Lab 8

Exercise 1 - Range of integers between two integers

Write a Java program that asks the user to input two integers and lists all integers between the two in proper order.

Example 1:

```
Please input two integers: 3 9
{3, 4, 5, 6, 7, 8, 9}

Example 2:
```

Please input two integers: 4

Exercise 2 - Multiplication table

Write a Java program that asks the user to input a positive integer N between 1 and 9 then prints the multiplication table up to N.

-2

Example

Please input an integer between 1 and 9: 5

```
1
        2
             3
                      5
1
        2
             3
                 4
                      5
    1
2
    2
        4
             6
                 8
                      10
3
    3
        6
             9
                 12
                      15
4
    4
        8
             12
                 16
                      20
5
    5
        10
             15
                 20
                      25
```

Exercise 3 - Max, Min & Average

Write a Java program that reads 10 integers then displays the maximum, minimum and average numbers.

Example

Please input 10 integers:1 2 3 4 5 -1 -2 -3 -4 -5

Max: 5

Min: -5

Average: 0.0

Bonus - Guessing Game

Write and test a java program that picks a number between 0 and 9 and gives the user 3 chances to guess it. If the user doesn't guess the number correctly in 3 attempts then the program should display the chosen number and exit. (integers only).

Example1:

```
I'm thinking about a number between 0 and 9. Can you guess it? (3 attempt(s) left): 5
```

Sorry. Wrong number.

I'm thinking about a number between 0 and 9. Can you guess it? (2 attempt(s) left): 3

Sorry. Wrong number.

I'm thinking about a number between 0 and 9. Can you guess it? (1 attempt(s) left): 8

Sorry. Wrong number.

The correct number is 9.

Example2:

I'm thinking about a number between 0 and 9. Can you guess it? (3 attempt(s) left): 5

Congratulations! That was the correct number.

Hint:

To pick a random number between 0 and 9 import the random number generator (import java.util.Random;) then create an instance of the generator (Random r = new Random();) then finally get a random number (int myRandomNumber = r.nextInt(10);).