

**DEVELOPMENT OF DIU PROJECT MANAGEMENT SYSTEM**

**BY**

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Bachelor of Science in Computer Science and Engineering

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## DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Md. Tanvir Rahman, Senior Lecturer, Department of CSE**, Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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## **ABSTRACT**

The world is technologically developing day by day. Technology makes our life more easy and comfortable. Our University is also developing day by day. But our final year project select system is still analog. Managing and controlling the final year projects of students using manual or traditional process is a very boring and time consuming way. Project management system is a way to maintain project related all the activities. The important thing is this management system can improve the speed and make operations and process fast and efficient. It is a web based portal or application that is used by student, supervisor, co-supervisor and multiple admins. Sometimes students miss important updates about their final year project because of university traditional system. Also, the students are not able to keep track of their project related activities. It begins very easy if all the details and updates of the project from supervisor and coordinator are readily available for the students. So our main aim is to build a project that digitalize the previous version of the system and can make the system easy and automated. This project is also help us to remove our physical troubles and reduce complexity.

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# CHAPTER 1

## Introduction

### 1.1 Introduction

The project “Development of DIU project management system” is an online web based management system provides a simple, easy and beautiful interface. Using this project we can digitalize our previous version of system. Students can easily take information about the teacher research category. So students can easily give their teacher choice for final year project. Through this project teacher can easily maintain a group.

Manually maintaining of the works is quite difficult and time consuming. The “Development of DIU project management system” is the solution of these difficulties and time consuming.

### 1.2 Objectives:

The objectives of the “Development of DIU project management system” are

1. To improve the manual final year project management system.
2. To easily choose student interested project area for the final year project.
3. To reduce and manage Complexity of final year project related institutions process.

### 1.3 Expected Outcome

- i. Teachers can easily interact with student.
- ii. Teachers can easily identify the group progress.
- iii. Give chance to all user of the system to learn new thing from new technology usage.
- iv. Bring effective and efficiency outcome of educational process by systematic.
- v. Make easy of everyone’s works and also the whole activities of education process.
- vi. Students can easily take information about the teacher research category.
- vii. Students can easily create final year project group.
- viii. Progress charts the marks will automatically get assigned for particular group of the students.

## **1.4 Report Layout:**

This report is organized as follow: Chapter 1 describes introduction and objectives of the project. Chapter 2 describes background, related works, comparative studies and scope of the Problem of the project. Chapter 3 describes requirement specification, analysis and collection and modeling of the project. Chapter 4 describes design related issues. Chapter 5 describes implementation and testing related things. Chapter 6 describes conclusion, limitation and future development scope of the system.

## **CHAPTER 2**

### **Background**

#### **2.1 Introduction**

To develop educational system it is important to develop their manual system automated, digitized and online based. Project Management System is a major tool for being all operations and process easy for improvement of quality and making the things modern with the modern world. Most of the university can use the PMS (project management system) if they want to develop their manual project management system process. At first if the student and teacher both want to login the system they need to registration first otherwise they cannot access the system. After successfully login students can create group, search teacher research field and apply their project. Teacher can view the group details, also give marks to the student and declare their phase-I, phase-II term date. Admin can student and teacher panel.

For the inefficiency, time wastage, working complexity and others disadvantages of the manual system there arise the need of Project Management System.

#### **2.2 Related Works**

For improving the education system and assisting to handle the operation and managerial works of an educational institute there are many projects already developed and developing. A computer information system is a system composed of people and computers that processes or interprets [2][3] [4] [5] information.

Student Information System is the common project that use to store and manage information of the students and generates the search result.



Project Management System Used for Industries is administrative process to create an automated system for managing all the activities of the projects and keep track all information.

Accounting software is likely to operate the jobs of payments records handling, receive and give payments, show charts of receive and given amount with respect to time. Report generate and exporting, calculating and showing the records payments in different parameter.

Attendance System .It is used most of the institute not only school or educational institute but also in different offices.

Web based student management system is a useful process to maintain and record all the information about the student.

### **2.3 Comparative Studies**

While there is pressure of students before title defense there could be face some problem such as find teacher research field, create a group, select teacher, form collect. But using our developed system they can easily solve this activities properly.

Students are face physically trouble for the manual process but using project management system reduce physically movement.

In manual process, Student cannot see their marks and work progress but use this application they can easily know their work progress with marks.

Example:

Web Based Student Information Management System.

Development of Project Management System.

## **2.4 Scope of the Problem**

In modern age we are dependent on technology based system and the system are develop day by day. As a result crime is also increase.

Project Management System is a web based application so sometime user can face website problem. If the website security is broken then unauthorized user access the application. For this reason they lost their important data and privacy.

If the hacker change any kind of information then the authority and the student face many types of risk.

## **2.5 Challenges**

**2.5.1 Instant Notice & Events:** It's important to show the notices and events to the correct users instantly to notify them, but it is not exist in our manual project management system. This problem is solved by the project and user can instantly view notice, events on their portal.

**2.5.2 Marks & Work Progress:** In manual process, Student cannot see their marks and work progress but use this application they can easily know their work progress with marks.

## **CHAPTER 3**

### **Software Requirements Specification**

#### **3.1 Requirement collection and analysis**

Requirement collection is the process where necessary functional and non-functional Information will be collected for the system.

For the system requirement collection process is given below:

- Get information by survey with Google forms.
- Information collection by discussion with project conveyor.
- Teacher information is collected from the authority.
- Specific teacher information is collected for interested areas thesis project supervisor.

Tools requirements to develop the projects:

- PhpStorm IDE to develop the project.
- Php framework as Laravel.
- MySQL database.

## 3.2 Use Case Modeling and Description:

### 3.2.1 Use case diagram:

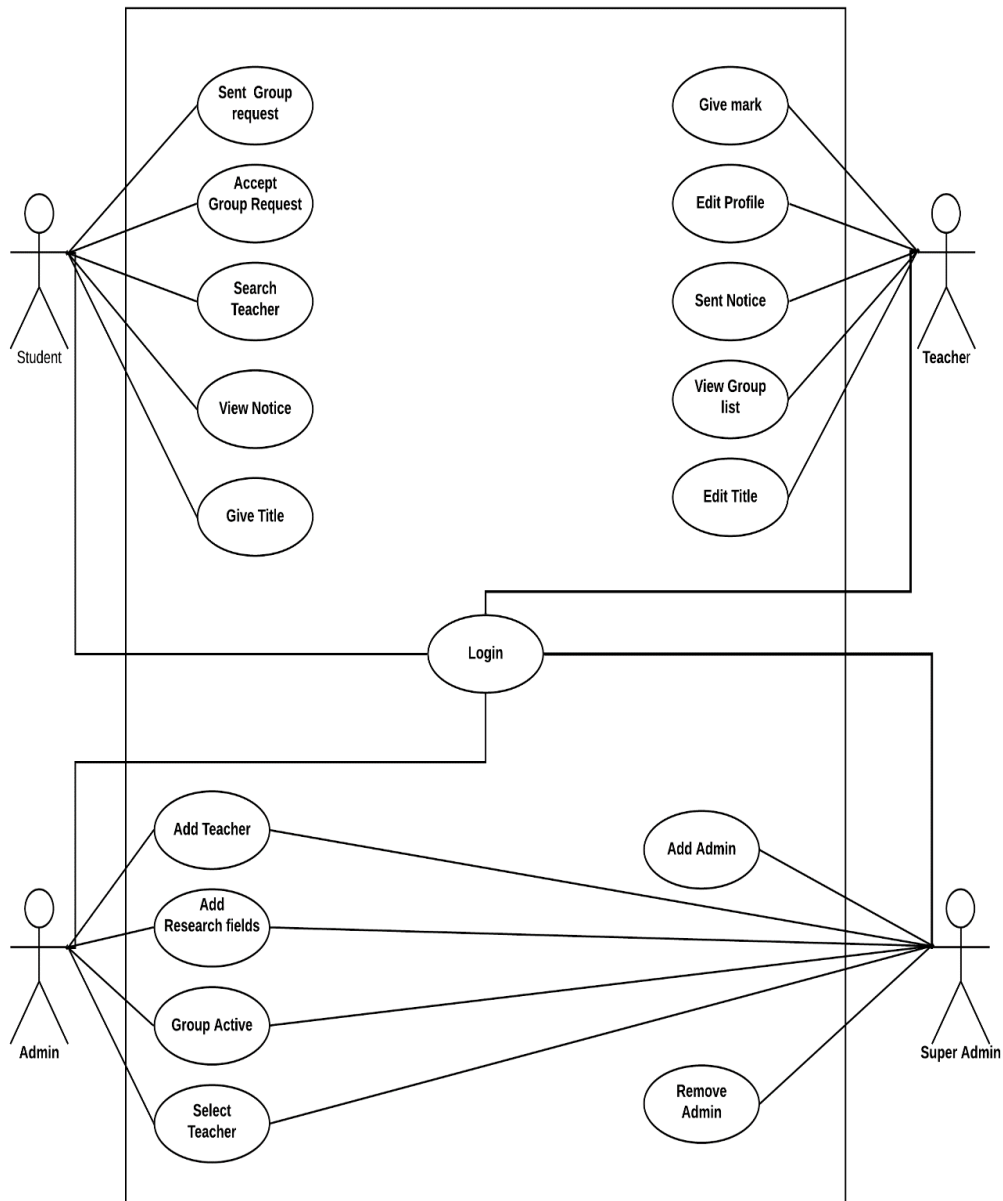


Figure 3.2.1: Diagram of use case

### 3.2.2 Use case description:

In use case description there are some key things those are needed to be described. The main key points are the name of use case, actors on the case, flow events, alternative flows, pre-condition, and post condition [6].

A dialog was written in website “You may get bird-eye view from a use case” [7].

Some of the use cases are described below following the key points.

TABLE 3.2.2.1: Use case description of Login System

<b>Use Case ID:</b>	UC-1
<b>Use Case Name:</b>	Login System
<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Student, Teacher, Admin, Super Admin
<b>Description:</b>	User need to login with their account information before using the system.
<b>Precondition:</b>	<ol style="list-style-type: none"><li>1. The user has an account.</li><li>2. The user is trying to log in with their account.</li><li>3. The user is not already logged in with their account.</li></ol>
<b>Post condition:</b>	<ol style="list-style-type: none"><li>1. The user is logged in to the system.</li></ol>

	2. The user has access to the functions of the system.
<b>Normal Flow:</b>	1.0 User will access URL  1.1 User input their email and password  1.2 The application authenticates the email and password.  1.3 The user gains access to the systems functionality.
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.2: Use case description of Search Teacher

<b>Use Case ID:</b>	UC-2
<b>Use Case Name:</b>	Search Teacher
<b>Created By:</b>	Faruq Ahmed
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Faruq Ahmed
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Student
<b>Description:</b>	Student will be prompted to login with their account information before they can use the system and they can search teacher.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user is log in with their account.</li> <li>3. The user submit teacher id or email for searching them.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user has access to the view teacher list functions of the system.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The application authenticates the email and password.</li> <li>1.3 Student Submits teacher id or email then click search button.</li> <li>1.4 The user gains access to the systems functionality.</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.3: Use case description of Sent Group Request

<b>Use Case ID:</b>	UC-3
<b>Use Case Name:</b>	Sent Group Request
<b>Created By:</b>	Faruq Ahmed
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Faruq Ahmed
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Student
<b>Description:</b>	Student will login with their account information before they can use the system and they will send request for select group others member
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user is log in with their account.</li> <li>3. The user submit their student ID for group request.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user has access to the Create group functions of the system.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> </ol>



	<p>1.2 Student Submits student id then click search button then sent request them</p> <p>1.3 The user gains access to the systems functionality.</p>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.4: Use case description of Give Title

<b>Use Case ID:</b>	UC-4
<b>Use Case Name:</b>	Give Title
<b>Created By:</b>	Faruq Ahmed
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Faruq Ahmed
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Student
<b>Description:</b>	Student will login with their account information before they can use the system and they will give their project title.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. The user must be create a group.</li> </ol>

<b>Post condition:</b>	1. The user is logged in to the system. 2. The user has access to the functions of the system and give their title.
<b>Normal Flow:</b>	1.0 User will access URL  1.1 User input their email and password  1.2 The user gains access to the systems functionality.  1.3 The user can give title and submit their request.
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.5: Use case description of View notice

<b>Use Case ID:</b>	UC-5
<b>Use Case Name:</b>	View notice
<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Student
<b>Description:</b>	If teacher sent any kind of notice or information to the student. Then student can view their notice.

<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. The user must in a group and connect with their supervisor.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user has access to the functions of the system and view their notice.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access user can see their notice.</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.6: Use case description of Accept Group Request

<b>Use Case ID:</b>	UC-6
<b>Use Case Name:</b>	Accept Group Request
<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Student
<b>Description:</b>	If any student sent group request. Then the user can see the group request and accept the group request or cancel the group request.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user has access to the functions of the system and accept the request or cancel the request.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access user can accept or cancel request.</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.7: Use case description of Give Mark

<b>Use Case ID:</b>	UC-7
<b>Use Case Name:</b>	Accept Group Request
<b>Created By:</b>	Md. Rakibul Alam

<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Rakibul Alam
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Teacher
<b>Description:</b>	Teacher can give marks to the student after successfully login to the system.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. The user must have group.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user has access to the functions of the system and give marks.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access user can give marks to the student.</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.8: Use case description of Edit Profile

<b>Use Case ID:</b>	UC-8
<b>Use Case Name:</b>	Edit Profile
<b>Created By:</b>	Md. Rakibul Alam
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Rakibul Alam
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Teacher
<b>Description:</b>	After successfully login to the system teacher can update their information.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. Try to update information.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user has access to the functions of the system and update their information.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access user can update her profile.</li> </ol>

<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.9: Use case description of Sent Notice

<b>Use Case ID:</b>	UC-9
<b>Use Case Name:</b>	Sent Notice
<b>Created By:</b>	Md. Rakibul Alam
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Rakibul Alam
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Teacher
<b>Description:</b>	If teacher need to share any information or call meeting with their student. They can easily do this using this application option.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. The user must have a group.</li> <li>4. The user try to send notice.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user has access to the functions of the system.</li> <li>3. Write notice and press send button.</li> </ol>
<b>Normal Flow:</b>	1.0 User will access URL

	<p>1.1 User input their email and password</p> <p>1.2 The user gains access to the systems functionality.</p> <p>1.3 After successfully access user can sent notice.</p>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.10: Use case description of View Group List

<b>Use Case ID:</b>	UC-10
<b>Use Case Name:</b>	View Group List
<b>Created By:</b>	Md. Rakibul Alam
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Rakibul Alam
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Teacher
<b>Description:</b>	After successfully login the user can see her all group list.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. The user must have a group.</li> </ol>



	4. The user try to view group.
<b>Post condition:</b>	1. The user is logged in to the system. 2. Click the view option to show all group list.
<b>Normal Flow:</b>	1.0 User will access URL  1.1 User input their email and password  1.2 The user gains access to the systems functionality.  1.3 After successfully access the user can see the group list
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.11: Use case description of Edit Title

<b>Use Case ID:</b>	UC-11
<b>Use Case Name:</b>	Edit Title
<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Teacher
----------------	---------

<b>Description:</b>	If any teacher want to change the group project title. The user can easily do using this application.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. The user must have a group.</li> <li>4. The user try to change title.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. Click the edit option for updating the title.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access the user can update the group title</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.12: Use case description of Add Teacher

<b>Use Case ID:</b>	UC-12
<b>Use Case Name:</b>	Add Teacher
<b>Created By:</b>	Md. Abu Bakkar Siddik

<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Admin
<b>Description:</b>	If any teacher sent request for join this application. The admin can add the teacher.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. Sent request to join.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user click add button to add teacher.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access the user can add teacher.</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.13: Use case description of Add Research Field

<b>Use Case ID:</b>	UC-13
<b>Use Case Name:</b>	Add Research Field
<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Admin
<b>Description:</b>	If any teacher sent request for add new research filed. Then the admin can add the new research field.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. Sent request for add new research field.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user give permitting to add new research field.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access if the user see any request for add new research filed.</li> </ol>

	The user can give permission to add new field or cancel the request.
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.14: Use case description of Group Active

<b>Use Case ID:</b>	UC-14
<b>Use Case Name:</b>	Group Active
<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Admin
<b>Description:</b>	If any group sent request for project grouping. The admin can add or cancel the group request. If he add group then the group will be active.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. Sent request for add new group.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user must click on the add button for add the group.</li> </ol>

<b>Normal Flow:</b>	<p>1.0 User will access URL</p> <p>1.1 User input their email and password</p> <p>1.2 The user gains access to the systems functionality.</p> <p>1.3 After successfully access the user can add the new project group.</p>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.15: Use case description of Select Teacher For Group

<b>Use Case ID:</b>	UC-15
<b>Use Case Name:</b>	Select Teacher For Group
<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	19-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Admin
<b>Description:</b>	If any group sent request for project grouping with their selecting supervisor list. Among the supervisor list the admin can add any supervisor for their project.

