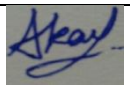
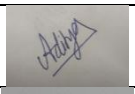
Subject Code:

ECL304

Subject Name :

Skill Based Learning (SBL)

Project group members' details

Name of the student	Roll no	mail-id	Sign
Aayush Kanholikar	20103A0048	aayush.kanholikar@vit.edu.in	
Aditya Salve	20103A0051	aditya.salve@vit.edu.in	
Anaya Sathe	20103A0050	anaya.sathe@vit.edu.in	
Jayesh Raut	20103A0047	jayesh.raut @vit.edu.in	

Vidyalankar Institute of Technology

Academic Year 2021-22

VIT Vidyalankar Institute of Technology
Accredited A+ by NAAC

Prof. Harshada Rajale

Dr. Arun Chavan

Project mentor **Head of Department**

Title - Students Attendance Management System In Java

Step 1: Write introduction of your project Idea

About project: Our project 'Attendance management system' deal with the maintenance of the student's attendance. It generates the attendance report of the student on Daily basis. students have to mark there own subject wise attendance after lectures. Students will get there separate username and password by faculty, so that students can access to there profile. As output faculties will get students attendance report Attendance Management System is software developed for daily student attendance in schools, colleges and institutes. It facilitates to access the attendance information of a particular student in a particular class. This system will also help in evaluating attendance eligibility criteria of a student. The purpose of developing attendance management system is to computerized the manual way of maintaining attendance. Another purpose for developing this software is to generate the report automatically at the end of the lectures.it will also save time. We are using this software for only educational sector to mark students' attendance, but in future we can make this software helpful for corporate sector to maintain attendance record of employees. We can also make application in future.

Step 2: Identify features added in project

Features :

1. **Registration Page (Student Registration and Teacher Registration)**
2. **Login Page (Student Login and Teacher Login)**
3. **Student marking Today's Attendance for each Subjects.**
4. **View all Registered Student and Teacher Details.**

Step 3: Write detailed project description of the project (can be finalized after implementation of the idea)

In this Students Attendance Management System there are 2 portals, one for students and another will be for the faculties. In Student portal, students can mark and view their attendance in student portal. In this process, Student have to go stepwise for marking the attendance.

- Check Status: - If Status is Activate, then Student will can access all the features. And if status is Deactivate, Student can't access it all.
- Verification: - After clicking on the verify button Student's name and roll no will get displayed.
- Present: - Student will have to select the check box named Present.
- Subject: - The subject which was activated by the teacher for only those subject student will be able to mark the attendance.
- Mark Attendance: - Finally, after clicking on the mark attendance button, Attendance will get marked successfully.

In Faculty portal there will be two process teacher's login and teachers' registration. For those teachers who are new to this system have to get registered first by entering their details which is asked by the system. In the login page there would be a verification process so that no other can login. After Verification, Login Page will get Appear. By Entering correct credentials login will get Successful and will moved toward the Welcome Page. Here Teacher will get access this Buttons. Teacher can Activate the marking attendance status whenever they want to get attendance from the students for each selected subject by clicking the check boxes. And after a while they can deactivate the status, so that any student will not be able to mark the attendance by their own. By this, Teacher can check the presence of students who are not only physically but mentally also present in the

lecture. After clicking on Students Attendance Percentage and Subject wise attendance it will show the percentage and subject wise attendance of all the student in a table. In this way we can say that this software is performing all the tasks accurately and is doing the work for which it is made and this system can be implemented in number of colleges and schools.

Step 4: Identify all concepts used in the project

❖ NetBeans IDE: -

- Identify, name and state the usage of the different components of the NetBeans IDE.
- Identify and name the various methods and properties associated with the various form controls
- Create simple applications in Java using NetBeans IDE.
- Create GUI applications using the concepts of variables and control structures.

- Understand the need of object-oriented programming
- Identify the features of an object-oriented programming language
- Use features of object-oriented programming language to develop simple Applications

❖ Database Connectivity: -

- Saving the data in the database
- Connect a GUI interface with data stored in database.
- Use various methods to retrieve data from a database.
- GUI application with database connectivity

❖ MySQL (Database): -

- The terminology used in RDBMS concepts.
- Use of the SQL commands and clauses.

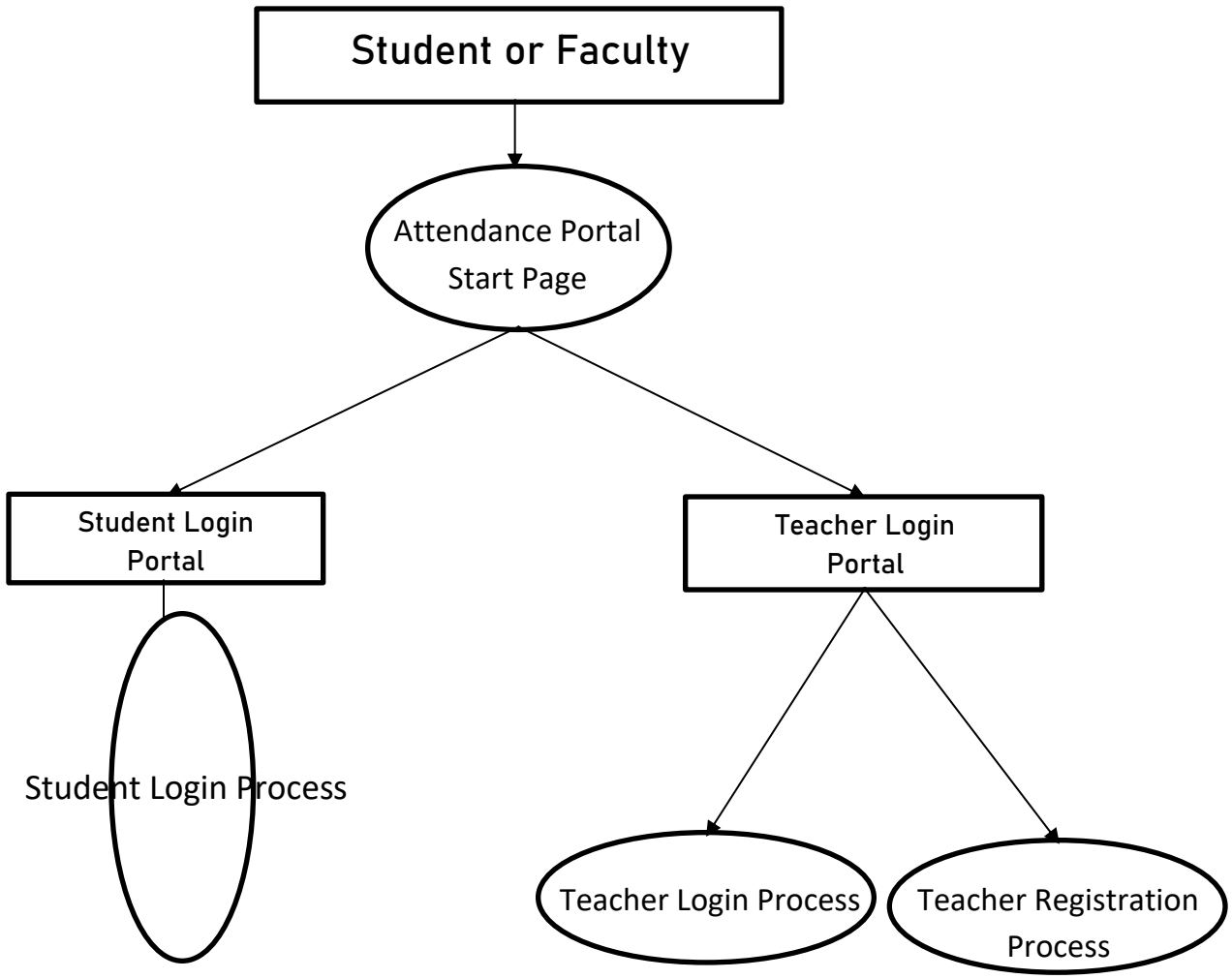
- Define the terms:
  (i) Group (Aggregate) functions, Constraints
  (ii) Cartesian Product, Join, Referential Integrity, Foreign Key.
- SQL queries using aggregate functions and GROUP BY clause.
- Access data from multiple tables
- Modify a column of a table using ALTER TABLE command.
- Delete a table using DROP TABLE.

