

# Python Code Checkers

## Flake8

- Wraps pyflakes, mccabe, pep8, and more
- List plugins: `flake8 --version`
- `pip install flake8`
- <https://pypi.python.org/pypi/flake8>
- <http://flake8.readthedocs.org/en/latest/>

## Flake8-Blind-Except

- Checks for blind except statements
- `pip install flake8-blind-except`
- <https://pypi.python.org/pypi/flake8-blind-except/>

## Flake8-Copyright

- Checks for copyright notices
- `pip install flake8-copyright`
- <https://pypi.python.org/pypi/flake8-copyright/>

## Flake8-Debugger

- Checks for debugging statements (like `pdb`)
- `pip install flake8-debugger`
- <https://pypi.python.org/pypi/flake8-debugger/>

## Flake8-Deprecated

- Warns about deprecated code
- `pip install flake8-deprecated`
- <https://pypi.python.org/pypi/flake8-deprecated/>

## Flake8-Double-Quotes

- Forbid single quotes
- `pip install flake8-quotes`
- <https://pypi.python.org/pypi/flake8-double-quotes/>

## Flake8\_Docstring

- Flake8 plugin wrapper for `pep257`
- `pip install flake8_docstrings`
- <https://pypi.python.org/pypi/flake8-docstrings/>

## Flake8-Doubles

- Enforces doubles
- `pip install flake8-doubles`
- [https://pypi.python.org/pypi/flake8\\_doubles/](https://pypi.python.org/pypi/flake8_doubles/)

## Flake8-Future

- Warn about missing `__future__` imports
- `pip install flake8-future`
- <https://pypi.python.org/pypi/flake8-future/>

## Flake8-Future-Import

- Checks imported `__future__` modules
- `pip install flake8-future-import`
- <https://pypi.python.org/pypi/flake8-future-import/>

## Flake8-import-order

- Check import order
- `pip install flake8_import_order`
- <https://pypi.python.org/pypi/flake8-import-order/>

## Flake8-Isort

- Check the order of the imports
- `pip install flake8-isort`
- <https://pypi.python.org/pypi/flake8-isort/>

## Flake8-Print

- Checks for print statements
- `pip install flake8-print`
- <https://pypi.python.org/pypi/flake8-print/>

## Flake8-Quotes2

- Check string quotes
- `pip install flake8-quotes2`
- <https://pypi.python.org/pypi/flake8-quotes2/>

## Flake8-Single-Quotes

- Enforce single-quotes
- `pip install flake8-single-quotes`

- <https://pypi.python.org/pypi/flake8-single-quotes/>

## Flake8-Snippets

- Find unwanted snippets
- `pip install flake8-snippets`
- <https://pypi.python.org/pypi/flake8-snippets/>

## Flake8-Strict

- Checks code against opinionated style rules
- `pip install flake8-strict`
- [https://pypi.python.org/pypi/flake8\\_strict/](https://pypi.python.org/pypi/flake8_strict/)

## Flake8-String-Format

- String format checker
- `pip install flake8-string-format`
- <https://pypi.python.org/pypi/flake8-string-format/>

## Flake8\_Tuple

- Check for one-element tuples
- `pip install flake8_tuple`
- [https://pypi.python.org/pypi/flake8\\_tuple/](https://pypi.python.org/pypi/flake8_tuple/)

## McCabe

- McCabe complexity
- `pip install mccabe`
- <https://pypi.python.org/pypi/mccabe>
- <https://github.com/flintwork/mccabe>

## Pep257

- Checks PEP257 compliance
- `pip install pep257`
- <https://pypi.python.org/pypi/pep257/>
- <https://github.com/GreenSteam/pep257/>

## Pep8

- PEP8 checker
- `pip install pep8`
- <https://pypi.python.org/pypi/pep8/>
- <https://github.com/jcrocholl/pep8/>
- <http://pep8.readthedocs.org/en/latest/>

## Pep8-Naming

- Naming conventions
- `pip install pep8-naming`
- <https://pypi.python.org/pypi/pep8-naming/>

## PyChecker

- Like PyFlakes; error checker
- <https://pypi.python.org/pypi/PyChecker/>
- <http://pychecker.sourceforge.net/>

## PyFlakes

- Passive error checker
- `pip install pyflakes`
- <https://pypi.python.org/pypi/pyflakes/>
- <https://github.com/pyflakes/pyflakes/>

## PyLint

- Like flake8; style, errors, "code smells"
- `pip install pylint`
- <https://pypi.python.org/pypi/pylint/>

## PyReverse

- Reverse engineer code (UML diagram)

## Similar

- Similarities checker (code R0801)

## Code Categories

### Flake8 Codes

- C90\* - Warning from mccabe
- D\*\*\* - Warning from pep257/flake8\_docstrings
  - D1\*\* Missing docstrings
  - D2\*\* Whitespace issues
  - D3\*\* Quotes issues
  - D4\*\* Docstring content issues
- E\*\*\* - Error from pep8
  - E1\*\* Indentation

- E2\*\* Whitespace
- E3\*\* Blank line
- E4\*\* Import
- E5\*\* Line length
- E7\*\* Statement
- E9\*\* Runtime

F\*\*\* - Warning from pyflakes

- F40\* Imports
- F8\*\* Namespace
- F1\*\* - `__future__` import warnings

I\*\*\* - Import warnings

- I1\*\* Import order
- I2\*\* Blank line

L\*\*\* - Ebb-lint codes

N8\*\* - Warning from pep8-naming

N80\* General naming

N81\* Import naming

R\*\*\* - Regex warnings

W\*\*\* - Warning from pep8

- W1\*\* Indentation
- W2\*\* Whitespace
- W3\*\* Blank line
- W6\*\* Deprecation

### PyLint Codes

C\*\*\*\* - compatibility/consistency warnings

- C010\* Invalid names
- C011\* Empty/missing docstrings
- C02\*\* Class arguments
- C03\*\* Lines and whitespace
- C1\*\*\* Various

E\*\*\*\* - error

- E02\*\* Methods and arguments
- E05\*\* Encoding
- E06\*\* Undefined names; invalid objects in `__all__`

E07\*\* Raise and Exceptions

E10\*\* `super()` and `__slots__`

E110\* Missing and un-callable members

E112\* Function calls and Keyword arguments

E120\* Logging

E130\* Strings and format

F0\*\*\* - failed check due to errors in the code/file

F04\*\* Unable to import

I0\*\*\* - info on pylint itself

I00\*\* Activity and deprecation notices

R0\*\*\* - reference error from pylint

R092\*\* Classes

RP0\*\*\* - refactoring, performance, etc.

RP000\* General messages

RP04\* Dependencies

W\*\*\*\* - warning

W010\* Useless/purposeless code

W01\*\* Bad code smell

W02\*\* Methods, attribute, and class smell

W030\* Semicolons

W031\* Indentation

W03\*\* Various bad operator and style smells

W04\*\* Bad import smells

W05\*\* Encoding

W060\* Use of global

W061\* Unused objects

W062\* Redefining

W063\* Unpacking

W07\*\* Exceptions

W1\*\*\* Various bad code smells