



Sri Lanka Institute of Information Technology

INSTITUTE MANAGEMENT SYSTEM Project Report

Information Technology Project 2022

Project ID: WD_B01_ITP_G05

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Abstract

This project is an Institute Management System designed to the client “Laboratory Palawatte” which is located in Pitigala, Pahala hewassa road, Palawatta. This system is designed in such a way that the client could keep track of all aspects of the tutoring service such as Students, Staff (Academic & Non-academic), Subjects, Exams, Timetable, Fees Collection, Salary Payment and Feedbacks under one centralized system efficiently.

Moreover, the system maintains a proper record of all aspects of the institute and enables report generation ensuring the possibility to review business performances and academic performances and to keep track of the right statistics. The system also helps in reduction of manual operations ensuring flawless and accurate activities.

So, the overall system provides solution to the problem statements, thus making the management process efficient and easy.

Acknowledgement

We would like to express our sincere gratitude for all those who helped us throughout in completing this project successfully.

A special gratitude to Sri Lanka Institute of Information Technology for taking measures to provide their guidance in starting the project, constant supervision and support amidst this pandemic and also a special thanks goes to Ms. Archchana Kugathasan, the lecturer in charge and Ms Sanduni Perera, the supervisor in charge of the group for their continuous guidance throughout this project.

A special gratitude goes to the Manager of Laboratory Palawatte, Dr. Nilantha Ponnampuruma for giving us this opportunity to develop this project. A special thanks goes to our colleagues who willingly helped us with their gained knowledge.

DECLARATION

We declare that this project report or part of it was not a copy of a document done by any organization, university any other institute or a previous student project group at SLIIT and was not copied from the Internet or other sources.

Project Details

Project Title	Institute Management System
Project ID	WD_B01_ITP_G05

Group Members

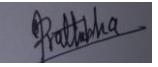
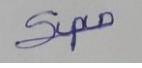
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1. Introduction

1.1. Problem Statement

There are many problems they face with the existing manual system. For example, retrieving teacher profile details, maintaining student marks, and accurate timing of students attendances records contain inefficiency and inaccuracy of payment details.

Looking at the current system we found problems related to information management. One of the major problems was that retrieving or updating teacher files, student details and payment handling was a tedious task.

- Difficulty in marking attendance

The major issue which was found is marking the students' attendance. Some institutes still adopt the ordinary method of marking attendance in files, i.e., when a student enters the institute. This old system is not very efficient or accurate. It is difficult to take a students' attendance report at the end of each month manually.

- Difficulty in managing profiles-

Updating the profile files of more than 10 teachers and 500 students who are attending to the Classes is very complex.

- Difficulty in managing payment details-

For example, when updating teacher salary payment details it was a very time consuming task. Even the calculation of salary payments and the managing fees which was paid by students was to be recorded manually, which is not an easy job and also managing large number of files that used to be taken in and out of lockers while updating the records each and every time makes the task much more harder

- Difficulty in managing time tables-

Another aspect that was stressed somewhat harder was the issue related to the institute time-tables. It also includes the teachers' personal time tables and exam time tables as well. The institute currently follows the regular method of creating time tables manually. Reserving classrooms according to the time table is also a tough task and this is not an easy task either. Since practically there will at least be 1 overlap each time when the time tables are updated. For example, if grade 6 science and math classes are held on the same time it will be a problem to the students who attend to both classes.

- Difficulty in managing exam notices-

Teachers are unable to inform immediate updates about exams.

- Difficulty in managing student marks-

Apart from handling records on teachers, there was also another problem related to the handling of student marks. When the teacher wants to know the exam marks of a particular student or a class's average of each and every subject is not convenient and efficient. Having analyzed the current problems they face, it was decided that we go for a computerized Institute Management System, which we have decided to develop.

1.2. Product Scope

This institute is currently using a manual system to manage all its work. After the covid 19 pandemic, this institute faced some difficulties to manage their work using a manual method. As a result, they have to switch to a new web-based application to manage their work. This system is designed to fit any education institute implementing classes for school children. The system is specially designed to keep a record on the students, academic and non-academic staff and also regarding the payments of the students, time table and many more.

This is a centralized system which is much more efficient than what is done manually. Basically four people are profited from this system. They are students, staff members, admin and the receptionist. This system will reduce the manual work of an institute and will allow to systematically organizing all aspects of the institute which can be accessed and retrieved anytime. This institute management system requires following eight main functions,

- 1) Student Management
- 2) FeesManagement
- 3) StaffManagement
- 4) FeedbackManagement
- 5) Subject Management
- 6) ExamManagement
- 7) SalaryPaymentManagement
- 8) Timetable Management

1.3. Project Report Structure

The project report is partitioned into four main chapters illustrating the software development lifecycle of the institute management system developed for "Laboratory Palawatte", where the first chapter provides a brief introduction of the product designed with reference to content such as the problems within the existing system and how the team have designed the product in order to overcome the problem statements.

Methodology which is the vital phase followed throughout the project progress including the phase of analyzing the product requirements, design, implementation, and testing are elaborated under the second chapter of the report. Design phase is illustrated using high level design diagrams such as use case diagrams, activity diagrams, class diagrams and sequence diagrams accompanied with the GUI implemented for individual functionalities whereas the implementation phase provides a brief idea about the choice of database, programming language, platforms and tools used in order to implement the system in a productive and user-friendly manner.

Chapter three provides a brief idea about the final evaluation of the End Product addressing the lessons learned at the end of the product completion and the future work to be carried to enhance the product quality.

The latter part of the report consists of the conclusion appendices, and references. The design diagrams illustrating the system behavior as a whole and as individual working functionalities, individual test results and additional code listings are attached to the appendix as three sections namely A, B and C, respectively.

2. Methodology

2.1. Requirements and Analysis

As the initial step after confirming the client to whom the product is to be developed for, as the team decided to visit the client's business workplace, to discuss and gather information about the client's requirements on the system to be developed. During the client meeting, the basic idea of the business environment the client is dealing with was analyzed, and interaction of the team and the top-level employees currently working in the business was facilitated. Requirements were gathered using three methods.

- Interviews
- Observations
- Brainstorming

After the interview sessions with the client and the department heads in the business, a deep and quick understanding about the client's requirements were obtained. For this purpose, the client permitted the team to observe and experience the current working system of the company. This facilitated more understanding about the client's requirements and the limitations the existing system had. As mentioned above a brainstorming session was held to clarify all doubts about the new system to be developed. Finally, the requirements were confirmed and clarified, thus moving on to the documentation of the requirements.

Functional Requirements

1. Student Management

Admin handles all the students' details. Admin has the access to add a student to the system. And mark the attendance of each student of classes who attends classes physically using a face detection device. If classes are held online attendance will be marked via a Google form.

Add student- Admin can get the necessary details from a student and enter the details to the system. And provide a username and password for each and every student.

Search student-Admin or a teacher can search a student by entering student id. Update student- Admin have the access to update student details.

Delete student- When a student leaves the institute Admin can delete the student details from the main table.

Verify a student-When a student log into the web application the system will allow him/her to enter if only the username and password correct.

Student profile- Students can view their profiles by entering their credentials (username, password) .If some incorrect details student can change that. Generate report- Admin can generate report of the monthly attendance of students of each class by entering the teacher's id and class id at the end of the month.

2. Fees Management

To attend the session, the student must pay for the relevant classes he / she attends Enter Payment details - Classes are held physically and students can pay a fee to the cashier. Or if it is online, payment can be made through a bank and the payment receipt must be uploaded to the Google form provided. Enter the student's name, class, month, amount, and phone number. Email, payment slip / reference number and bank details on the payment page.

Verification of payments - After receiving the payment from a student the admin should check whether the student and the amount which has been paid are accurate and true by referring to the details in the database

Payment update access - Students when the administrator refuses to pay the student you can find out about it and edit the payments.

Delete payments - An admin is a consultant who can delete payment records from main table when needed

Reminder to pay - The administrator reminds students the expected payment reminders through the student profile in the second week of the month.

Generate reports for payment analysis - At The end of the month system will analyse the payments and generate the summary of payments

Search Student Payments - Multiple payments made to multiple subjects/classes with the same student ID can be synced and the system will allow access to search previous payments made when searched using the student ID

3. Staff Management

Admin registers academic and Non-academic Staff into the system manually. When the admin registers a new staff member (academic or non-academic) system generates personal profile with their own information.

Manage staff member- The admin is allowed to create a new staff member access, update staff members details or remove a staff members from the main table. When the admin updates the details of the staff members, their details will be updated in own profile. If the admin deletes a staff member that staff member will be deleted the system.

Staff verification-If staff member need to access the web application staff members should logging to the system. When logging it's check whether it's a valid logging or not.

Staff profile- When the admin creates a new staff member access, the system will create a profile for those staff members. When a staff member logins into the system, can view profile along with their details. Staff members also have the ability to change their personal details as needed.

Search staff member- The admin has the ability to search for staff member through the search function.

Generate report- Admin can generate report about existing academic and non- academic staff members.

4. Feedback Management

This function use to manage student feedbacks. Student can give a feedback to the teachers of his/her choice. Also admin handles all the students' feedback.

Add feedback - When a adding a student in to the system, student can give a feedback to the relevant teacher. And also can update and delete it whenever needed.

Update feedback- Students can be update the feedbacks that they have entered. Delete feedbacks- Students can be delete the feedbacks that they have entered any time. Also the admin can delete if there is any inappropriate feedback.

Search Feedback- Student can search teacher's name and they can view the feedbacks of that teacher.

Validate search feedback- When a student enters an invalid name it displays an error message.

Generate report- Admin can generate report monthly for the students' satisfaction about each class.

5. Subject Management

This function is used to manage all subjects and assign relevant teachers to subjects. All the subject related things stored by using the well-organized structure. Admin can add, view, update, or delete the subject details in the system.

Adding subject – The admin can add new subjects to the institute and assign teachers to the relevant subjects.

Updating subject details – The admin has the facility to update any changes related to the subjects for example, if new teachers were replaced the details should be changed.

Deleting subject details – The subjects can be deleted by the admin whenever needed for example, incase lack of students if the subject has to be stopped the admin can right away delete the subject details and hide the subject.

Validate a subject- if enter an invalid id it displays an error message.

Generate reports - The system provides a report summarizing the subjects and the relevant teachers for each subjects.

6. Exam Management

Exam scheduling mainly assists in being able to schedule in separate times preventing it from being overlapped. Exam notices will be published accordingly. Adding exam schedule – The admin has the capability of scheduling the exam which consists of the time, date, subject, student batch number and the exam hall number.

Updating the exam schedule – The admin has the facility to update any details in the existing schedule if needed.

Deleting the exam schedule – The admin can delete the exam schedules if need, for example if the exam is cancelled due to a particular reason, before the due date the schedule can be deleted.

Searching for the relevant exam schedule – The student can search for the required exam schedule for the relevant class conveniently without having the trouble to scroll down all the way.

Validate an Exam- The validation can be done by checking whether two or more exams are held at the same time in a particular class.

Generate report- The system provides the advantage of generating the report which summarizes the exams held in each year divided by classes.

7. Salary Payment Management –

Admin inputs payments data to the Staff Salary payment database. The admin can create, view, update or delete the payment details in the system.

Add salary payment- When a new staff member enrolls to this institute a new payment is created by the admin.

Update salary payment- When a staff members' salary is incremented or decremented, admin can update the payment details.

Delete salary payment- When a staff member leaves the institute, the payment details of the relevant staff member will be deleted by the admin.

Search and view salary payments- The admin can view the payment details of all staff members by entering their staff id and also the staff members can view their payment details.

Verify a payment- While paying salaries, if a salary is already paid the system will display a warning

Generate report- At the end of the month system will generate the summary of the salary payment details.

8. Time table Management -

All timetables are posted on the timetable page. The students can view the updated timetables. Students can attend the online classes by using the relevant Webinar links. Admin and teachers can manage the timetable information.

Schedule a class – Admin and teacher can add the class information to respective time slots using details such as date, time, hall name, subject, teacher's name and relevant student batch. If it is online, they can add the Webinar links to timetables.

Verification a class – Admin can check the class information and confirm the class. Then scheduled class will be added to timetables.

Cancel a class – Admin has authority to cancel the classes which are including the incorrect information.(Ex :- inappropriate time slots, invalid Webinar links). Teacher has accessibility to cancel an existing class.

Make changes in timetables – Admin and teacher can update the details in timetables.

Search a class – System will allow to search the classes by using the search function. When a teacher search for free time slot they can search for it.

Generate report – At the end of the month system will generate report about summary of the classes held during the month.

Non-functional Requirements

Security

Security was a major issue that the client had put forward during the requirement gathering phase. Since there were many users and user levels who access the same database throughout the system, the system had to restrict users accessing unauthorized information.

Performance

Since the system deals with all kinds of functionalities related to students, staffs, timetables etc. the system should have a good performance level.

Recoverability

If there is a necessity the system should be able to recover relevant deleted data at any required time.

Reliability

The system is supposed to satisfactorily perform the task for which it was designed or intended, for a specified time in the client's business environment

User friendliness

The students, staff members, and admins can easily search view any details.

Efficiency

Institute will be able to provide a fast and efficient service.

Accuracy

Reduce the data redundancy and can provides us the exact information.

