

Lab - 5

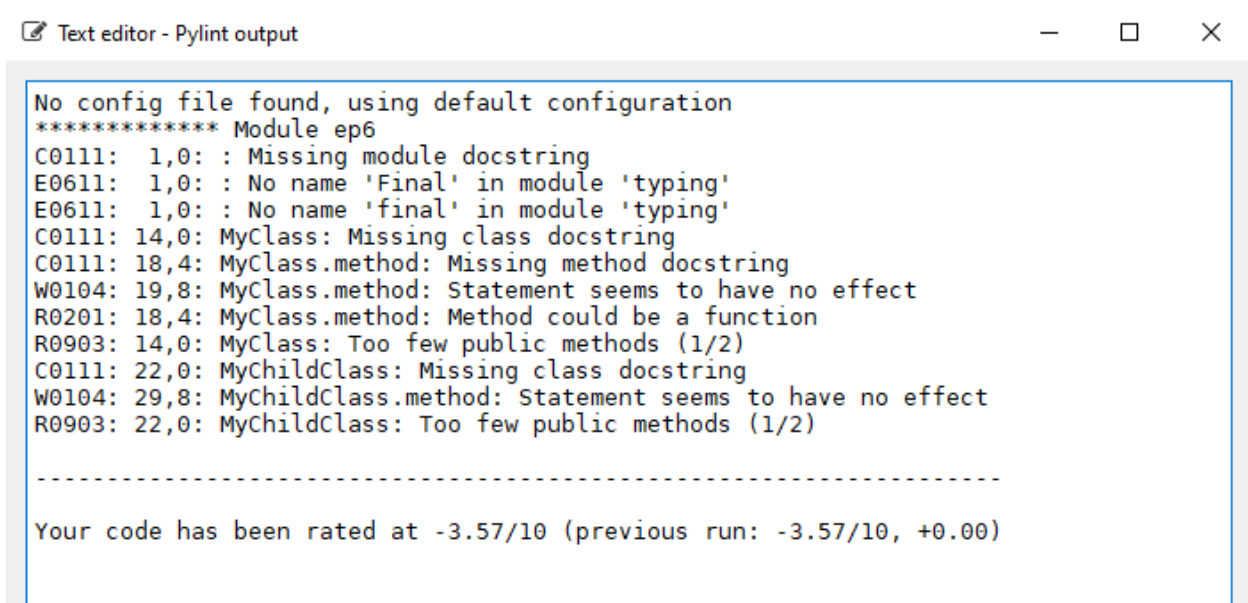
Static Analysis

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Aim: Performing Static Analysis using pylint software. Select a git repository, use the selected tool and analyze the files from the selected repository. Submit the tool output and understanding of the errors.

1. <https://github.com/jerry-git/daily-dose-of-python/blob/main/code/6/ep6.py>



```
Text editor - Pylint output

No config file found, using default configuration
***** Module ep6
C0111: 1,0: : Missing module docstring
E0611: 1,0: : No name 'Final' in module 'typing'
E0611: 1,0: : No name 'final' in module 'typing'
C0111: 14,0: MyClass: Missing class docstring
C0111: 18,4: MyClass.method: Missing method docstring
W0104: 19,8: MyClass.method: Statement seems to have no effect
R0201: 18,4: MyClass.method: Method could be a function
R0903: 14,0: MyClass: Too few public methods (1/2)
C0111: 22,0: MyChildClass: Missing class docstring
W0104: 29,8: MyChildClass.method: Statement seems to have no effect
R0903: 22,0: MyChildClass: Too few public methods (1/2)

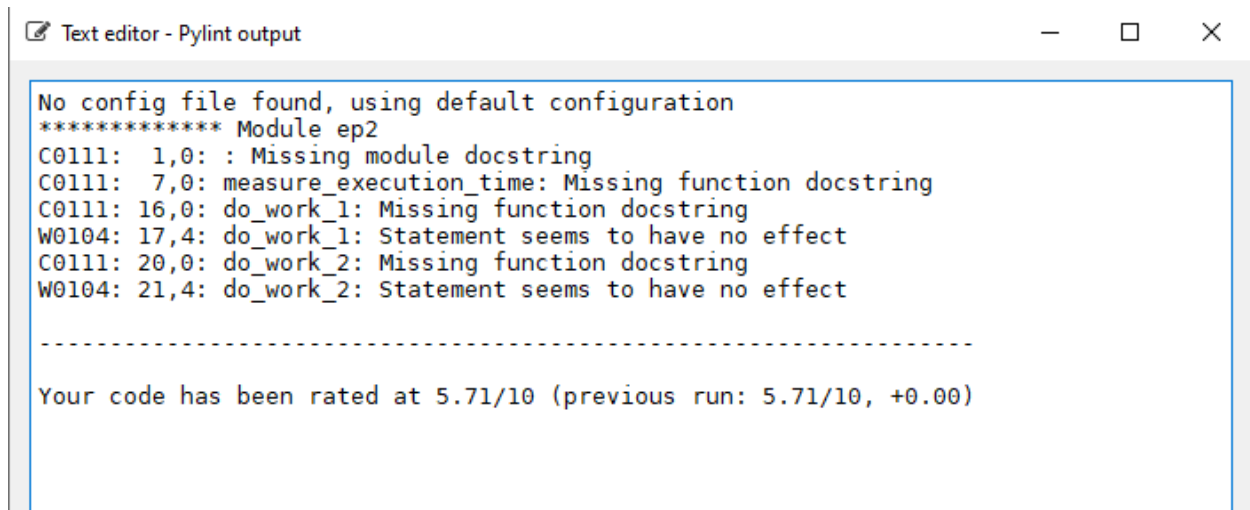
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Your code has been rated at -3.57/10 (previous run: -3.57/10, +0.00)
```

