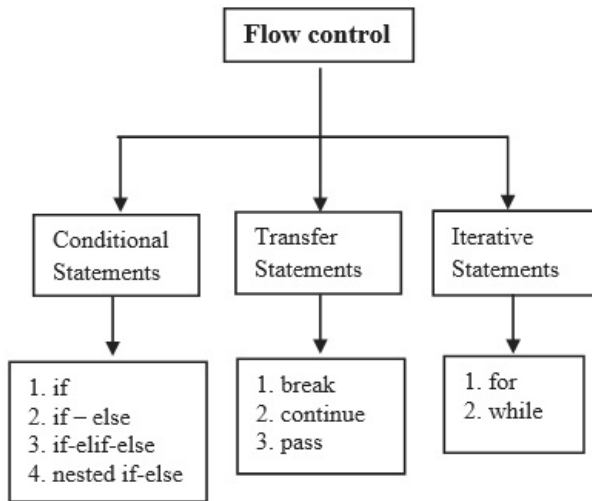


We have already saw this below image in if else file too, but lets revise again:



For loop (Iterative statement means again and again, repeating, constant)

```
In [1]: #example
for i in range(5):    #if we provide only one parameter in 5 means (0,5,1)- start, end at 4, with step 1 increment
    print(i)

0
1
2
3
4
```

```
In [2]: #suppose we need 0 to 4 in single horizontal line: at end
for i in range(5):    #if we provide only one parameter in 5 means (0,5,1)- start, end at 4, with step 1 increment
    print(i, end=" ")

0 1 2 3 4
```

```
In [3]: #Lets see sample example but proper range syntax
for i in range(0,20,2): # start from 0, 20 means goes upto 19 and gap between two numbers is 2.
    print(i, end=" ")

0 2 4 6 8 10 12 14 16 18
```

```
In [5]: #can we have negative gap in range?
for i in range(20,1,-1):
    print(i, end=" ")

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2
```

```
In [9]: #Print first 10 even number with for loop?
for i in range(2,21,2):
    print(i,end=" ")

2 4 6 8 10 12 14 16 18 20
```

```
In [10]: #How for loop works with Strings?
for i in "Elephant":
    print(i)

E
l
e
p
h
a
n
t
```

```
In [11]: #working with lists or tuples
for i in [1,2,"Ram",2.5]:
    print(i)

1
2
Ram
2.5
```

```
In [13]: #We can add other calculation in For loop too like:
for i in range(0,51):    #start with 0, end at 50, with gap 1
    if i%2==0:
        print(i, end=" ")

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50
```

```
In [16]: #Accumulator pattern:
total=0
for i in range(10):
    total=total+i
    print(total)
```

```
0
1
3
6
10
15
21
28
36
45
```

```
In [17]: total=0
for i in range(10):
    total=total+i
    print(total)
```

```
45
```

```
In [18]: #We are see different result in similar code just because of last total.
```

```
In [19]: #Print table of 3 using for loop? lets see tep by step
for a in range(1,11):
    print(a)
```

```
1
2
3
4
5
6
7
8
9
10
```

```
In [20]: for a in range(1,11):
    print(3*a)
```

```
3
6
9
12
15
18
21
24
27
30
```

```
In [29]: #now in format
for a in range(1,11):
    print("3", "*", a, "=", 3*a)
```

```
3 * 1 = 3
3 * 2 = 6
3 * 3 = 9
3 * 4 = 12
3 * 5 = 15
3 * 6 = 18
3 * 7 = 21
3 * 8 = 24
3 * 9 = 27
3 * 10 = 30
```

for loop with break and continue statement

```
In [3]: # for loop with break statement
a=["moango","orange","grapes"]
for i in a:
    print(i)
    if i=="orange":
        break
```

```
moango
orange
```

```
In [1]: a=[1,2,3,4,5]
for i in a:
    if i==4:
        break
    print(i)
```

1  
2  
3

```
In [2]: #Continue statement with for loop
a=[1,2,3,4,5]
for i in a:
    if i==4:
        continue
    print(i)
```

1  
2  
3  
5

While loop

```
In [2]: a=int(input("Enter number of your choice between 0 to 10: "))
while a<10:
    print(a)
    a=a+1
```

Enter number of your choice between 0 to 10: 2  
2  
3  
4  
5  
6  
7  
8  
9

```
In [3]: #difference between print after a=a+1
a=int(input("Enter number of your choice between 0 to 10: "))
while a<10:
    a=a+1
    print(a)
```

Enter number of your choice between 0 to 10: 2  
3  
4  
5  
6  
7  
8  
9  
10

In [ ]:

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