STUDENT ATTENDANCE TRACKER

REPORT

GROUP 11

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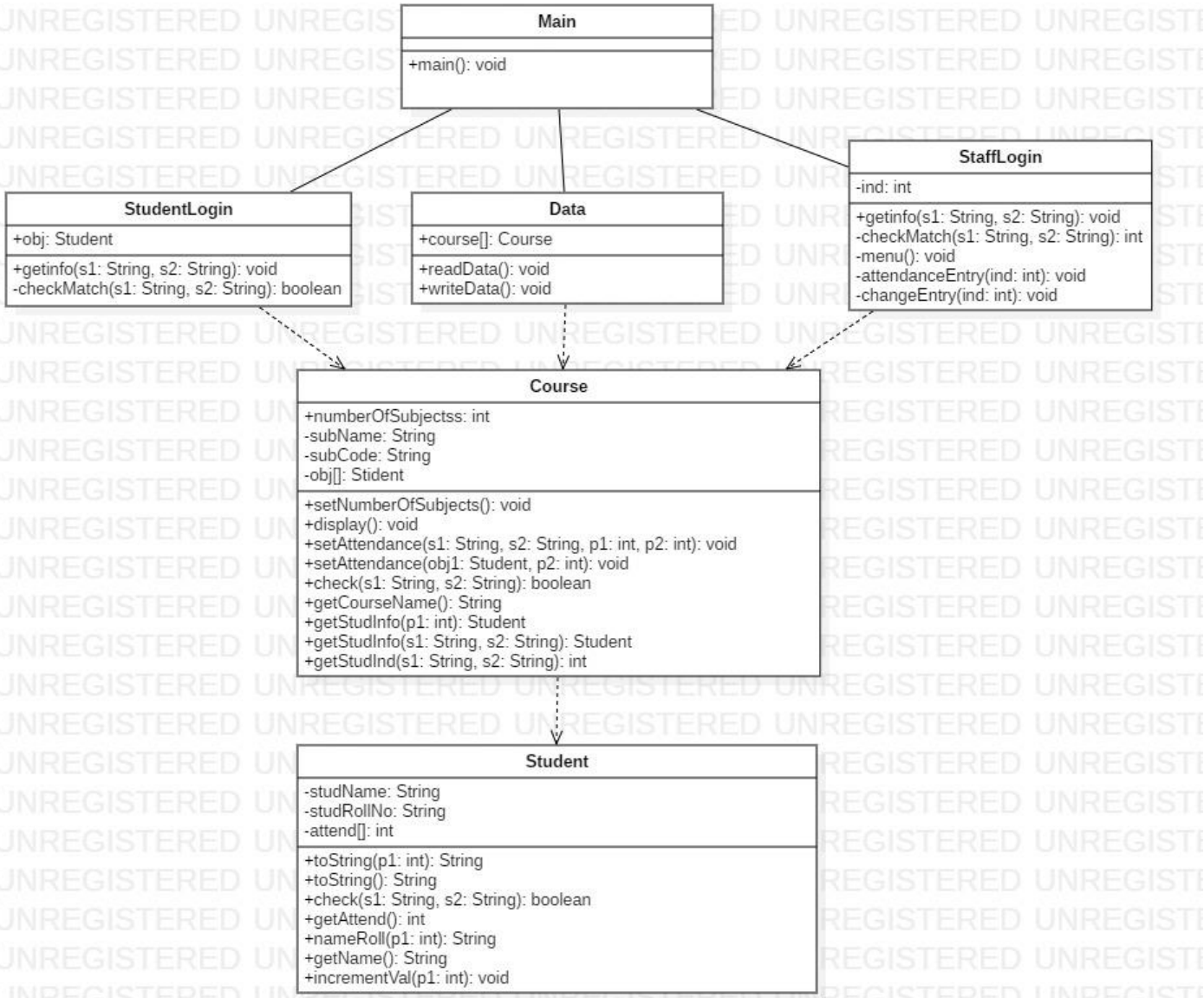
CONTENTS

1. Problem statement

The aim of the project is to create a java application for tracking student attendance.
The project is done based on the requirement that all the information is already stored in an excel file. The excel file should have a specific format. It should at least contain the course name, course code, student name and roll number. Any changes made in the attendance, using application, will reflect in the excel file. The application has two users namely staff and student. The student user should be able to view his/her attendance in all the courses. The staff user should be able to manipulate the attendance in various methods.

