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Introduction

University and Result Management System is a web based online platform that allows only the members of a particular university. I have decided to develop this application mainly for the student to check out their result easily through online. It is also very useful for the teacher to handle student's attendance, their marks and other relevant issues. By using this application students can easily check out their result, their current standings, and can make applications for a leave. Teachers can update the data of their students, can view their profile and rank and also make applications for a leave. In the controller part there would be an admin who will manage both teachers and students log in information in case they forgot. Also the admin will add new teachers and students and delete information if needed.

Motivations

- The main goal of this applications is to make an efficient way for the students to check out their results.
- Using this application both teachers and students will be benefited. As they both can check out their current status and make any application anytime from anywhere.
- Especially when a teacher will not be able to attend the class he/she can notify the students and a notification will be popped out on those course's students.
- There would be a rating system for the teachers for a particular subject. Before taking that subject student can check out the ratings of that teacher.
- Main role would be played by the admin who would grant the applications of both teachers and students. Admin will take the marks of the students from the teacher and publish the result on a fixed date.

Challenges

- Since I am the only person of my group, it will be the hardest thing to complement the whole project as well as every project relevant issues.
- Implementing features such as dynamically update the absence of teachers and making an attractive UI for the website.
- Keepings the website simple and user friendly.
- Ensuring strict security for the teacher's account as teachers contains the marks of the students.
- Using the new language and framework.

Components Design

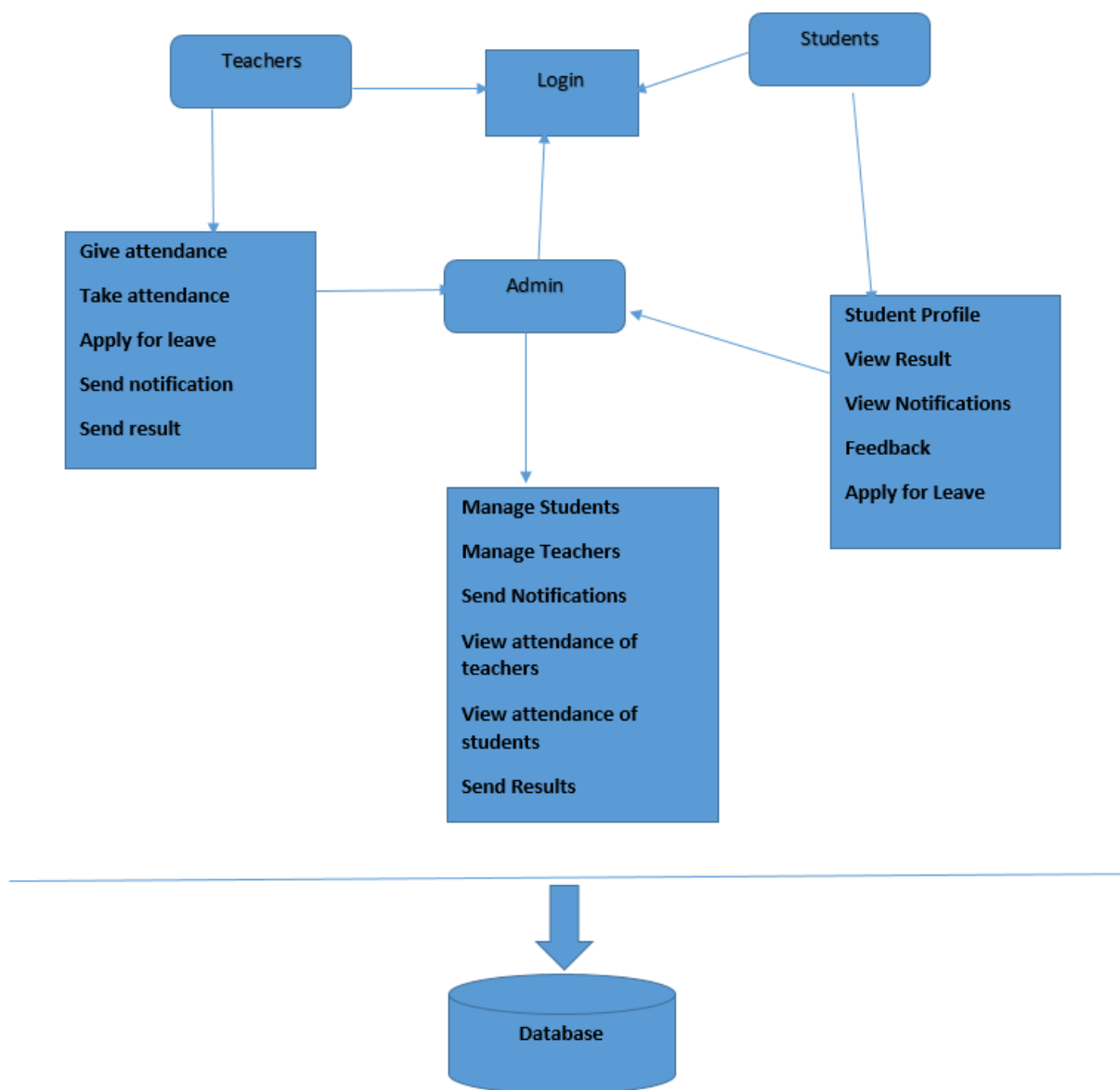


Fig: View and Model

Requirements

Non-Functional Requirements

- I have to strictly maintain teacher's information, their login details because those information are the most important thing as student's number is stored there. High priority would be given here.

- Ensuring excellent user experience (UX) by implementing a clean, intuitive, responsive UI.
- Application must be platform independent. Anyone can use it from any platform.
- Implementing features like social login and Google captcha, feedback reply.

Functional Requirements

- **User Verification:** There would be three types of users. Admin, Teachers and students. Admin will play the administration part. Teachers will be the most significant and important part of our website and strict security will be maintained here. Teachers would be authorised as Editor. Students will be authorised as Reader.

Scenario: When a user tries to access their account or home/profile page while they are not logged in, they would be redirected to the login page. Once the user enters their username and password and authentication is complete, they will be redirected to their desired page.

- **User Profile:** Every user would have their own profile containing their information, profile picture. Teachers can change their avatar anytime but students can't change their information. If they want to they have to contact with the admin and admin will update his data after validation.
- **Make Applications:** Teachers and students can make application for a day leave. Which would be granted by the admin.
- **Send Notification:** Both teachers and admin can send notifications to the students.
- **View Notifications:** Students can view all notifications and get updated news.

- **Check Result:** Students can login and check their results which would be updated by the admin.
- **Add or Delete:** Admin will add and delete new teachers or students when new teachers will be registered.

