

11/09/2025

→ Loops:-

Loops in python are used to execute a block of code repeatedly until a certain condition is met.

python mainly provides a two loops.

1) for loop

2) while loop

3) nested loop

* for loop inside for loop

* for loop inside while loop

* while loop inside while loop

* while loop inside for loop

1) For loop:

For loop with sequence

Syntax:-

For ^{variable} variable in sequence: → Method ①
Statements

for loop with range() function

For variable in range(): → Method ②
Statements

String, list, tuple, set, dict

eg:- Sub = "python" → output: P

= For ? in Sub:

print(i)

v

H

h

o

n

? is
iterative
variable

WAP to print both the value & position

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

output:- (0, 'P')
 (1, 'V')
 (2, 'T')
 (3, 'H')
 (4, 'O')
 (5, 'N')

→ 3 standard words in loop

1. Initialization

2. Condition

3. Incrementation / Decrementation

→ range(start value, stop value, step size)

in range we have default start value is 0

in range we have default step size is 1

eg:- for i in range(1, 11, 1):

range(1, 11, 1)

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

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

range(1, 10, 1)

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

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

7 it always takes less than 1 not