- If you receive a "missing module docstring" error in Python, it means that the module is missing a docstring. To fix this error, you can simply add a docstring to the module. docstring should be enclosed in triple quotes ("""), and the first line of the docstring should be a short, concise summary of what the module does.

- The "too few public methods" error message in Python typically indicates that the class doesn't have enough methods that are intended to be used by other code outside the class. If a class has too few public methods, it can be a sign that the class is not well-designed or that it doesn't have enough functionality to be useful.
- The "no name 'Final' in module 'typing'" error message in Python occurs when you try to use the Final type hint, but it is not defined in the typing module. The Final type hint is used to indicate that a variable or attribute should not be reassigned after it is initialized.

2. <https://github.com/jerry-git/daily-dose-of-python/tree/main/code/2>



```

Text editor - Pylint output
No config file found, using default configuration
***** Module ep2
C0111: 1,0: : Missing module docstring
C0111: 7,0: measure_execution_time: Missing function docstring
C0111: 16,0: do_work_1: Missing function docstring
W0104: 17,4: do_work_1: Statement seems to have no effect
C0111: 20,0: do_work_2: Missing function docstring
W0104: 21,4: do_work_2: Statement seems to have no effect

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Your code has been rated at 5.71/10 (previous run: 5.71/10, +0.00)

```

- If you receive a "missing function docstring" error in Python, it means that your function definition does not include a docstring. This error can occur when running a code analysis tool, such as a linter or a static analyzer, that checks for adherence to best practices in coding.
- In Python, the "statement seems to have no effect" error usually occurs when you have written a statement that does not have any noticeable effect on the program's output or behavior. To fix this error, you should either remove the statement entirely or modify it to have a meaningful effect on the program's behavior.

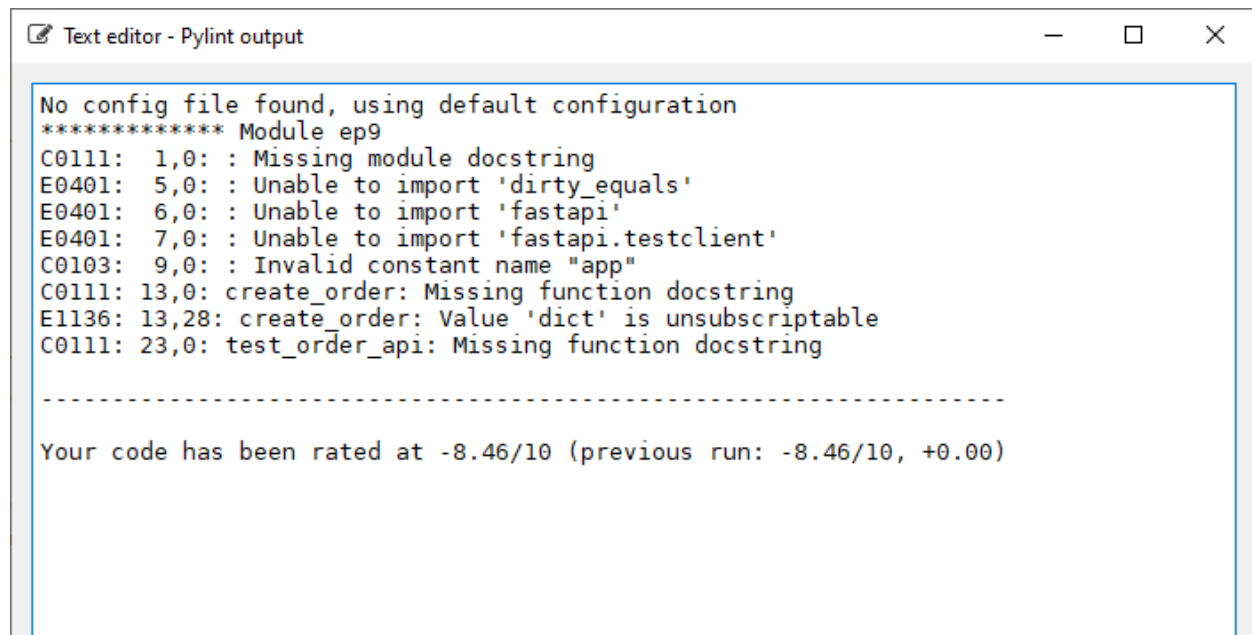
3. https://github.com/jerry-git/daily-dose-of-python/blob/main/code/12/pyfakefs_example.py

```
No config file found, using default configuration
***** Module pyfakefs_example
C0111: 1,0: : Missing module docstring
E0401: 3,0: : Unable to import 'pyfakefs.fake_filesystem'
C0111: 6,0: my_functionality: Missing function docstring
C0103: 7,33: my_functionality: Invalid variable name "f"
C0103: 12,0: test_my_functionality: Invalid argument name "fs"
C0111: 12,0: test_my_functionality: Missing function docstring
C0103: 19,23: test_my_functionality: Invalid variable name "f"
W0613: 12,26: test_my_functionality: Unused argument 'fs'
```

