

# Independent University, Bangladesh

# **School Management Web Application**

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#### Declaration

We hereby affirm that this project has been undertaken under the supervision of **Ridwanullah Yousuf**, Adjunct Faculty in the Department of Computer Science at the Independent University of Bangladesh. We also certify that neither this thesis nor any portion of it has been submitted elsewhere for the award of any degree. All sources of knowledge utilized in this work have been duly acknowledged. The design and development are the result of our own efforts.

Por

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Lastly, we extend our gratitude to the faculty members of the Computer Science Department, who were consistently supportive, addressing our challenges and offering their technical expertise to resolve them.

# **Dedication**

This project is dedicated to Allah, my Creator, my ultimate source of strength, guidance, and understanding. His blessings have been my unwavering support and motivation throughout this journey. Alhamdulillah for granting me the capacity to complete this work.

#### Abstract

This project focuses on the development of a School Management Web Application designed to streamline administrative and classroom management processes while improving communication between teachers and students. The application functions as a centralized platform where teachers can manage key tasks, including recording attendance, posting classwork, and uploading marksheets with ease.

Students benefit from this system by gaining access to their daily lessons, assignments, attendance records, academic results, and tuition fee history. Additionally, the application offers a feature for submitting leave applications, enhancing the overall user experience. By integrating these functionalities, the platform aims to simplify school operations and foster an efficient and transparent learning environment.

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#### Introduction

#### Overview

The idea is to develop a **School Management Web Application** that streamlines the management of school-related tasks and enhances communication between teachers and students. The web application will serve as a centralized platform where teachers can efficiently manage classroom activities, such as recording attendance, posting classwork, and uploading marksheets. Students will be able to access daily lessons, tasks, their results, attendance records, and tuition fee history, as well as submit leave applications through the portal.

#### Purpose

The purpose of this project is to design and develop a comprehensive School Management Web Application that simplifies and enhances the administration and communication processes within educational institutions. By providing a centralized digital platform, the application aims to improve the efficiency of managing school-related tasks for teachers while fostering better engagement and access to information for students. Specifically, the project seeks to:

- Optimize Administrative Efficiency: Streamline routine classroom management tasks such as attendance tracking, lesson planning, and marksheet preparation, reducing the workload for teachers and administrative staff.
- 2. **Enhance Communication and Collaboration**: Facilitate seamless communication between teachers and students, ensuring that essential information, such as classwork, daily lessons, and academic results, is readily available to students.
- Empower Students with Access to Information: Provide students with a personalized portal
  where they can view their attendance records, academic progress, tuition fee history, and other
  school-related updates, promoting transparency and accountability.
- 4. **Support Digital Transition in Education**: Promote the adoption of modern digital tools in educational institutions, making processes more efficient, eco-friendly, and accessible to all stakeholders.
- Simplify Leave and Administrative Requests: Offer an intuitive interface for students to submit leave applications and other administrative requests, eliminating paperwork and ensuring prompt responses.

#### Objective

The main objective of this project is to digitalize the attendance, result data storing and student data storing system of a school. The student data storing system is more important because of the mis spelling of names in board registration.

#### Features

In this project there are 5 types of users (Admin, Moderator, Accountant, Teacher and Student). Every type of user has its own dashboard. Every user need to login using their unique userID. The work of every dashboard is as follow:

#### Admin Dashboard

- Create user: new user account will be created using the name, UserID, date of birth, father's name, mother's name, personal phone number, guardians phone number, present address, permanent address, user's picture, birth certificate/NID's pdf, father's NID pdf, mother NID pdf and an initial password.
- Attendance: There will be a dropdown selection box by which the group will be selected (Example: Staff, class-1, class-2, etc.) then all the user's information (Roll Number, User ID, Name, Last Day present or absent, today (check box)) of that group will appear into a table of 5 column. At the end there is a submit attendance button to submit today's checked report. Checked report will be saved as "P" and unchecked will be "A".
- **Report:** there will be 2 date pickers for setting the range and a apply button by which all the payment between the picked date will be shown along with the student user id, category and amount. At the end there will be a summary of that with the total payment history appeared and total amount.
- **Tuition fees:** there will be a input box to enter the user id, a dropdown selection box to select the bill category, a search button will find the id from the database then if that bill is paid there will be a paid message and if not paid then there will be 3 input box for Amount, Payment Status and Payment Date(automatically pick the current date and can be change), then a submit button. By submitting it the data will be stored in the database.
- Logout.

#### Moderator Dashboard

- Attendance: There will be a dropdown selection box by which the group will be selected (Example: Staff, class-1, class-2, etc.) then all the user's information (Roll Number, User ID, Name, Last Day present or absent, today (check box)) of that group will appear into a table of 5 column. At the end there is a submit attendance button to submit today's checked report. Checked report will be saved as "P" and unchecked will be "A".
- **Create user:** new user account (only teacher and student) will be created using the name, UserID, date of birth, father's name, mother's name, personal phone number, guardians phone number, present address, permanent address, user's picture, birth certificate/NID's pdf, father's NID pdf, mother NID pdf and an initial password.

- View Profile: there is an input box to enter the user id and an apply button to load the information. Moderator can view all user profile except admin. Profile picture, name, roll number and a dropdown selection box to select the result of 1st term, 2<sup>nd</sup> term or Annul exam is to show. Then the full result of that term will be visible. Result contain Subject, Full Marks, Written, MCQ, Practical, Total, Highest, Letter Grade, Grade Point, Total of Monthly Exam, 20% of Monthly Exam, GPA without Additional Subject, GPA with Additional Subject, Comment, Total Marks, Procured Marks.
- My profile: Profile Picture, Name, User ID, Date of Birth, Father's Name, Mother's Name, Guardian's Contact, Present Address, Permanent Address. Then there will be 3 input boxes for changing Password, they are: Current password, New Password, Re-enter New Password. Then a submit button. By submitting the new password will be replaced with the old password in the database and a message will be shown that "Password change successfully".
- Logout.

#### Teacher

- Attendance: There will be a dropdown selection box by which the group will be selected (Example: Class-1, class-2, etc.) except staff. Then all the user's information (Roll Number, User ID, Name, Last Day present or absent, today (check box)) of that group will appear in a table of 5 columns. At the end there is a submit attendance button to submit today's checked report. Checked report will be saved as "P" and unchecked will be "A".
- Classwork: Here all the assigned subjects will appear and by clicking on them he can post lessons on that subject. There will be a text box and a post button to post.
- **Result:** an input box for entering student user id then search button. By this the user id, name and roll number will appear, after this the teacher needs to select the class and subject from the selection box(the items will appear based on the classes and subjects assigned to that teacher.) Then to enter the mark there will be for input box for Full Marks, Written, MCQ, Practical, Total, Highest, Letter Grade, Grade Point, Total of Monthly Exam of that subject. Then a submit button to save the data to the database.
- My profile: Profile Picture, Name, User ID, Date of Birth, Father's Name, Mother's Name, Guardian's Contact, Present Address, Permanent Address. Then there will be 3 input boxes for changing Password, they are: Current password, New Password, Re-enter New Password. Then a submit button. By submitting the new password will be replaced with the old password in the database and a message will be shown that "Password change successfully".
- **Student Profile:** there is an input box to enter the user id and an apply button to load the information. Profile picture, name, roll number and a dropdown selection box to select

the result of 1st term, 2<sup>nd</sup> term or Annul exam is to show. Then the full result of that term will be visible. Result contain Subject, Full Marks, Written, MCQ, Practical, Total, Highest, Letter Grade, Grade Point, Total of Monthly Exam, 20% of Monthly Exam, GPA without Additional Subject, GPA with Additional Subject, Comment, Total Marks, Procured Marks.

Logout.

#### Accountant

- Tuition fees: there will be a input box to enter the user id, a dropdown selection box to select the bill category, a search button will find the id from the database then if that bill is paid there will be a paid message and if not paid then there will be 3 input box for Amount, Payment Status and Payment Date(automatically pick the current date and can be change), then a submit button. By submitting it the data will be stored in the database.
- My profile: Profile Picture, Name, User ID, Date of Birth, Father's Name, Mother's Name, Guardian's Contact, Present Address, Permanent Address. Then there will be 3 input boxes for changing Password, they are: Current password, New Password, Re-enter New Password. Then a submit button. By submitting the new password will be replaced with the old password in the database and a message will be shown that "Password change successfully".
- Logout.