	Also Admin can add new supervisor for their project group.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. Sent request for project group.</li> <li>4. Also select the supervisor list.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user must click on the add button for add the group and teacher.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access the user can add the new project group and their supervisor.</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.16: Use case description of Add Admin

<b>Use Case ID:</b>	UC-16
<b>Use Case Name:</b>	Add Admin
<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	19-11-2019

<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Super Admin
<b>Description:</b>	A super admin can add new admin also manage the all activity.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. Try to add new admin.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user must click on the add button for add new admin.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access the user can add the new admin.</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

TABLE 3.2.2.17: Use case description of Remove Admin

<b>Use Case ID:</b>	UC-17
<b>Use Case Name:</b>	Remove Admin



<b>Created By:</b>	Md. Abu Bakkar Siddik
<b>Created Date:</b>	12-11-2019
<b>Last Updated By:</b>	Md. Abu Bakkar Siddik
<b>Last Updated Date:</b>	21-11-2019

<b>Actors:</b>	Super Admin
<b>Description:</b>	A super admin can remove admin also manage the all activity.
<b>Precondition:</b>	<ol style="list-style-type: none"> <li>1. The user has an account.</li> <li>2. The user will login with their account.</li> <li>3. Try to add remove admin.</li> </ol>
<b>Post condition:</b>	<ol style="list-style-type: none"> <li>1. The user is logged in to the system.</li> <li>2. The user must click on the remove button for remove admin.</li> </ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"> <li>1.0 User will access URL</li> <li>1.1 User input their email and password</li> <li>1.2 The user gains access to the systems functionality.</li> <li>1.3 After successfully access the user can remove admin.</li> </ol>
<b>Includes:</b>	None
<b>Extends:</b>	None

### 3.3 ER Diagram

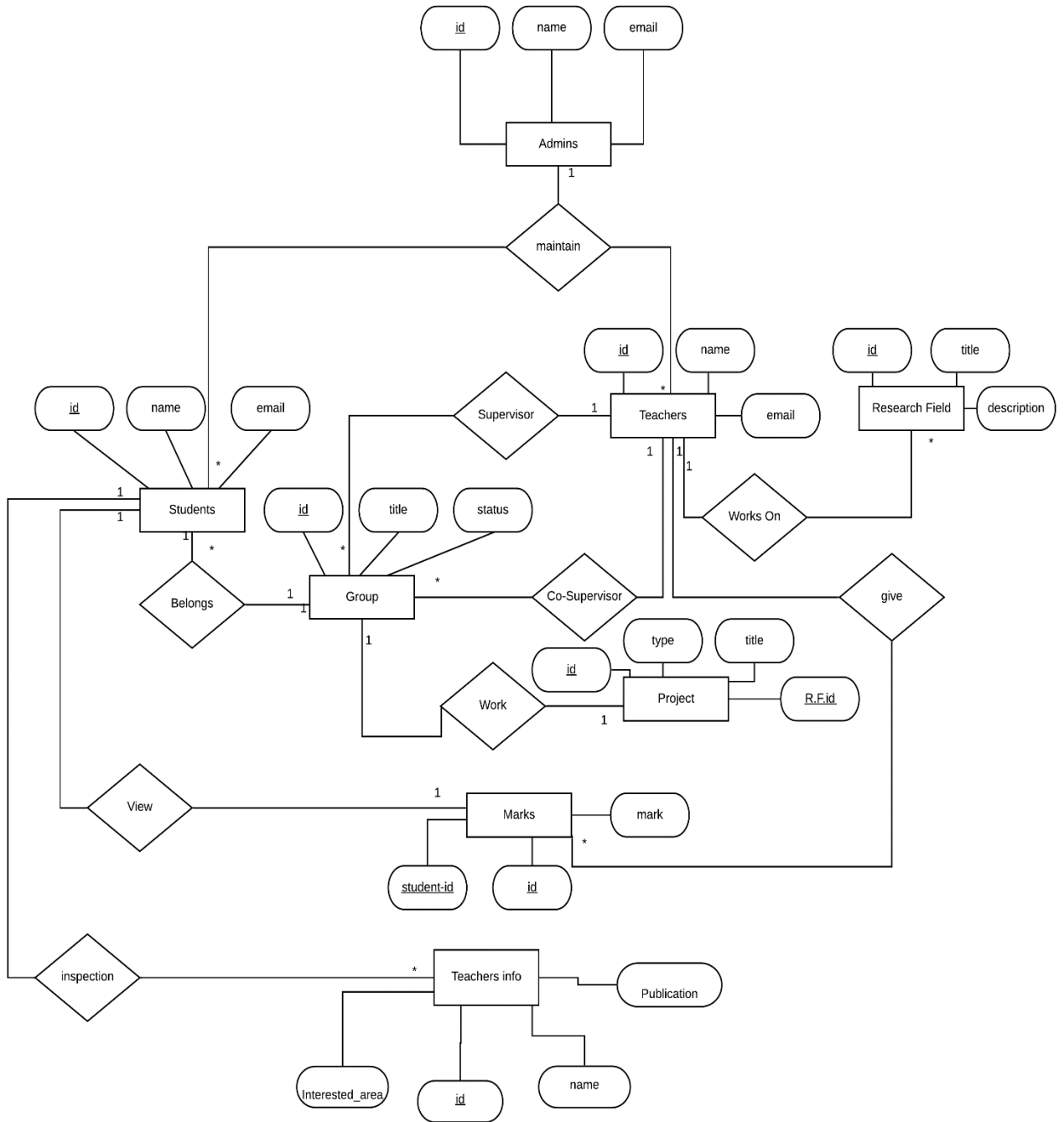


Fig 3.3.1: ER diagram

### 3.4 Logical Data Model:

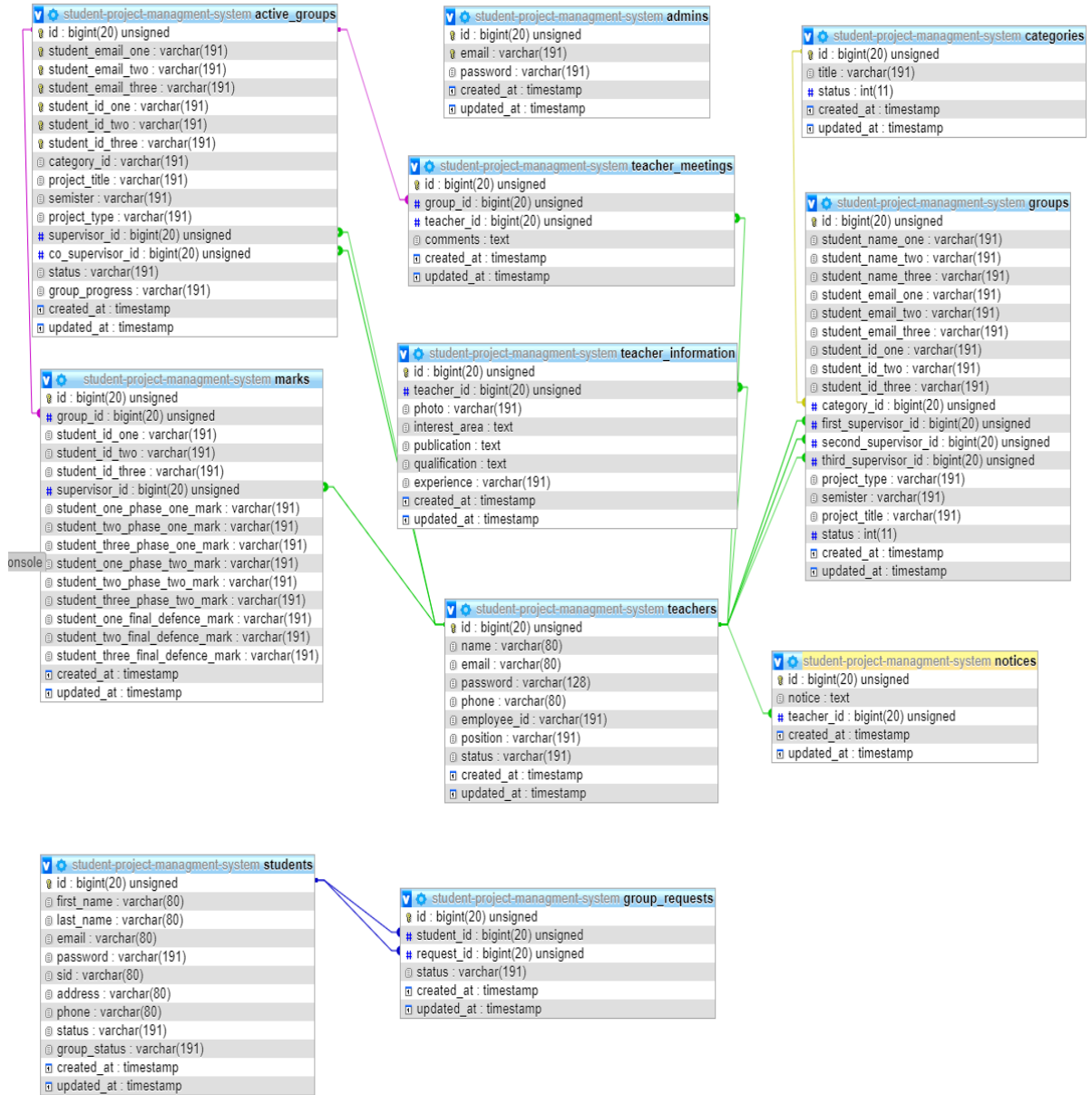


Figure 3.4.1: Logical data model

### **3.5 Design Requirements:**

Design requirements have a great deal with the look of the system and user interfaces.

Basically it defines some key requirements to have the required design.

The design requirements may come from the users or clients side, design management plan and engaged design consultants.

In the project there arises many design requirements those are needed to be fulfilled.

- I. Overflows in the elements will be disabled.
- II. All elements and sidebar options need to be clearly displayed in the mobile or tablet view.
- III. All columns in the table that are displayed in the Desktop View must also be displayed in the Mobile and Tablet view.
- IV. For mobile and tablet browsing Sidebar should be toggle-able by a button and in-default sidebar will be hidden.
- V. Need to have a clear option to users to choose remember password for keeping user logged in for 30 days.
- VI. Have a dashboard that will be designed having some quick actions or summaries of information depending on the user types.

# CHAPTER 4

## Design Specification

### 4.1 Activity diagrams:

Graphical representations of workflows of stepwise activities and actions are activity diagrams [12].

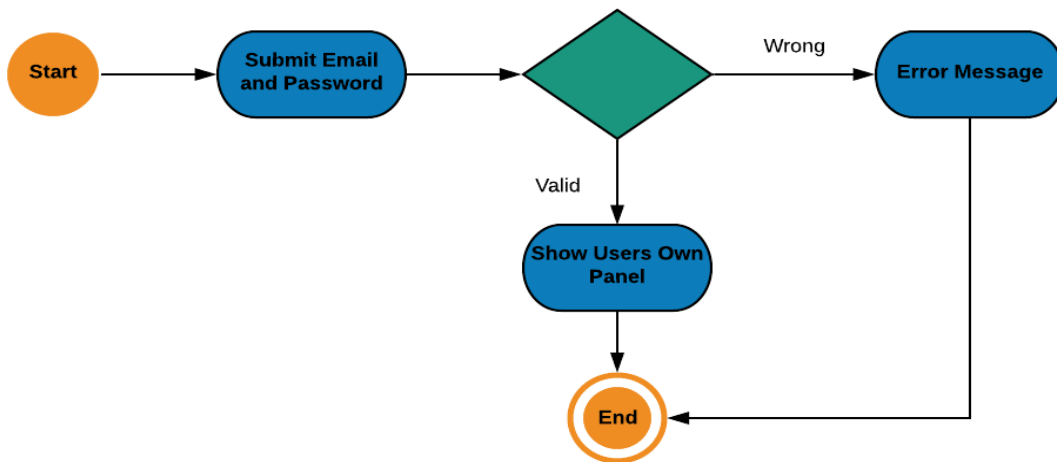


Figure 4.1.1: Login Process.

