

# **CHAPTER I: INTRODUCTION**

## **1.1 Background**

This project “Appointment Management System” is a web-based application which provides the information regarding counselling and which provide the guideliness for student who are planning to go abroad for further education.

## **1.2 Introduction to Organization**

Rain Education was establish on 2013 A.D located at Putalisdak-Kathmandu, which is regarded as the hub for students trying to get admissions in foreign colleges and universities. They ensure that they provide comprehensive information and guidance to help students identify their preferred courses and academic goals.

## **1.3 Current situation of the organization**

The organization is providing one of the favoured learning institutions in Nepal for students planning to go abroad for further education. It is located at putalisadak which is a crowded area with lots of competitors interms of similar institutions.

## **1.4 Problem of the report**

- Student can't decide suitable universities or programs based on their interest, qualification and preferences.
- Difficulty in gathering necessary information such as academic backgrounds, career goals, and desired location.

## **1.5 Objectives**

The main objective of “Appointment Management System” is to achieve following types of objectives:

- To build a web application that allows to book an appointment with the counsellor.
- To be able to collect payment systematically.

## **1.6 Methodology**

It implements a project using PHP with Sublime Text. There are many advantages offered by tools that are fast, stable, easy to use and it is easy to debug.

### 1.6.1 Project framework

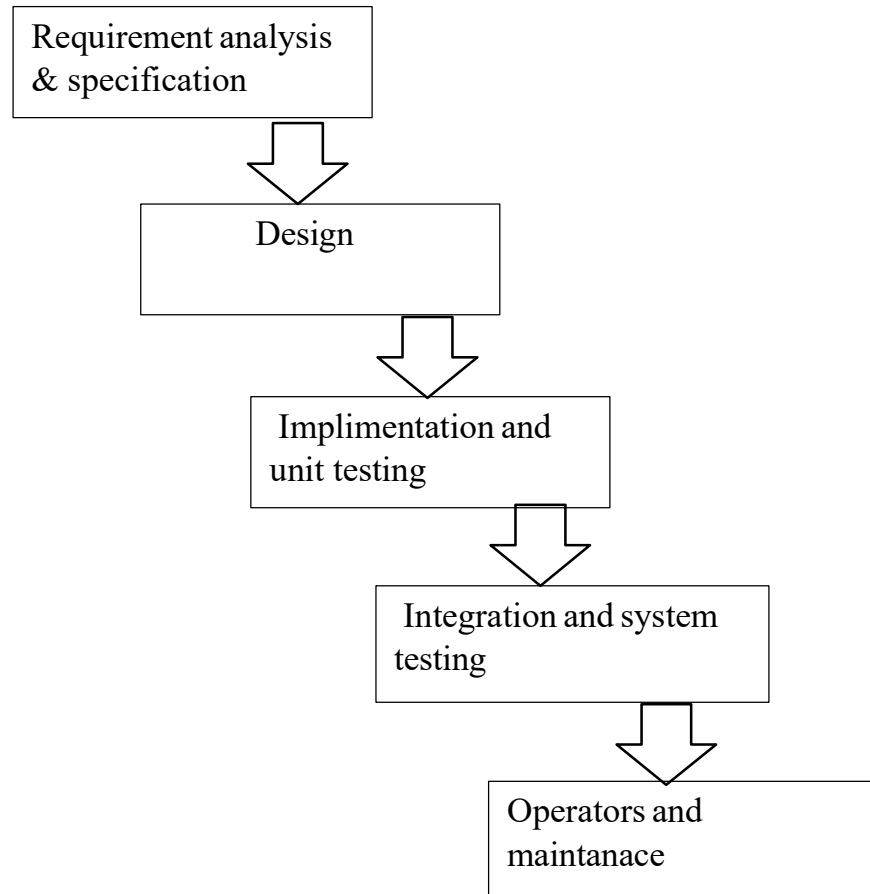


Fig 1.1 Waterfall Model of Rain Education

### 1.6.2 Data & Information

Primary method were used in order to collect adequate amount of information. For primary method, we interviewed manager of the organization and information were gathered from the owner.

### 1.6.3 Technique of Project Report Analysis

The analysis of the project has led to the conclusion that the project is feasible with time and cost. The system is economically feasible to be implemented because it is web-based application. As feasibility study involves whether the project is possible to implement or not. In this analysis the system is analyzed on how well the proposed system solves the problem and works in the real environment

### 1.6.4 Tools and Technology

Software	Purpose
Sublime Text Editor	design layout and write code
Phpmyadmin	create database
Xampp	create localhost
MS Word	write documentation of project
Draw.io	draw ER, Use-case, Activity and Sequence Diagram

This system is built using HTML, PHP, CSS, and JavaScript. All these technologies were familiar and stable hardware.

## **CHAPTER II: TASK AND ACTIVITIES PERFORMED**

### **2.1 Analysis of task, activities and problems**

As per the requirement observation the information system of the organization needs to be computerized. At the organization is recording the information manually which is creating problem in the organization. Admin have to face a lot of problems for managing the record of data/information. Some problems are pointed below:

- Difficult in managing the record due to lack of digitalized system.
- Data redundancy

### **2.2 Analysis of Possible solution**

#### **2.2.1 Requirement Analysis**

The requirement analysis phase of SDLC is important in the software development life cycle process. It is used to identify and define the software. It helps to know about the users requirements, functional requirement and non-functional requirements. The purpose of the requirement is to solve the problems of the organization, the organization must have a system for storing the record of data and information in efficient way so that it can be used later on when needed.

