COMP-104 : Exploring Computer Engineering , Assigment 2 **04.04.2023**

In this assignment , you are expected to solve the following questions and upload the solutions to Canvas.

- Upload a zip or rar file **containing the .c extension files** of the solutions to the questions.
- **Duration :** 50 minutes

Q1. Write a program that finds the number of prime numbers between two entered numbers (including the entered numbers). There should be a total of two functions in your program, besides the main function. These are the functions ***char isPrime(int x)*** and ***void numbersofprimes(int a, int b).*** You should call the ***isPrime*** function inside the ***numbersofprimes*** function. The a and b values should be taken from the user in the main function.

Input Format : Integer (a and b)

Constraints : The number **b** must be greater than **a**.

Sample input : 20 30

Sample output :

1.prime number : 23

2.prime number : 29

There are 2 prime numbers between 20 and 30.

Sample input 2 : 45 40

Sample output 2 :

The number b must be greater than a

Q2. Write a program that checks whether each digit of the entered number is odd or even. Your program should contain a function named ***void digits_odd_even(int number)*** , besides the main function. The ***number*** should be taken from the user in the main function. Inputs, outputs, and constraints are as follows:

Input Format : Integer (number)

Constraints : The number must be greater than **99**.

Sample input : 2023

Sample output :

```
D ---- Odd ---- Even
3 ---- + ------ -
2 ---- - ------ +
0 ---- - ------ +
2 ---- - ------ +
```

Sample input 2 : 55

Sample output 2 :

Invalid input