#### Student

- Classwork: The assigned class will be connected to the dashboard and assigned subjects to that class will appear here in the table with columns of Subject and Lesson. Before the table there will be a date picker (loaded with current date) so that the students can check the previous day's lesson.
- Attendance: A dropdown selection box to select the month (current month will be preloaded). Then there will be a calendar like table where the present days will be green and absent will be red filled box. The weekly holydays will be ash colored.
- **Tuition fees:** A table with column consists of Category, Amount, Status (Paid/due), Payment Date (If paid) with the payment records.
- My profile: Profile Picture, Name, User ID, Date of Birth, Father's Name, Mother's Name, Guardian's Contact, Present Address, Permanent Address. Then there will be 3 input boxes for changing Password, they are: Current password, New Password, Re-enter New Password. Then a submit button. By submitting the new password will be replaced with the old password in the database and a message will be shown that "Password change successfully".

#### • Logout.

#### Technologies Used

- HTML
- CSS
- PHP
- SQL

# Initial Project Proposal

#### Overview

The idea is to develop a **School Management Web Application** that streamlines the management of school-related tasks and enhances communication between teachers and students. The web application will serve as a centralized platform where teachers can efficiently manage classroom activities, such as recording attendance, posting classwork, and uploading marksheets. Students will be able to access daily lessons, tasks, their results, attendance records, and tuition fee history, as well as submit leave applications through the portal.

The web application will be designed to be user-friendly and responsive, ensuring smooth access from any device, including mobile phones, tablets, and desktops. It will aim to improve administrative efficiency, transparency in student performance tracking, and overall communication within the school environment.

#### **Key Features**

#### 1. Attendance Management:

- o Teachers will be able to take and record students' attendance.
- Students can view their personal attendance records at any time.

#### 2. Classwork & Lesson Posting:

- Teachers will post daily lessons, homework, and classwork by class/subject.
- Students can view and download assigned tasks and lessons.

#### 3. Marksheets & Results:

- Teachers will upload marksheets and results after exams.
- o Students can view their individual results and performance reports.

#### 4. Tuition Fees Management:

Students can check their tuition fees payment history and track any pending dues.

#### 5. Leave Application Submission:

- Students will be able to submit leave applications digitally.
- o Teachers and school administrators can review and approve or reject leave requests.

#### 6. **User-Friendly Dashboard:**

- A role-based dashboard will be implemented: one for teachers (to manage classwork, attendance, and grades) and another for students (to access tasks, lessons, and personal records).
- o Teachers and students will have clear, separate workflows for their respective functions.

#### 7. Responsive Design:

- The web app will be fully responsive, ensuring seamless access on mobile devices, tablets, and desktops.
- The interface will be intuitive and easy to navigate for both teachers and students, regardless of the device used.

# **Gathering Requirements**

The first step in developing the School Management Web Application is to gather comprehensive requirements from all stakeholders involved, including school administrators, teachers and students. This process involves identifying the specific needs and challenges faced by each group to ensure the platform addresses their expectations effectively. For administrators, the focus is on features like attendance management, marksheet generation, and tuition fee tracking. Teachers require tools for posting classwork, managing lesson plans, and monitoring student performance. Students need an intuitive interface to access their attendance records, academic results, and daily tasks, as well as submit leave applications. Parents may benefit from features that allow them to monitor their child's academic progress and fee payment history. To collect this information, methods such as interviews, surveys, and workshops will be employed, ensuring the requirements are well-documented, prioritized, and aligned with the project's goals. This step is critical for designing a robust and user-centric solution that meets the unique demands of a modern educational environment.

#### Requirements Report

**Project Title:** School Management System

<u>Objective</u>: To create a safe and easy-to-use system that helps teachers, students, and administrators keep records of attendance, classwork and lesson posting, grade sheets and results, and tuition fees.

#### Initial Requirements Review

Requirement	Description					
Attendance Management	<ul> <li>Teachers can take and record student attendance.</li> <li>Students can view their personal attendance records at any time.</li> </ul>					
Classwork & Lesson Posting	<ul> <li>Teachers can post daily lessons, homework, and classwork by class or subject.</li> <li>Students can view and download assigned tasks and lessons.</li> </ul>					
Marksheets & Results	<ul> <li>Teachers upload marksheets and results after exams.</li> <li>Students can view their individual results and performance reports.</li> </ul>					
Tuition Fees Management	<ul> <li>Students can check their tuition fee payment history and track any pending dues.</li> <li>Teachers and school administrators can review and approve or reject leave requests.</li> </ul>					

#### Client Discussion (Simulated)

During the discussion with the client, all 4 requirements were discussed, and they ask for some modifications to a existing feature and two new features was proposed.

# **Elicitation Process**

# New and Modified Requirements:

Requirement	New or modified	Details				
Late Attendance record	New	Late attendance option in any period can be				
		taken and time will be saved.				
Teacher's ID logs in	New	The attendance record taker's ID will be				
attendance sheet		recorded with time.				
Password Encryption	Modified	To use DES or AES algorithm to secure the				
		passwords.				

## Requirements Report

Requirement	Old, new or modified	Details				
Attendance Management	Old	<ul> <li>Teachers can take and record student attendance.</li> <li>Students can view their persona attendance records at any time.</li> </ul>				
Late Attendance record	New	Late attendance option in any period can be taken and time will be saved.				
Teacher's ID logs in attendance sheet	New	The attendance record taker's ID will be recorded with time.				
Password Encryption	Modified	To use DES or AES algorithm to secure the passwords.				
Classwork & Lesson Posting	Old	<ul> <li>Teachers can post daily lessons, homework, and classwork by class or subject.</li> <li>Students can view and download assigned tasks and lessons.</li> </ul>				
Marksheets & Results	Old	<ul> <li>Teachers upload marksheets and results after exams.</li> <li>Students can view their individual results and performance reports.</li> </ul>				
Tuition Fees Management	Old	<ul> <li>Students can check their tuition fee payment history and track any pending dues.</li> <li>Teachers and school administrators can review and approve or reject leave requests.</li> </ul>				

# Most challenged Section

Designing the marksheet was the most difficult part of this project as the traditional way of this process was as follows:

Grade- Nine	TESL English Version School & College						Result Sheet-202								
1st Term Exam	Serial No.	Subject	Full	Written	МСФ	Practical	Total	Highest	Letter	Grade	Total of term exam	Grand total	Place	GPA without additional subject	Comment
Name:	1	Bangla	100											इ. व. द्व	
	2	English	100												
	3	Mathematics	100								In Total of				
Roll:	4	Science	100								Monthly Exam				
	5	History & Social Sci.	100												
	6	Islam	100											Total	
	7	Digital Technology	100											G.P.A	
Total Marks:	8	Life & Livelihood									20% of				
	9	Wellbeing									Monthly Exam				
	10	Art. & Crafts													
	11														
Procured Marks:	12														
	13														

# **Subject Naming**

For this project we design a new way to store mark for this Institution that includes the subject mapping with subject code, they are:

Subject Name	Code	SubjectID
Bangla 1 <sup>st</sup> Paper	101	BAN-101
Bangla 2 <sup>nd</sup> Paper	102	BAN-102
English 1 <sup>st</sup> Paper	107	ENG-107
English 2 <sup>nd</sup> Paper	108	ENG-108
Math	109	MAT-109
Physics	136	PHY-136
Chemistry	137	CHE-137
Biology	138	BIO-138
Higher Math	126	MAT-126
Information & Communication Technology	154	ICT-154
Islam & Moral Education	111	IME-111
Bangladesh & Global Studies	150	BGS-150
Agriculture Studies	134	AGS-134