Use Case

Use Case 1	Registration	
Goal in Context		
Success End Condition	User can have access to all the features	
Failed End Condition	User will fail to have access to application features	
Primary Actor	User (i.e Admin, Teachers, Students)	
Trigger	Upon clicking the registration button, registration will Be completed	
Description	Step	Actions
	1	User = input their email id , password .
	2	User = re-input the password for confirmation.
	3	User information is checked for validity
	4	Upon valid Information, user is now registered and ready to have access all the features.

Use Case 2	Log in	
Goal in Context	User will have the access to offered features.	
Preconditions	User must have an account.	
Success End Condition	User can log in their account and have access to all the features	

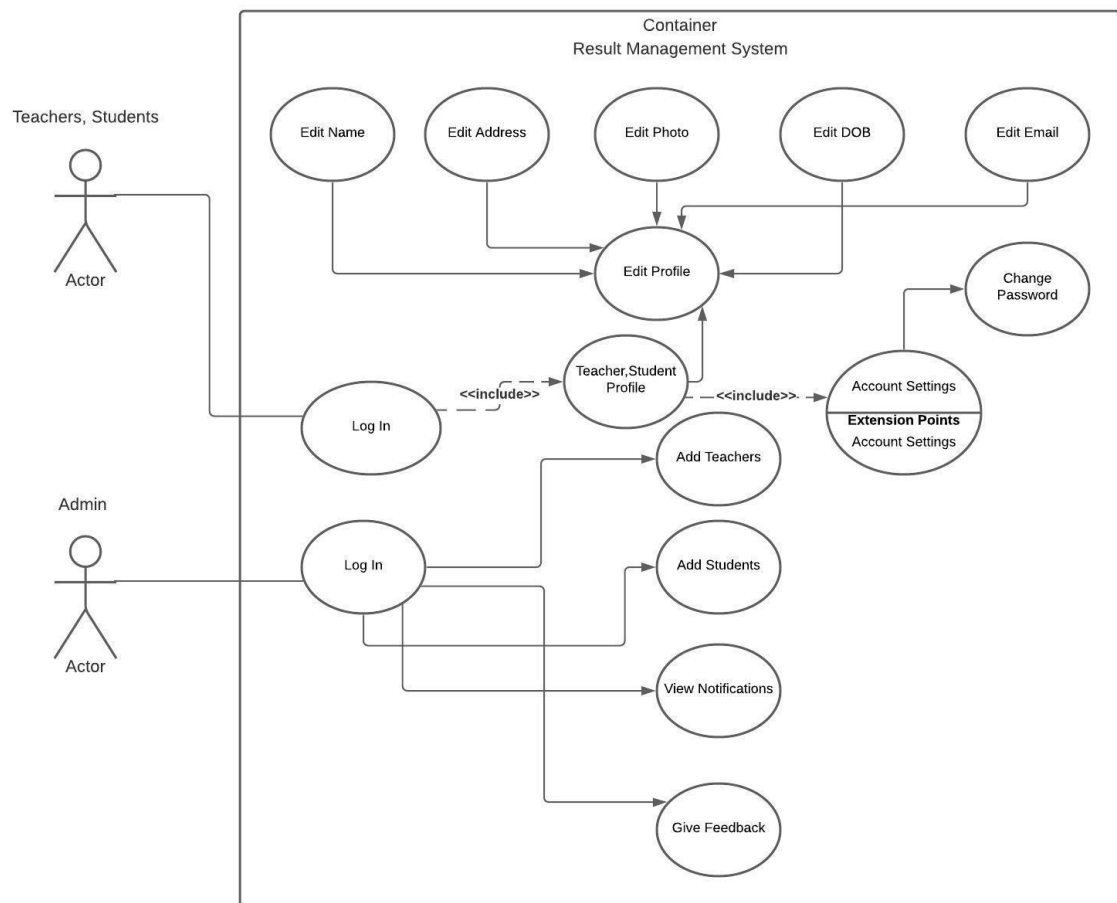
Failed End Condition	User id not logged in, can not access any features.	
Primary Actor	User (i.e Admin, Teachers, Students)	
Trigger	Upon clicking the log in button, user is now logged in	
Description	Step	Actions
	1	User inputs user email id and password
	2	Programme checks if user information is valid and present in database.
	3	User is allowed access to application and can browse through features.