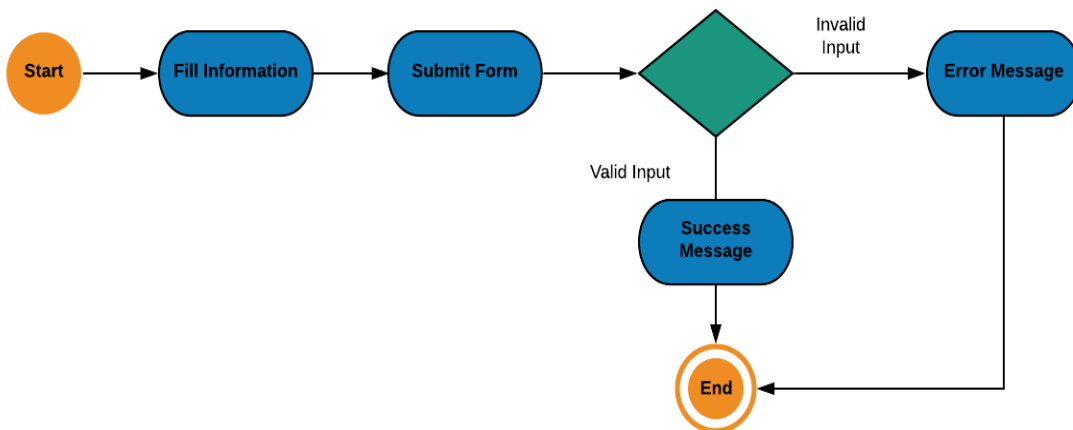


Figure 4.1.2: User registration

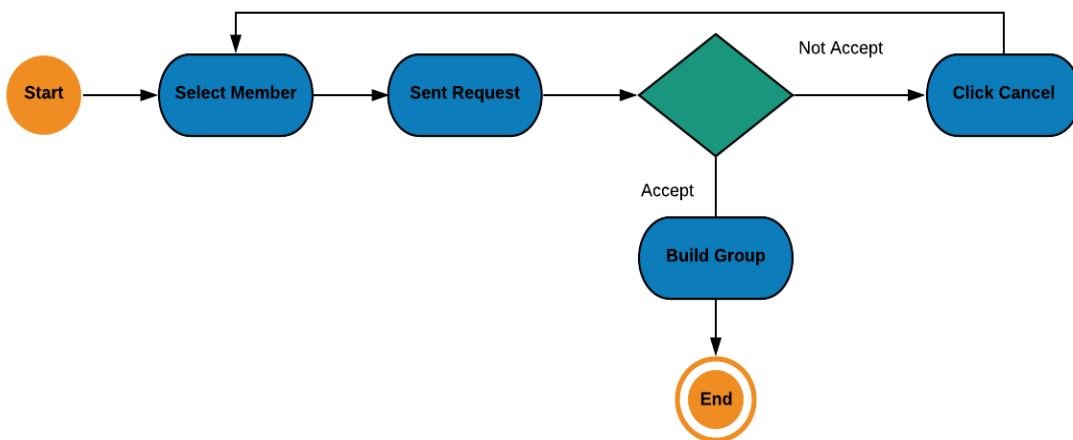


Figure 4.1.3: Group Request

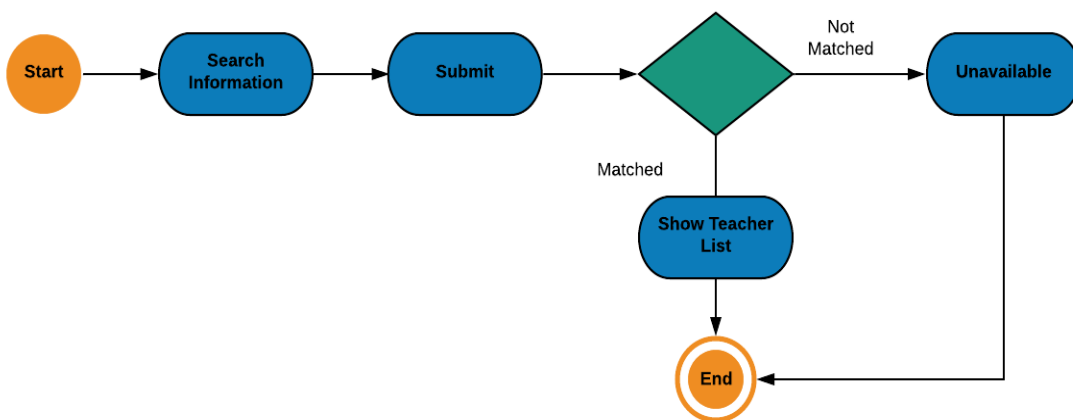


Figure 4.1.4: Search Research Field

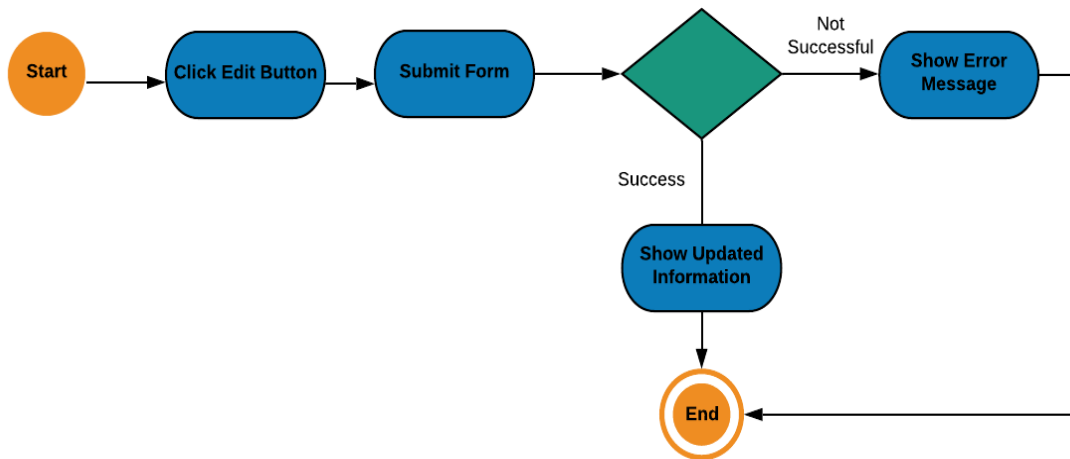


Figure 4.1.5: Edit Profile

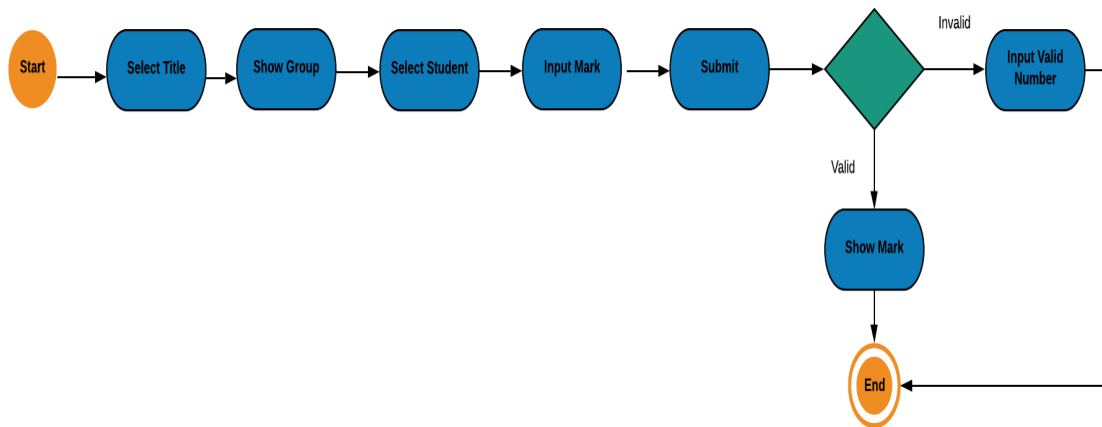


Figure 4.1.6: Marking System

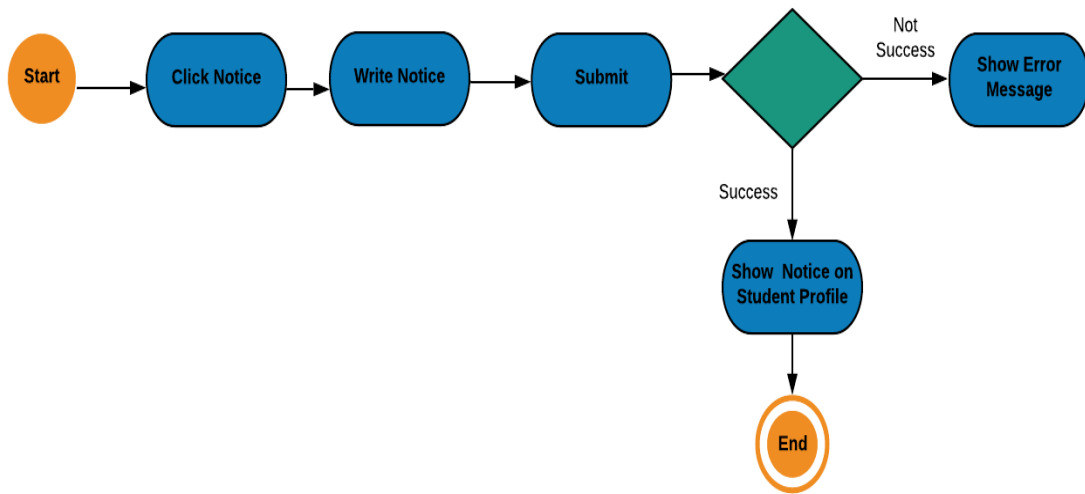


Figure 4.1.7: Sent Notice System

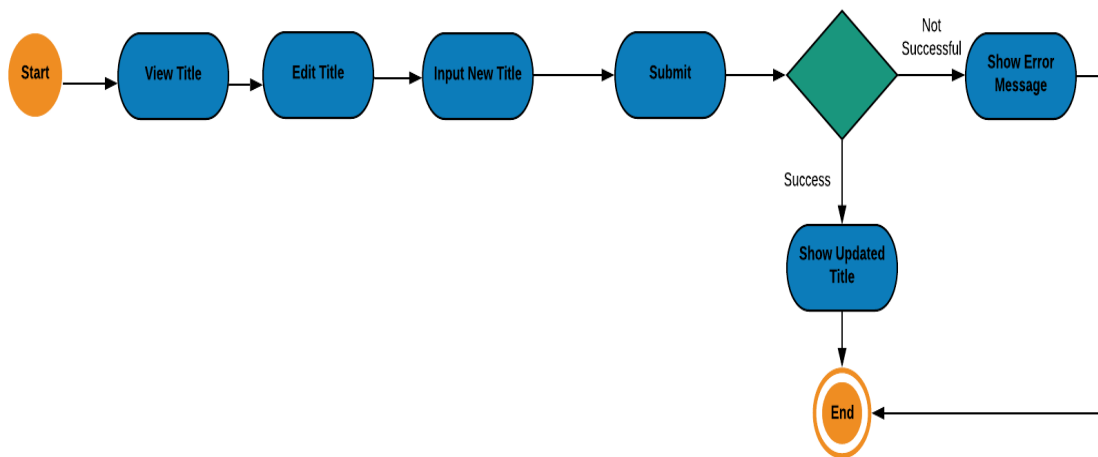


Figure 4.1.8: Edit Title



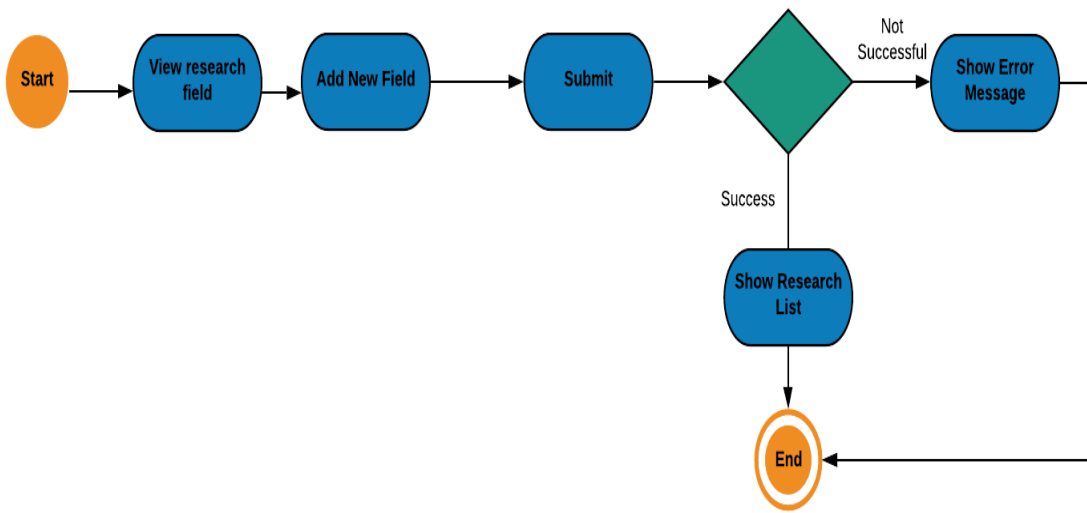


Figure 4.1.9: Add Research Field

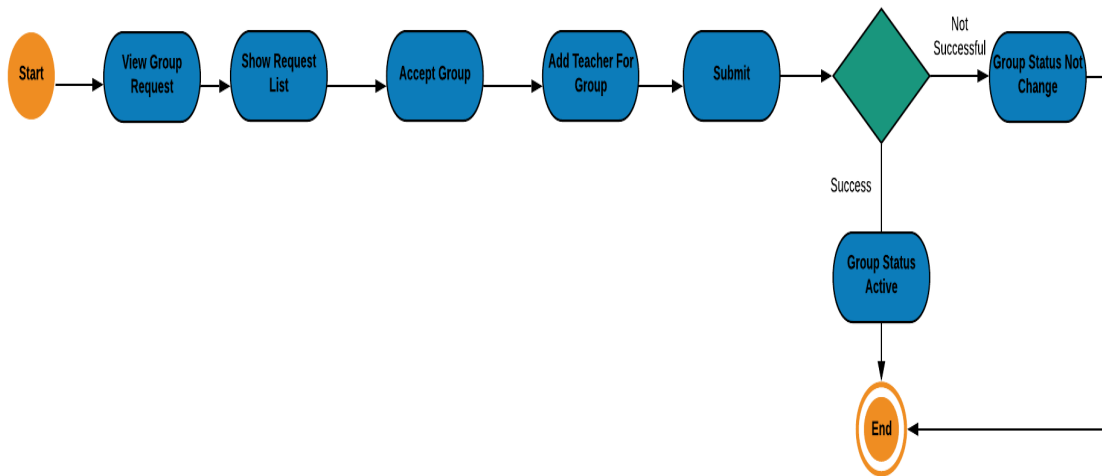


Figure 4.1.10: Group Status

## 4.2 Front End Design:

The project has many good featured and attractive user interfaces. User of the system will be happy to see easy and good clear user interfaces.

In this project for frontend design we use html5, css3, JavaScript. Also use different plugins example: bootstrap 4, font awesome, JQuery to make an interactive look.

The system has too many user interfaces to add on the report but that will be lengthy so here given some screenshot of those interfaces.



Figure 4.2.1: Home Page

Student Sign Up Form

**SIGN UP**

First Name

Last Name

Email

Student Id

Address

Phone Number

[Already Sign Up?Please Login](#)

**SIGN UP**

Figure 4.2.2: Student Registration Form

Student Sign In Form

**SIGN IN**

E-mail

Password

[Have No Account?Please Sign Up](#)

