

'if' statement - Advanced

What is a 'pass' statement ?

The pass statement is used as a placeholder for future code. You can see him as a sort of a gate to the flow of code.

→ No active action is made once it is executed.

What happens when the code gets to a 'pass' statement

- When the pass statement is executed, nothing happens.
- If used in an 'if' statement, 'empty' code will be allowed.
- Without 'pass', having empty code under 'if', will raise an error.
- 'pass' allows you to take a passive approach in 'if' statements.

Example: code - screenshots, are too large in size.
Please Go over to the next page.



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(!) Live code example : If statement **without** 'pass' statement :

The screenshot shows a Python IDE with a file named `test.py` containing the following code:

```
1 a = 33
2 b = 200
3
4 if b > a:
```

Annotations in the image:

- 1**: A yellow box with the text "Leaving the part under 'if' empty. Without 'print' action." with an arrow pointing to the empty space inside the `if` block.
- 2**: A blue box with the text "'pass' is missing - small error marker appears" with an arrow pointing to the end of the `if` block.
- 3**: A blue box with the text "Once running the code, SyntaxError is thrown" with an arrow pointing to the error message in the console.

The console output shows the command `C:\Python\python.exe C:/Learning/initial-project/test.py` and the error message:

```
File "C:/Learning/initial-project/test.py", line 5
    ^
SyntaxError: unexpected EOF while parsing

Process finished with exit code 1
```

(!)Live code example : If statement **with** 'pass' statement :

The screenshot shows a Python IDE with a project named 'initial-project'. The file explorer on the left lists several Python files, with 'test.py' selected. The code editor displays the following code:

```
1 a = 33
2 b = 200
3 |
4 if b > a:
5     pass
```

Annotations and callouts:

- 1**: Leaving the part under 'if' empty. Without 'print' action.
- 2**: 'pass' statement is mentioned in the code - NO small marker of error.
- 3**: Once running the code, it comes up without errors, successfully.

The Run console at the bottom shows the command: `C:\Python\python.exe C:/Learning/initial-project/test.py` and the output: `Process finished with exit code 0`.