# Diagram Scenario

# Sequence Diagram Scenario

#### Login

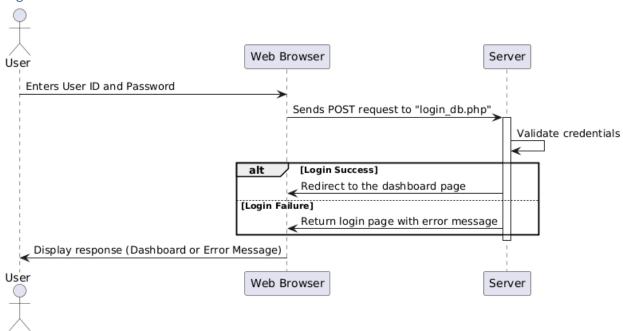


Figure 1. 1 Login

# Creating a New User

#### **Admin Creating a New User**

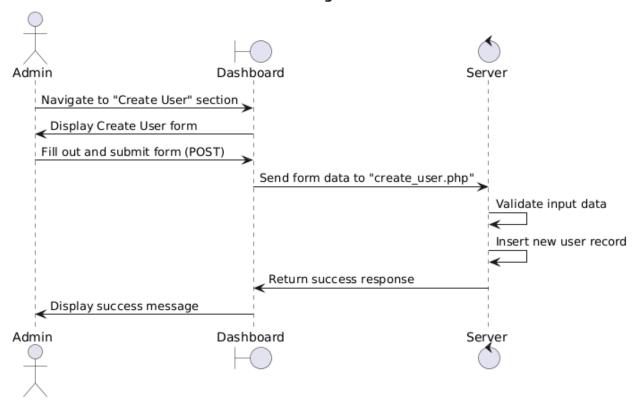


Figure 1. 2 Creating a New User

# **Creating New Class**

#### **Admin Creating a New Class**

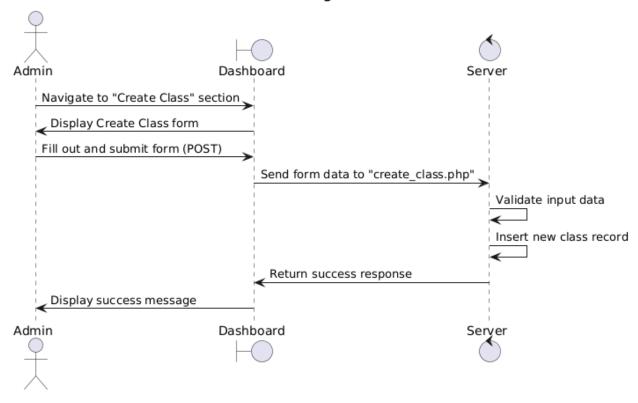


Figure 1. 3 Creating New Class

# Creating New Subject

#### **Admin Creating a New Subject**

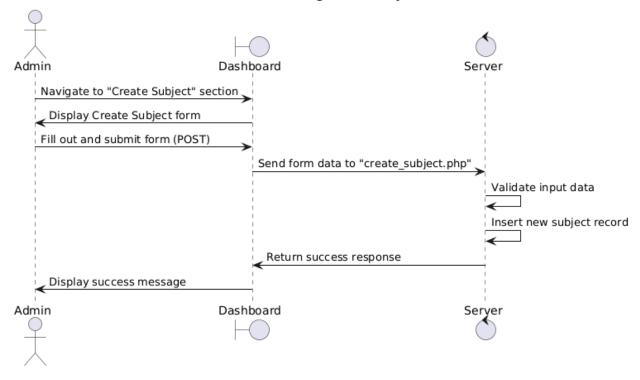


Figure 1. 4 Creating New Subject

# Assigning Subject into Class

#### **Admin Assigning Subject to Class**

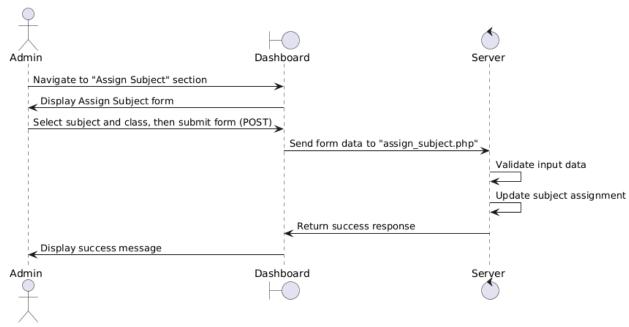


Figure 1. 5 Assigning Subject into Class

# Viewing Class and Subject

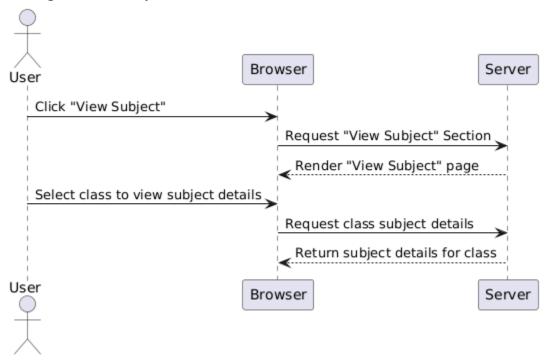


Figure 1. 6 Viewing Class and Subject

# Submitting Payment

#### **Admin Submitting Payment**

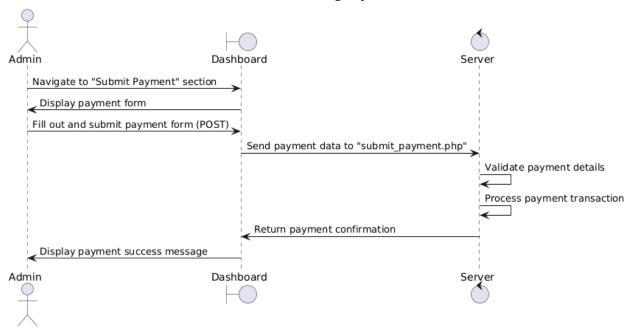


Figure 1. 7 Submitting Payment

# Viewing Payment Report

#### **Admin Viewing Payment Report**

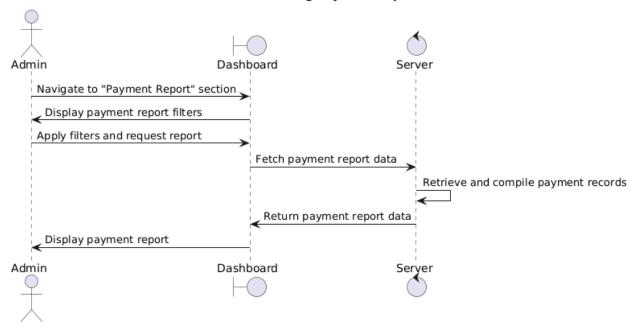


Figure 1. 8 Viewing Payment Report

# Viewing Student Profile

#### **Admin Viewing Student Profile**

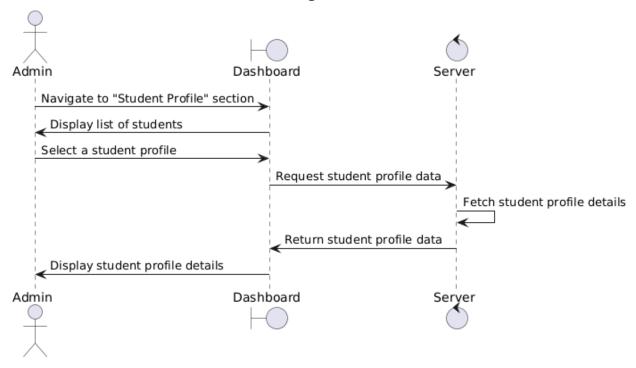


Figure 1. 9 Viewing Student Profile

# Posting Classwork Dashboard Server Teacher Selects Class (Class 1) Request Classwork Data for Class 1 Return Classwork Data ▼ Display Classwork Form Enter Classwork Details (Lesson & Homework) Save Classwork Details Confirm Save Show Classwork Saved Message Clicks Submit Post Classwork Details to Server Confirm Post Success Show Classwork Posted Success Dashboard Server

Figure 1. 10 Posting Classwork

#### Taking Attendance

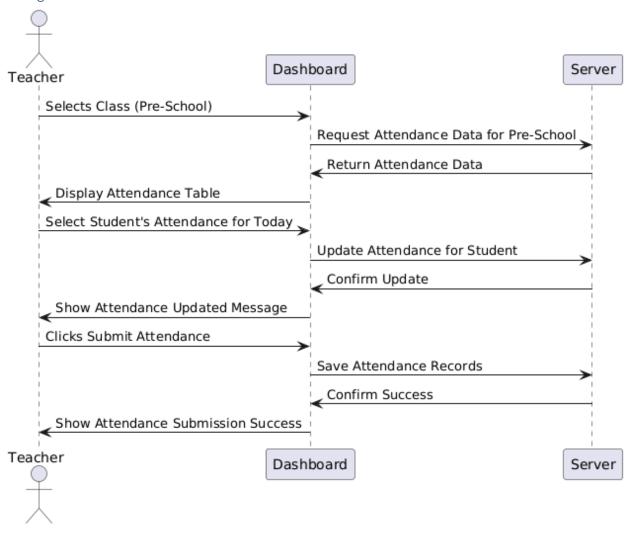


Figure 1. 11 Taking Attendance

# **Posting Results** Dashboard Server Teacher Selects Class (Grade 1) Request Results Data for Grade 1 Return Results Data Display Results Form Enter Results for Student (User ID, Marks, etc.) Save Results Data Confirm Save Show Results Saved Message Clicks Submit Results Post Results Data to Server Confirm Post Success Show Results Posted Success Teacher Dashboard Server

