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

Ans:

def check\_num(number):

if number > 0:

return 'Positive Number'

elif number < 0:

return 'Negative Number'

else:

return 'Number is 0'

print(check\_num(50)) 🡪 Positive Number

print(check\_num(-10)) 🡪 Negative Number

print(check\_num(0)) 🡪 Number is 0

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

Ans:

def check\_odd\_or\_even(number):

if number % 2 == 0:

return 'Even Number'

else:

return 'Odd Number'

print(check\_odd\_or\_even(50)) 🡪 Even Number

print(check\_odd\_or\_even(55)) 🡪 Odd Number

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

Ans:

def check\_leap\_year(year):

if (year % 400 == 0) and (year % 100 == 0):

return str(year) + ' is Leap year'

elif (year % 4 ==0) and (year % 100 != 0):

return str(year) + ' is Leap year'

else:

return str(year) + ' is not a Leap year'

print(check\_leap\_year(2000))🡪 2000 is Leap year

print(check\_leap\_year(2020)) 🡪 2020 is Leap year

print(check\_leap\_year(2021)) 🡪 2021 is not a Leap year

print(check\_leap\_year(2022)) 🡪 2022 is not a Leap year

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

Ans:

def check\_prime(number):

pflag = True

if number > 1:

for i in range(2, number):

if (number % i) == 0:

pflag = False

break

if pflag:

print(str(number) + ' is a prime number')

else:

print(str(number) + ' is not a prime number')

check\_prime(19) 🡪 19 is a prime number

check\_prime(53) 🡪 53 is a prime number

check\_prime(55) 🡪 55 is not a prime number

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

Ans:

def check\_prime\_flag(number):

pflag = True

if number > 1:

for i in range(2, number):

if (number % i) == 0:

pflag = False

break

return pflag

for i in range(1, 10000):

if check\_prime\_flag(i):

print("{0} is a prime number".format(i))

1 is a prime number

2 is a prime number

3 is a prime number

5 is a prime number

7 is a prime number

11 is a prime number

13 is a prime number

17 is a prime number

19 is a prime number

23 is a prime number

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9929 is a prime number

9931 is a prime number

9941 is a prime number

9949 is a prime number

9967 is a prime number

9973 is a prime number