Exercise 03: Iteration and the "While" and "For" Loop

Problem

A. Sequential Loops – Using only a sequential loop (not nested), create the python code that prints the numbers from 1 to n^2 in a square matrix. See the example below when n is 5. Submit your python code in your respective google classroom submission portal with the following file name: "<Surname>_exer3a.py" (e.g. DelaCruz_exer3a.py)

```
Enter the value of n: 5
 1   2   3   4   5
 6   7   8   9  10
11  12  13  14  15
16  17  18  19  20
21  22  23  24  25
```

Figure 1. Printing of 1 to 5^2

B. Nested loops and conditional statements – Consider the output of "**draw_sqr.py**" and study the code. Using nested loops and conditional statements allows us to create different types of figures. Create the python code that draws the following figure in the terminal *(Figure 2).* Submit your python code in your respective google classroom submission portal with the following file name: "<Surname>_exer3b.py" (e.g. DelaCruz_exer3b.py)

```
Enter dimension: 10
*
* *
* * *
* * * *
* * * * *
* * * * * *
* * * * * * *
* * * * * * * *
* * * * * * * * *
* * * * * * * * * *
```

Figure 2. Drawing of the right triangle

C. Bonus: Make a sequential (not nested-loop) version of B. Submit your python code in your respective google classroom submission portal with the following file name: "<Surname>_exer3c.py" (e.g. DelaCruz_exer3c.py)