appear for admin (the account creation process is complete)  |
| <b>Comments</b>       | The Admin is directly responsible for the Teacher ,and since he has created an account for the Teacher he can cancel it. |

|                       |   |
|-----------------------|---|
| <b>Use case name:</b> | <b>offer a job</b>  |
| <b>Actor</b>          | Admin   |
| <b>Type</b>           | Primary   |
| <b>Description</b>    | In case a center need a Teacher the admin will announce the center need for a Teacher so Admin fill the descriptive form. |
| <b>Stimulus</b>       | When Admin click a button(Announcing our need for a teacher)  |
| <b>Response</b>       | The message appear for admin (the process is complete)  |
| <b>Comments</b>       | A notification will be sent to all user   |

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|                       |   |
|-----------------------|---|
| <b>Use case name:</b> | <b>Make a Feedback</b>  |
| <b>Actor</b>          | User  |
| <b>Type</b>           | Primary   |
| <b>Description</b>    | The user make a feedback after fill a form .                  |
| <b>Stimulus</b>       | When user click a button(send feedback)                       |
| <b>Response</b>       | The message appear 'The feedback is submitted'                |
| <b>Comments</b>       | The user must register at least one course to make a feedback |

---

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|                       |  |
|-----------------------|--|
| <b>Use case name:</b> | <b>Create an account</b>   |
| <b>Actor</b>          | user   |
| <b>Type</b>           | Primary  |
| <b>Description</b>    | The user can create account after fill some required field or by using Gmail then the user is a part of our website. |
| <b>Stimulus</b>       | When user click a sign up button   |
| <b>Response</b>       | The message appear for user 'The account created'  |
| <b>comments</b>       | After create account the user can access to all service(see center, course ,location ...etc)                         |

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4-3 Sequence Diagrams:

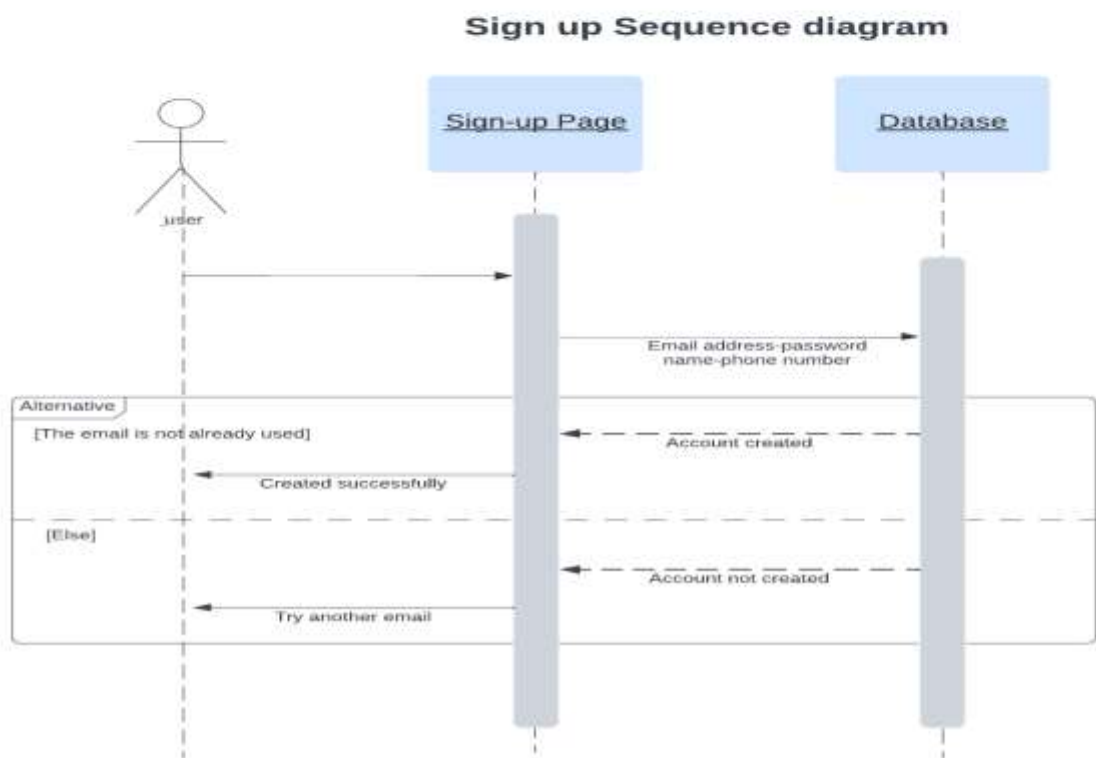
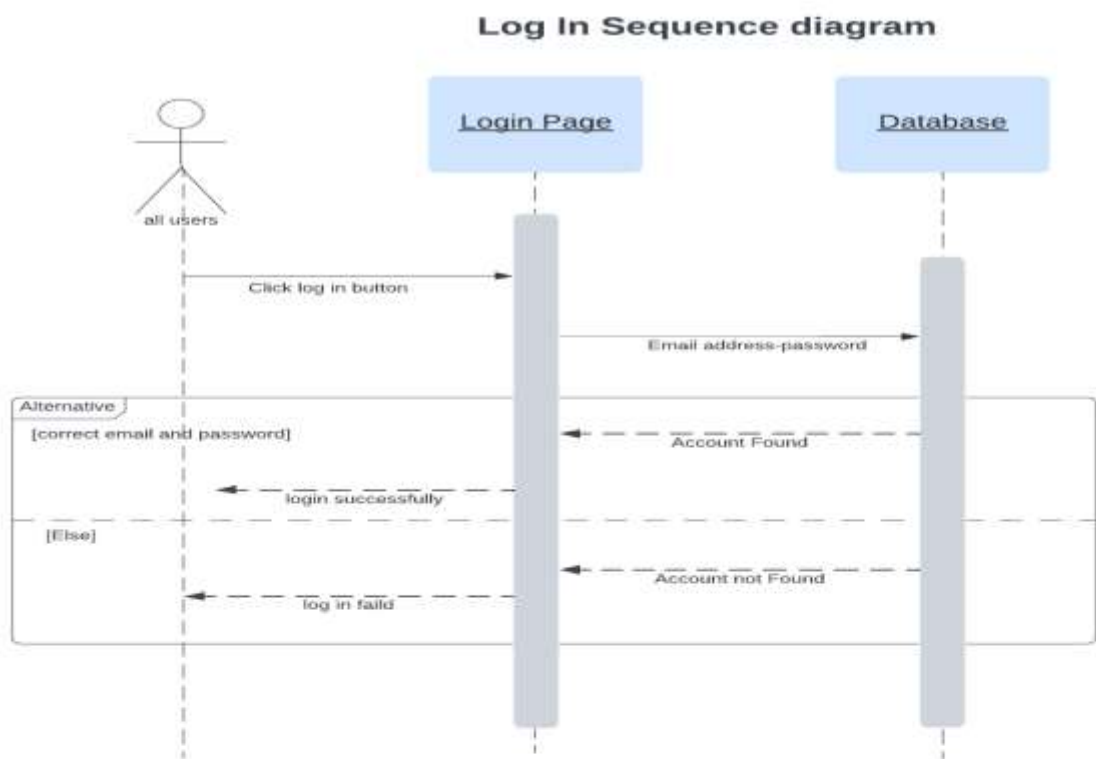