Your code has been rated at 0.77/10

- The “unable to import pyfakefs” error in Python usually occurs when you try to import the pyfakefs library, but it is not installed or not installed correctly.
- The “invalid argument name fs” error can occur in Python when you are trying to pass an argument with the name fs to a function or method, but fs is not a valid or recognized argument name. The pyfakefs library provides a fake file system for testing purposes, and it uses an argument named fs in some of its functions and methods. However, if you try to use fs as an argument name in your own code, it may conflict with the pyfakefs library and cause this error.
- If you receive a “missing module docstring” error in Python, it means that the module is missing a docstring. To fix this error, you can simply add a docstring to the module. docstring should be enclosed in triple quotes ("""), and the first line of the docstring should be a short, concise summary of what the module does.

4. <https://github.com/jerry-git/daily-dose-of-python/blob/main/code/9/ep9.py>



```
Text editor - PyLint output

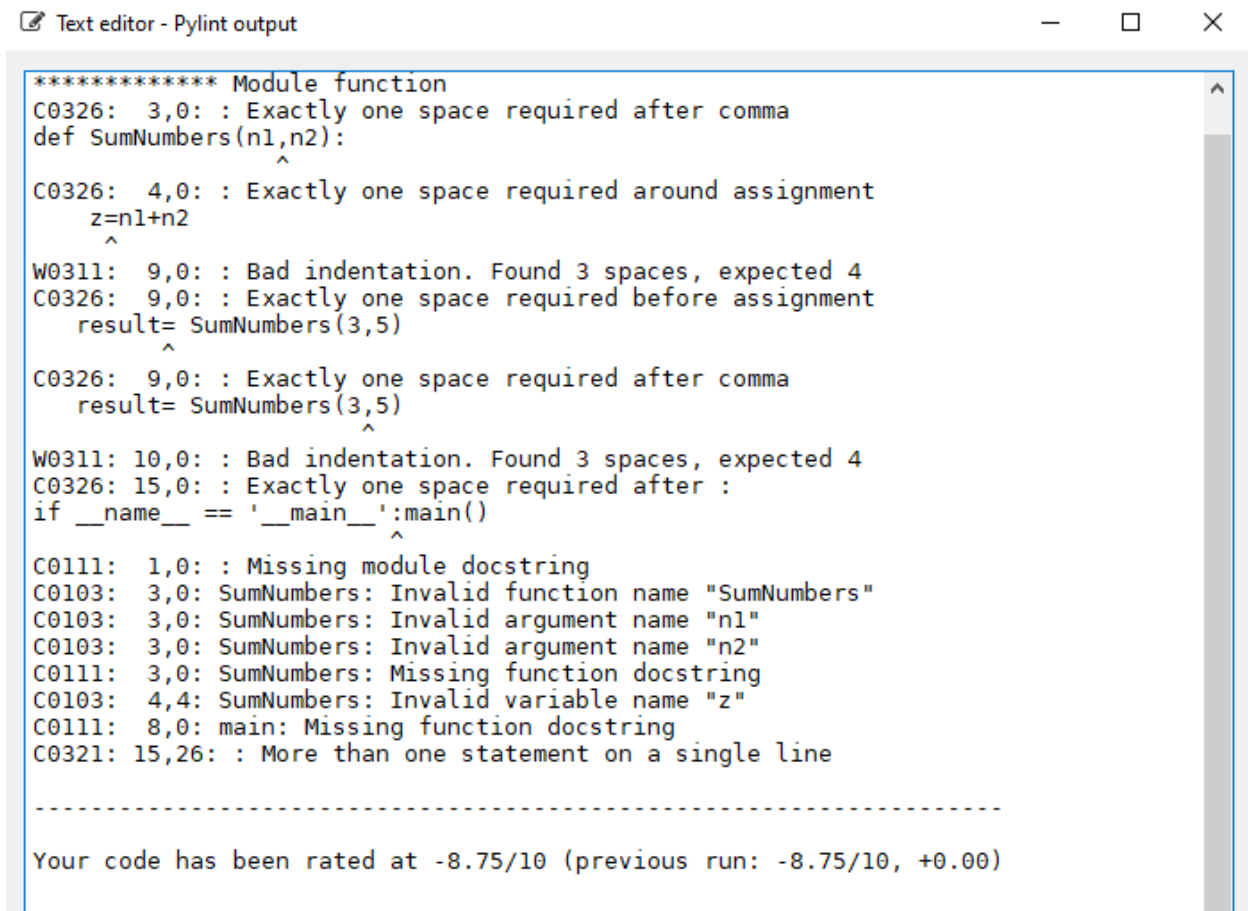
No config file found, using default configuration
***** Module ep9
C0111: 1,0: : Missing module docstring
E0401: 5,0: : Unable to import 'dirty_equals'
E0401: 6,0: : Unable to import 'fastapi'
E0401: 7,0: : Unable to import 'fastapi.testclient'
C0103: 9,0: : Invalid constant name "app"
C0111: 13,0: create_order: Missing function docstring
E1136: 13,28: create_order: Value 'dict' is unsubscriptable
C0111: 23,0: test_order_api: Missing function docstring

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Your code has been rated at -8.46/10 (previous run: -8.46/10, +0.00)
```

