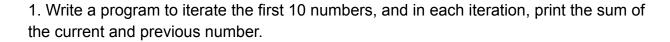


## Data Science Bootcamp

# Assignment: 01 Deadline: Friday 24 Nov, 2023 6PM

### Instructor: Faisal Amin



2. Print the following pattern

1

22

333

4444

55555

3. List is given below:

numbers = [12, 75, 150, 180, 145, 525, 50]

Write a program to display only those numbers from a list that satisfy the following conditions

- i. The number must be divisible by five
- ii. If the number is greater than 150, then skip it and move to the next number
- iii. If the number is greater than 500, then stop the loop
- 4. Display Fibonacci series up to 10 terms

The Fibonacci Sequence is a series of numbers. The next number is found by adding up the two numbers before it. The first two numbers are 0 and 1.

For example, 0, 1, 1, 2, 3, 5, 8, 13, 21. The next number in this series above is 13+21 = 34.

5. Write a program to use the loop to find the factorial of a given number.

The factorial (symbol: !) means to multiply all whole numbers from the chosen number down to 1.

For example: calculate the factorial of 5  $5! = 5 \times 4 \times 3 \times 2 \times 1 = 120$ 

6. Write a program to iterate a given list and count the occurrence of each element and print to show the count of each element.

sample\_list = [11, 45, 8, 11, 23, 45, 23, 45, 89]

**Expected Output:** 

Printing count of each item 11: 2, 45: 3, 8: 1, 23: 2, 89: 1

7. Given two lists, I1 and I2, write a program to create a third list I3 by picking an odd-index element from the list I1 and even index elements from the list I2.

#### Given:

I1 = [3, 6, 9, 12, 15, 18, 21] I2 = [4, 8, 12, 16, 20, 24, 28]

#### <u>Instructions for submitting the Assignment:</u>

- Make sure that you have a Github Account
- Make an individual repo for the assignments and upload your assignment in that repository
- Submit your Github Repo link to submit your Assignment