**FOR LOOP**

**Defination:-** A for loop is used to iterate over a sequence (like list, tuple, string, or range).

It repeats a block of code for each element in the sequence.

**Syntax:-**

for variable in sequence:

# code block

**Example 1: Print numbers from 1 to 5**

for num in range(1, 6):

print(num)

**Output:**

1

2

3

4

5

**Example 2: Print each character in a string**

name = "Python"

for ch in name:

print(ch)

**Output:**

P

y

t

h

o

n

**Example 3: Loop through a list**

fruits = ["apple", "banana", "cherry"]

for fruit in fruits:

print("I like", fruit)

**Output:**

I like apple

I like banana

I like cherry

**Example 4: Sum of first 5 numbers**

total = 0

for num in range(1, 6):

total += num

print("Sum:", total)

**Output:**

Sum: 15

**Example 5: Using break**

for num in range(1, 6):

if num == 3:

break

print(num)

**Output:**

1

2

**Example 6: Using continue**

for num in range(1, 6):

if num == 3:

continue

print(num)

**Output:**

1

2

4

5

(3 is skipped because of continue)

**Example 7: Nested for loop**

for i in range(1, 4):

for j in range(1, 3):

print(i, j)

**Output:**

1 1

1 2

2 1

2 2

3 1

3 2