Conditional statements allows you to execute code based on condition evaluates to True or False

Types of Conditional statements:

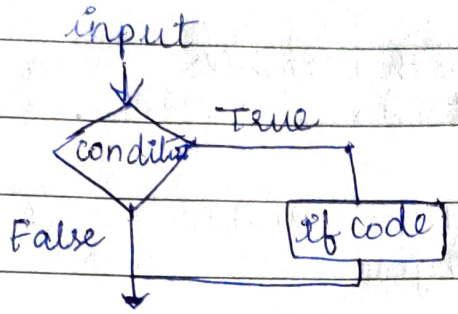
1. if
2. if-else
3. if-elif-else
4. Nested ifelse
5. if else if ladder / continous if else

1. if statement used to test a condition and execute a block of code only if the condition is true

syntax: if (condition):
    statements

(# Indentation - whitespace at the beginning of a line)

if statement flow diagram



eg · age = 26

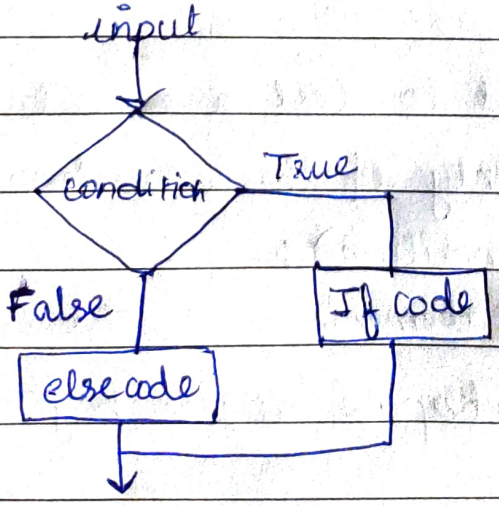
```
if age > 19:
    print ("You are an adult")
```

ii) 'if-else' statement: provides an alternative block of code to execute if the condition is false

Syntax:

```
if (condition):
    statement of if
else:
    statements of else.
```

Note: We cannot write conditions in else.



iii) if-elif-else conditional statement

Syntax:

```
if (condition 1):
    # code to execute if condition 1 is true
elif (condition 2):
    # code to execute if condition 2 is true
else
    # code to execute if none are true
```

eg.

```
score = 85
if score >= 90:
    print("Grade - A")
elif score >= 80:
    print("Grade - B")
elif score >= 70:
    print("Grade - C")
else:
    print("Grade - D")
```

iv) Nested 'if-else' conditional statement:
placing an if-else statement inside another if-else statement.

Syntax:

```
if condition 1:
    # code block for condition 1 being True
    if condition 2:
        # code block for condition 2 being True
    else:
        # code block for condition 2 being False
else:
    # code block for condition 1 being False
```

eg.

```
if number > 0:
    if number % 2 == 0:
        print ("The number is positive and even")
    else:
        print ("The no is positive and odd.")
else:
    if number == 0:
        print ("The number is zero.")
    else:
        print ("The number is negative.")
```