

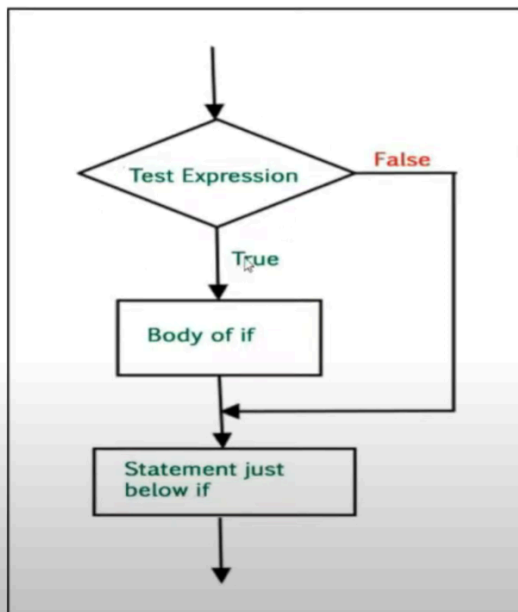
Concept of if else

- Non sequential program statements
- Branching
- Code execution based on decisions
- Decision making statements
 - if statement
 - if..else statements
 - if..elif ladder
 - Nested if statements

Operators

- Equals: **a == b** (True, if a and b are equals)
- Not Equals: **a != b** (True, if a and b are not equals)
- Less than: **a < b** (True, if a is less than b)
- Less than or equal to: **a <= b** (True, if a is less than or equal b)
- Greater than: **a > b** (True, if a is greater than b)
- Greater than or equal to: **a >= b** (True, if a is greater than or equal b)
- in keyword
- is keyword

if Statement



Syntax:

```
if test_expression1:  
    Body of if  
if test_expression2:  
    Body of if  
Rest of the codes...
```

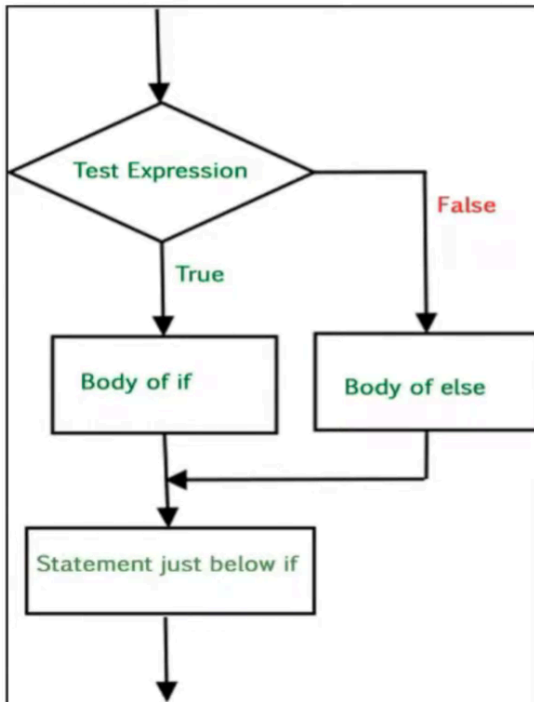
Example:

```
if (it is sunny):  
    I'll play cricket
```

Example of *if* Statement

```
a = 16  
if (a > 10):  
    print("a is greater than 10")  
print("code ended")
```

if else Statement



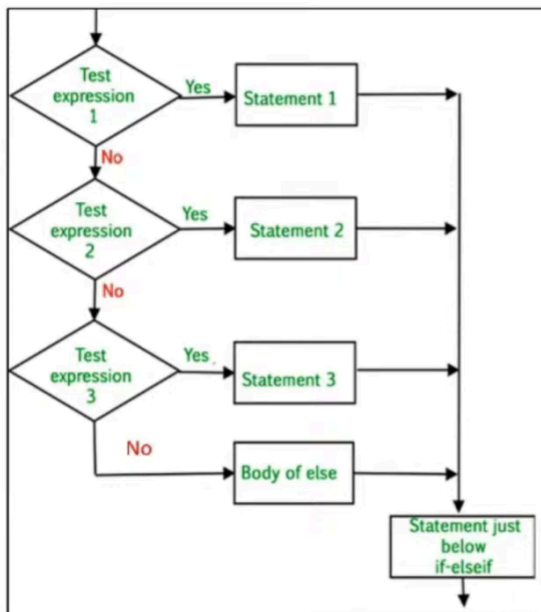
Syntax:

```
if test_expression:  
    Body of if  
else:  
    Body of else  
Rest of the codes...
```

Example:

```
if (it is sunny):  
    I'll play cricket  
else:  
    I'll play indoors
```

if..elif..else Statement



Syntax:

```
if test_expression1:  
    Body of if  
elif test_expression2:  
    Body of elif  
elif test_expression3:  
    Body of elif  
else:  
    Body of else  
Rest of the codes...
```

Example of *if..elif..else*

```
if (it is sunny):  
    I'll play cricket  
elif (it is rainy):  
    I'll play football  
else:  
    I'll play indoors
```

Syntax of Nested if Statement

Syntax:

```
if test_expression1:
    if test_expression2:
        Body of nested_if
    else:
        Body of nested_else
else:
    Body of else
```

Example of Nested if

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