Homework 1

This is an individual homework assignment. You may receive help from other class mates, but you may NOT copy their work. Copied work will be considered plagiarism and dealt with according to the syllabus and university policy.

Objective: For this assignment, you will demonstrate that you can properly manipulate the Eclipse IDE and create, compile, and execute a basic Java program using appropriate fundamental programming techniques. This will include following proper naming, formatting and style conventions as well as using several functions and classes in the Java standard library.

Description: Businesses generally need interactivity in their programs. Therefore all 3 main computing processes, Input-Processing-Output (IPO), are included in most programs. You will write a program that collects several data points from the end user, processes their input, and outputs the results of your processing. You must use appropriate Java standard library functions and classes for all tasks. An example dialog is exemplified below in Table 1.

Assignment:
- Create a command-line Java program that performs the following:
  - Asks the user for an integer value representing the number of student grades
  - Asks the user to input the student's name as a string value
  - Asks the user to input integer value grades for 3 exams
  - Stores all inputted data values into appropriate variables and/or data structures
    - *Helpful hint:* group values into appropriate data structures (e.g. ArrayList)
  - Calculates the correct grade average for each individual student
  - Outputs the student's name with their correct grade average
  - Outputs the correct class grade average
  - Your input prompts and output statements should appear similar to that shown below in Table 1
  - You must use appropriate control structures for all 3 IPO processes to receive full credit
    - *Helpful hint:* repetitive tasks should be implemented using iterative controls

- Upload your .JAVA code file to the appropriate Blackboard assignment

```
How many student grades will you enter?:
2
What is student #1's name?:
Grace
What was the student's exam 1 grade?:
100
What was the student's exam 2 grade?:
100
What was the student's exam 3 grade?:
100
What is student #2's name?:
Steve
What was the student's exam 1 grade?:
35
What was the student's exam 2 grade?:
42
What was the student's exam 3 grade?:
0
Grace's exam average score is: 100.0
Steve's exam average score is: 25.666666666666668
The class average exam grade was: 62.833333333333336
```
Table 1 – Example Input/Output