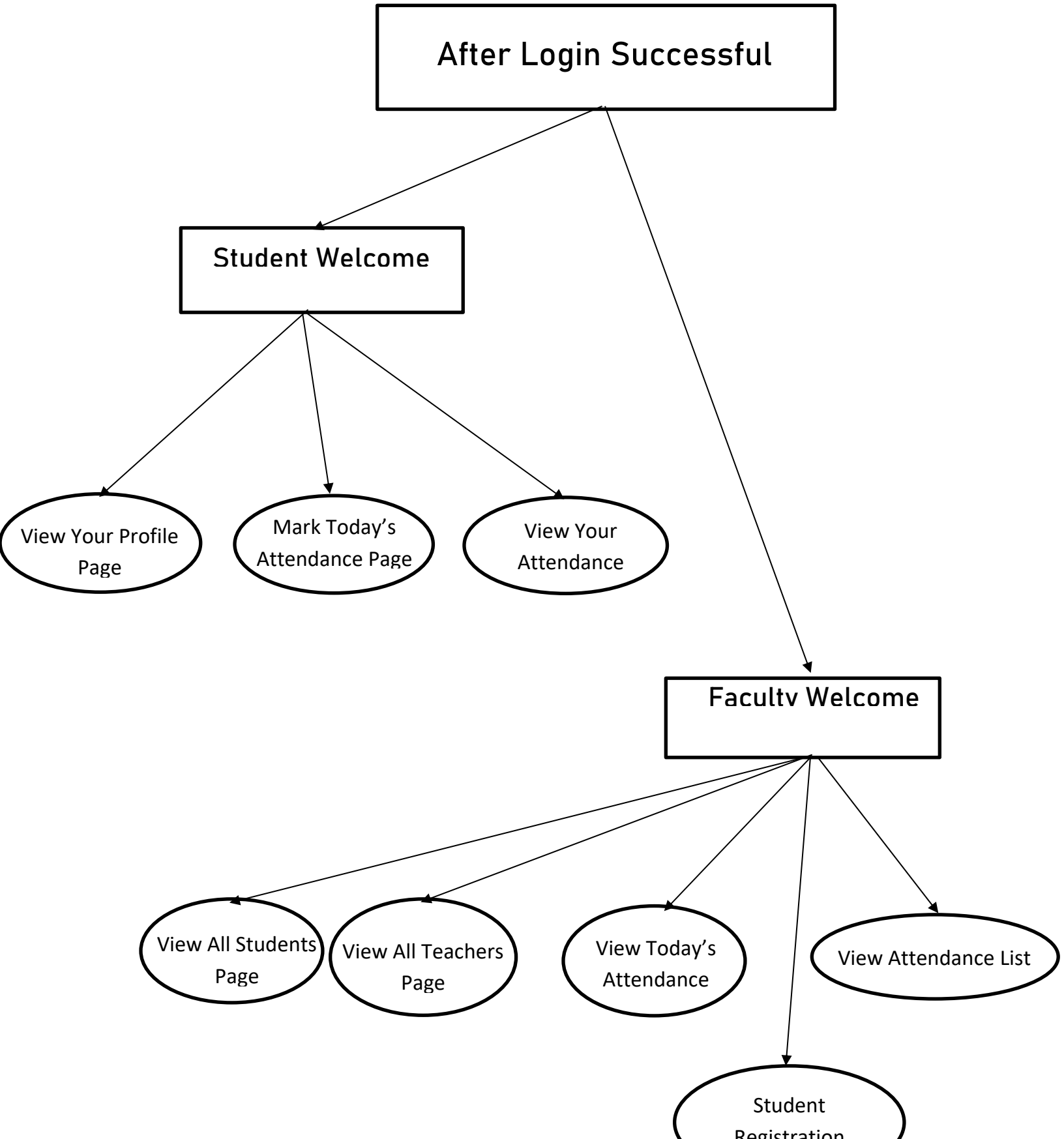
Step 5: Show class details as shown below (mention all class used in the project as shown below)

Class name: AttendanceManagementSystem

Member variables Variable Declaration code: - For all the components used in this class have been customized as: - "**private static** javax.swing"
Member methods: (For Each Panel) private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) private void jButton5ActionPerformed(java.awt.event.ActionEvent evt)

Step 6: FLOW OF THE PROGRAM:




After Login Successful
Student Welcome
View Your Profile Page
Mark Today's Attendance Page
View Your Attendance
Faculty Welcome
View All Students Page
View All Teachers Page
View Today's Attendance
View Attendance List
Student

Step 7: Project code

1. Database Connectivity

```
Class.forName("java.sql.DriverManager");

Connection con;

    con = (Connection)
DriverManager.getConnection("jdbc:mysql://localhost:3306/ams","root","9970727628");

Statement stmt = (Statement) con.createStatement();

String query="Select * from students ";

PreparedStatement pst=con.prepareStatement(query);

pst.execute();
```

Important Codes

- import java.sql.Connection;
- import java.sql.DriverManager;
- import java.sql.PreparedStatement;
- import java.sql.ResultSet;
- import java.sql.Statement;
- import javax.swing.JOptionPane;
- import javax.swing.table.DefaultTableModel;
- import java.time.LocalDateTime;
- import java.time.format.DateTimeFormatter;