Figure 1. 12 Posting Results

# Viewing Classwork

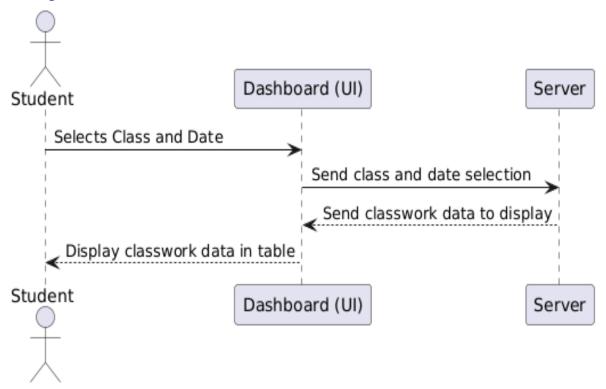


Figure 1. 13 Viewing Classwork

# Student Dashboard (UI) Server Request attendance data for selected month Send attendance data (days present, absent, etc.) Display attendance data and summary Clicks on "Request Correction" button Send request for attendance correction Acknowledge correction request Student Dashboard (UI) Server

Figure 1. 14 Viewing Attendance

# Viewing Result

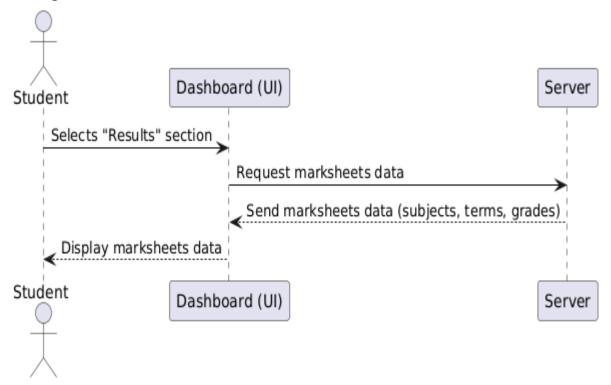


Figure 1. 15 Viewing Result

# Student viewing Tuition fees history

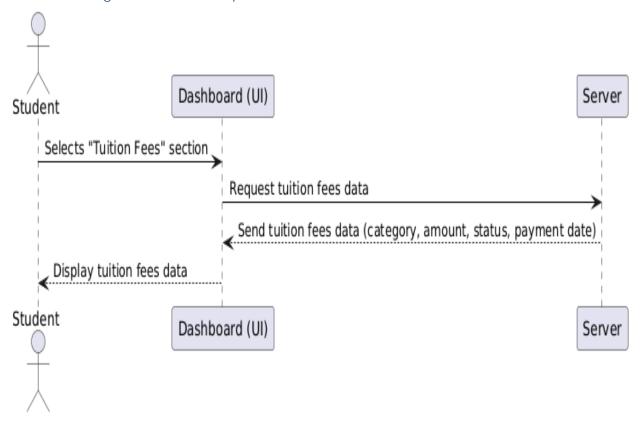


Figure 1. 16 Student viewing Tuition fees history

### Student Submitting Leave Application

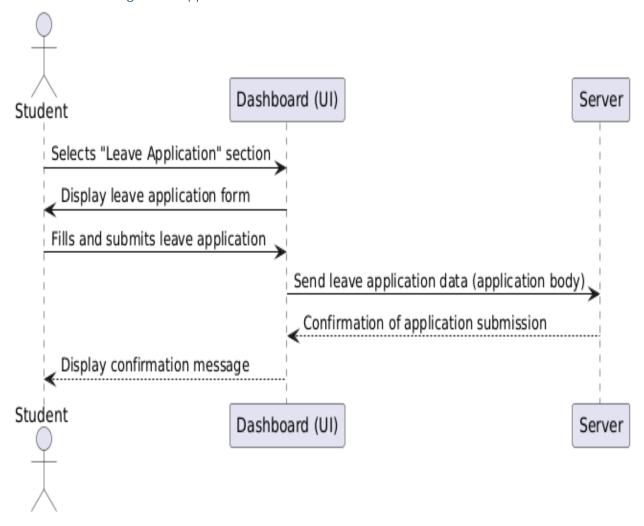


Figure 1. 17 Student Submitting Leave Application

## Logout

# **Admin Logging Out**

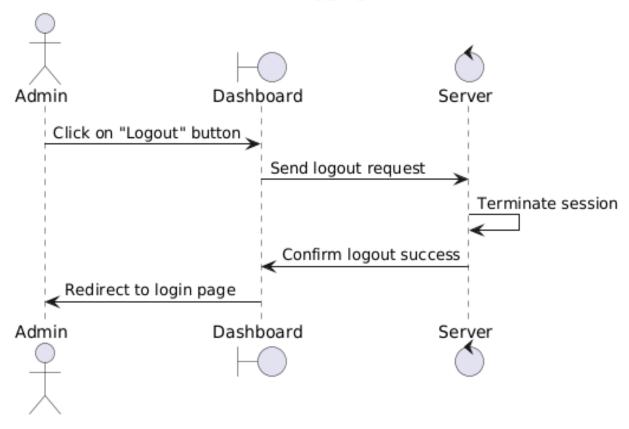


Figure 1. 18 Logout

### **Activity Diagram**

Figure 2. Activity Diagram

### Login

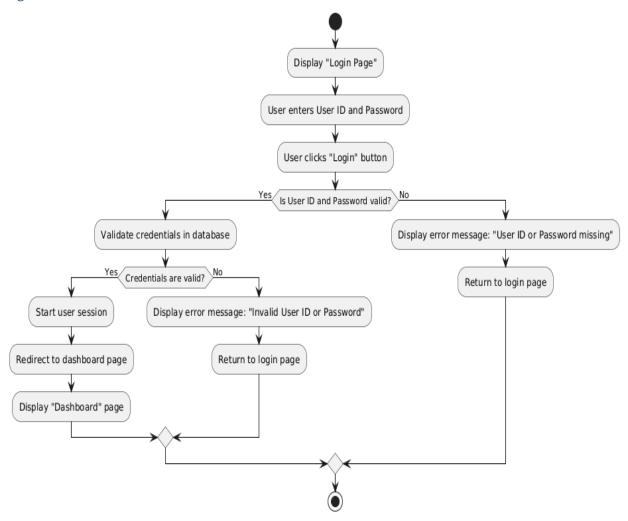


Figure 2. 1 Login

## Creating User

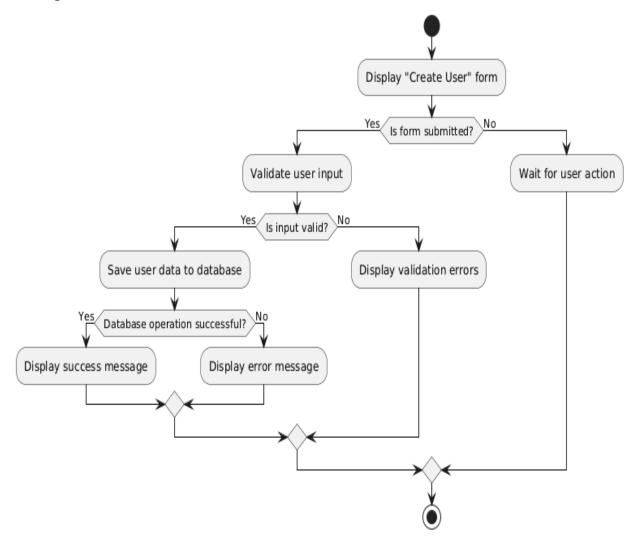


Figure 2. 2 Creating User

## **Creating Class**

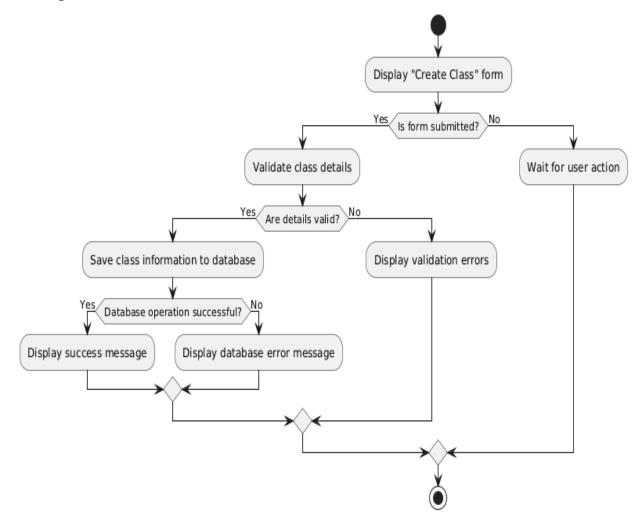


Figure 2. 3 Creating Class

## Creating Subject

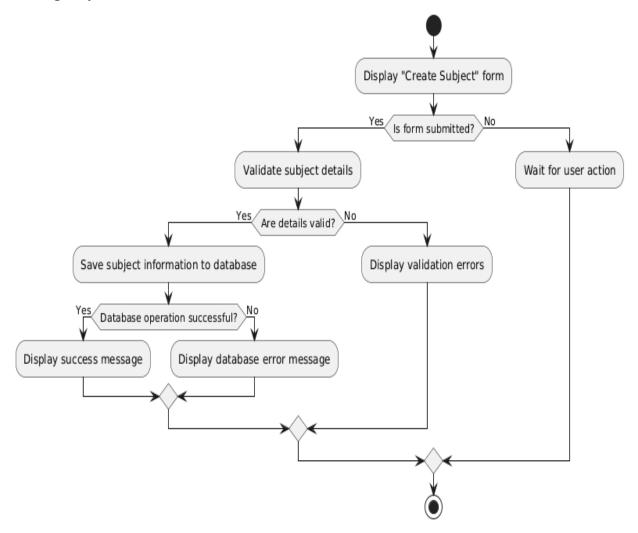


Figure 2. 4 Creating Subject

## Assigning Subject into Class

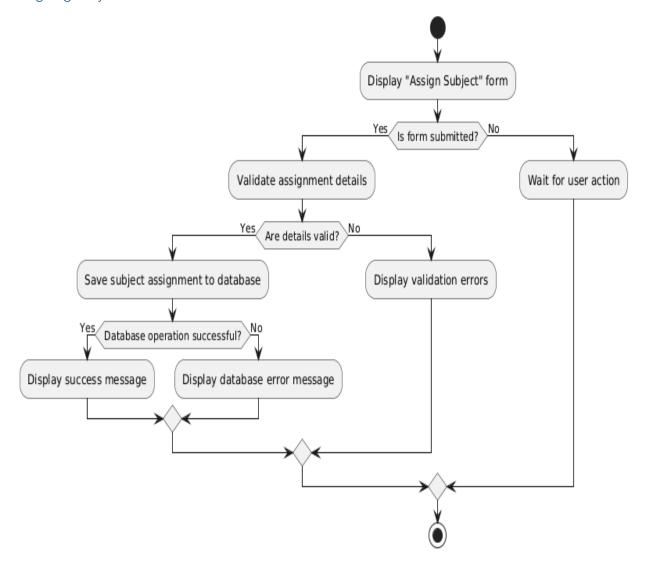


Figure 2. 5 Assigning Subject into Class

## View Class & Subject

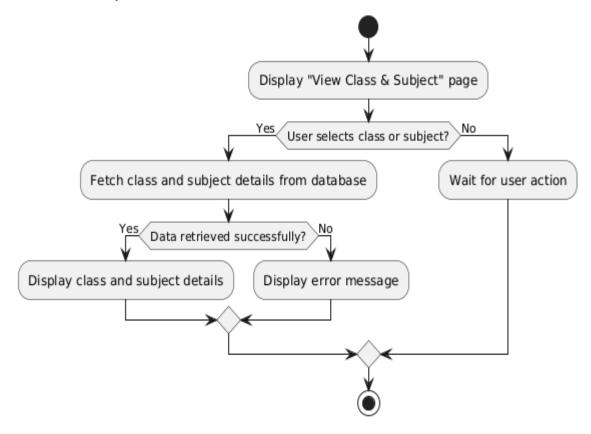


Figure 2. 6 View Class & Subject

## Submit Payment

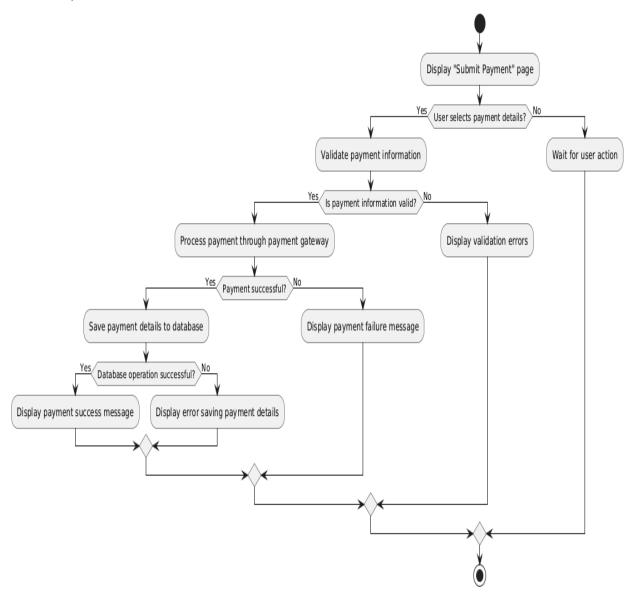


Figure 2. 7 Submit Payment

### Payment Report

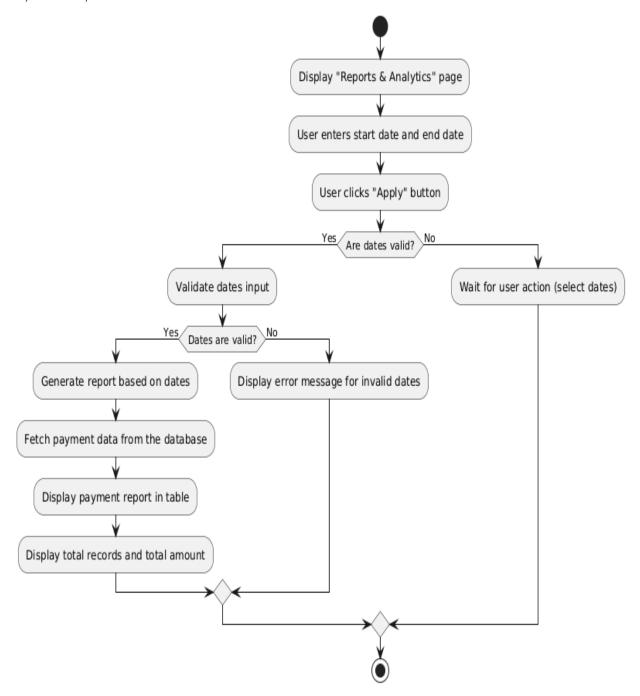


Figure 2. 8 Payment Report

### Attendance

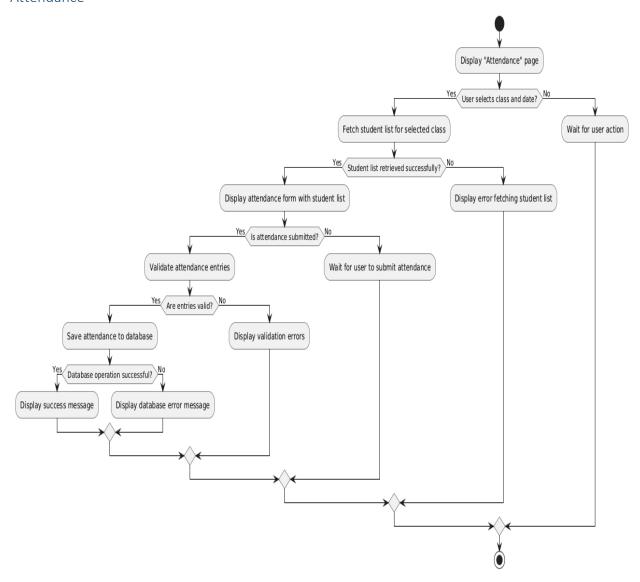


Figure 2. 9 Attendance

## My Profile

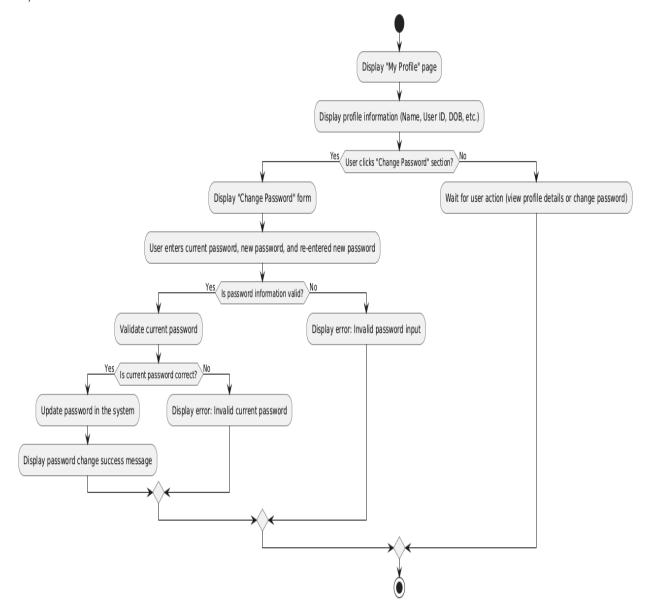


Figure 2. 10 My Profile

### Logout

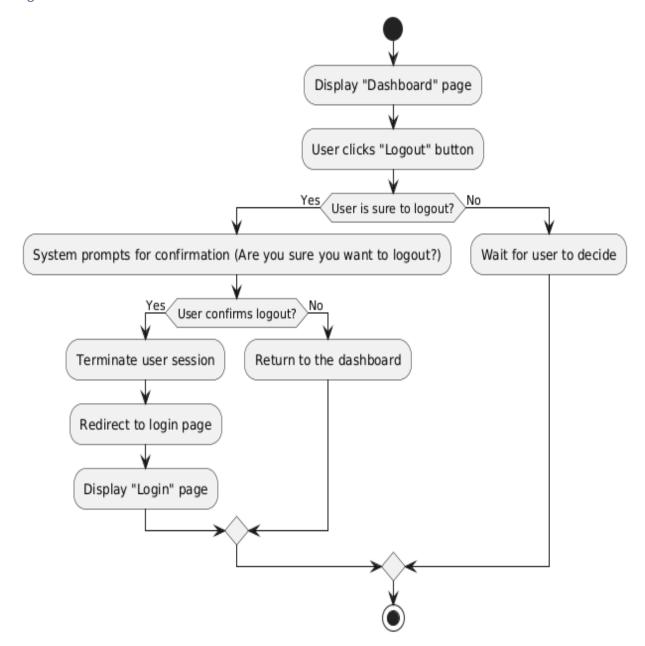


Figure 2. 11 Logout

#### **ERD**

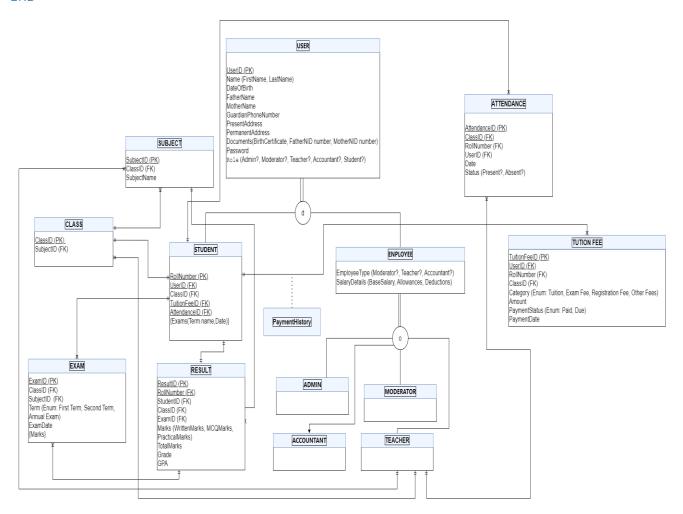


Figure 3 ERD

Login

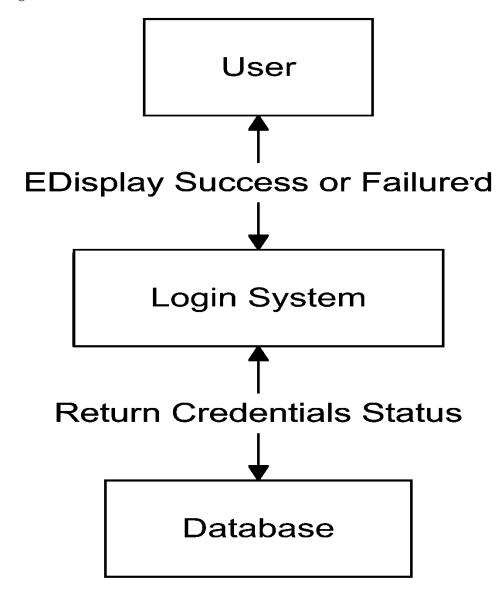


Figure 4. 1 Login

#### Create User

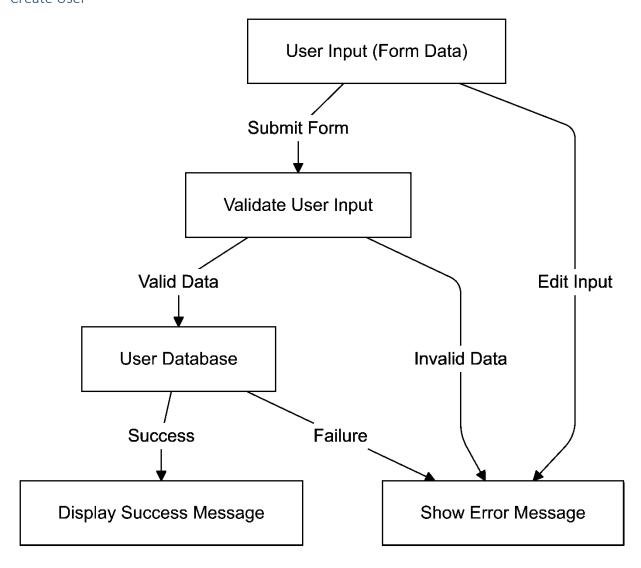


Figure 4. 2 Create User

### **Create Class**

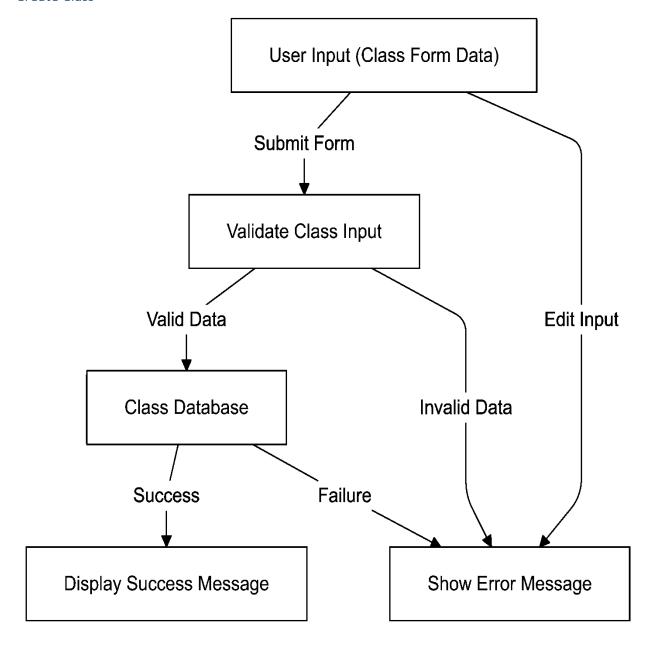


Figure 4. 3 Create Class

## Create Subject

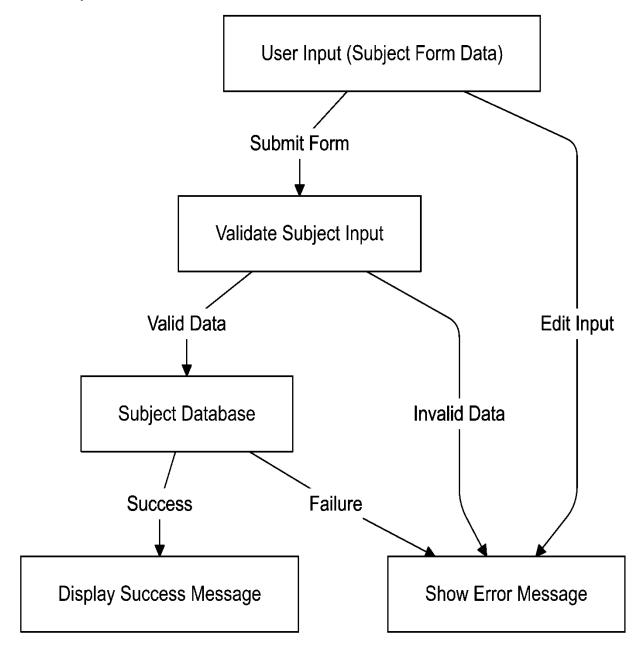


Figure 4. 4 Create Subject

## Assign Subject into Class

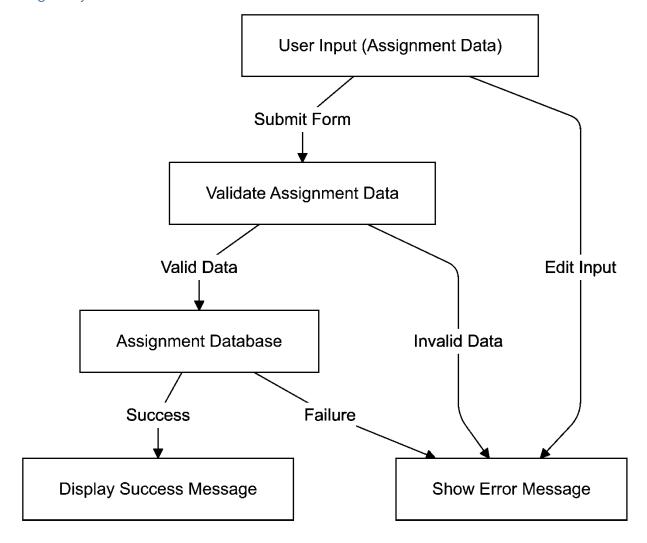


Figure 4. 5 Assign Subject into Class

