Homework 4 – ISM 3230 ISM 6148 Fall 2020
Due to Canvas: 9/29/20 at 11:59pm

Math Tool

As a software developer, you have received a new requirement from an Elementary School to develop a software to help kids to learn about whole number concepts, such as odd numbers, even numbers, find the greatest number and compute the average.

The Elementary School wants you to build a program that prompts the user to enter his/her name (Student name) and to enter some whole numbers.

Thus, your program will receive the following information:

- Student name
- Whole numbers entered by the keyboard.

Note: The Student will enter 99 to finish and exit the program.

The program then outputs the following information:

- Student name
- A count of how many numbers the Student entered
- A count of how many even numbers the Student entered
- A count of how many odd numbers the Student entered.
- The sum of the numbers entered by the Student.
- The average of the numbers entered by the Student.
- The sum of the odd numbers entered by the Student.
- The average of the odd numbers entered by the Student.
- The sum of the even numbers entered by the Student.
- The average of the even numbers entered by the Student.
- The greatest odd number entered by the Student.
- The greatest even number entered by the Student.

Please refer to the Sample Output file for full details of what the program should look like when it runs.

This assignment MUST be created individually. You must turn in your OWN source code and Java bytecode executable file. You MAY NOT share files!

Instructions

- Compile and execute your program to ensure that it works correctly.
- Be sure to run your final program using the sample data included in the Sample Output file to ensure your program works properly.
- Make sure your output labels match those in the Sample Output file exactly.

Notes

- You MUST store any calculations in variables (i.e. do not calculate the price of menu items, sales tax, or total amount due directly in your `System.out.println` statements)
- You do NOT need to worry about formatting the decimal places on values you calculate
- You may perform the tasks in any order as long as your output follows the order of the output in the example scenarios contained in the Sample Output file

ISM 6148 (20 points)

Use an Input Dialog box to allow the user to enter the numbers:

- Title: Fun Math
- Message: Please enter a positive number

Please refer to the Sample Output – BONUS file for scenarios that incorporate the Input Dialog Box.

To receive full credit:

- Submit the following files to Canvas
  - File with your Java source code (.java file)
  - File with your Java bytecode executable file (.class file)
- Modules → *NetBeans Information -> NetBeans-> where are my files for my homework?.*
- You must follow the appropriate Coding Standards listed in the Coding Standards document under Modules on Canvas.
  - 40% of your grade on the source code will be based on how well you follow these standards and how well you comment your source code
- Submit your zip file to Canvas using the Assignment submission feature by 11:59pm 9/29/20. Instructions for submission are available on Canvas where you downloaded this file (Assignments --> Homework 4).