2. Class diagram



3. Users and features available

There can be two users for the application. The user has to enter the user name and password in order to access the features.

a) Student - A student can view his/her attendance for all the courses (that he/she is enrolled in). The student has to enter name and roll number for username and password respectively.
b) Staff - Staff can login using course code as the user name and a default password based on the course code. Various options are available in staff menu
    i. View attendance - in this window, the staff can view the attendance of all the students.
    ii. Change entry - This option allows the staff to change the attendance of a particular student entering his/her roll number and name.
    iii. Attendance entry - this option allows the staff to enter attendance for the whole class. The user can choose between manual or automatic attendance. In manual the use has to select the present option for each and every student. If the attendance of any student is not given a message is shown. In automatic attendance, all the students are given present.

4. Challenges faced

The first challenge was deciding how the data had to be stored. It was important because the project was based on manipulating the given data. Various changes had to made to the classes Course and Student in order to store the data properly. The variables were declared as private. This made it harder to access and manipulate data as private variables cannot be accessed directly.

The application initially got the inputs for the console and it was harder to use. To make it more user-friendly GUI was added. Adding it forced us to rewrite the code.

Another challenge faced was integrating and making changes in the code. The changes each team member made had to be reflected in the code others had. This was difficult and not reflecting the changes caused errors.

5. Contribution of team

D.PRADEEP - back end - class Student

In this there are two private string type variables the one is studName and the other is studRollNo to store the student name and roll no. There is another private array of integer variable called attend with the size of four this will store the no of present, late, excused absence, and unexcused absence. Here we have two constructors which uses method over lodging.

SRIKANTH - back end - class Course

This class is mainly used to count number of courses in which students are enrolled and the month with the help of setNumberOfSubjects() method. The display() function in this class displays the attendance in staff login. They are still many functions which sets attendance for each student and checks the user id and password in login. The remaining methods are for getting student info

KRISHNA TEJA - back end - class Data

This class is used to read and write the data from the excel file. It also instantiates a static variable of class Course where all the data is stored. The two methods in this class (readData() and writeData()) uses IO streams to read and write the data into the file.

VINOTH - front end - class Main,StaffLogin

method in Course class, class view in staff login

In main method a frame is created and then two label, two text boxes, two radio buttons one for student login and another one for staff login, a submit button are created.

In attendance entry method of class StaffLogin name and roll no of every student is listed, for each student there will be four radio buttons those buttons are to mark present or late or excused absence or unexcused absence. There will be another set of radio button for manual and automatic attendance.

In the display method of course class a table is created in that attendance for each student for a particular course is displayed.

DANUSH - Front end - changeEntry method of stafflogin

In getinfo method user name and password are verified.

In changeAttendance method, student's name and roll no are checked for match, and then a frame is created. In that frame previous attendance of that student is mentioned and there will be text boxes for re-entering the attendance. A submit button will be there for finishing the process.

AJITH - front end - class StudentLogin

In student login there are two methods:

Get info() : In this method user name and password are obtained from user and by using check match function we are comparing both username and password. if the student record is found the program will proceed accordingly.

