

OBJECT ORIENTED PROGRAMMING – PROJECT REPORT

Topic: Student Attendance Tracker

Prepared By:

BATCH 1

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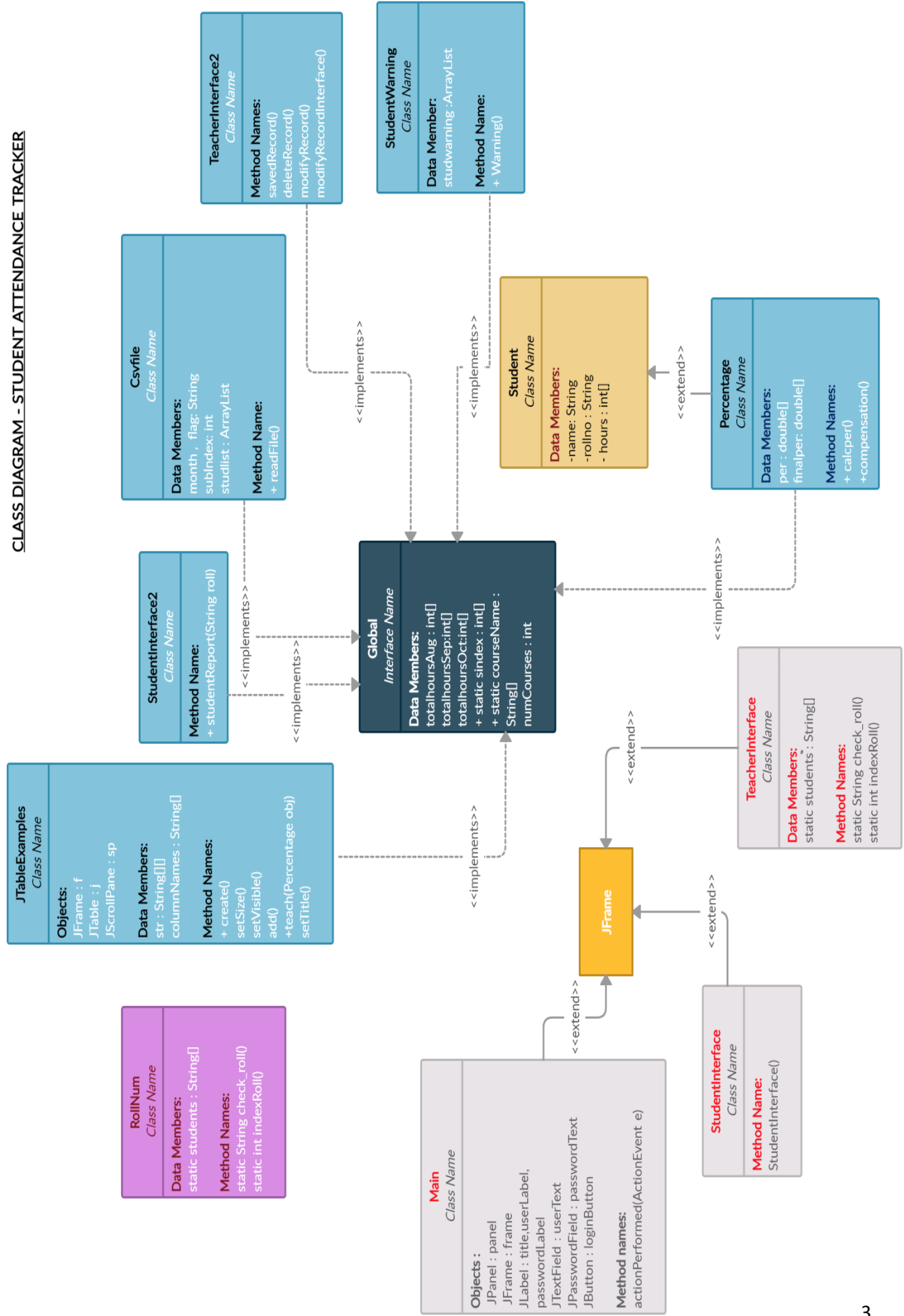
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PROBLEM STATEMENT

This is a semi-automated Java application with Java Swing as the front end and csv files as the database. It has a login portal, which enables both the faculty and student to login. The database already has the information about the attendance of each student , for every course, allotted over months. The database could be done through csv file reading from already prepared excel sheets. The sheet consisted of the number of hours a student was present including late, excused and unexcused. Using this information , both the normal percentage and the compensated percentage can also be also calculated. A well- defined warning instructor can be implemented in this project for faculties to know who all lag attendance . Attendance report can also be viewed by the faculties subject wise on a monthly basis for all students whereas students can view their attendance and compensated attendance in the student report. Modification of student details can also be performed by faculties through their login. This is a unique , very handy and yet useful project for administration of student attendance.