**SIGN IN**

Figure 4.2.3: Student Login Form

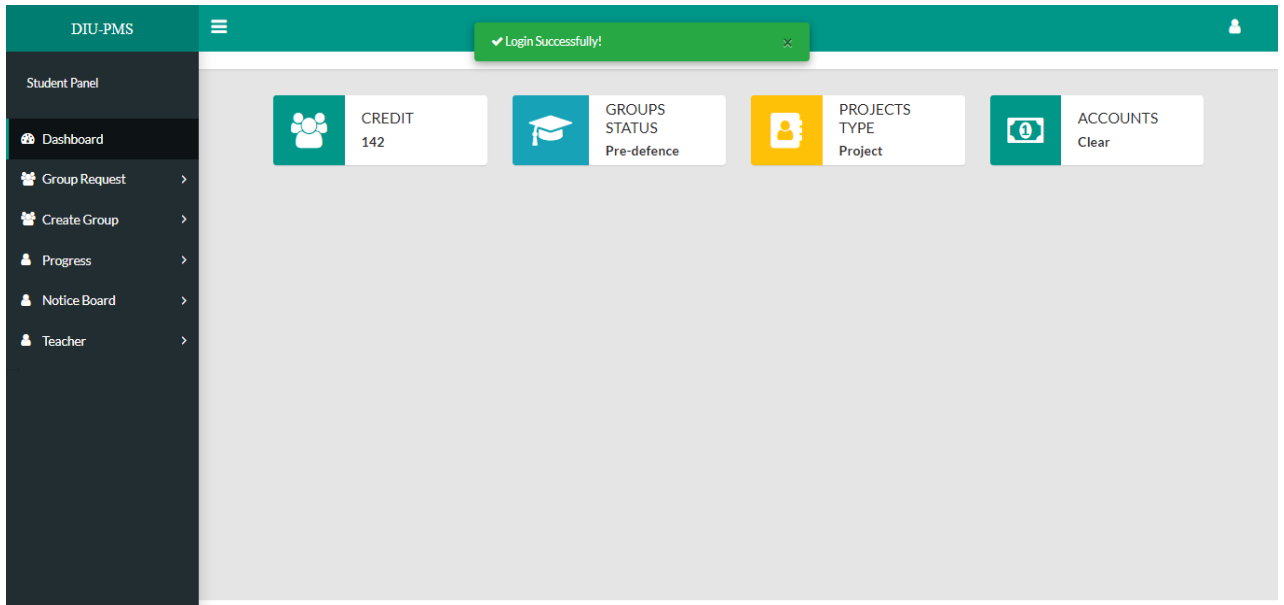


Figure 4.2.4: Student Dashboard

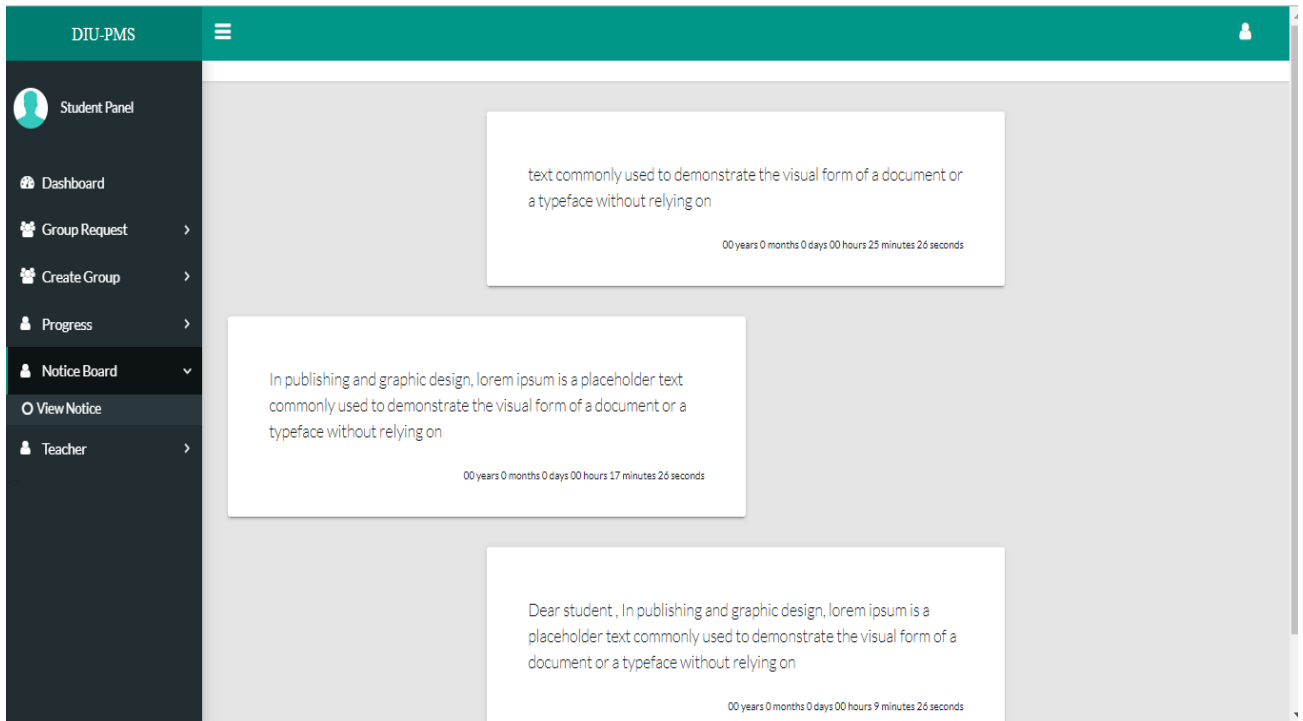


Figure 4.2.5: Student notice board

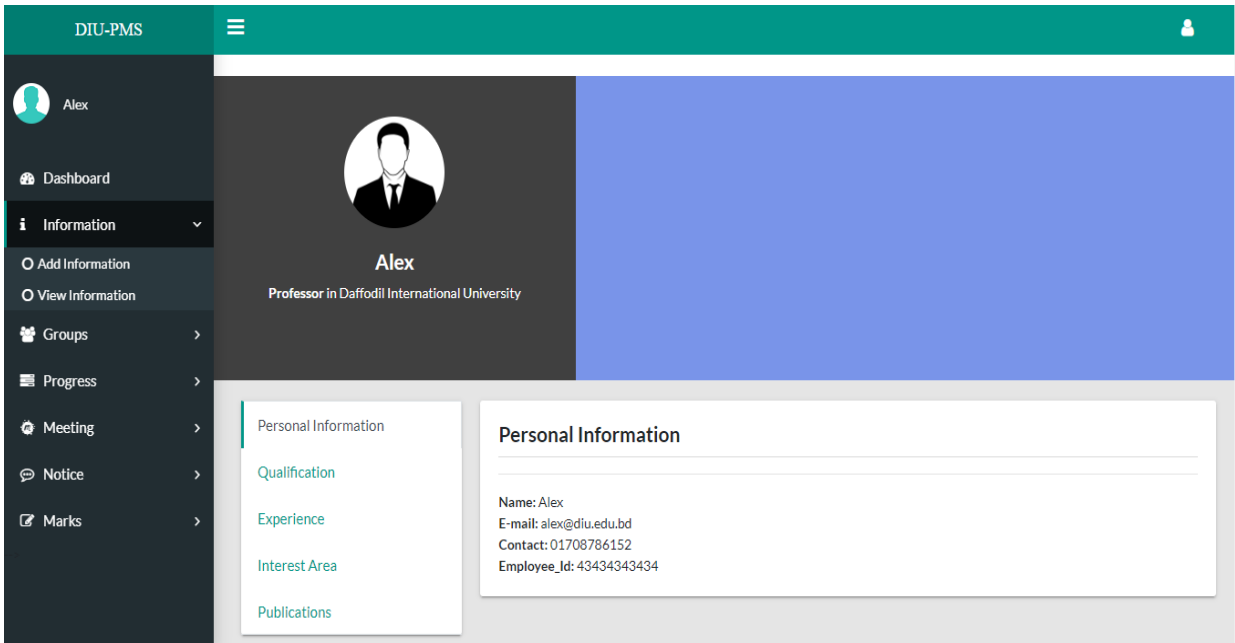


Figure 4.2.6: Student view Teacher info

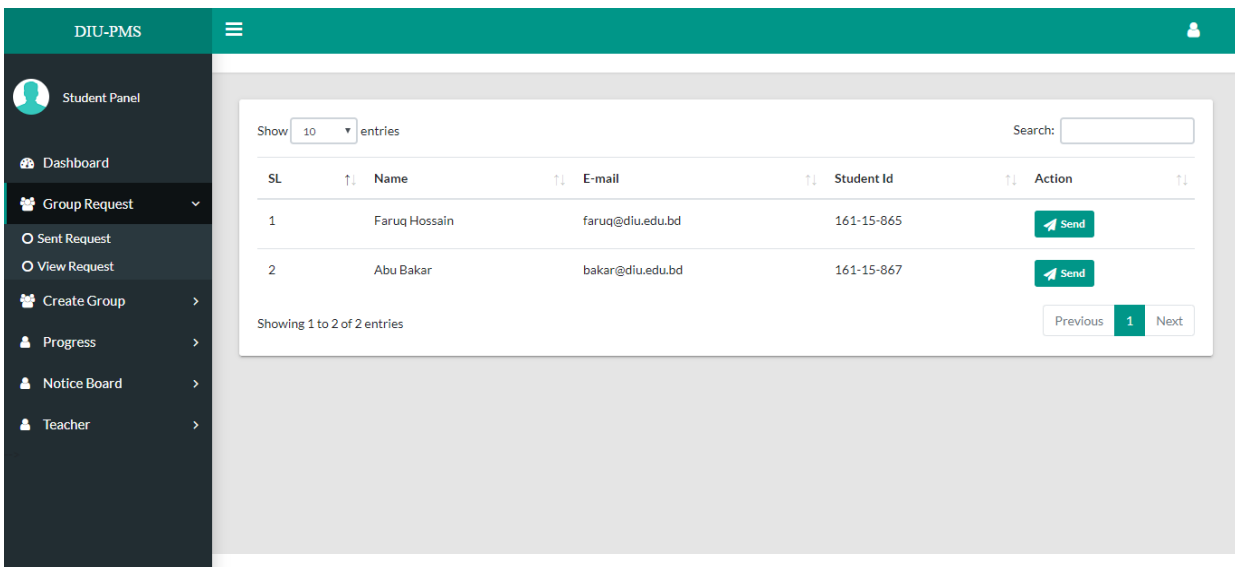


Figure 4.2.7: Student Sent Group Request

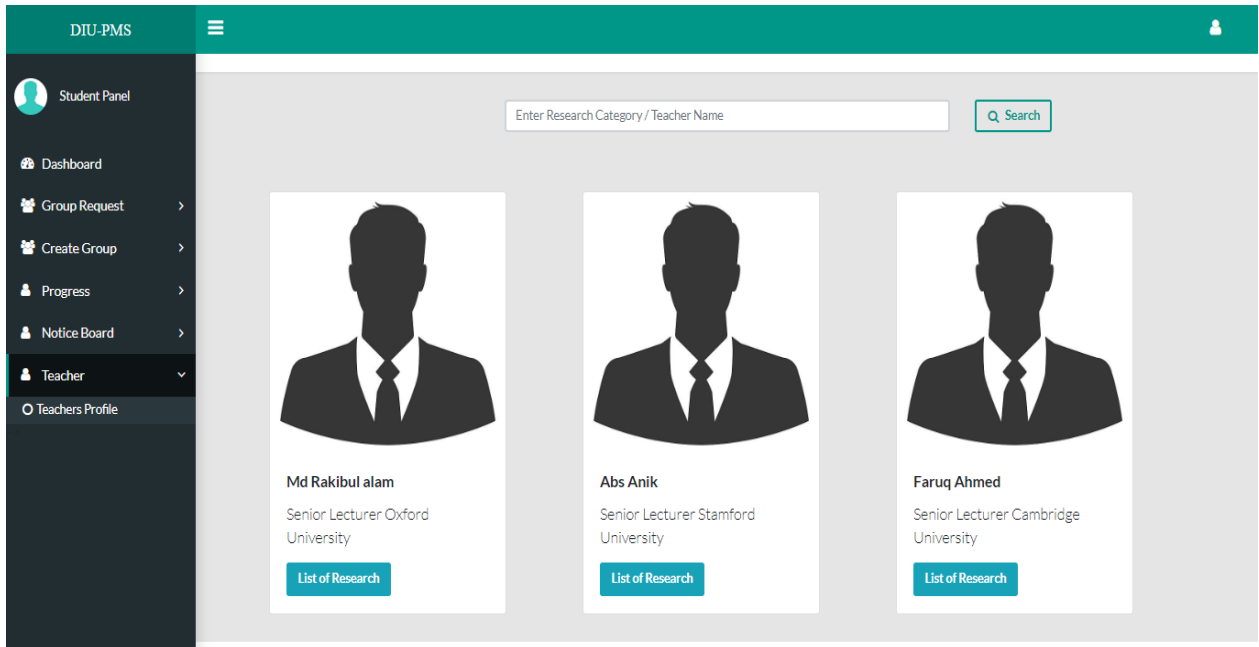


Figure 4.2.8: Student Search Teacher

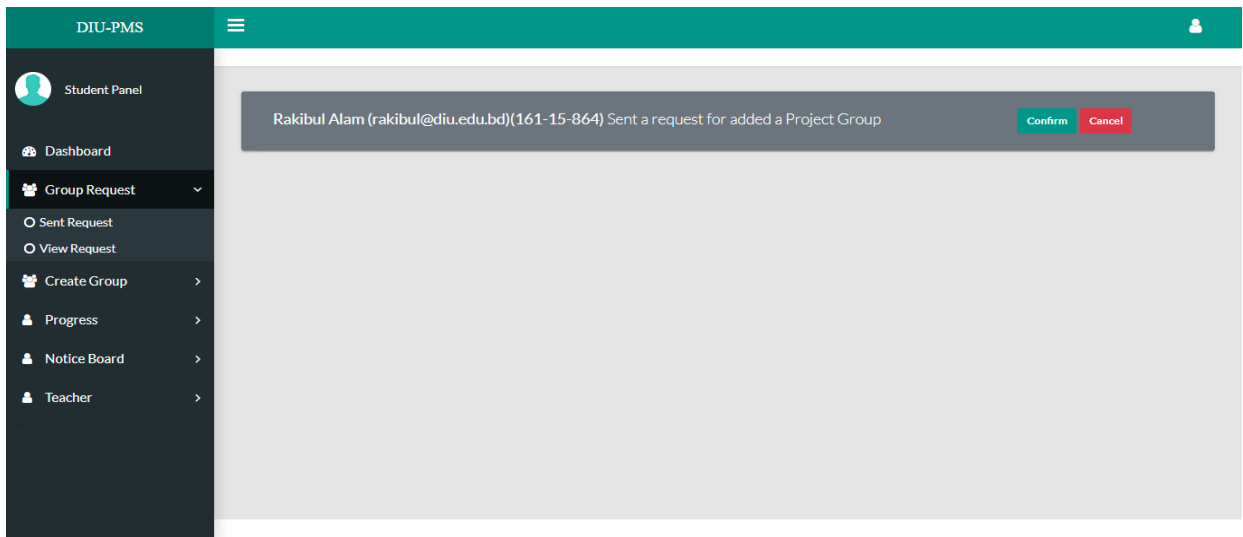


Figure 4.2.9: Student view Group Request

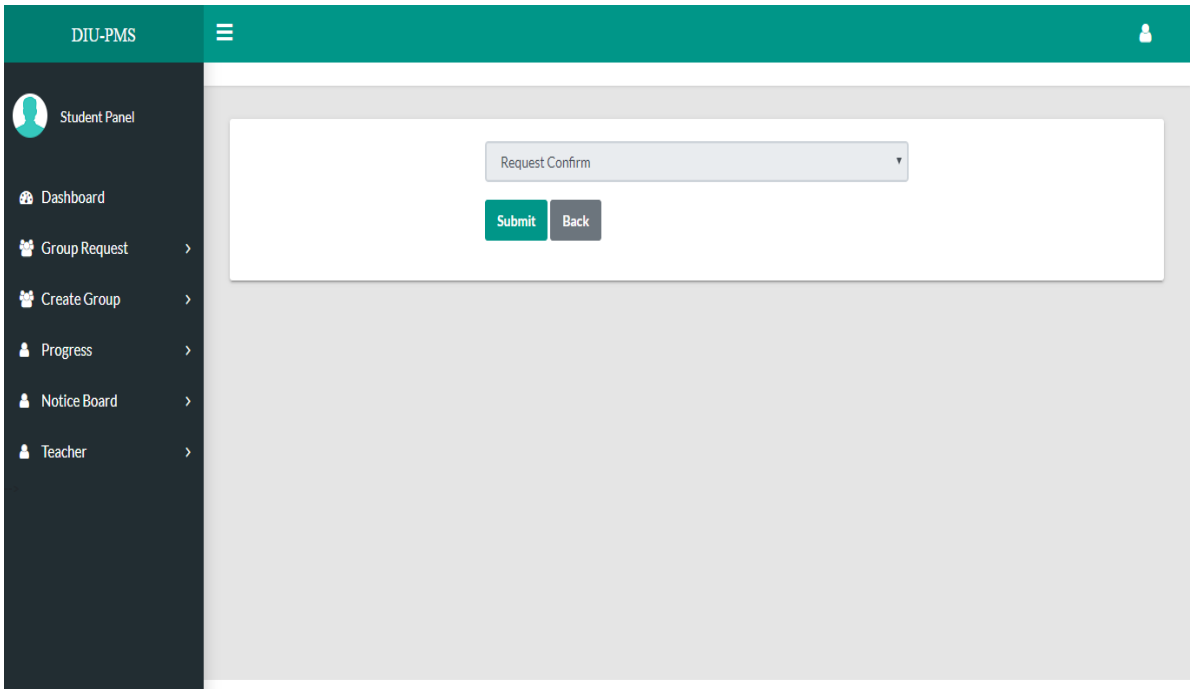


Figure 4.2.10: Student Confirm Request

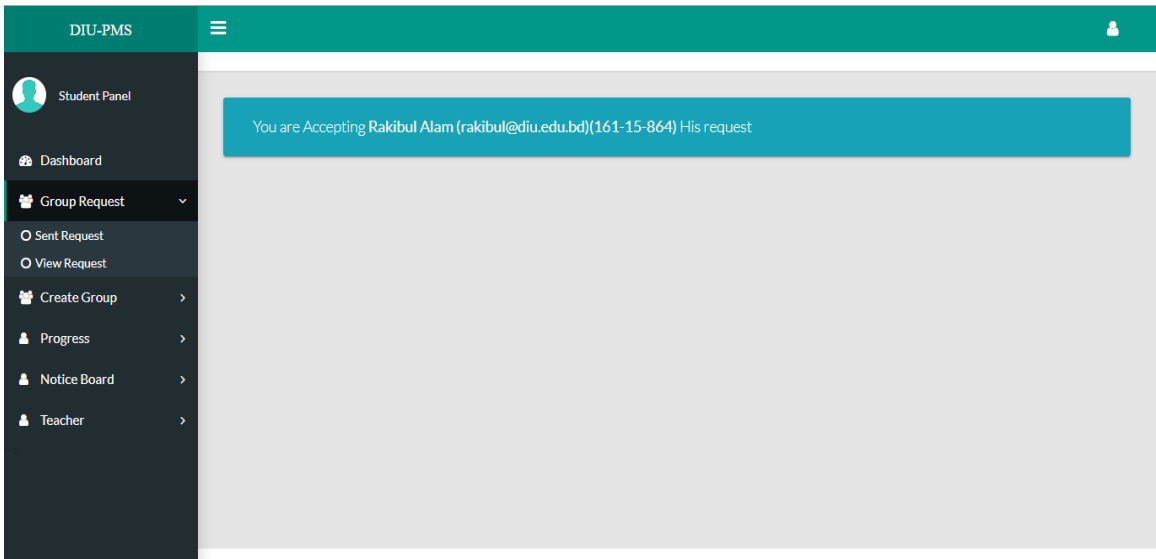


Figure 4.2.11: Student Accepting

**DIU-PMS** 👤

### Add Group Form

Read Vary Carefully And Fill Up This Form

First Student Name <input type="text" value="Faruq Hossain"/>	Second Student Name <input type="text" value="Abu Bakar"/>	Third Student Name <input type="text" value="Rakibul Alam"/>
First Student E-mail <input type="text" value="faruq@diu.edu.bd"/>	Second Student E-mail <input type="text" value="bakar@diu.edu.bd"/>	Third Student E-mail <input type="text" value="rakibul@diu.edu.bd"/>
Student Id One <input type="text" value="161-15-865"/>	Student Id Two <input type="text" value="161-15-867"/>	Student Id Three <input type="text" value="161-15-864"/>
Project Category <input type="text" value="Select Project Category"/>	First Supervisor Choose <input type="text" value="Select First Supervisor"/>	Second Supervisor Choose <input type="text" value="Select Second Supervisor"/>
Third Supervisor Choose <input type="text" value="Select Third Supervisor"/>	Research Type <input type="text" value="Select Research Type"/>	Semester <input type="text" value="Select Semester"/>
Project Title <input type="text" value="Project Title"/>		

Figure 4.2.12: Student Add Group

### Teacher Sign Up Form

**SIGN UP**

---

NAME <input type="text" value="Alex"/>	E-MAIL <input type="text" value="E-mail Address"/>
Password <input type="password" value="....."/>	Contact <input type="text" value="+880"/>
Employee ID <input type="text" value="434343434"/>	Position <input type="text" value="Select Position"/>

Already Sign Up? Please Login

➔ SIGN UP

Figure 4.2.13: Teacher Registration Form



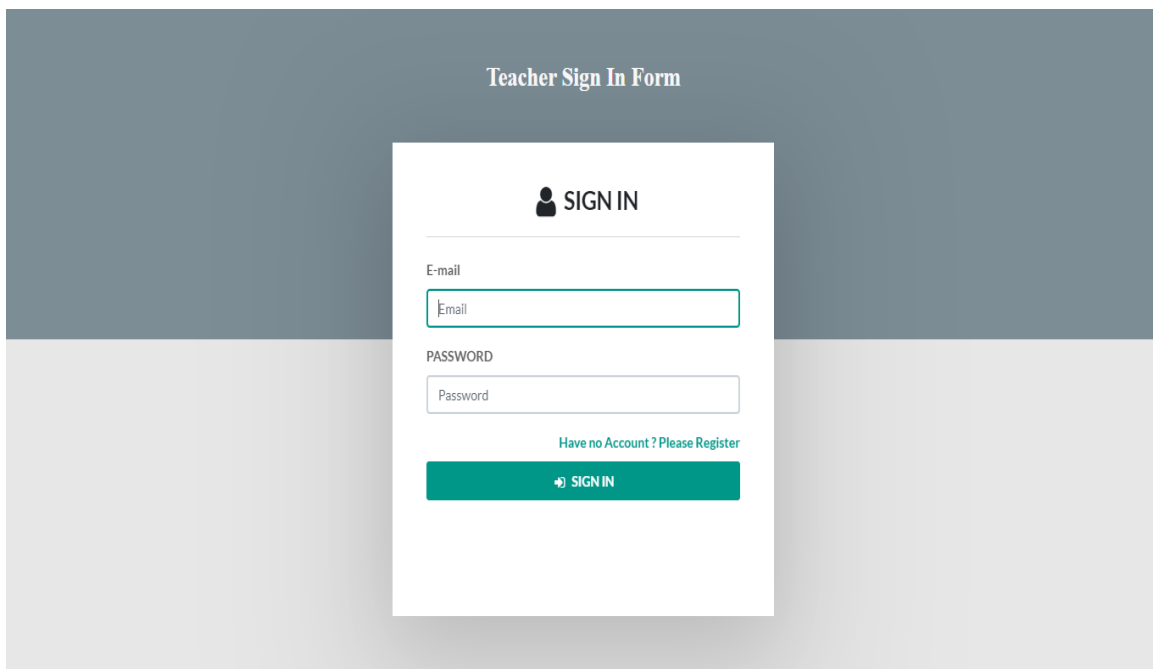
## ! Registration Successfully,

You Account Not Active Yet.Because Our dedicated admin Check Your data.Then Approve Your Account.

