COMP 2244 Fall 2022 Assignment 5 Total 20 points

Do not use any data structures such as array or ArrayList to store data.
Do not write other methods, basically write the code in the main () method. Do not write OOP.

1. Write a program as follows:
   a) Prompt the user to input two **distinct** integers: n1 and n2.
   b) If the user enters the negative number(s), convert it/them to positive number(s).
   c) If n1 is greater than n2, swap them (make sure n1 is smaller than n2).

   Then, use **three separate while loops** to do the following:

   d) Use a while loop to output all the numbers divisible by 5 from n1 and n2 inclusive and the sum of these numbers.
   e) Use a while loop to output all the odd numbers from n2 and n1 (large to small) inclusive and the average of these numbers.
   f) Use a while loop to output the table of each even integer and its square between 2 and 16 inclusive.

   Sample run:

```
Enter first integer: -25
Enter second integer: -4

**********Step A, B, and C**********
n1 = 4
n2 = 25

**********Step D**********
Numbers divisible by 5 between 4 and 25 : 5 10 15 20 25
Sum of the numbers divisible by 5  between 4 and 25 = 75

**********Step E**********
Odd numbers between 25 and 4 : 25 23 21 19 17 15 13 11 9 7 5
Average of the odd numbers between 25 and 4 = 15.00

**********Step F**********
Table of each even integer and its square between 2 and 16:
2  4
4  16
6  36
8  64
10  100
12  144
14  196
16  256
```

2. Write a program that does the following:
- Use a **`while`** loop to prompt the user to enter 10 rainfalls in millimeters for 10 different regions.
- Calculate and output the total and the average rain fall.
- Find and output the highest and the lowest rain fall and there corresponding areas.
- Validate the user input: do not accept negative numbers for the rain fall.
- Format the output appropriately with **System.out.printf** or **String.format** method.
  [This program is very similar to LoopWithCounter.java we completed in the lab.]

Sample Run:

```
Enter the rainfall in millimeters for Region 1: 63
Enter the rainfall in millimeters for Region 2: 56.98
Enter the rainfall in millimeters for Region 3: -125.6
Error: must be nonnegative number!
Enter the rainfall in millimeters for Region 3: 89.5
Enter the rainfall in millimeters for Region 4: 67.34
Enter the rainfall in millimeters for Region 5: 12.23
Enter the rainfall in millimeters for Region 6: 65.78
```

```
Enter the rainfall in millimeters for Region 7: 234.45
Enter the rainfall in millimeters for Region 8: 99
Enter the rainfall in millimeters for Region 9: 200.4
Enter the rainfall in millimeters for Region 10: 87

Total rainfall: 975.68
Average rainfall: 97.57
Highest rainfall: 234.45 Region 7
Lowest rainfall: 12.23 Region 5
```

Due: Wednesday, 9/28/22

- To receive full credit, the assignment must be submitted by the due date.
- Late submissions will incur a penalty of 5% per day.
- Upload the source code files to D2L.

Style, form, documentation, naming convention, and more

Each program should have a file header section. /* * Author: Your name * Date: Date of completion * Assignment: Assignment # NameOfSourceCode.java * Description: The program description */	Up to 5% deduction
Each program should be written with the appropriate form and style. Use indentation, blank line, and comments to make the source code easy to read.	Up to 5% deduction
Use Java naming convention and meaningful names to name the classes, methods, variables, constants, and other identifiers in the programs.	Up to 5% deduction
Format the output appropriately	Up to 5% deduction