**CSCI 256 – Programming in Python** **Fall 2024**
**Lab 8**

# Programming Activity

In mathematics, the notation n! represents the factorial of the nonnegative integer n. The factorial of n is the product of all the integers from 1 to n. For example,

4! = 1 x 2 x 3 x 4 = 24 and 7! = 1 x 2 x 3 x 4 x 5 x 6 x 7

Write a program that lets the user enter a nonnegative integer then uses a loop to calculate the factorial of that number. Display the result.

You can name your program **factorialYourLastName.py**

If you have an infinite loop, click in the Command window, press **Ctrl + C** to stop the execution.

```
# prompt for an integer

# calculate and display factorial of the integer until user quits
# (i.e. -1 entered)
```

Include header comments (i.e., **at the beginning of your file**) formatted as shown below. Your electronic submission of the program file will represent your endorsement of the Honor Code Statement.

```
# Course: CSCI 256, Section X
# Student Name: Jane Doe
# Student ID: 12345678
# Lab 8
# Due Date:

# In keeping with the Honor Code of UM, I have neither given nor received
# inappropriate assistance from anyone other than the TA.

# Program Description:
```

***Sample Output***

```
Enter an integer (enter -1 to exit): 5
5! = 120
Enter an integer (enter -1 to exit): 6
6! = 720
Enter an integer (enter -1 to exit): 7
7! = 5040
Enter an integer (enter -1 to exit): -1
```

**Notice**: You need to submit **your program** in Blackboard. Click on **Lab 8** link in Bb, click **Browse My Computer**, attach the program, and click **Submit**.