



## \* Loops

Loops in python are used to execute a block of code repeatedly a certain condition is met. Python mainly provides a two loops

- ① For loops
- ② while loop
- ③ nested loop

### ① For loop →

two types

- ① For loop with Sequence

Syntax:

For Variable in Sequence: Variable: Statement

- ② For loop with range() function

Syntax:

For Variable in range(): Statement

## \* Sequence data types

- ① String, list, set, dict, tuple

```
Sub = "Python"
```

```
for i in Sub:
    print(i)
```

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(2) `colors = ['black', 'white', 'red', 'yellow', 'orange']`  
`print(colors)`  
`for i in colors:`  
`print(i)`  
`sub = 'Python'`  
`sub[0] → printing manually`

# write a program to print both function and value

`for i in enumerate(sub):`  
`print(i)` → Function → which prints both

\* For (initialization, condition & no. of dec).

\* Range (start value, stop value, step value)

we have default start value 0  
 default step size → 1

`Range(1, 11, 1)`

`(i = 1; i < 11; i + 1)`

`i = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10`

(36) `Range(1, 10, 1)`

`(i = 1; i < 10; i + 1)`

`i = 1, 2, 3, 4, 5, 6, 7, 8, 9`

`for i in range(5):`

`# i = 0, 1, 2, 3, 4`

`print(i)`

`print("gm")`