## View Class & Subject

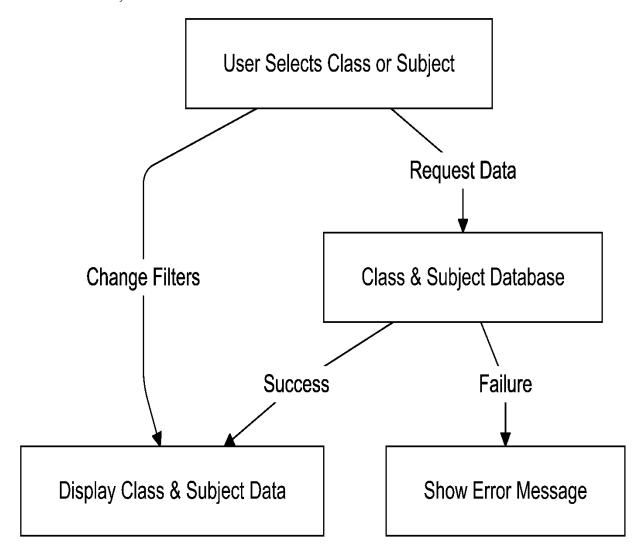


Figure 4. 6 View Class & Subject

## Submit Payment

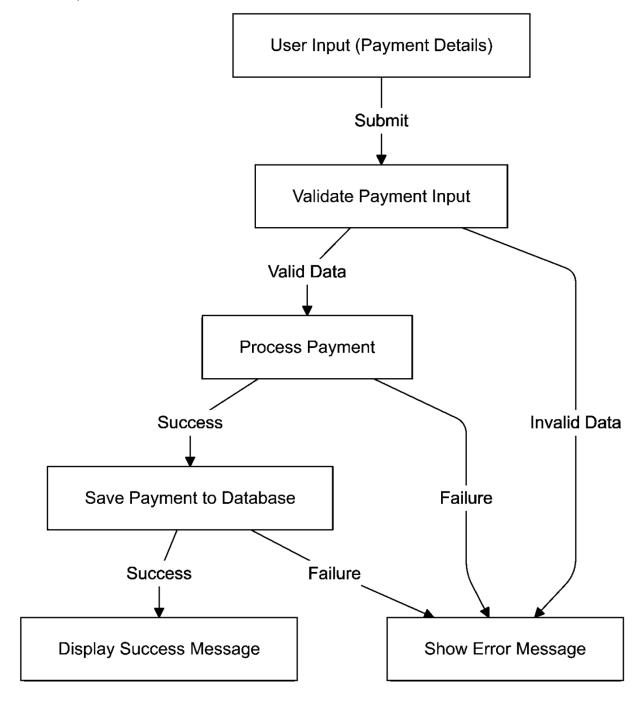


Figure 4. 7 Submit Payment

## Payment Report

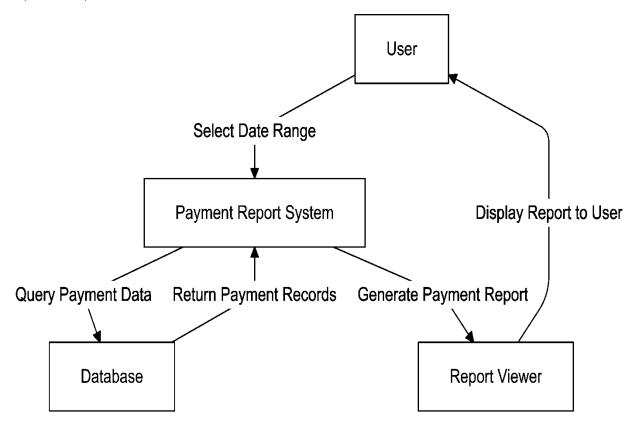


Figure 4. 8 Payment Report

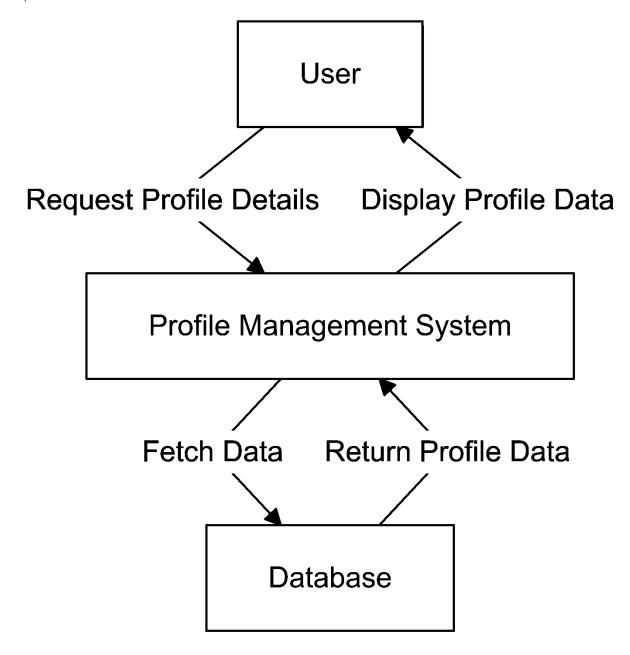


Figure 4. 9 My Profile

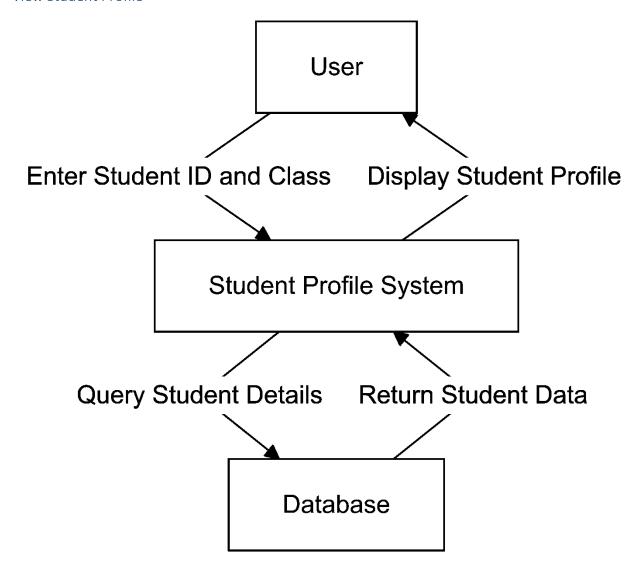


Figure 4. 10 View Student Profile

Logout

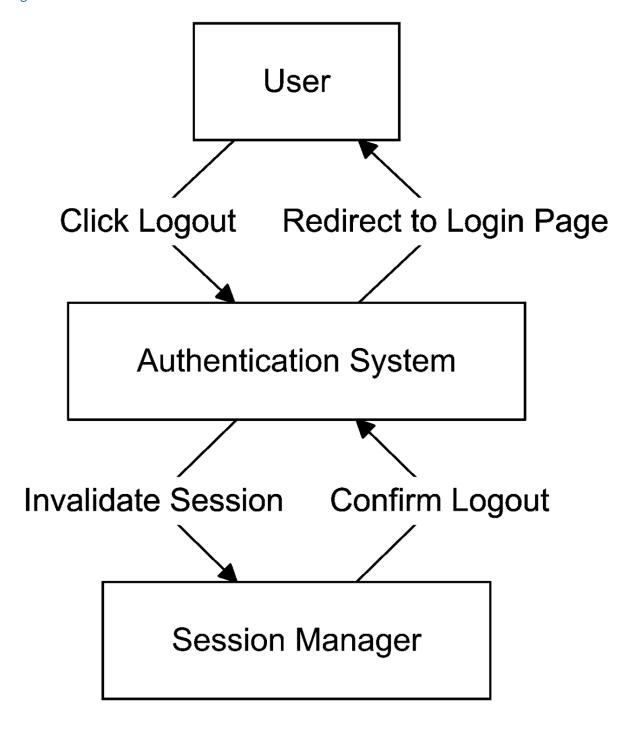


Figure 4. 11 Logout

### **Project Details**

In this project there are 5 types of users (Admin, Moderator, Accountant, Teacher and Student). Every type of user has its own dashboard. Every user need to login using their unique userID. The work of every dashboard is as follow:

#### Admin Dashboard

- **Create user:** new user account will be created using the name, UserID, date of birth, father's name, mother's name, personal phone number, guardians phone number, present address, permanent address, user's picture, birth certificate/NID's pdf, father's NID pdf, mother NID pdf and an initial password.
- Attendance: There will be a dropdown selection box by which the group will be selected (Example: Staff, class-1, class-2, etc.) then all the user's information (Roll Number, User ID, Name, Last Day present or absent, today (check box)) of that group will appear into a table of 5 column. At the end there is a submit attendance button to submit today's checked report. Checked report will be saved as "P" and unchecked will be "A".
- **Report:** there will be 2 date pickers for setting the range and a apply button by which all the payment between the picked date will be shown along with the student user id, category and amount. At the end there will be a summary of that with the total payment history appeared and total amount.
- Tuition fees: there will be a input box to enter the user id, a dropdown selection box to select the bill category, a search button will find the id from the database then if that bill is paid there will be a paid message and if not paid then there will be 3 input box for Amount, Payment Status and Payment Date(automatically pick the current date and can be change), then a submit button. By submitting it the data will be stored in the database.
- Logout.

