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.

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

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
PS E:\Python\Day1-10\Day9> python main.py
Iteration: 0
Iteration: 1
Iteration: 2
Iteration: 3
Iteration: 4
Iteration: 5
```

Example:

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

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
PS E:\Python\Day1-10\Day9> python main.py
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)
```

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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)
```

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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.

```
34    for i in range(1, 10):
35        if i == 3:
36            continue
37        if i == 7:
38            break
39        print(i)
```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS E:\Python\Day1-10\Day9> python main.py
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--