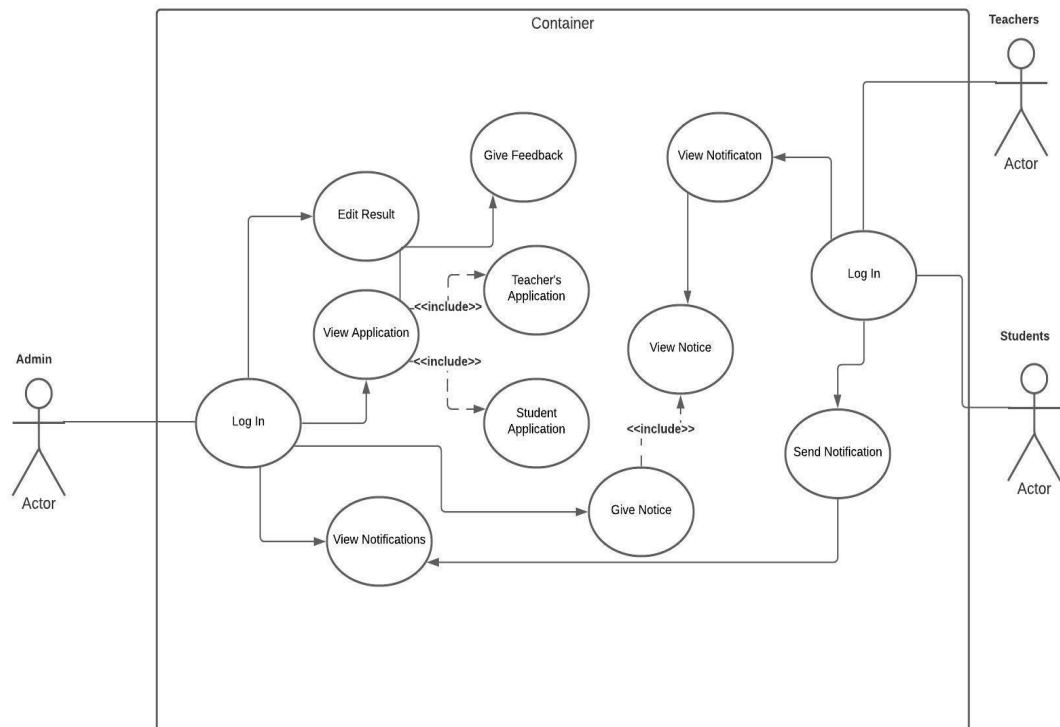
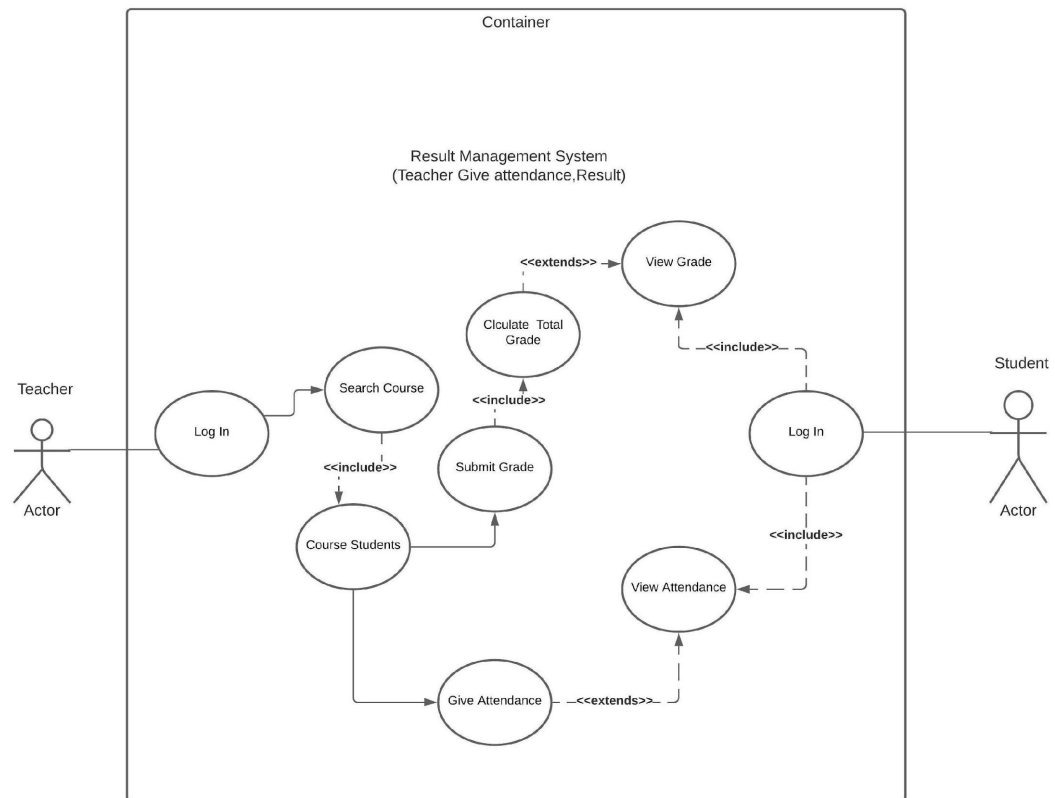
Use Case 3	Teacher give attendance	
Goal in Context	Teachers of every course will give attendance of their own course's students.	
Preconditions	Teacher must be logged in in his account.	
Success End Condition	Give attendance or any feedback.	
Failed End Condition	Attendance won't be count.	
Primary Actor	Teachers.	
Secondary Actors	Students.	
Trigger	Attendance sheet of assigned students list will appear.	
Description	Step	Actions
	1	Teachers browses assigned course.
	2	Find desired course.
	3	Give attendance.

Use Case 4	Teacher give result	
Goal in Context	Teachers of every course will give result of their own course's students.	
Preconditions	Teacher must be logged in in his account.	

Success End Condition	Submit result or any feedback.	
Failed End Condition		
Primary Actor	Teachers.	
Secondary Actors	Students.	
Trigger	Assigned student list will appear to submit their grade.	
Description	Step	Actions
	1	Teacher go to his assigned courses.
	2	Find desired course.
	3	Submit result.