#### Moderator Dashboard

- Attendance: There will be a dropdown selection box by which the group will be selected (Example: Staff, class-1, class-2, etc.) then all the user's information (Roll Number, User ID, Name, Last Day present or absent, today (check box)) of that group will appear into a table of 5 column. At the end there is a submit attendance button to submit today's checked report. Checked report will be saved as "P" and unchecked will be "A".
- **Create user:** new user account (only teacher and student) will be created using the name, UserID, date of birth, father's name, mother's name, personal phone number, guardians phone number, present address, permanent address, user's picture, birth certificate/NID's pdf, father's NID pdf, mother NID pdf and an initial password.
- **View Profile:** there is an input box to enter the user id and an apply button to load the information. Moderator can view all user profile except admin. Profile picture, name, roll

number and a dropdown selection box to select the result of 1st term, 2<sup>nd</sup> term or Annul exam is to show. Then the full result of that term will be visible. Result contain Subject, Full Marks, Written, MCQ, Practical, Total, Highest, Letter Grade, Grade Point, Total of Monthly Exam, 20% of Monthly Exam, GPA without Additional Subject, GPA with Additional Subject, Comment, Total Marks, Procured Marks.

- My profile: Profile Picture, Name, User ID, Date of Birth, Father's Name, Mother's Name, Guardian's Contact, Present Address, Permanent Address. Then there will be 3 input boxes for changing Password, they are: Current password, New Password, Re-enter New Password. Then a submit button. By submitting the new password will be replaced with the old password in the database and a message will be shown that "Password change successfully".
- Logout.

#### Teacher

- Attendance: There will be a dropdown selection box by which the group will be selected (Example: Class-1, class-2, etc.) except staff. Then all the user's information (Roll Number, User ID, Name, Last Day present or absent, Today (check box)) of that group will appear in a table of 5 column. At the end there is a submit attendance button to submit today's checked report. Checked report will be saved as "P" and unchecked will be "A".
- **Classwork:** Here all the assigned subjects will appear and by clicking on them he can post lessons of that subject. There will be a text box and a post button to post.
