

# Loops in Python

A loop is used for iterating over a sequence (like a list, tuple, dictionary, string, or range). This allows you to execute a block of code repeatedly.





# Types Of Loop

1 For Loop

2 While Loop

# While Loop

Loops works upon condition works until condition is true and stops when condition becomes false.

## Uses of Loop

- Used when we not know last value of range
- Also work for dynamic repetition



# Iterating Over a String

## Syntax

```
while condition:  
    # Code block to execute
```

## Example

```
a=1  
  
While a<=5:  
    print(a)  
    a=a+1
```

# While loop with Input()

```
# Simple while loop with input
number = int(input("Enter a number (enter 0 to
stop): "))

while number != 0:
    print("You entered:", number)
    number = int(input("Enter another number
(enter 0 to stop): "))

print("Loop ended.")
```

## Ascending Order

```
A=10
```

```
While a > 0 :  
    print(a)  
    a=a-1
```

## While with Else

```
# Simple while loop with else  
count = 0  
while count < 5:  
    print(count)  
    count += 1  
else:  
    print("The loop has finished.")
```



# Conclusion

- Runs until condition is true
- In while with else , Else works when while condition becomes false
- For descending order value would be decrease
- You can do anything in instead of print()
- We can also use input() for advance and logical code