- The "unable to import" error in Python occurs when the Python interpreter is unable to find and load a module or package that you are trying to import in your code. If you are trying to import a module or package that is not installed on your system or in the current Python environment, you will get an "unable to import" error.
- If you receive a "missing module docstring" error in Python, it means that the module is missing a docstring. To fix this error, you can simply add a docstring to the module. docstring should be enclosed in triple quotes (""""), and the first line of the docstring should be a short, concise summary of what the module does.
- The "value is unsubscriptable" error in Python occurs when you try to apply a subscript to a value that cannot be subscripted. This error can occur due to several reasons like incorrect data type, type in variable name, immutable data type.

5. <https://github.com/hussien89aa/PythonTutorial/blob/master/function.py>



```
***** Module function
C0326: 3,0: : Exactly one space required after comma
def SumNumbers(n1,n2):
    ^
C0326: 4,0: : Exactly one space required around assignment
    z=n1+n2
    ^
W0311: 9,0: : Bad indentation. Found 3 spaces, expected 4
C0326: 9,0: : Exactly one space required before assignment
    result= SumNumbers(3,5)
    ^
C0326: 9,0: : Exactly one space required after comma
    result= SumNumbers(3,5)
    ^
W0311: 10,0: : Bad indentation. Found 3 spaces, expected 4
C0326: 15,0: : Exactly one space required after :
if __name__ == '__main__':main()
    ^
C0111: 1,0: : Missing module docstring
C0103: 3,0: SumNumbers: Invalid function name "SumNumbers"
C0103: 3,0: SumNumbers: Invalid argument name "n1"
C0103: 3,0: SumNumbers: Invalid argument name "n2"
C0111: 3,0: SumNumbers: Missing function docstring
C0103: 4,4: SumNumbers: Invalid variable name "z"
C0111: 8,0: main: Missing function docstring
C0321: 15,26: : More than one statement on a single line

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Your code has been rated at -8.75/10 (previous run: -8.75/10, +0.00)
```

- In Python, the "exactly one space required after comma" error occurs when you use too many or too few spaces after a comma in a function call or a tuple. This error can occur when you have either no spaces or more than one space after a comma, which violates the Python style guide.
- If you receive a "missing module docstring" error in Python, it means that the module is missing a docstring. To fix this error, you can simply add a docstring to the module. docstring should be enclosed in triple quotes (""""), and the first line of the docstring should be a short, concise summary of what the module does.
- In Python, the "bad indentation" error occurs when there are inconsistencies in the indentation level of your code. Python relies on

proper indentation to determine the scope of a block of code, such as a function definition or a loop, so any errors in indentation can cause syntax errors and unexpected behavior.