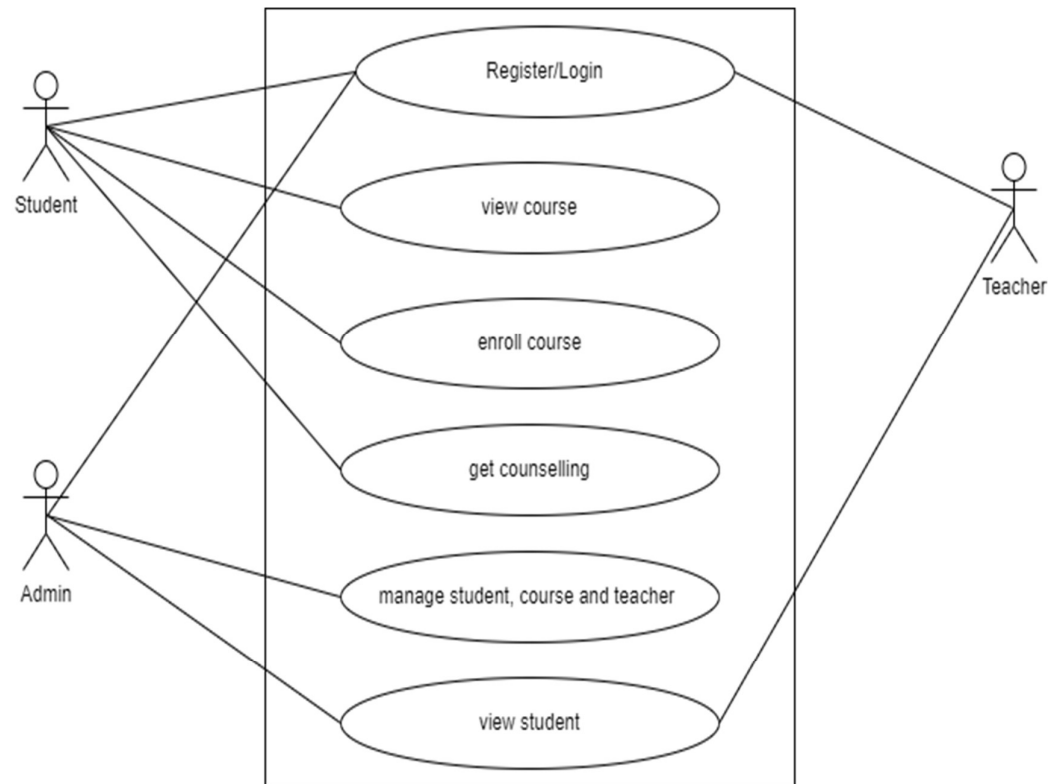
#### **2.2.2 Functional Requirements**

This section provides requirement overview of the system. Various functional modules that can be implemented by the system will be:

- Registration: If user wants to enroll the course then they must be registered, unregistered user cannot join the class.
- Login: The Admin and User logins to the system by entering valid id and password.
- Enroll the course: User can enroll the course and get counselling after they think as needed.
- Payment: User can make payment for the for the course through online payment gateway.
- Logout: The Admin and User can logout from the system.

- Report Generation: The admin can generate various report such as student enrolled report, payment report, and various report as per the need.

The functional requirement can be briefly described with the help of Use Case diagram which is shown below:



**Figure: Use case diagram of Appointment Management System**

Table 2.1: Use Case Description (Login)

Use-Case Identifier	UC1: Login into the system
Primary Actor	Admin and Student
Secondary Actor	None
Description	The admin, student can login into the system through login form.
Pre-condition	The actor must validate username and password.
Post-condition	The actor can perform required action in the system.
Success Scenario	Login successful
Failure Scenario	Error message should be displayed.

Table 2.2: Use Case Description (View Course)

Use-Case Identifier	UC2: view Course Information
Primary Actor	Guest and Student.
Secondary Actor	None.
Description	The student and guest can view course.
Pre-condition	The actor can view the course only after they open the course page.
Post-condition	The actor can perform required action in the system.
Success Scenario	Successful and correct information.
Failure Scenario	Unable to load the page.

Table 2.3: Use Case Description(Enroll Course/Courses)

Use-Case Identifier	UC3 :Enroll Course/Courses
Primary Actor	Student and Teacher
Secondary Actor	None
Description	The student can enroll the course.
Pre-condition	The actor can enroll the course only after logged in.
Post-condition	The database must be updated after action is performed.
Success Scenario	Latest add action performed success update.
Failure Scenario	Unable to join the course.

Table 2.4: Use Case Description(Get Counselling)

Use-Case Identifier	UC4: Review Course
Primary Actor	Student
Secondary Actor	None
Description	The student can get counselling session from teacher.
Pre-condition	.The student should fill the form for counselling.
Post-condition	The teacher can only provide counselling if the student has to fill the form.
Success Scenario	Store information in database successfully.
Failure Scenario	Unable to store in database.

Table 2.5: Use Case Description(Manage Student/Teacher and Course)

Use-Case Identifier	UC5: Manage Student/Teacher and Course
Primary Actor	Admin
Secondary Actor	None
Description	The admin can add, delete and update the data.
Pre-condition	The admin can perform the action only after logged in.
Post-condition	The database must be update after the action are performed.
Success Scenario	Latest action performed success should be displayed.
Failure Scenario	Unable to store in database.