CLASS DIAGRAM - STUDENT ATTENDANCE TRACKER



USERS AND FEATURES AVAILABLE IN APPLICATION

Features:

- Separate login for both faculty and student
- Student can view a report of his/her attendance in a given month.
- Includes a defined warning instructor, if a particular student has an attendance lag.
- Add, delete student record.
- Modify a student's attendance , name.
- Generates Attendance report of a course.
- Calculation of attendance percentage of a student for each subject over each month.
- Compensated attendance percentage which provided for the student who are late or have an excused leave accordingly.

FACULTY LOGIN:

Username – faculty
Password – psgtech

STUDENT LOGIN:

Username- Roll number of respective students
Password – RollnumberRollnumber
Ex: Username – 19z320
Password – 19z32019z320

CHALLENGES FACED:

- The Swing part was quite challenging for us to code, but with self-learning and tutorials and teamwork , we helped each other and coded it.
- The concept of reading from csv files took time to understand.
- Displaying of warning was first tried through Swing , but it seemed a little complicated and was finally printed in the console itself.

CONTRIBUTION OF TEAM MEMBERS

Front end:

- Lavanya Ra – Login using Swing

Back end:

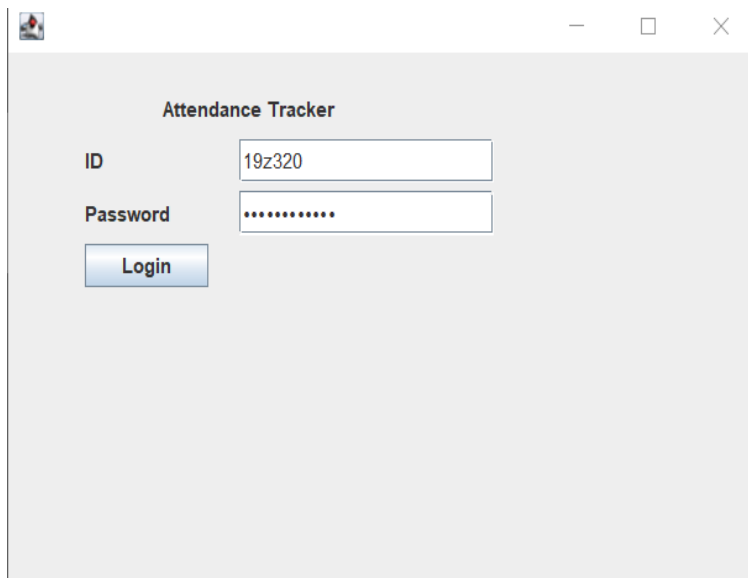
- Sravya V - Modification of details
- Swathi S – Student and Faculty Report generation using Swing
- Swetha GN – Percentage calculation and csv file reading
- Chandhini B – Warning Percentage display
- Harshitha P – Compensation percentage

Annexure I – CODE

GitHub link of project – <https://github.com/Lavanya-ra/Student-Attendance-Tracker>

