

```
ex: n = int(input())  
if (n >= 0)  
    if (n > 0)  
        print("+ve")  
    else:  
        print("zero")  
else:  
    print("-ve")
```

11/9/2025 (Day-7)

★ Loop:

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

for loop goes through a sequence

sy:

for variable in sequence - variable:
 statements

2) for loop with range() function

for variable in range():
 statements

example:

```
sub = "python"
```

```
print(sub)
```

→ python

```
* for i in sub:
```

```
    print(i)
```

→ p

y

t

h

o

n

* for - each loop iteration over a sequence)

→ Goes through items of a list, tuple, string, or set directly

```
colors = ['black', 'Red', 'yellow']
```

```
print(colors)
```

⇒ ['black', ~~white~~, 'red', 'yellow']

```
for i in colors:
```

```
    print(i)
```

→ black

red

yellow

* Sub = "Python"

Sub[0]

-> 'p'

* write a Program to Print both position and value
for in in enumerate(sub):

Print(i)

-> (0, 'p')

(1, 'y')

(2, 't')

(3, 'h')

(4, 'o')

(5, 'n')

* initialization: int i = 1; (start at 1)

* condition: i <= 5; (run until i reaches 5)

* increment: i++ (increase by 1 each time)

range (start value, stop value, step size)

we have default start value is 0

step size is 1

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

Print(i)

-> 1 7

2 8

3 9

4 10

5

6

* for i in range(5):

 print(i)

 print("Good Morning")

0

Good morning

1

Good morning

2

Good morning

3

Good morning

4

Good morning

* Sub = 'Python'

for i in range(0,6,1):

 print(i, sub[i])

-> 0 P

1 Y

2 t

3 h

4 O

5 n

* Reverse loop

sub = 'Python'

for i in range(5, -1, -1):

 print(i, sub[i])

→ 5 n
4 0
3 h
2 t
1 y
0 p

* even number and odd number

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

if (i % 2 == 0):

print(i, "even number")

else:

print(i, "odd number")

→ 1 = odd number

2 = even number

3 = odd number

4 = even number