TOPS Technology

Python Fundamentals

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Control Statements (Break, Continue, Pass)

1. Understanding the role of break, continue, and pass in Python loops.

>break Statement

The break statement is used to exit a loop prematurely. When break is encountered, the loop terminates immediately, and execution continues with the first statement after the loop.

≻Use Case

- Exit the loop when a specific condition is met.
- Example:
- for number in range(1, 10):
- if number == 5:
- break
- print(number)
- print("Loop ended.")

>continue Statement

The continue statement is used to skip the rest of the current iteration of the loop and move to the next iteration.

>Use Case

➤ Skip a specific iteration based on a condition.

Example:

- ➤ for number in range(1, 10):
- \triangleright if number % 2 == 0: # Skip even numbers
- > continue
- print(number)
- >print("Loop ended.")

>pass Statement :

The pass statement is a placeholder. It does nothing and is used where a statement is syntactically required but no action is desired.

>Use Case :

- To implement an empty loop or function without raising an error.
- ➤ As a placeholder for future code.

≻Example 1: Placeholder in a Loop :

- ➤ for number in range(1, 10):
- \triangleright if number % 2 == 0:
- > pass # No action for even numbers
- > else:
- print(number)