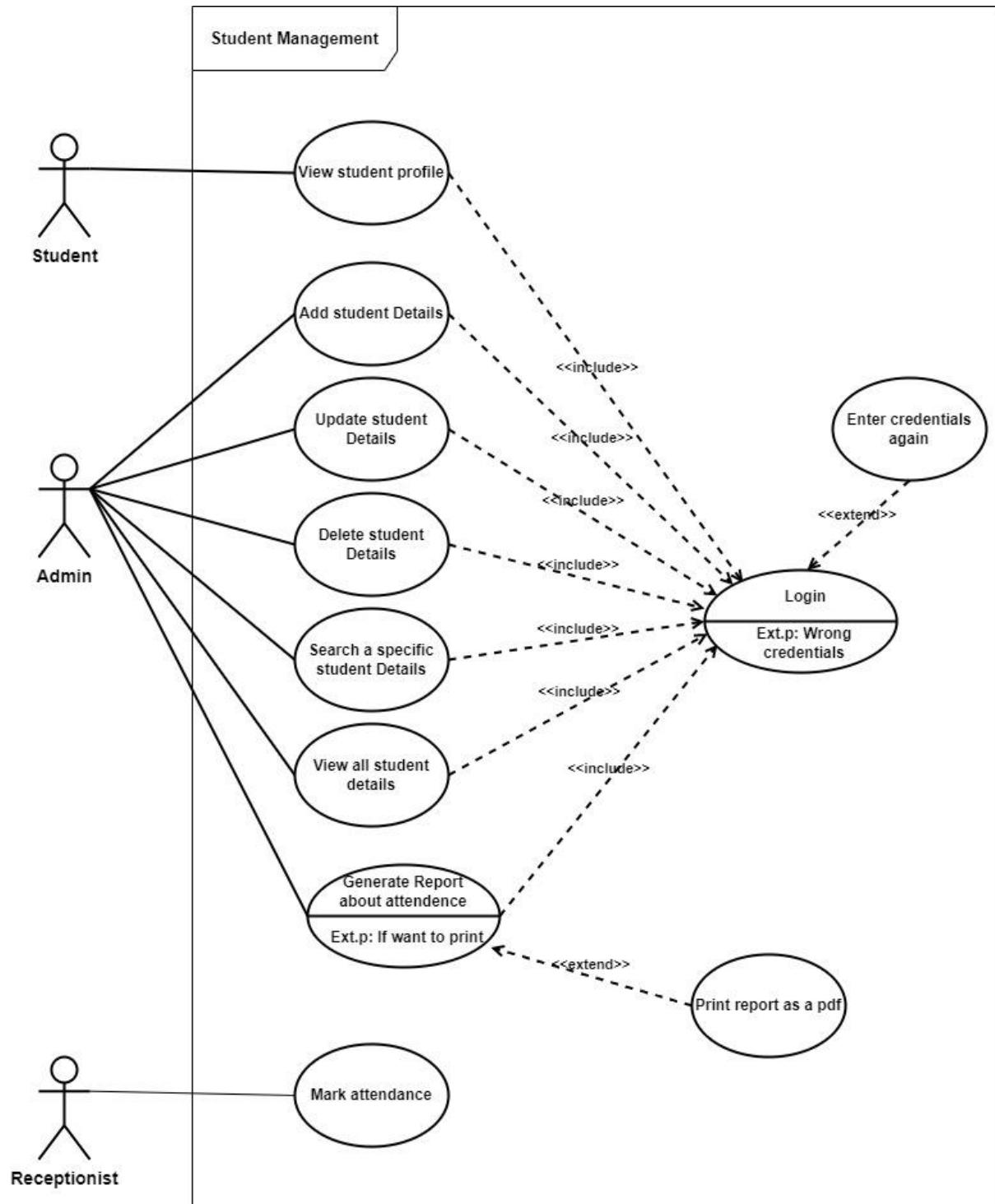
Flexibility

With an automated system, the tutorial class manages processes

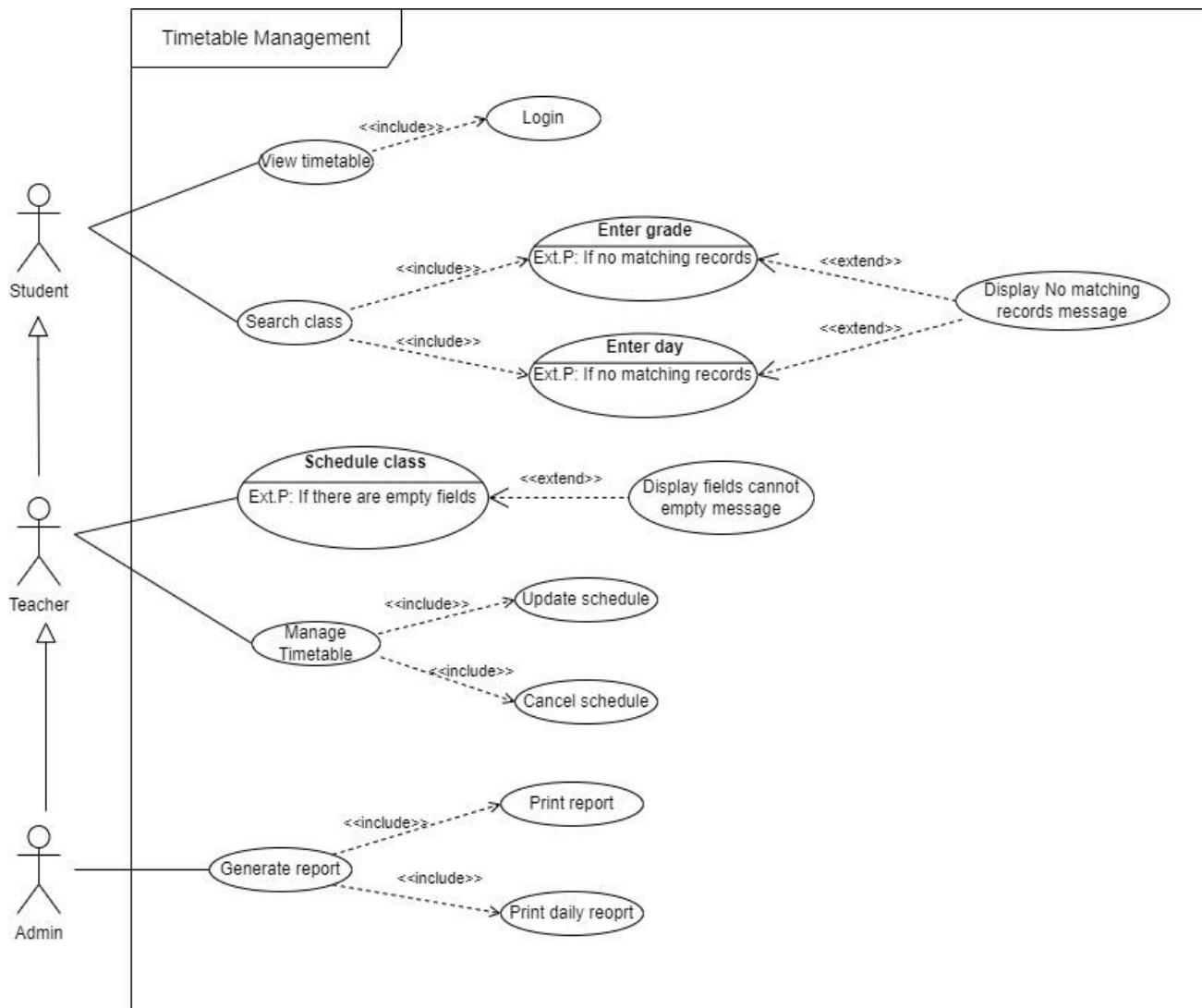
2.1 Design

Use Case Diagrams

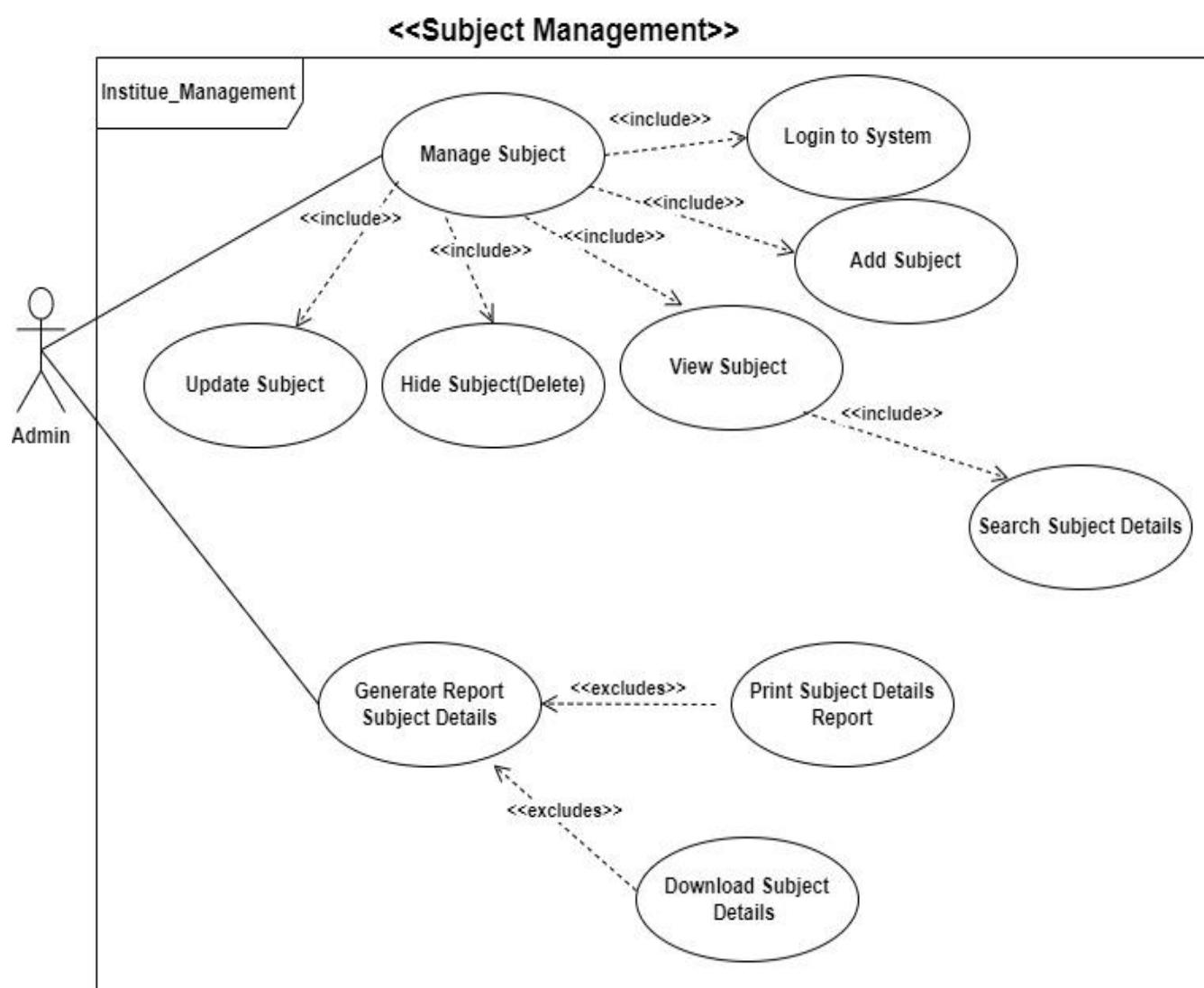
IT20636524-Student Management



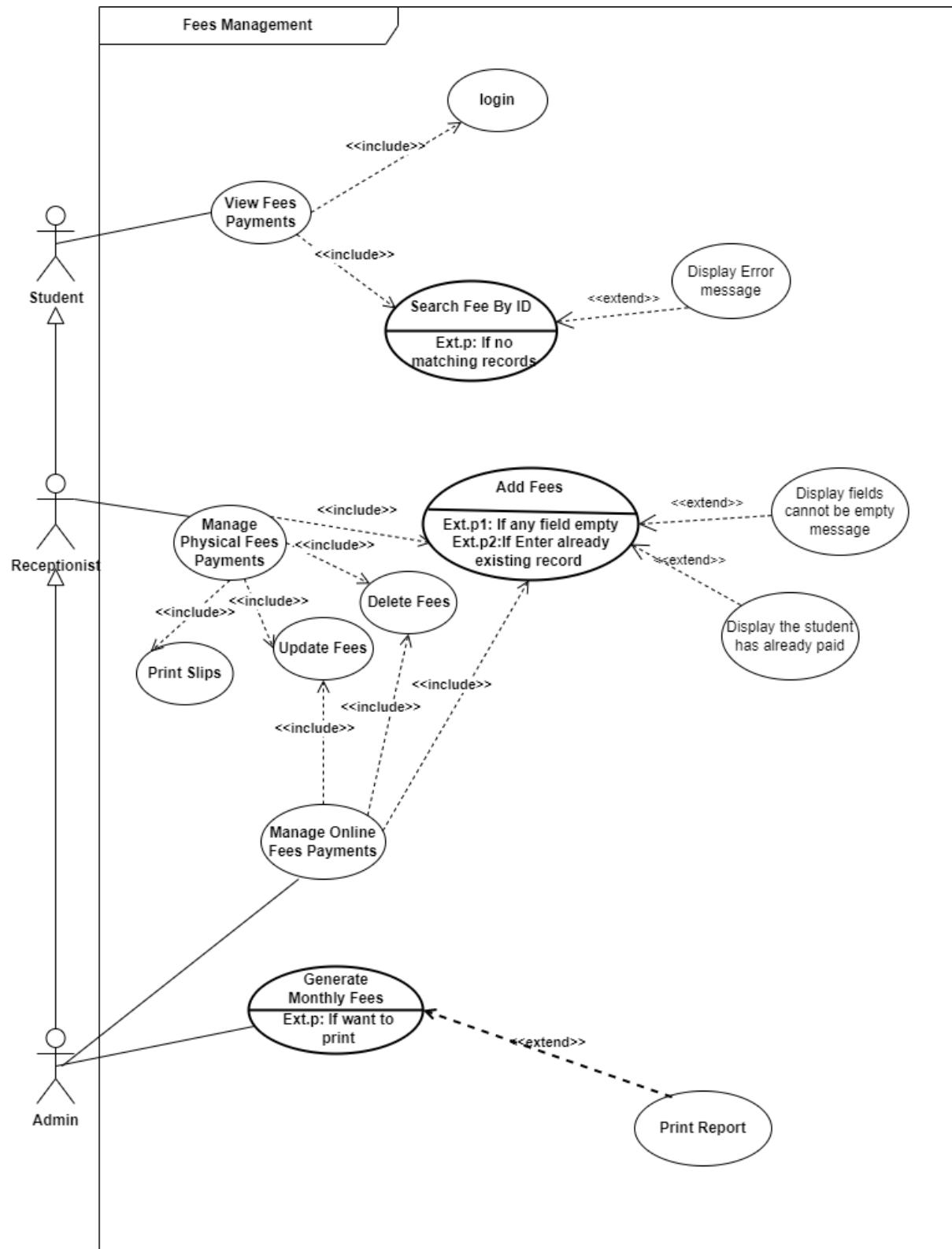
IT20653118-Timetable Management



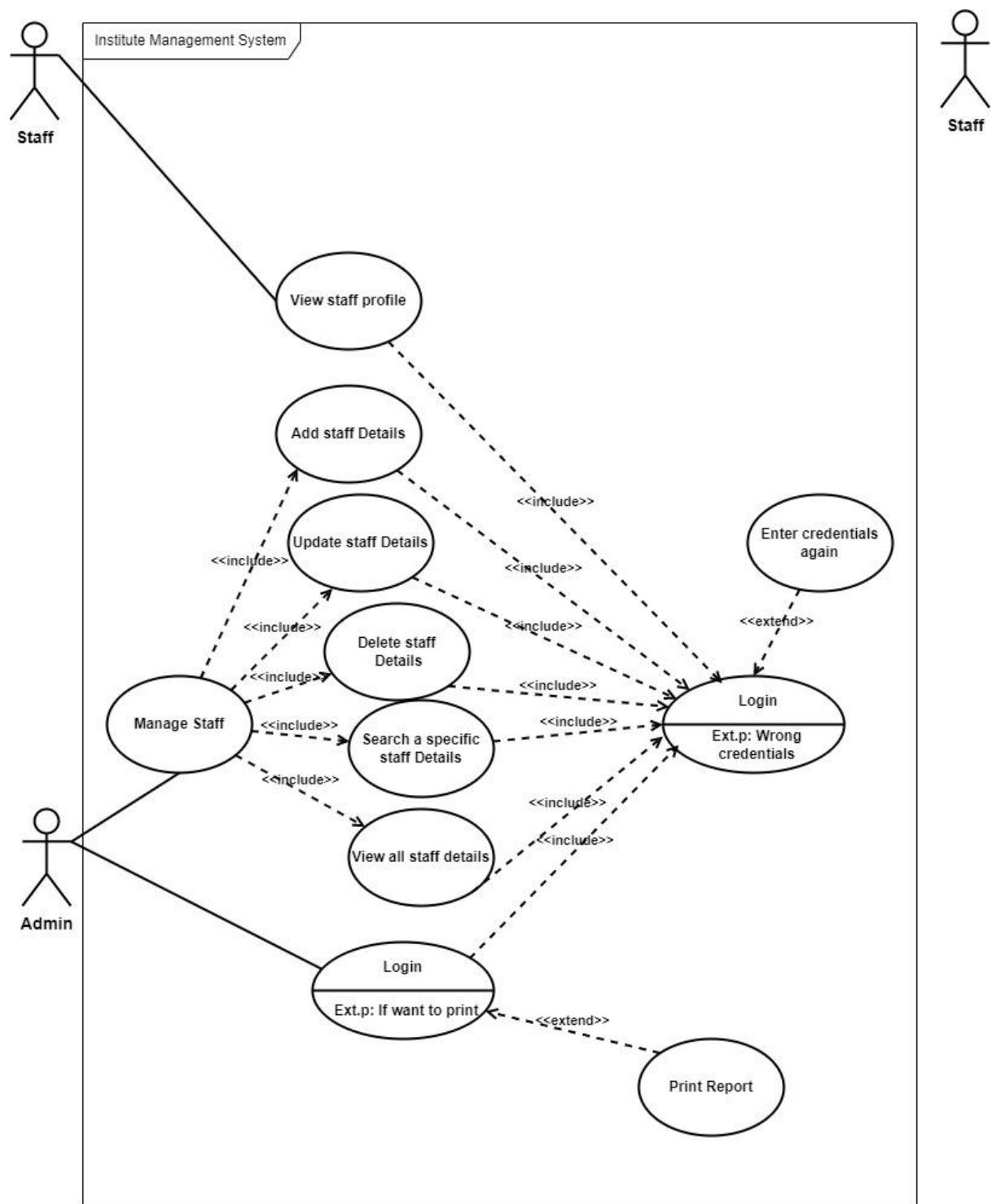
IT20658472-Subject Management



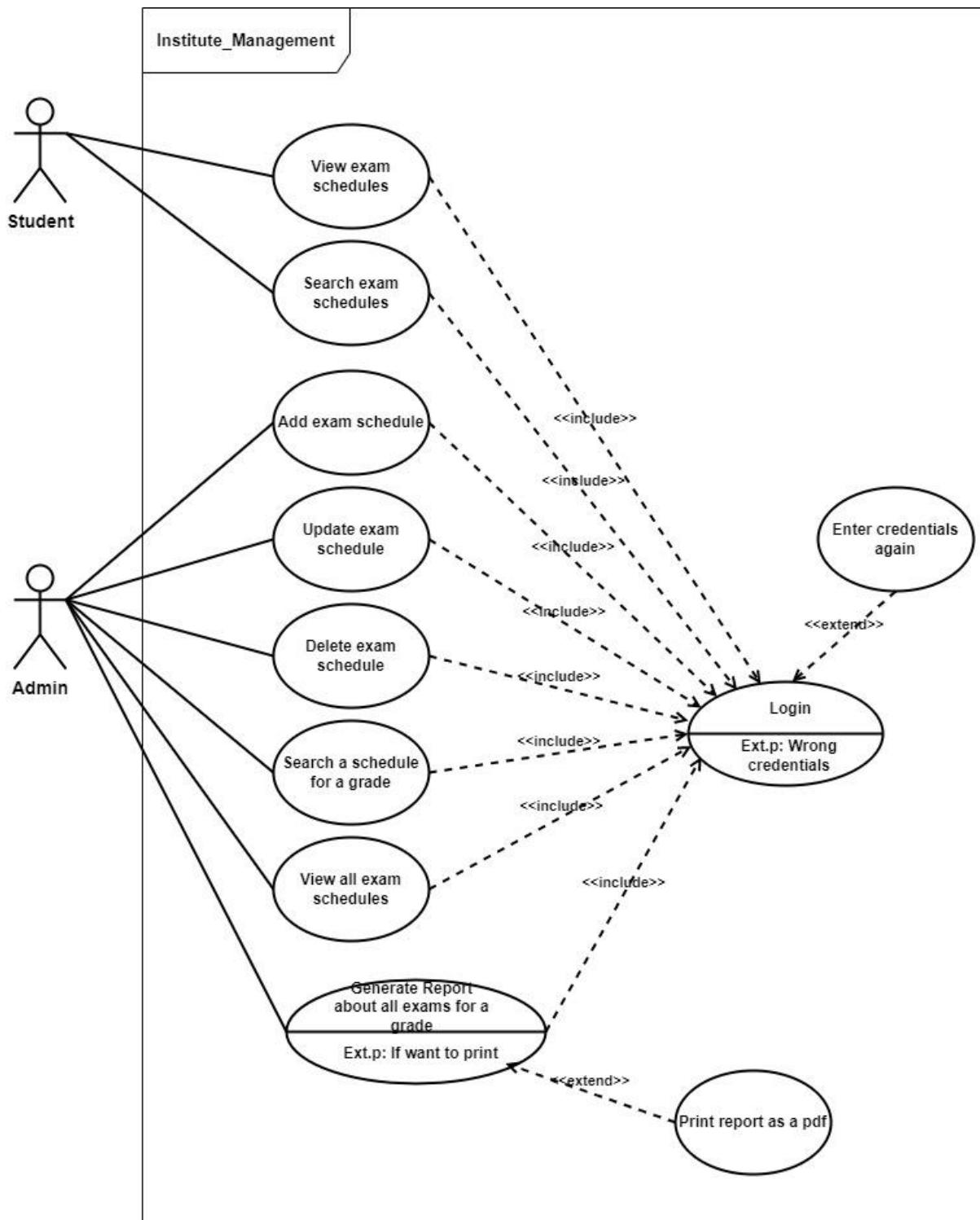
IT20643836-Fees Management



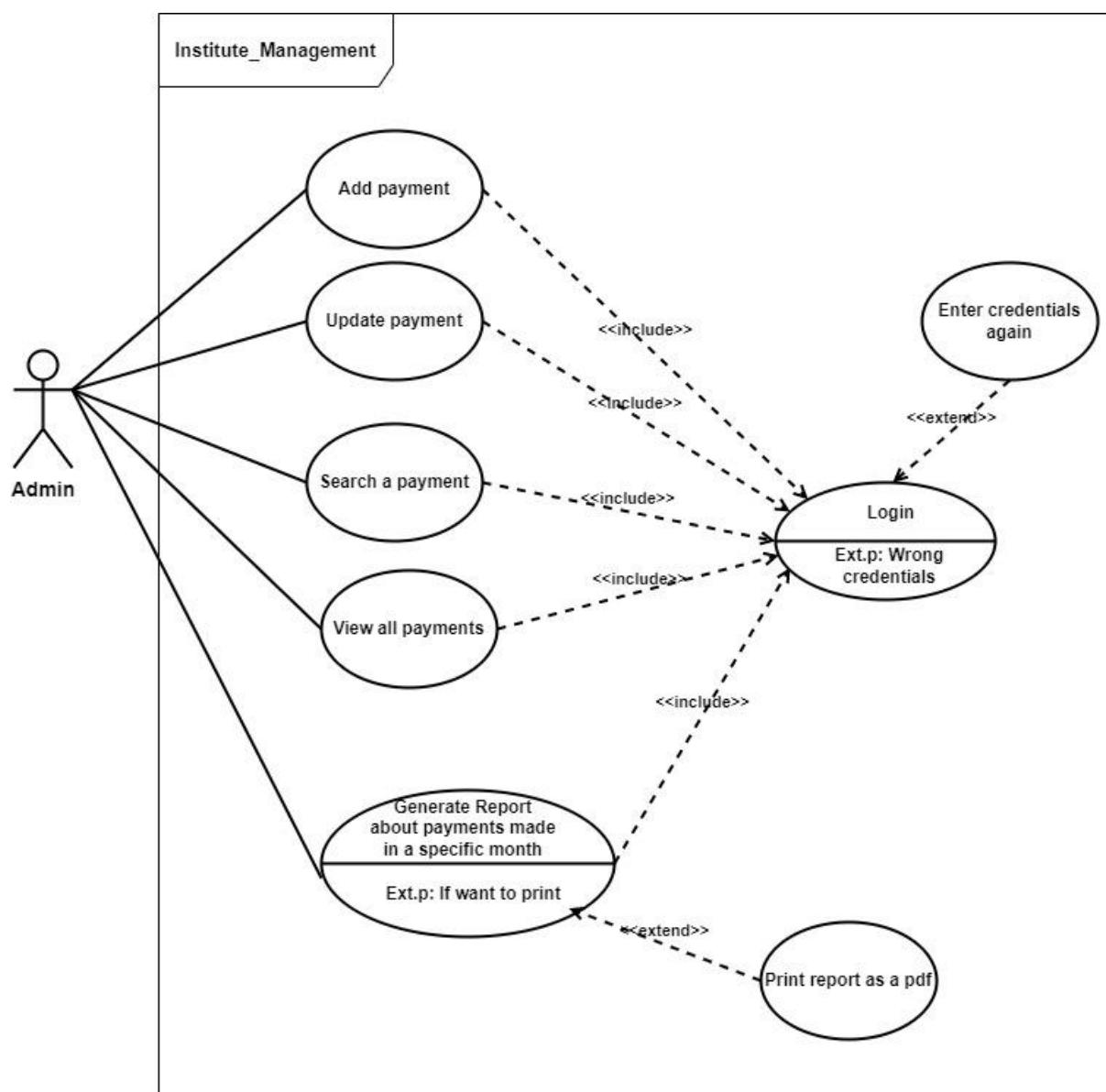
IT20636692-Staff Management



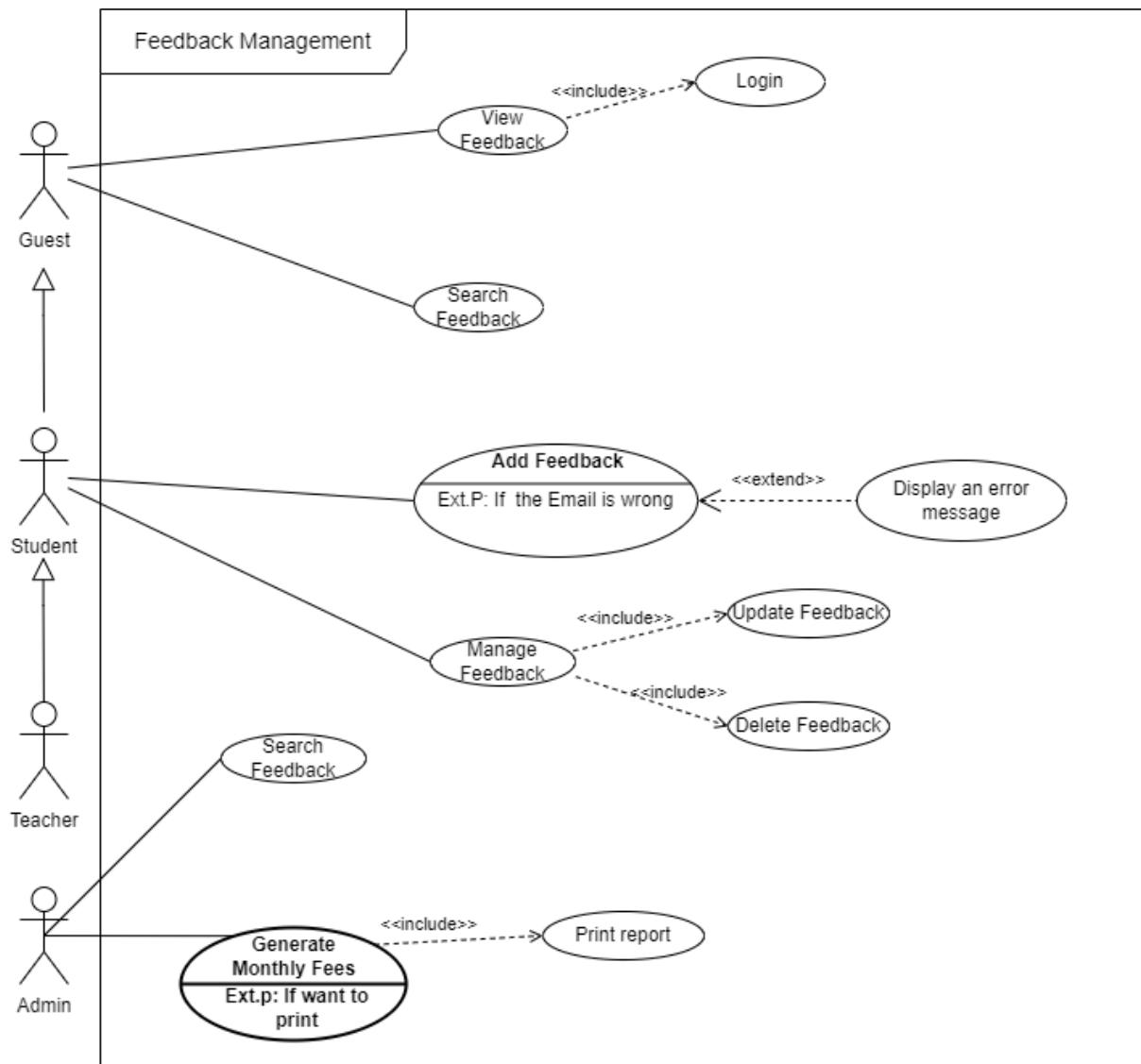
IT20648190-Exam Scheduling Management



IT20644680-Payment Management

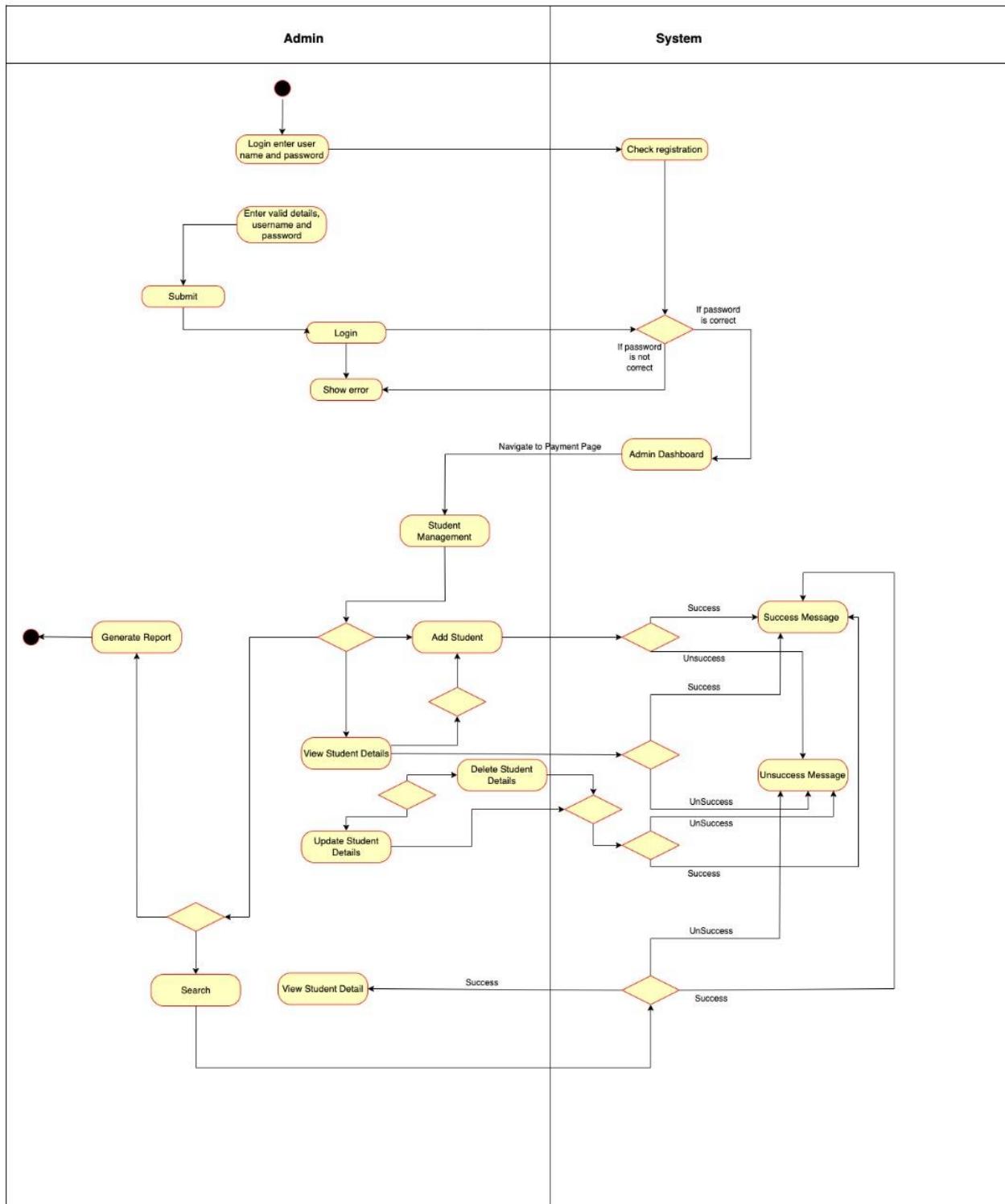


IT20654030-Feedback Management

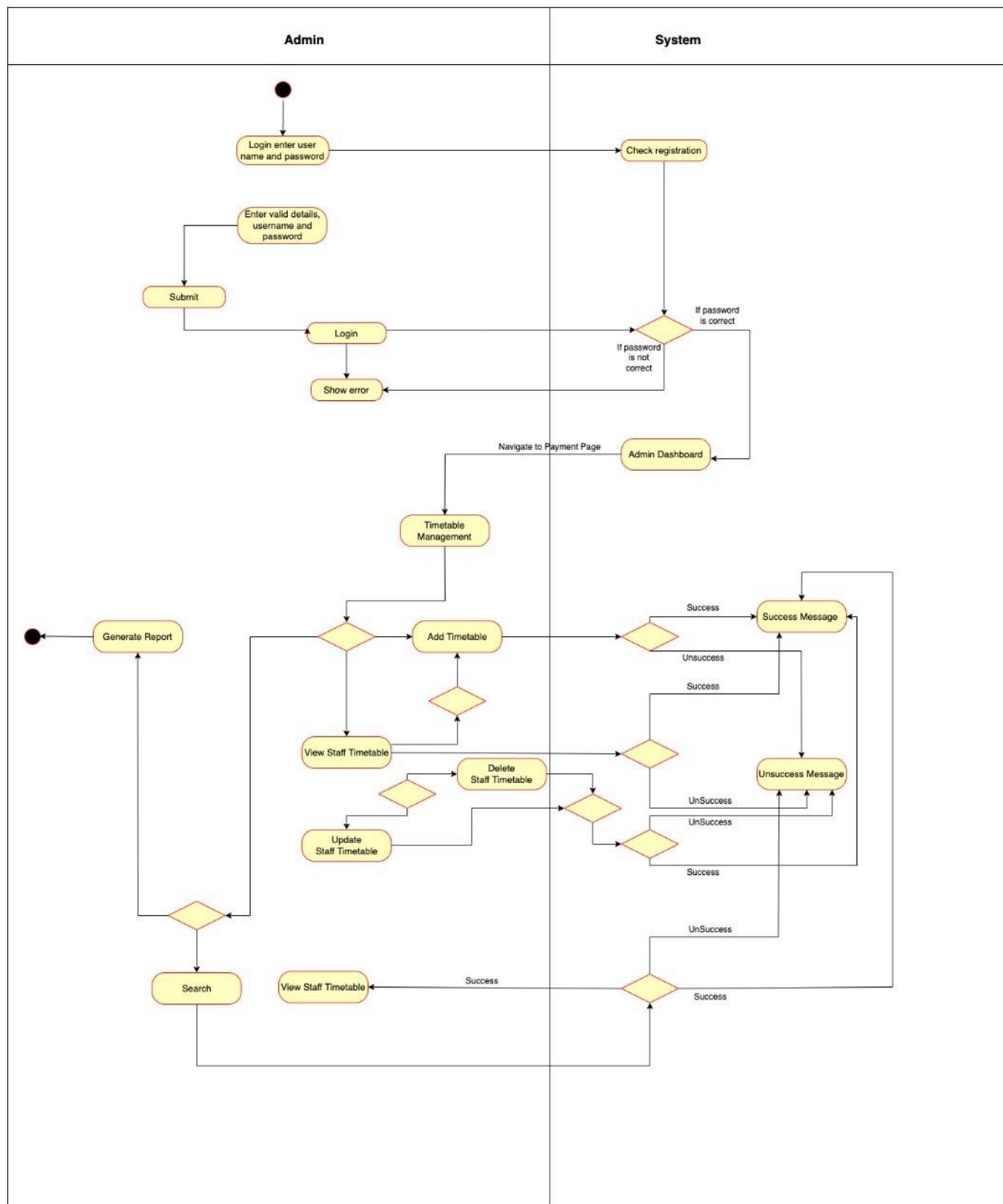


Activity Diagrams

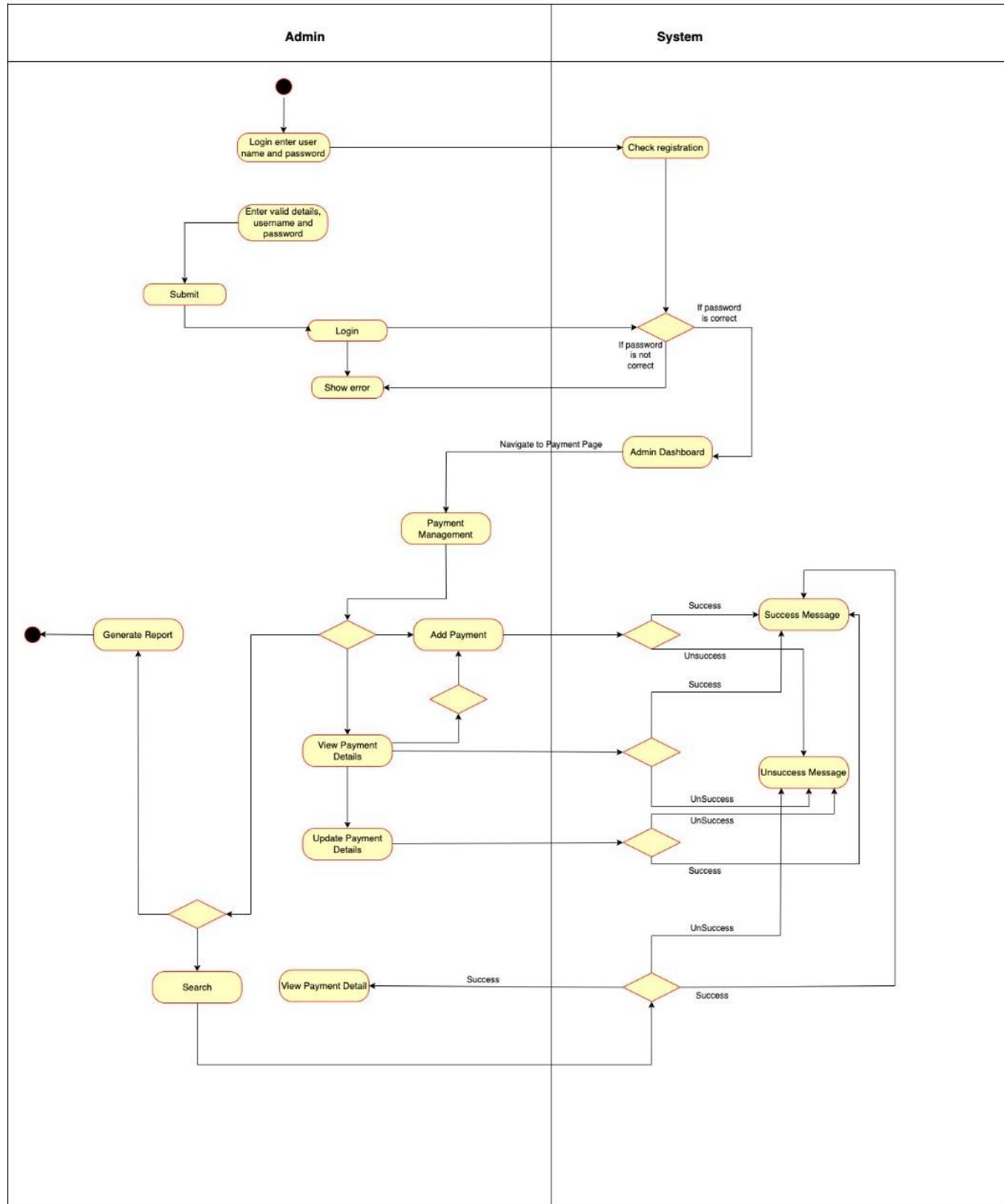
IT20636524 – Student Management



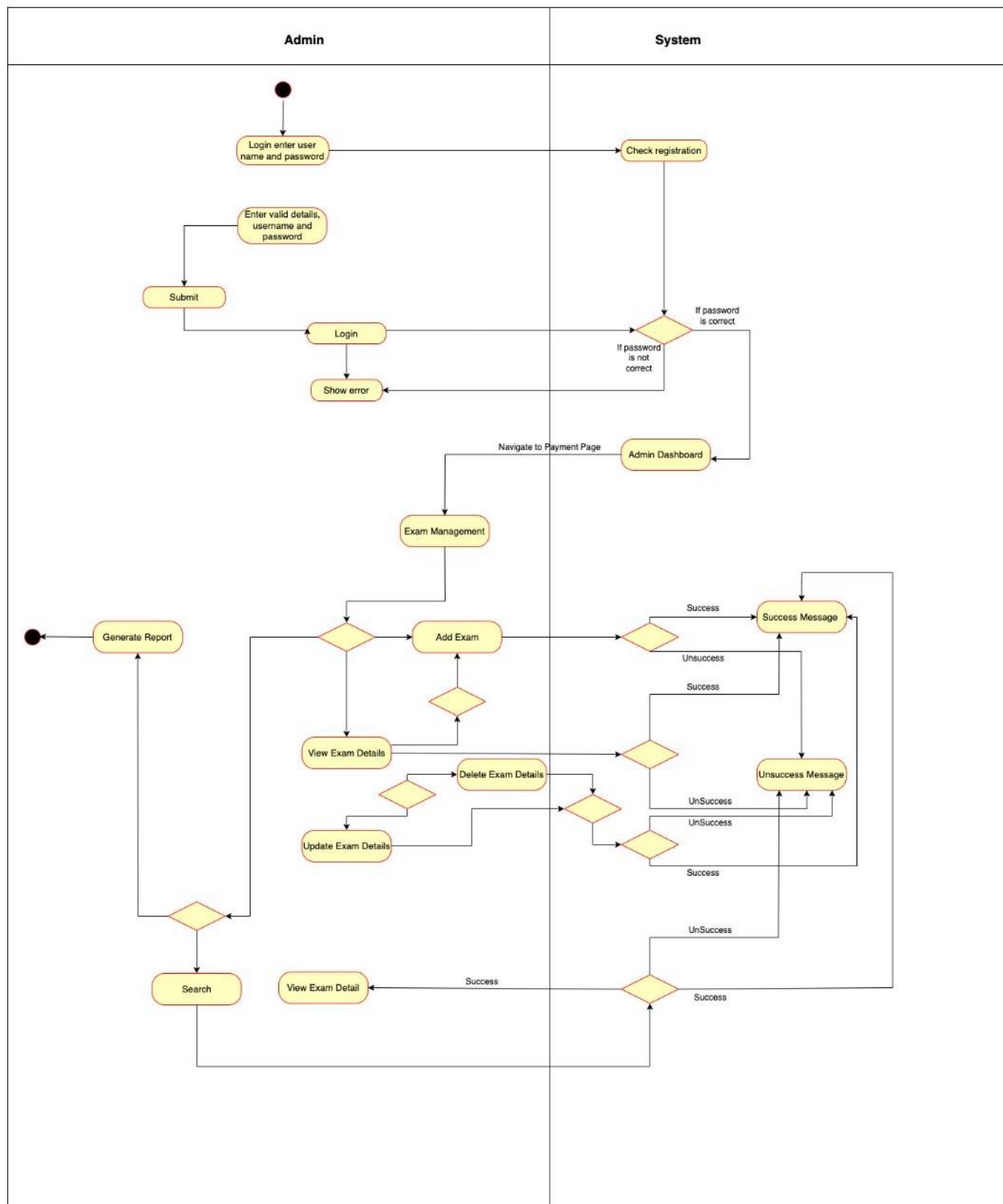
IT20653118 – Timetable Management



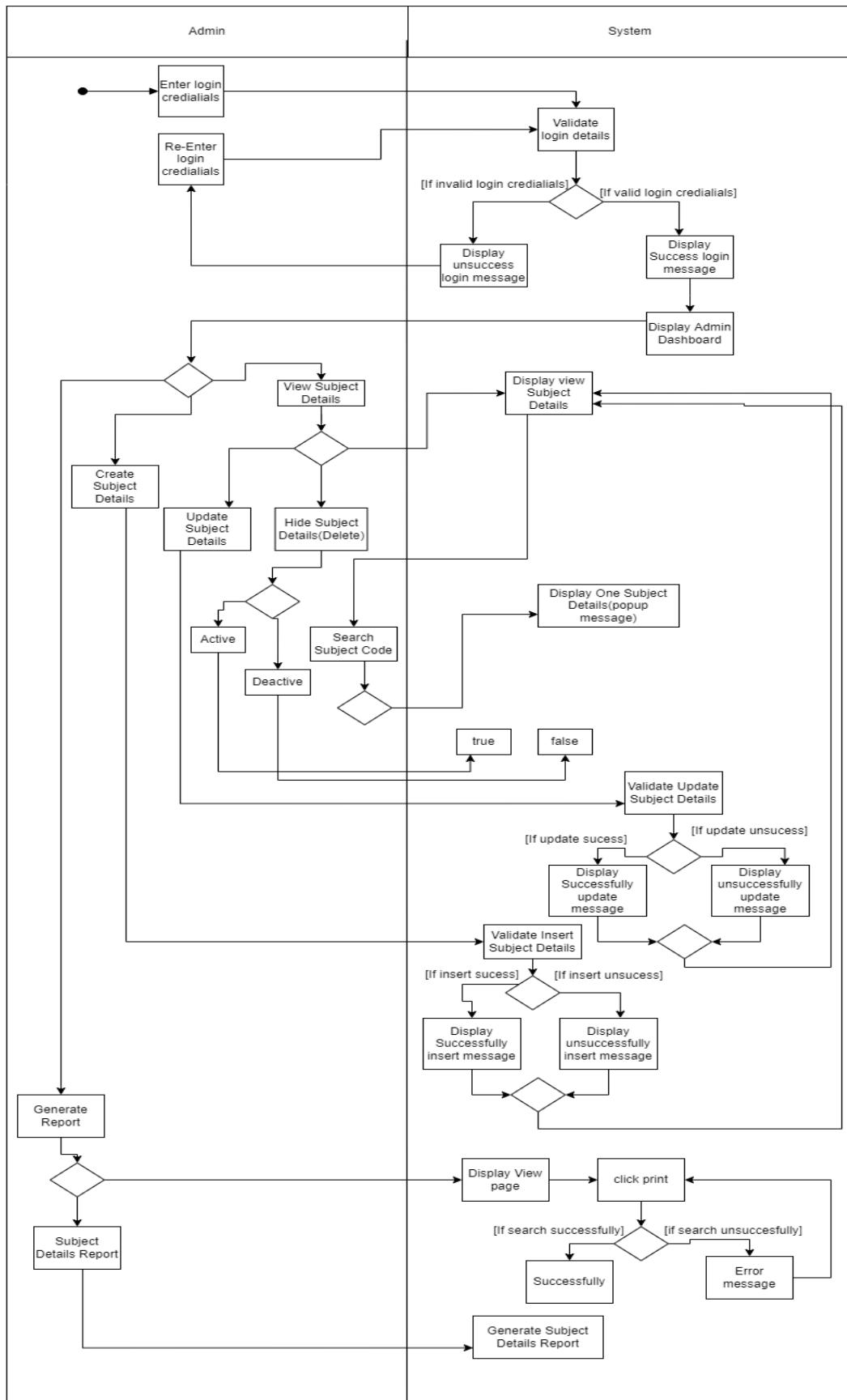
IT20644680 – Payment Management



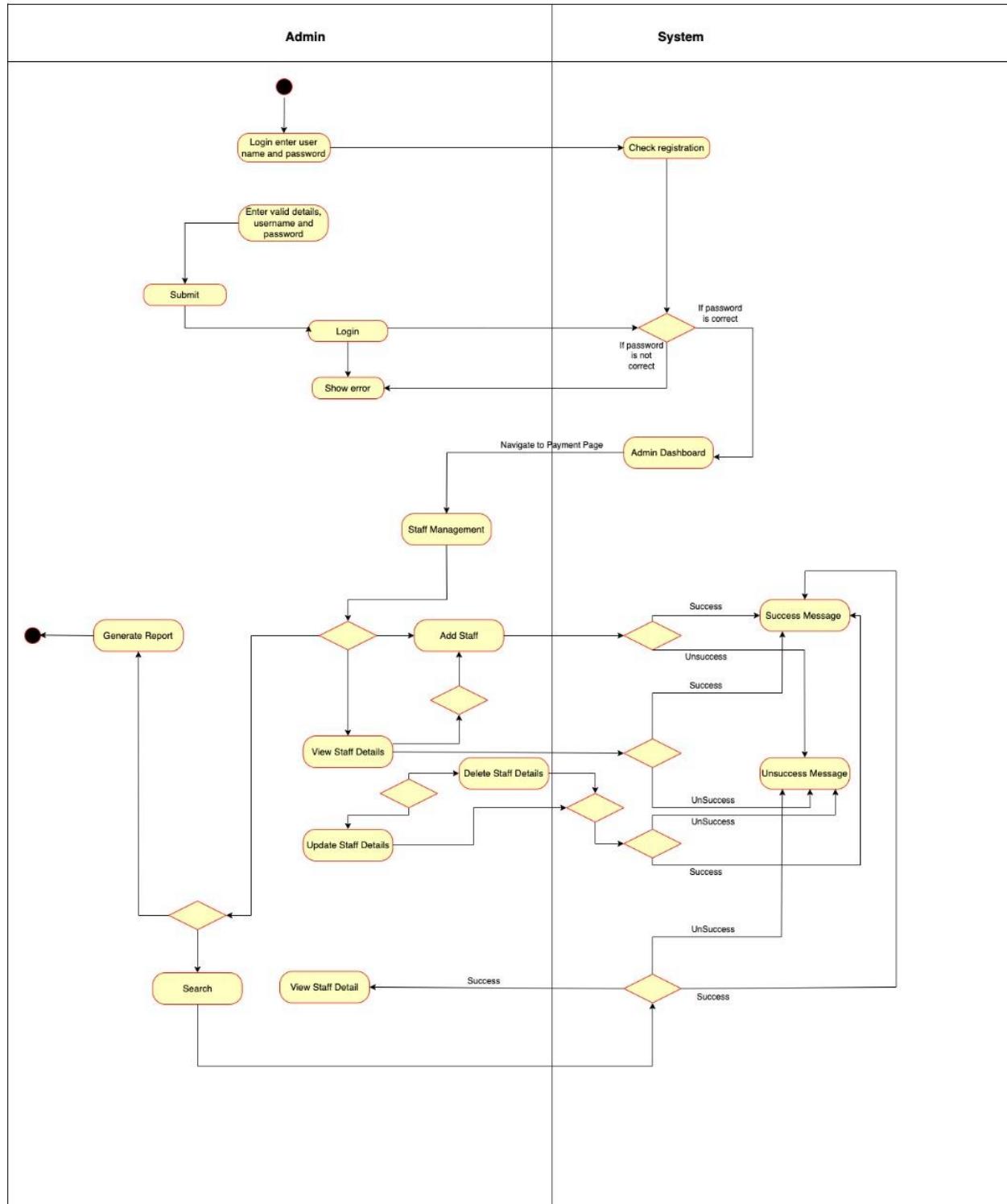
IT20648190 – Exam Management



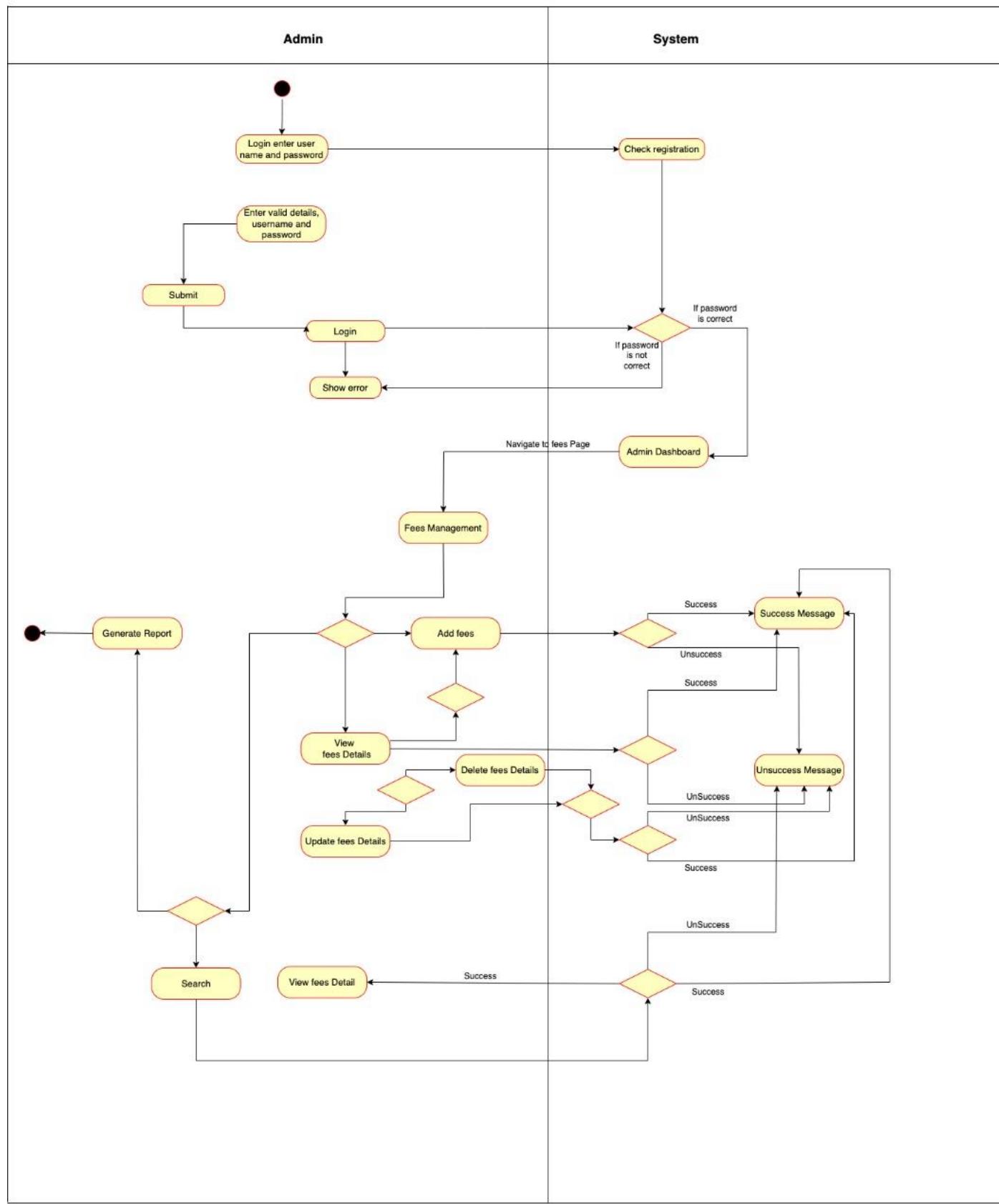
IT20658472 – Subject Management



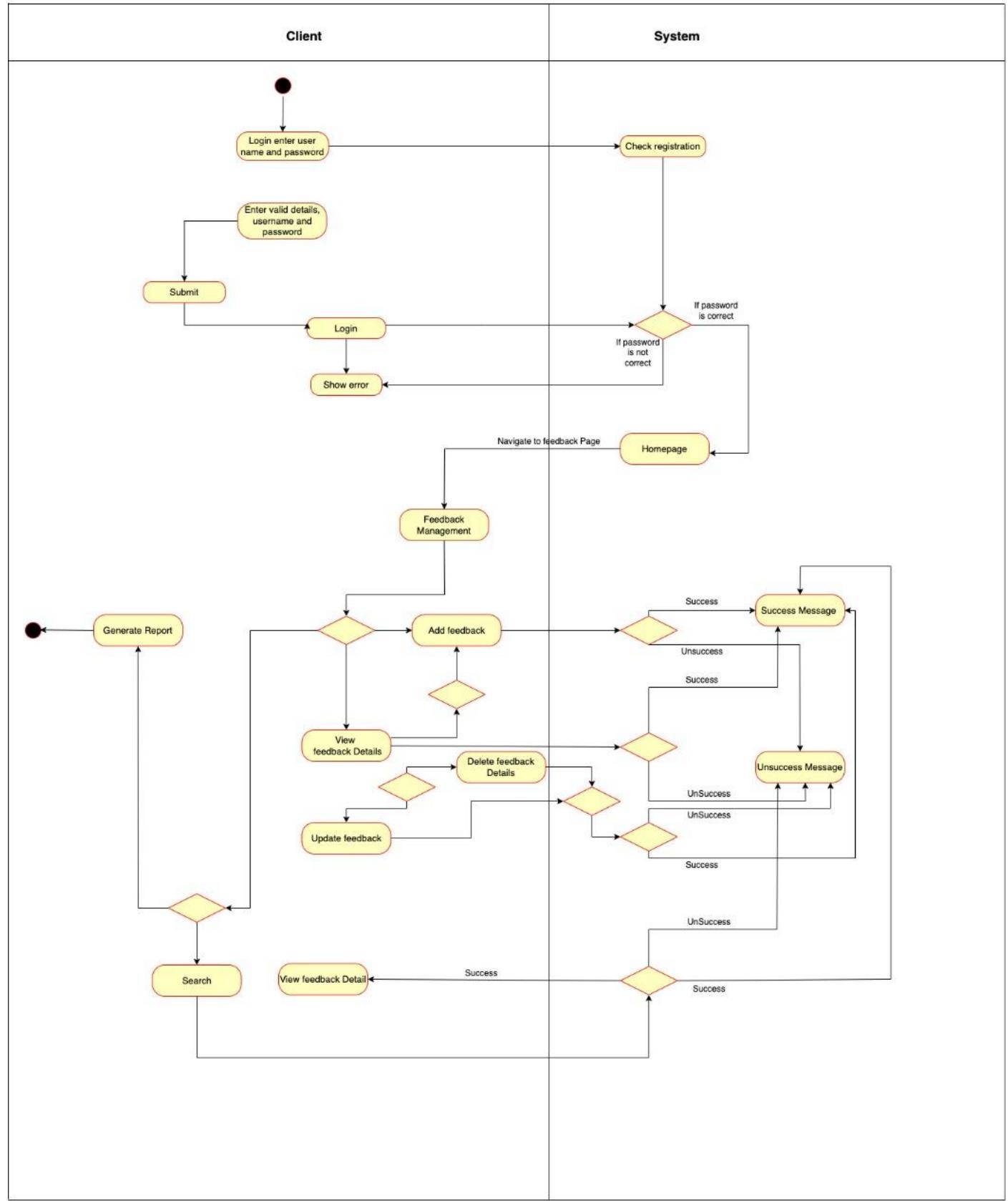
IT20636692 – Staff Management



IT20643836 - Fees Management



IT20654030 - *Kannan* Feedback Management

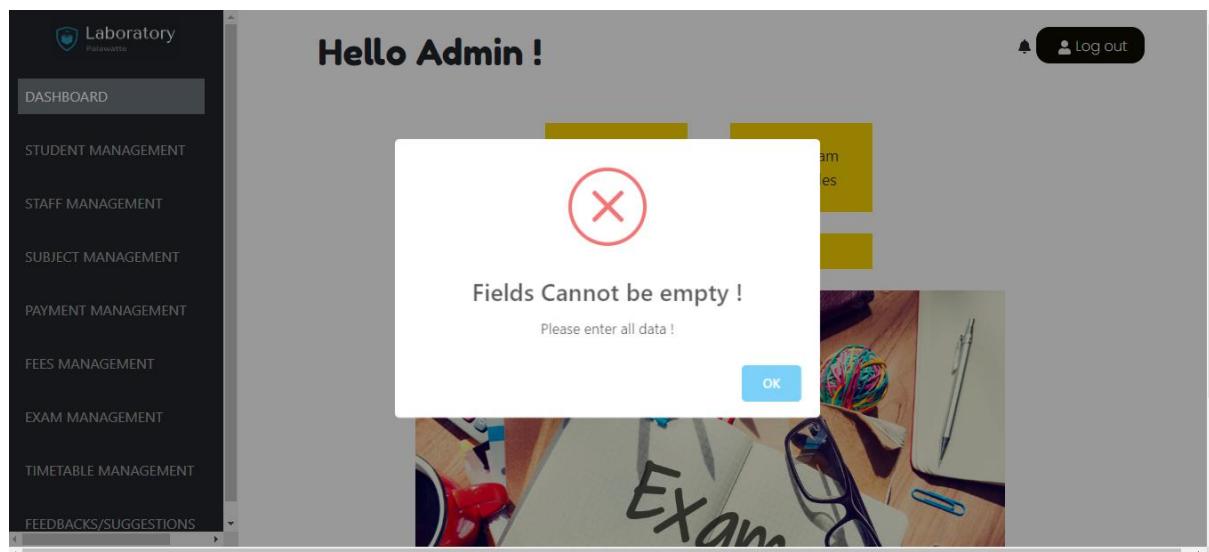
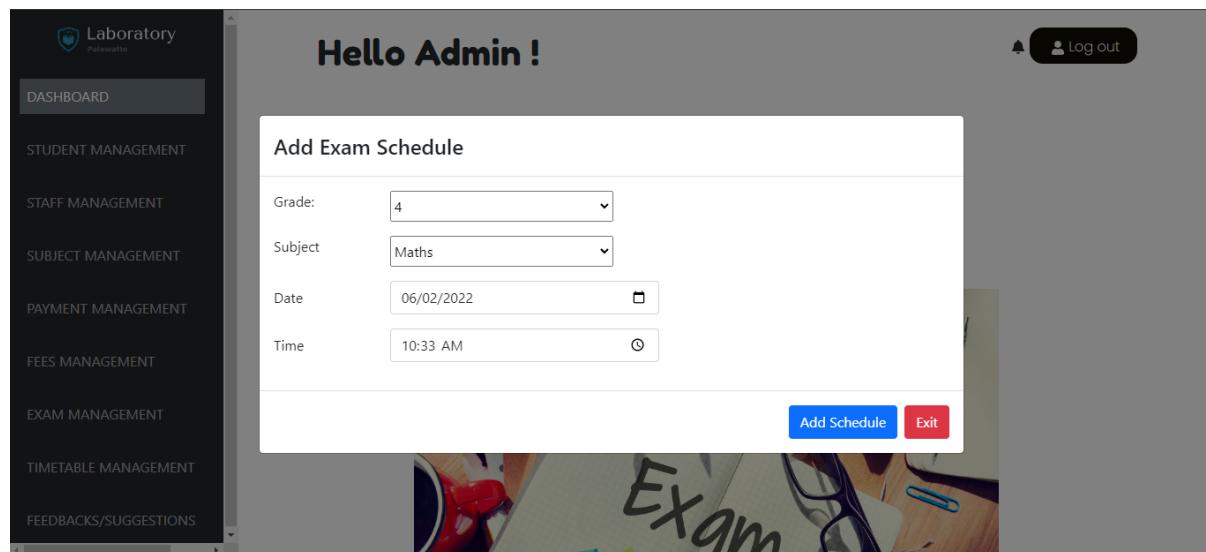


2.2 Implementation

1. Exam Management

a) Add exam schedule

The admin can add an exam schedule by filling these fields and clicking the Add Schedule button. If any of the fields are empty and error alert is popped



b) View Schedules

This page views all the added schedules. The admin updates the details by clicking the update button and deletes the schedule by clicking the delete button

The screenshot shows a web-based application titled "Hello Admin !". On the left, there is a vertical sidebar with a dark background containing navigation links: DASHBOARD, STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENT, FEES MANAGEMENT, EXAM MANAGEMENT, TIMETABLE MANAGEMENT, and FEEDBACKS/SUGGESTIONS. The main content area has a light gray background. At the top right, there is a "Log out" button. Below it, the title "Hello Admin !" is displayed. A table lists seven exam schedules. The columns are Grade, Subject, Date, Time, and Action. Each row contains a green "Edit" button and a red "Cancel" button. The data in the table is as follows:

Grade	Subject	Date	Time	Action
6	Maths	2022-05-28	22:42	Edit Cancel
6	Science	2022-06-03	11:43	Edit Cancel
9	ICT	2022-06-04	10:43	Edit Cancel
5	Science	2022-07-01	13:46	Edit Cancel
7	English	2022-06-10	02:15	Edit Cancel
5	Maths	2022-06-10	03:00	Edit Cancel
4	Maths	2022-06-02	10:33	Edit Cancel

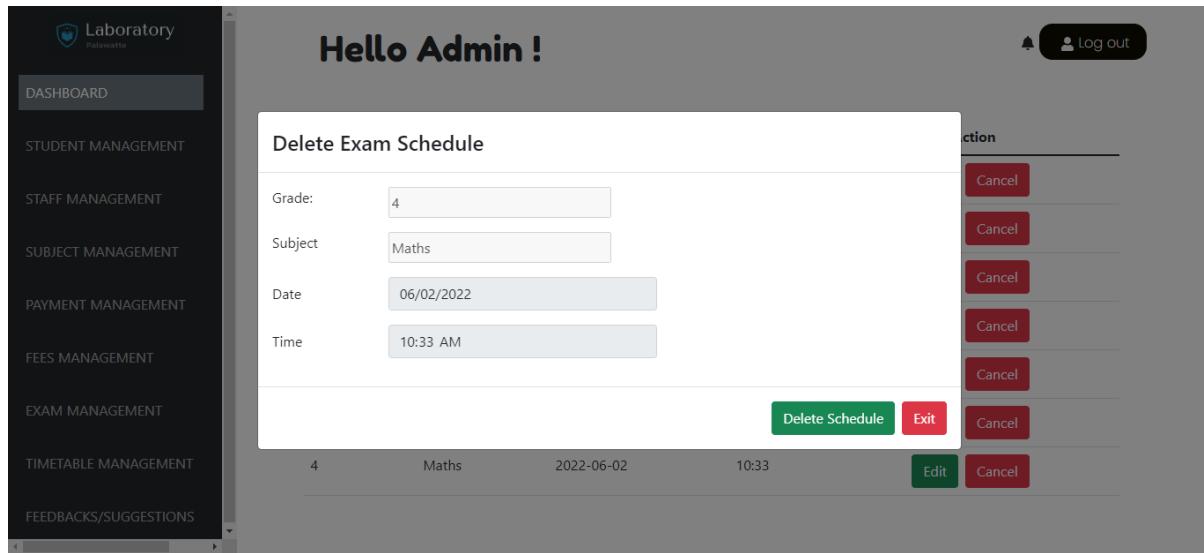
c) Update schedule

Once the Update is clicked in the view all page, the admin can change the fetched details in the fields and click Update Schedule to update the details

The screenshot shows the same application interface as the previous one. In the center, a modal window titled "Update Exam Schedule" is open. It contains four input fields: "Grade" (set to 4), "Subject" (set to Maths), "Date" (set to 06/02/2022), and "Time" (set to 10:33 AM). At the bottom of the modal are two buttons: "Update Schedule" (green) and "Exit" (red). Behind the modal, the main table from the previous screenshot is visible, showing the same seven exam schedules. The row for grade 4 Maths on June 2nd has a green "Edit" button and a red "Cancel" button next to it.

