

## Iterations / Loops in Python

If we write statement in sequence then it gets executed one after the another.

In general, statements are executed sequentially: The first statement in a function is executed first, followed by the second, and so on.

There may be a situation when we want to execute one or set of statements multiple times then we can use concept of loops.

In python there are 2 types of loops as

- for loop
- while loop

### **for loop :**

The for loop that is used to iterate over elements of a sequence, it is often used when you have a piece of code which you want to repeat "n" number of time. Generally if number of iterations are already known then we can use for loop.

### **Consider below application which demonstrates use of for loop**

```
print("Demonstration of For Loop")
```

```
x = [10,20,"Abc", "xyz",30.1]
```

```
for i in x:
```

```
    print(i);
```

```
for i in range(0,9):
```

```
    print(i);
```

Output of above application

### **while loop :**

Consider below application which demonstrates use of while loop

```
print("Demonstration of While Loop ")
```

```
i= 1;
```

```
while(i<5):
```

```
print(i)
```

```
i=i+1
```

We can use break or continue keyword to control loops

**break :**

break keyword is use to stop the execution of loop irrespective of the condition.

**continue:**

by using the continue keyword we can stop execution of current iteration and continue with the next iteration.

**Consider below application which demonstrates use of break & continue keyword**

```
print("Demonstration of break & continue")
```

```
print("Demonstration of break")
```

```
for i in range(0,9):
```

```
    if(i == 3):
```

```
        break
```

```
    print(i);
```

```
print("Demonstration of continue")
```

```
for i in range(0,9):
```

```
    if(i == 3):
```

```
        continue
```

```
    print(i);
```