

Programming Assignment_3

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

```
In [8]: 1 Number=float(input("Enter the number: "))
2 if Number>0:
3     print("The entered number is Positive")
4 elif Number<0:
5     print("The entered number is Negative: ")
6 else:
7     print("The entered number is 0")
```

```
Enter the number: 0
The entered number is 0
```

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

```
In [39]: 1 a=int(input("Enter the number: "))
2 if a % 2 == 0:
3     print("The number is even")
4 else :
5     print("The number is odd")
```

```
Enter the number: 90
The number is even
```

3. Write a Python Program to Check Leap Year?

```
In [46]: 1 year=int(input("Enter the Year"))
2 #year divided by 100 is century year & century year divided by 400 is Leap y
3 if (year % 400 ==0) and (year % 100==0):
4     print("The entered year",year, "is leap year")
5 # not divided by 100 means not a century year,year divided by 4 is a leap ye
6 elif (year % 400 ==0) and (year % 100 == 0):
7     print("The entered year",year,"is a leap year")
8 # if not divided by both 400 (century year) and 4 (not century year) year is
9 else:
10     print("The entered year",year,"is not a leap year")
```

```
Enter the Year1000
The entered year 1000 is not a leap year
```

4. Write a Python Program to Check Prime Number?

```
In [52]: 1 a=int(input("Enter a number: "))
2 #Any number less than zero is prime number
3 if a<0:
4     print("The number is not a prime number")
5 #Any number is divisible and reminder is zero is not a prime number
6 else:
7     for i in range(2,a):
8         if (a % i)==0:
9             print("The number is not prime number")
10            break
11 #If above condition is false, then ALL other number are prime numbers
12 else:
13     print("The number is Prime Number")
```

Enter a number: 4
The number is not prime number

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

```
In [88]: 1 lower=1
2 Upper=10000
3 for num in range(lower,Upper+1):
4     if num>1:
5         for i in range(2,num):
6             if num%i==0:
7                 break
8         else:
9             print(num)
```

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In []: 1