Table 2.6: Use Case Description(view student)

Use-Case Identifier	UC4:View Student
Primary Actor	Admin
Secondary Actor	None
Description	The admin can view the student information.
Pre-condition	The admin can perform the action only after logged in.
Post-condition	Admin sees only student data relevant to their role (privacy maintained).
Success Scenario	Admin can only view data the student information
Failure Scenario	Unable to view student.



### 2.2.3. Non-Functional Requirement

The non functional requirement of any software is used to describe the external interface designed and implementation constraint, timing constraint, performance and quality attributes constraints and the standard related to the software.

- Availability: The service should be available on the specified date and specified time as many users as possible.
- Correctness: The service should reach start to the correct point as per the requirement made by user.
- Maintainable: Each of the modules should be designed in such a way that a new module can easily be integrated with it.
- Reliable: The service should be reliable as it contains many sensible data of the users.

### 2.2.4 Software Requirements

Table 2.7: Software Requirements

Software	Purpose
Draw.io	To draw UML diagram such as ER-diagram, use-case diagram, sequence diagram, class diagram and soon.
Sublime Text Editor	In order to design layouts and write code
Microsoft word	To write documentation of the project.

## 2.2.5 Entity Relationship Diagram

An Entity-Relationship Diagram is a data modeling technique that graphically illustrates an information system's entities and the relationship between those entities. It is a conceptual and representational model of data used to represent the entity framework infrastructure. The elements are:

- Entities
- Relationship
- Attributes

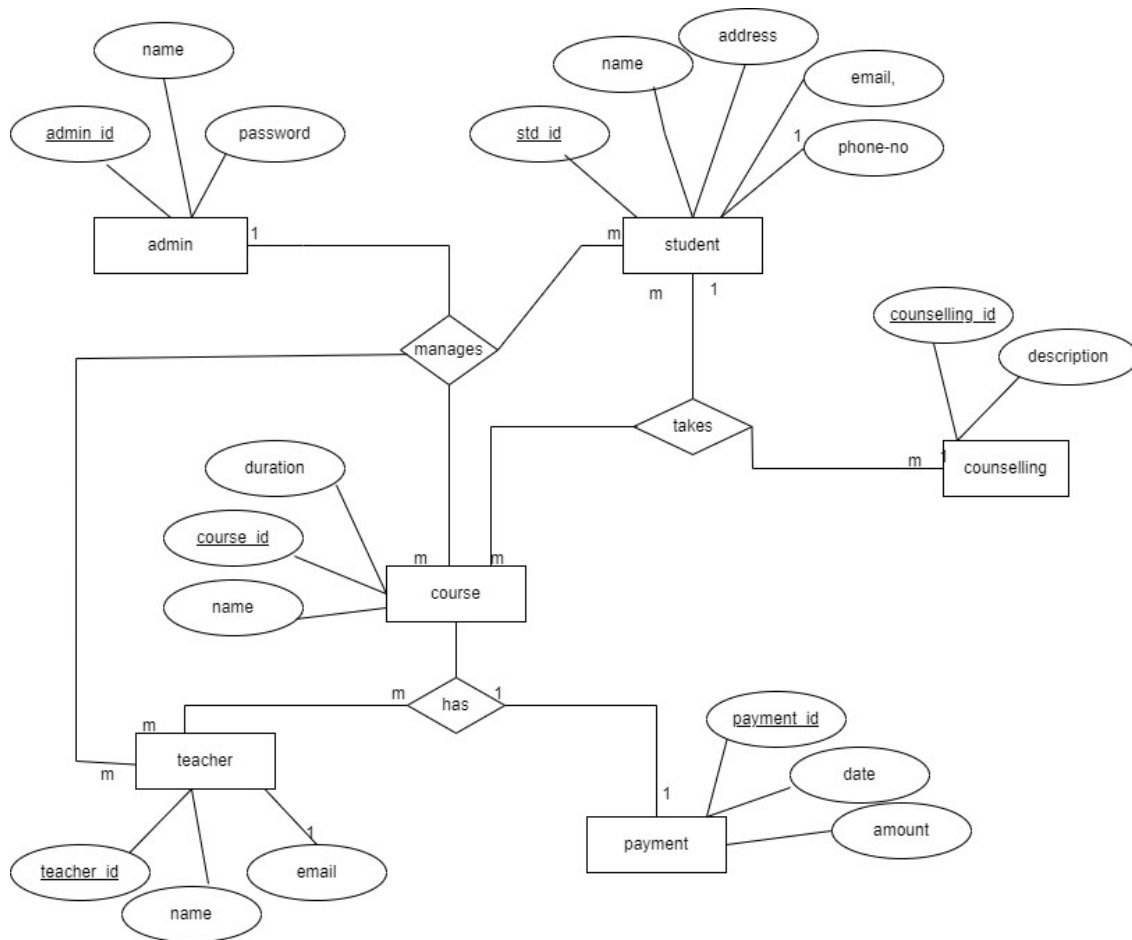


Figure 2.2: ER-Diagram of Appointment Management System

## 2.2.6 Class Diagram

A class diagram is a Unified Modeling Language (UML) diagram that represent a static view of the system. It is the composition of different classes that are linked to each other through association. For the class diagram of enrolling, there must be user who had valid account before joining to the system.