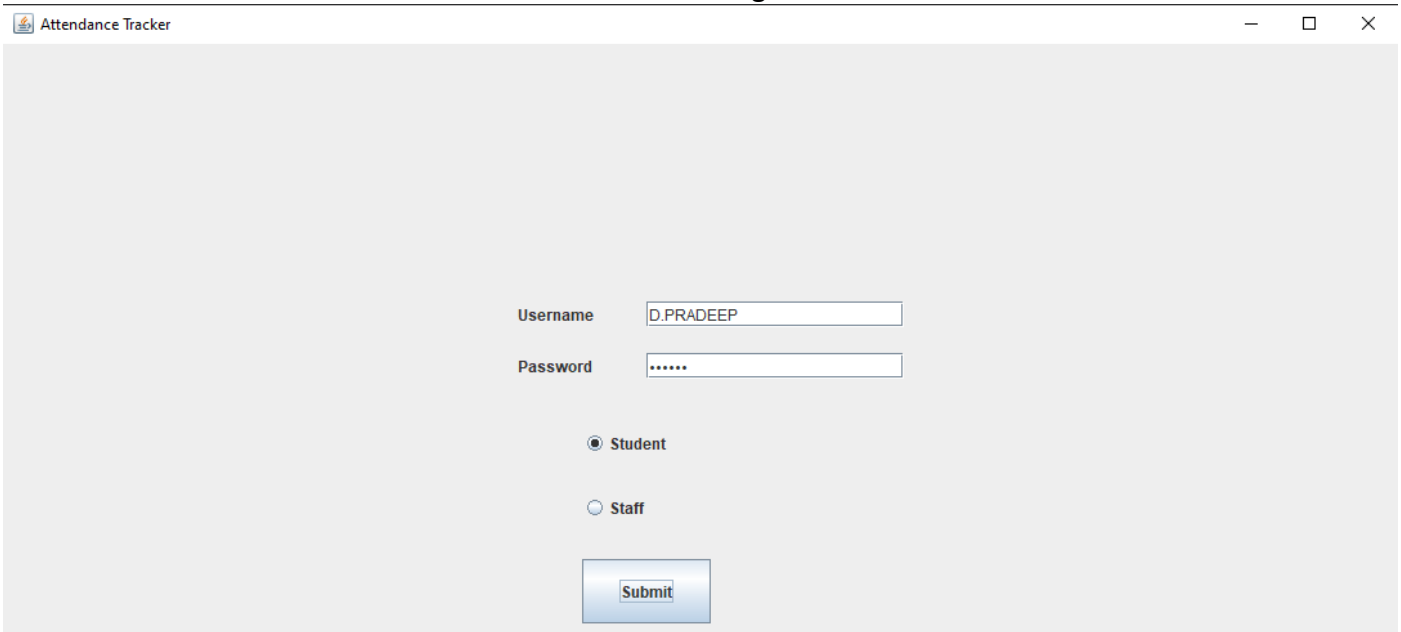
checkMatch() : In this method after comparing the username and password we are printing the attendance of every subject in a tabular format by using the two dimensional array