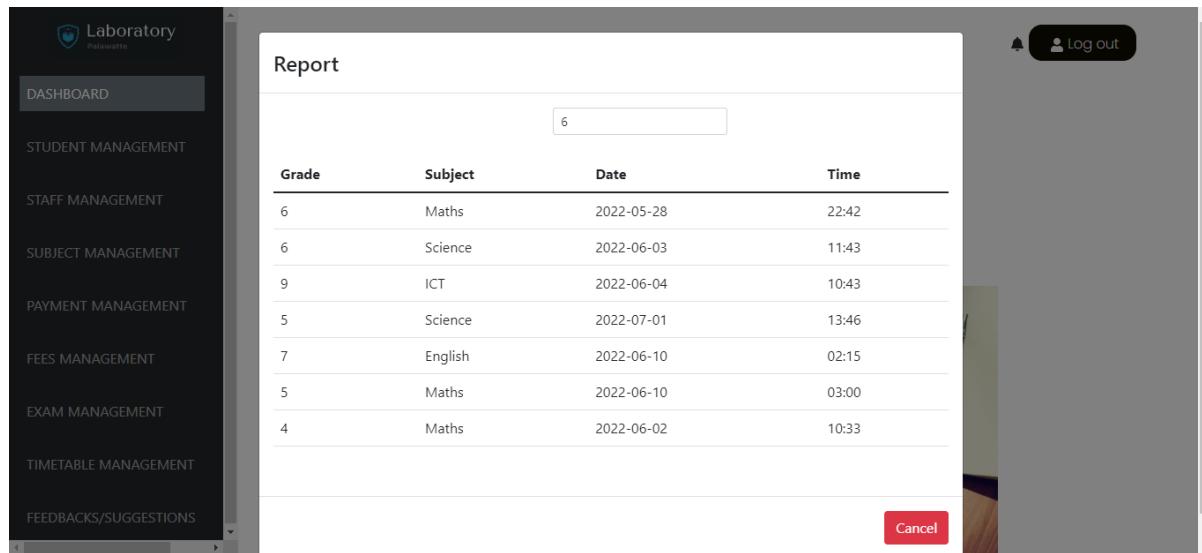
d) Delete schedule

When the admin clicks the delete button in the view all page, the box pops with the fetch details. Once the Delete Schedule button is clicked the details will be deleted from the database.



e) Schedule Report

When the Generate Report in the Exam admin panel a popup is popped with the details form the database



Once the grade is typed in the above search bar the details relative to the grade is displayed with a Print Report button.

Laboratory
Palawatta

DASHBOARD

STUDENT MANAGEMENT

STAFF MANAGEMENT

SUBJECT MANAGEMENT

PAYMENT MANAGEMENT

FEES MANAGEMENT

EXAM MANAGEMENT

TIMETABLE MANAGEMENT

FEEDBACKS/SUGGESTIONS

Report

Search Exam Schedule

All exams held in a grade

Grade	Subject	Date	Time
6	Maths	2022-05-28	22:42
6	Science	2022-06-03	11:43

Print Report

Log out

Exit

Cancel

When the Print Report button is clicked a pdf is generated with all the exams held for the above grade.

All exams held in a grade			
Grade	Subject	Date	Time
6	Maths	2022-05-28	22:42
6	Science	2022-06-03	11:43

f) Search Schedule

The Students can access the above page with all the schedules. The student can search the required grade in the above search bar

A screenshot of a website for 'Laboratory Palawatte'. The top navigation bar includes links for HOME, SUPPORT SERVICES, RESOURCES, CONTACT US, and a LOGIN button. Below the navigation, there is a search bar containing the number '6'. A table displays exam schedules for grade 6:

Grade	Subject	Date	Time
6	Maths	2022-05-28	22:42
6	Science	2022-06-03	11:43
9	ICT	2022-06-04	10:43
5	Science	2022-07-01	13:46
7	English	2022-06-10	02:15
5	Maths	2022-06-10	03:00
4	Maths	2022-06-02	10:33

At the bottom of the page, a dark banner contains the text 'Opportunity | Innovation | Success'.

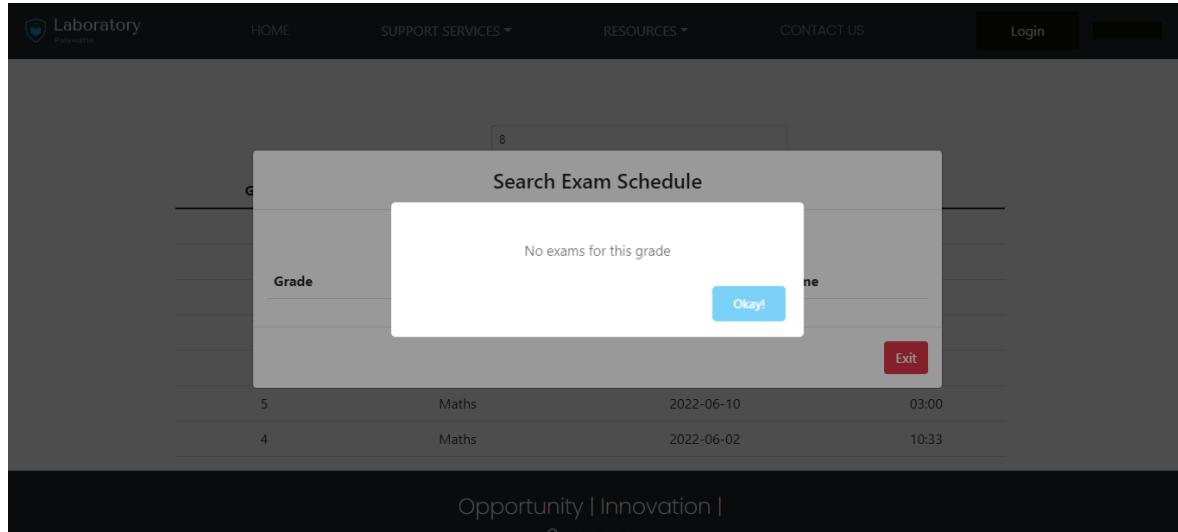
The exam schedules for the typed grade is displayed in the above popped up modal

A screenshot of a modal window titled 'Search Exam Schedule'. The modal has a header 'Search Details' and displays a table of exam schedules for grade 6:

Grade	Subject	Date	Time
6	Maths	2022-05-28	22:42
6	Science	2022-06-03	11:43

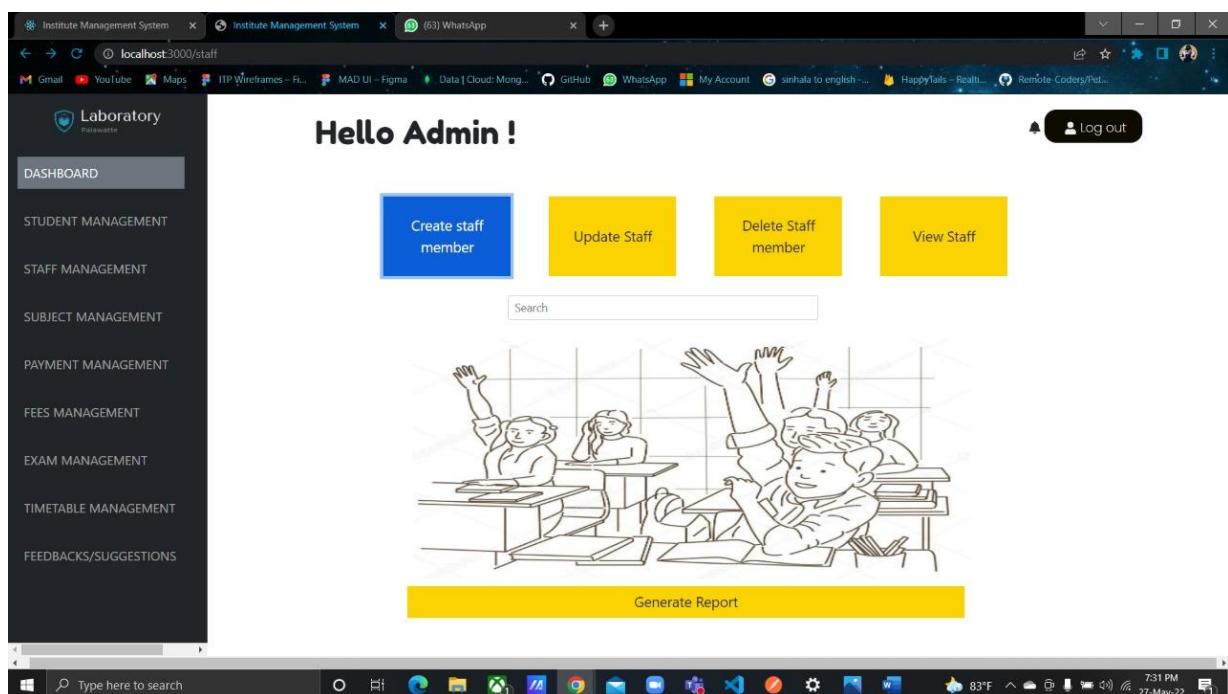
At the bottom right of the modal is a red 'Exit' button. The background of the main page shows a dark banner with the text 'Opportunity | Innovation | Success'.

If there is no exams scheduled for the searched grade and alert box is displayed like below



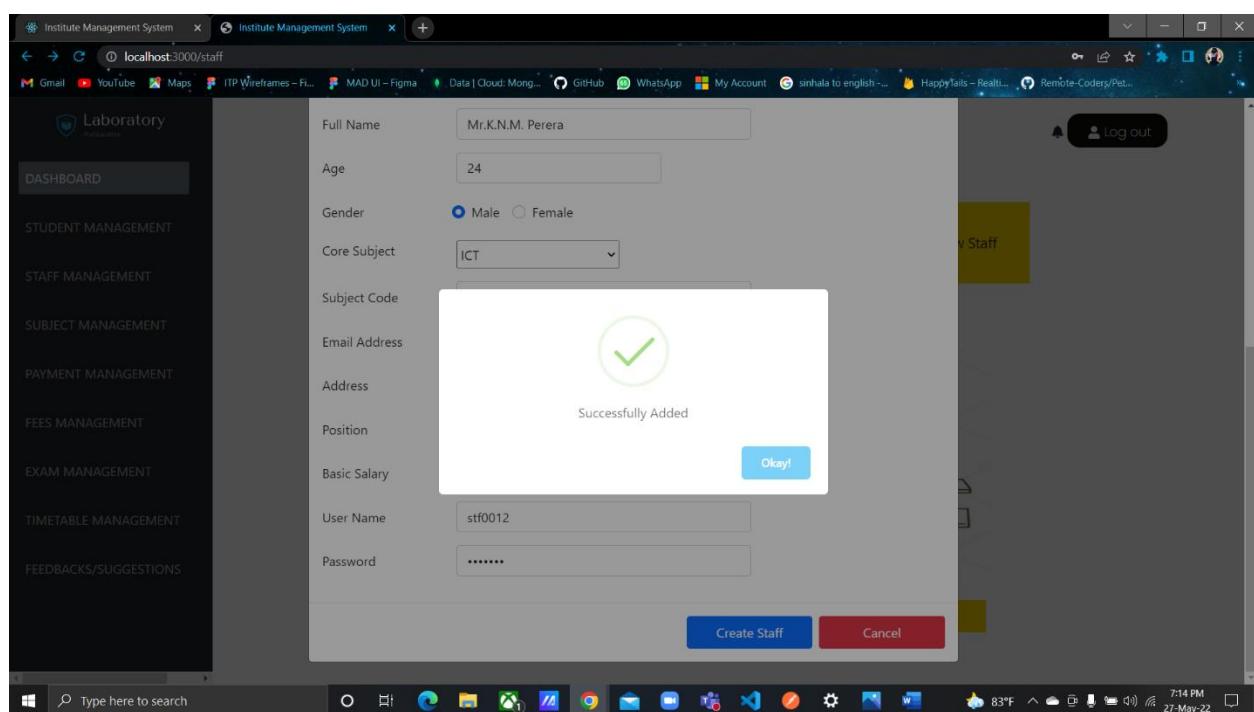
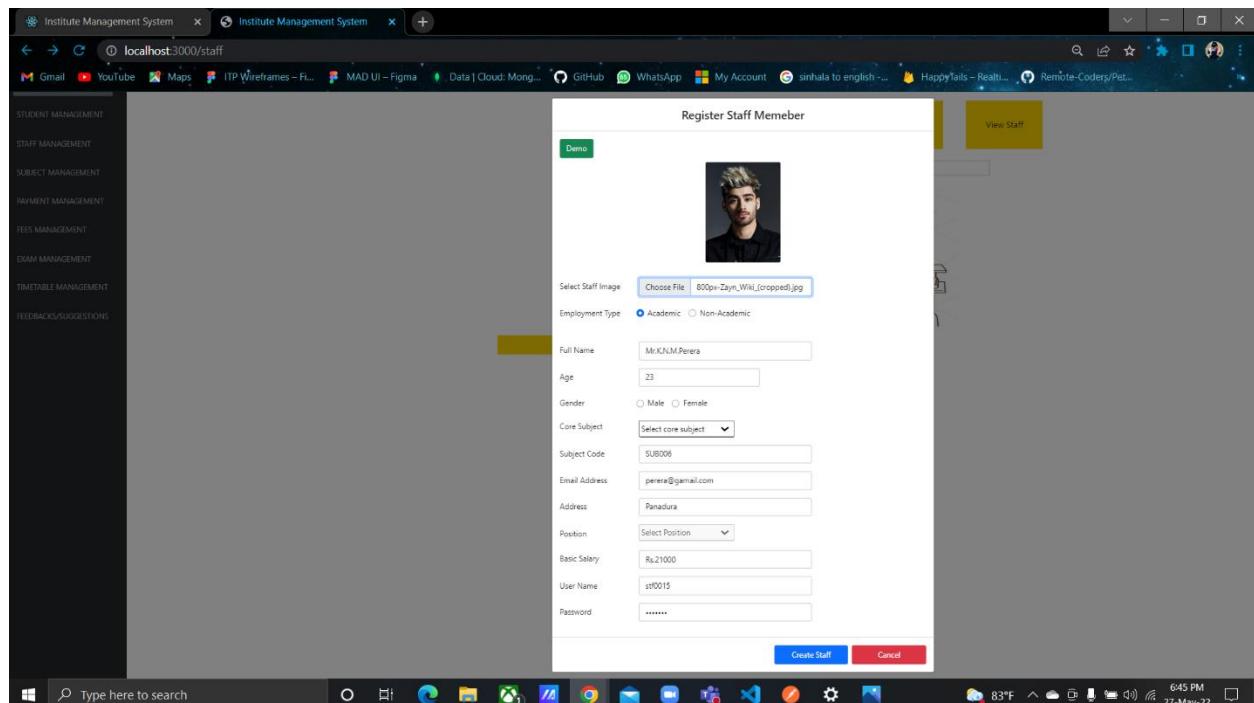
2. Staff Management

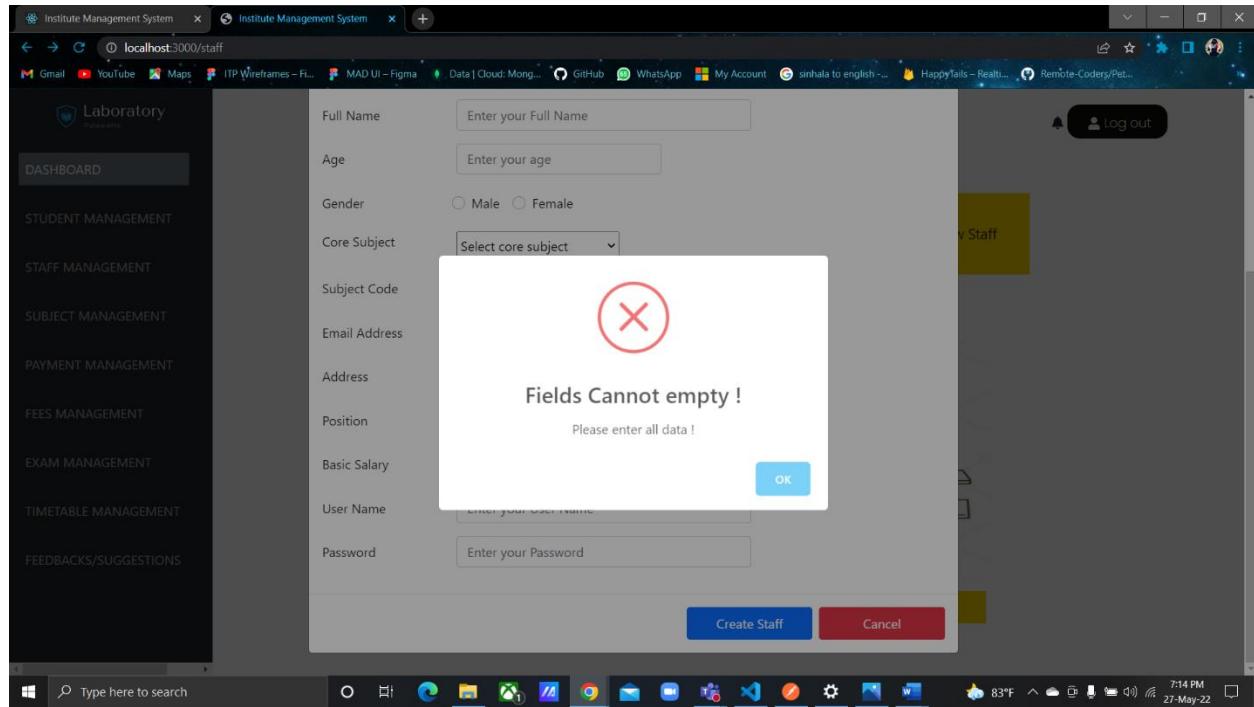
Once admin log in to the system, he redirects to the admin portal. And when he click the 'STAFF MANAGEMENT' from the side nav bar he can see the above page.



a) Add Staff

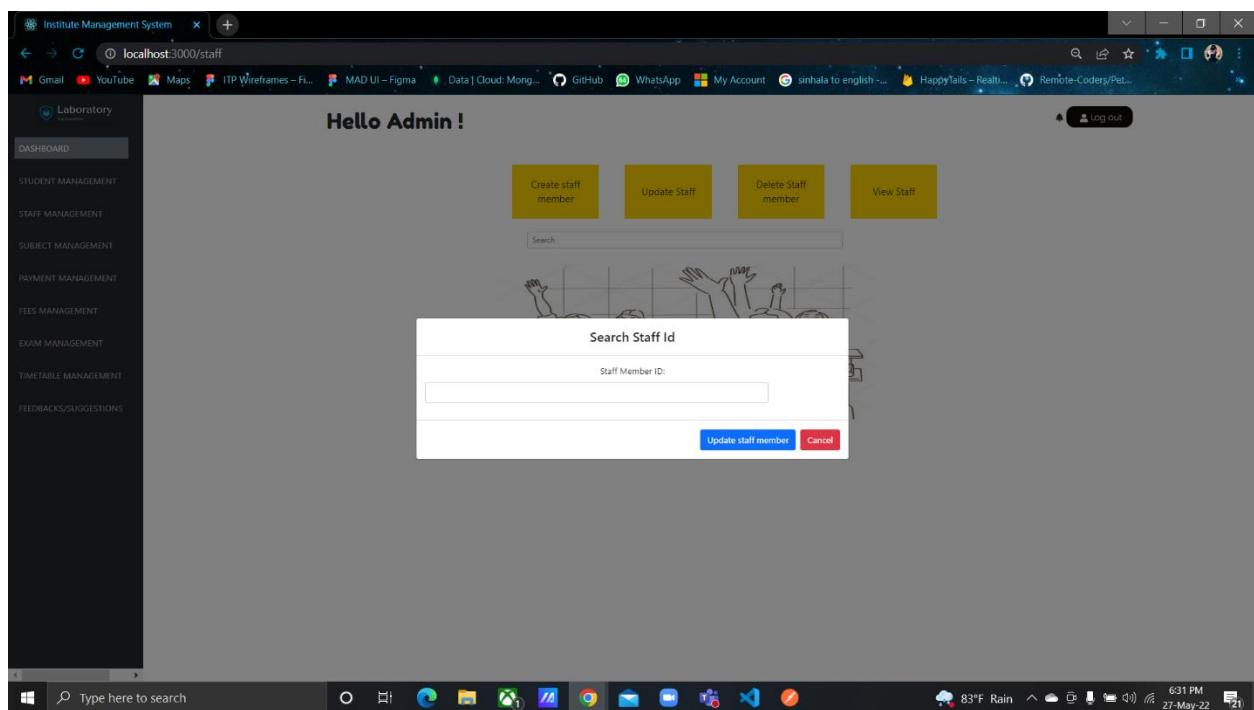
When admin click the ‘Create staff’ button he can see a modal box below. We can select the Employment type and it is Academic staff position check box disabled and we select Non-Academic Staff Core Subject and Subject Boxes are disabled. After we entering the data we can register a staff to the system. If any of the fields are empty it displays a warning message. And when successfully added it displays a success message.