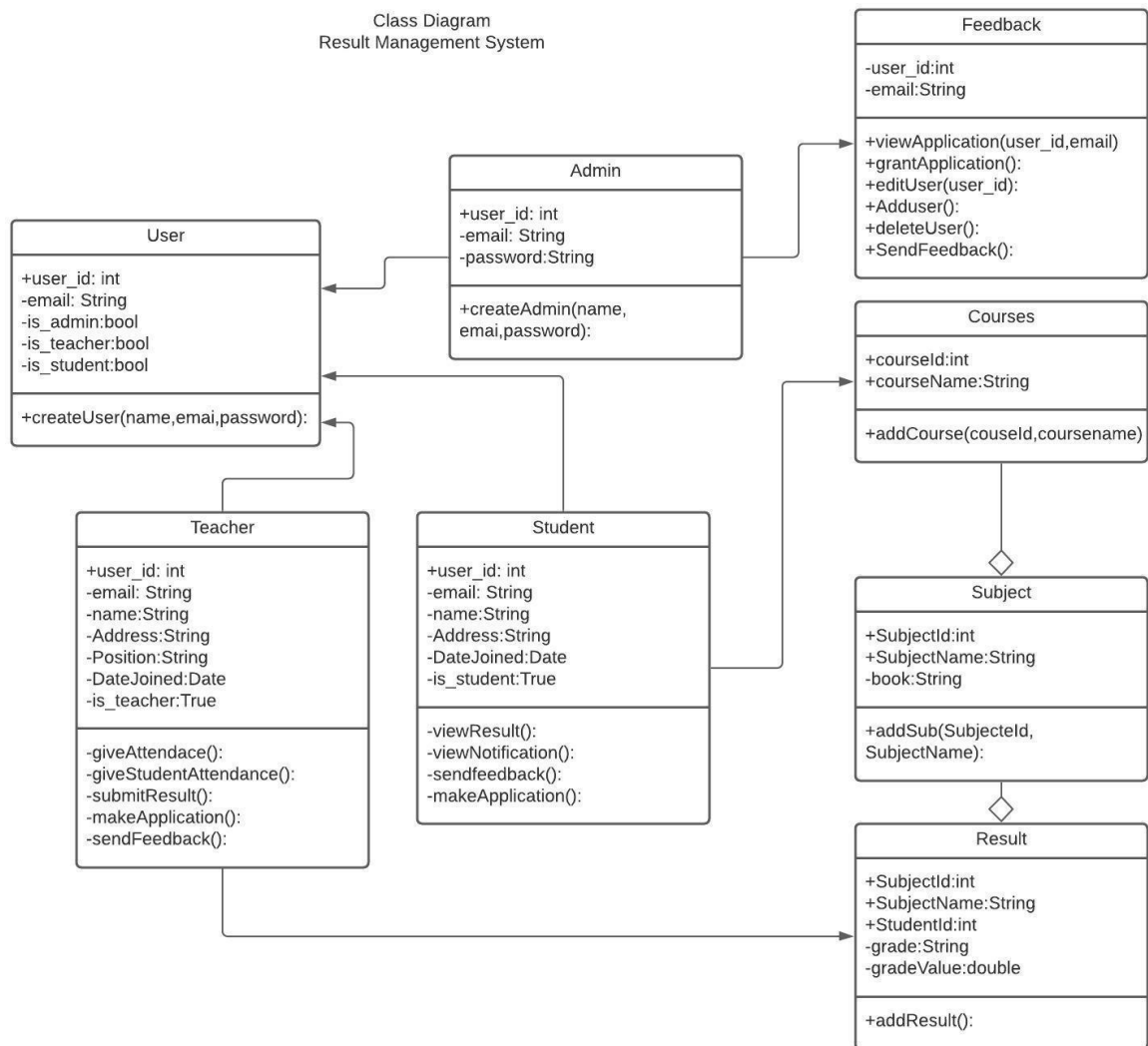
UML USE CASE



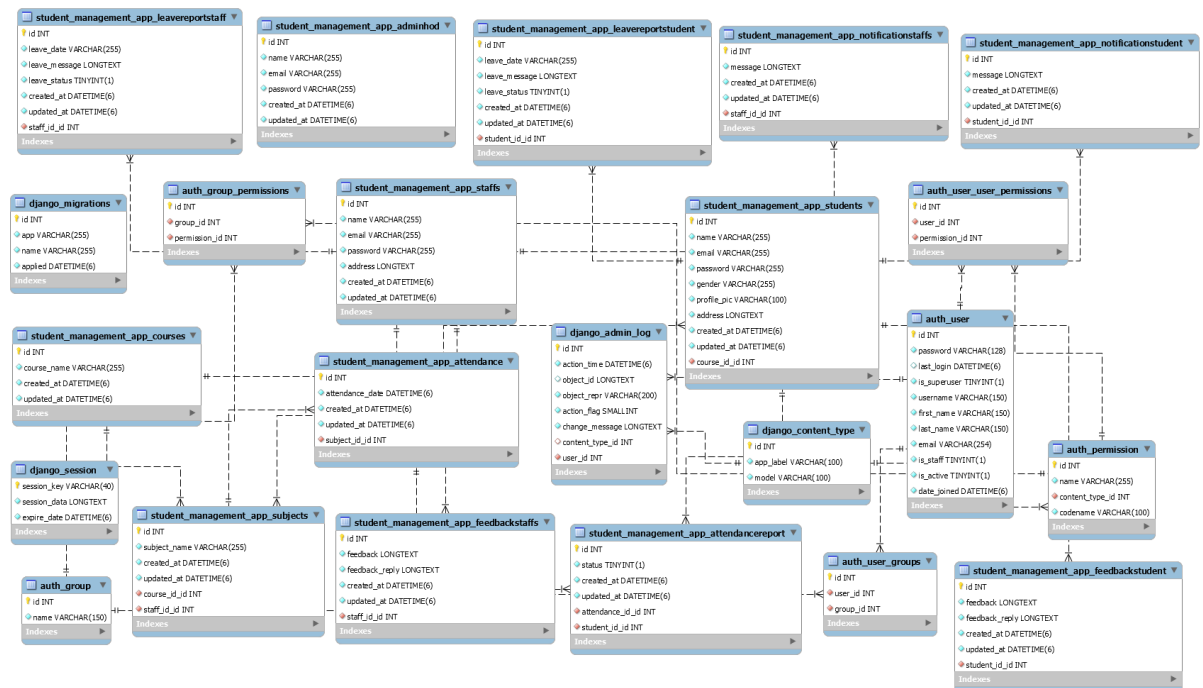


Class Diagram

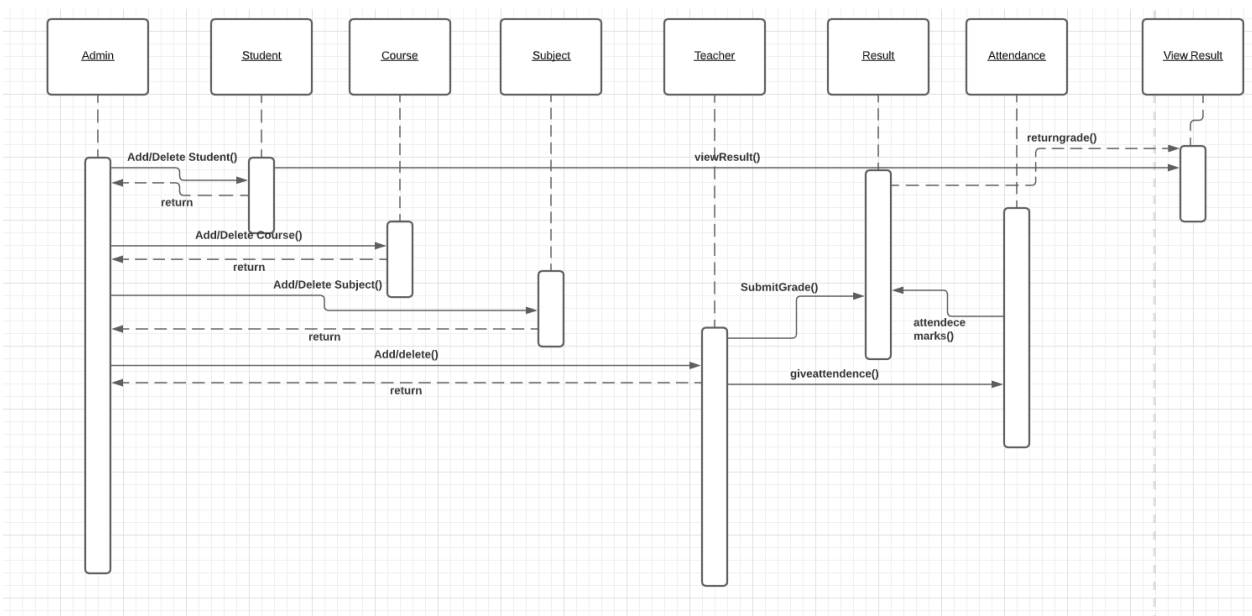
Class Diagram
Result Management System



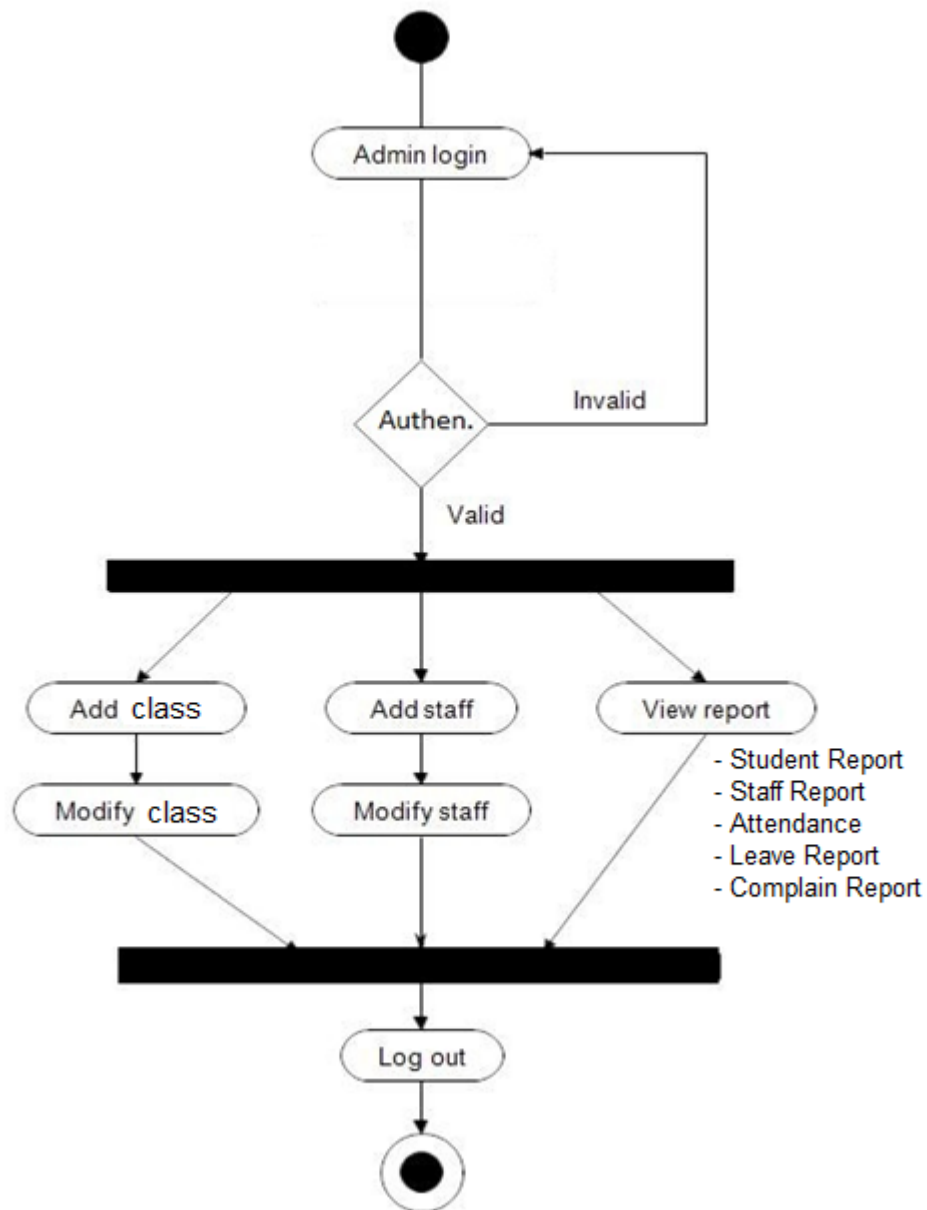
ER Diagram



Sequence Diagram

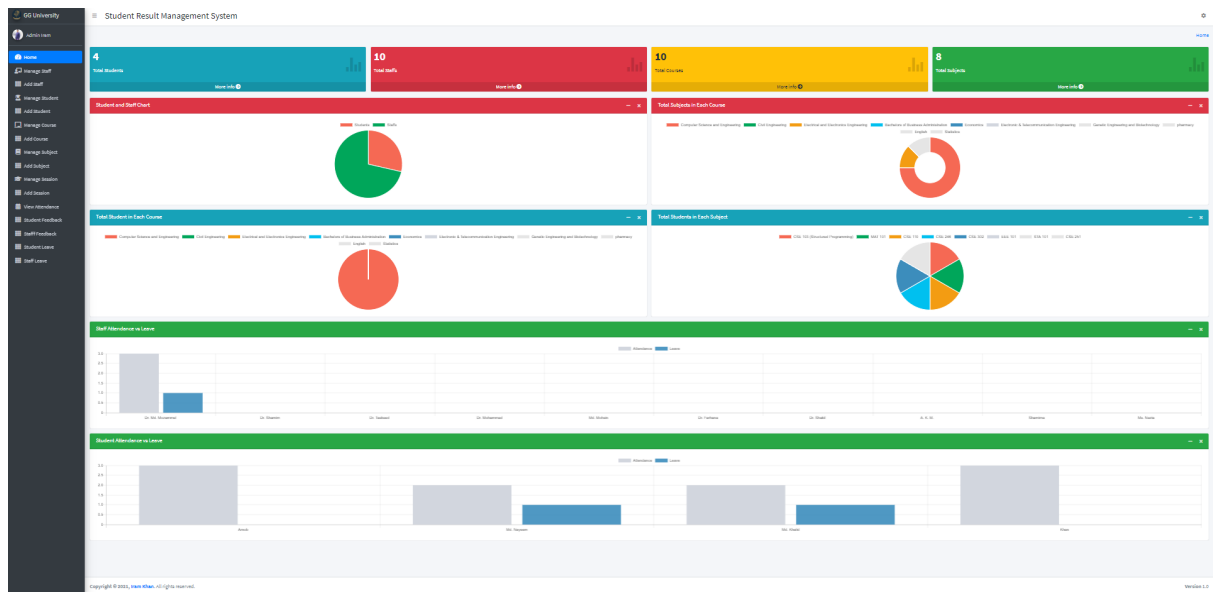


Activity Diagram



Graphical User Interface

#Admin Home Interface



#Add Staff

The form includes the following fields:

- Email address:** Enter email
- Username:** Username
- Password:** Password
- First Name:** First Name
- Last Name:** Last Name
- Address:** Address

[Add Staff](#)

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#Manage Staff

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session
Add Session
View Attendance
Student Feedback
Staff Feedback
Student Leave
Staff Leave