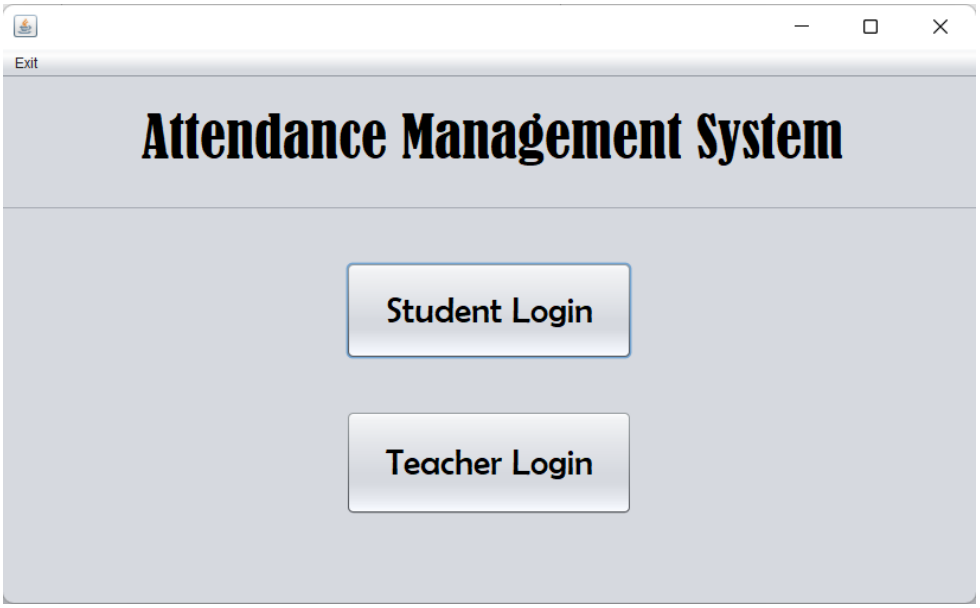
2. String Query (MySQL Codes)

- SELECT * FROM Students WHERE name = ? AND Password = ?
- SELECT * FROM Teachers WHERE name = ? AND Password = ?
- select * from attendance_status where srno='1';
- select status, date_time from em where name='"+name+"' order by date_time desc;
- select count(*) from em where name='"+name+"';
- SELECT * FROM Teachers
- SELECT * FROM Students
- SELECT * FROM percentage

Step 8: Screen shot images of output

Start page

The Initial Panel of this system, where two Login Buttons will get displayed.

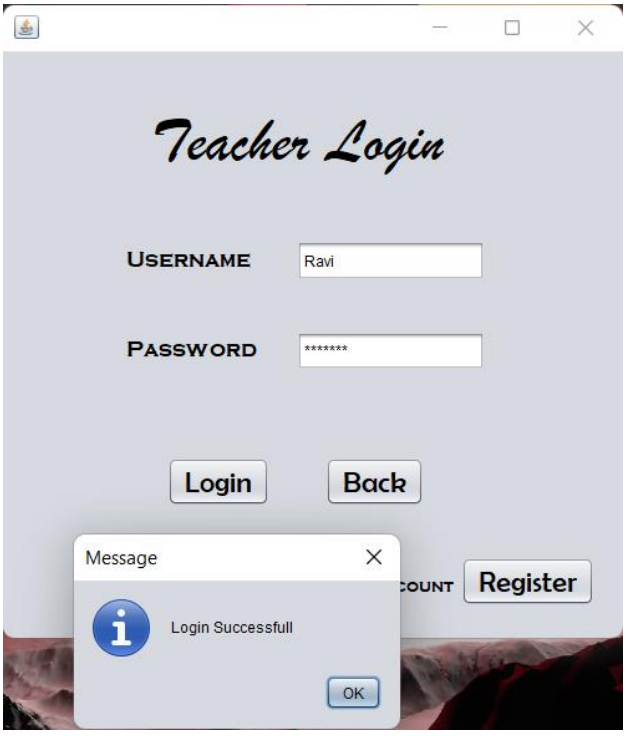


Teacher verification before

Firstly, By clicking on Teacher Login Button, Here Verification Page will get open to verify that user is faculty member (Teacher).

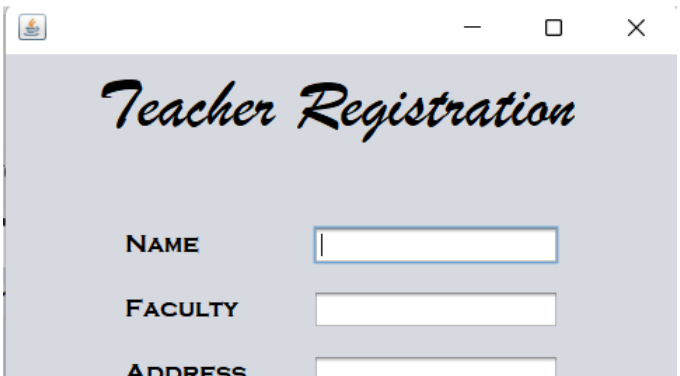
Teacher login page

After Verification, Login Page will get Appear. By Entering correct credentials login will get Successful and will moved toward the Welcome Page.



