

1. Write a Python Program to Check if a Number is Positive, Negative or Zero?
2. Write a Python Program to Check if a Number is Odd or Even?
3. Write a Python Program to Check Leap Year?
4. Write a Python Program to Check Prime Number?
5. Write a Python Program to Print all Prime Numbers in an Interval of 1-10000?

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

In [7]:

```
num= int(input(" Enter a Number ")) # Take input for a  
number to check
```

```
if num<0:  
    print("This is Negative Number")  
elif num==0:  
    print("This is Zero")  
else: print("This is Positive Number")  
Enter a Number 0  
This is Zero
```

In []:

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

In [17]:

```
num= int(input(" Enter a Number ")) # Take input for a
number to check
```

```
if num<0:    print("This is Negative number")
elif num==0: print("This is Zero")
elif num==1: print("This is Prime Number")
elif num%2==0: print("This is Even Number")
elif num%2!=0: print("This is odd number")
```

```
Enter a Number 3
This is odd number
```

## 3. Write a Python Program to Check Leap Year?

In [21]:

```
year = int(input("Enter a year ")) # Take input for a
number to check
```

```
if year%4==0:
    print("This is Leap Year")
```

```
else: print("This is not Leap Year")
```

```
Enter a year 2022
This is not Leap Year
```

## 4. Write a Python Program to Check Prime Number?

In [49]:

```
num= int(input(" Enter a Number ")) # Take input for a
number to check
```

```
if num<0:    print("This is Negative number")
elif num==0: print("This is Zero")
elif num==1: print("This is One")
elif num==2: print("This is Prime Number")
elif num>2:
    for i in range(2,num):
        if(num %i==0): print("Not a Prime Number")
```

```
elif(num%i!=0): print("This is Prime Number")
```

```
Enter a Number 4  
Not a Prime Number  
This is Prime Number
```

In []:

In [37]:

```
print(range(10))  
range(0, 10)
```

In [42]:

```
for i in range(2,2):  
    print(i)
```