

## \_\_\_\_\_Conditional Statements in Python\_\_\_\_\_

```
In [1]: i = 10

if (i <= 5): ##Use of single if
    print("10 is less than 15")
print("I am Not in if")
```

I am Not in if

```
In [17]: n = 34
s = 67
if (n < s):
    print('Smaller number')
if (n <= s):
    print('Smaller and equal')
if (n==34):
    print('Thirty Four')
if (n > s):
    print('Greater number')
if (n >= s):
    print('Greater and equal')
if (n!=34):
    print('Thirty Four')
```

Smaller number

Smaller and equal

Thirty Four

\_\_\_\_\_In above code even if some conditions are not true still internally it will execute and code optimization is slow\_\_\_\_\_

\_\_\_\_\_Because, it checks all if conditions irrespective of true or false.\_\_\_\_\_

\_\_\_\_\_Hence, to avoid this 'If-Else' has been introduced and suggested not to go with multiple if statements.\_\_\_\_\_

\_\_\_\_\_++++++IF-ELSE++++++\_\_\_\_\_

```
In [18]: i = 20
if (i < 15):
    print("i is smaller than 15")

else:
    print("i is greater than 15")

print("Code executed")
```

i is greater than 15

Code executed

\_\_\_\_\_Let's merge this concept with user input functions\_\_\_\_\_

```
In [19]: name = input ("Enter your name")
print("Hello,",name)
```

Hello, Shikha

```
In [29]: n1 = input("Enter 1st number")
n2 = input("Enter 2nd number")
if n1 > n2:
    print(n1, "greater number")
else:
    print(n2, "smaller number")
```

89 smaller number

\_\_\_\_\_In above example, you observe we are getting wrong output,\_\_\_\_\_ Because, after if block, else block don't have any condition.

To avoid this situation we need "IF-ELIF-ELSE"

```
In [38]: n1 = input("Enter 1st number")
n2 = input("Enter 2nd number")
if n1 > n2:
    print(n1, "greater number")
elif n1 < n2:
    print(n2, "greater number")
else:
    print("Both numbers are equal")
```

90 greater number

```
In [41]: i = 20
if (i == 10):
    print("i is 10")
elif (i == 15):
    print("i is 15")
elif (i == 20):
    print("i is 20")
else:
    print("i is not present")
```

i is 20

\_\_\_\_\_NESTED IF\_\_\_\_\_

```
In [40]: i = 10
if (i == 10):
    if (i < 15):
        print("i is smaller than 15")
    if (i < 12):
        print("i is smaller than 12 too")
    else:
        print("i is greater than 15")
```

i is smaller than 15

i is smaller than 12 too

## Short Hand IF

```
In [42]: i = 10  
         if i < 15: print("i is less than 15")
```

i is less than 15

```
In [45]: i = 'Shikha'  
         if i == 'Shikha': print(i, "is My name")
```

Shikha is My name

```
In [46]: i = input("Enter any name")  
         if i == i: print("Hello", i) ##USing input functions
```

Hello Shikha

```
In [50]: i = input("Enter 1st Number")  
         i1 = input("Enter 2nd Number")  
         if i < i1: print("Smaller number", i)  
         elif i > i1: print("Smaller number", i1)  
         else:  
             print("Enter Proper value")
```

Smaller number 12

```
In [54]: nu = int(input("Enter your desired number to check even and odd")) #int is to conver  
         if nu % 2 == 0:  
             print("The number is even.")  
         else:  
             print("The number is odd.")
```

The number is even.

```
In [55]: age = 15  
         if age >= 18:  
             print("You are eligible to vote.")  
         else:  
             print("You are not eligible to vote.")
```

You are not eligible to vote.

```
In [ ]:
```