Thank You for your cooperation.

Go Back

Figure 4.2.14: Teacher Registration Confirmation



The image shows a 'Teacher Sign In Form' centered on a dark grey background. The form is white and contains the following elements: a 'SIGN IN' header with a person icon; an 'E-mail' label above a text input field with 'Email' placeholder text; a 'PASSWORD' label above a text input field with 'Password' placeholder text; a link that says 'Have no Account ? Please Register'; and a green 'SIGN IN' button with a right-pointing arrow icon.

Figure 4.2.15: Teacher Login Form

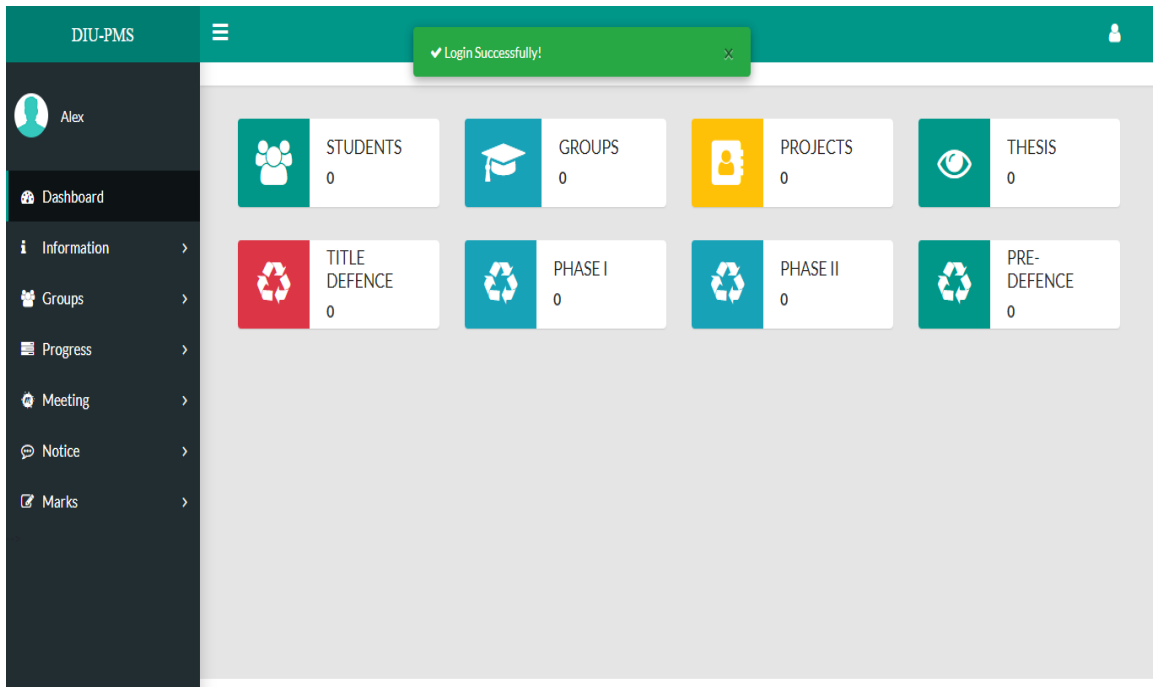


Figure 4.2.16: Teacher Dashboard

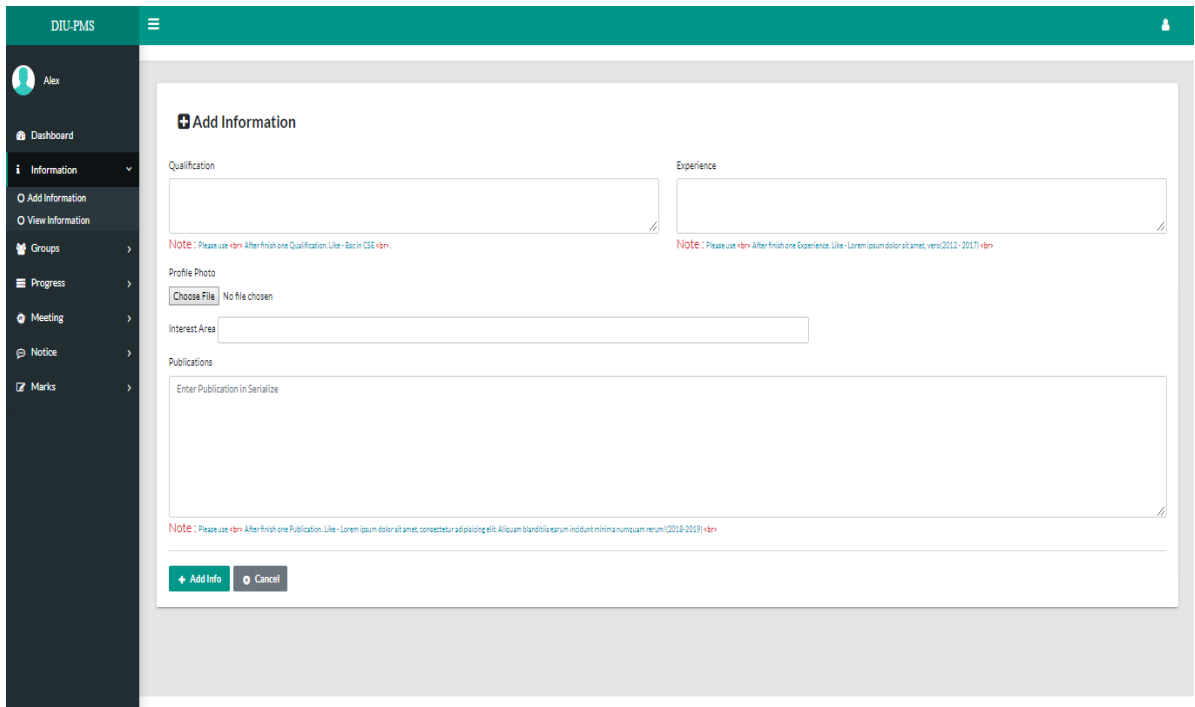


Figure 4.2.17: Teacher Information

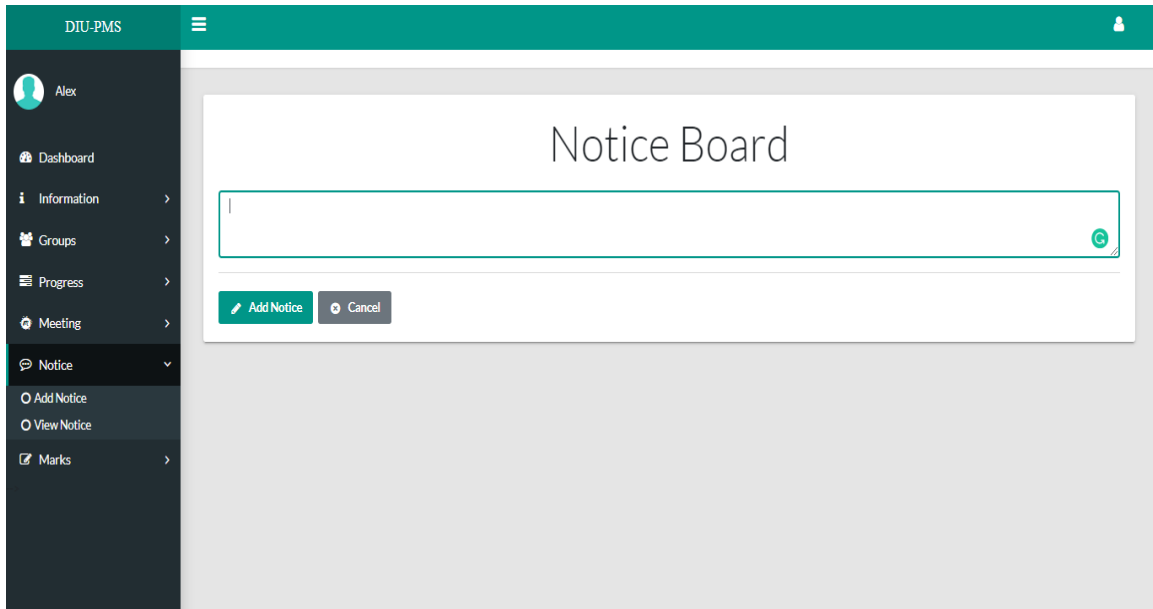


Figure 4.2.18: Teacher Notice Board

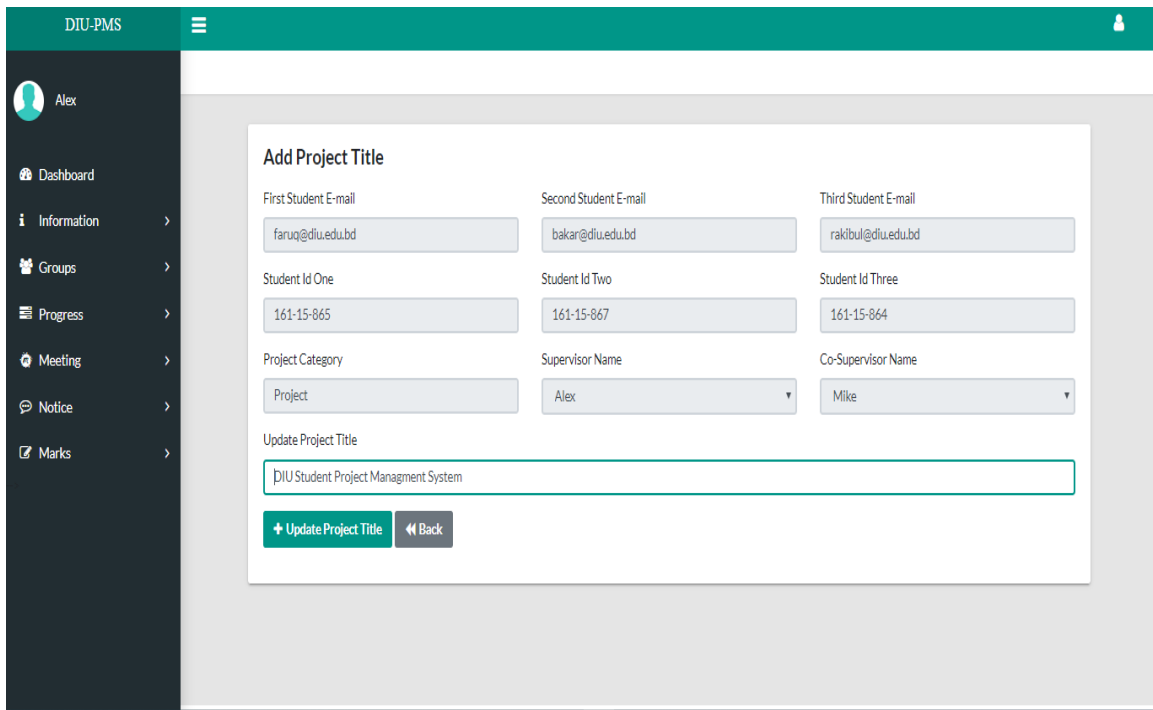


Figure 4.2.19: Teacher Edit Project Title

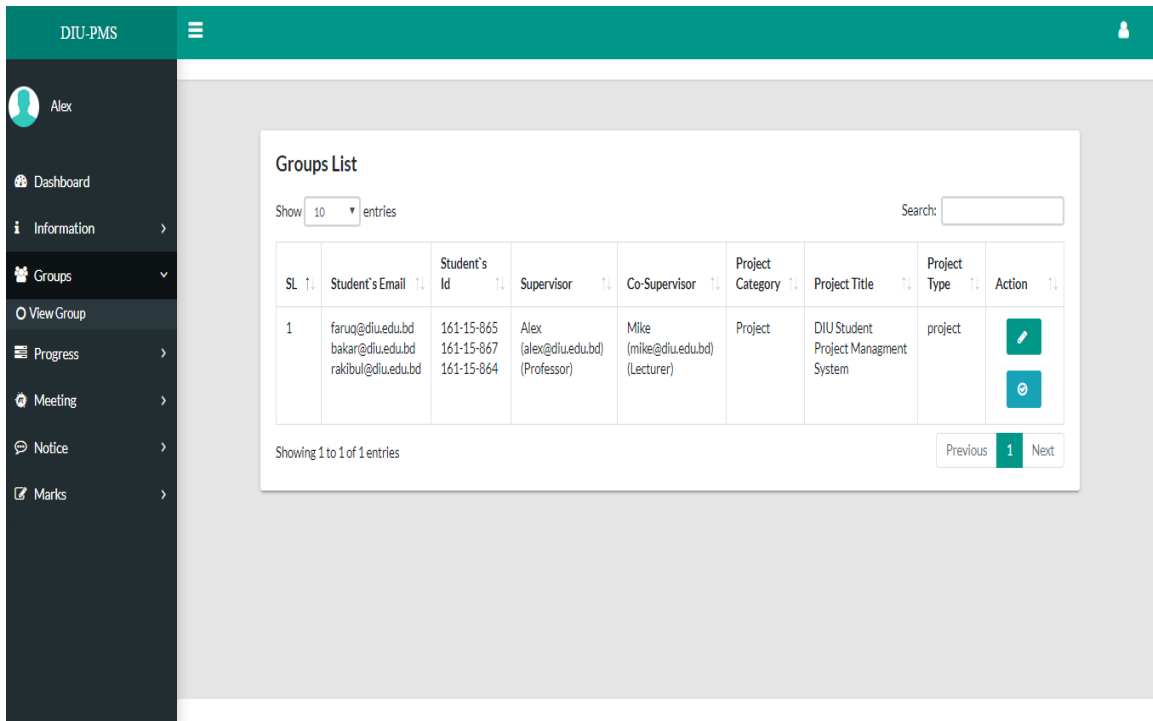


Figure 4.2.20: Teacher View Group

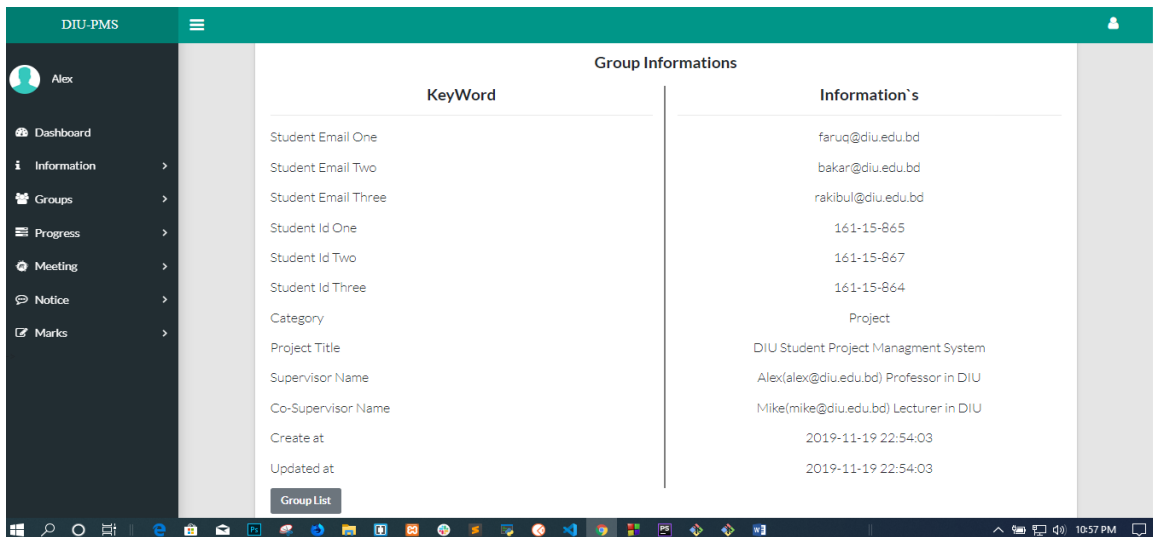


Figure 4.2.21: Teacher View Group Information

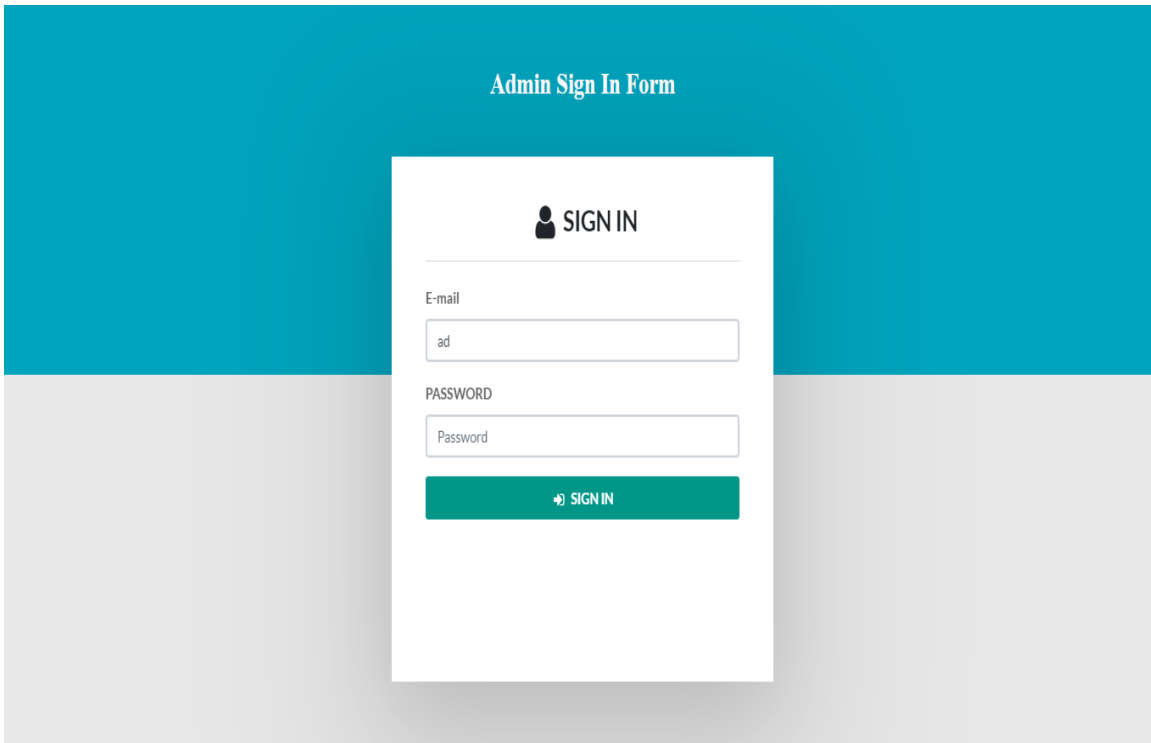


Figure 4.2.22: Admin Login Form

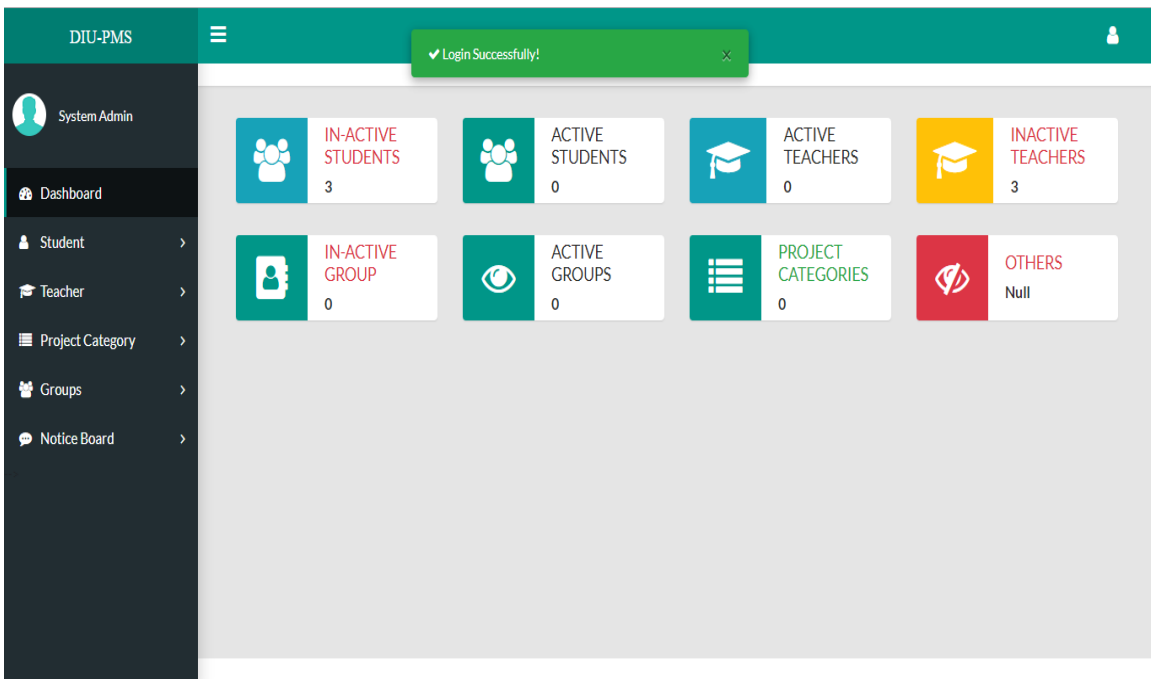


Figure 4.2.23: Admin Dashboard

The screenshot displays the 'Inactive Teacher' view in the DIU-PMS system. The sidebar on the left includes the following navigation items: System Admin, Dashboard, Student, Teacher (selected), Active Teacher List, Inactive Teacher List, Project Category, Groups, and Notice Board. The main content area features a table with the following data:

SL	Name	Contact Number	E-mail	Employee Id	Position	Account-Status	Action
1	Alex	01708786152	alex@diu.edu.bd	43434343434	Professor	In-Active	<a href="#">Edit</a> <a href="#">Delete</a>
2	Bob	01784587953	bob@diu.edu.bd	43434343441	Lecturer	In-Active	<a href="#">Edit</a> <a href="#">Delete</a>
3	Mike	01708786151	mike@diu.edu.bd	43434343438	Lecturer	In-Active	<a href="#">Edit</a> <a href="#">Delete</a>

Additional interface elements include a search bar, a 'Show 10 entries' dropdown, and pagination controls showing 'Showing 1 to 3 of 3 entries' with 'Previous', '1', and 'Next' buttons.

Figure 4.2.24: Admin View Inactive Teacher List

The screenshot displays the 'Are The Account Active Now?' view in the DIU-PMS system. The sidebar on the left includes the following navigation items: System Admin, Dashboard, Student, Teacher, Project Category, Groups, and Notice Board. The main content area features a form with the following elements:

- Title: Are The Account Active Now?
- Section: Upgrade Status
- Dropdown menu: In-Active
- Buttons: [Active Account](#) (green) and [Not Now](#) (grey)

Figure 4.2.25: Admin Upgrade Teacher Status

