

Lab ID : LAB52B

Lab Goal : This lab will provide more practice with ArrayLists.

Lab Description : In this lab you will write a grading program for your math class that computes each students overall average. You will need to write a *StudentGrades* class. Each object of the *StudentGrades* class will have private instance variables that represent each student's:

name,
homework average,
quiz average,
test average,
Midterm Score,
Performance Final Score,
Multiple Choice(MC) Final score,
droppedScore,
replacedScore,
overallAverage

1. First, solicit each student's name, homework average, Midterm score, Perf Final score, and multiple choice(MC) final score.
2. Next, you will solicit a list of Quiz grades(≥ 6) and a list of Test grades(≥ 5).
3. You must drop the lowest Quiz grade and also replace the lowest Test grade with the MC Final score, if it is higher.
4. You then compute the Quiz average and the Test average.
5. The overall average should be computed using the following weight factors:
 - 5% homework average
 - 30% quiz average
 - 40% test average
 - 5% Midterm Score
 - 5% Performance Final Score
 - 15% Multiple Choice(MC) Final score
6. You must write a constructor that will initialize each student object.
7. You will add each new student object to a class roster.
8. Finally, you will write a *gradesReport* method that will print a grade report from the roster that includes a computed overall average.

Output Format:

Example

NAME	HW AVG	QUIZ AVG	TEST AVG	MIDTERM	PERF FINAL	MC FINAL	QUIZ DROP	TEST REPL	FINAL AVG
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

File Names : StudentGrades.java
StudentGradesTester.java

Be sure to test thoroughly!