If – else statement

If statement

Multiway selection: i) nested if

ii)elif header

if – else statement:

Syntax of if...else

If test expression:
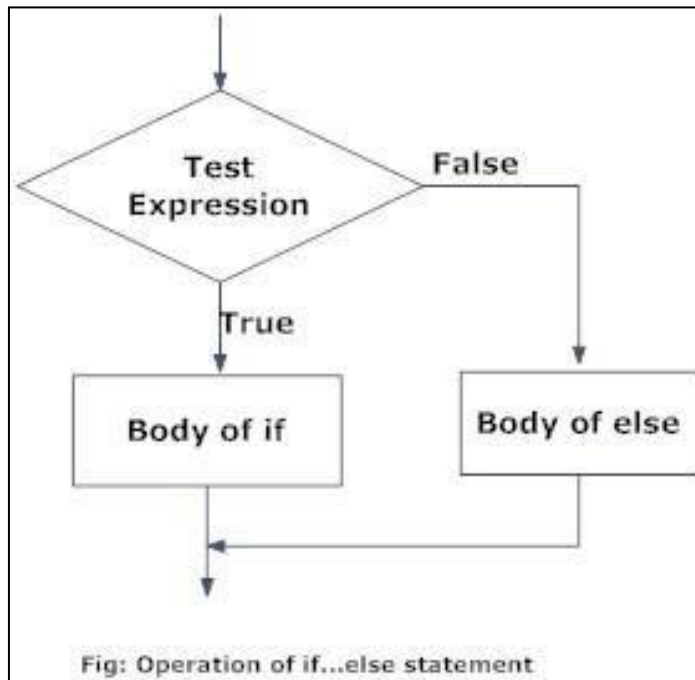
Body of if

else:

body of else

python if – else statement flow chart:

Fig: Operation of if...else statement

1st step: we open python

2nd step: we will go to new file

In 2- nd step:

#this program to check whether the student got passing marks or not


```python
marks=int(input("enter your marks in maths"))
if marks>=35:
    print("you got passing grades")
else:
    print("sorry you got failing grade")
print("thank  you!!!")
```


we go to output(that means python 1st step)

Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:06:47) [MSC v.1914 32 bit (Intel)] on win32

Type "copyright", "credits" or "license()" for more information.

>>>

=============== RESTART: C:/Users/P.SUNEEL/Desktop/marks.py ===============

enter your marks in maths70

you got passing grades

>>>

=============== RESTART: C:/Users/P.SUNEEL/Desktop/marks.py ===============

enter your marks in maths34

sorry you got failing grade

>>>

=============== RESTART: C:/Users/P.SUNEEL/Desktop/marks.py ===============

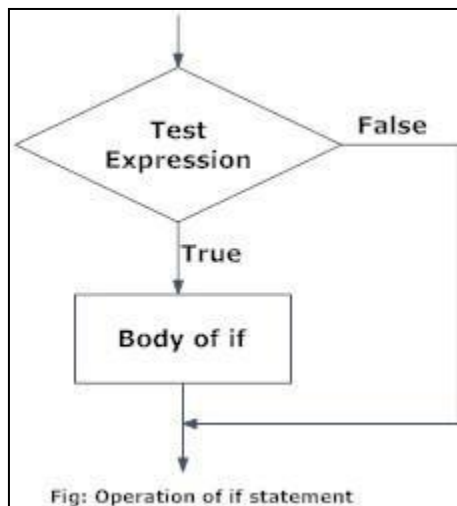enter your marks in maths25

sorry you got failing grade

thank you!!!

if test expression:

      statement(s)

Here, 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. In Python, the body of the `if`statement is indicated by the indentation. Body starts with an indentation and the first unindented line marks the end. Python interprets non-zero values as `True`. `None` and `0` are interpreted as `False`.

Python if Statement Flowchart:

Fig: Operation of if statement

1st step: we open python

2nd step: we will go to new file

In 2nd step:

#example for if statement

marks=int(input("enter the marks:"))

if marks==100:

  print("perfect score")

```
print("thank you")
```

we go to outpu(that means python 1ˢᵗ step)

=============== RESTART: C:/Users/P.SUNEEL/Desktop/marks1.py ===============

enter the marks:100

perfect score

thank you

nested if:

if statement inside another if statement.

                If condition:

                    If condition1:

                        Statements:

      If condition is true then we will go to another if condition1 then we will go to the statements

```
name="suneel"

college="RGUKT"

marks=56

if  college=="RGUKT":

   if name=="suneel":

      print("suneel of RGUKT got :",marks,"marks")
```

output:

suneel of RGUKT got : 56 marks

if the name or college is change then no output will come

```
name="sun"

college="RGUKT"

marks=56
```

```python
if  college=="RGUKT":
    if name=="suneel":
        print("suneel of RGUKT got :",marks,"marks")
```

output:

elif :

elif→else if or if elif else ladder

provides multiple options:

if statement are executed from the top down. As soon as one of the condition becomes true, its body is executed and the rest of the conditions are not checxked.

If none of the condition is true then final else statement is executed.

```python
x=20
y=45
z=23
if x>y:
    print("x is greater")
elif z>y:
    print("z is greater")
else:
    print("y is greater")
```

output:

y is greater

syntax:

elif-> else if:

if condition1:

       statement1

elif condition2:

       statement2

elif condition 3:

statement3

else:

statement4

single statement suite:

if the suite of an if clause consists only of a single line, it may go on the same line as the header statement.


```
marks=int(input("enter marks"))
if marks>=50 : print("pass")
else: print("fail")
```

output:

RESTART: C:/Users/P.SUNEEL/AppData/Local/Programs/Python/Python37-32/nestedif.py

enter marks70

pass

>>>

 RESTART: C:/Users/P.SUNEEL/AppData/Local/Programs/Python/Python37-32/nestedif.py

enter marks35

fail