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

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

if num > 0:

print("Positive number")

elif num == 0:

print("Zero")

else:

print("Negative number")

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

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

if (num % 2) == 0:

print("{0} is Even".format(num))

else:

print("{0} is Odd".format(num))

1. Write a Python Program to Check Leap Year?

def CheckLeap(Year):

  “”” Checking if the given year is leap year  “””

  if((Year % 400 == 0) or

     (Year % 100 != 0) and

     (Year % 4 == 0)):

    print("Given Year is a leap Year");

  # Else it is not a leap year

  else:

    print ("Given Year is not a leap Year")

# Taking an input year from user

Year = int(input("Enter the number: "))

# Printing result

CheckLeap(Year)

1. Write a Python Program to Check Prime Number?

num = 11

# If given number is greater than 1

if num > 1:

    # Iterate from 2 to n / 2

    for i in range(2, int(num/2)+1):

        # If num is divisible by any number between

        # 2 and n / 2, it is not prime

        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")

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

lower = 1

upper = 1000

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

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

# all prime numbers are greater than 1

if num > 1:

for i in range(2, num):

if (num % i) == 0:

break

else:

print(num)