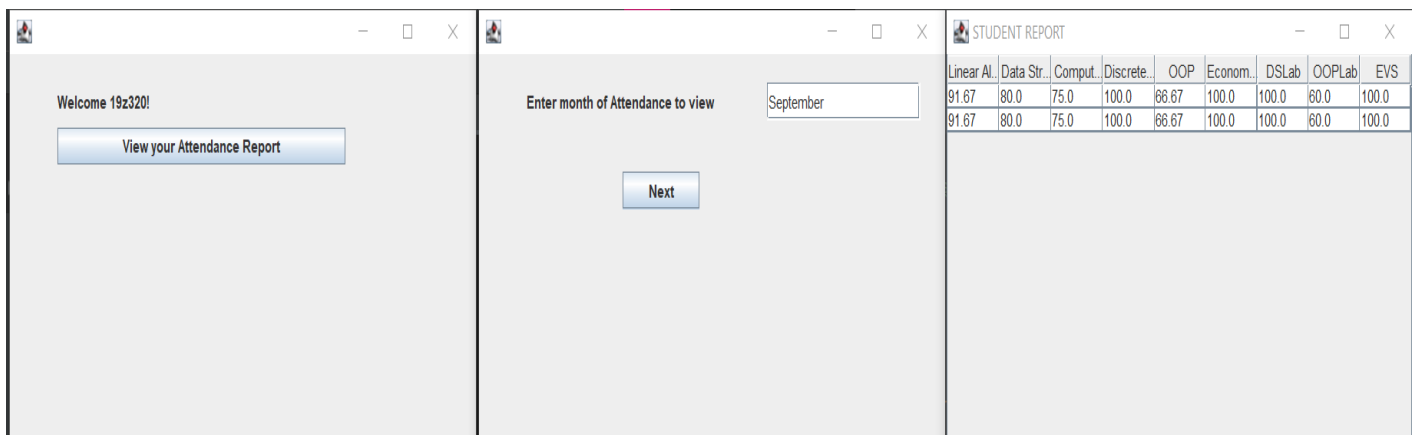
Annexure II – OUTPUT Snapshots

STUDENT LOGIN (September month taken as demo)



A screenshot of a Java Swing window titled "Attendance Tracker". It contains two text input fields: "ID" with the value "19z320" and "Password" with masked characters ".....". Below the password field is a "Login" button.

Row 1 is the normal attendance and Row 2 is the compensated one.



A screenshot of a Java Swing window titled "STUDENT REPORT". It is divided into three panes. The left pane shows "Welcome 19z320!" and a "View your Attendance Report" button. The middle pane shows "Enter month of Attendance to view" with a dropdown menu set to "September" and a "Next" button. The right pane displays a table of student performance data.

Linear Al.	Data Str.	Comput.	Discrete...	OOP	Econom.	DSLAb	OOPLab	EVS
91.67	80.0	75.0	100.0	66.67	100.0	100.0	60.0	100.0
91.67	80.0	75.0	100.0	66.67	100.0	100.0	60.0	100.0

Warning (for the month of September)

```

Main x
September

The following students have attendance below 75%

19Z307 BARATH KUMAR G    OOP :66.67%
19Z316 GOWTHAM. S      Linear Algebra :50.0%
19Z320 HARSHITHA PRABAKARAN    OOP :66.67%
19Z335 NIRANJAN S      Computer Architecture :62.5%
19Z338 D.PRADEEP      OOP :66.67%
19Z340 VENKAT RAM      Linear Algebra :66.67%
19Z342 ROHIT SONAR      Linear Algebra :50.0%
19Z344 SANJAI K        Linear Algebra :66.67%
19Z357 T.S.SWAMINATHAN    OOP :66.67%
19Z359 VASANTHAN M      OOP :66.67%
19Z363 ARIMANDA JAWAHAR VAMSI REDDY    OOP :66.67%
19IZUS010 VIVEK SURYA.D    OOP :66.67%
19IZUS012 JAIVIN K MEHTA    Computer Architecture :50.0%
  
```

FACULTY LOGIN (October month taken for demo)

Attendance Tracker

ID

Password

Login

Enter month

Next

Welcome

Add a Student

Modify Student details

Delete Student

Attendance Report

Enter modifying roll no

Modif...