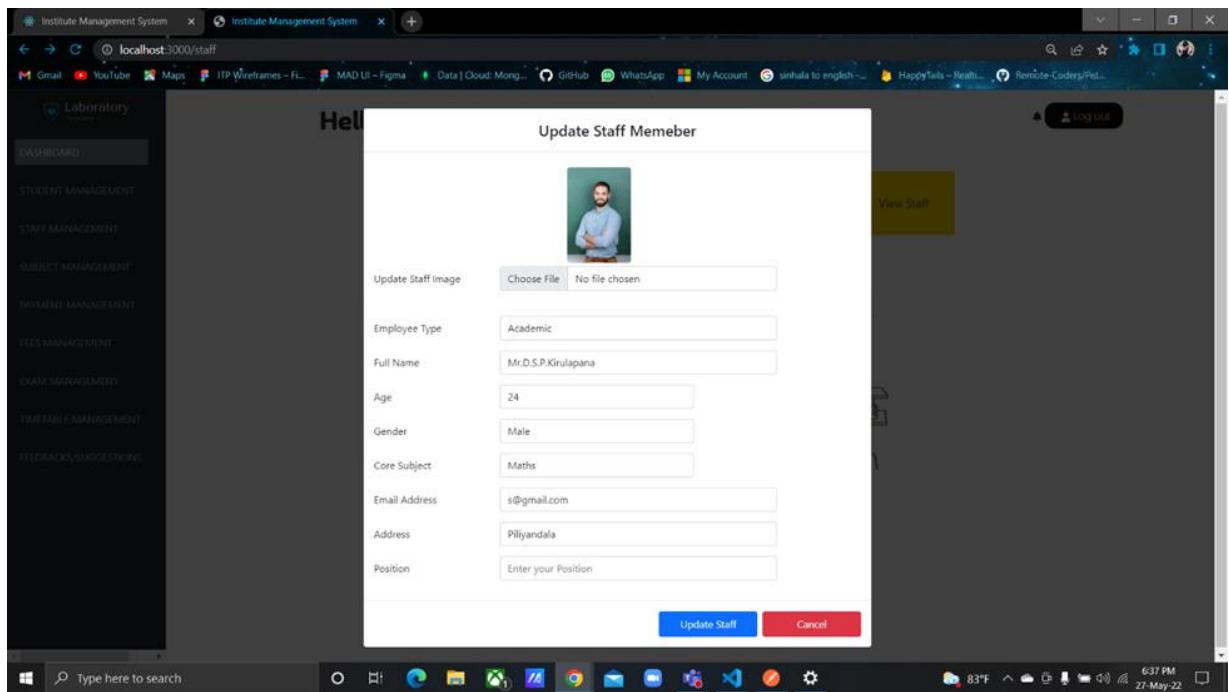




b) Update Staff

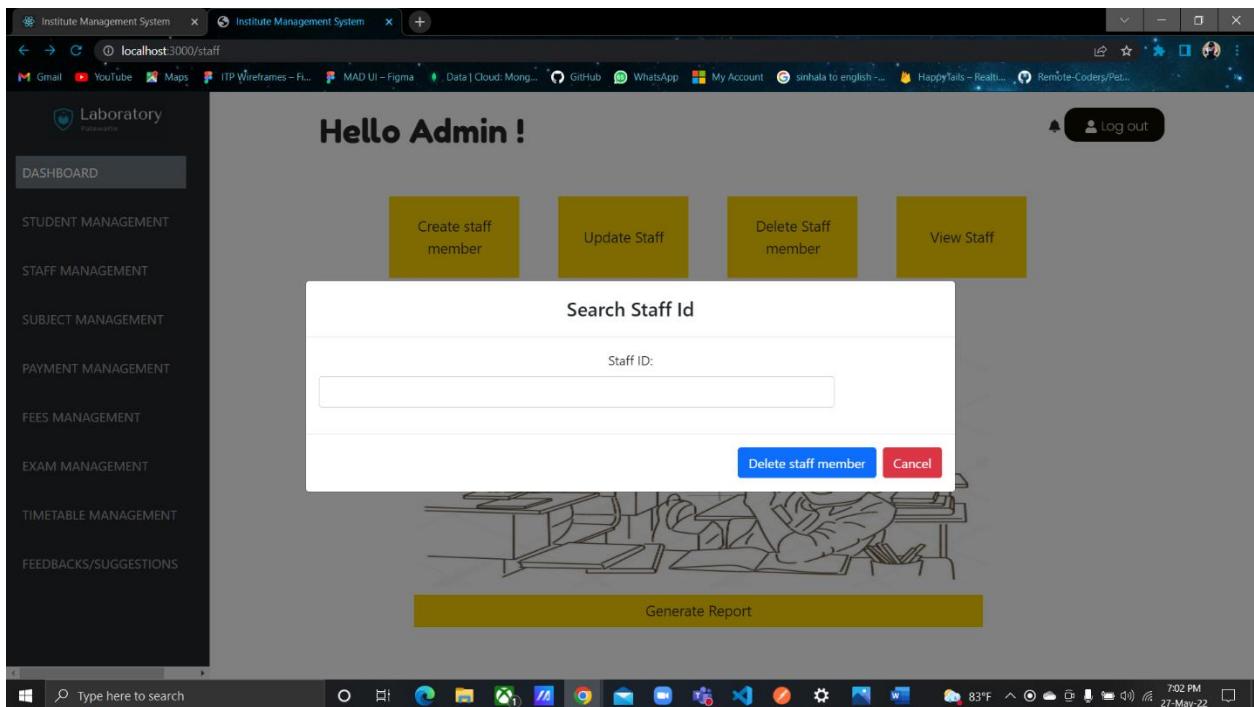
When admin clicks the 'Update Staff' button it popups a model box to enter staff id of the staff who need to be Updated. And after click 'Update Staff ' button then displays another model box with the staff details relevant to the staff id. Then after clicking Update button admin can update the staff details.

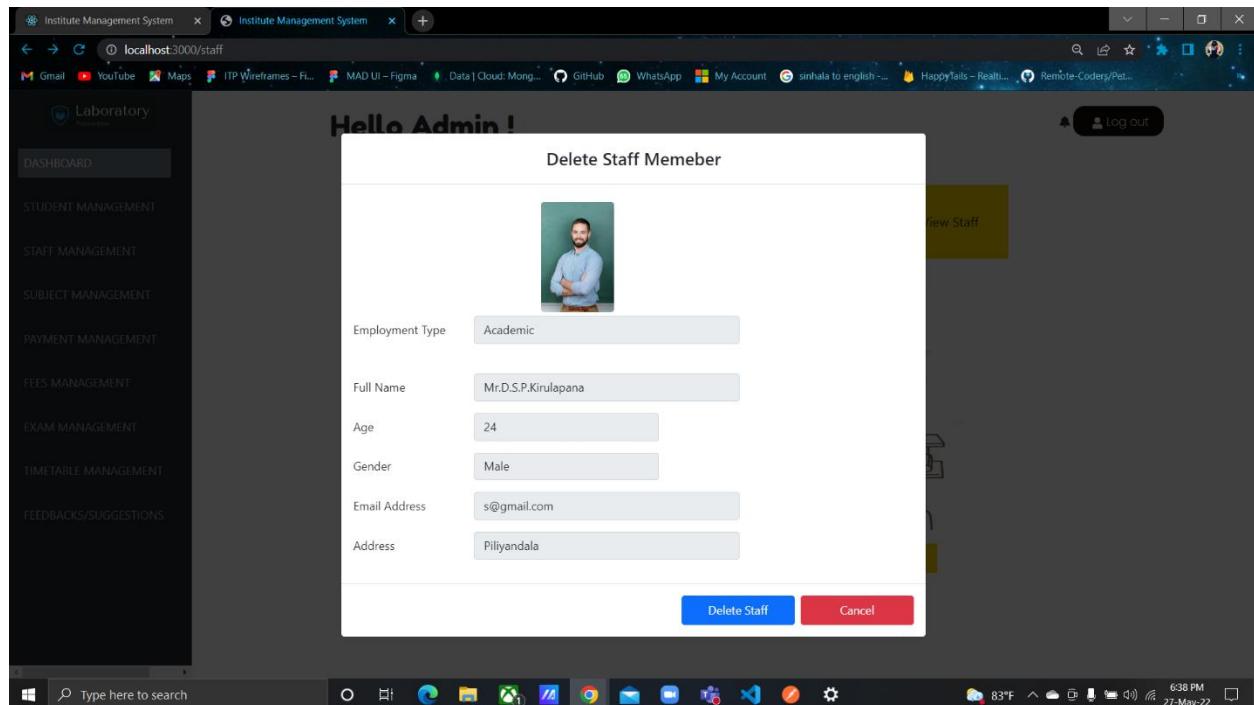




c) Delete Staff

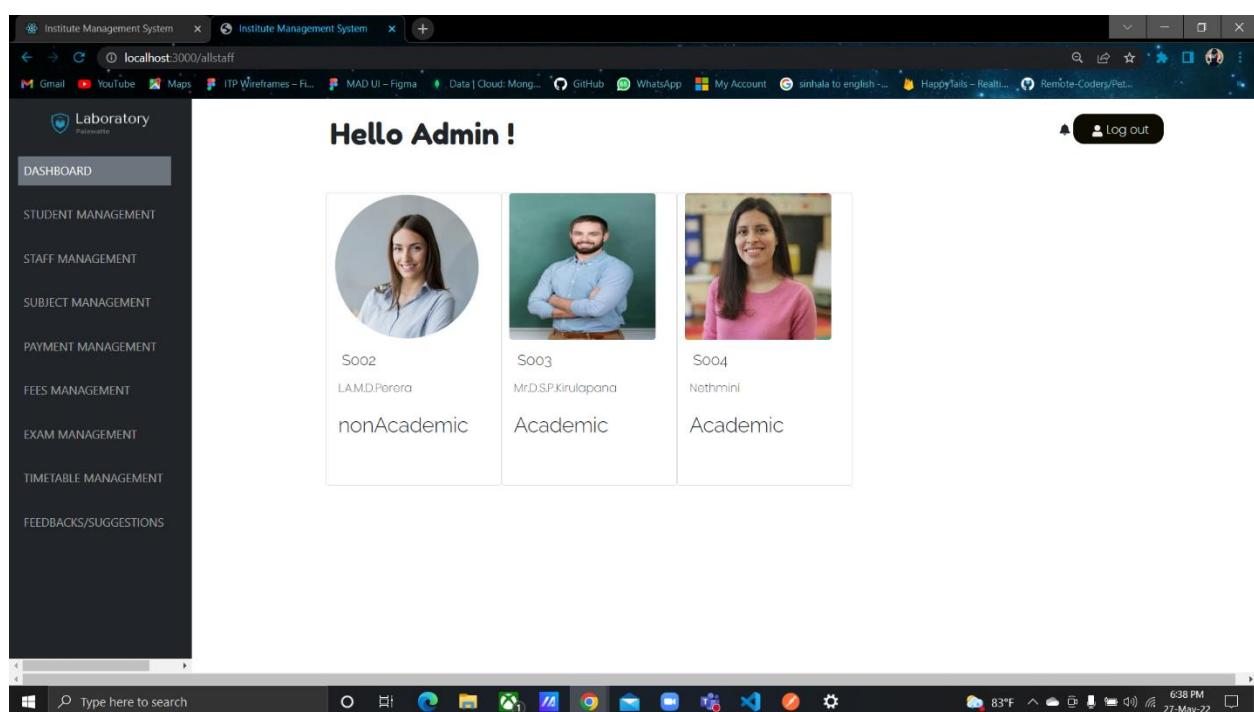
When admin clicks the ‘Delete Staff’ button it popups a model box to enter staff id of the staff who need to be deleted. And after click ‘Delete Staff ’ button then displays another model box with the staff details relevant to the staff id. Then after clicking delete button admin can delete the staff details.



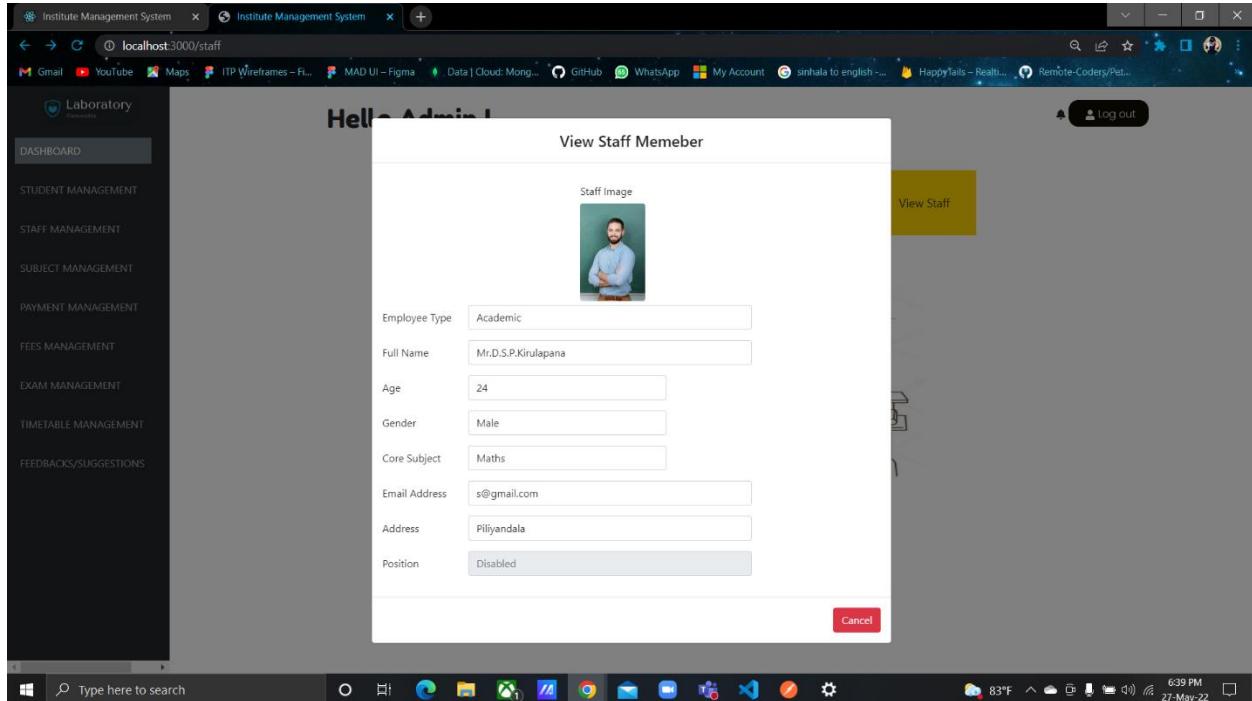


d) View All Staff

After the admin enters the Staff view button we can see the data of all the staff

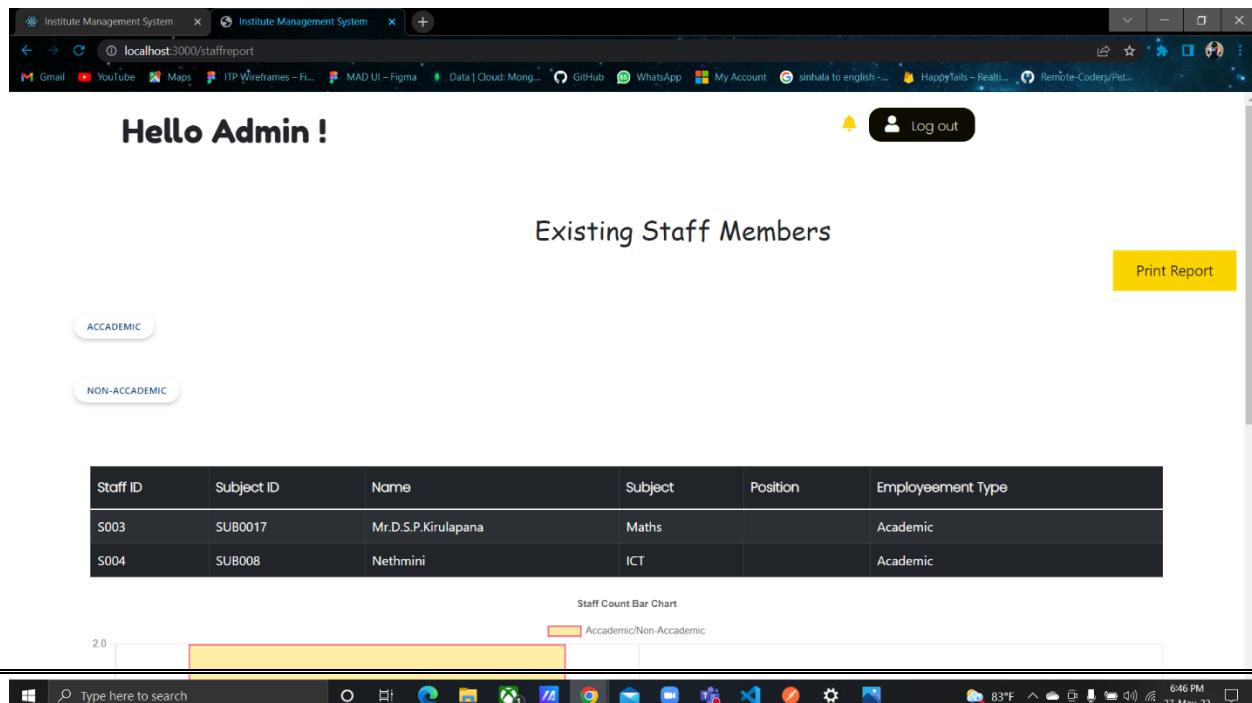


e) View one Staff



f) Generate Staff Report

This page includes two 'academic' and 'non academic' academic buttons and clicking on the academic button then we can see all the academic staff details. And after clicking on the non-academic button, we can see the details of the non-academic staff. We can also see a diagram of the existing staff through the bar chart on this page. We can print a summary report here through the print report button on this page.



Institute Management System Institute Management System

localhost:3000/staffreport

Gmail YouTube Maps ITP Wireframes – Figma MAD UI – Figma Data | Cloud: Mong... GitHub WhatsApp My Account sinhala to english ... HappyTails – Realt... Remote-Codery/Pet...

Hello Admin !

Log out

Existing Staff Members

Print Report

ACADEMIC

NON-ACADEMIC

Staff ID	Subject ID	Name	Subject	Position	Employement Type
S002		L.A.M.D.Perera		Receptionist	nonAcademic

Staff Count Bar Chart

2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0

2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0

Academic NonAcademic

Type here to search

83°F 6:47 PM 27-May-22

Institute Management System Institute Management System

localhost:3000/staffreport

Gmail YouTube Maps ITP Wireframes – Figma MAD UI – Figma Data | Cloud: Mong... GitHub WhatsApp My Account sinhala to english ... HappyTails – Realt... Remote-Codery/Pet...

Staff ID	Name	Position	Employement Type
S002	L.A.M.D.Perera	Receptionist	nonAcademic

Staff Count Bar Chart

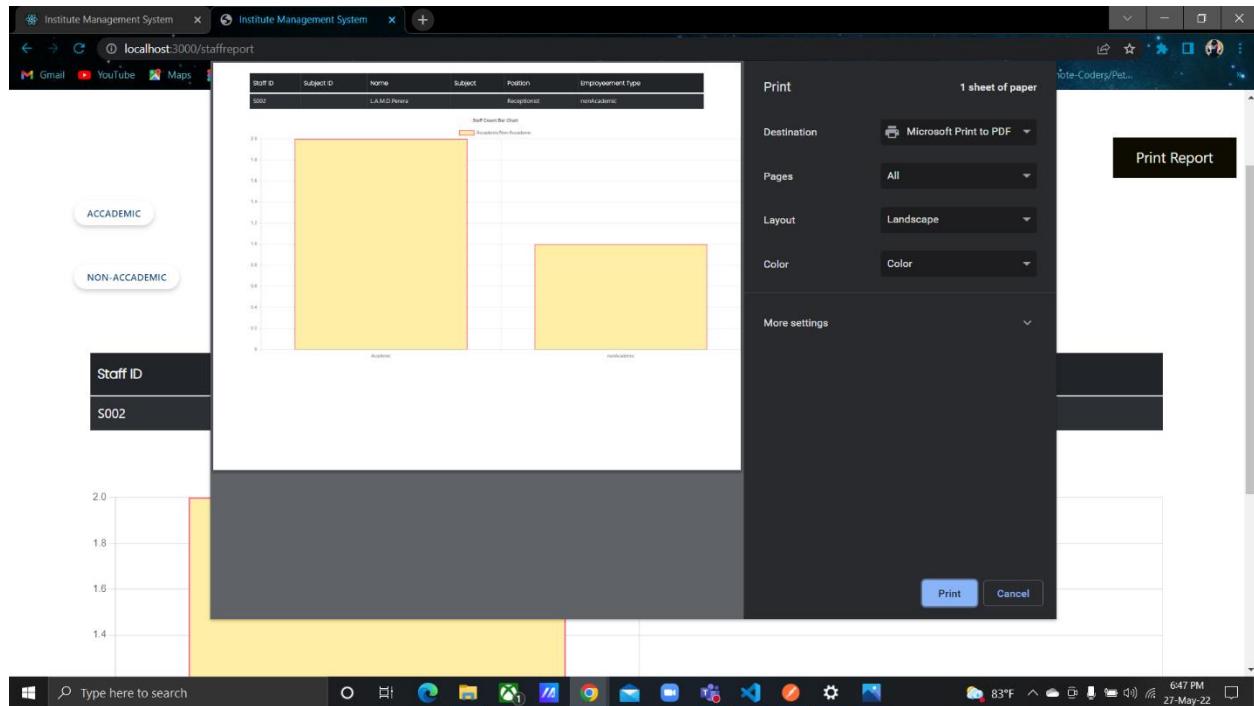
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0

2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0

Academic NonAcademic

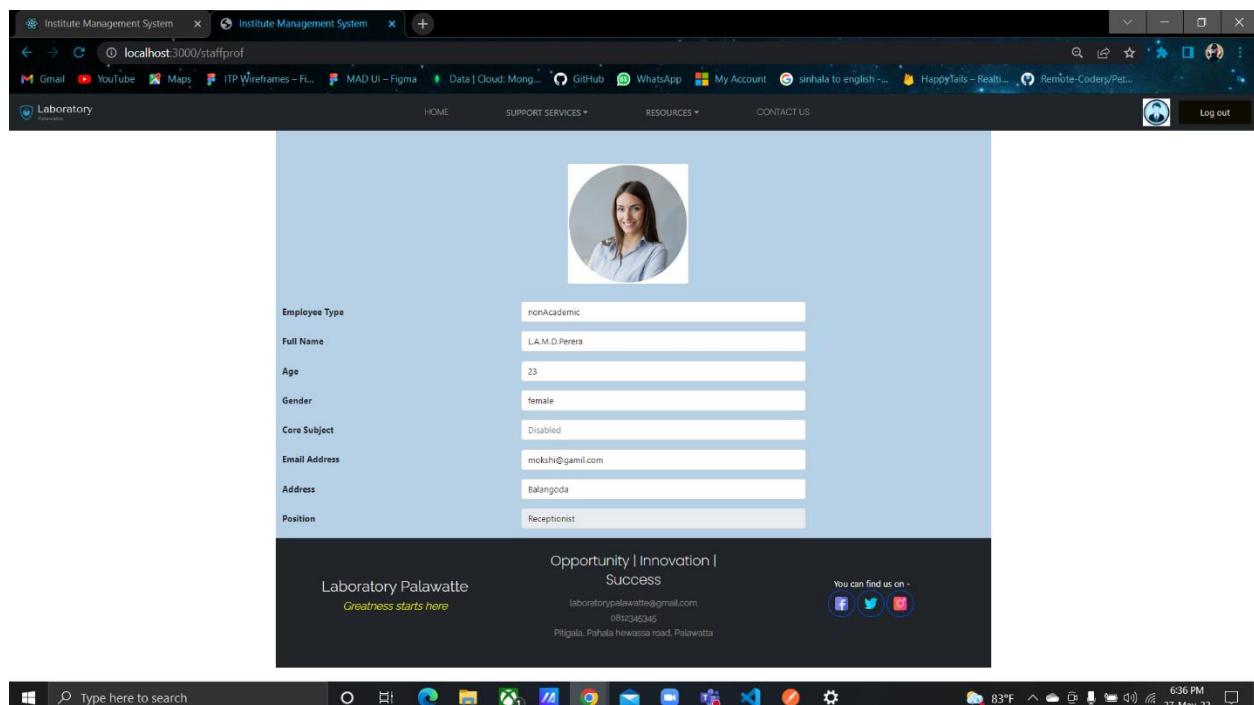
Type here to search

83°F 6:47 PM 27-May-22



g) Staff Profile

When staff successfully login to the system he/she can see a session at the header. When the staff click that session he/she can see his/her profile like below.



3. Student Management

a) Student Profile

When student successfully login to the system he/she can see a session at the header. When the student click that session he/she can see his/her profile like below.

The screenshot shows a student profile page. At the top, there is a navigation bar with links for HOME, SUPPORT SERVICES, RESOURCES, and CONTACT US. On the right side of the navigation bar are icons for user profile and log out. Below the navigation bar, there is a large profile picture of a student named Prathibha. To the right of the profile picture, there is a section titled "General Information" containing the following details:

Name	:	Prathibha
Age	:	23
Gender	:	Female
Address	:	Balangoda
Email	:	p@gmail.com
Phone Number	:	0778564231

Below the profile picture, there is a box containing student identification information: Student ID: STD003, Grade: 13, and School: AMCC.

At the bottom of the page, there is a footer section with the school's name, contact information, and social media links.

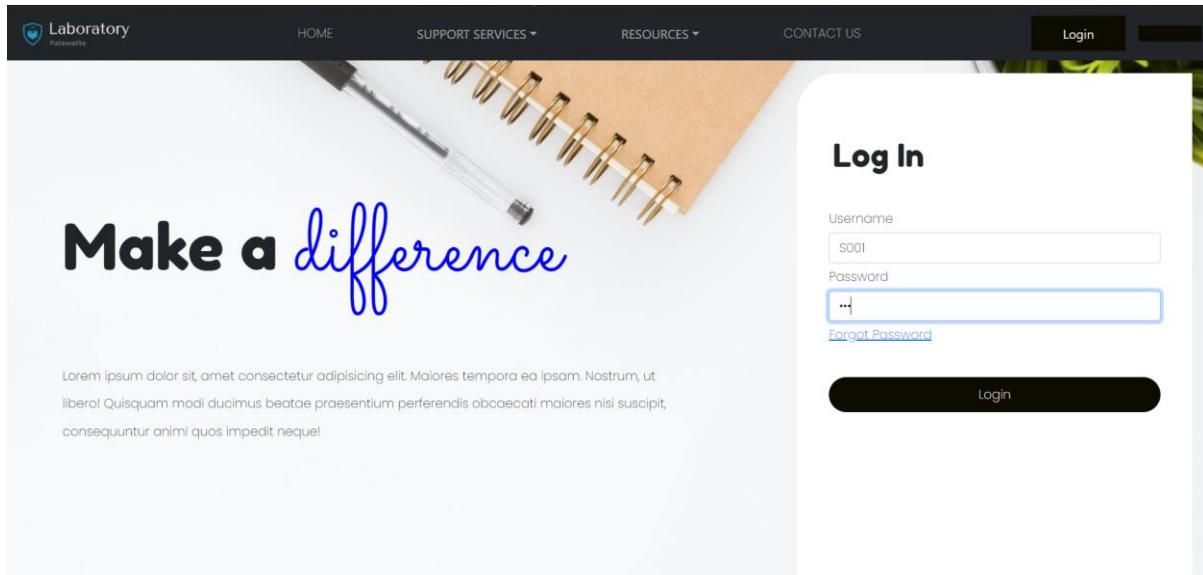
b) Home page

When student not login to the site the homepage is look like below.

The screenshot shows the homepage of the Laboratory Palawatte website. At the top, there is a navigation bar with links for HOME, SUPPORT SERVICES, RESOURCES, and CONTACT US. On the right side of the navigation bar are icons for user profile and log in. The main content area features a large blue banner on the left with the text "Join with the best tutor to find your child's potential". To the right of the banner, there is a photograph of a person's hand holding a cup of coffee next to an open laptop. The laptop screen displays the text "THIS IS WHERE YOU ARE".

c) Student Login

When student click the login button in the header. It redirects to this login page.



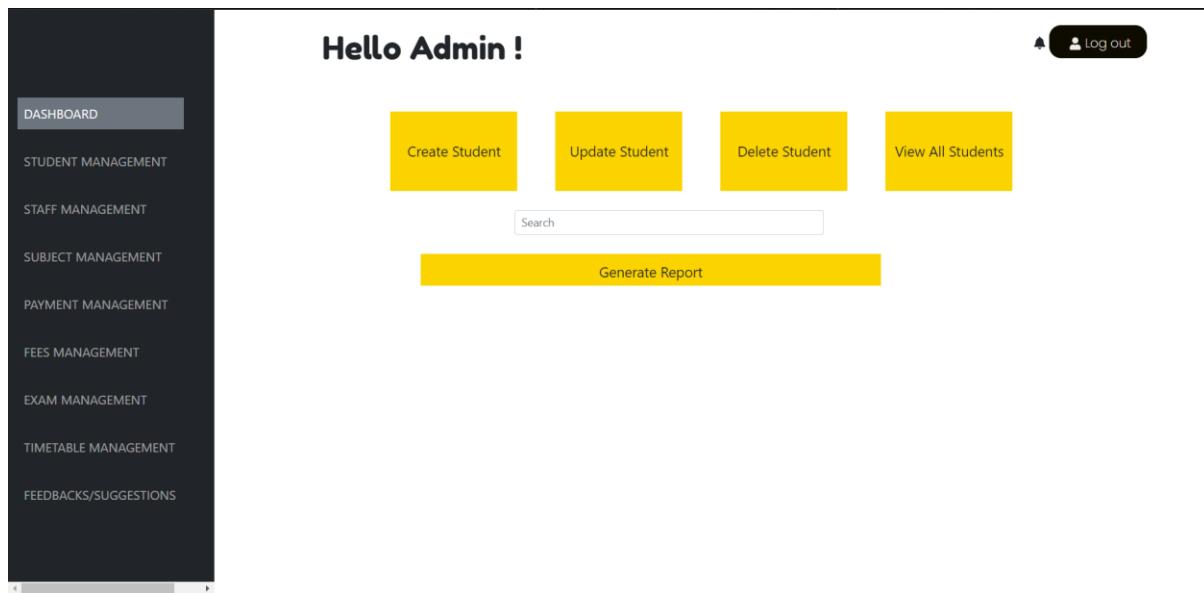
d) Home page after login

When student successfully login to the system he/she can see a session at the header like below.