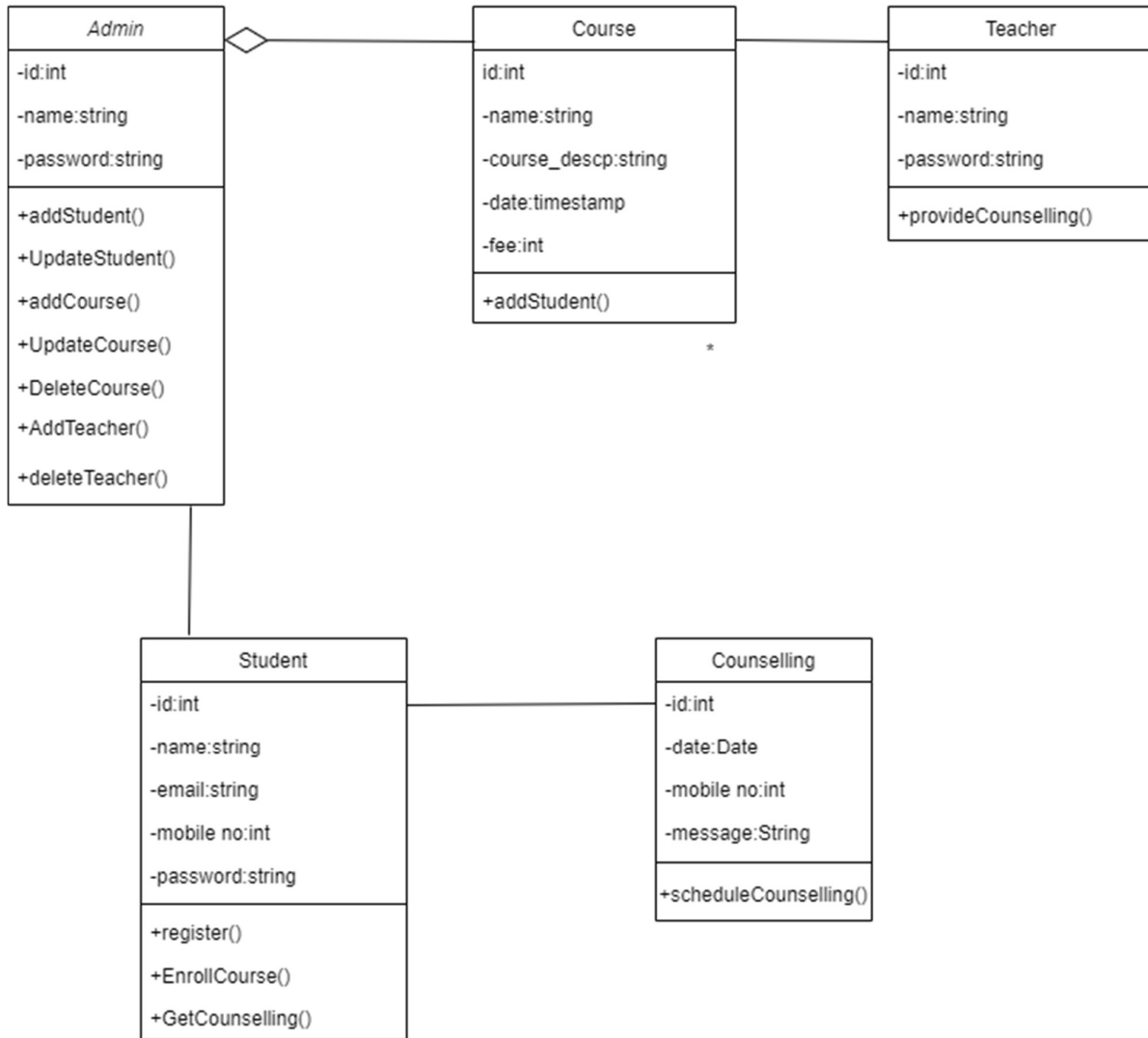


Figure: Class Diagram for Appointment Management System

### 2.2.7 Sequence Diagram

The sequence diagram shows the communication between the system objects or classes. In this sequence diagram, user initiates the access request, the system verifies the user's credentials and check if the user is authorized to access the system. If authorization is granted, the user is allowed access and can interact with the system.