Figure 4-4

Figure 4-5

# Center control

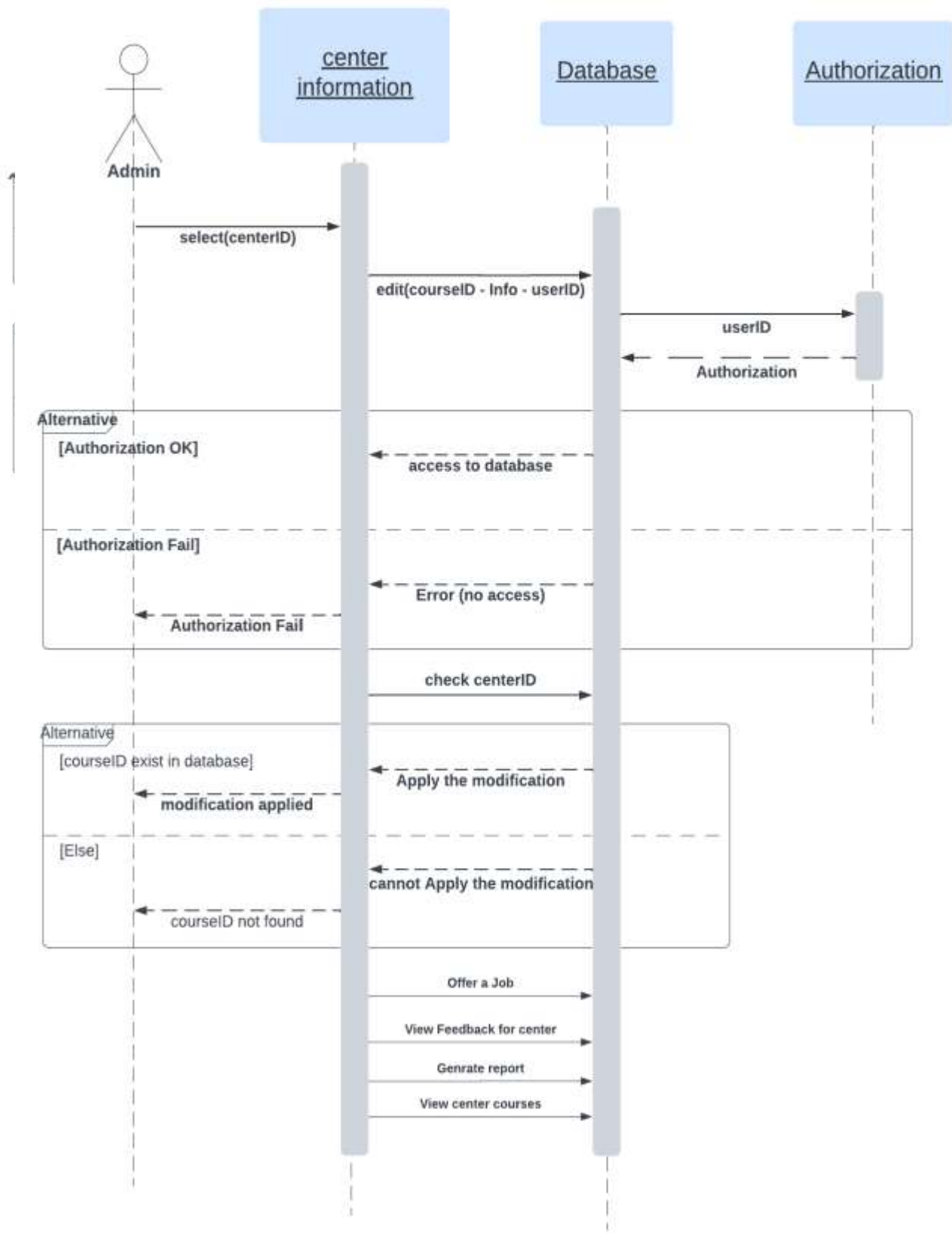


Figure 4-6