New Teacher registration page

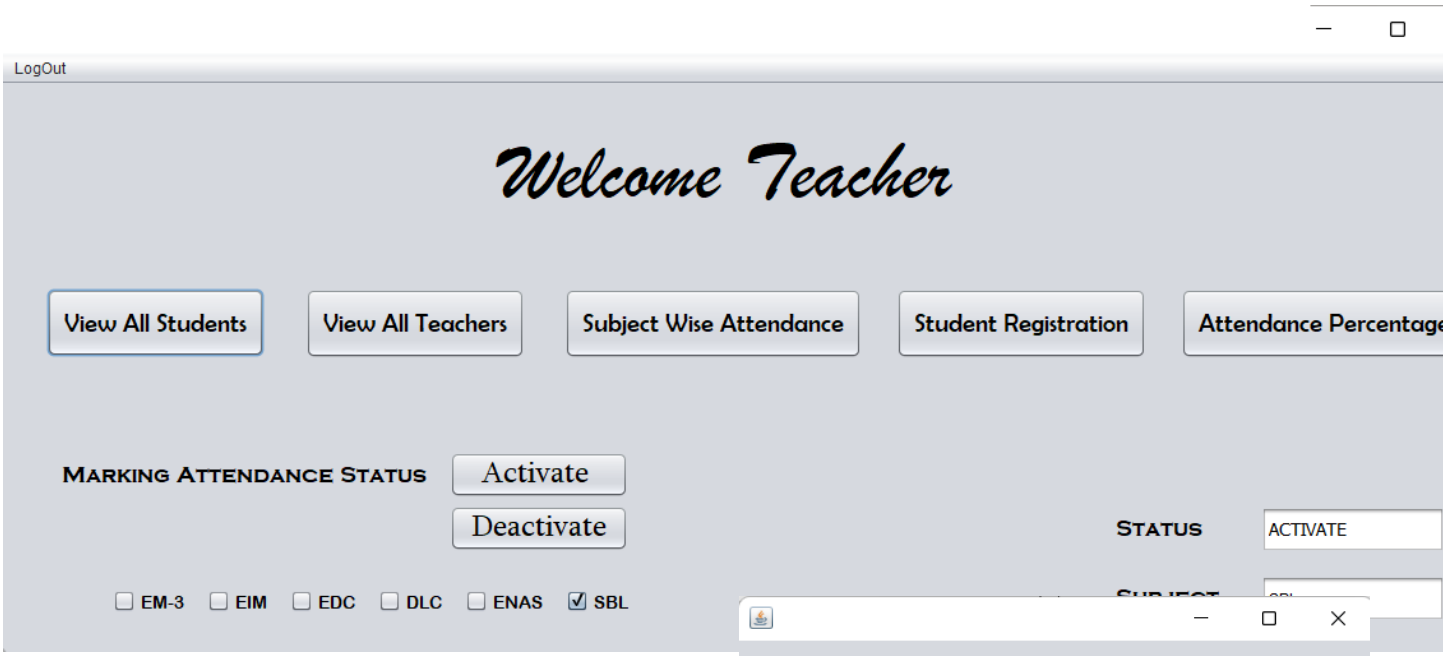
For those teachers who are new to this system have to get registered first by entering their details which is asked by the system.



Teacher welcome page after

Here Teacher will get access this Buttons. Teacher can Activate the marking attendance status whenever they want to get attendance from the students for each selected subject by clicking the check boxes. And after a while they can deactivate the status, so that any student will not be able to mark the attendance by their own.

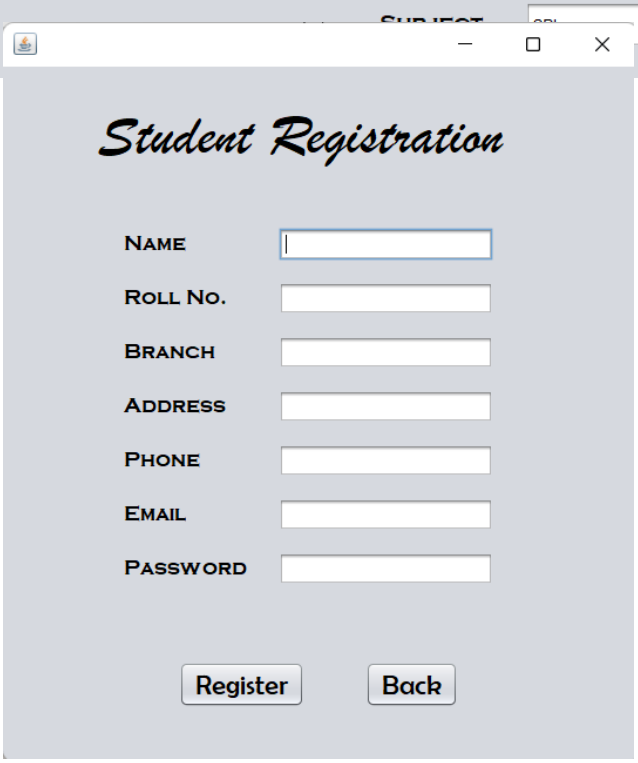
By this, Teacher can check the presence of students who are not only physically but mentally also present in the lecture.



New student registration

After clicking on Student Registration Button

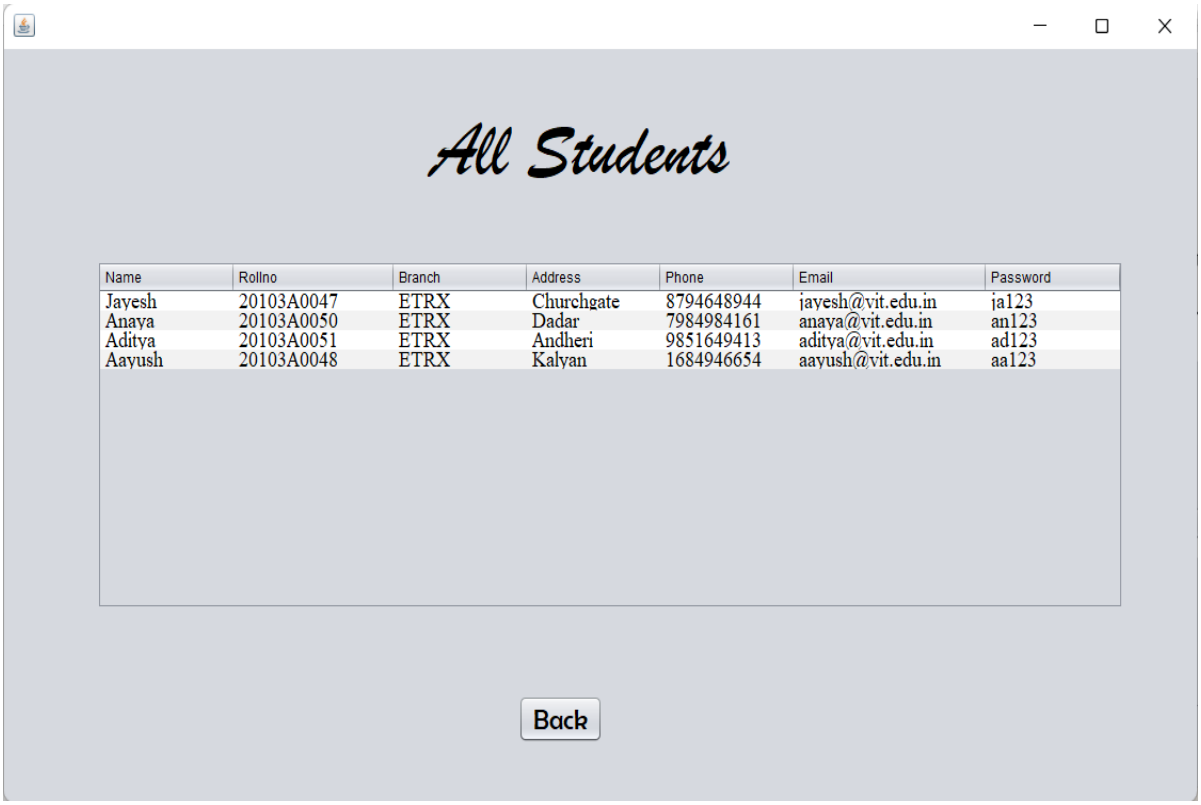
For those Students who are new to this system have to get registered first. But here students' registration is done by the