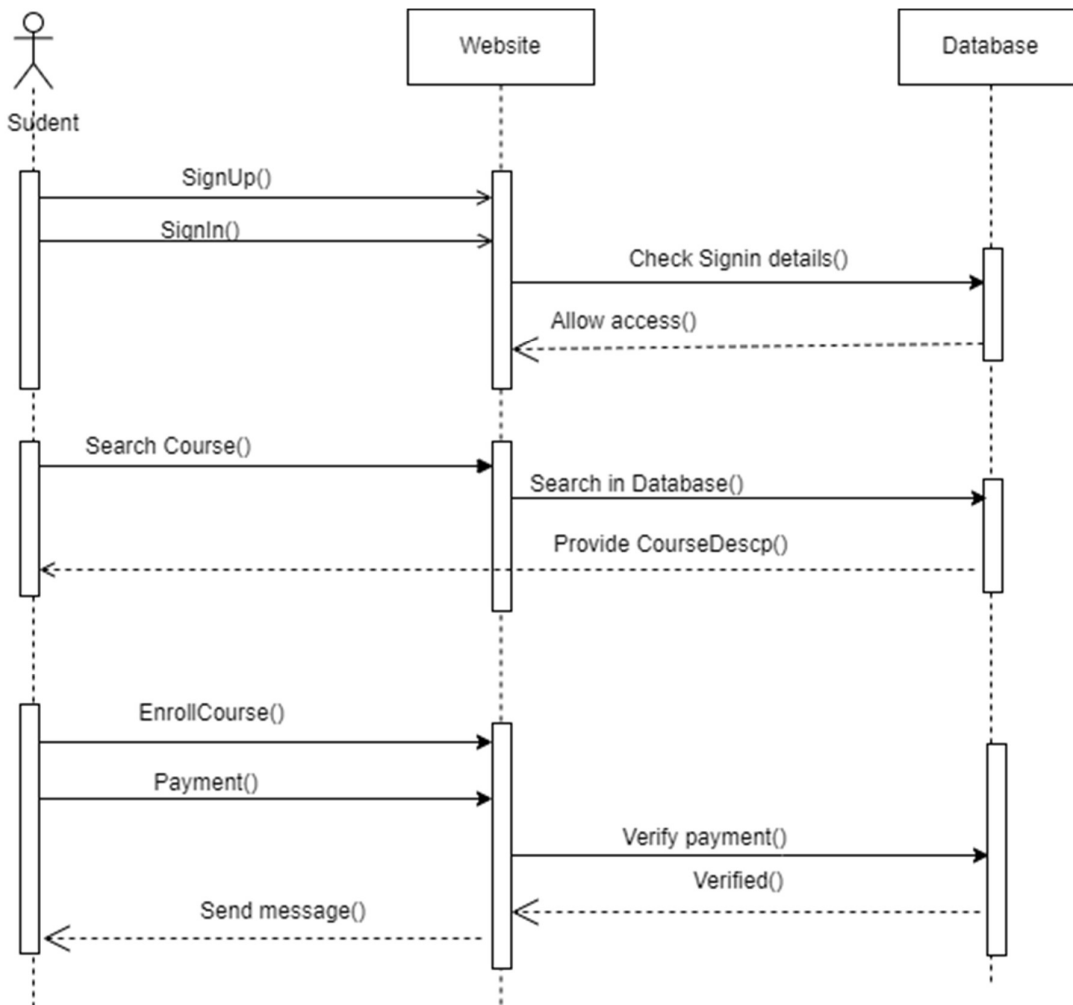


Figure 2.4:Sequence Diagram of Appointment Management System (Student)

### 2.2.8 Activity Diagram

The activity diagram used to describe flow of activity through a series of actions. This diagram captures the basic steps involved in the authorization process of an admin to access a system. Similarly ,each activity is represented by node ,connected by arrows indicating the flow of control.

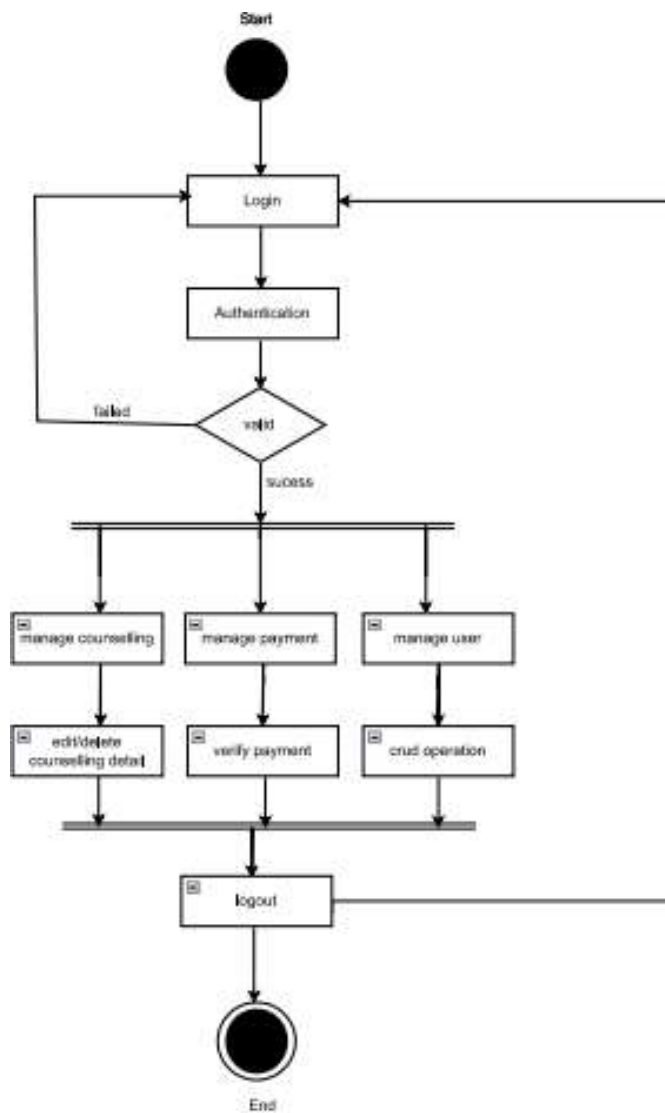


Figure 2.5: Activity Diagram for Appointment Management System (admin)

### 2.2.9. Testing

Testing is the process of evaluating a software application or system to ensure that it meets specified requirements and functions correctly. It involves executing the software with the intent of finding defects or errors, and verifying that the system behaves as expected.

Table 2.8: Login

Unit Effected	Test Input Data	Actual Result	Expected outcome	Status
Login	Username: admin Password: admin1	Admin is logged into the system	Admin is logged in.	pass

Table 2.9: Add Course

Unit Effected	Test Input Data	Actual Result	Expected outcome	Status
Add course	Name: Gre Fee: 100 Image: gre.png Description: bjswvv Duration: 3months	New course added	Visible in course page	pass

Table 2.10: Registration

Unit Effected	Test Input Data	Actual Result	Expected outcome	Status
Registration	Fullname: sdf Password: 15ds2t3 Confirmpassword: 15ds2t3	New Registration added	“success message is shown”	pass

### 2.2.10 Modules

By creating comprehensive module documentation, you can ensure a clear understanding of different functionalities within your appointment management system for developers, administrators, and potential users.

