**Assignment 3**

Q1. Write a Python Program to Check if a Number is Positive, Negative or Zero?

Sol. num = float(input("Enter a number: "))

if num > 0:

print("The number is positive.")

elif num < 0:

print("The number is negative.")

else:

print("The number is zero.")

Q2. Write a Python Program to Check if a Number is Odd or Even?

Sol.

n = 4

if(n%2 == 0):

print(“Number is Evem”)

else:

print(“Number is Odd”)

Q3. Write a Python Program to Check Leap Year?

Sol.

year = int(input("Enter a year: "))

if year % 4 == 0:

if year % 100 == 0:

if year % 400 == 0:

print(year, "is a leap year.")

else:

print(year, "is not a leap year.")

else:

print(year, "is a leap year.")

else:

print(year, "is not a leap year.")

Q4. Write a Python Program to Check Prime Number?

Sol.

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

if num > 1:

    for i in range(2, int(num) ):

        if num % i == 0:

            print(num, "is not a prime number.")

            break

    else:

        print(num, "is a prime number.")

else:

    print(num, "is not a prime number.")

Q5. Write a Python Program to Print all Prime Numbers in an Interval of 1-10000?

Sol. lower = 1

upper = 10000

print("Prime numbers between", lower, "and", upper, "are:")

for num in range(lower, upper + 1):

if num > 1:

for i in range(2, int(num) ):

if num % i == 0:

break

else:

print(num)