## Register for a course

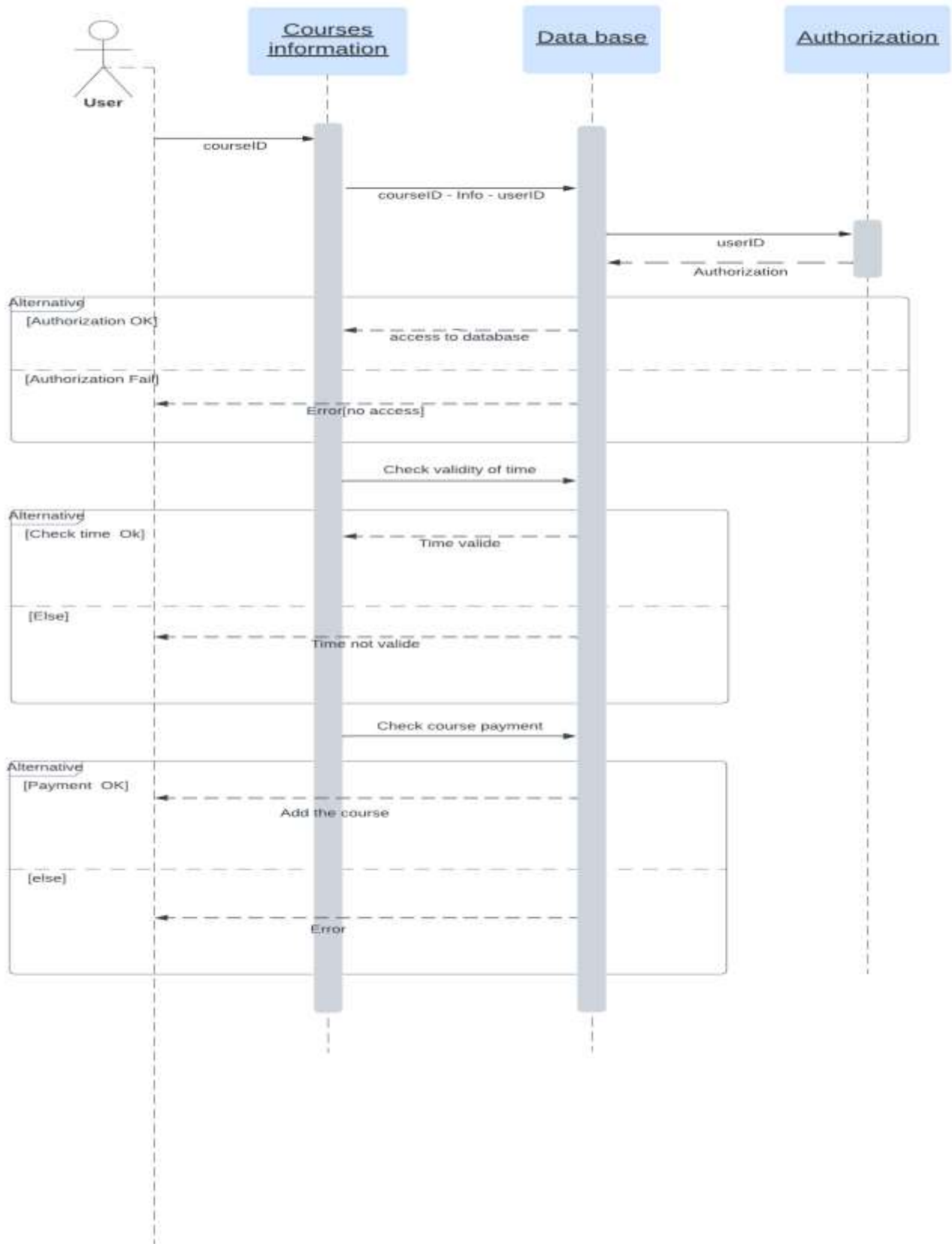
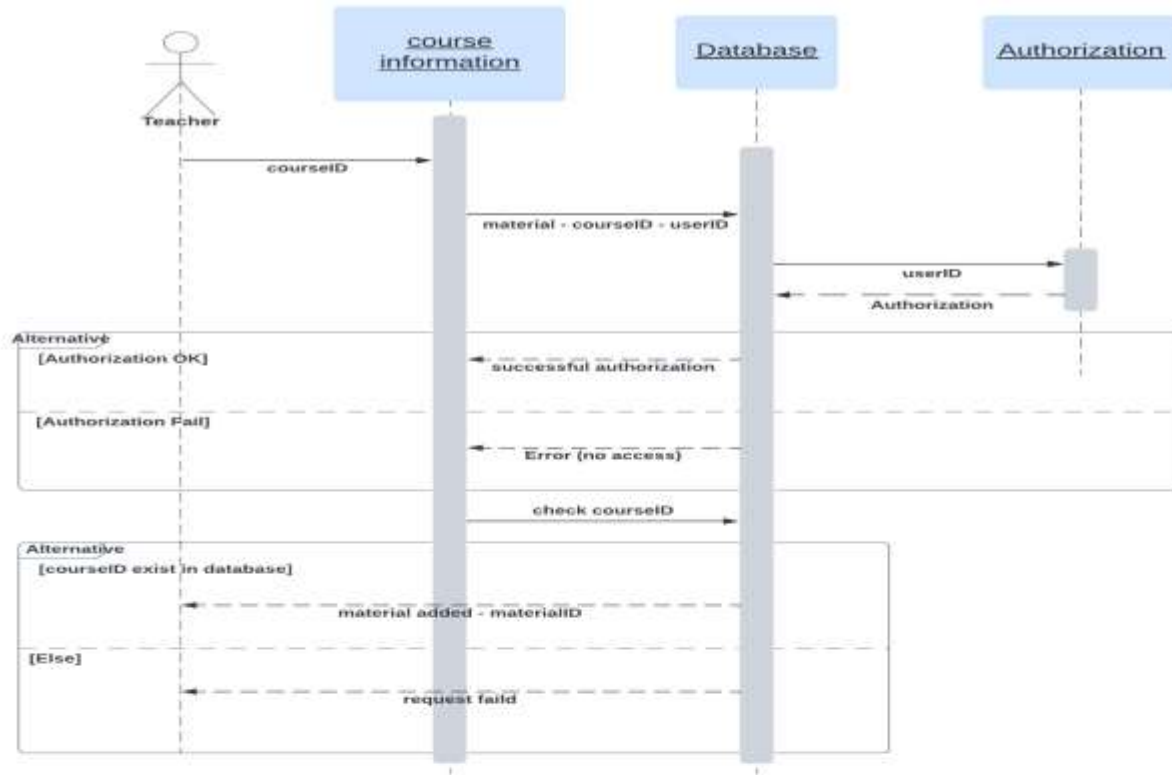