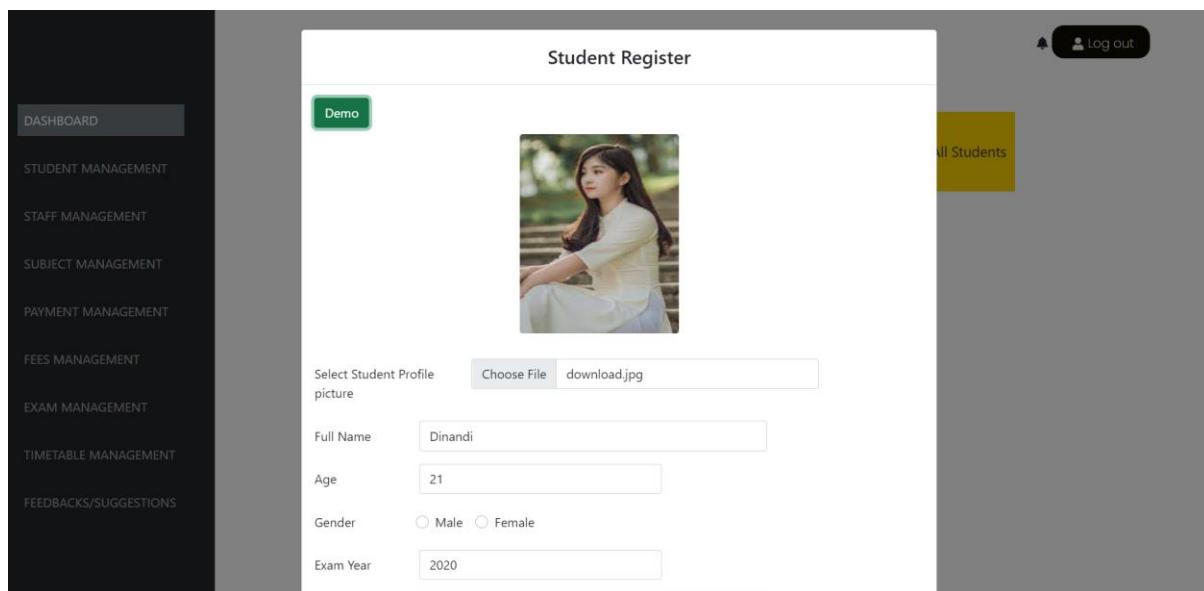
e) Student Admin portal

Once admin log in to the system, he redirects to the admin portal. And when he click the ‘STUDENT MANAGEMENT’ from the side nav bar he can see the below page.



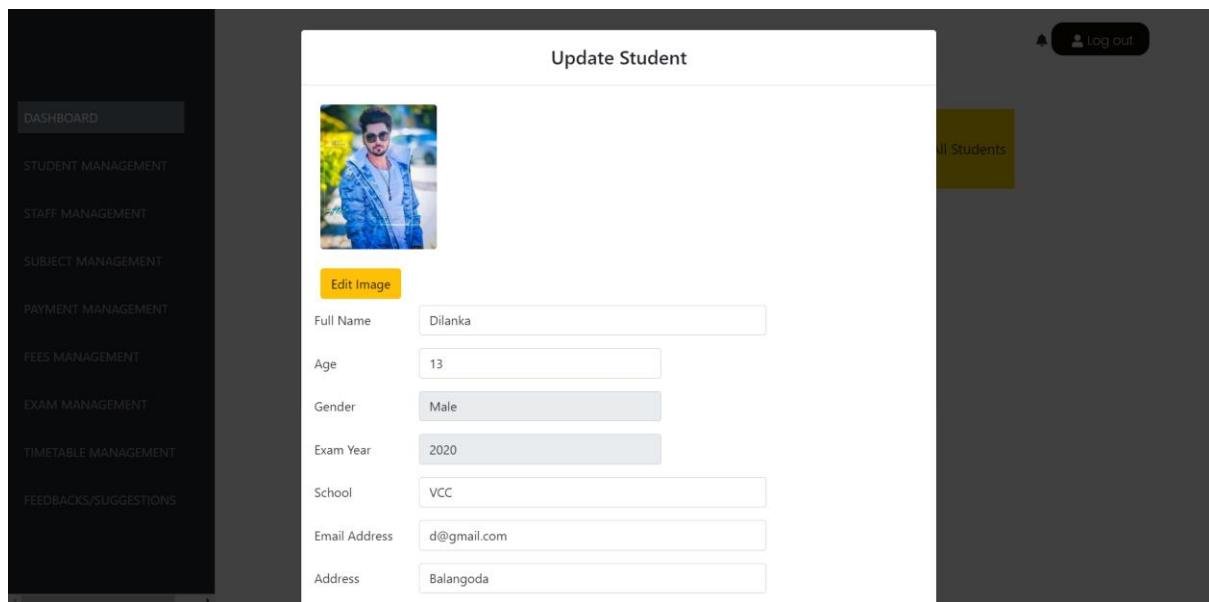
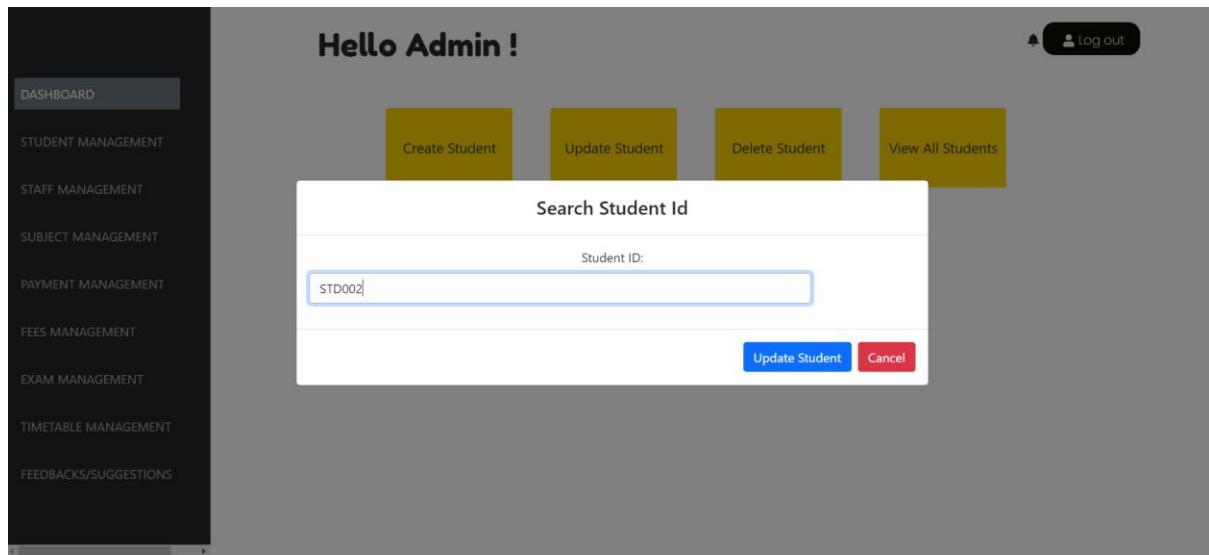
f) Create student modal box

When admin click the ‘Create Student’ button he can see a modal box like below. And after entering the student data he can register a student to the system. If any of the fields are empty it displays a warning message. And when successfully added it displays a success message.



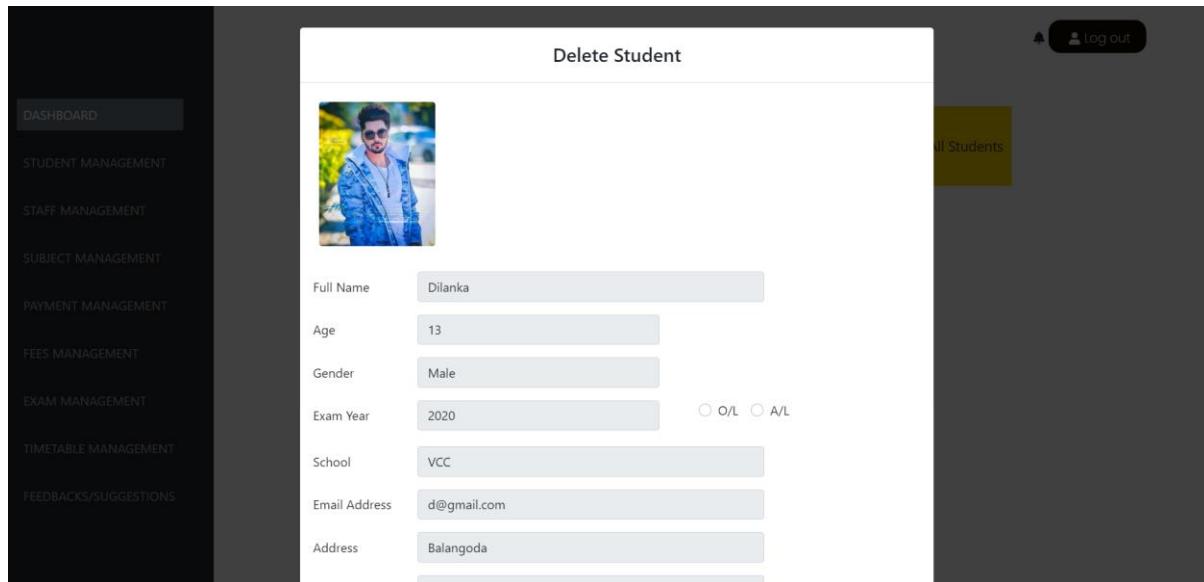
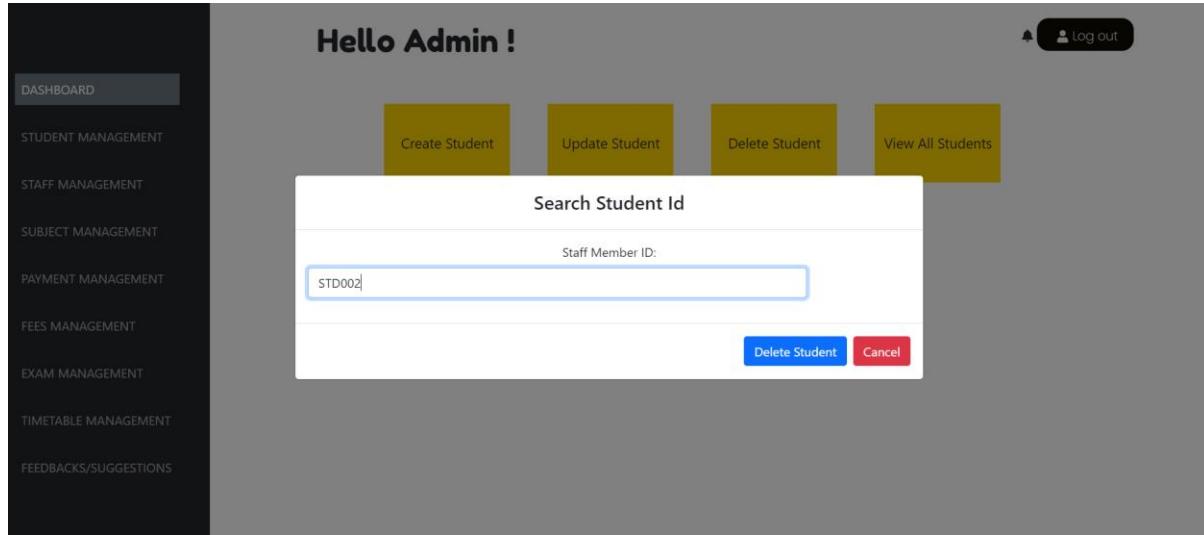
g) Update student modal box

When admin clicks the ‘Update Student’ button it popups a model box to enter student id of the student who need to be updated. And after click ‘Update Student ’ button then displays another model box with the student details relevant to the student id. Then after filling the updated data admin can update the data by pressing ‘update’ button



h) Delete student modal box

When admin clicks the ‘Delete Student’ button it popups a model box to enter student id of the student who need to be deleted. And after click ‘Delete Student ’ button then displays another model box with the student details relevant to the student id. Then after clicking delete button admin can delete the student details.



i) Search student modal box

When admin enter student id in the search box and press enter it displays a model box with the details relevant to the entered student id.

The screenshot shows a modal window titled "Student Details". At the top left is a placeholder text "STD004". The main area contains a "Student_Image" section with a profile picture of a young man. Below this are several input fields: "Full Name" (Malith), "Age" (23), "Gender" (Male), "Exam Year" (2018), "School" (AMCC), "Email Address" (m@gmail.com), and "Address" (Balangoda). There is also a radio button group for "O/L" and "A/L". A yellow button labeled "View All Students" is visible on the right side of the modal.

j) View all students

When admin clicks the 'View All Students' button he can see all students in the database as below.

The screenshot shows a dashboard with a sidebar containing navigation links: DASHBOARD, STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENT, FEES MANAGEMENT, EXAM MANAGEMENT, TIMETABLE MANAGEMENT, and FEEDBACKS/SUGGESTIONS. The main area has a heading "Hello Admin !". Below it is a grid of five student profiles, each with a thumbnail image, student ID, name, and a "View" button. The profiles are: STD002 (Dilanka), STD003 (Prathibha), STD004 (Malith), STD005 (Sadali), and STD006 (Dinandi).

k) Generate Report

When admin clicks the generate report button it displays a bar graph about the attended and not attended student count for each subject in a modal box. When he clicks the 'Print Report' button he can get a pdf of the graph as a report.

Generate Report

Hello Admin !

Log out

Attendance Report

Student Attendance Bar Chart

Subject	Attended	Not Attended
Sinhala	2.0	2.0
Science	3.0	2.0
Mathematics	2.0	1.0
ICT	3.0	2.0
English	2.0	1.0

Print Report Cancel

All Students

Student Attendance Bar Chart

Subject	Attended	Not Attended
Sinhala	2.0	2.0
Science	3.0	2.0
Mathematics	2.0	1.0
ICT	3.0	2.0
English	2.0	1.0

Print

1 page

Destination: Save as PDF

Pages: All

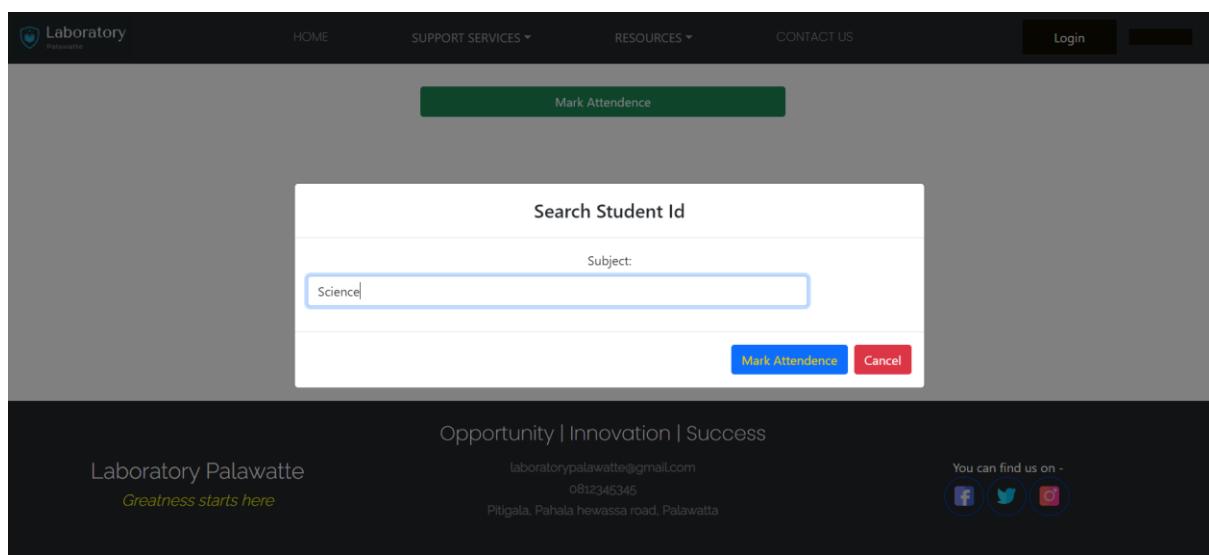
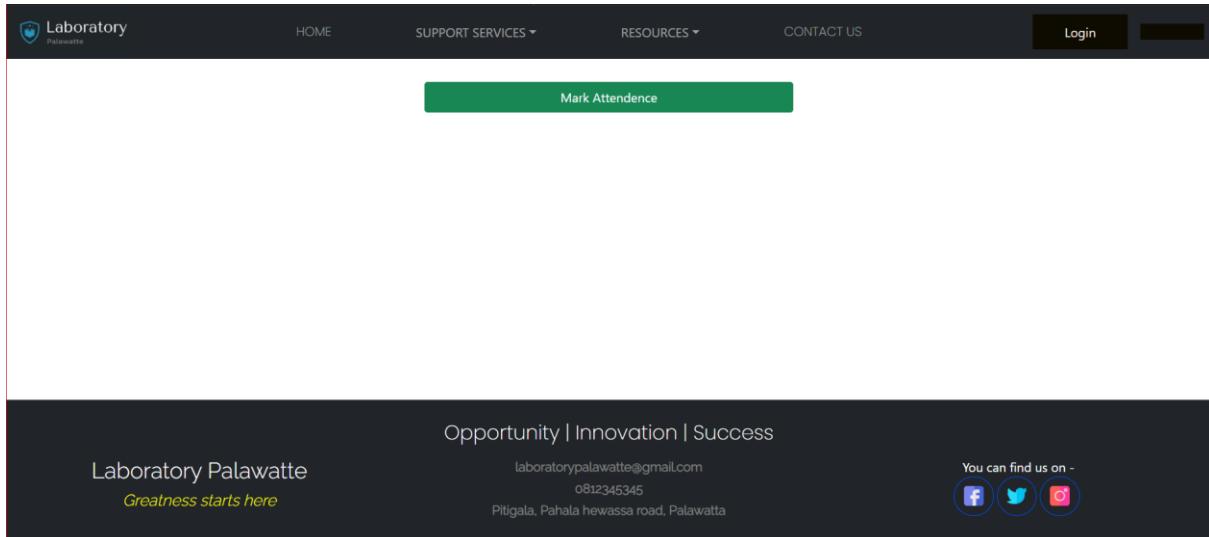
Layout: Portrait

More settings

Save Cancel

1) Mark attendance

When receptionist clicks the Attendance from the list of resources in the header, he/she redirects to the first page below. When he/she click the ‘Mark Attendance’ button it displays a modal box to enter subject. When enter the subject and press ‘Mark attendance’ it displays a model box with the student details who are register for that subject. Then receptionist can click ‘yes’ or ‘no’ and press ‘Add’ then the attendance marked in the database. When successfully added to the database it displays a ‘Successfully added’ message.



Laboratory Palawatte

Greatness starts here

HOME SUPPORT SERVICES ▾ RESOURCES ▾ CONTACT US Login

Mark Attendance

Mark Attendance

Student Id	Student Name	Attendance	Actions
STD002	Dilanka	<input checked="" type="radio"/> Yes <input type="radio"/> No	Add
STD003	Prathibha	<input type="radio"/> Yes <input checked="" type="radio"/> No	Add
STD006	Dinandi	<input type="radio"/> Yes <input checked="" type="radio"/> No	Add

Cancel

laboratorypalawatte@gmail.com
0812345345
Pitigala, Pahala hewassa road, Palawatta

You can find us on - 

Laboratory Palawatte

Greatness starts here

HOME SUPPORT SERVICES ▾ RESOURCES ▾ CONTACT US Login

Mark Attendance

Mark Attendance

Student Id	Actions
STD002	No <input type="radio"/> Add
STD003	No <input type="radio"/> Add
STD006	No <input type="radio"/> Add

Successfully Added

Okay!

Cancel

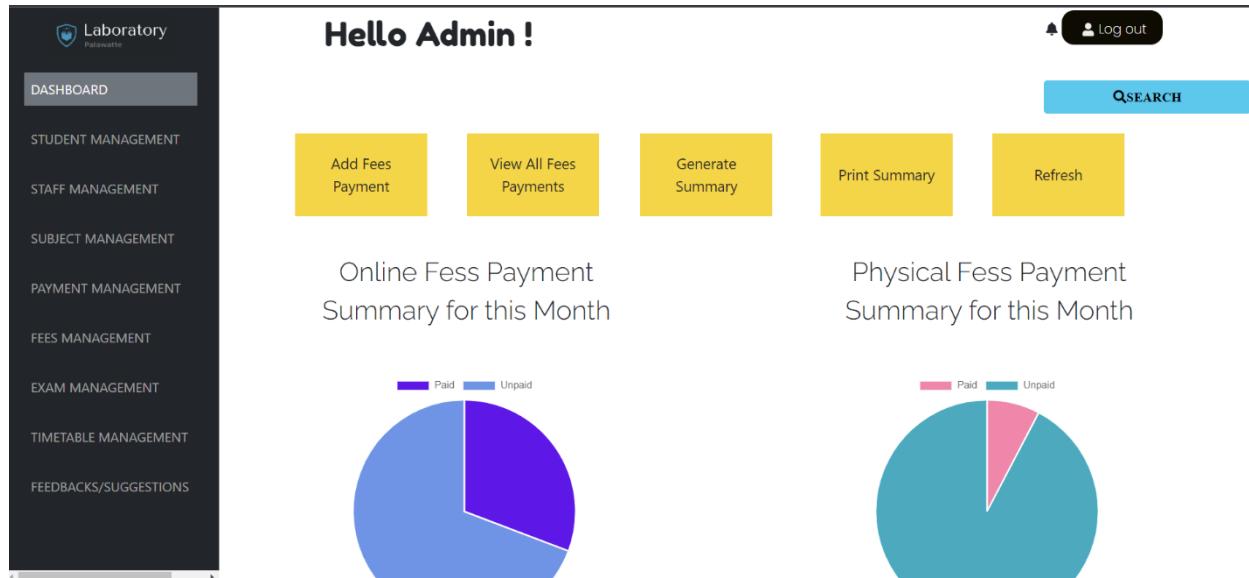
laboratorypalawatte@gmail.com
0812345345
Pitigala, Pahala hewassa road, Palawatta

You can find us on - 

4. Fees Management

a) Admin Fees Payment Dashboard

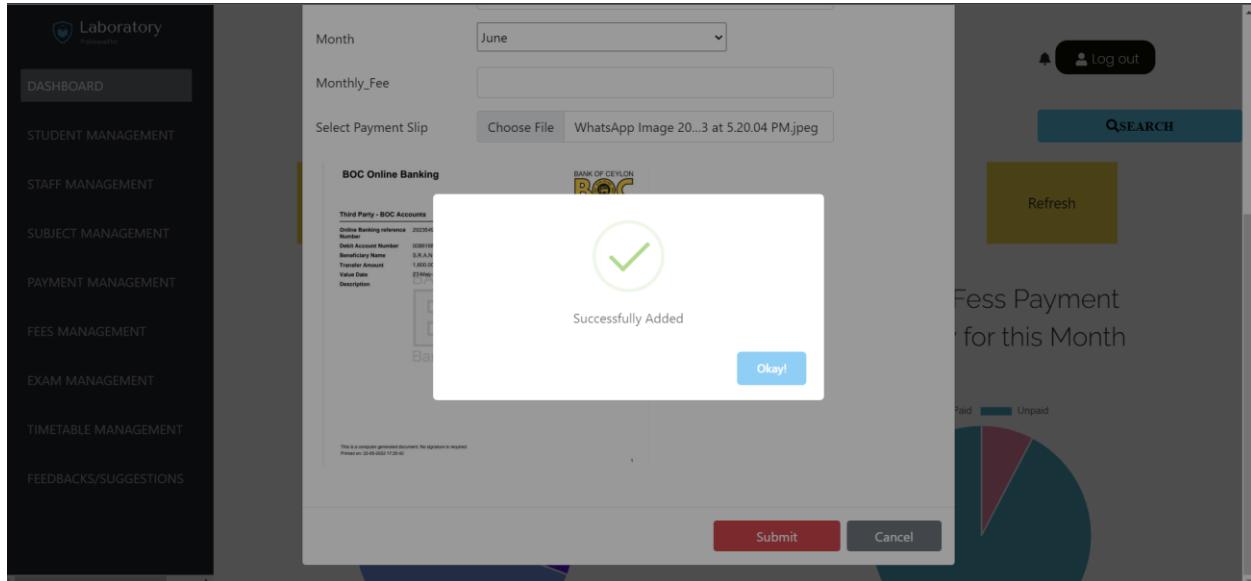
Once admin log in to the system, he redirects to the admin portal. And when he click the ‘FEES MANAGEMENT’ from the side nav bar he can see the below page.



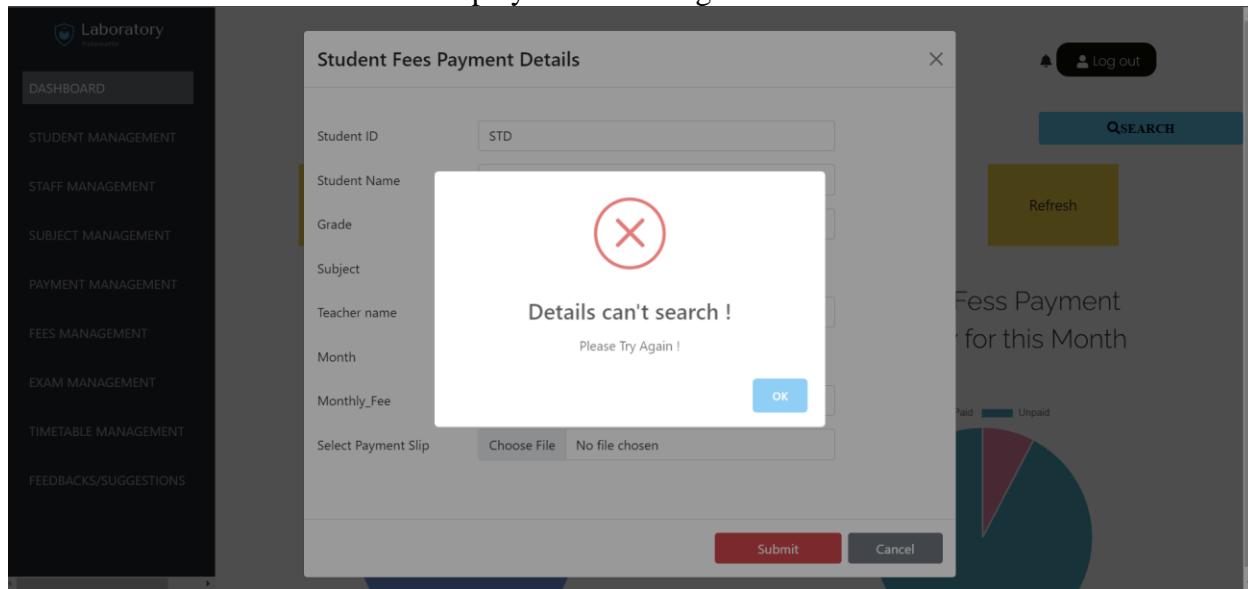
b) Add Online Fees payments

The screenshot shows a modal window titled 'Student Fees Payment Details'. It contains fields for Student ID, Student Name, Grade, Subject, Teacher name, Month, Monthly_Fee, and a file input for Select Payment Slip. Buttons for 'Submit' and 'Cancel' are at the bottom. The background shows the same dashboard interface as the previous screenshot, including the pie charts and navigation sidebar.

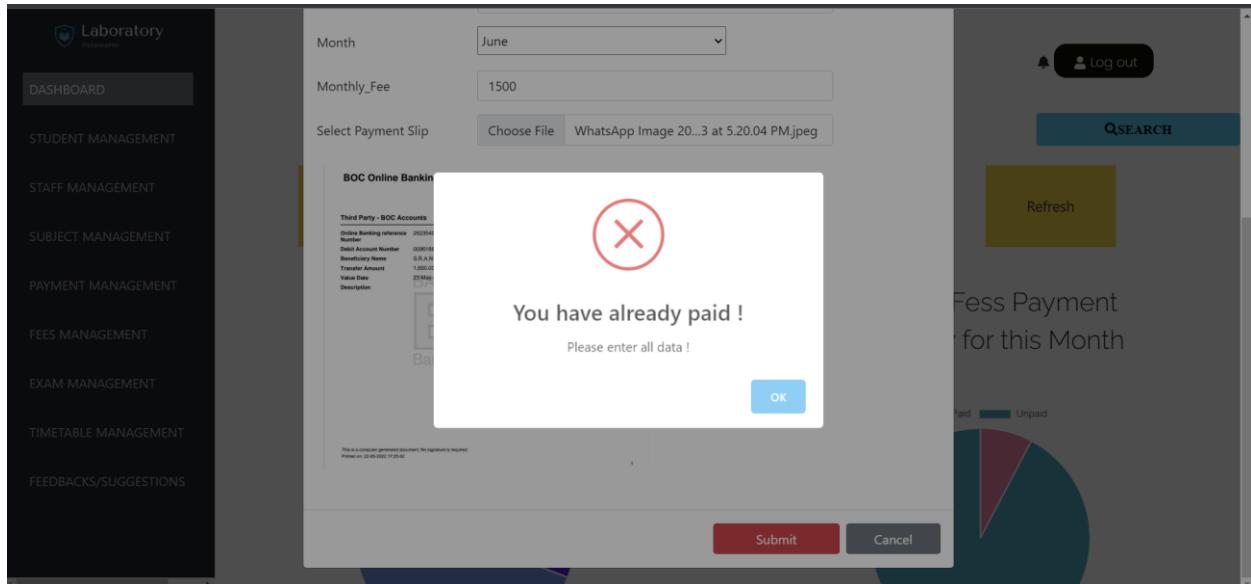
When add details it displays successful message



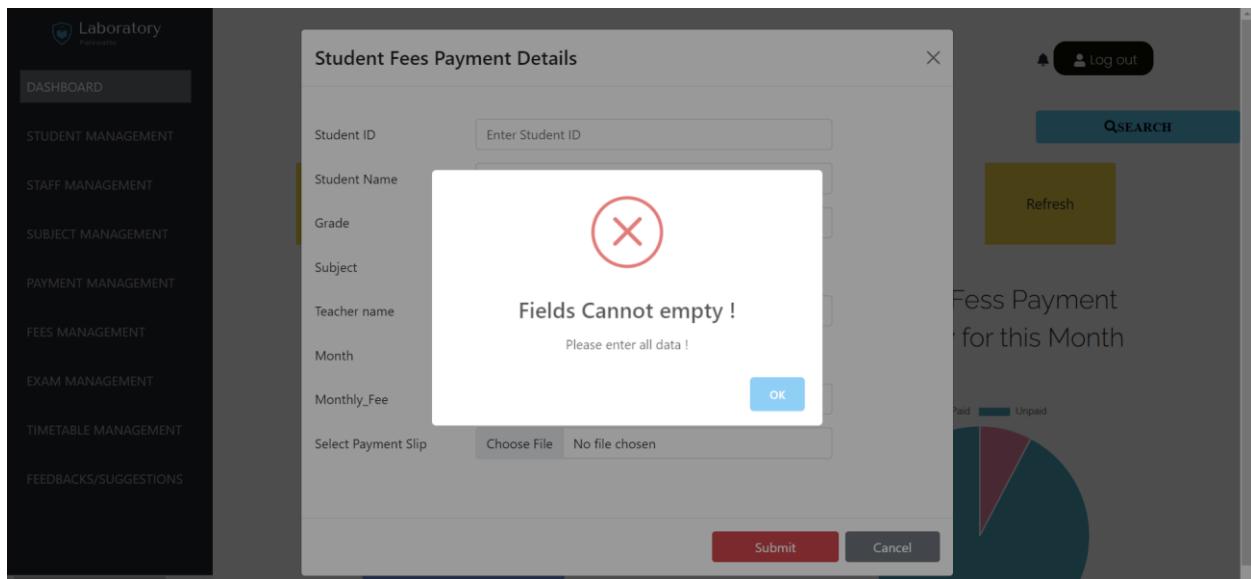
When enter invalid Student ID it displays error message



When enter existing payment it will displays already paid message



When the fields empty it will pop up message



c) View All Fees Payments

when Admin click the ‘View All Fees’ button Admin can see the below page.

The screenshot shows a web application interface for an administrator. At the top right, there is a 'Log out' button and a notification icon. The main title is 'Hello Admin !'. Below the title, there are two buttons: 'Update' and 'Delete'. The central part of the screen is titled 'Online Fees Payment List' and contains a table with the following data:

Payment ID	Student ID	Name	Subject	Grade	Monthly Fee	Teacher's Name	Month
OPID001	STD001	Prathibha	Science	Grade 06	1500	Miss. Silva	February
OPID002	STD001	Prathibha	Science	Grade 09	1500	Miss. Silva	March
OPID003	STD002	Mokshi	Science	Grade 08	1500	Miss. Silva	May
OPID004	STD008	Diwya	English	Grade 11	1500	Miss. Dilini	May
OPID005	STD004	Kaveen	Mathematics	Grade 10	1500	Miss. Perera	May
OPID006	STD001	Prathibha	Science	Grade 09	1500	Miss. Silva	May

On the left side of the screen, there is a sidebar with the following navigation links:

- Grade 06
- Mathematics
- Sinhala
- English
- Science
- History
- Music
- Business Studies
- Grade 07
- Grade 08
- Grade 09
- Grade 10
- Grade 11
- A/L

At the bottom right of the main content area, there is a 'Print Report' button.

The screenshot shows a web application interface for an administrator, similar to the one above but for physical fees. The main title is 'Physical Fees Payment List' and contains a table with the following data:

Payment ID	Student_ID	Name	Subject	Grade	Monthly Fee	Teacher's Name	Month
PPID004	STD006	Mandini	Music	Grade 10	1500	mr. Kaveen	August
PPID005	STD004	Mandini	Science	Grade 07	1500	miss Sudharma	August
PPID006	STD006	Mandini	Sinhala	Grade 10	1500	Miss. Mokshi	August
PPID007	STD002	Mokshi	Science	Grade 08	1500	Miss. Silva	May
PPID008	STD001	Prathibha	Science	Grade 09	1500	Miss. Silva	February

On the left side of the screen, there is a sidebar with the following navigation links:

- Music
- Business Studies
- Grade 07
- Grade 08
- Grade 09
- Grade 10
- Grade 11
- A/L

At the bottom right of the main content area, there is a 'Print Report' button.