- **Result:** an input box for entering student user id then search button. By this the user id, name and roll number will appear, after this the teacher needs to select the class and subject from the selection box(the items will appear based on the classes and subjects assigned to that teacher.) then to enter the mark there will be for input box for Full Marks, Written, MCQ, Practical, Total, Highest, Letter Grade, Grade Point, Total of Monthly Exam of that subject. Then a submit button to save the data to the database.
- My profile: Profile Picture, Name, User ID, Date of Birth, Father's Name, Mother's Name, Guardian's Contact, Present Address, Permanent Address. Then there will be 3 input boxes for changing Password, they are: Current password, New Password, Re-enter New Password. Then a submit button. By submitting the new password will be replaced with the old password in the database and a message will be shown that "Password change successfully".
- **Student Profile:** there is an input box to enter the user id and an apply button to load the information. Profile picture, name, roll number and a dropdown selection box to select the result of 1st term, 2<sup>nd</sup> term or Annul exam is to show. Then the full result of that term

will be visible. Result contain Subject, Full Marks, Written, MCQ, Practical, Total, Highest, Letter Grade, Grade Point, Total of Monthly Exam, 20% of Monthly Exam, GPA without Additional Subject, GPA with Additional Subject, Comment, Total Marks, Procured Marks.

Logout.

#### Accountant

- Tuition fees: there will be a input box to enter the user id, a dropdown selection box to select the bill category, a search button will find the id from the database then if that bill is paid there will be a paid message and if not paid then there will be 3 input box for Amount, Payment Status and Payment Date(automatically pick the current date and can be change), then a submit button. By submitting it the data will be stored in the database.
- My profile: Profile Picture, Name, User ID, Date of Birth, Father's Name, Mother's Name, Guardian's Contact, Present Address, Permanent Address. Then there will be 3 input boxes for changing Password, they are: Current password, New Password, Re-enter New Password. Then a submit button. By submitting the new password will be replaced with the old password in the database and a message will be shown that "Password change successfully".
- Logout.

#### Student:

- Classwork: The assigned class will be connected to the dashboard and assigned subjects to that class will appear here in the table with columns of Subject and Lesson. Before the table there will be a date picker (loaded with current date) so that the students can check the previous day's lesson.