6. Annexure 1: Code

Link: https://github.com/Krishna-Teja732/Attendance-tracker

7. Annexure 2: Output

Student Login



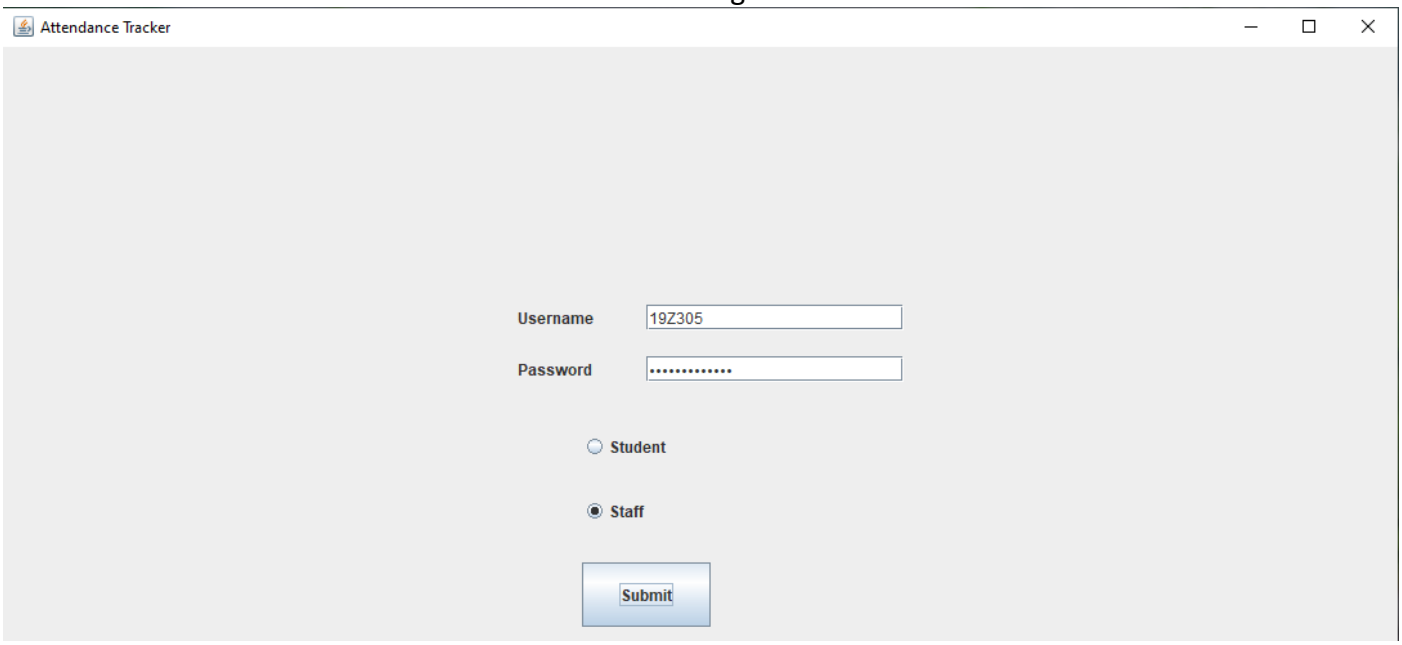
Student LogIn

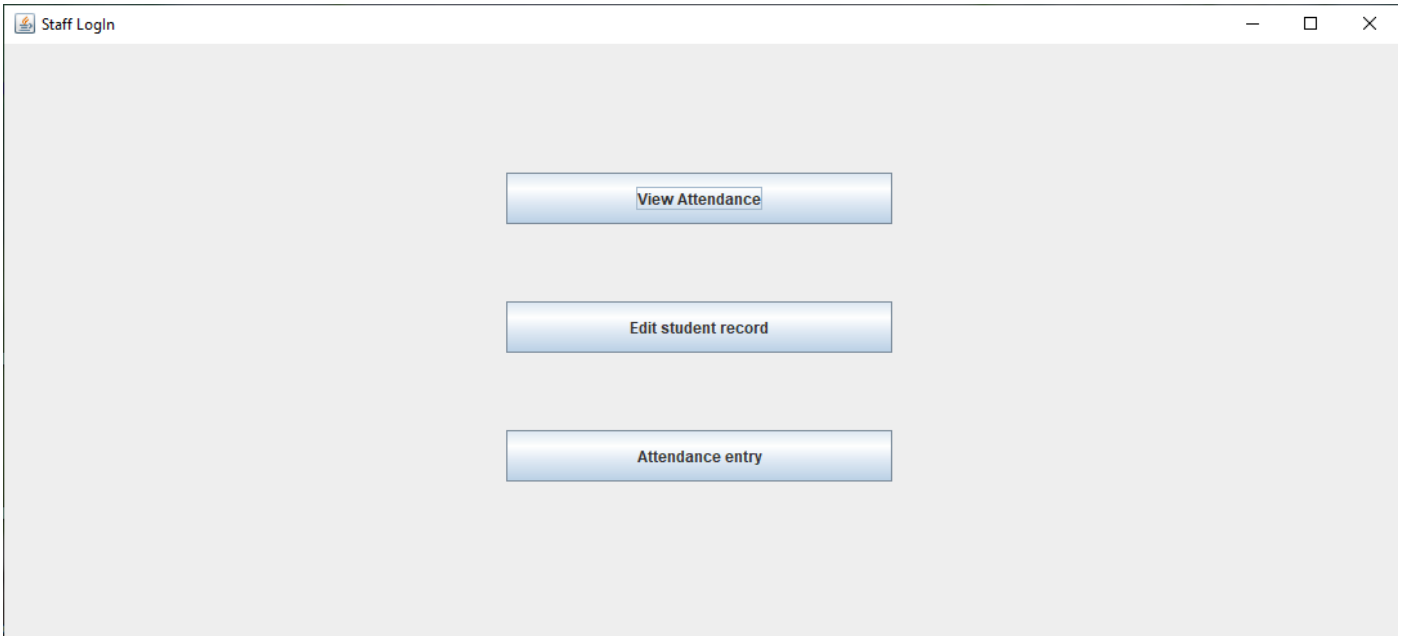
Name : D.PRADEEP

Roll No : 19Z338

Course	Present	Late	Excused absence	Unexcused absence
19Z301 Linear Algebra	12	0	0	0
19Z302 Data Structures	6	0	0	0
19Z303 Computer Architecture	8	0	0	0
19Z304 Discrete Structures	0	0	0	0
19Z305 Object Oriented Program...	8	0	0	0
19O306 Economics for Engineers	0	0	0	0
19Z310 Data Structures Laboratory	8	0	0	0
19Z311 Object Oriented Program...	8	0	0	0
19K312 Environmental Science	0	0	0	0

Staff Login





View attendance

View attendance

Course Name : Object Oriented Programming
Course Code : 19Z305

Roll No	Student Na...	Present	Late	Excused ab...	Unexcused...
19Z301	A.KIRTHIC ...	8	0	0	0