Figure 4-7

## Add Material



## Edit Material

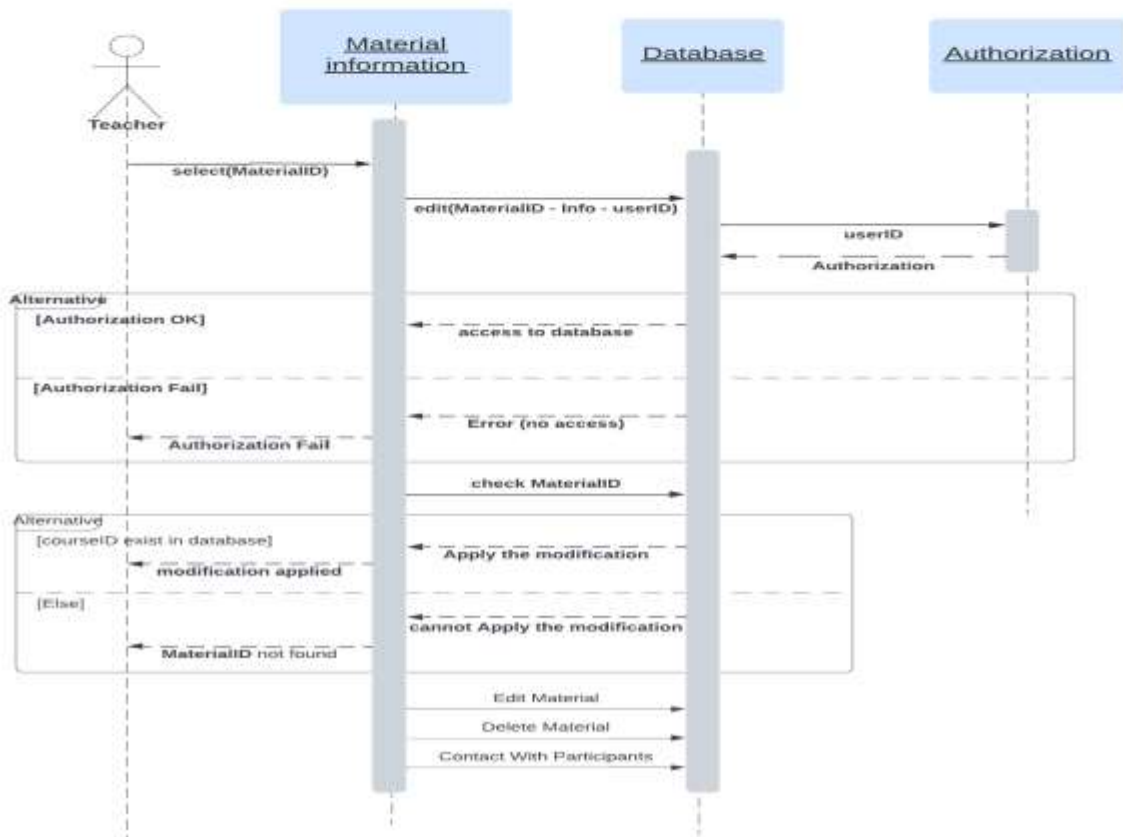
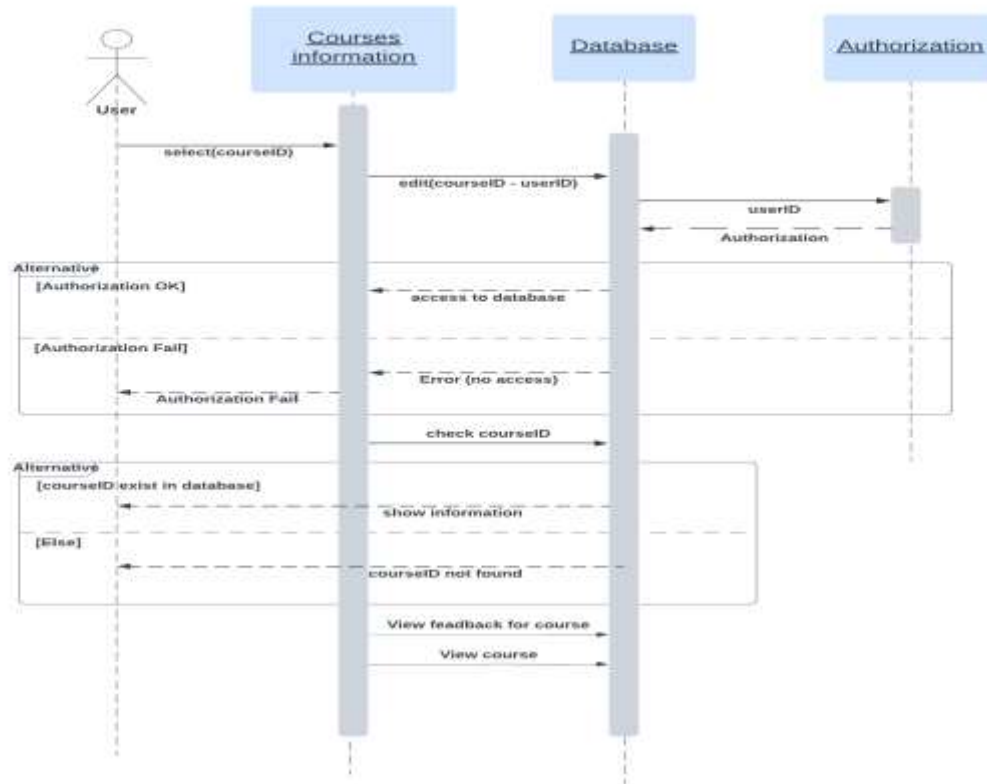