Student Result Management System
Manage Staff
+ Add Staff

Staff Details
Search

ID	First Name	Last Name	Username	Email	Address	Last Login	Date Joined	Action
3	Dr. Md. Mozammel	Huq Azad Khan	azadkhan	azadkhan@gmail.com	Gulshan	Dec. 21, 2020, 11:03 a.m.	Dec. 19, 2020, 4:25 p.m.	Edit Delete
5	Dr. Shamim	H Ripon	Shamim	drshamim@gmail.com	Altanagar	None	Dec. 21, 2020, 8:38 a.m.	Edit Delete
6	Dr. Taskeed	Jabid	Taskeed	drtaskeed@gmail.com	Banashree	None	Dec. 21, 2020, 8:40 a.m.	Edit Delete
7	Dr. Mohammad	Huq	Rezwatul	dmrh@gmail.com	Mirpur	None	Dec. 21, 2020, 8:43 a.m.	Edit Delete
8	Md. Mohsin	Uddin	Md. Mohsin	mdmohsin@gmail.com	Gulshan	None	Dec. 21, 2020, 8:46 a.m.	Edit Delete
9	Dr. Farhana	Ferdousi	Ferdousi	ferdousi@gmail.com	Rampura	None	Dec. 21, 2020, 8:49 a.m.	Edit Delete
10	Dr. Shakil	Ahmed	Ahmed	drshakil@gmail.com	Badda	None	Dec. 21, 2020, 8:51 a.m.	Edit Delete
11	A. K. M.	Nazimuddin	Nazimuddin	akmn@gmail.com	Altanagar	None	Dec. 21, 2020, 8:52 a.m.	Edit Delete
12	Shamima	Hossain	shamima	shamima@gmail.com	Altanagar	None	Dec. 21, 2020, 8:54 a.m.	Edit Delete
13	Ms. Nazia	Ahlin	Nazia	msn@gmail.com	Altanagar	Dec. 21, 2020, 9 a.m.	Dec. 21, 2020, 8:55 a.m.	Edit Delete

#Add Student

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session
Add Session
View Attendance
Student Feedback
Staff Feedback
Student Leave
Staff Leave

Student Result Management System
Add Student

Add Student

Email:

Password:

First Name:

Last Name:

Username:

Address:

Course:
Computer Science and Engineering

Gender:
Male

Session Year:
2018-05-05 to 2022-12-31





Profile Pic:
Choose File No file chosen

#Manage Student

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session
Add Session
View Attendance
Student Feedback
Staff Feedback
Student Leave
Staff Leave

Student Result Management System
Manage Student
+ Add Student

Student Details
Search

ID	First Name	Last Name	Username	Email	Address	Gender	Profile Pic	Start Year	End Year	Course	Last Login	Date Joined	Action
4	Arnob	Ghosh	arnob	arnob1@gmail.com	Puran Dhaka	Male		May 5, 2018	Dec. 31, 2022	Computer Science and Engineering	Dec. 21, 2020, 11:05 a.m.	Dec. 19, 2020, 4:37 p.m.	Edit Delete
14	Md. Nayeem	Ahmed	Nayeem	nayeem@gmail.com	Mughda	Male		May 5, 2018	Dec. 31, 2022	Computer Science and Engineering	None	Dec. 21, 2020, 9:19 a.m.	Edit Delete
15	Md. Khalid	Hasan	Khalid	khalid@gmail.com	Banashree	Male		May 5, 2018	Dec. 31, 2022	Computer Science and Engineering	None	Dec. 21, 2020, 9:21 a.m.	Edit Delete
16	Khan	Sumon	Sumon	sumon@gmail.com	Rampura	Male		May 5, 2018	Dec. 31, 2022	Computer Science and Engineering	None	Dec. 21, 2020, 9:22 a.m.	Edit Delete

#Add Course

GG University

Admin Iram

Home

Manage Staff

Add Staff

Manage Student

Add Student

Manage Course

Add Course

Manage Subject

Student Result Management System

Add Course

Add Course

Course Name

Enter Course

Add Course

#Manage Course

GG University

Admin Iram

Home

Manage Staff

Add Staff

Manage Student

Add Student

Manage Course

Add Course

Manage Subject

Add Subject

Manage Session

Add Session

View Attendance

Student Feedback

Staff Feedback

Student Leave

Staff Leave

Student Result Management System

Manage Course

+ Add Course

Course Details

ID	Course Name	Created At	Updated At	Action
1	Computer Science and Engineering	Dec. 19, 2020, 4:22 p.m.	Dec. 19, 2020, 4:22 p.m.	Edit Delete
2	Civil Engineering	Dec. 21, 2020, 8:30 a.m.	Dec. 21, 2020, 8:30 a.m.	Edit Delete
3	Electrical and Electronics Engineering	Dec. 21, 2020, 8:30 a.m.	Dec. 21, 2020, 8:30 a.m.	Edit Delete
6	Bachelors of Business Administration	Dec. 21, 2020, 8:32 a.m.	Dec. 21, 2020, 8:32 a.m.	Edit Delete
7	Economics	Dec. 21, 2020, 8:32 a.m.	Dec. 21, 2020, 8:32 a.m.	Edit Delete
8	Electronic & Telecommunication Engineering	Dec. 21, 2020, 8:33 a.m.	Dec. 21, 2020, 8:33 a.m.	Edit Delete
9	Genetic Engineering and Biotechnology	Dec. 21, 2020, 8:35 a.m.	Dec. 21, 2020, 8:35 a.m.	Edit Delete
10	pharmacy	Dec. 21, 2020, 8:35 a.m.	Dec. 21, 2020, 8:35 a.m.	Edit Delete
11	English	Dec. 21, 2020, 8:35 a.m.	Dec. 21, 2020, 8:35 a.m.	Edit Delete
12	Statistics	Dec. 21, 2020, 8:36 a.m.	Dec. 21, 2020, 8:36 a.m.	Edit Delete

#Add Subject

GG University

Admin Iram

Home

Manage Staff

Add Staff

Manage Student

Add Student

Manage Course

Add Course

Manage Subject

Add Subject

Manage Session

Add Session

View Attendance

Student Result Management System

Add Subject

Add Subject

Subject Name

Enter Subject

Course

Computer Science and Engineering

Staff

Arnob Ghosh

Add Subject

#Manage Subject

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session
Add Session
View Attendance
Student Feedback
Staff Feedback
Student Leave
Staff Leave

