**Programming\_Assignment3**

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?**

year = 2000

if (year % 4) == 0:

if (year % 100) == 0:

if (year % 400) == 0:

print("{0} is a leap year".format(year))

else:

print("{0} is not a leap year".format(year))

else:

print("{0} is a leap year".format(year))

else:

print("{0} is not a leap year".format(year))

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

def PrimeChecker(a):

# Checking that given number is more than 1

if a > 1:

# Iterating over the given number with for loop

for j in range(2, int(a/2) + 1):

# If the given number is divisible or not

if (a % j) == 0:

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

break

# Else it is a prime number

else:

print(a, "is a prime number")

# If the given number is 1

else:

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

# Taking an input number from the user

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

# Printing result

PrimeChecker(a)

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

start = 1

end = 10000

for i in range(start, end+1):

if i>1:

for j in range(2,i):

if(i % j==0):

break

else:

print(i)