Admin can Select grade and Subject from the side bar, the details can sort

The screenshot shows a sidebar on the left with navigation links for grades (Grade 06, Grade 07, Grade 08, Grade 09) and subjects (Mathematics, Sinhala, English, Science, History, Music, Business Studies). The main area displays two tables:

Online Fees Payment List

Payment ID	Student ID	Name	Subject	Grade	Monthly Fee	Teacher's Name	Month
OPID002	STD001	Prathibha	Science	Grade 09	1500	Miss. Silva	March
OPID006	STD001	Prathibha	Science	Grade 09	1500	Miss. Silva	May
OPID008	STD001	Prathibha	Science	Grade 09	1500	Miss. Silva	June

Physical Fees Payment List

Payment ID	Student_ID	Name	Subject	Grade	Monthly Fee	Teacher's Name	Month
PPID008	STD001	Prathibha	Science	Grade 09	1500	Miss. Silva	February
PPID009	STD001	Prathibha	Science	Grade 09	1500	Miss. Silva	July

Admin can print report when click the print report button

The screenshot shows the 'Physical Fees Payment List' table from the previous screenshot. A 'Print' dialog is open on the right side of the screen. The dialog includes fields for Destination (Save as PDF), Pages (All), Layout (Landscape), and a 'More settings' dropdown. At the bottom right of the dialog is a large blue 'Print Report' button.

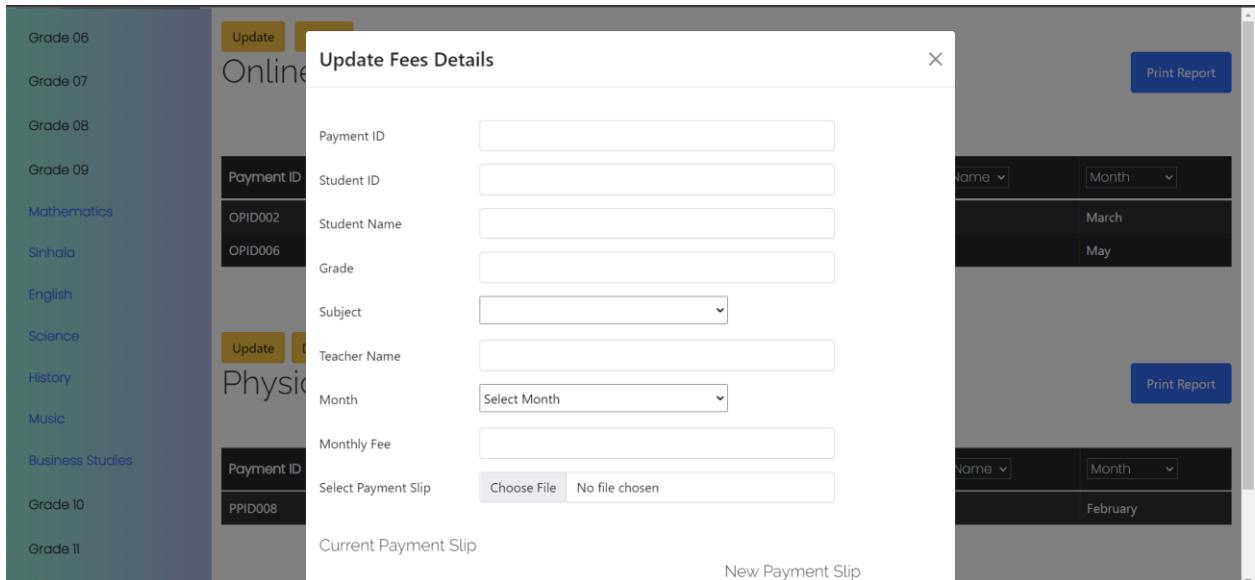
Admin can search student details when click the search button

The screenshot shows the 'Student Payment Details' page. On the left is a dark sidebar with various management options. The main area has a yellow header 'Student Payment Details'. It contains several input fields: 'Student ID' (STD001), 'Student Name' (Prathibha), 'Grade' (Grade 09), 'Subject' (Science), and 'Month' (February). Below these is a smaller box with fields: 'Teacher's name' (Miss. Silva), 'Monthly Fee' (1500), and 'Payment ID' (OPID001). To the right is a grey sidebar with a 'SEARCH' button, a 'Refresh' button, and a pie chart titled 'Fees Payment for this Month' showing a large blue slice labeled 'Paid' and a small red slice labeled 'Unpaid'.

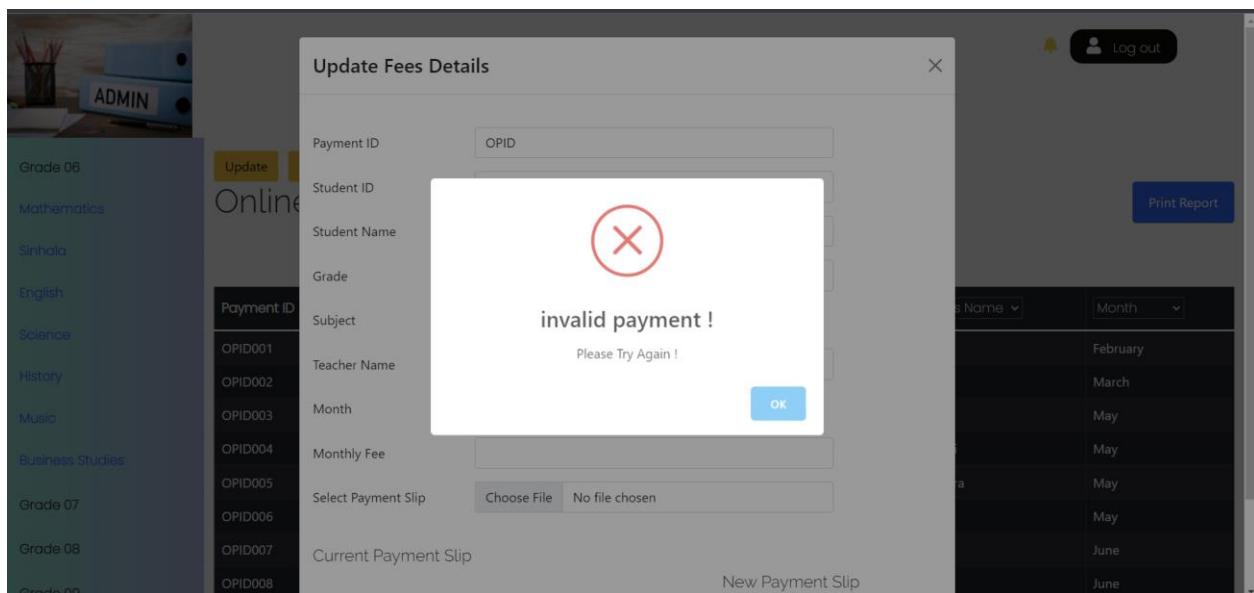
Admin can print the details when click the print slips button

This screenshot is similar to the previous one, showing the 'Student Payment Details' page. However, a 'Print' dialog box is overlaid on the right side. The dialog includes fields for 'Destination' (Save as PDF), 'Pages' (All), and 'Layout' (Portrait). At the bottom of the dialog are 'Save' and 'Cancel' buttons. The rest of the interface is identical to the first screenshot, including the sidebar and the right-hand sidebar with its search and refresh features.

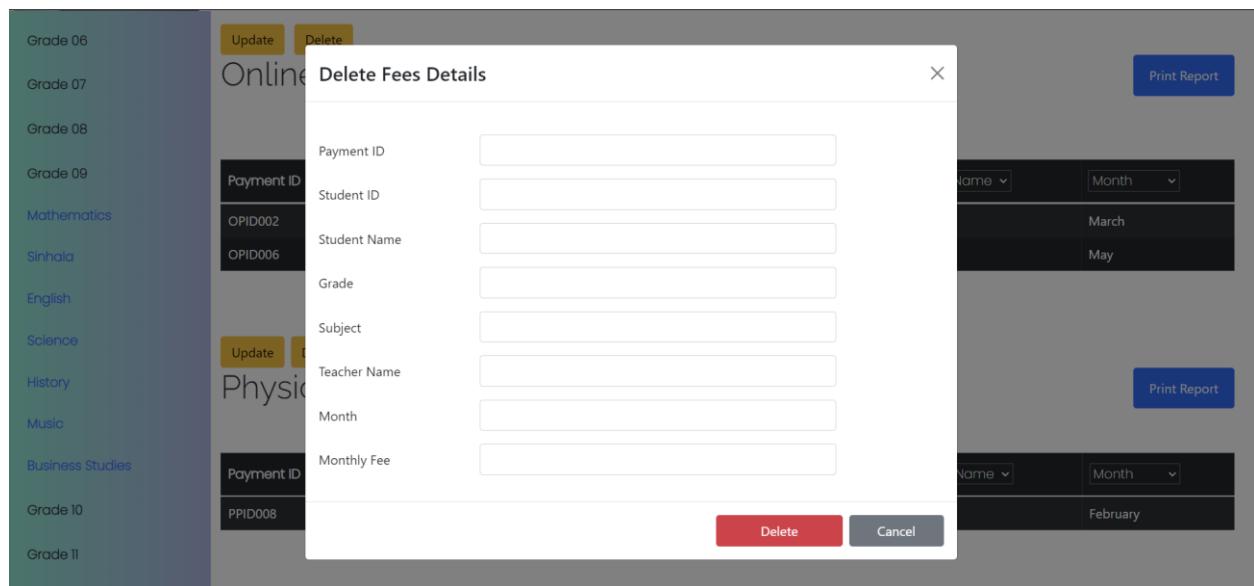
Details can update from when click update button



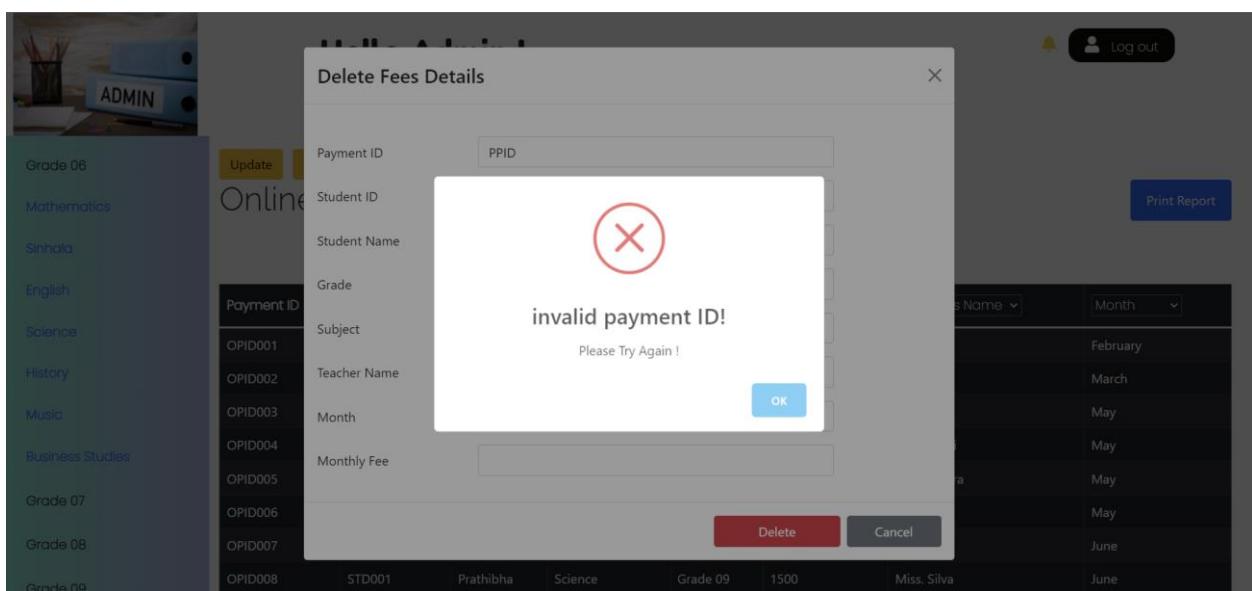
When enter invalid id it will pop up error message



Details can delete when click delete button



When enter invalid id it displays error message



d) Receptionist view

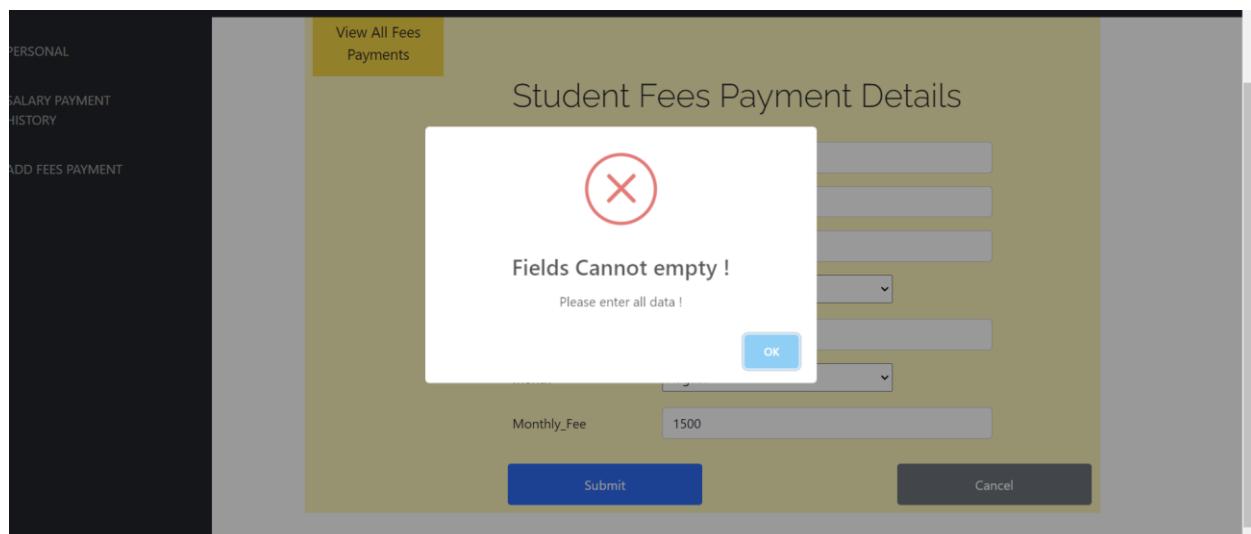
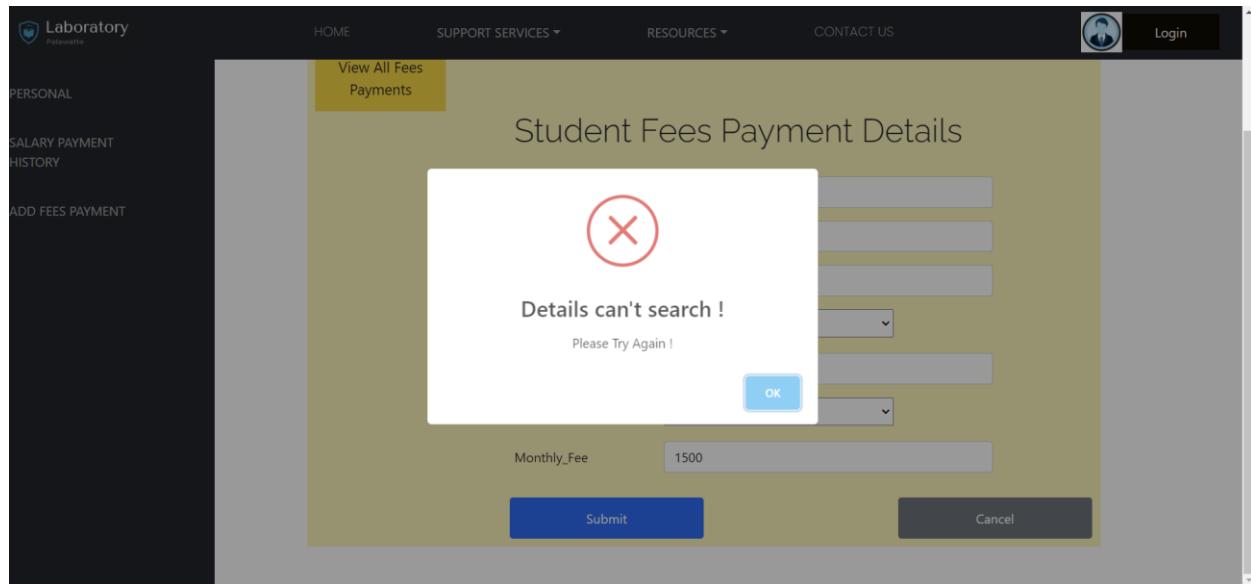
Once Receptionist log in to the system, he redirects to the staff profile. And when he click the ‘ADD FEES PAYMENT’ from the side nav bar he can see the below page.

The screenshot shows a web application interface for managing student fees. The top navigation bar includes links for HOME, SUPPORT SERVICES, RESOURCES, CONTACT US, and a user icon labeled 'Login'. On the left sidebar, there are links for PERSONAL, SALARY PAYMENT HISTORY, and ADD FEES PAYMENT. The main content area is titled 'Student Fees Payment Details'. It features several input fields: 'Student ID' (with placeholder 'Enter Student ID'), 'Student Name' (input field), 'Grade' (input field), 'Subject' (dropdown menu), 'Teacher name' (input field), 'Month' (dropdown menu set to 'October'), and 'Monthly_Fee' (input field). At the top left of the content area, there are buttons for 'Update' and 'Delete', and a yellow button labeled 'View All Fees Payments'. A blue 'SEARCH' button is located at the top right. The background of the main content area is light yellow.

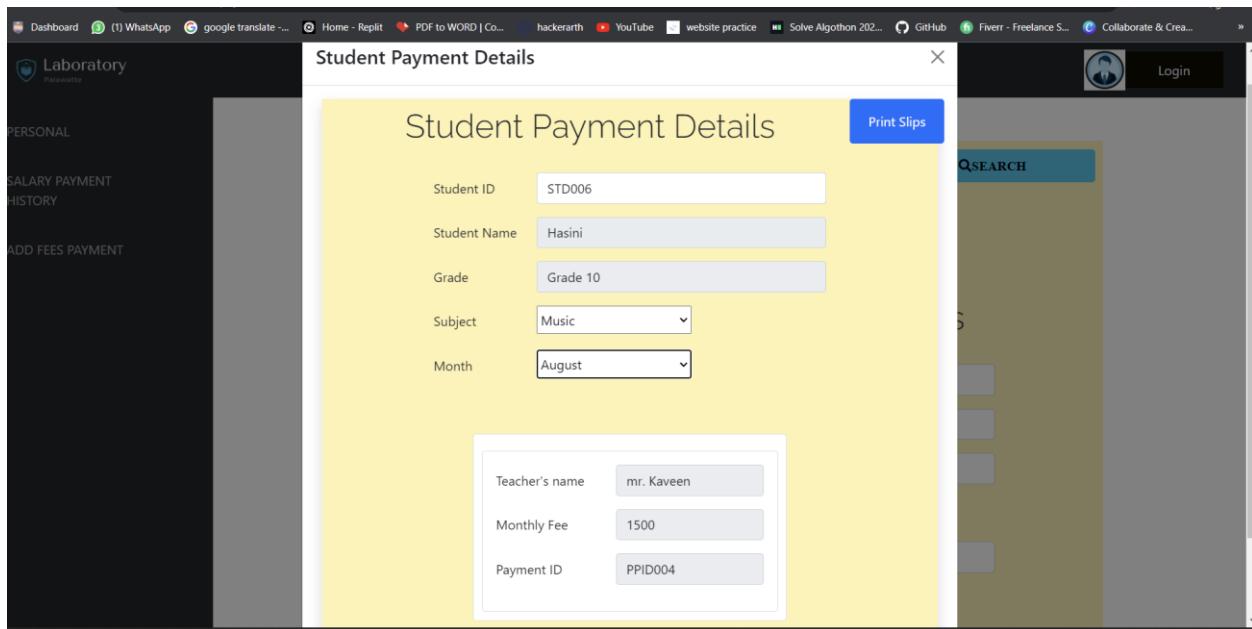
Receptionist can add update delete view all payments and search from this Page

This screenshot shows the same application interface as above, but with a modal dialog box overlaid. The dialog contains a green checkmark icon and the text 'Successfully Added'. Below the dialog are the same input fields for Teacher name, Month (set to July), and Monthly Fee, along with 'Submit' and 'Cancel' buttons. The background of the main content area is now a muted olive-green color, indicating it is inactive while the modal is open.

Also validate the fields and Student ID

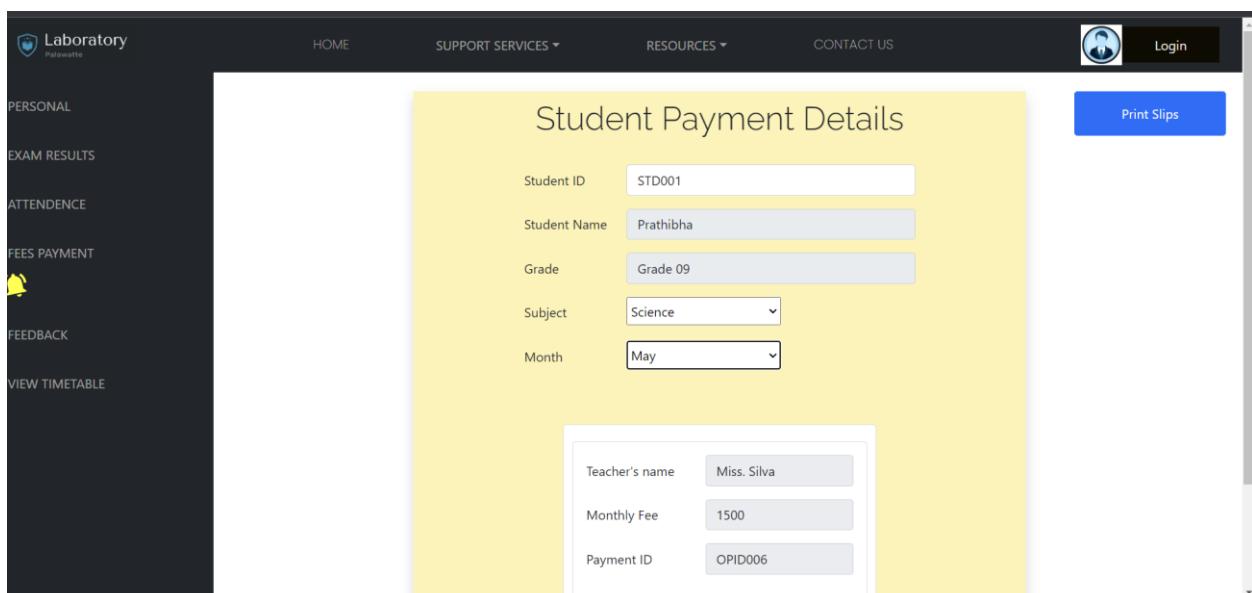


When click search button receptionist can search student details and if want to print as slip he should click print button



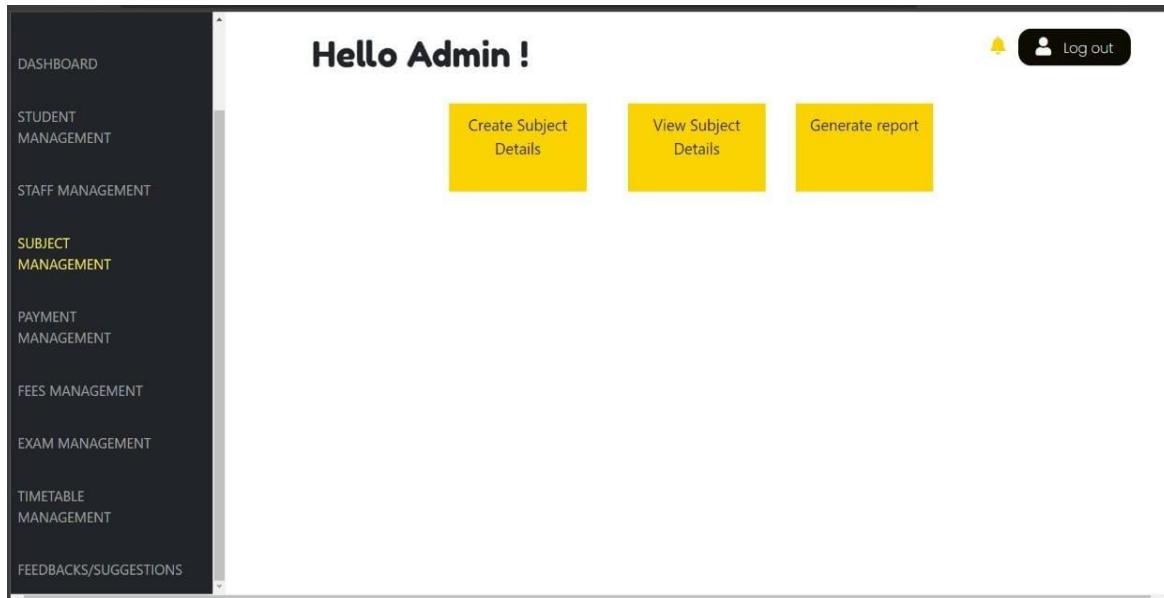
e) Student View

Once Student log in to the system, he redirects to the Student profile. And when he click the 'FEES PAYMENT' from the side nav bar he can see the below page. Student can also print the details as slip,



5. Subject Management

- Login to the dashboard



- Add Subject Details

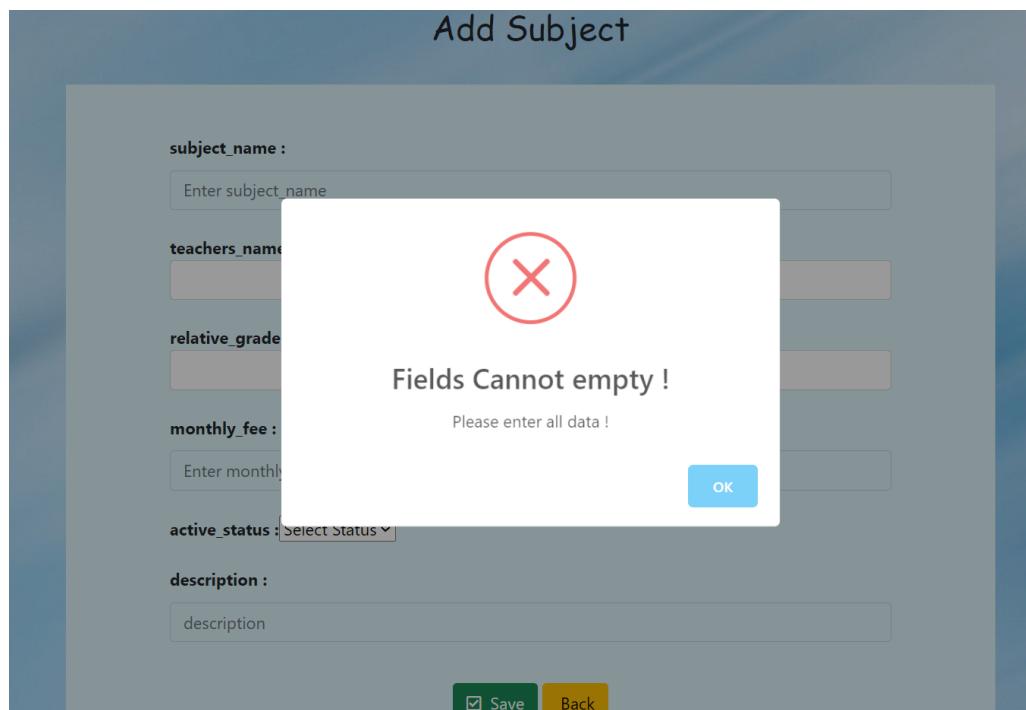
Click create subject details button(Admin Dashboard) after show Add Subject Form

The screenshot shows the "Add Subject" form. The title "Add Subject" is at the top. The form contains the following fields:

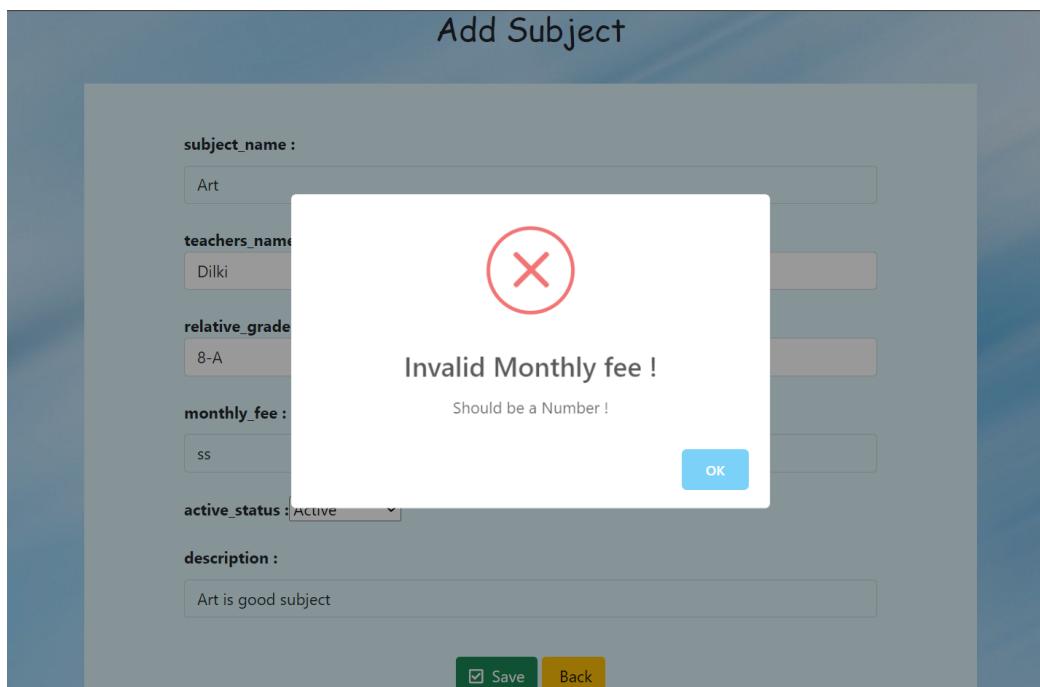
- subject_name :** A text input field with placeholder text "Enter subject_name".
- teachers_name :** A text input field.
- relative_grade:** A text input field.
- monthly_fee :** A text input field with placeholder text "Enter monthly_fee".
- active_status :** A dropdown menu labeled "Select Status ▾".
- description :** A text input field.

At the bottom of the form are two buttons: a green button with a checkmark icon labeled "Save" and a yellow button labeled "Back".

If the form is empty, after click save button system will show up and error message (This is a validation part)



If the form is filled but monthly fee having string value system will show up and error message. Only numerical values used monthly fee (This is validation Part)



If the form has filled with the correct information ,after clicking the save button the system will show up the successful message. And go to view page.

Add Subject

subject_name : Art

teachers_name : Dilki

relative_grade : 8-A

monthly_fee : 100

active_status : Active

description : Art is good subject

Save Back



Successfully Added

Okay!

Subject Viewer								
Subject Code	Subject Name	Teacher's Name	Description	Monthly Fee	Relative Grade	Active Status	Update	Delete
SUB001	Sinhala	Chathura	good	1000	8-A	false	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB002	Science	Shanthy	Science for learning	1000	11-B	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB003	Music	Sanduni	good subject	1000	8-B	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB005	Geography	Dilini	Geography is good subject	1000	11-A	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB006	maths	Chathura	good subject	1000	9-B	false	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB007	Art	Dilki	Art is good subject	100	8-A	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>

BACK

This row show the details.

SUB007	Art	Dilki	Art is good subject	100	8-A	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
--------	-----	-------	---------------------	-----	-----	------	-------------------------	---

c) Search Subject Code

After Search the subject code in search bar and enter , popup shown subject details this page.

Subject Viewer

Subject Code	Subject Name	Teacher's Name	Description	Monthly Fee	Relative Grade	Active Status	Update	Active	Deactivate
SUB001	Sinhala	Chathura	good	1000	8-A	false	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB002	Science	Shanthi	Science for learning	1000	11-B	true	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB003	Music	Sanduni	good subject	1000	8-B	true	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB005	Geography	Dilini	Geography is good subject	1000	11-A	true	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB006	maths	Chathura	good subject	1000	9-B	false	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB007	Art	Dilki	Art is good subject	100	8-A	true	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>

[BACK](#)

Subject Viewer

View Subject Details

Subject Code	Subject Name	Teachers Name	Relative Grade	Monthly Fee	Active Status	Update	Delete	
SUB001	Sinhala	Chathura	8-A	1000	false	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB002	Science	Shanthi	11-B	1000	true	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB003	Music	Sanduni	8-B	1000	true	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB005	Geography	Dilini	11-A	1000	true	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB006	maths	Chathura	9-B	1000	false	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>
SUB007	Art	Dilki	8-A	100	true	<button>Update</button>	<button>Active</button>	<button>Deactivate</button>

[Cancel](#)

d) Update Subject Details

If the user need to update the subject details, need to click update button. After clicking the update button system redirect to the update page

Update Subject

subject_name :

teachers_name :

relative_grade:

monthly_fee :

active_status :

description :

After updating the fields user need to click update button. Then system will show up the update successfully message. And redirect to the view page.

