Python break and continue

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In this article, you will learn to use break and continue statements to alter the flow of a loop.

What is the use of break and continue in Python?

In Python, `break` and `continue` statements can alter the flow of a normal loop.

Loops iterate over a block of code until the test expression is false, but sometimes we wish to terminate the current iteration or even the whole loop without checking test expression.

The `break` and `continue` statements are used in these cases.

Python break statement

The `break` statement terminates the loop containing it. Control of the program flows to the statement immediately after the body of the loop.
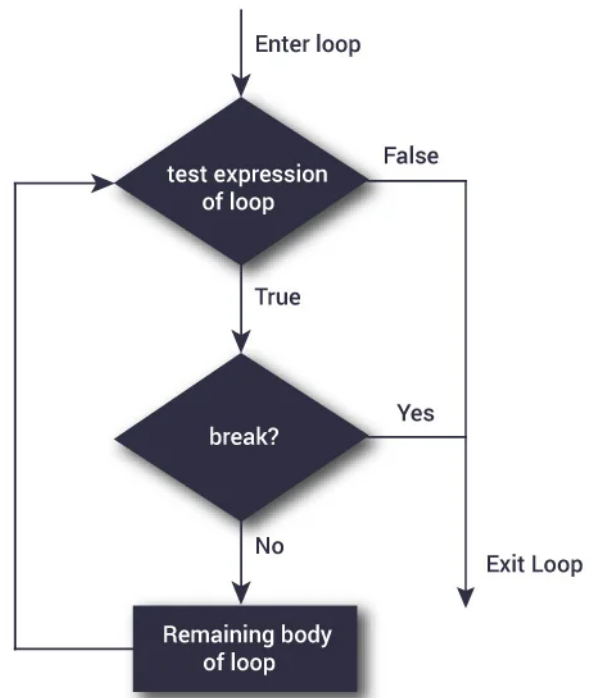
If the `break` statement is inside a nested loop (loop inside another loop), the `break` statement will terminate the innermost loop.

Syntax of break

```
break
```

Flowchart of break

The working of break statement in for loop and while loop is shown below.

Flowchart of break statement in Python

```python
for var in sequence:
    # codes inside for loop
    if condition:
        break
    # codes inside for loop
# codes outside for loop
```

```python
while test expression:
    # codes inside while loop
    if condition:
        break
    # codes inside while loop
# codes outside while loop
```

Working of the break statement

Example: Python break

```
# Use of break statement inside the loop

for val in "string":
    if val == "i":
        break
    print(val)

print("The end")
```

Output

```
s
t
r
The end
```

In this program, we iterate through the `"string"` sequence. We check if the letter is `i`, upon which we break from the loop. Hence, we see in our output that all the letters up till `i` gets printed. After that, the loop terminates.
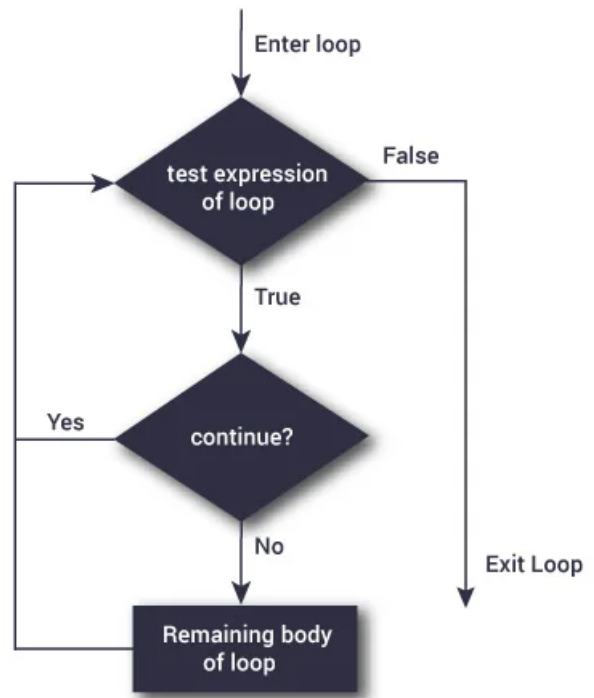
Python continue statement

The `continue` statement is used to skip the rest of the code inside a loop for the current iteration only. Loop does not terminate but continues on with the next iteration.

Syntax of Continue

```
continue
```

Flowchart of continue

The working of the `continue` statement in for and while loop is shown below.

Flowchart of continue statement in Python

```
for var in sequence:
    # codes inside for loop
    if  condition:
        continue
    # codes inside for loop

# codes outside for loop
```

```
while test expression:
    # codes inside while loop
    if  condition:
        continue
    # codes  inside while loop

# codes outside while loop
```

How continue statement works in python

Example: Python continue

```
# Program to show the use of continue statement inside loops

for val in "string":
    if val == "i":
        continue
    print(val)

print("The end")
```

Output

```
s
t
r
n
g
The end
```

This program is same as the above example except the `break` statement has been replaced with `continue`.

We continue with the loop, if the string is i, not executing the rest of the block. Hence, we see in our output that all the letters except i gets printed.