**Programming Assignment 3**

Q.1) Write a Python Program to Check if a Number is Positive, Negative or Zero?

Ans.)

num = 10

if(num > 0):

    print(num, "is Positive")

elif(num < 0):

    print(num, "is Negative")

else:

    print(num, "is Zero")

Q.2) Write a Python Program to Check if a Number is Odd or Even?

Ans.)

num = int(input("Enter a number: "))

if(num % 2 == 0):

    print(num, "is a Even Nummber")

else:

    print(num, "is an Odd Number")

Q.3) Write a Python Program to Check Leap Year?

Ans.)

year = 2020

if(((year % 4 == 0) and (year % 100 != 0)) or (year % 400 == 0)):

    print("Leap Year")

else:

    print("Not a Leap Year")

Q.4) Write a Python Program to Check Prime Number?

Ans.)

num = int(input("Enter a number: "))

isPrime = True

if num <= 1:

    print(num, "is neither prime nor composite")

else:

    d = 2

    while(d\*d <= num):

        if(num%d==0):

            isPrime = False

            break

        d = d + 1

if(num > 1):

    if(isPrime):

        print(num, "is prime number")

    else:

        print(num, "is not prime number")

Q.5) Write a Python Program to Print all Prime Numbers in an Interval of 1-10000?

Ans.)

for i in range(1, 100001):

    print(i, end = ' ')