19Z302	ADHARSH.S	8	0	0	0
19Z303	ADITYA SH...	8	0	0	0
19Z304	ADITYA SRI...	8	0	0	0
19Z305	AKSHARA P	8	0	0	0
19Z306	ARAVIND.M	6	0	0	2
19Z307	BARATH K...	8	0	0	0
19Z308	S BHARATH	6	0	0	2
19Z309	BHOOSHA...	8	0	0	0
19Z310	BHOOVIKA V	8	0	0	0
19Z311	DHANAVA...	8	0	0	0
19Z312	DHARMA D...	8	0	0	0
19Z313	DHARUN B...	8	0	0	0
19Z314	GOKUL.R	8	0	0	0
19Z315	GOWTHAM...	8	0	0	0
19Z316	GOWTHAM...	6	0	2	0
19Z317	HARINI. S	8	0	0	0
19Z318	HARISH.J	8	0	0	0
19Z320	HARSHITH...	6	0	0	2
19Z321	HRITHIK	8	0	0	0
19Z322	JAYASREE....	8	0	0	0
19Z323	K SANDEE...	8	0	0	0
19Z324	KAMALRAJ D	8	0	0	0
19Z326	KRISHNA T...	7	0	0	1
19Z327	KUMARES...	6	0	0	2

Edit student record

Change Entry

Enter student name D.PRADEEP

Enter student roll number 19Z338

submit

Change entry

Old values for Present, Late, ExcusedAbsence and UnexcusedAbsence are,8,0,0,0 respectively

