

Python if ... else Statement

The **if...elif...else** statement is used in Python for decision making.

if statement syntax

```
if test expression:  
  
    statement(s)
```

The program evaluates the test expression and will execute statement(s) only if the text expression is True.

If the text expression is False, the statement(s) is not executed.

Python interprets non-zero values as True. None and 0 are interpreted as False.

Flow Chart

Example

```
In [0]: num = 10  
  
# try 0, -1 and None  
if None:  
    print("Number is positive")  
print("This will print always")           #This print statement always print  
  
#change number  
  
This will print always
```

if ... else Statement

Syntax:

```
if test expression:

    Body of if

else:

    Body of else
```

Flow Chart

Example

```
In [0]: num = 10
        if num > 0:
            print("Positive number")
        else:
            print("Negative Number")

Positive number
```

if...elif...else Statement

Syntax:

```
if test expression:

    Body of if
elif test expression:

    Body of elif
else:

    Body of else
```

Flow Chart

Example:

```
In [0]: num = 0

if num > 0:
    print("Positive number")
elif num == 0:
    print("ZERO")
else:
    print("Negative Number")

ZERO
```

Nested if Statements

We can have a if...elif...else statement inside another if...elif...else statement. This is called nesting in computer programming.

Example:

```
In [0]: num = 10.5

if num >= 0:
    if num == 0:
        print("Zero")
    else:
        print("Positive number")
else:
    print("Negative Number")

Positive number
```

Python program to find the largest element among three Numbers

```
In [0]: num1 = 10
num2 = 50
num3 = 15

if (num1 >= num2) and (num1 >= num3):           #logical operator and
    largest = num1
elif (num2 >= num1) and (num2 >= num3):
    largest = num2
else:
    largest = num3
print("Largest element among three numbers is: {}".format(largest))

Largest element among three numbers is: 50
```