View All Students Button

After clicking on View all Students Button

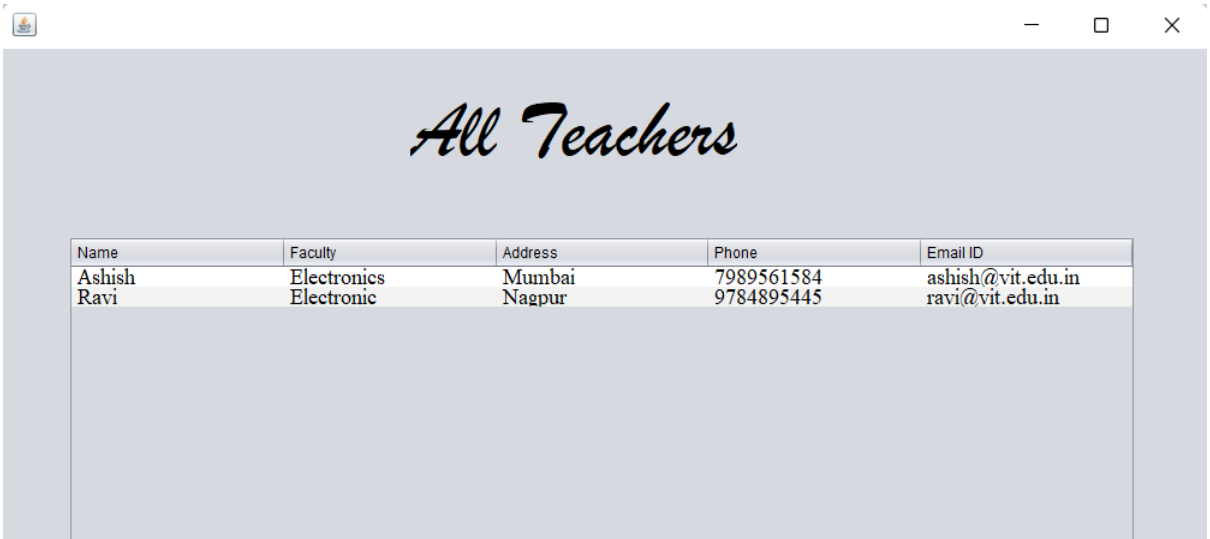
All the Details of Registered Students will get displayed here.



View All Teachers Button

After clicking on View all Teachers Button

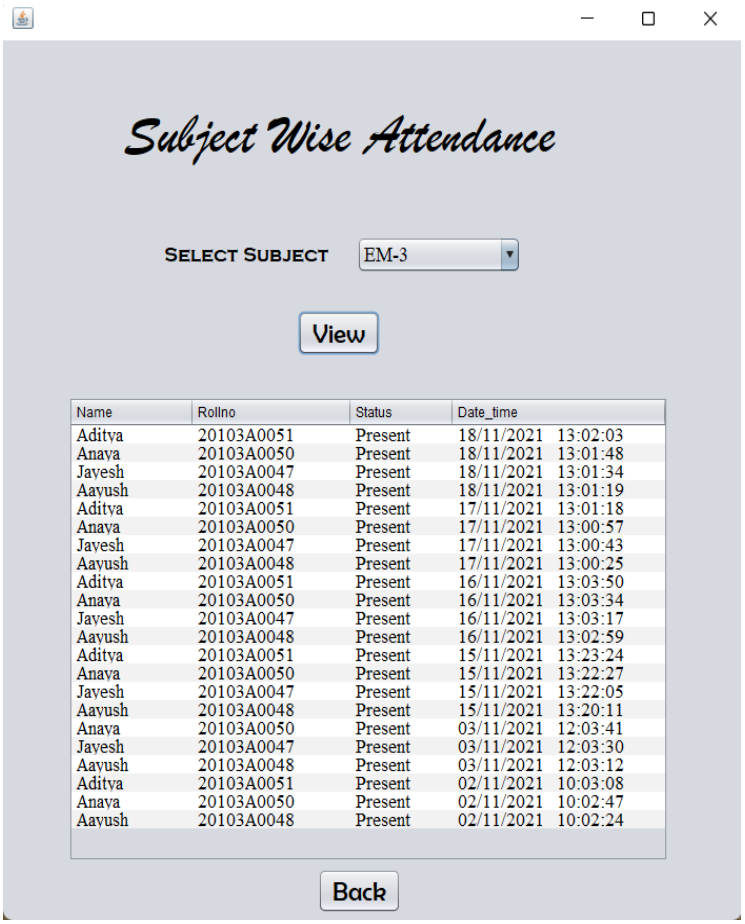
All the Details of Registered Teachers will get displayed here.



View Subject wise Attendance Button

After clicking on Subject wise Attendance Button

For each selected Subject, Attendance of all students will get displayed in the table from last 30 days.