Update Subject

subject_name :

teachers_name :

relative_grade :

monthly_fee :

active_status :

description :



Successfully Updated

Subject Viewer								
Search by Subject Code								
Subject Code	Subject Name	Teacher's Name	Description	Monthly Fee	Relative Grade	Active Status	Update	Delete
SUB001	Sinhala	Chathura	good	1000	8-A	false	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB002	Science	Shanthy	Science for learning	1000	11-B	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB003	Music	Sanduni	good subject	1000	8-B	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB005	Geography	Dilini	Geography is good subject	1000	11-A	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB006	maths	Chathura	good subject	1000	9-B	false	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB007	Art	Dilki	Art is good subject	100	8-A	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>

[BACK](#)

This raw show the details.(After updated)

SUB007	Art	Dilki	Art is good subject	100	8-A	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
--------	-----	-------	---------------------	-----	-----	------	-------------------------	---

e) Delete (Hide) Subject Details

Admin cannot delete subject but admin can hide the subject in this system. if admin want hide the subject admin click deactivate button change active status as false

Subject Viewer								
Search by Subject Code								
Subject Code	Subject Name	Teacher's Name	Description	Monthly Fee	Relative Grade	Active Status	Update	Delete
SUB001	Sinhala	Chathura	good	1000	8-A	false	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB002	Science	Shanthy	Science for learning	1000	11-B	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB003	Music	Sanduni	good subject	1000	8-B	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB005	Geography	Dilini	Geography is good subject	1000	11-A	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB006	maths	Chathura	good subject	1000	9-B	false	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
SUB007	Art	Dilki	Art is good subject	100	8-A	false	<button>Update</button>	<button>Active</button> <button>Deactivate</button>

[BACK](#)

This is Active(true) subject

SUB007	Art	Dilki	Art is good subject	100	8-A	true	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
--------	-----	-------	---------------------	-----	-----	------	-------------------------	---

This is Deactive(false)Subject

SUB007	Art	Dilki	Art is good subject	100	8-A	false	<button>Update</button>	<button>Active</button> <button>Deactivate</button>
--------	-----	-------	---------------------	-----	-----	-------	-------------------------	---

f) Generate Report

Click Generate Report button(Admin Dashboard) after show this button in View page
After that click Print button. System will print the report or save as a pdf.

Subject Summary						
Subject Code	Subject Name	Teacher's Name	Description	Monthly Fee	Relative Grade	Active Status
SUB001	Sinhala	Chathura	good	1000	8-A	false
SUB002	Science	Shanthi	Science for learning	1000	11-B	true
SUB003	Music	Sanduni	good subject	1000	8-B	true
SUB005	Geography	Dilini	Geography is good subject	1000	11-A	true
SUB006	maths	Chathura	good subject	1000	9-B	false
SUB007	Art	Hasith	Art is good subject	100	10-A	true

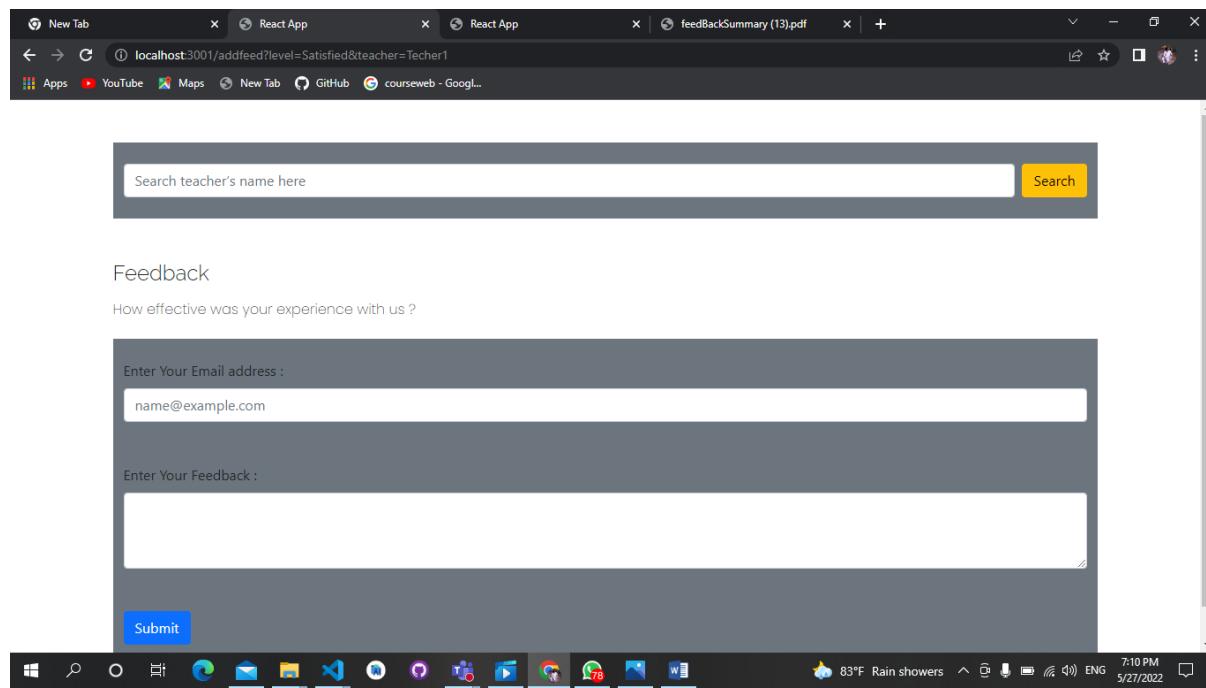
[Print](#) [BACK](#)

Subject Code	Subject Name	Teacher's Name	Description	Monthly Fee	Relative Grade	Active Status
SUB001	Sinhala	Chathura	good	1000	8-A	false
SUB002	Science	Shanthi	Science for learning	1000	11-B	true
SUB003	Music	Sanduni	good subject	1000	8-B	true
SUB005	Geography	Dilini	Geography is good subject	1000	11-A	true
SUB006	maths	Chathura	good subject	1000	9-B	false

6. Feedback Management

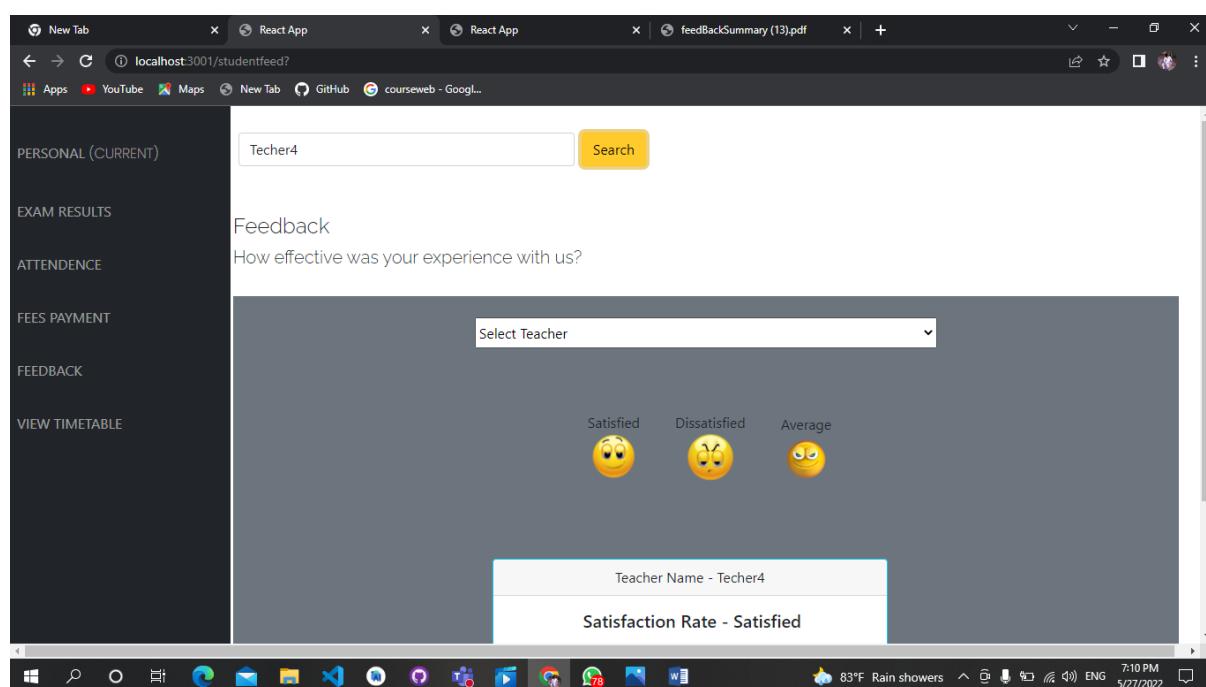
a) Add Feedback

Here the email address is given and after giving the feedback message click the button and the feedback is successfully added.



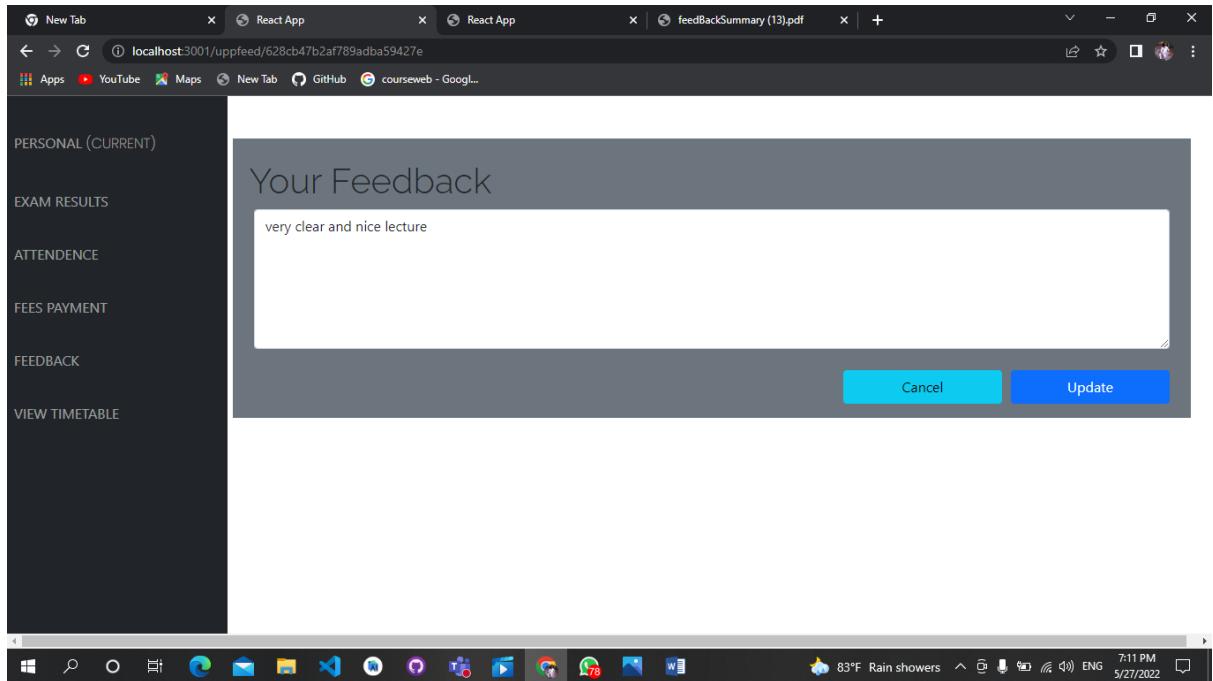
b) View feedback

After entering the feedback, the data is displayed on this page



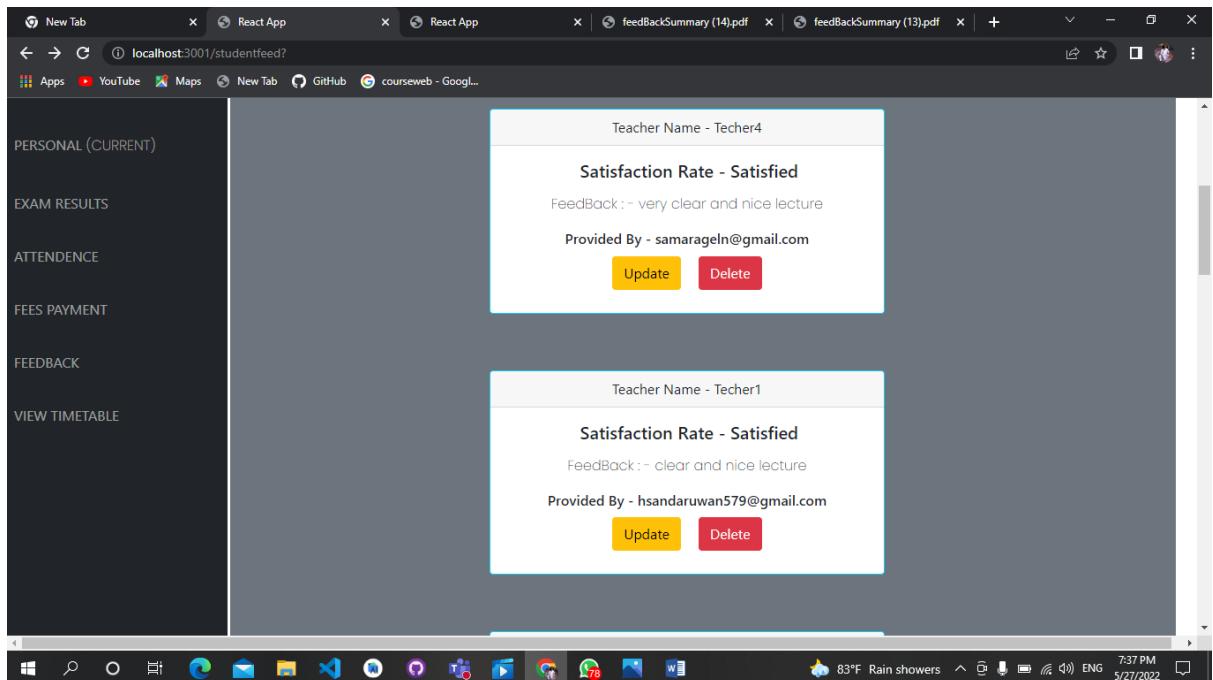
c) Update Feedback

When user enter update button navigate to this page. After giving changed message and click update button data will view



d) Delete Feedback

When the user clicks the delete button in the view all page, data will delete successfully.



e) Report Feedback

Here all the data can be seen as a summary

The screenshot shows a web browser window with four separate feedback summaries listed under the teacher name "Teacher1". Each summary includes the teacher's name, satisfaction rate, feedback text, and provider email.

Teacher Name	Satisfaction Rate	Feedback	Provided By
Teacher1	Satisfied	FeedBack :- clear and nice lecture	hsandaruwan579@gmail.com
Teacher1	Satisfied	FeedBack :- enjoy it	hsandaruwan579@gmail.com
Teacher1	Satisfied	FeedBack :- very clear	hsandaruwan579@gmail.com
Teacher1	Satisfied	FeedBack :- nice teacher	hsandaruwan579@gmail.com

Here admin can see how the data is filtered after clicking the generate report button

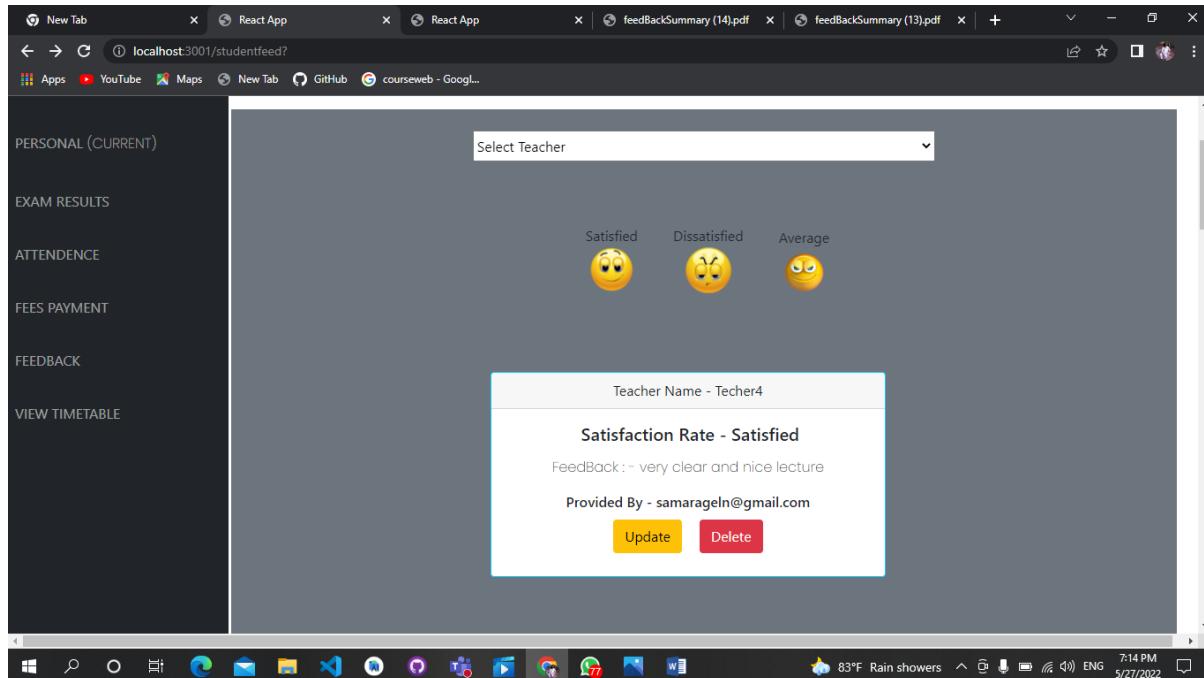
The screenshot shows a web browser displaying a PDF document titled "feedBackSummary (14).pdf". The PDF contains a summary of feedback for Teacher1, including their ID, name, and statistics about satisfied and dissatisfied feedbacks.

LABORTARY INS | FeedBack Summary |

Teacher Id : 628e9310394fc7e963ee6773
Teacher Name : Teacher1
Satisfied feedBacks: 6
DisSatisfied feedBacks: 0
Average feedBacks: 0

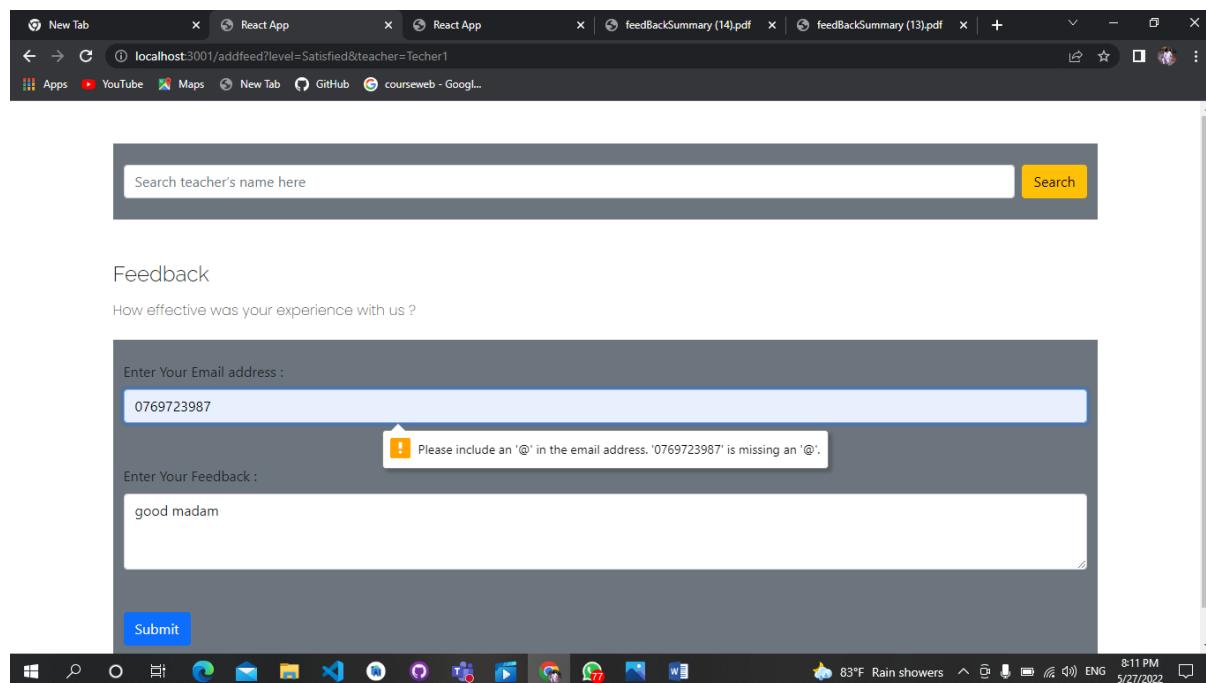
f) Search Feedback

After Searching the name of the teacher in the search bar above ,student can get the relevant data



g) Validation

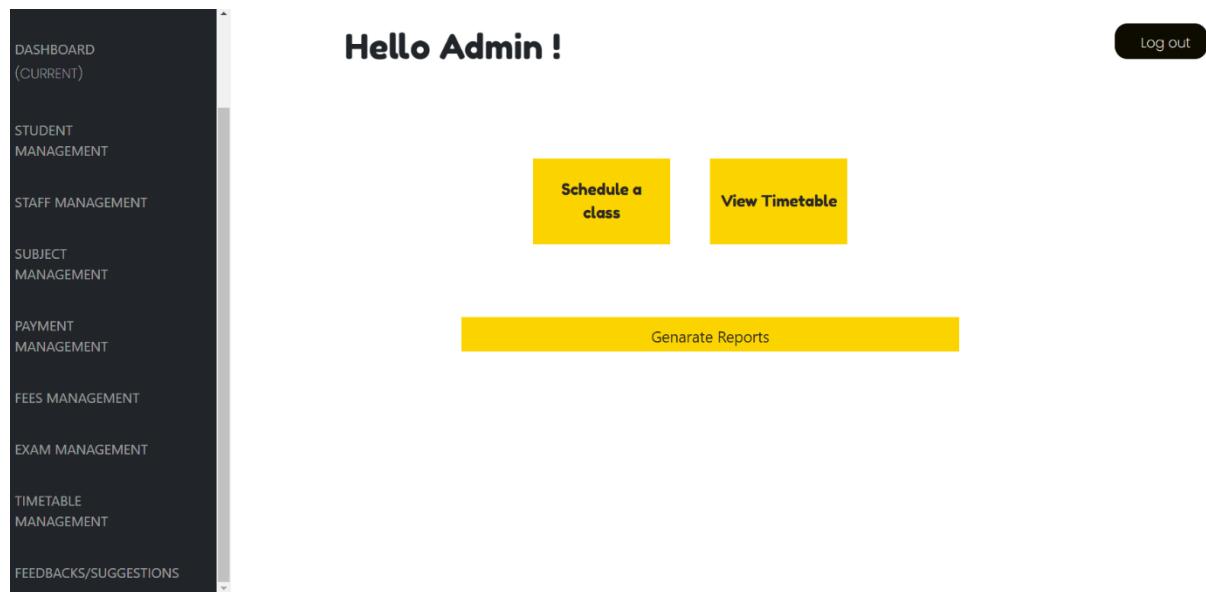
If the email address to be entered is incorrect,you will receive an error message like this.



7. Timetable Management

Admin

Admin can manage the timetable using this interface.



a) Schedule a class

The admin can schedule a class by filling these fields and clicking the Add Class button.

The screenshot shows the "Schedule a class" form. It includes the following fields: "Day of Week" (Wednesday), "From" (08:00 AM), "To" (10:00 AM), "Grade" (Grade 6), "Subject" (English), "Teacher Name" (Mr. Amal), "Hall No." (IMS01), and "Webinar Link" (www.zoom.us). At the bottom of the form are two buttons: a blue "Add Class" button and a green "Demo" button.

b) View timetable

This page views all the scheduled classes. The admin updates the details by clicking the update button and cancel the schedule by clicking the cancel button.

The screenshot shows a sidebar menu on the left with various management options: DASHBOARD (CURRENT), STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENT, FEES MANAGEMENT, EXAM MANAGEMENT, TIMETABLE MANAGEMENT, and FEEDBACKS/SUGGESTIONS. The main area has a title "Hello Admin!" and a "Log out" button. Below the title is a row of buttons for "Monday", "Tuesday", "Wednesday", "Thursday", and "Friday". A table lists scheduled classes with columns for Day, Time, Grade, Subject, Teacher, Hall No., and Webinar Links. Each row includes "Update" and "Cancel" buttons. The table data is as follows:

Day	Time	Grade	Subject	Teacher	Hall No.	Webinar Links
Monday	10:00 12:00	7	Science	Mr. Anuradha	IMS02	www.zoom.us1
Saturday	10:00 12:00	7	Science	Mrs. Hansi	IMS02	www.zoom.us1
Wednesday	10:00 12:00	7	Science	Mrs. Hansi	IMS05	www.zoom.us1
Monday	08:00 10:00	6	English	Mr. Amal	IMS01	www.zoom.us
Wednesday	08:00 10:00	6	English	Mr. Anuradha	IMS01	www.zoom.us
Wednesday	08:00 10:00	6	English	Mr. Amal	IMS01	www.zoom.us

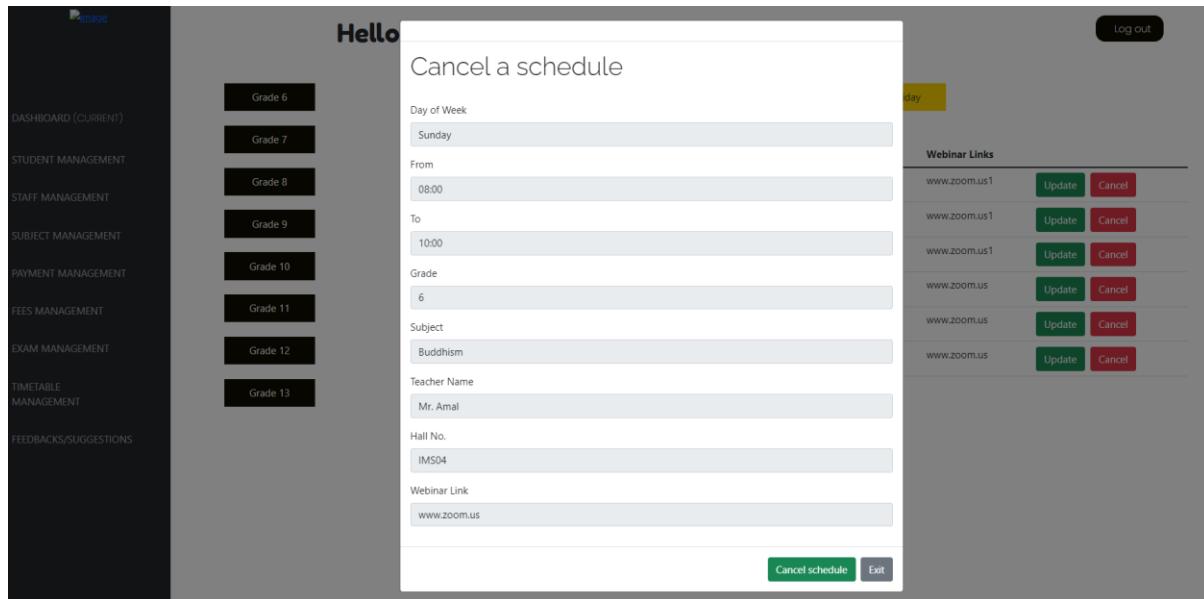
c) Update a scheduled class – modal box

Once the Update is clicked in the view all page, the admin can change the fetched details in the fields and click Update Schedule to update the details.

The screenshot shows a modal dialog box titled "Update a schedule" over a darkened background. The modal contains fields for Day of Week (Wednesday), From (08:00 AM), To (10:00 AM), Grade (6), Subject (English), Teacher Name (Mr. Amal), Hall No. (IMS01), and Webinar Link (www.zoom.us). At the bottom are "Update schedule" and "Exit" buttons. The background shows the same table from the previous screenshot.

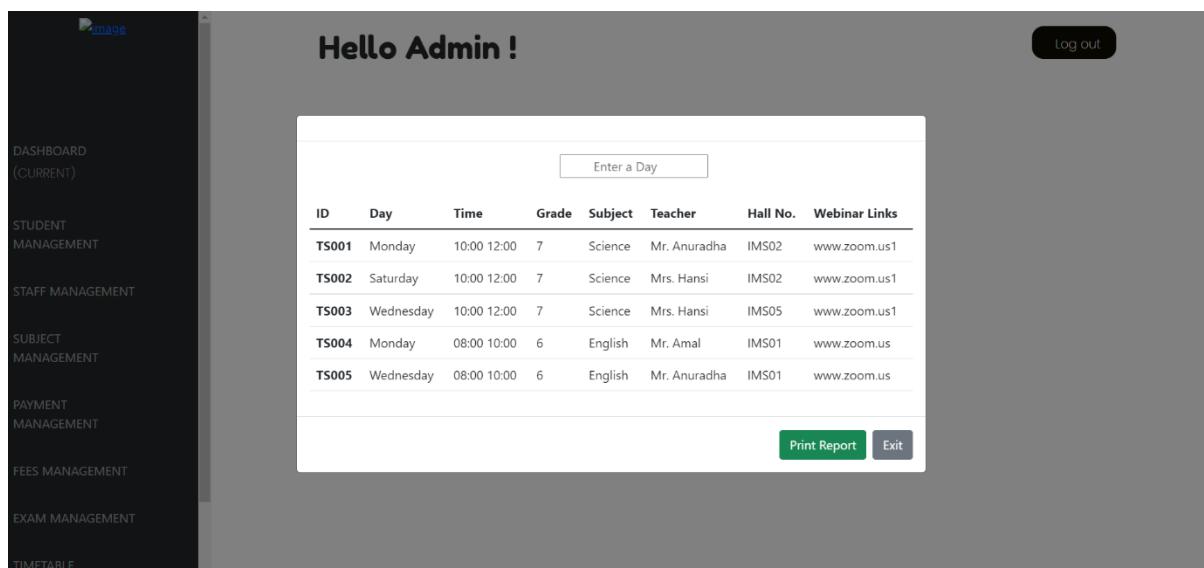
d) Cancel a scheduled class – modal box

When the admin clicks the Cancel button in the view all page, the box pops with the fetch details. Once the Cancel Schedule button is clicked the details will be deleted from the database.



e) Generate report – modal box

When the Generate Report in the Timetable admin panel a popup is popped with the details form the database.



f) Print report

When the Print Report button is clicked a pdf is generated with all the scheduled classes.

The screenshot shows a web-based administrative interface. On the left is a sidebar with links: DASHBOARD (CURRENT), STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENT, FEES MANAGEMENT, EXAM MANAGEMENT, and TIMETABLE. The main area displays a table of scheduled classes:

ID	Day	Time	Grade	Subject	Teacher	Hall No.	Webinar Links
TS001	Monday	10:00 12:00	7	Science	Mr. Anuradha	IMS02	www.zoom.us1
TS002	Saturday	10:00 12:00	7	Science	Mrs. Hansi	IMS02	www.zoom.us1
TS003	Wednesday	10:00 12:00	7	Science	Mrs. Hansi	IMS05	www.zoom.us1
TS004	Monday	08:00 10:00	6	English	Mr. Amal	IMS01	www.zoom.us
TS005	Wednesday	08:00 10:00	6	English	Mr. Anuradha	IMS01	www.zoom.us

A print dialog box is overlaid on the screen, showing options for '1 sheet of paper' with 'Microsoft Print to PDF' selected as the destination. Other settings include 'All' pages, 'Portrait' layout, and 'Color'. At the bottom right of the print dialog are 'Print' and 'Cancel' buttons.

g) Generate daily report – modal box

Once the day is typed in the above search bar the details relative to the day is displayed with a Print Daily Report button.

The screenshot shows a modal window titled 'Report' with the sub-tittle 'Report of classes scheduled in a specific day'. Inside the modal, there is a table of scheduled classes for Monday:

ID	Day	Time	Grade	Subject	Teacher	Hall No.	Webinar Links
TS001	Monday	10:00 12:00	7	Science	Mr. Anuradha	IMS02	www.zoom.us1
TS004	Monday	08:00 10:00	6	English	Mr. Amal	IMS01	www.zoom.us

At the bottom of the modal are two buttons: 'Print Daily Report' (in green) and 'Exit' (in grey).

h) Print daily report

When the Print Daily Report button is clicked a pdf is generated with all the scheduled classes held for the above day.

The screenshot shows a web-based application interface. On the left, there is a sidebar with various management options: DASHBOARD (CURRENT), STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENT, FEES MANAGEMENT, EXAM MANAGEMENT, and TIMETABLE. The main area displays a table titled "Report of classes scheduled in a specific day". The table has columns for ID, Day, Time, Grade, Subject, Teacher, Hall No., and Webinar Links. It contains two rows of data: TS001 (Monday, 10:00-12:00, Grade 7, Science, Mr. Anuradha, IMS02, www.zoom.us1) and TS004 (Monday, 08:00-10:00, Grade 6, English, Mr. Amal, IMS01, www.zoom.us). To the right of the table, a "Print" dialog box is open, showing settings for "1 sheet of paper", "Destination: Microsoft Print to PDF", "Pages: All", "Layout: Portrait", and "Color: Color". At the bottom right of the dialog are "Print" and "Cancel" buttons. A "Log out" link is visible in the top right corner of the main window.

Teacher

Teacher can manage the timetable using this interface.

The screenshot shows a teacher-specific interface. At the top, there is a navigation bar with links for HOME, SUPPORT SERVICES, RESOURCES, CONTACT US, and a LOGIN button. Below the navigation bar, the text "Hello Teacher !" is displayed in a large, bold font. Underneath this, there are two prominent yellow rectangular buttons: "Schedule a class" and "View Timetable". The background is white, and the overall layout is clean and modern.

i) Schedule a class

The teacher can schedule a class by filling these fields and clicking the Add Class button.

Schedule a class

Day of Week
Thursday

From
10:00 AM

To
12:00 PM

Grade
Grade 7

Subject
Science

Teacher Name
Mrs. Hansi

Hall No.
IMS02

Webinar Link
www.zoom.us1

Add Class Demo

j) View timetable

This page views all the scheduled classes. The teacher updates the details by clicking the update button and cancel the schedule by clicking the cancel button. The teacher can search the required grade and day in the below search bars.