Student Result Management System
Manage Subjects
Add Subject

Subject Details

ID	Subject Name	Course	Staff	Created At	Updated At	Action
1	CSE 103 (Structured Programming)	Computer Science and Engineering	Dr. Md. Mozammel Huq Azad Khan	Dec. 19, 2020, 4:26 p.m.	Dec. 19, 2020, 4:26 p.m.	Edit Delete
2	MAT 101	Computer Science and Engineering	A. K. M. Nazimuddin	Dec. 21, 2020, 9:14 a.m.	Dec. 21, 2020, 9:14 a.m.	Edit Delete
3	CSE 110	Computer Science and Engineering	Md. Mohsin Uddin	Dec. 21, 2020, 9:14 a.m.	Dec. 21, 2020, 9:14 a.m.	Edit Delete
4	CSE 246	Computer Science and Engineering	Dr. Shamim H Ripon	Dec. 21, 2020, 9:15 a.m.	Dec. 21, 2020, 9:15 a.m.	Edit Delete
5	CSE 302	Computer Science and Engineering	Dr. Mohammad Huq	Dec. 21, 2020, 9:16 a.m.	Dec. 21, 2020, 9:16 a.m.	Edit Delete
6	EEE 101	Electrical and Electronics Engineering	Dr. Md. Mozammel Huq Azad Khan	Dec. 21, 2020, 9:41 a.m.	Dec. 21, 2020, 9:41 a.m.	Edit Delete
7	STA 101	Statistics	A. K. M. Nazimuddin	Dec. 21, 2020, 9:42 a.m.	Dec. 21, 2020, 9:42 a.m.	Edit Delete
8	CSE 251	Computer Science and Engineering	Md Yeasir	Dec. 21, 2020, 10:59 a.m.	Dec. 21, 2020, 10:59 a.m.	Edit Delete

#Add Session

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session
Add Session
View Attendance
Student Feedback
Staff Feedback
Student Leave
Staff Leave

Student Result Management System
Add Session Year
Add Session Year

Add Session Year

Session Start Year
dd/mm/yyyy

Session End Year
dd/mm/yyyy

Add Session Year

#Manage Session

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session

Student Result Management System
Manage Session
Add Session

Session Details

ID	Session Start Year	Session End Year	Action
1	May 5, 2018	Dec. 31, 2022	Edit Delete
2	Sept. 1, 2018	Dec. 31, 2022	Edit Delete

#View Attendance

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session
Add Session
View Attendance

Student Result Management System
View Attendance
Home

View Attendance

Subject

CSE 103 (Structured Programming)

Session Year

May 5, 2018 to Dec. 31, 2022

Fetch Attendance Data

#Student Feedback

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session
Add Session
View Attendance
Student Feedback

Student Result Management System
Student Feedback
Home

ID	Student ID	Student Name	Student Session	Message	Sended On	Reply
----	------------	--------------	-----------------	---------	-----------	-------

#Staff Feedback

GG University
Admin Iram
Home
Manage Staff
Add Staff
Manage Student
Add Student
Manage Course
Add Course
Manage Subject
Add Subject
Manage Session
Add Session
View Attendance
Student Feedback
Staff Feedback

Student Result Management System
Staff Feedback
Home

ID	Staff ID	Staff Name	Message	Sended On	Reply
----	----------	------------	---------	-----------	-------

#Student Leave

GG University

Admin Iram

Home

Manage Staff

Add Staff

Manage Student

Add Student

Manage Course

Add Course

Manage Subject

Add Subject

Manage Session

Add Session

View Attendance

Student Feedback

Staff Feedback

Student Leave

Student Result Management System

Leave Apply by Students

Home

ID	Student ID	Student Name	Leave Date	Leave Message	Applied On	Action
----	------------	--------------	------------	---------------	------------	--------

#Staff Leave

GG University

Admin Iram

Home

Manage Staff

Add Staff

Manage Student

Add Student

Manage Course

Add Course

Manage Subject

Add Subject

Manage Session

Add Session

View Attendance

Student Feedback

Staff Feedback

Student Leave

Staff Leave

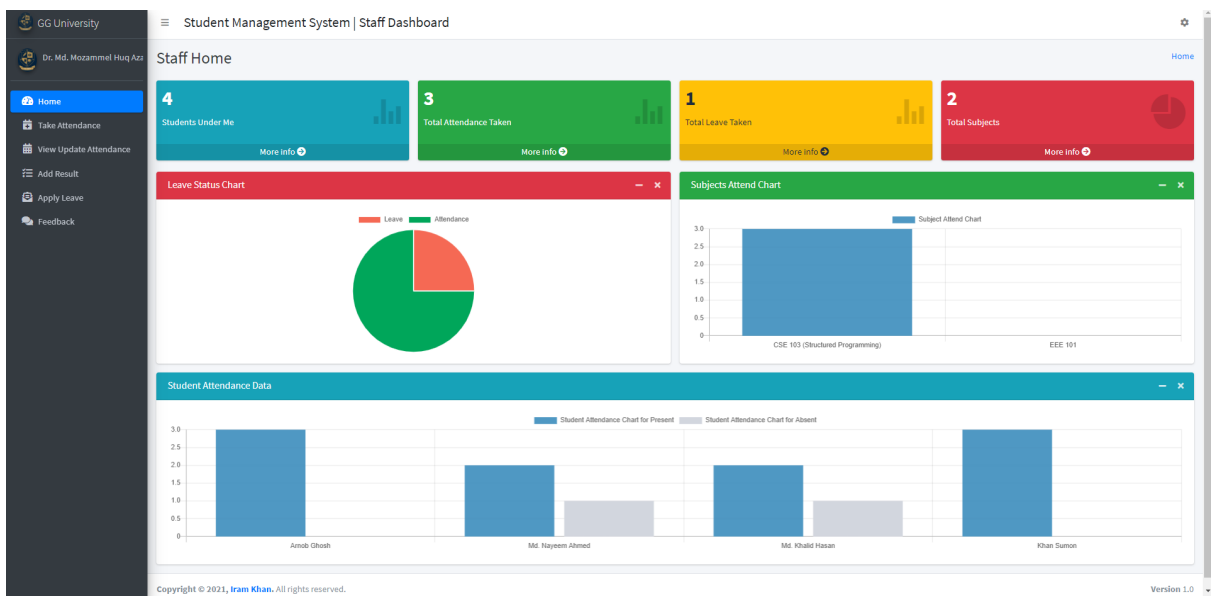
Student Result Management System

Leave Apply by Staffs

Home

ID	Staff ID	Staff Name	Leave Date	Leave Message	Applied On	Action
1	3	Dr. Md. Mozammel	2020-12-22	I have a meeting in my company.	Dec. 21, 2020, 9:59 a.m.	Approved

#Staff Home



#Take Attendance

The screenshot shows the 'Take Attendance' page within the 'Student Management System | Staff Dashboard'. The left sidebar contains a menu with 'Take Attendance' highlighted. The main content area has a blue header 'Take Attendance' and a 'Fetch Student' button. Below the header, there are two dropdown menus: 'Subject' (set to 'CSE 103 (Structured Programming)') and 'Session Year' (set to 'May 5, 2018 to Dec. 31, 2022').