Figure 4-8

## View course , Feadback of course



## Register new Teacher

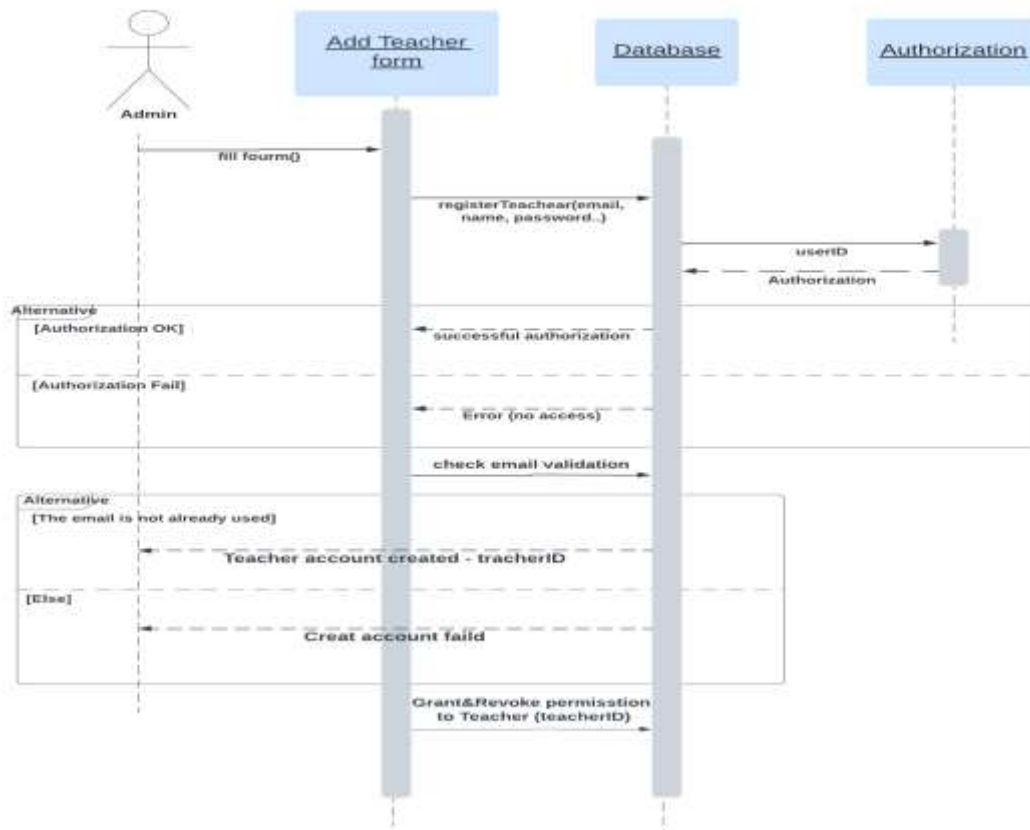


Figure 4-9



## 4-4 Activity Diagrams:

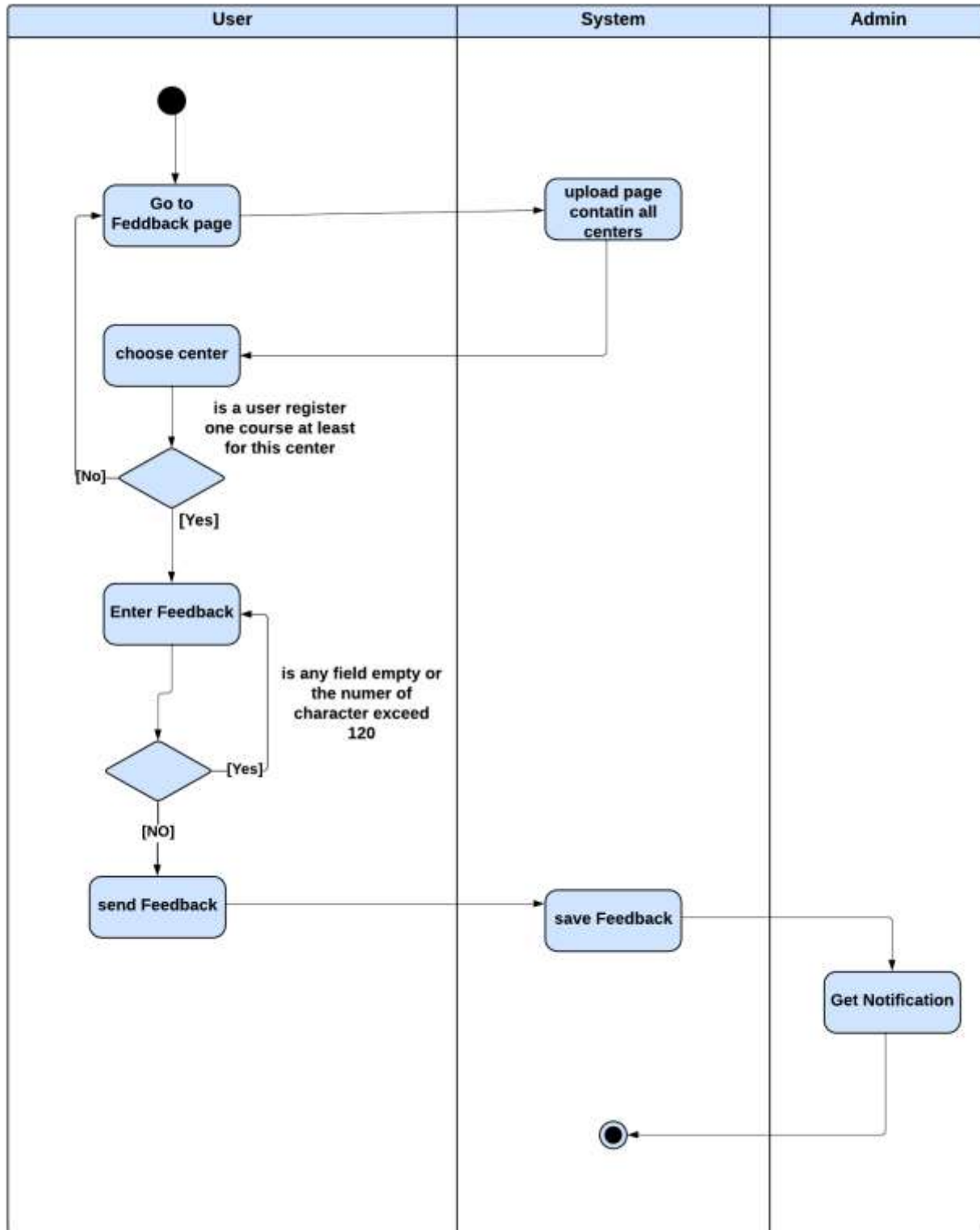


Figure 4-10

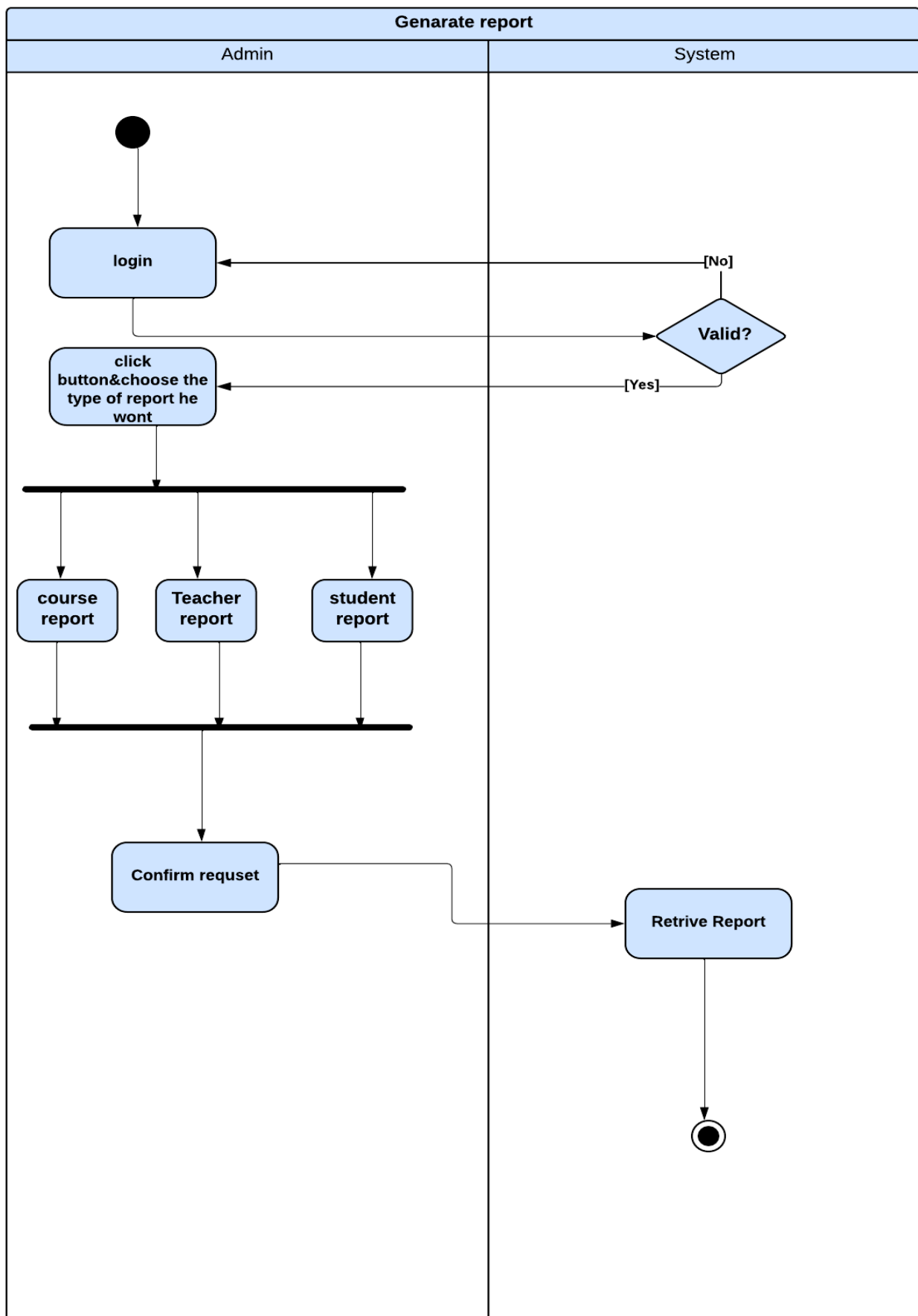


Figure 4-11

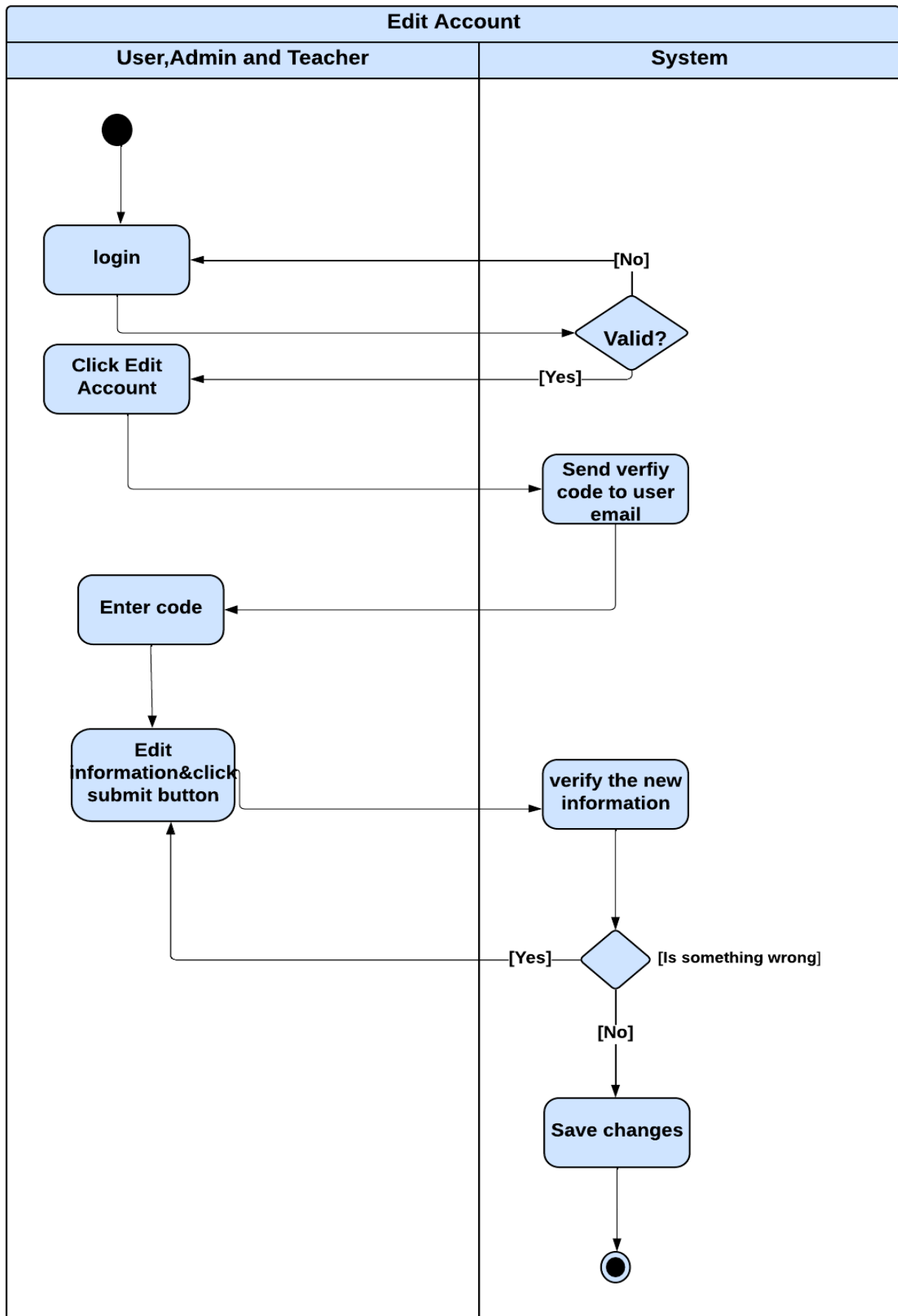


Figure 4-12

## 3.2 Class Diagram :

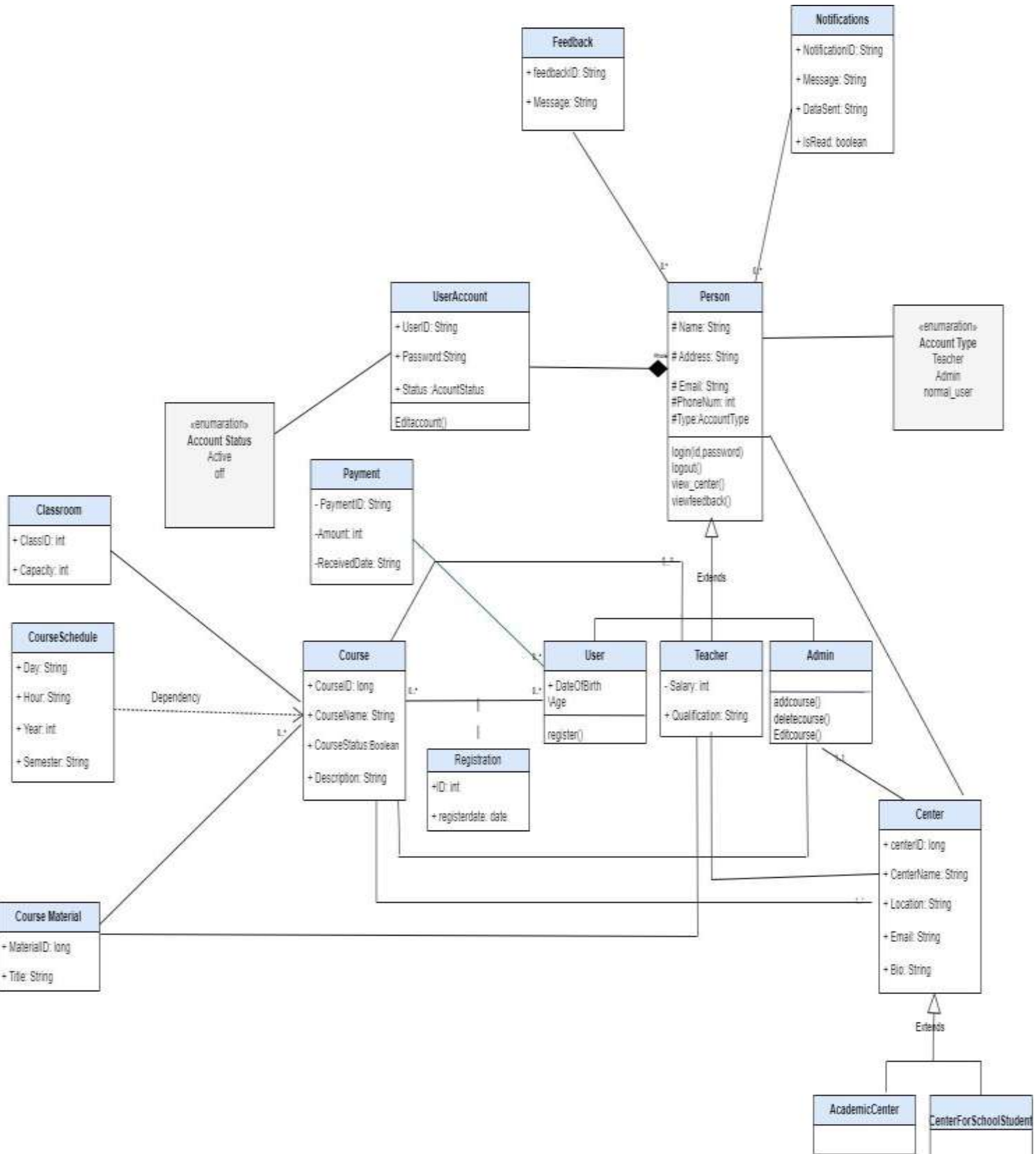


Figure 4-13