Grade 6

Grade 7

Grade 8

Grade 9

Grade 10

Grade 11

Grade 12

Grade 13

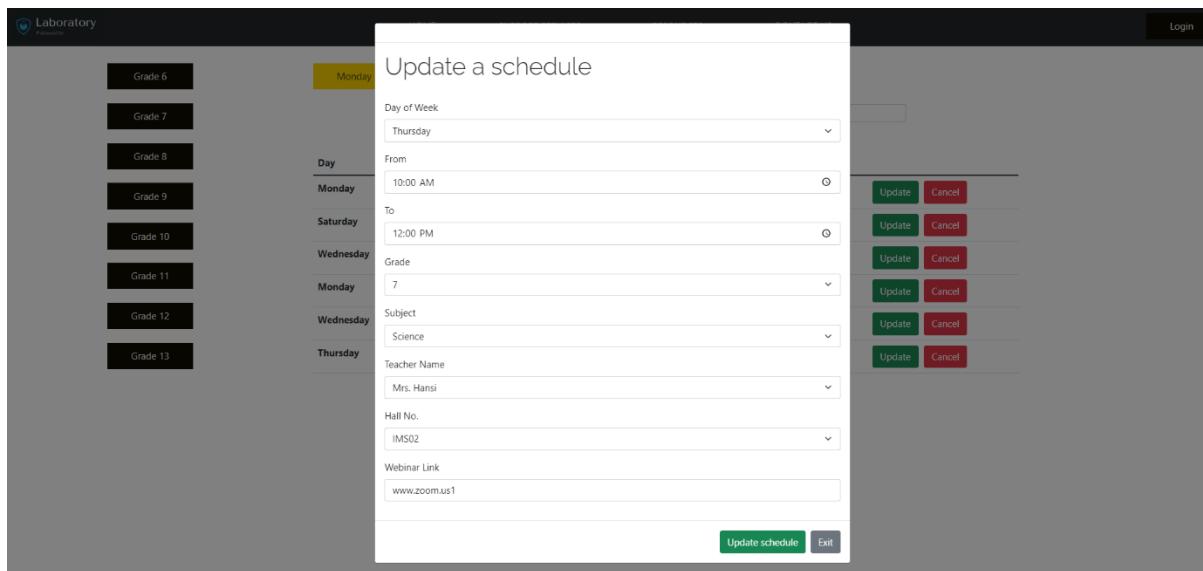
Monday Tuesday Wednesday Thursday Friday

Grade... Day...

Day	Time	Grade	Subject	Teacher	Hall No.	Webinar Links	Update	Cancel
Monday	10:00 12:00	7	Science	Mr. Anuradha	IMS02	www.zoom.us1	Update	Cancel
Saturday	10:00 12:00	7	Science	Mrs. Hansi	IMS02	www.zoom.us1	Update	Cancel
Wednesday	10:00 12:00	7	Science	Mrs. Hansi	IMS05	www.zoom.us1	Update	Cancel
Monday	08:00 10:00	6	English	Mr. Amal	IMS01	www.zoom.us	Update	Cancel
Wednesday	08:00 10:00	6	English	Mr. Anuradha	IMS01	www.zoom.us	Update	Cancel
Thursday	10:00 12:00	7	Science	Mrs. Hansi	IMS02	www.zoom.us1	Update	Cancel

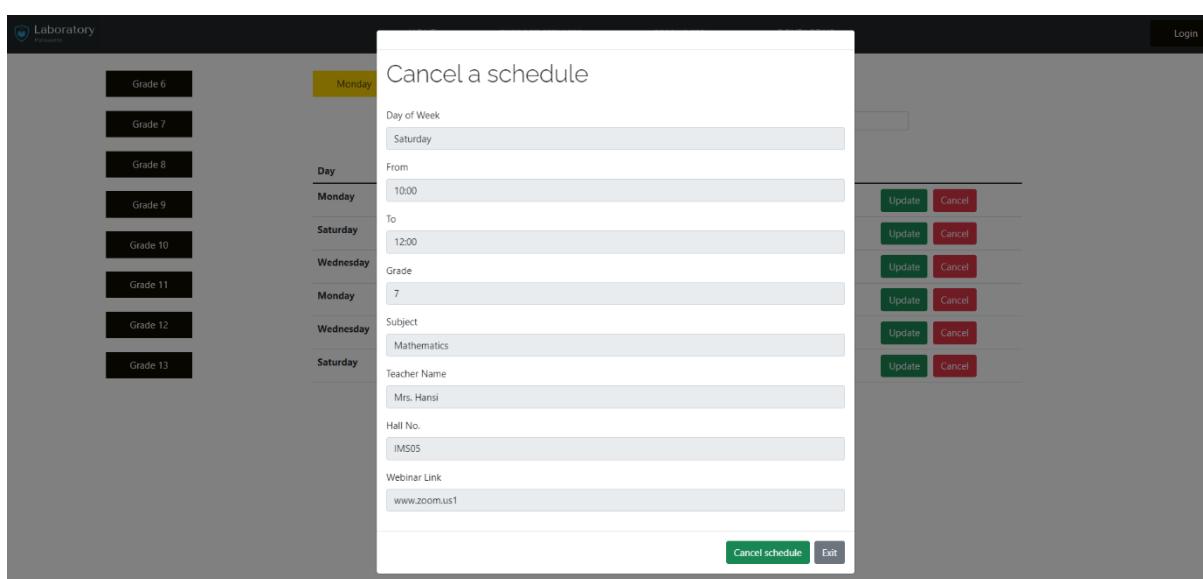
k) Update a scheduled class – modal box

Once the Update is clicked in the view all page, the teacher can change the fetched details in the fields and click Update Schedule to update the details.



l) Cancel a scheduled class – modal box

When the teacher clicks the Cancel button in the view all page, the box pops with the fetch details. Once the Cancel Schedule button is clicked the details will be deleted from the database.



m) Search classes by grade – modal box

The class schedules for the typed grade is displayed in the below popped up modal.

The screenshot shows a modal window titled "Search Scheduled Class". Inside, there is a table with the following data:

Grade	Day	Time	Subject	Teacher	Hall No.	Webinar Links
7	Monday	10:00 12:00	Science	Mr. Anuradha	IMS02	www.zoom.us1
7	Saturday	10:00 12:00	Science	Mrs. Hansi	IMS02	www.zoom.us1
7	Wednesday	10:00 12:00	Science	Mrs. Hansi	IMS05	www.zoom.us1

At the bottom right of the modal is a "Cancel" button, and at the bottom center is an "Exit" button.

n) Search classes by day– modal box

The class schedules for the typed day is displayed in the below popped up modal.

The screenshot shows a modal window titled "Search Scheduled Class". Inside, there is a table with the following data:

Day	Time	Grade	Subject	Teacher	Hall No.	Webinar Links
Monday	10:00 12:00	7	Science	Mr. Anuradha	IMS02	www.zoom.us1
Monday	08:00 10:00	6	English	Mr. Amal	IMS01	www.zoom.us

At the bottom right of the modal is a "Cancel" button, and at the bottom center is an "Exit" button.

o) View timetable (Student)

The Students can access the below page with all the scheduled classes. The student can search the required grade and day in the below search bars.

The screenshot shows the Laboratory Palawatte website's timetable section. At the top, there is a navigation bar with links for HOME, SUPPORT SERVICES, RESOURCES, CONTACT US, and a LOGIN button. Below the navigation bar, there is a sidebar on the left containing buttons for Grade 6 through Grade 13. To the right of the sidebar, there are five colored buttons for the days of the week: Monday (yellow), Tuesday (blue), Wednesday (green), Thursday (orange), and Friday (purple). Below these day buttons are two input fields: 'Grade...' and 'Day...'. To the right of these fields is a table displaying the class schedule. The table has columns for Day, Time, Grade, Subject, Teacher, Hall No., and Webinar Links. The data in the table is as follows:

Day	Time	Grade	Subject	Teacher	Hall No.	Webinar Links
Monday	10:00 12:00	7	Science	Mr. Anuradha	IMS02	www.zoom.us1
Saturday	10:00 12:00	7	Science	Mrs. Hansi	IMS02	www.zoom.us1
Wednesday	10:00 12:00	7	Science	Mrs. Hansi	IMS05	www.zoom.us1
Monday	08:00 10:00	6	English	Mr. Amal	IMS01	www.zoom.us
Wednesday	08:00 10:00	6	English	Mr. Anuradha	IMS01	www.zoom.us

p) Search classes by grade – modal box

The class schedules for the typed grade is displayed in the below popped up modal.

The screenshot shows a modal box titled "Search Scheduled Class" overlaid on the main website content. The modal has a header "Search details" and a table displaying class schedules for Grade 6. The table has columns for Grade, Day, Time, Subject, Teacher, Hall No., and Webinar Links. The data in the table is as follows:

Grade	Day	Time	Subject	Teacher	Hall No.	Webinar Links
6	Monday	08:00 10:00	English	Mr. Amal	IMS01	www.zoom.us
6	Wednesday	08:00 10:00	English	Mr. Anuradha	IMS01	www.zoom.us

At the bottom right of the modal is a "Exit" button.

q) Search classes by day– modal box

The class schedules for the typed day is displayed in the below popped up modal.

A screenshot of a web application interface. At the top, there is a navigation bar with links for HOME, SUPPORT SERVICES, RESOURCES, CONTACT US, and a LOGIN button. Below the navigation bar, there is a horizontal row of buttons for days of the week: Monday, Tuesday, Wednesday, Thursday, and Friday. The 'Wednesday' button is highlighted with a yellow background. To the left of the main content area, there is a vertical list of grade levels from Grade 6 to Grade 13, each in its own black button. The main content area contains a modal window titled 'Search Scheduled Class'. Inside the modal, there is a section titled 'Search details' which includes a table with columns: Day, Time, Grade, Subject, Teacher, Hall No., and Webinar Links. Two rows of data are shown:

Day	Time	Grade	Subject	Teacher	Hall No.	Webinar Links
Wednesday	10:00 12:00	7	Science	Mrs. Hansi	IMS05	www.zoom.us1
Wednesday	08:00 10:00	6	English	Mr. Anuradha	IMS01	www.zoom.us

At the bottom right of the modal is a small 'Exit' button.

8. Payment Management

a) Search Payment

Admin can Search for a payment detail by typing the payment ID in the search box

A screenshot of a web application interface. On the left, there is a vertical sidebar with a dark background containing a list of management modules: DASHBOARD, STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENTS, FEES MANAGEMENT, EXAM MANAGEMENT, TIMETABLE MANAGEMENT, and FEEDBACKS/SUGGESTIONS. The main content area has a light gray background. At the top center, it says 'Hello Admin !' and has a 'Log out' button. Below this, there are two yellow buttons: 'Add Salary Payment' and 'Search Salary Payment'. A modal window titled 'Search Salary Payment' is open in the center. It contains a text input field labeled 'Enter Payment ID:' with the value 'PID001' and a 'Search' button. There is also a 'Cancel' button at the bottom right of the modal.

b) View Searched Payment

The searched payment detail is displayed when enter is pressed

A screenshot of a web application interface. At the top, a dark header bar displays the text "Hello Admin!" on the left and "Log out" on the right. Below this, a modal window titled "View Salary Payment" is centered. The modal contains five input fields: "EmployeeID" (S001), "Employee Type" (nonAcademic), "Name" (nimi), "Month" (yyyy-mm-dd), and "Amount" (Rs 20000). A red "Cancel" button is located at the bottom right of the modal. To the left of the modal is a vertical sidebar with navigation links: DASHBOARD, STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENTS, FEES MANAGEMENT, EXAM MANAGEMENT, TIMETABLE MANAGEMENT, and FEEDBACKS/SUGGESTIONS.

c) View All Payments

This page shows all the payments recorded in the database.

A screenshot of a web application interface. At the top, a dark header bar displays the text "Hello Admin!" on the left and "Log out" on the right. Below this, a modal window titled "View Salary Payment" is centered. Inside the modal, there is a heading "Payment History" followed by a table with the following data:

Payment ID	Employee ID	Employee Type	Name	Month	Salary	Actions
PID001	S001	nonAcademic	nimi	January	Rs 20000	<button>Update</button>
PID002	S002	Academic	Sandalika	February	Rs 10000	<button>Update</button>
PID003	S004	Accademic	Supune	January	Rs10000	<button>Update</button>
PID004	S001	nonAcademic	nimi	March	Rs 20000	<button>Update</button>
PID005	S005	Academic	uieuyi	November	Rs 20000	<button>Update</button>

A red "Cancel" button is located at the bottom right of the modal. To the left of the modal is a vertical sidebar with navigation links: DASHBOARD, STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENTS, FEES MANAGEMENT, EXAM MANAGEMENT, TIMETABLE MANAGEMENT, and FEEDBACKS/SUGGESTIONS.

d)

Create Payment

The admin can add a payment by clicking on the Add payment button on Admin Payment panel

A screenshot of a web application interface. On the left is a dark sidebar with white text links: DASHBOARD, STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEMENTS, FEES MANAGEMENT, EXAM MANAGEMENT, TIMETABLE MANAGEMENT, and FEEDBACKS/SUGGESTIONS. The main area has a dark header with "Hello Admin!" and a "Log out" button. A modal window titled "Add Salary Payment" is open. It contains fields for Employee ID (S001), Employee Type (nonAcademic), Name (nimi), Month (Select Month dropdown), and Salary (Rs 20000). At the bottom are "Add Payment" and "Cancel" buttons.

e)

Update Payment

Once the update button in view page is clicked a modal box with fetched details is popped up and the admin can change the details and press Update Payment

A screenshot of a web application interface. The sidebar and header are identical to the previous screenshot. A modal window titled "View Salary Pa" (partially visible) is open. It shows a table of payment records with columns: Payment ID, EmployeeID, Employee Type, Name, Month, Amount(Current), and Actions. The first row (Payment ID PID001) is selected. The "Actions" column for this row contains five blue "Update" buttons. The "Update" button for the first row is highlighted. The modal also contains a "Cancel" button. The "Amount(New)" field for the selected row is set to Rs 10000.

f) Generate All Payment Report

This window shows all the payments made which can be printed as a report when the Print Report button is clicked.

The screenshot shows a dark-themed application window titled "Hello Admin !". On the left is a vertical sidebar with navigation links: DASHBOARD, STUDENT MANAGEMENT, STAFF MANAGEMENT, SUBJECT MANAGEMENT, PAYMENT MANAGEME, FEES MANAGEMENT, EXAM MANAGEMENT, TIMETABLE MANAGEMENT, and FEEDBACKS/SUGGESTIONS. The main content area has a title "Report Of All Payments". It contains a table with the following data:

Payment ID	Employee ID	Employee Type	Name	Month	Salary
PID001	S001	nonAcademic	nimi	January	Rs 20000
PID002	S002	Academic	Sandalika	February	Rs 10000
PID003	S004	Accademic	Supune	January	Rs10000
PID004	S001	nonAcademic	nimi	March	Rs 20000
PID005	S005	Academic	uieuyi	November	Rs 20000

At the bottom right of the content area are two buttons: "Print Report" (blue) and "Cancel" (red).

g) Generate Filtered Month Report

When a month is typed and entered the payments relevant to that month is displayed in below window which can be printed as a report when the Print Report button is clicked.

The screenshot shows a dark-themed application window titled "Hello Admin !". The sidebar is identical to the previous screenshot. The main content area has a title "Report" and a subtitle "Report of Payments Of A Specific Month". A dropdown menu above the table shows "January". It contains a table with the following data:

Payment ID	Employee ID	Employee Type	Name	Month	Salary
PID001	S001	nonAcademic	nimi	January	Rs 20000
PID002					Rs 10000
PID003	S004	Accademic	Supune	January	Rs10000
PID004					Rs 20000
PID005					Rs 20000

At the bottom right of the content area are three buttons: "Print Report" (blue), "Cancel" (red), and another "Print Report" (blue) button.

2.3 Testing

Exam Management – Search Grade to View Scheduled Exam

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
Test_001	6	Details of the Scheduled Exam of Entered Grade	Details of the Scheduled Exam Of Entered Grade	Pass	
Test_001	10	Unsuccess Message Popup	Unsuccess Message Popup	Pass	An unsuccessful message is popped up when a wrong Grade is entered.

Student Management –Register Student

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
Test_002	Full Name – Prathibha Age – 23 Gender - Female Exam Year – 2018 School – Montessori Email – p@gmail.com Address – Balangoda Phone number- 0773427863 Grade – 12 Username – prath@123 Password - *****	Details successfully added to the database	Details successfully added to the database	Pass	
Test_002	Full Name – Prathibha Age – 23 Gender - Female Exam Year – 2018 School – Montessori Email – p@gmail.com Address – Balangoda Phone number- 077342786354 Grade – 12 Username – prath@123 Password - *****	Details not added due numbers more than 10 in Phone Number field	Details not added due numbers more than 10 in Phone Number field	Pass	

Staff Management –Search Staff

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
Test_003	S001	Details of the Staff ID – S001	Details of the Staff ID – S001	Pass	
Test_003	S004	Unsuccess Message Popup	Unsuccess Message Popup	Pass	An unsuccessful message is popped up when a wrong StaffID is entered.

Payment Management –Create Payment

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
Test_005	Employee ID: EID001 Employee Type: Academic Name: Mr. Raj Month: January Salary: Rs 10000	Details successfully added to the database	Details successfully added to the database	Pass	
Test_005	Employee ID: EID001 Employee Type: Academic Name: Mr. Raj Month: January Salary: Rs 10000	Error Message Displaying That Already Paid for The Mentioned Employee ID and Month	Error Message Displaying That Already Paid for The Mentioned Employee ID and Month	Pass	

Feedback Management – Add Feedback

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
Test_006	Add Teacher:Teache1 Satisfied Rate:Satisfied Email:123@gmail.com Message:Nice Teacher	Details successfully added to the database	Details successfully added to the database	Pass	
Test_006	Add Teacher:Teache1 Satisfied Rate:Satisfied Email:0769789562 Message:Nice Teacher	Use the correct Email	Use the correct Email	Pass	

Timetable Management – Search Day to View Scheduled Classe

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
Test_004	Monday	Details of the Scheduled Classes of Entered Day	Details of the Scheduled Classes of Entered Day	Pass	
Test_004	Tuesday	Unsuccess Message Popup	Unsuccess Message Popup	Pass	An unsuccessful message is popped up when that day have no scheduled classes.

Subject Management –Search Subject Code

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
Test_007	SUB001	Details shown the popup message this page	Details shown the popup message this page	Pass	
Test_007	SUB007	Not enter properties this code Unsuccess Message Popup	Unsuccess Message Popup	pass	

Fees Management –Enter Student Fees

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
Test_008	Student ID: STD001 Name: Mandini Grade: Grade 10 Subject: Grade 10 Teachers Name: Miss. Sandalika Month: January Monthly Fee: Rs 1000	Details successfully added to the database	Details successfully added to the database	Pass	
Test_008	Student ID: STD001 Name: Mandini Grade: Grade 10 Subject: Grade 10 Teachers Name: Miss. Sandalika Month: January Monthly Fee: Rs 1000	Error Message Displaying That Already Paid for The Mentioned Employee ID and Month	Error Message Displaying That Already Paid for The Mentioned Employee ID and Month	Pass	

3. Evaluation

3.1. Assessment of the project results

This system has been developed for Laboratory Palawatte after a good analysis of the client requirements. As in general impression, the project was assessed to have covered all the client requirements, while providing some additional features. The user friendliness of the UI designs and the complete overall coverage of each of the functionalities can be quoted as the strongly evaluated points. Considering each of the individual functionalities, the group had identified seven different scopes. Each of these scopes had been implemented with all necessary logics. Moreover, the individual scopes were all achieved completely.

However, some weaknesses of the final product too could be evaluated. Based on the evaluators remarks, the system is expected to have been more professional. Further, the system was more complex to implement than expected, which paved the pathway to do minor changes in every functionality. Also, achieving a fully secured and fraudulent free product was an extremely hard challenge which can be evaluated as a project limitation.

Therefore overall, the project was at good standards and included all necessary requirements, logics and was fully functional. The identified weaknesses and limitations are planned to be resolved in the future and few additional implementations too are planned to be implemented, to make this product a complete software package

3.2. Lessons Learned

Learning and working effectively as part of a team or group is an extremely important skill, and one that is refined and used throughout working life. Group projects are among the most valuable and rewarding learning experiences. When considering the ITP group project, many factors helped the team members to further improve and enhance the personal carrier. More importantly, understanding and sharing the diverse perspectives among the members, allowed the team to focus on many wise decisions across the various phases of the project. Also, accepting and understanding the individual works and functions which were assigned in the beginning of the project and completing it successfully played a vital role in the development process of the project. This will enable the members to do the same in the future carrier projects as well. A main learning outcome was completing project on the scheduled date and time. This learning outcome is an essential characteristic which must be a major encouraging aspect on an individual's success. Finally, learning to compromise and communicate effectively with the team members helped the group to work productively towards a common goal.

3.3.Future Work

Many different adaptations, tests, and experiments have been left for the future due to lack of time. Future work concerns deeper analysis of mechanisms, new proposals to try different methods, or simply curiosity. New proposals include displaying new arrivals and coming soon products, which will increase the customers' interest and satisfaction. Another proposal is that developing the client side interfaces in a more professional way which will ultimately increase the customers' attraction towards our system. Moreover, implementing payment gateway methods which will facilitate online payment transactions between student and the institute has also been proposed. Finally facilitating the students to provide suggestions and feedbacks which will eventually help the organization and staff to improve, develop and implement the necessities of the students which will ultimately increase the standard of the organization.

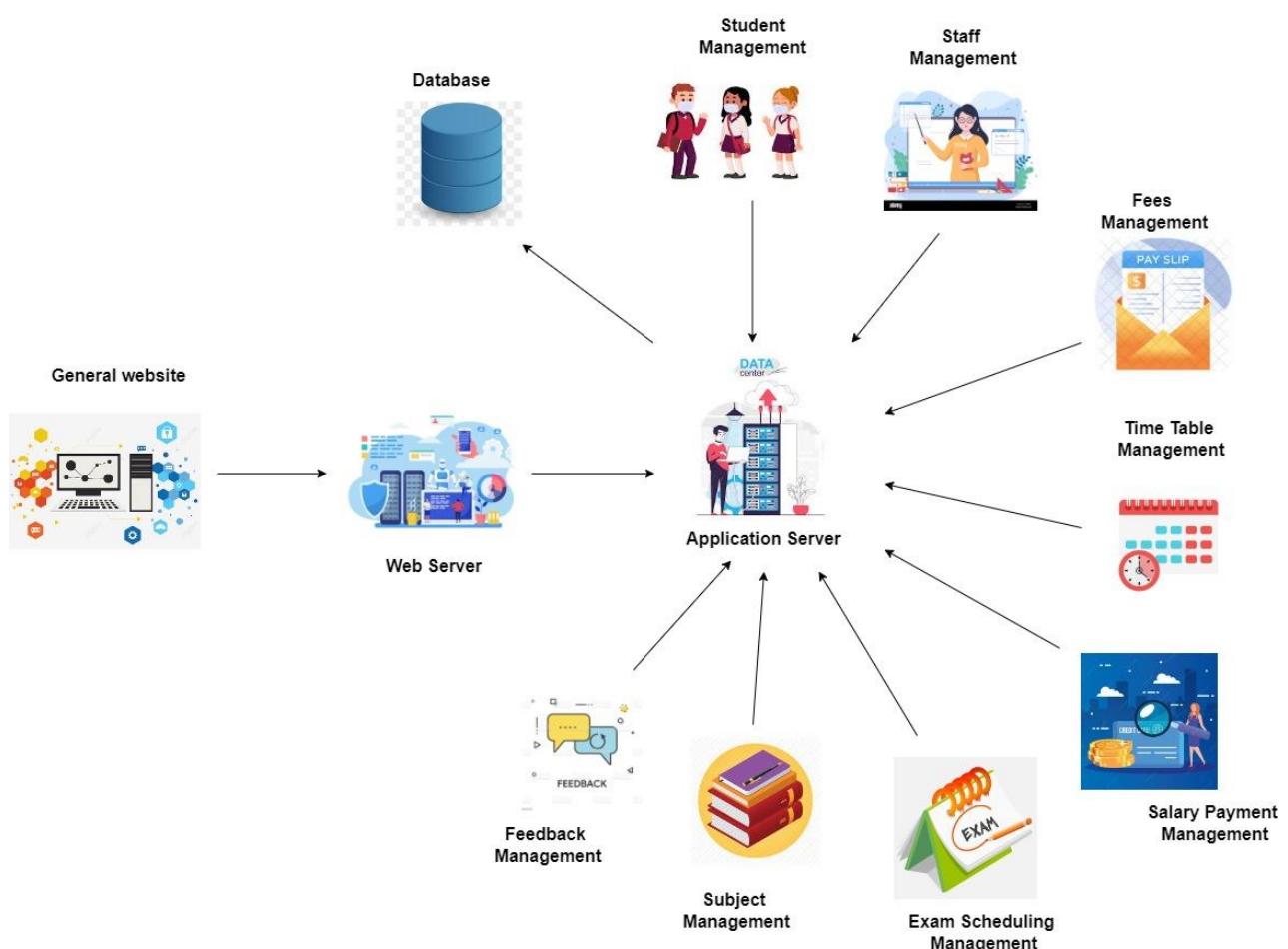
4. Conclusion

This project was designed for the client who owns the above-mentioned institute to automate the manual processes of handling the management tasks of the institute. While gathering and analyzing the requirements, some potential issues of the prevailing system of the institute was discovered, and the main objective of developing this system was to automate the entire system, while providing the users of the system an interactive experience and allowing the management to facilitate their day to day tasks efficiently and easily. Furthermore, the system has been developed in correspond to customer-client requirements of the institute. As the final system was presented to the client, the advocates concluded that the online system developed does enough justice to the client requirements.

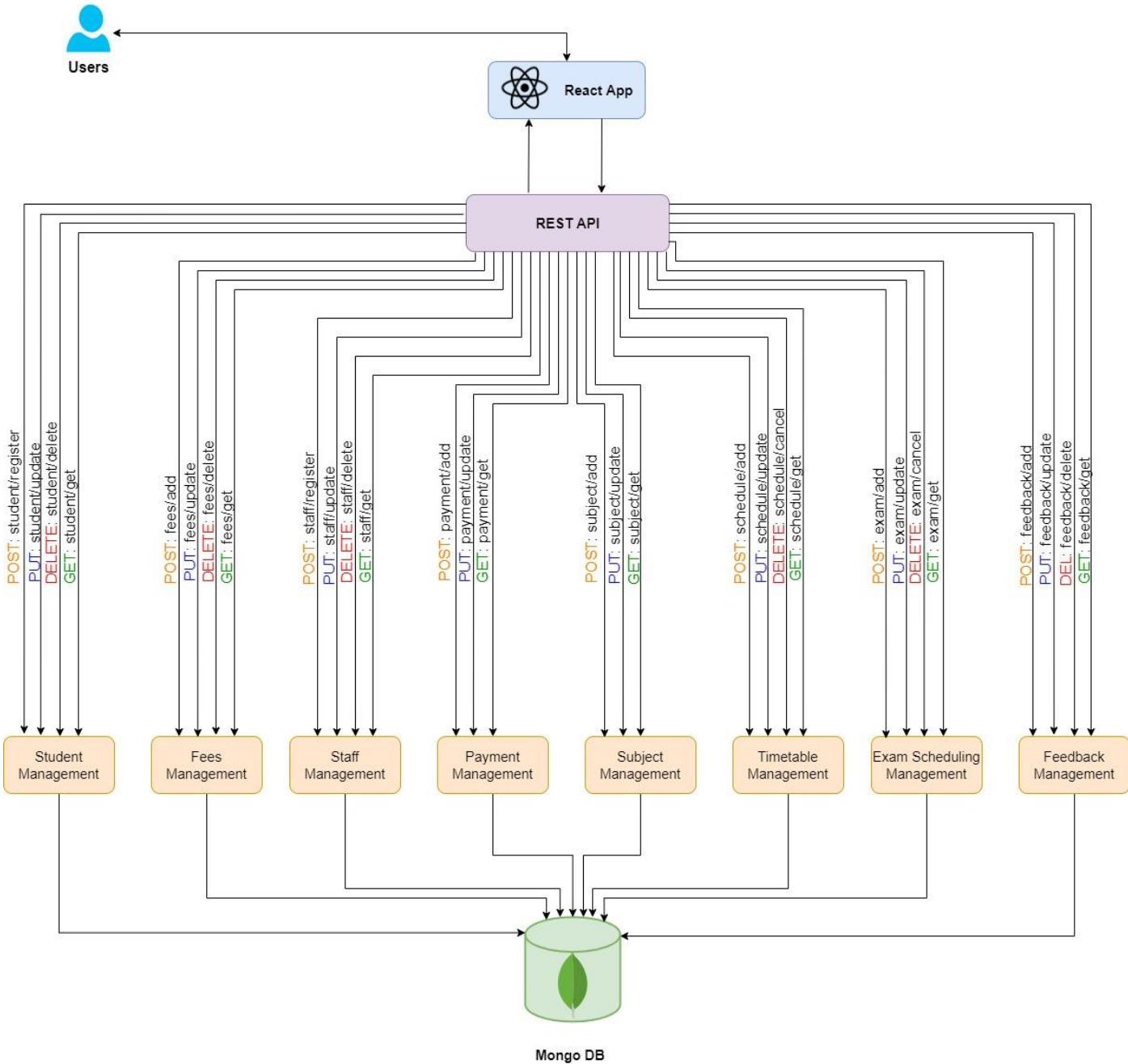
However, some shortcomings like lack of professionalism and few could be identified in the system. As a team in future, we have implemented to overcome them. Moreover, the system possess few limitations too. This system is developed using MERN Stack JavaScript Framework and developed using MERN architecture, while MongoDB was used for database purposes, due to their flexibility, security, and performance. But these technologies are ever-changing and tends to become outdated. Also, building an entirely fool proof system is an extremely difficult task. Therefore, to overcome such limitations continuous maintenance is required.

Overall, as a conclusion it can be said that the designed system fulfils all functional and non-functional requirements of the client, provides additional features that were out of client requirements, and helps the organizations process by automation which has facilitated the minimization of errors and fraudulent activities. Therefore, the company can function more efficiently and productively.

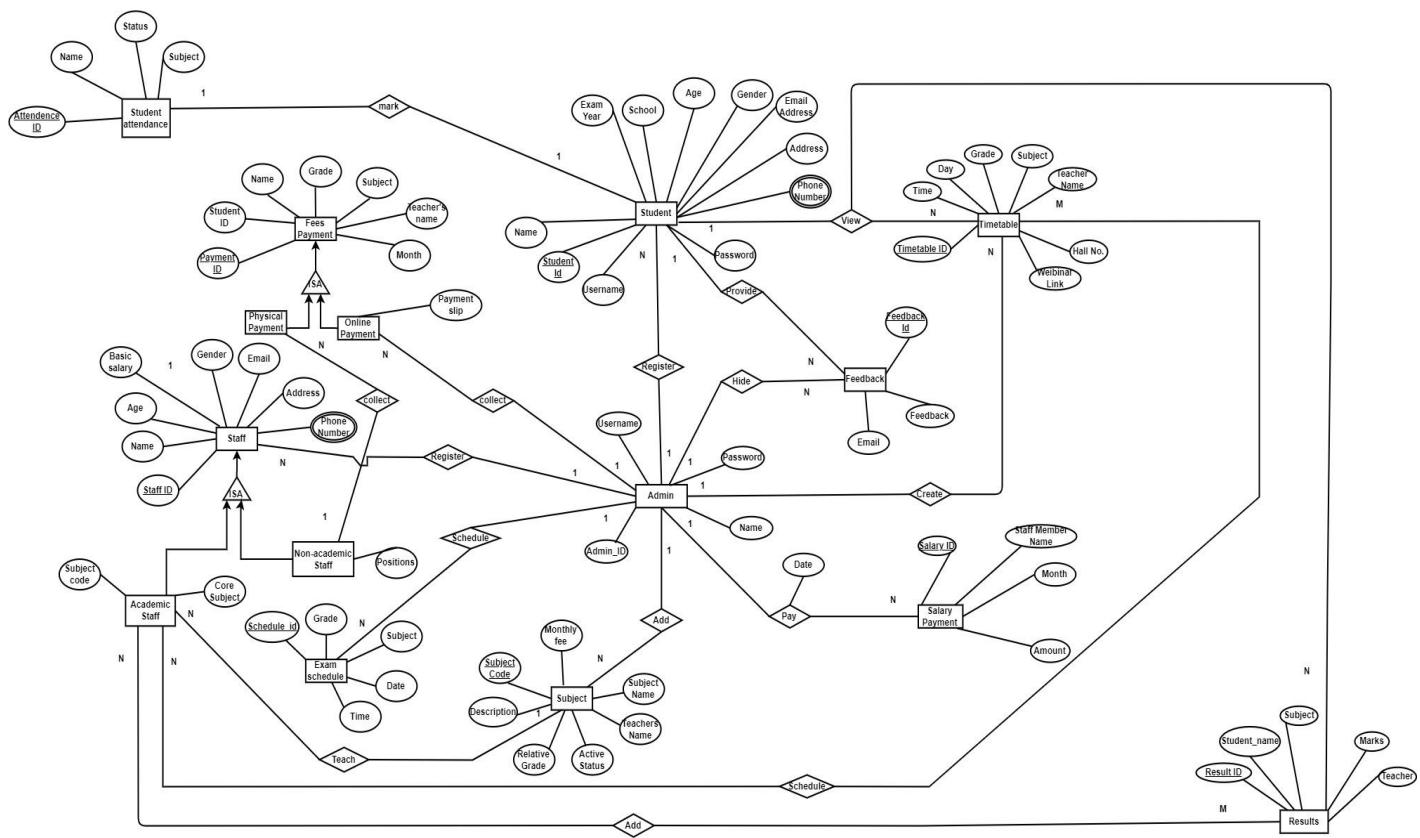
Appendix A: Design Diagram



Appendix B: High Level Diagram



Appendix C: Entity Relationship Diagram



References

Youtube - <https://www.youtube.com/c/lamadev>

W3schools website

Stackoverflow