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

**Ans :** Num = int (input("Enter the number : "))

if Num < 0:

print ("Entered number is negative.")

elif Num == 0:

print ("Entered number is Zero.")

else:

print ("Entered number is Positive.")

**Output :** Enter the number : 5

Entered number is Positive.

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

**Ans :** Num = int (input("Enter the number : "))

if Num%2 == 0:

print("Entered number is Even number.")

else:

print("Entered number is Odd number.")

Output : Enter the number : 6

Entered number is Even number.

1. **Write a Python Program to Check Leap Year?**

**Ans :** Year = int (input("Enter the Year : "))

if Year%4 == 0 and Year%100 != 0:

print("Entered Year is Leap Year.")

elif Year%400 == 0 and Year%100 == 0:

print("Entered Year is Leap Year.")

else:

print("Entered Year is not a Leap year")

**Output :** Enter the Year : 1900

Entered Year is not a Leap year

1. **Write a Python Program to Check Prime Number?**

**Ans :** num = int (input("Enter the number : "))

for i in range(2, int(num/2)+1):

if (num % i) == 0:

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

break

else:

print(num, "is a prime number")

**Output :** Enter the number : 11

11 is a prime number

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

**Ans :** X = 1

Y = 10000

print (" Prime number from 1 to 10000 are :")

for i in range (X,Y+1):

isDivisible = False

for j in range (2,i):

if i%j ==0:

isDivisible = True

if not isDivisible:

print (i,end = " ")