

Day 9



Break and continue in Python:

What is break?

break is used to stop a loop immediately. When Python sees break, it comes out of the loop, even if the condition is still True.

What is continue?

continue is used to skip the current iteration and move to the next loop cycle. The loop does not stop, it only skips one step.

Example: basic example with “break” keyword.

A screenshot of a Python code editor showing a script named main.py. The code is as follows:

```
1 for i in range(12):
2     print("Iteration:", i)
3     if i == 5:
4         break
```

The code is run in a terminal window, and the output shows the first five iterations:

```
Iteration: 0
Iteration: 1
Iteration: 2
Iteration: 3
Iteration: 4
Iteration: 5
```

Example:

A screenshot of a Python code editor showing a script named main.py. The code is as follows:

```
6 i = 1
7
8 while i <= 5:
9     if i == 4:
10        break
11     print(i)
12     i += 1
```

The code is run in a terminal window, and the output shows the numbers 1, 2, and 3, indicating that the loop was broken at the value 4.

```
1
2
3
```

Example:

```
15  for password in ["1234", "abcd", "python123"]:
16      if password == "python123":
17          print("Correct password found")
18          break
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

● PS E:\Python\Day1-10\Day9> python main.py
Correct password found

Example: using the 'continue' keyword

```
20  for i in range(1, 6):
21      if i == 3:
22          continue
23      print(i)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

● PS E:\Python\Day1-10\Day9> python main.py
1
2
4
5

Example: while loop and continue keyword.

```
26  i = 0
27
28  while i < 5:
29      i += 1
30      if i == 3:
31          continue
32      print(i)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS E:\Python\Day1-10\Day9> python main.py
1
2
4
5

Important Difference:

break	continue
Stops the loop	Skips current iteration
Loop ends	Loop continues
Used to exit	Used to skip

Example: using both 'break' and 'continue' in the code.

The screenshot shows a terminal window with the following content:

```
33
34     for i in range(1, 10):
35         if i == 3:
36             continue
37         if i == 7:
38             break
39         print(i)
```

Below the code, there are tabs: PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL (which is underlined), and PORTS. Under TERMINAL, it says "● PS E:\Python\Day1-10\Day9> python main.py". The output of the script is displayed below the terminal tab:

```
1
2
4
5
6
```

Summary:

- break stops the loop
- continue skips current iteration
- Both work in for and while
- Be careful using continue in while
- else does not execute if break is used
- Use wisely to control loops

--The End--