

Python Programming – Day 3

For Loops in Python

What is a For Loop?

A for loop is used to repeat a block of code multiple times. It is often used to go through (iterate) a sequence such as a list, string, or range of numbers.

Syntax:

for variable in sequence:

code to execute

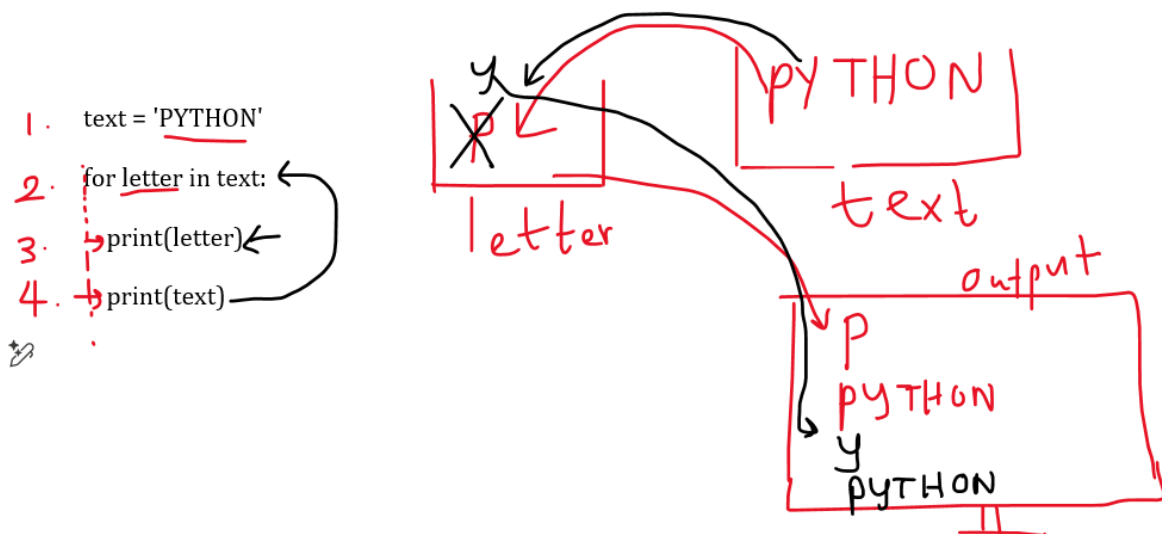
Example 1: Print numbers from 1 to 5

```
for i in range(1, 6):  
    print(i)
```

The loop runs from 1 to 5 because range(1, 6) stops before 6.

Example 2: Print each letter in a word

```
for letter in 'PYTHON':  
    print(letter)
```



Loops through each character in the string 'PYTHON'.

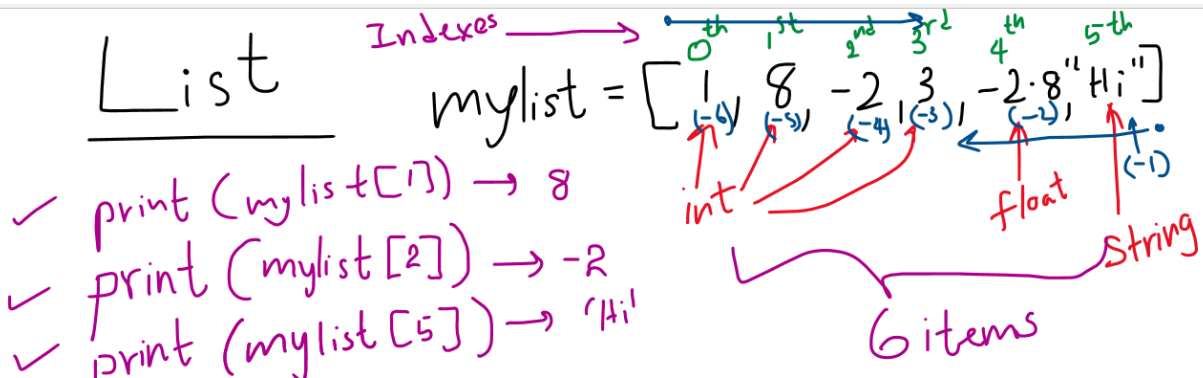
Example 3: Print numbers with a step of 2

```
for i in range(0, 10, 2):  
    print(i)
```

range(start, stop, step) prints 0, 2, 4, 6, 8.

Example 4: Loop through a list

```
fruits = ['Apple', 'Banana', 'Cherry']  
for fruit in fruits:  
    print('I like', fruit)
```

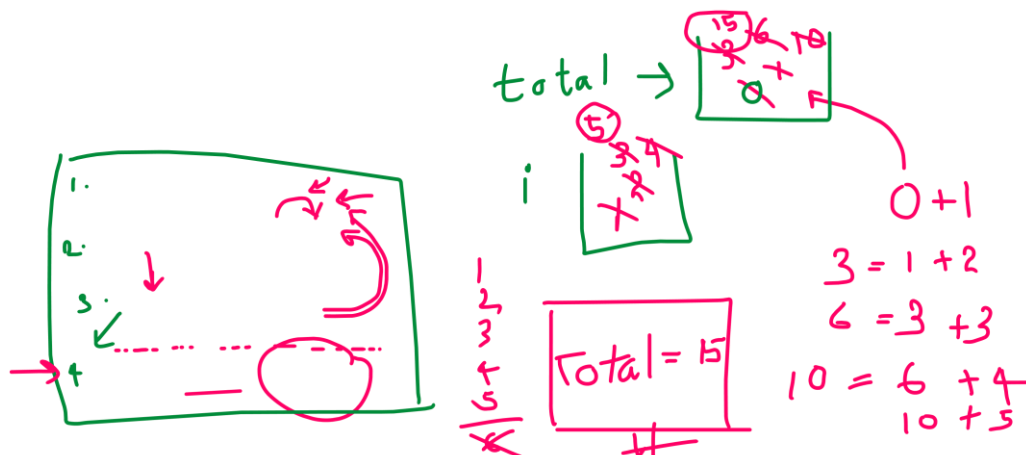


Goes through each item in the list and prints it.

Example 5: Sum of first 5 numbers

```
total = 0  
for i in range(1, 6):  
    total = total + i  
print('Total =', total)
```

Adds up numbers $1 + 2 + 3 + 4 + 5 = 15$.



main.py



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Output

C

```
1 test = ["Hi","Hello","Lahiru","Science","Online","Computer","Practical",
2         ,"Class"]
3 print(test)
4 print("-----")
5 for i in test:
6     print(i)
7 print("-----")
8 print(test[5],test[3],test[4],test[7])
9 print("-----")
10 print(test[-3],test[-5],test[-4],test[-1])
11
12
```

```
['Hi', 'Hello', 'Lahiru', 'Science', 'Online', 'Computer', 'Practical',
 'Class']
-----
Hi
Hello
Lahiru
Science
Online
Computer
Practical
Class
-----
Computer Science Online Class
-----
Computer Science Online Class
```