Modify Attendance

Enter new name

Modify

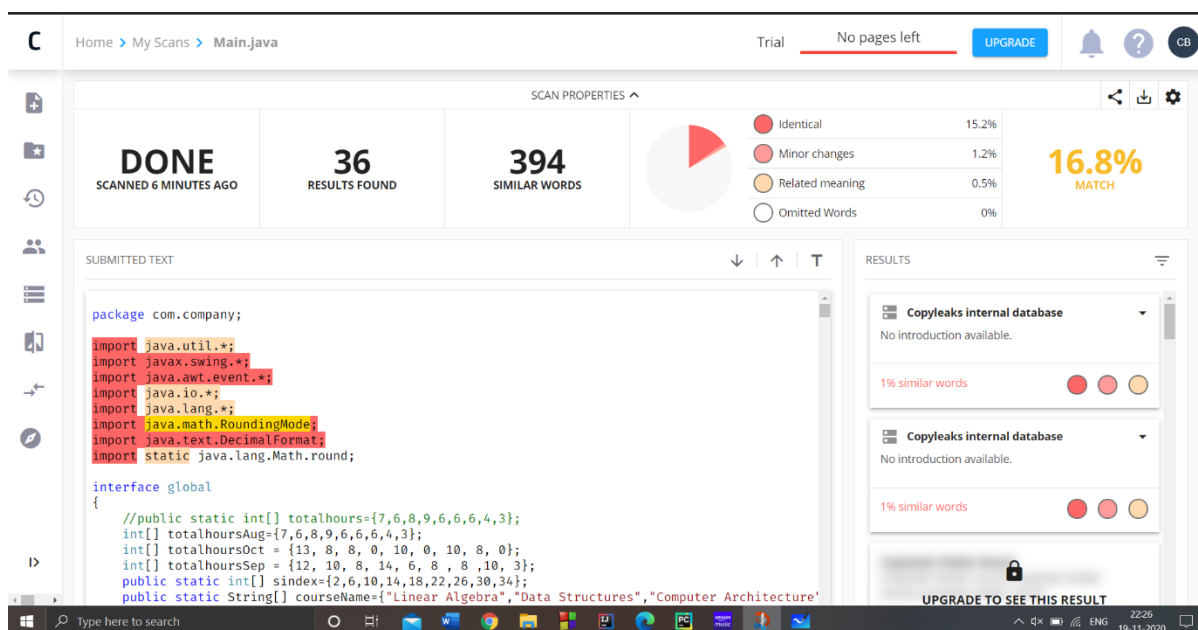
19Z359	VASANTHA	13	0	0
19Z360	VENKATA C	12	0	0
19Z361	VIKRAM K	13	0	0
19Z362	VINOTH S	13	0	0
19Z363	ARIMANDA	7	0	0
19Z364	Chandhini.	13	0	0
19IZUS009	ADARSH V	13	0	0
19IZUS010	VIVEK SUR	13	0	0
19IZUS011	ILAKKIYA P	13	0	0
19IZUS012	JAIVIN K M	9	0	0
19IZUS013	PRAVEK D	9	0	0
19IZUS014	PRIYAVARI	13	0	0
19Z365	GOWTHAM	13	0	0

Edited part

Similarly , add and delete operations could be done and the attendance report for all subjects individually can be viewed on clicking . (Shown below for the subject Data Structures)

NAME	ROLL NO	PERCENTAGE
A KIRTHIC VISHNU	19Z301	100.0
ADHARSH S	19Z302	100.0
ADITYA SHARMA	19Z303	100.0
ADITYA SRIRAM	19Z304	100.0
AKSHARA P	19Z305	100.0
ARAVIND M	19Z306	100.0
BARATH KUMAR G	19Z307	92.86
S BHARATH	19Z308	100.0
BHOOSHAAN A	19Z309	100.0
BHOOSHIKA V	19Z310	85.72
DHANAVANDHANA K	19Z311	100.0
DHARMA DHURAI V	19Z312	100.0
DHARUN BHARATHI S	19Z313	100.0
GOKUL R	19Z314	100.0
GOWTHAM S	19Z315	100.0
GOWTHAM S	19Z316	92.86
HARINI S	19Z317	100.0
HARISH J	19Z318	100.0
HARSHITHA PRABAKARAN	19Z320	100.0
HRITHIK	19Z321	92.86
JAYASREE B S	19Z322	100.0
K SANDEEP KUMAR	19Z323	100.0
KAMALRAJ D	19Z324	100.0
KRISHNA TEJA B	19Z326	100.0
KUMARESH S	19Z327	100.0
RA LAVANYA	19Z328	100.0
M G PAWAN KUMAR BABU	19Z329	78.58
MAHESH ROOPATHY M	19Z330	92.86

PLAGIARISM REPORT



REFERENCES

- <https://creately.com/>
- <https://www.javatpoint.com/how-to-read-csv-file-in-java>
- <https://www.javatpoint.com/java-swing>
- <https://www.tutorialspoint.com/swing/index.htm>