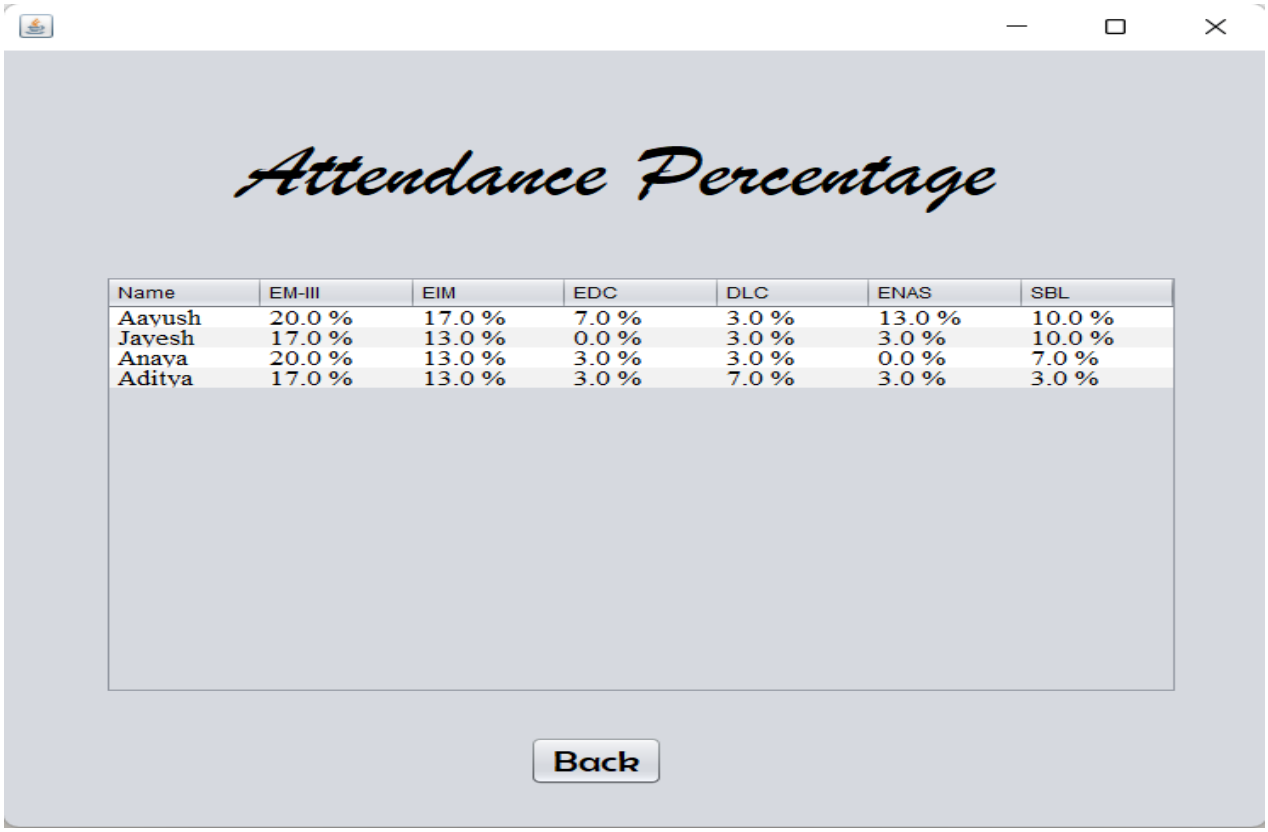


Name	RollNo	Status	Date_time
Aditya	20103A0051	Present	18/11/2021 13:02:03
Anava	20103A0050	Present	18/11/2021 13:01:48
Javesh	20103A0047	Present	18/11/2021 13:01:34
Aayush	20103A0048	Present	18/11/2021 13:01:19
Aditya	20103A0051	Present	17/11/2021 13:01:18
Anava	20103A0050	Present	17/11/2021 13:00:57
Javesh	20103A0047	Present	17/11/2021 13:00:43
Aayush	20103A0048	Present	17/11/2021 13:00:25
Aditya	20103A0051	Present	16/11/2021 13:03:50
Anava	20103A0050	Present	16/11/2021 13:03:34
Javesh	20103A0047	Present	16/11/2021 13:03:17
Aayush	20103A0048	Present	16/11/2021 13:02:59
Aditya	20103A0051	Present	15/11/2021 13:23:24
Anava	20103A0050	Present	15/11/2021 13:22:27
Javesh	20103A0047	Present	15/11/2021 13:22:05
Aayush	20103A0048	Present	15/11/2021 13:20:11
Anava	20103A0050	Present	03/11/2021 12:03:41
Javesh	20103A0047	Present	03/11/2021 12:03:30
Aayush	20103A0048	Present	03/11/2021 12:03:12
Aditya	20103A0051	Present	02/11/2021 10:03:08
Anava	20103A0050	Present	02/11/2021 10:02:47
Aayush	20103A0048	Present	02/11/2021 10:02:24

View student attendance percentage button

After clicking on Attendance Percentage Button

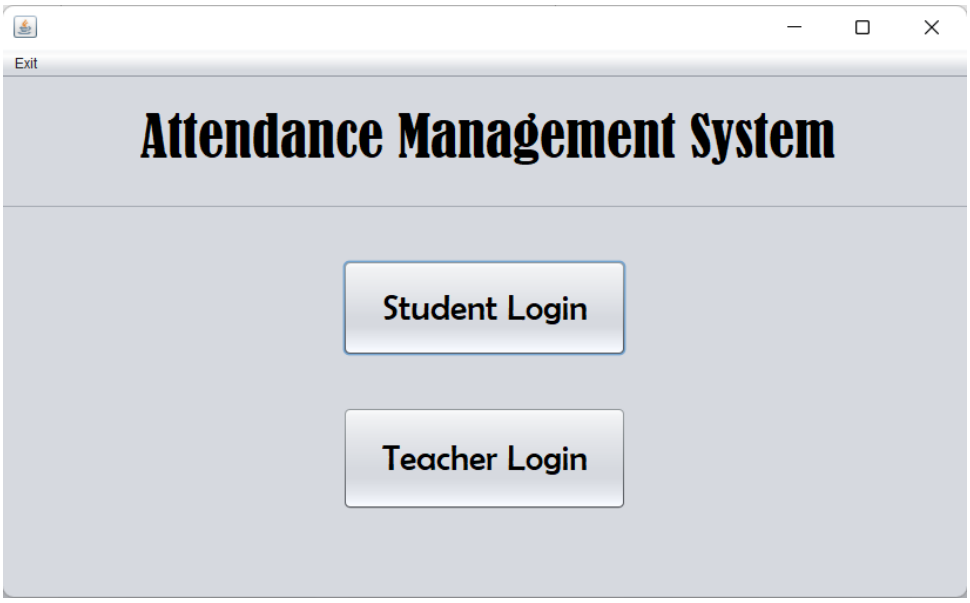
In this, Students Attendance Percentage will get displayed in the table for all the



Now Logging out from Teachers Portal

Start page

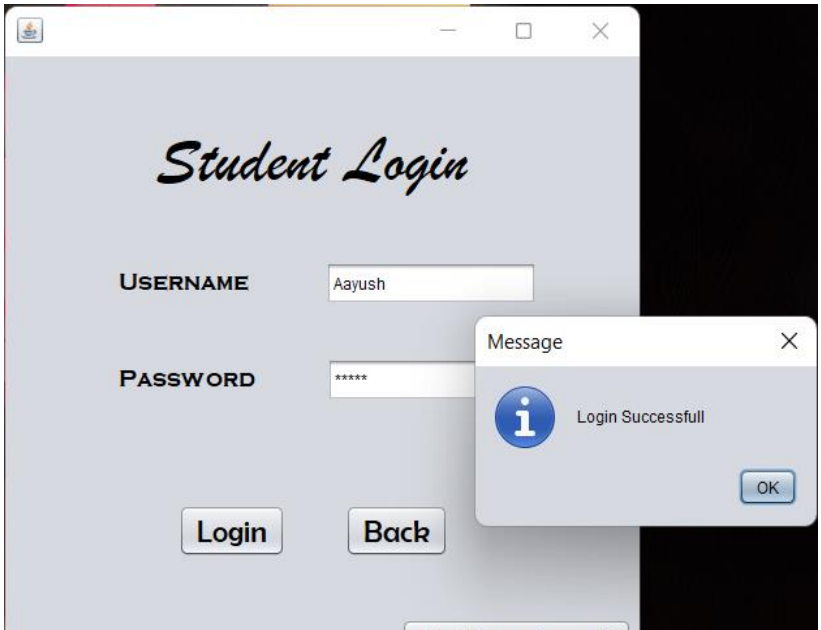
The Initial Panel will get displayed.