#### Admin Module:

- Purpose: Manage users, appointments, classes, counselors, and system settings.
- Functionalities:
  - User Management: View, add, edit, and delete user accounts (including profile information).
  - Appointment Management:
    - View all appointments (upcoming, past, cancelled).
    - Filter and search appointments by counselor, user, date, etc.
    - Modify appointments (reschedule, cancel) with justification.
    - Assign appointments to counselors based on availability and specialty.
  - Class Management:
    - View all offered classes (including descriptions, schedules, fees).
    - Add, edit, and delete classes.
    - Manage class enrollment (approve/reject user requests).

- Counselor Management:
  - View a list of counselors.
  - Add, edit, and delete counselor accounts (including profile information and schedules).
- Payment Management:
  - View transaction history (class enrollment fees).
  - Manage refunds (if applicable).
- System Settings:
  - Configure business hours.
  - Set appointment cancellation policy.
  - Manage payment gateway settings (if applicable).

#### **Payment Module:**

- Purpose: Process secure online payments for class enrollment fees.
- Functionalities:
  - Integrate with a secure payment gateway.
  - Handle various payment methods.
  - Process transactions securely.
  - Generate receipts for successful payments.

#### **Teacher Module(Counselor):**

- Purpose: Manage appointments and participate in class sessions.
- Functionalities:
  - View upcoming appointments.
  - View appointment details (user information, appointment notes).
  - Mark appointments as completed.
  - Participate in online class sessions (if applicable) through video conferencing or chat functionalities.



### 2.2.11 Component Diagram

The purpose of component diagram is to show relationship between different components in a system. For the purpose of UML 2.0, the “component” refers to a module of a classes that represent independent system or subsystem with the ability to interface with rest of the system.

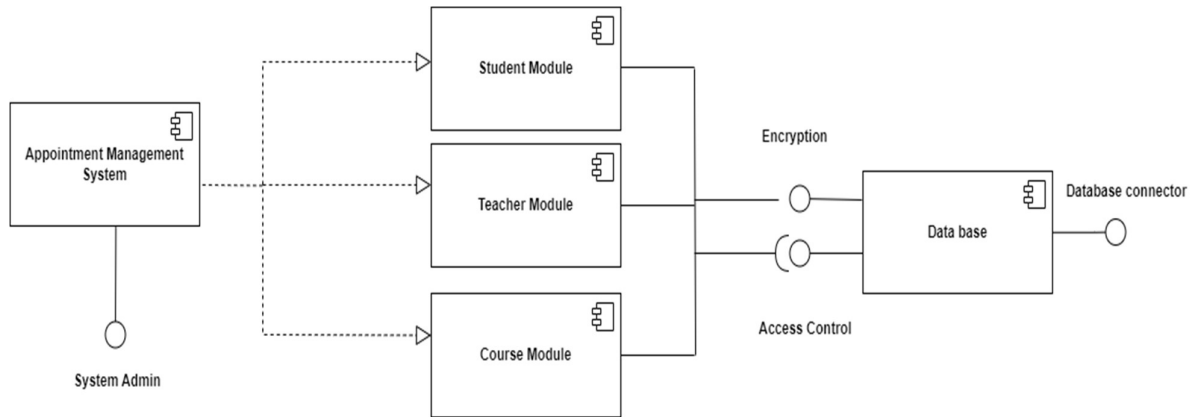


Figure 2.6: Component Diagram for Appointment Management System

### 2.2.12 Deployment Diagram

Deployment diagrams are used to visualize the hardware processors/ nodes/devices of a system, the links of communication between them and the placement of software files on that hardware. The deployment diagram illustrates the setup where a server node, housed in a Dell PowerEdge running Apache 2.4.46, contains an additional node equipped with Database server.

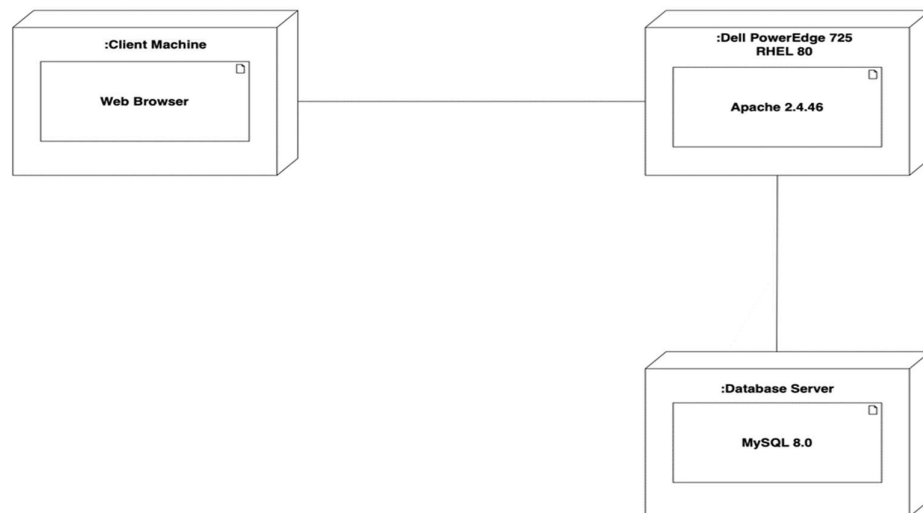


Figure 2.7: Component Diagram for Appointment Management System

## **2.3 Findings**

After analyzing the problems of the organization, the organization must have a system for storing the record of data and information in efficient way so that it can be used later on when needed.