**Active Teacher**

Show  entries Search:

SL	Name	Contact Number	E-mail	Employee Id	Designation	Account Status	Action
1	Alex	01708786152	alex@diu.edu.bd	43434343434	Professor	Active	<a href="#">Delete</a>
2	Bob	01784587953	bob@diu.edu.bd	43434343441	Lecturer	Active	<a href="#">Delete</a>
3	Mike	01708786151	mike@diu.edu.bd	43434343438	Lecturer	Active	<a href="#">Delete</a>

Showing 1 to 3 of 3 entries Previous **1** Next

Figure 4.2.26: Admin View All Active Teacher List

**Project Categories List** [+ Add Category](#)

Show  entries Search:

#	Project Category Title	Status	Created	Action
1	Human Research and Development	Active	2019-11-19 22:21:06	<a href="#">Edit</a> <a href="#">Remove</a>
2	Web Design & Development	Active	2019-11-19 22:21:11	<a href="#">Edit</a> <a href="#">Remove</a>
3	Machine learning	Active	2019-11-19 22:21:16	<a href="#">Edit</a> <a href="#">Remove</a>
4	Project	Active	2019-11-19 22:21:26	<a href="#">Edit</a> <a href="#">Remove</a>

Showing 1 to 4 of 4 entries Previous **1** Next

Figure 4.2.27: Admin View Project Category List

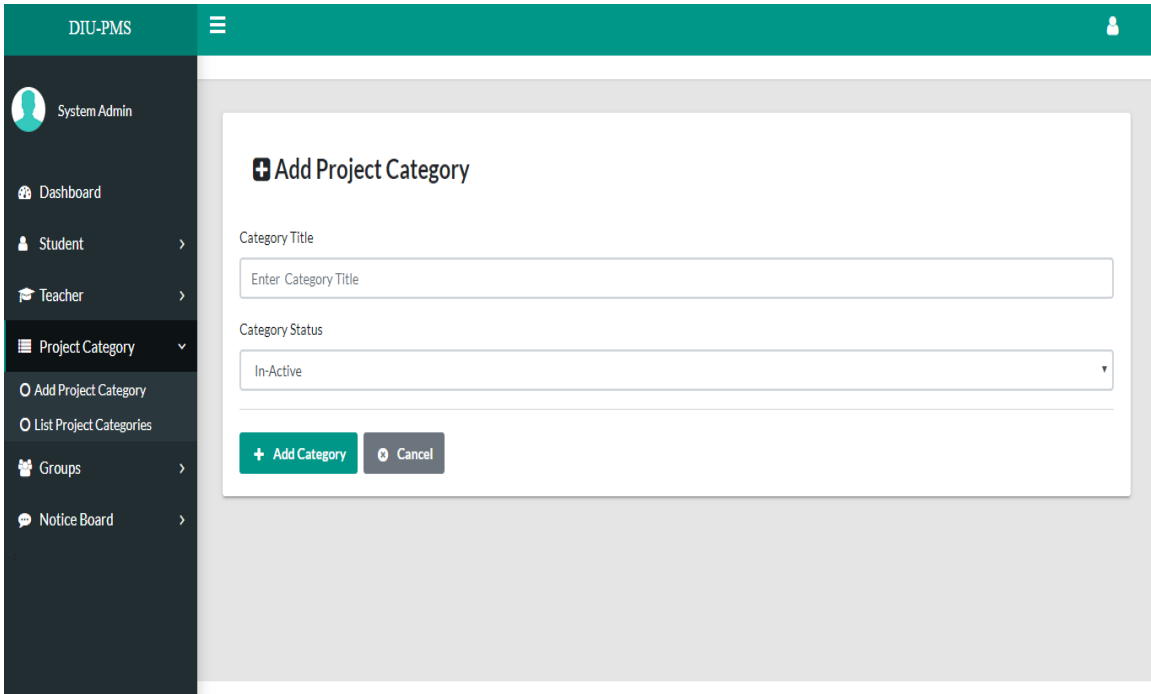


Figure 4.2.28: Admin Add Project Category

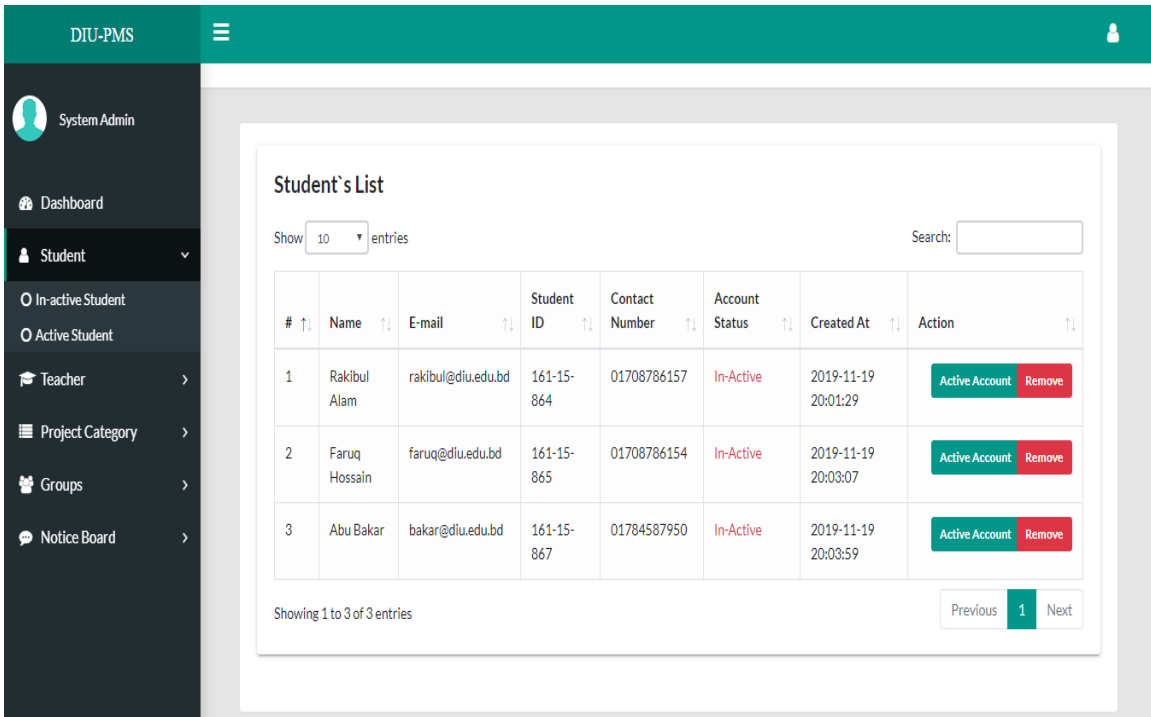


Figure 4.2.29: Admin View Active Student List



Student's Email	Student's Id	Expected First Supervisor	Expected Second Supervisor	Expected Third Supervisor	Project Category	Project Title	Project Type	Semester	Status	Action
faruq@diu.edu.bd	161-15-865	Alex alex@diu.edu.bd	Bob bob@diu.edu.bd	Mike mike@diu.edu.bd	Project	DIU Student Project Management System	project	8th	In-Active	
bakar@diu.edu.bd	161-15-867									
rakibul@diu.edu.bd	161-15-864									

Figure 4.2.30: Admin View Inactive Group List

**Create Active Group**

First Student E-mail: faruq@diu.edu.bd  
 Second Student E-mail: bakar@diu.edu.bd  
 Third Student E-mail: rakibul@diu.edu.bd

Student Id One: 161-15-865  
 Student Id Two: 161-15-867  
 Student Id Three: 161-15-864

Project Category: Project  
 First Supervisor Choose: Alex (Professor)  
 Second Supervisor Choose: Bob (Lecturer)

Third Supervisor Choose: Mike (Lecturer)  
 Project Title: DIU Student Project Management System  
 Current Semester: 8th Semester

Select Status: Active  
 Project Type: project

Final Supervisor Name: Alex (Professor)  
 Final Co-Supervisor Name: Alex (Professor)

**+ Add Supervisor** **Back**

Figure 4.2.31: Admin View Active Group

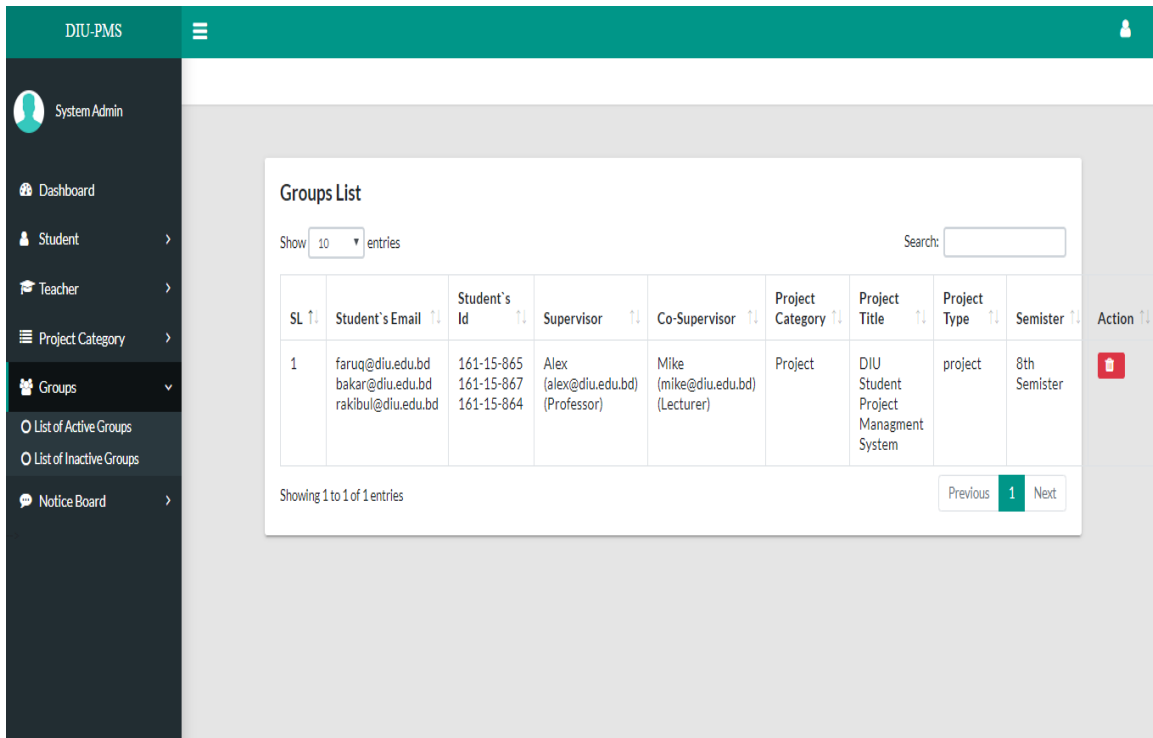


Figure 4.2.32: Admin View Active Group List

## 4.3 Backend Design:

### 4. 3. 1 Backend technology:

Backend of a web-based system are generally server, database and programming language, script language used on the system to work perfectly.