- Attendance: A dropdown selection box to select the month (current month will be preloaded). Then there will be a calendar like table where the present days will be green and absent will be red filled box. The weekly holydays will be ash colored.
- **Tuition fees:** A table with column consists of Category, Amount, Status (Paid/due), Payment Date (If paid) with the payment records.
- My profile: Profile Picture, Name, User ID, Date of Birth, Father's Name, Mother's Name, Guardian's Contact, Present Address, Permanent Address. Then there will be 3 input boxes for changing Password, they are: Current password, New Password, Re-enter New Password. Then a submit button. By submitting the new password will be replaced with the old password in the database and a message will be shown that "Password change successfully".
- Logout.

### Conclusion

The development of the School Management Web Application is a significant step toward modernizing and streamlining administrative and academic operations in educational institutions. The application seeks to bridge the gap between instructors, students, and school administration by providing a consolidated, user-friendly platform, hence improving communication, efficiency, and accessibility.

This initiative not only streamlines regular chores like attendance monitoring, marksheet creation, and tuition money administration, but it also gives students access to their academic progress and attendance records, instilling a sense of accountability and involvement. Furthermore, the application's capacity to process leave applications and other administrative requirements digitally demonstrates a dedication to environmentally friendly and paperless operations.

This project aims to provide a scalable and reliable solution that satisfies the changing demands of schools in the digital era through thorough planning, requirement collection, and user-centered design. Finally, the successful implementation of this platform will result in a more structured, transparent, and effective educational environment for all stakeholders.

A digitalized school management system is being developed from the sketch and during this project it feels like doing Web Application and Internet course and the revision of DBMS and System Analysis course with my dream project.