## **CHAPTER III: DISCUSSION AND CONCLUSION**

### **3.1 Discussion**

During the summer project, following data and information were discussed: Function of web based application. Comparative study of manual and web based application and current situation of the organization.

### **3.2 Conclusion**

To conclude, the project has been to develop the counselling system for the organization to know the clients detail information, and their preferences and interest. It has been able to prepare the termed user friendly so as the admin easily use the system. Concluding, this project will be helpful to perform paperless work and manage all the data as well as provide easy, accurate and fast data access.

### **3.3 Future Enhancement**

The system which is built for Rain Education needs future enhancement through which the system can work efficiently and effectively. The future requirements it requires are:

- The advance payment system for both student and teacher.
- The ability system to detect client preferences.

## REFERENCES

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## Appendix

Figure: Home page

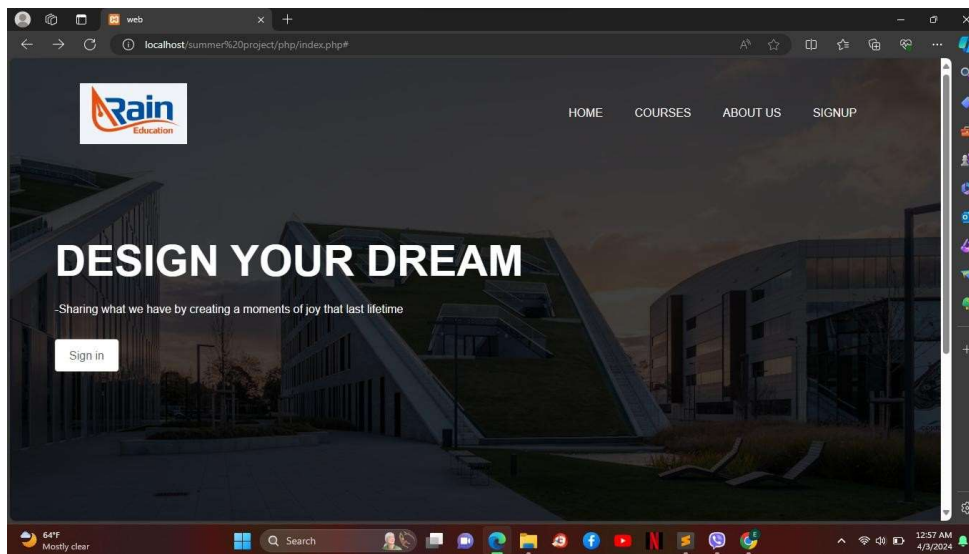
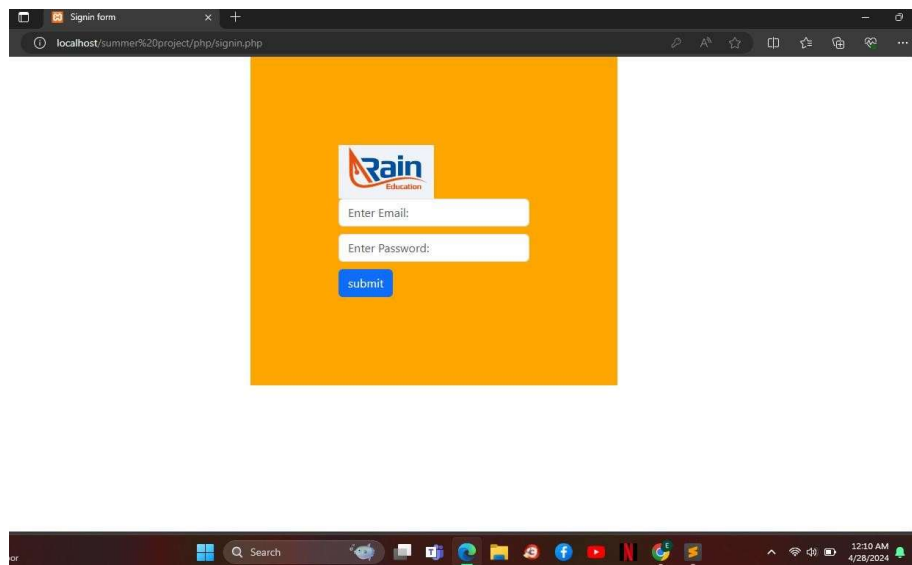