In the system designing is done by HTML and CSS3 and for interactive design. Some plugins are bootstrap 4, jQuery, monthly, font awesome.

For the responsive view in mobile and tablet device used bootstrap 4. In this project used PHP framework “Laravel” for backend design also used MySQL database for store data. The figure Fig 4.2.1 shows the backend communication of frontend response and request.

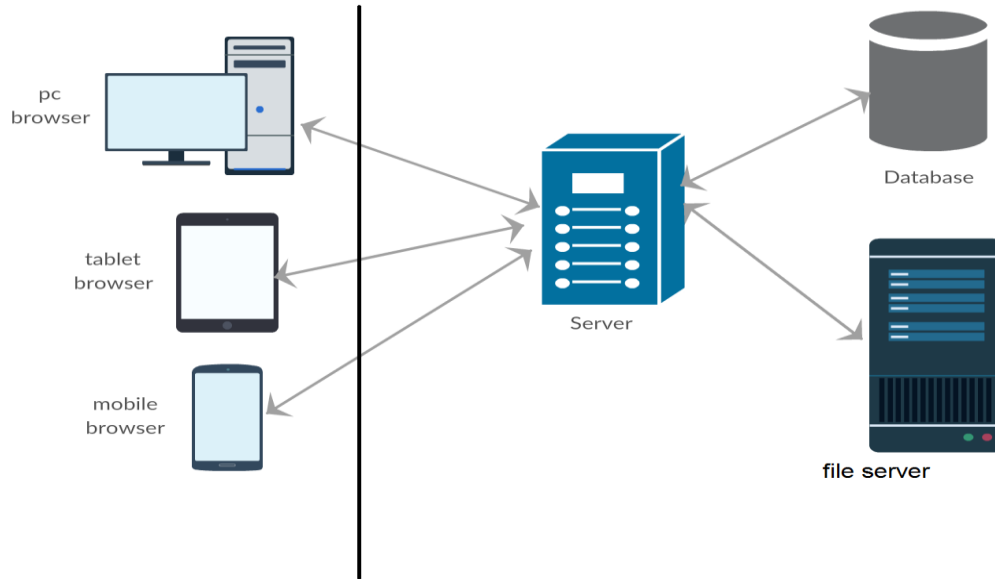


Figure 4.3.1 Backend connection with front end

### 4.3.2 Backend process & front-end:

Frontend design has a close connection with the backend. Front end hides the complexity of process to the users and clients. Front end realizes clients and user that they are using easy and nice system.

A single front end activity may contain many backend process and complex operation.

The figure 4.2.2.1, 4.2.2.2 and 4.2.2.3 shows the sequence diagram between web browsers, web server and database whenever insert, update and view/select operation are done from front end of the system.

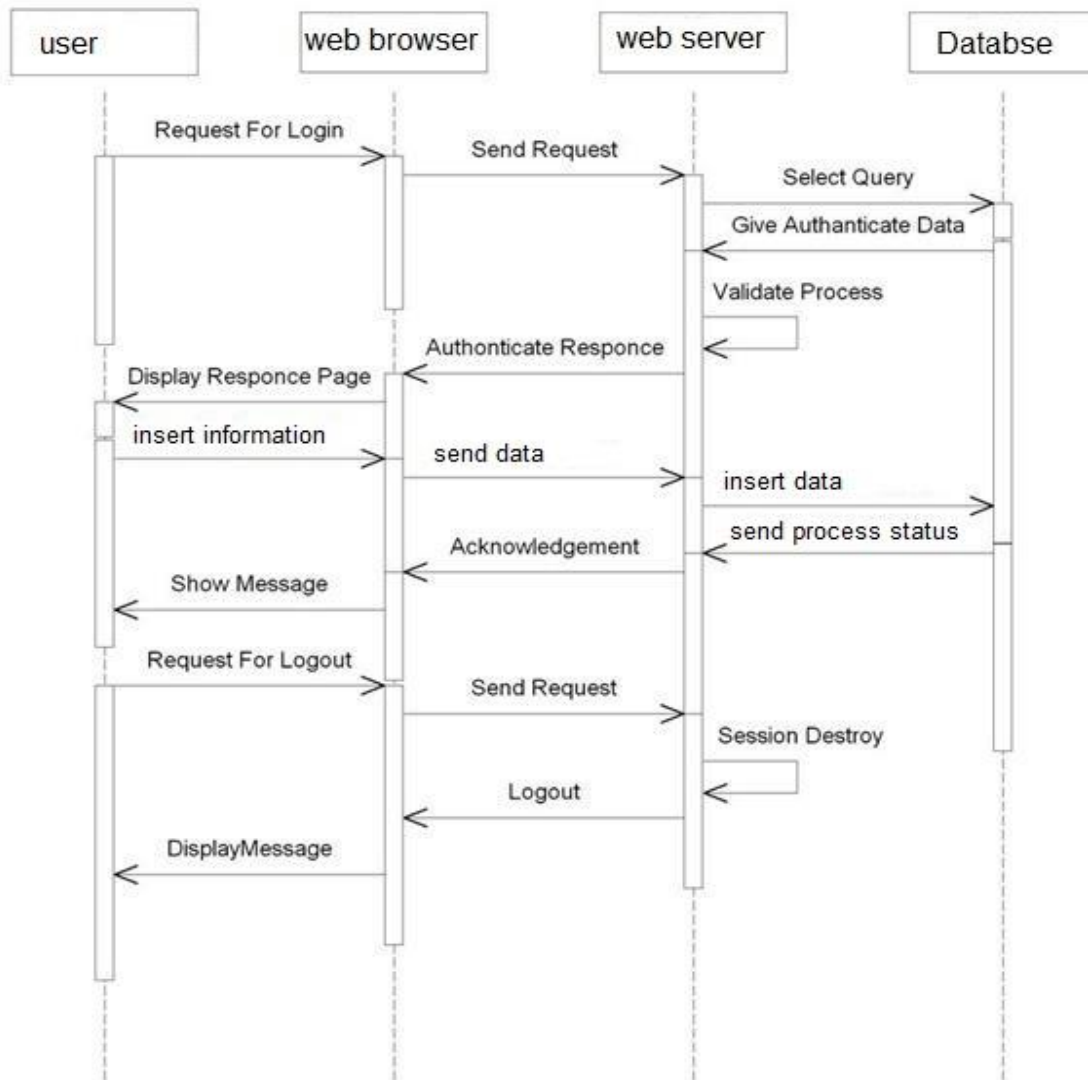


Fig 4.3.2.1 backend process on front end activity (insert)

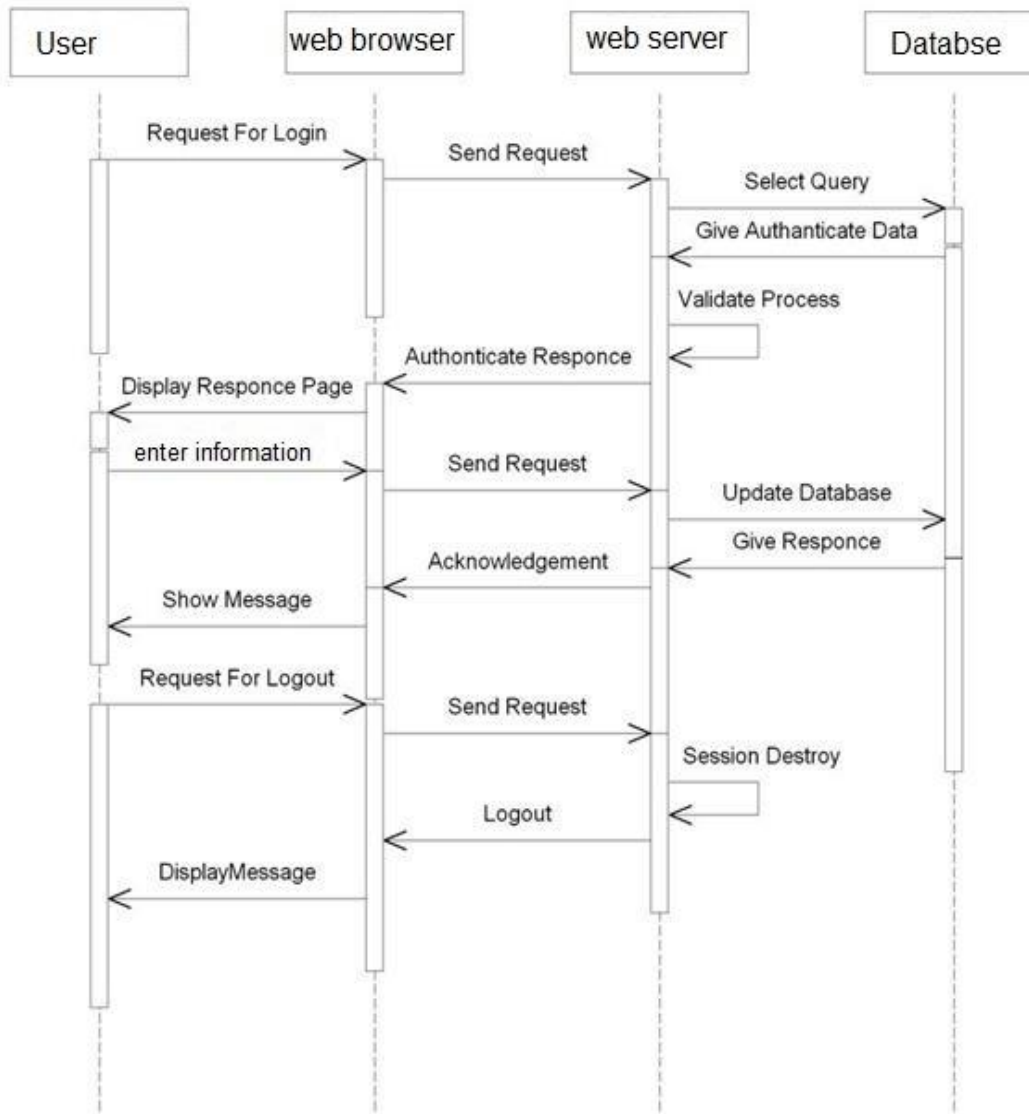


Figure 4.3.2.2: Backend process on front end activity (update)

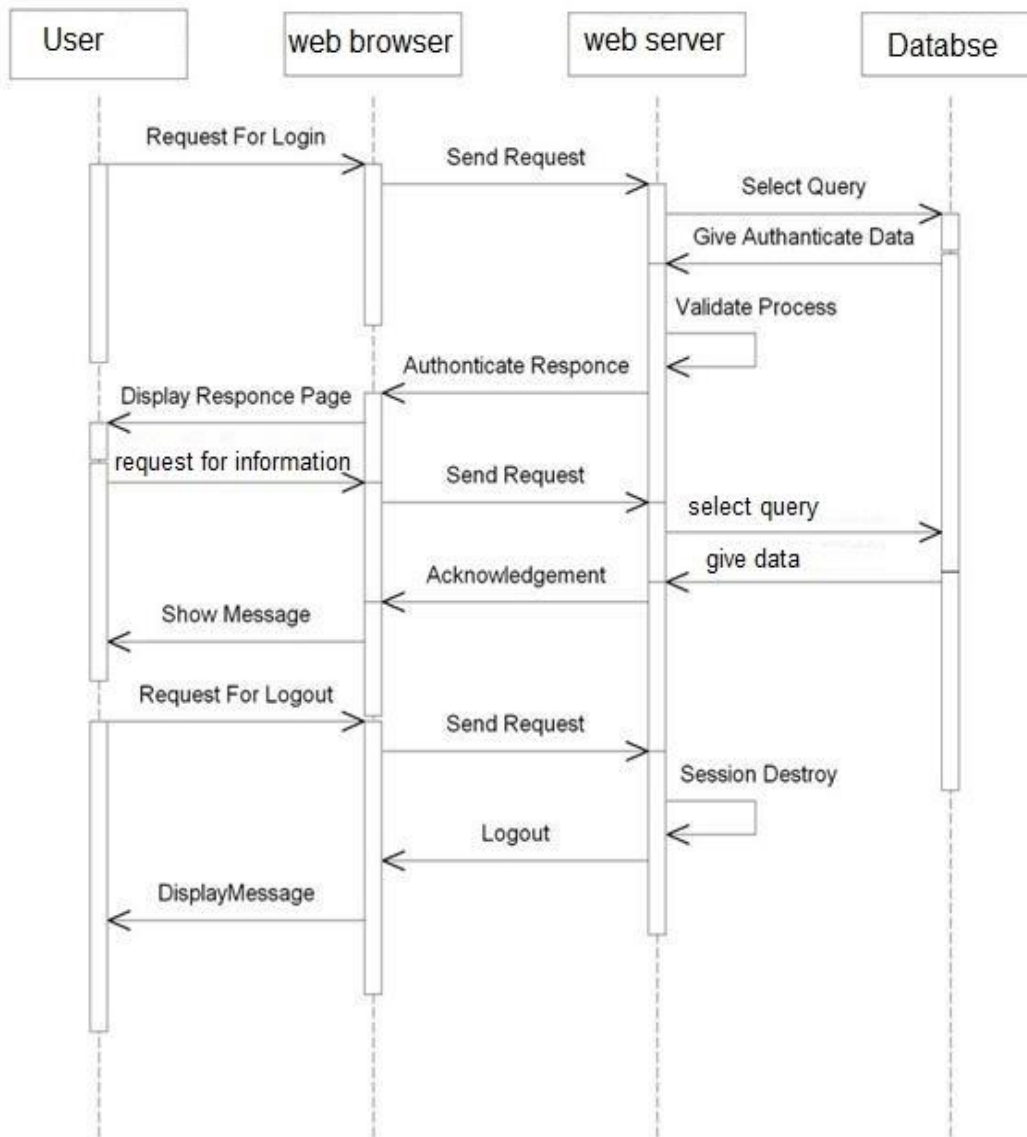


Figure 4.3.2.3: Backend process on front end activity (view)

## CHAPTER 5

### Implementation and Testing

#### 5.1 Implementation of database

In this project we use MySQL database. Database contains some table with are connected to each other with foreign key and information purpose.

TABLE 5.1.1: Student table information of database

Table Name		Student				
Table Description		This table stores Student Information				
Field Name	Data Type	Size	Not Null	P K	F K	Description
Id	INT	64	√	√		Stores unique id(Auto increment)
First_name	STRING	80	√			Store Student first name.
Last_name	STRING	80	√			Store Student last name.
Email	STRING	80	√			Store Student email.
Password	STRING	80	√			Store Student Password in database.
SID	STRING	80	√			Store SID.
Address	STRING	80	√			Store Student Address.
Phone	STRING	80	√			Store Student contract number.
Status	STRING	64	√			Active / Inactive
Group_status	STRING	80	√			Group active/ Inactive

TABLE 5.1.2: Teacher table information of database

Table Name		Teacher				
Table Description		This table stores Teacher Information				
Field Name	Data Type	Size	Not Null	P K	F K	Description
Id	INT	64	√	√		Stores unique id(Auto increment)
Name	STRING	80	√			Store Teacher name.
Email	STRING	80	√			Store Teacher email.
Password	STRING	80	√			Store Teacher Password in database.
Phone	STRING	80	√			Store Teacher contract number.
Employee_id	STRING	64	√			Store Teacher official Id.
Position	STRING	64	√			Store Teacher position
Status	STRING	64	√			Active / Inactive

TABLE 5.1.3: Project Category table of database

Table Name		Categories				
Table Description		This table stores Project categories.				
Field Name	Data Type	Size	Not Null	P K	F K	Description
Id	INT	64	√	√		Stores unique id(Auto increment)



Title	STRING	80	√			Store Project Title.
Status	INT	64	√			Store Project Status.