Registered Student login page

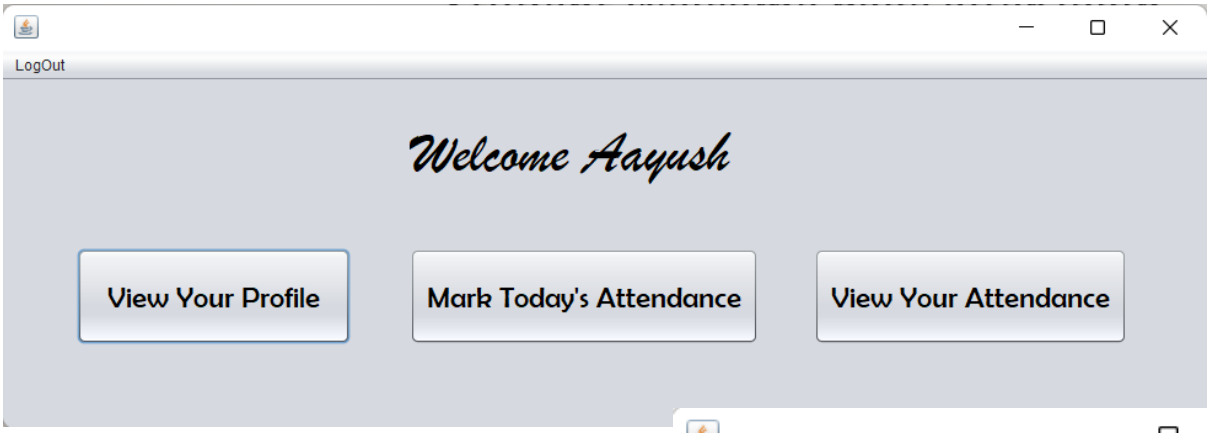
By clicking on Student Login Button, Here Student login page will get appear.

After Entering the correct credentials, Login will get successful and student will move toward the welcome page.



Student Welcome page after login

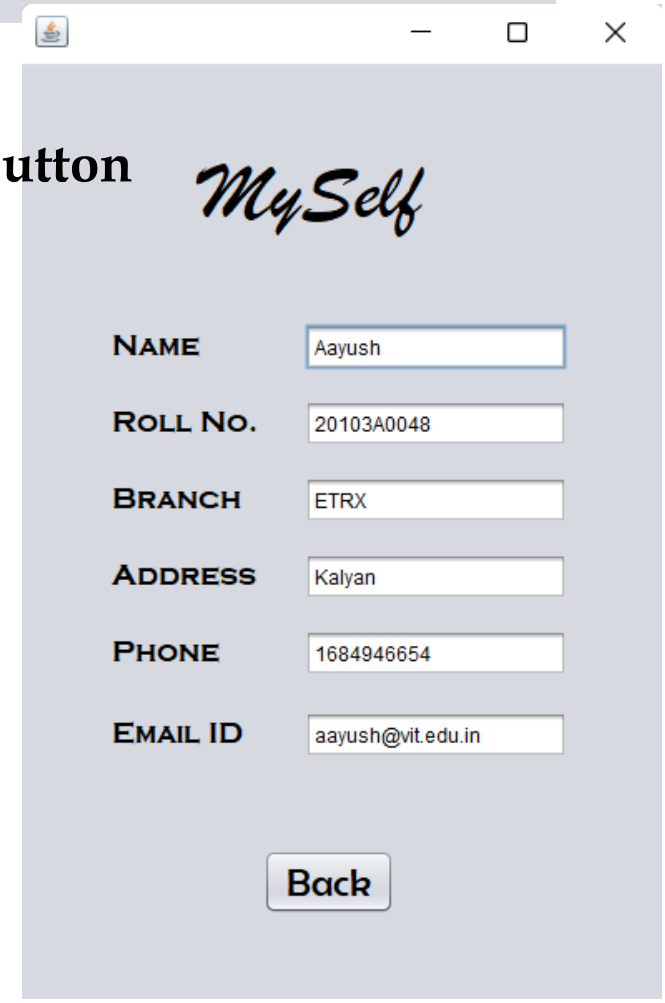
Here Student can access these three buttons partly.



View Your Profile Button

After Clicking on View Your Profile Button.

Student can view / check their Details.



Mark Today's Attendance

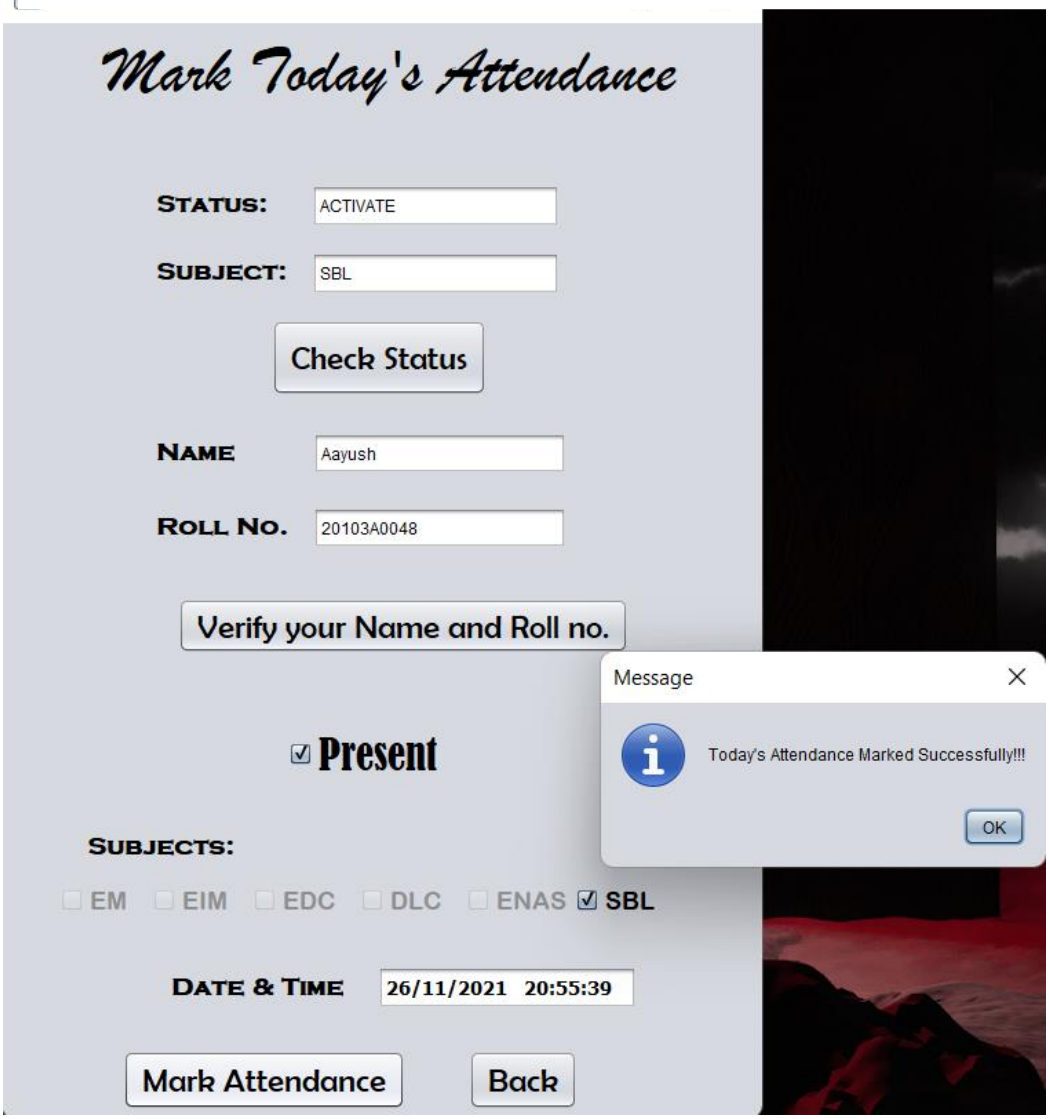
After clicking on Mark Today's Attendance Button