Figure: Counselling page

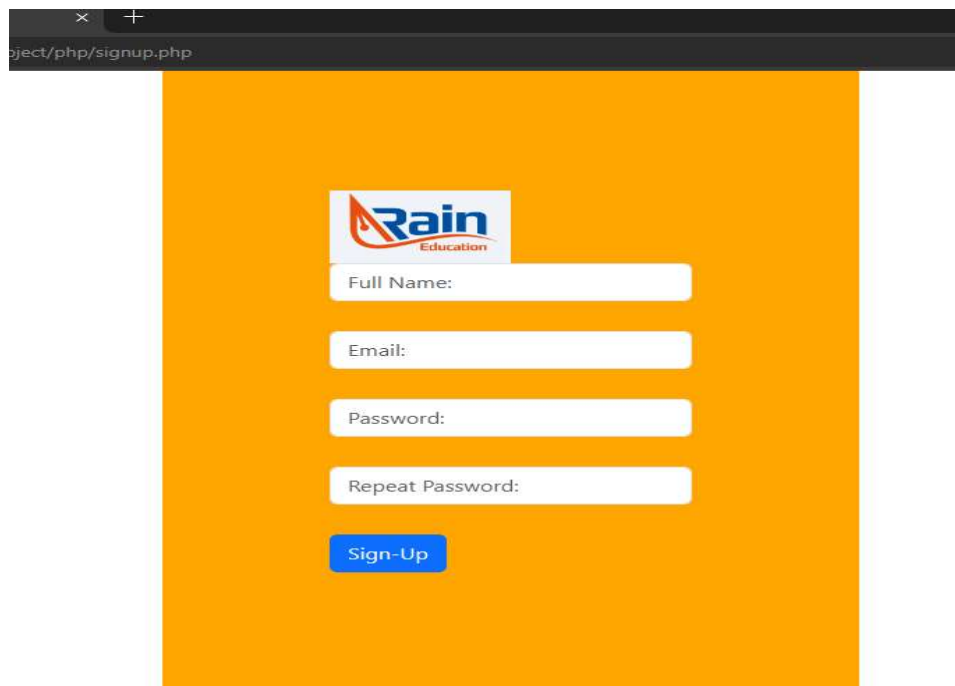
A screenshot of the 'Get a Counselling' form on the Rain Education website. The browser's address bar shows 'localhost/summer project/php/counselling.php'. The form is set against an orange background and includes the following fields: 'Name' (with placeholder 'Enter your full name'), 'Email' (with placeholder 'Enter your email'), 'Mobile' (with placeholder 'Enter your mobile number'), 'Address' (with placeholder 'Enter your address'), 'Date' (with placeholder 'mm/dd/yyyy' and a calendar icon), and 'Message' (with placeholder 'Enter your message'). A blue 'Submit' button is positioned at the bottom of the form.

Figure: Signin page



The screenshot shows a web browser window with the address bar displaying "localhost/summer%20project/php/signin.php". The page content is centered on an orange background. At the top is the "Rain Education" logo. Below it are two white input fields: "Enter Email:" and "Enter Password:". A blue "submit" button is positioned below the password field. The browser's taskbar at the bottom shows various application icons and the system clock indicating 12:10 AM on 4/28/2024.

Figure: Signup page



The screenshot shows a web browser window with the address bar displaying "project/php/signup.php". The page content is centered on an orange background. At the top is the "Rain Education" logo. Below it are four white input fields: "Full Name:", "Email:", "Password:", and "Repeat Password:". A blue "Sign-Up" button is positioned below the last field.

Figure:Admin Dashboard

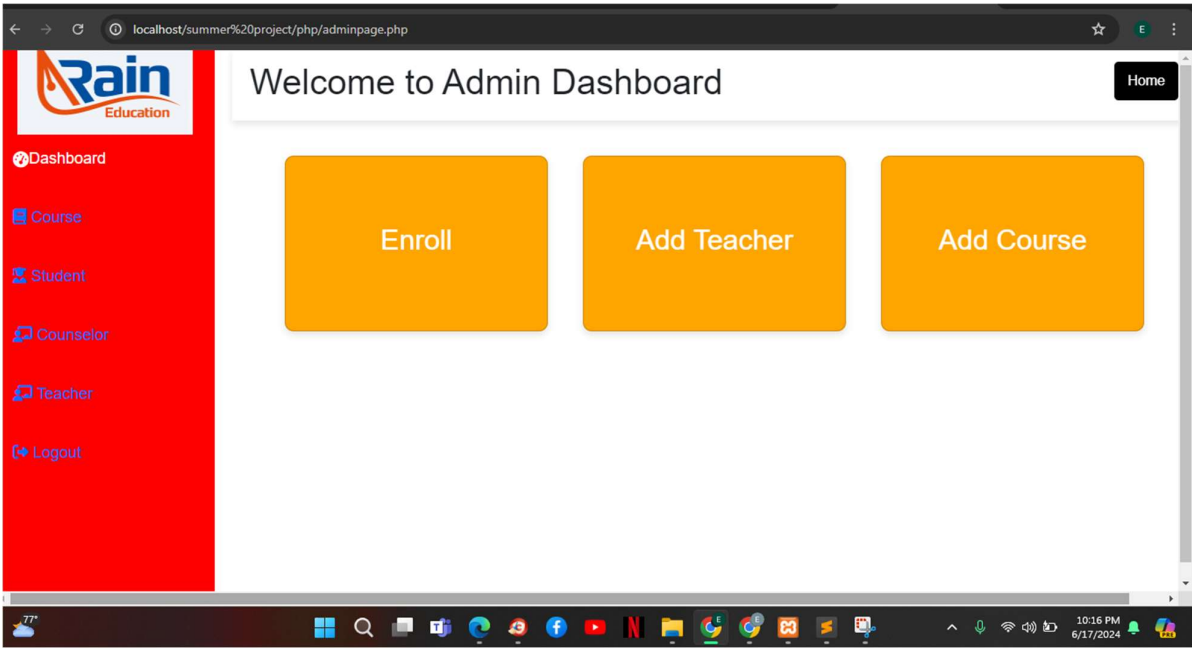


Figure: Enroll Information

