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

title

Example

```
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

title

Example
```python
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

title

Example:
```python
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:

```python
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

```python
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
```