

## Program Description: Class Averages

An instructor needs a program that will allow him to input and save student test scores and calculate their overall average. For this assignment, you will write a java application that will allow the user to input an undetermined number of test scores and save them to a text file. You should then output each score from the text file and calculate/display the overall average.

While writing to the file, be sure to perform the following:

- All test scores should be saved to a text file named by the user
- Each score should be stored as a single line in the file
- User should be able to continuously enter tests scores, until a negative score is entered.

While reading from the file, consider the following:

- Be sure to read each line from the file as the appropriate data type (for calculations)
- Each test score needs to be accumulated (totaled) to perform later calculation
- You DO NOT need to store each score into an array/variable. Only display them

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### Structure

Your code should adhere to the following structure:

- Your code should only be contained in one class (ClassAverages)
  - Each of the following methods should be assigned as static
  - Your code should be separated into three (3) methods:
    - `main( )` – Should input file name from user and pass name to each of the following methods
    - `inputScores( )` – Should input each score individually from user and write it to the text file
    - `outputScores( )` – Should read each score and display it to the user, also will calculate overall test average
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## Exception Handling

You will also be required to implement exception handling techniques. For this application, you should at minimum include two (2) techniques. Make sure that the exceptions you implement make sense in the context of this program. Unnecessary exceptions will not count.

Here are a few potential exceptions to consider:

- `ArithmeticException`
  - `InputMismatchException`
  - `FileNotFoundException`
  - etc.
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## Example Output:

Class Test Score Average!

Please enter the name of the file to save to:

>scores

Please enter student 1's test score, input -1 to quit:

>100

Please enter student 2's test score, input -1 to quit:

>70

Please enter student 3's test score, input -1 to quit:

>90

Please enter student 4's test score, input -1 to quit:

>-1

Test Scores:

Student 1: 100

Student 2: 70

Student 3: 90

Class test score average is 86.7

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**Constraints:**

- a) Make sure you use the following comment at the beginning of your program:

```
/******  
Homework 5:   Class Averages  
Program By:   YOUR NAME  
File Name:    ClassAverages.java  
Function:     This program writes/reads scores to text file and calculates average  
*****/
```

- b) **ALL CODE** should be within a single Java files
- c) **ATTACH** your completed .java file to the *submission link*. Do not cut and paste your code into the message section.