CSE102L Computer Programming Exercise 1

Due: March 3th, 2022 until 12pm

Exercise Definition

In this exercise you are required to complete given java file with your own code.

1. Complete the **makeMatrix** method that generates a 2D matrix with **random** values between **-5 and 5** according to given integer row and column count and returns it.
2. Complete the **getMatrix** method that reads a 2D matrix **row-by-row** from user according to given integer row and column count and returns it. While reading each row, you must print which row you are reading (e.g, **1st row:, 2nd row:..**). Remember that while eleventh is written as **11th**, twenty-first is written as **21st** and so on. Write your code according to this.
3. Complete the **printMatrix** method that prints the given matrix, each row in a **newline** and each value with **only two decimal** places and their **width set to eight**.
4. Complete the **locateMax** method that returns the location of the largest element in given matrix. The return value is an instance of **Location**.
5. Design a class named **Location** that contains public data fields **row, column** and **maxValue**. Row and column data fields are the indices of largest element in the matrix and maxValue is that element.

Write your **own** code. Edit the java file you are given. Change the file name to **Ex01_YourStudentNumber.java** (e.g. Ex01_202051056016.java)**. Remember, public class's name must be the same with your file name.**

Example:

```
Enter dimensions of matrix to create: 3 4

   -4.12    1.39   -2.71    0.86
   -1.31   -0.94   -2.18   -3.85
    0.25   -4.82   -2.92   -0.32

maxValue: 1.3893446254054655 is at (0, 1)
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1st row: 1.2 -11.62 5.443 34.12
2nd row: -44.2 22.28 -45.01 26.94
3rd row: 64.28 36.14 -5.151 12.34

    1.20  -11.62    5.44   34.12
  -44.20   22.28  -45.01   26.94
   64.28   36.14   -5.15   12.34

maxValue: 64.28 is at (2, 0)
```