TABLE 5.1.4: Group table information of database

Table Name		Groups				
Table Description		This table store Student Group Information				
Field Name	Data Type	Size	Not Null	PK	F K	Description
Id	INT	64	√	√		Stores unique id(Auto increment)
Student_name_one	STRING	80	√			Store first Student name
Student_name_two	STRING	80	√			Store second Student name
Student_name_three	STRING	80	√			Store third Student name
Student_email_one	STRING	80	√			Store first Student email
Student_email_two	STRING	80	√			Store second Student email
Student_email_three	STRING	80	√			Store third Student email
Student_id_one	STRING	80	√			Store first Student id
Student_id_two	STRING	64	√			Store second Student id
Student_id_three	STRING	80	√			Store third Student id
Category_id	UNSIGNEDBIGINTEGER				√	Store project category information

First_supervisor_id	UNSIGNEDBIGINTEGER				√	Store first Supervisor id
Second_supervisor_id	UNSIGNEDBIGINTEGER				√	Store second Supervisor id
Third_supervisor_id	UNSIGNEDBIGINTEGER				√	Store third Supervisor id
Project_type	STRING	80	√			Store project type
Semester	STRING	80	√			Store student semester information
Project_title	STRING	80	√			Store project title
Status	INT	64	√			Store group status

TABLE 5.1.5: Teacher information table

<b>Table Name</b>		Teacher_information				
<b>Table Description</b>		This table store Teacher Information				
<b>Field Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Not Null</b>	<b>P K</b>	<b>F K</b>	<b>Description</b>
Id	INT	64	√	√		Stores unique id(Auto increment)
Teacher_id	INT	80			√	Store teacher id.
Photo	STRING	80	√			Store teacher photo.
Interested_area	TEXT	80	√			Store teacher interested area.
Publication	TEXT	80	√			Store teacher publication.
qualification	TEXT	80	√			Store teacher qualification information.

experience	STRING	80	√			Store teacher experience information.
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TABLE 5.1.6: Notice Table

<b>Table Name</b>		notices				
<b>Table Description</b>		The table store notice				
<b>Field Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Not Null</b>	<b>P K</b>	<b>F K</b>	<b>Description</b>
Id	INT	64	√	√		Stores unique id(Auto increment)
Notice	TEXT	80	√			Store all notice.
Teacher_id	UNSIGNEDBIGINTEGER				√	Store teacher id.

TABLE 5.1.7: Admin Table

<b>Table Name</b>		admins				
<b>Table Description</b>		The table store admin information				
<b>Field Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Not Null</b>	<b>P K</b>	<b>F K</b>	<b>Description</b>
Id	INT	64	√	√		Stores unique id(Auto increment)
Email	STRING	80	√			Store admin email information.
Password	STRING	80	√			Store admin password.

TABLE 5.1.8: Active Group table information of database

Table Name		Active_groups				
Table Description		This table store Student Group Information				
Field Name	Data Type	Size	Not Null	PK	F K	Description
Id	INT	64	√	√		Stores unique id(Auto increment)
Student_email_one	STRING	80	√			Store first Student email
Student_email_two	STRING	80	√			Store second Student email
Student_email_three	STRING	80	√			Store third Student email
Student_id_one	STRING	80	√			Store first Student id
Student_id_two	STRING	80	√			Store second Student id
Student_id_three	STRING	80	√			Store third Student id
Category_id	STRING	80	√			Store project category id
Project_title	STRING	64	√			Store project title
Semester	STRING	80	√			Store student semester information
Project_type	STRING		√			Store project type.
supervisor_id	UNSIGNEDBIGINTEGER				√	Store Supervisor id
co_supervisor_id	UNSIGNEDBIGINTEGER				√	Store Co Supervisor id
Status	STRING	80	√			Store group status information.
Group_progress	STRING	80	√			Store group progress.

TABLE 5.1.9: Teacher Meeting Table

Table Name		Teachers_meetings				
Table Description		The table store admin information				
Field Name	Data Type	Size	Not Null	P K	F K	Description
Id	INT	64	√	√		Stores unique id(Auto increment)
Group_id	UNSIGNEDBIGINTEGER	80			√	Store group id.
Teacher_id	UNSIGNEDBIGINTEGER	80			√	Store teacher id.
Comments	TEXT	255	√			Store all comments.

TABLE 5.1.10: Group Request Table

Table Name		Group_requests				
Table Description		The table store group requests information				
Field Name	Data Type	Size	Not Null	P K	F K	Description
Id	INT	64	√	√		Stores unique id(Auto increment)
Student_id	UNSIGNEDBIGINTEGER	80			√	Store student id.
Request_id	UNSIGNEDBIGINTEGER	80			√	Store request id.
Status	STRING	255	√			Store group status information.

## 5.2 Implementation access of Modules:

The figure 5.2.1 shows the student's access of modules

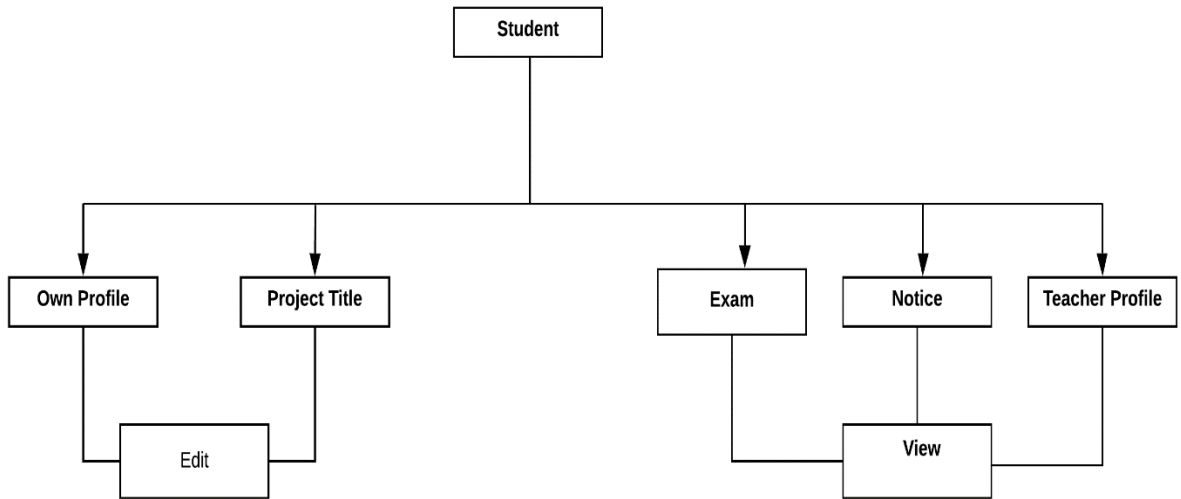


Figure 5.2.1: Student module

The figure 5.2.2 shows the teacher's access of modules

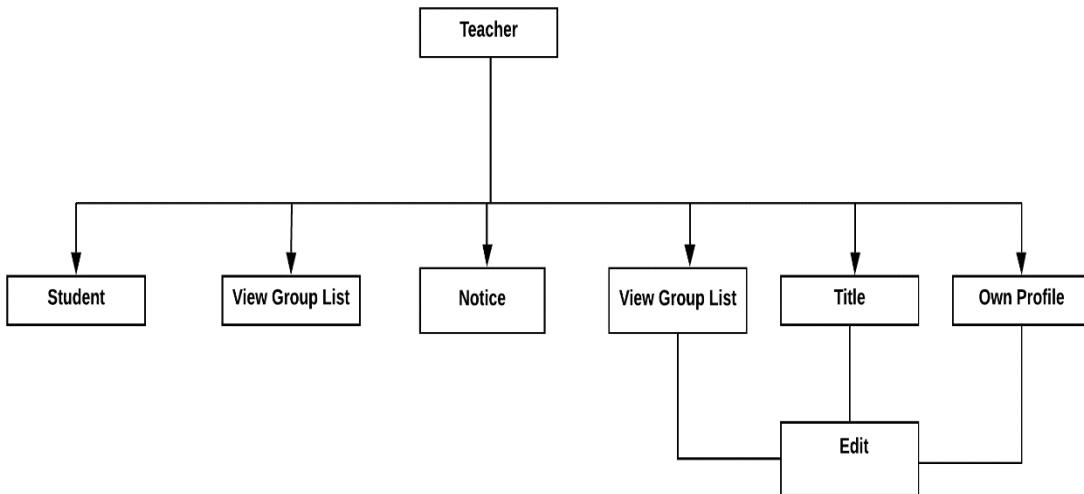


Figure 5.2.2: Teacher module

The figure 5.2.3 shows the admin's access of modules

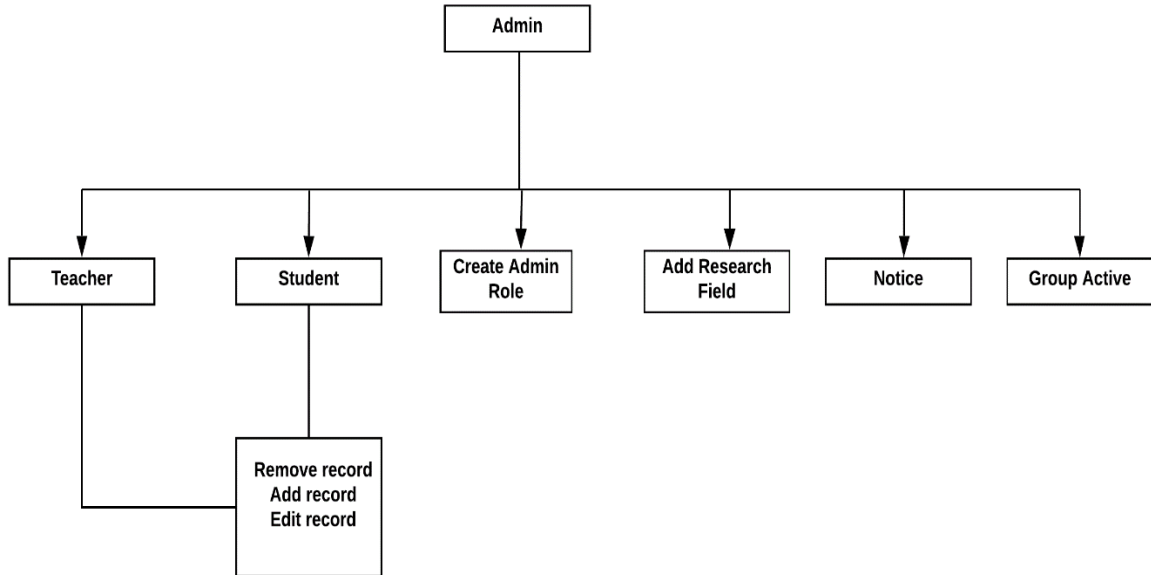


Figure 5.2.3: Admin module

The figure 5.2.4 shows the admin's access of modules

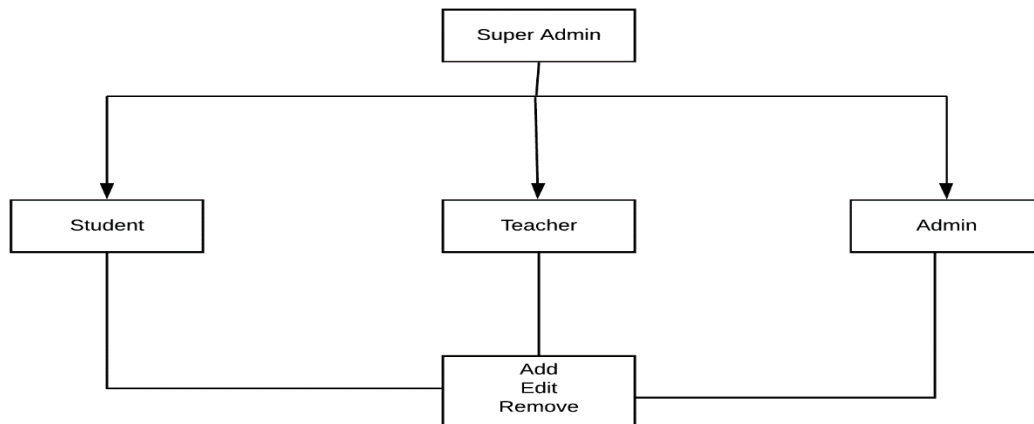


Figure 5.2.4: Super Admin module

### 5.3 Test case:

TABLE 5.3.1: Test case of Login Page

Sr No	Input/Action	Expected Result	Actual Result	Remark
1	Leave field empty.	Will show error message “The field email and password is required”	Error message “The field email and password is required”	Pass
2	Entered invalid password	Will show error message “email or password is incorrect”	Error message “email or password is incorrect”	Pass
3	Entered invalid email format	Will show error message “ Please enter a valid email ”	Error message “ Please enter a valid email ”	pass
4	Entered Invalid email id.	Will show error message “email or password is incorrect”	Error message “email or password is incorrect”	Pass

TABLE 5.3.2: Test case for student Registration Page

Sr. No	Input/Action	Expected Result	Actual Result	Remark
1	Leave any field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
2	Entered invalid Email format	Will show error message “Please enter an valid email”	Error message “Please enter an valid email”	Pass
3	Entered password length less than 8	Will show error message “Password must be at least 8 in length ”	Error message “Password must be at least 8 in length ”	Pass
4	Entered email already registered	Will show error message “This email is registered with another account”	Error message “This email is registered with another account”	Pass
5	Entered phone number less than 11	Will show error message “Phone number is equal to 11”	Error message “Phone number is equal to 11 character”	Pass
6	Entered Valid data	Will accept the data.	Data accepted	Pass



TABLE 5.3.3: Test case for Teacher Registration Page

<b>Sr. No</b>	<b>Input/Action</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remark</b>
1	Leave any field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
2	Entered invalid Email format	Will show error message “Please enter an valid email”	Error message “Please enter an valid email”	Pass
3	Entered password length less than 8	Will show error message “Password must be at least 8 in length ”	Error message “Password must be at least 8 in length ”	Pass
4	Entered email already registered	Will show error message “This email is registered with another account”	Error message “This email is registered with another account”	Pass
5	Entered invalid phone number	Will show error message” Phone number is invalid”	Error Message ” Phone number is invalid”	Pass
6	Entered phone number less than 11	Will show error message “Phone number is equal to 11”	Error message “Phone number is equal to 11 character”	Pass
7	Entered Valid data	Will accept the data.	Data accepted	Pass

TABLE 5.3.4: Test case for Add new Notice

<b>S/n</b>	<b>Input/Action</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remark</b>
1	Leave notice field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
2	Click Add notice button	If any problem occur then show “Notice not sent”	Success message “Notice sent successfully”	Pass
3	Click Cancel button	If any problem occur then write notice not remove from the text area.	Success message “Write notice will be remove from text area”	Pass

TABLE 5.3.5: Test case for Search Teacher

S/n	Input/Action	Expected Result	Actual Result	Remark
1	Leave search field empty and click search button.	Will show error message “The field is required”	Error message “The field is required”	Pass
2	Click Search Button	If any problem occur then show “Not found”	Success message “Show Teacher List”	Pass

TABLE 5.3.6: Test case for Search Group

S/n	Input/Action	Expected Result	Actual Result	Remark
1	Leave search field empty and click search button.	Will show error message “The field is required”	Error message “The field is required”	Pass
2	Click Search Button	If any problem occur then show “Not found any group”	Success message “Show Group List”	Pass

TABLE 5.3.7: Test case for updating user information

S/n	Input/Action	Expected Result	Actual Result	Remark
1	Leave any field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
2	Leave Qualification field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
3	Leave Experience field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
4	Entered Photo size too long	Will show error message “Entered photo size max 1 Mb”	Success message “Successfully Updated Photo ”	Pass
5	Entered valid data	Will show “Successfully Updated information”	Success message “Successfully Updated information”	Pass

TABLE 5.3.8: Test case for updating Project Title

S/n	Input/Action	Expected Result	Actual Result	Remark
1	Leave Update field empty and click Update button.	Will show error message “The field is required”	Error message “The field is required”	Pass
2	Click Button	If any problem occur then show “Not Update Project Title”	Success message “Successfully Updated Project Title”	Pass
	Entered valid data	Will show “Successfully Updated Project Title”	Success message “Successfully Updated Project Title”	Pass

TABLE 5.3.9: Test case for Add New Group

Sr. No	Input/Action	Expected Result	Actual Result	Remark
1	Leave any field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
2	Leave Project Title field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
3	Entered invalid supervisor and Co-supervisor name	Will show error message “Supervisor and co-supervisor name is not match number is invalid”	Error Message ” Please enter valid name ”	Pass
4	Leave Project category field empty.	Will show error message “The field is required”	Error message “The field is required”	Pass
7	Entered Valid data	Will accept the data.	Data accepted	Pass

TABLE 5.3.10: The test case for Add project category

<b>S/n</b>	<b>Input/Action</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remark</b>
1	Leave add the project category field empty and click Add the button.	Show error message “The field is required”	“The field is required”	Pass
2	Click the button	If any problem occur then show “Not Add Project Category”	Success message “Successfully Added Project Category”	Pass
	Entered valid data	Will show “Successfully Added New Project Category”	Success message “Successfully Added Project Category”	Pass

## **CHAPTER 6**

### **Conclusion and Future Work**

#### **6.1 Conclusion:**

A project management system is a very useful application that can be used quite often. The project management system has many benefits that can over the manual system. Project management system has some advantages such as store teacher and student research related information, easily create group, interaction between teacher and student, viewing the group progress. It increases the manual project management system performance. It provides a better interface that is easily understood by users.

#### **6.2 Limitations:**

There are some limitations of advance using of the system that can be added or improved. Through this project student can only view the notice but cannot communicate with their teacher. Administrators manually select supervisors for each team, but our system cannot automatically distribute teachers based on their interests.

#### **6.3 Scope for Further Developments:**

There are plans for the next version of the system that will make the system attractive and acceptable to clients and some important features that could not be implemented this time.

- I. Phase-I & II:** A panel of Phase-I and Phase-II is under construction for the next version of this system.
- II. Pre-Defense & Final Defense:** We will include Pre-Defense & Final Defense mark progress bar in the next version of this system.
- III. SMS on Mobile:** Sending SMS to the mobile phone directly from the system is a great feature that can be including to the future version of the system.

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