Enter new values

Present

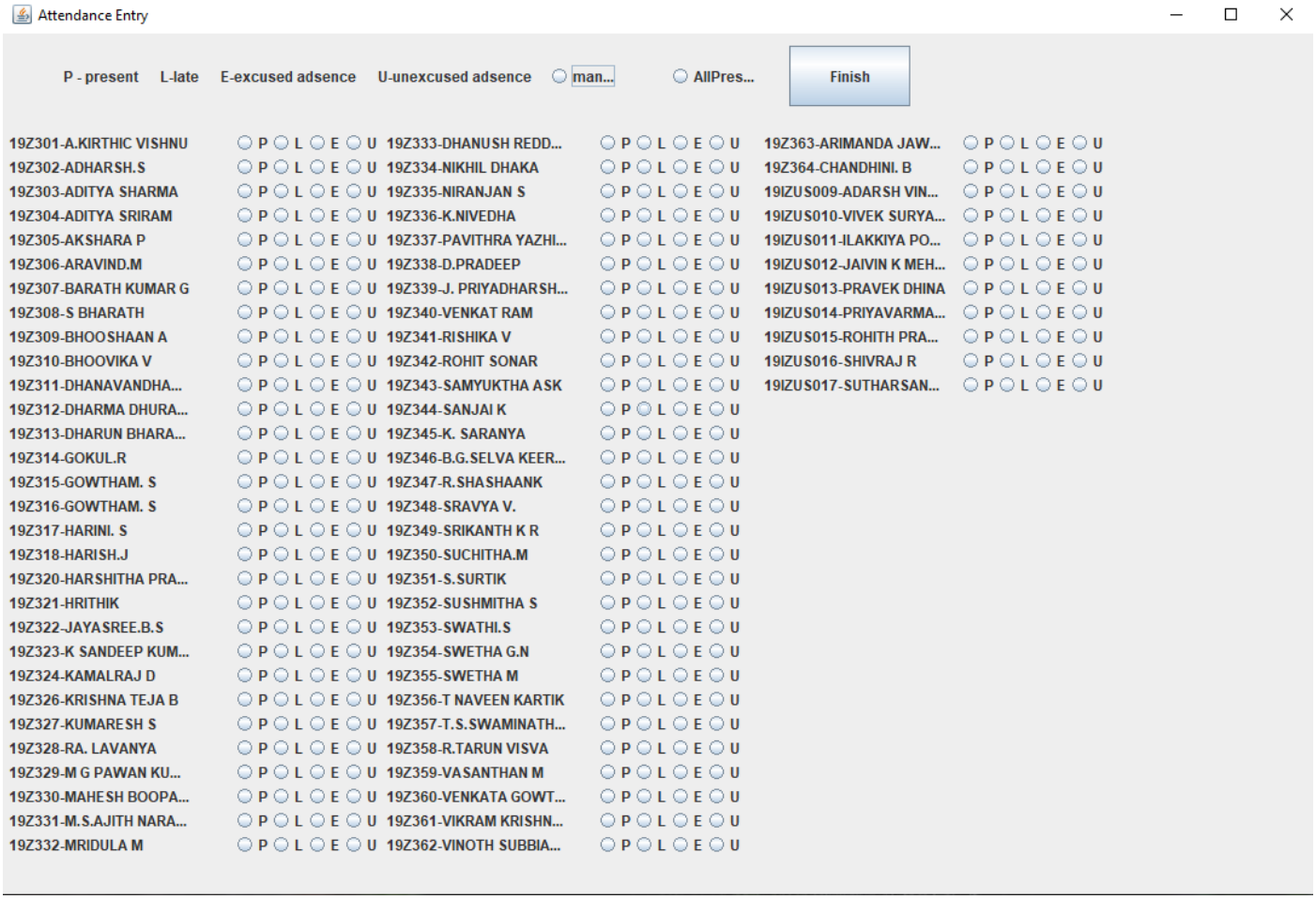
Late

ExcusedAbsence

UnexcusedAbs...

Submit

Attendance entry



8. References and plagiarism report

Links:

https://www.javatpoint.com/java-swing
https://www.javatpoint.com/how-to-read-csv-file-in-java