**BASIC PROGRAMMING ASSIGNMENT\_3-SUBMITTED BY SAMUEL DEVDAS**

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

Ans.

while True:

num=int(input('enter any number:'))

if num>0:

print('number is positive')

elif num==0:

print('number is equal to zero')

elif num<0:

print('number is negative')

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

Ans.

while True:

num=int(input('enter any number:'))

if num%2==0:

print('number is even')

elif num==0:

print('number is zero')

elif num%2!=2:

print('number is odd')

3.Write a Python Program to Check Leap Year?

Ans.

# leap year=every year divisible by four

# except for years which are both divisible by 100 and not divisible by 400.

while True:

year=int(input('enter the year in the format YYYY,eg.2001:'))

if year%4==0 and not(year%100==0 and year%400!=0):

print('The year entered is a LEAP YEAR')

else:

print('The year entered is a NOT A LEAP YEAR')

4.Write a Python Program to Check Prime Number?

Ans.

num=int(input('enter any number:'))

if num>1:

if num==2:

print('its a prime number')

for i in range(2,num):

if num%i==0:

print('not a prime number')

break

else:

print('its a prime number')

else:

print('not a prime number')

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

Ans.

#Assuming the interval of 1-10000 to be closed interval

for num in range(1,10001):

if num>1:

for i in range(2,num):

if num%i==0:

break

else:

print(num)