## References

1. Visual Paradigm. What is Use Case Diagram? [Website]. Retrieved from <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-use-case-diagram/>
2. Visual Paradigm. What is Sequence Diagram? [Website]. Retrieved from <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-sequence-diagram/>
3. Visual Paradigm. What is Class Diagram? [Website]. Retrieved from <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-class-diagram/>
4. IBM. (2021, Jul 17). Enumerations in UML classifiers. [Website]. Retrieved from <https://www.ibm.com/docs/en/dma?topic=diagrams-enumerations>
5. Visual Paradigm. What is Activity Diagram? [Website]. Retrieved from <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-activity-diagram/>
6. Visual Paradigm. All You Need to Know about State Diagrams. [Website]. Retrieved from <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/about-state-diagrams/>
7. Folcrum. (2022, Apr 23).How to Create SRS for Edtech App: Don't Reinvent the Wheel, Take What's Already Written [Website] Retrieved from <https://fulcrum.rocks/blog/how-to-create-srs-for-edtech-app>.
8. Creately. Create account use case diagram [Website] Retrieved from <https://creately.com/diagram/example/g8rv36193/create-account-use-case-diagram>
9. Creately. (2022, Oct 20).Class Diagram Templates to Instantly Create Class Diagrams [Website] Retrieved from <https://creately.com/blog/examples/class-diagram-templates/>