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# JAVA PROJECT

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ASSIGNMENT 2 – MA 104



PRANAV S

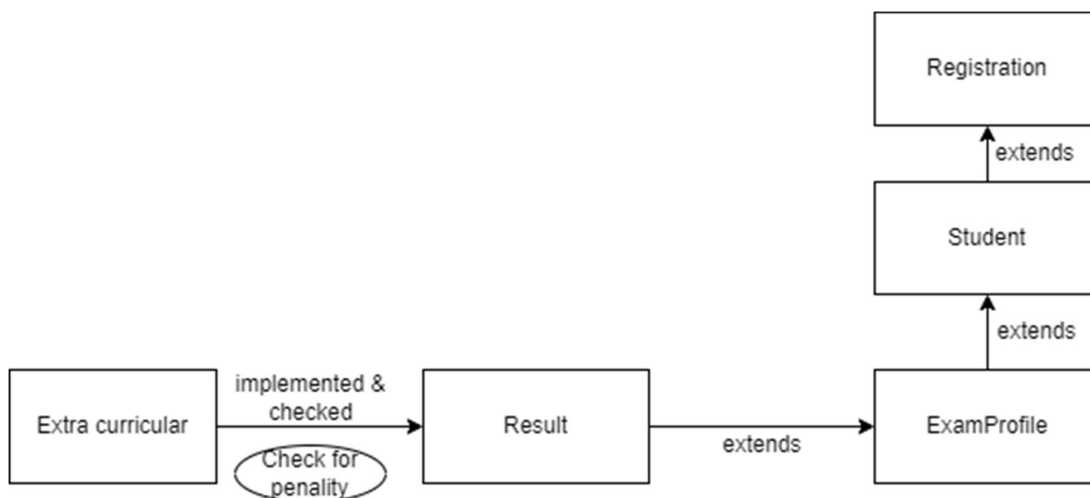
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MATHEMATICS AND COMPUTING(OVERLOAD)

## PROJECT EXPLANATION:

I have designed an academic management system to calculate the final mark output of students in an academy. I have also designed a bonus mark allocation to the students who have done something extra curricular in their academic session. The ones who have done something against the academy's agenda should also be punished so I have also allocated negative marks to those students. The final results are published considering all the activities of the students including the academic performance extra-curricular activities and also the negative marks for bad behaviour.

Github Repo for the project: <https://github.com/Dark-knight-02/JAVA-PROJECT-MA-104-ASSIGNMENT>



## Functions of class

### Abstract class Registration

Defines the attributes that are needed for a candidate to register. Contains an abstract method which displays the information.

### Class Student

Inherits Registration. Contains additional attributes of professor name and roll number, which are things assigned after registration. Also, the displayStudent() method is defined here. A method assignProf() helps to assign a professor based on the subject of student.

### Class ExamProfile

Inherits Student class. Contains information if the student is eligible for penalty or grace marks, and also the test scores of the student. Also, the showScore() method displays the score.

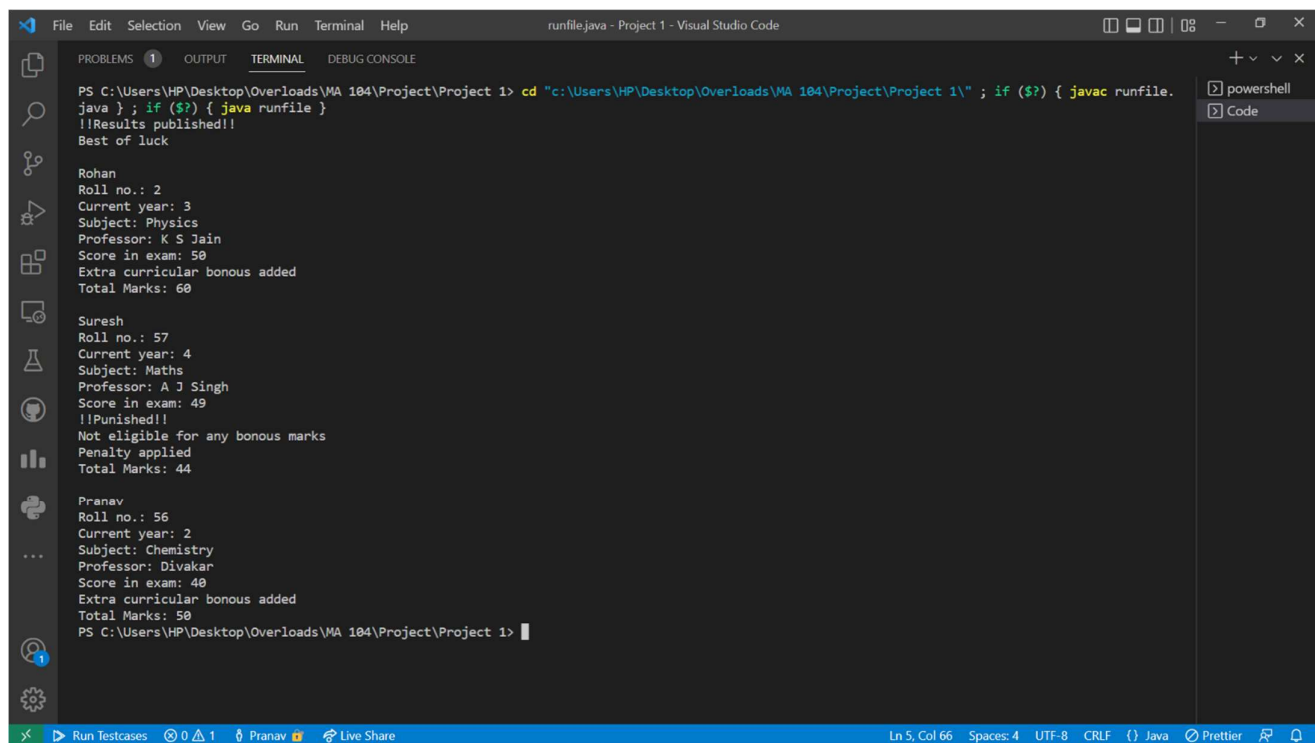
## Interface Achievement

Contains the marks that are to be rewarded or deducted as grace/penalty.

## Class Result

Inherits Examprofile class and implements Achievement. It has a constructor to initiate the class, as well as a method calculatedResult() which calculates the marks based on the conditions. Also, method displayResult() displays the final result of the student. When a new object is initiated, the constructor assigns the values to the attributes, most of which are inherited from other classes. The method calculatedResult() uses control statements to calculate the final marks of the student based on the attributes. The method displayResult() uses inherited methods assignProf(), displayStudent(), showScore(), calculatedResult() to display the final result.

## OUTPUT:



```
PS C:\Users\HP\Desktop\Overloads\MA 104\Project\Project 1> cd "c:\Users\HP\Desktop\Overloads\MA 104\Project\Project 1" ; if ($?) { javac runfile.java ; if ($?) { java runfile }
!!Results published!!
Best of luck

Rohan
Roll no.: 2
Current year: 3
Subject: Physics
Professor: K S Jain
Score in exam: 50
Extra curricular bonus added
Total Marks: 60

Suresh
Roll no.: 57
Current year: 4
Subject: Maths
Professor: A J Singh
Score in exam: 49
!!Punished!!
Not eligible for any bonus marks
Penalty applied
Total Marks: 44

Pranav
Roll no.: 56
Current year: 2
Subject: Chemistry
Professor: Divakar
Score in exam: 40
Extra curricular bonus added
Total Marks: 50
PS C:\Users\HP\Desktop\Overloads\MA 104\Project\Project 1>
```