

IF...ELIF...ELSE in python

Syntax:

```
if (condition):  
    # Executes this block if  
    # condition is true  
else:  
    # Executes this block if  
    # condition is false
```

```
i = 20;  
if (i < 15):  
    print ("i is smaller than 15")  
    print ("i'm in if Block")  
else:  
    print ("i is greater than 15")  
    print ("i'm in else Block")  
print ("i'm not in if and not in else Block")
```

nested-if

A nested if is an if statement that is the target of another if statement. Nested if statements mean an if statement inside another if statement. Yes, Python allows us to nest if statements within if statements. i.e, we can place an if statement inside another if statement.

Syntax:

```
if (condition1):  
    # Executes when condition1 is true  
    if (condition2):  
        # Executes when condition2 is true  
    # if Block is end here  
# if Block is end here
```

```
# python program to illustrate nested If statement  
#!/usr/bin/python  
i = 10  
if (i == 10):  
    # First if statement  
    if (i < 15):  
        print ("i is smaller than 15")  
    # Nested - if statement  
    # Will only be executed if statement above  
    # it is true  
    if (i < 12):  
        print ("i is smaller than 12 too")  
    else:  
        print ("i is greater than 15")
```

if-elif-else ladder

Here, a user can decide among multiple options. The if statements are executed from the top down. As soon as one of the conditions controlling the if is true, the statement associated with that if is executed, and the rest of the ladder is bypassed. If none of the conditions is true, then the final else statement will be executed.

Syntax:-

```
if (condition):  
    statement  
elif (condition):  
    statement  
.  
.  
else:  
    statement
```

```
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")
```

Short Hand if statement

Whenever there is only a single statement to be executed inside the if block then shorthand if can be used. The statement can be put on the same line as the if statement.

Syntax:

```
if condition: statement
```

```
# Python program to illustrate short hand if  
i = 10  
if i < 15: print("i is less than 15")
```

Short Hand if-else statement

This can be used to write the if-else statements in a single line where there is only one statement to be executed in both if and else block.

Syntax:

```
statement_when_True if condition else statement_when_False
```

```
# Python program to illustrate short hand if-else  
i = 10  
print(True) if i < 15 else print(False)
```