#view/Update Attendance

The screenshot shows the 'View Update Attendance' page within the 'Student Management System | Staff Dashboard'. The left sidebar contains a menu with 'View Update Attendance' highlighted. The main content area has a blue header 'View Update Attendance' and a 'Fetch Attendance Data' button. Below the header, there are two dropdown menus: 'Subject' (set to 'CSE 103 (Structured Programming)') and 'Session Year' (set to 'May 5, 2018 to Dec. 31, 2022').

#Add Result

The screenshot shows the 'Add Result' page within the 'Student Management System | Staff Dashboard'. The left sidebar contains a menu with 'Add Result' highlighted. The main content area has a blue header 'Add Result' and a 'Fetch Student' button. Below the header, there are two dropdown menus: 'Subject' (set to 'CSE 103 (Structured Programming)') and 'Session Year' (set to 'May 5, 2018 to Dec. 31, 2022').

#Apply For Leave

GG University
Dr. Md. Mozammel Huq Azzi
Home
Take Attendance
View Update Attendance
Add Result
Apply Leave
Feedback

Student Management System | Staff Dashboard
Leave Report and Apply for Leave
Home

Apply For Leave

Leave Date

Leave Reason

Leave Message

Apply for Leave

Leave Apply History

#ID	Leave Date	Leave Message	Status
1	2020-12-22	I have a meeting in my company.	Approved

#Feedback

GG University
Dr. Md. Mozammel Huq Azzi
Home
Take Attendance
View Update Attendance
Add Result
Apply Leave
Feedback

Student Management System | Staff Dashboard
Feedback Message
Home

Leave a Feedback Message

Feedback Message

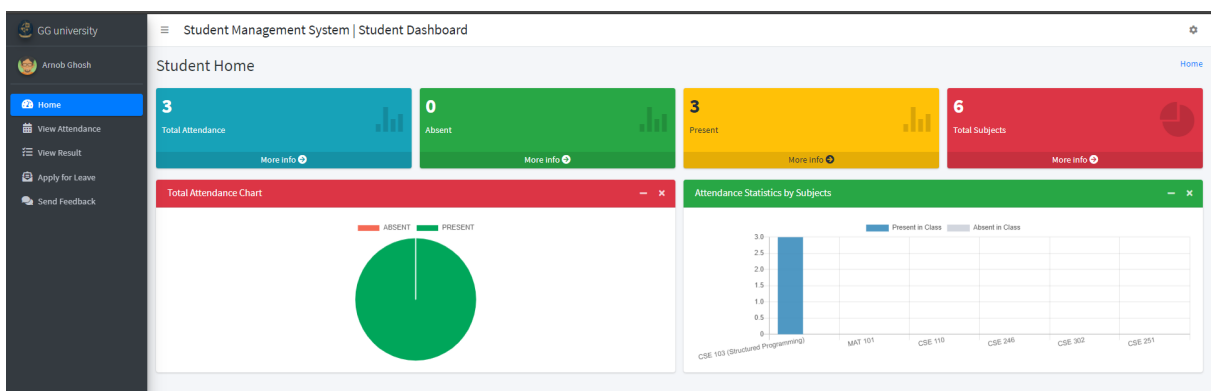
Feedback Message

Leave a Feedback

Feedback History

#ID	Feedback Message	Feedback Reply
-----	------------------	----------------

#Student Home



#View Attendance

GG university
Amob Ghosh
Home
View Attendance
View Result
Apply for Leave
Send Feedback

Student Management System | Student Dashboard
View Attendance Data
Home

View Attendance

Subject
CSE 103 (Structured Programming)

Start Date
dd/mm/yyyy

End Date
dd/mm/yyyy

Fetch Attendance

#View Result

GG university
Amob Ghosh
Home
View Attendance
View Result
Apply for Leave
Send Feedback

Student Management System | Student Dashboard
Result
Home

#ID	Subject	Assignments Marks	Exam Marks	status
1	CSE 103 (Structured Programming)	10.0	85.0	Pass

#Apply For Leave

GG university
Amob Ghosh
Home
View Attendance
View Result
Apply for Leave
Send Feedback

Student Management System | Student Dashboard
Leave Report and Apply for Leave
Home

Apply For Leave

Leave Date
dd/mm/yyyy

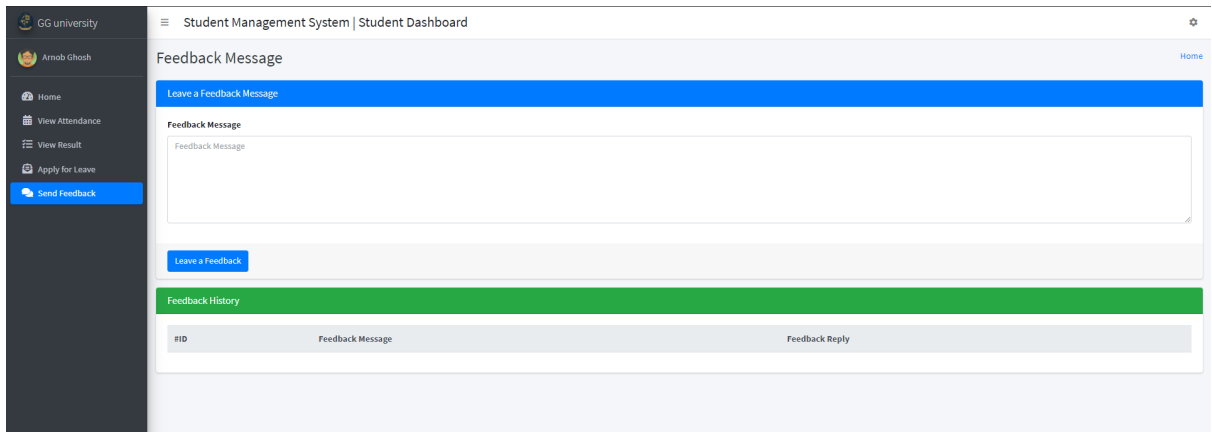
Leave Reason
Leave Message

Apply for Leave

Leave Apply History

#ID	Leave Date	Leave Message	Status
-----	------------	---------------	--------

#Send Feedback



Use Case ID and Password

Admin: admin101@gmail.com; Pass: admin

Teacher: azadkhan@gmail.com; Pass: azadkhan

Student: arnob1@gmail.com; Pass: arnob