In this process, Student have to go stepwise for marking the attendance.

Check Status: - If Status is Activate, then Student will can access all the features. And if status is Deactivate, Student can't access it all.

Verification: - After clicking on the verify button Student's name and roll no will get displayed.

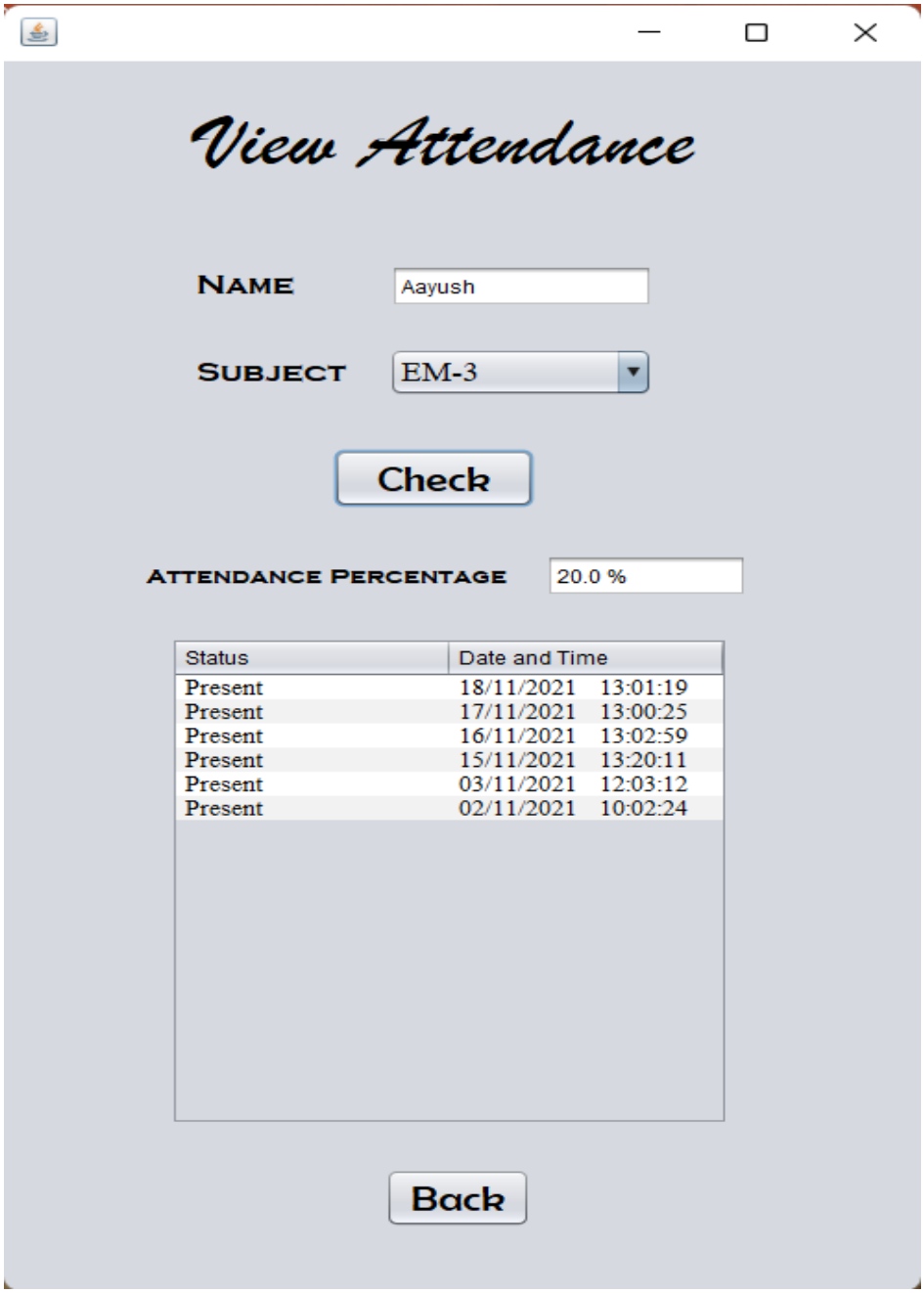
Present: - Student will have to select the check box named Present.



View your own attendance

After clicking on View Attendance Button

Student can view their attendance including attendance percentage for each subject.



Step 9: Application (mention where it can be used)

- Attendance management is significant to all organizations such as educational institutions.
- It can manage and control the success of any organization by keeping track of people within the organization such as students to maximize their performance.
- The system offers the process of monitoring attend students, it aims to help the teacher in the classroom or laboratories to manage and record students' presence electronically and directly without the need to list on paper so it will save time and effort.
- The system can analyse the data and displays statistics about the students warnings for the specified period.
- The developed system easy to use and friendly that has an attractive and simple design so that insertions, deletions, and changes of data can do easily without interacting with the tables.

The application's test case revealed that the

Step 10: Conclusion (Advantages & Limitations of project)

- Front-End and Back-End are connected with each other.
- Managing attendance record manually takes so much time and work.
- This project save time, and gives accurate attendance report.
- We can view attendance record anytime and anywhere, in easy way.