

FORMAT | LINT | PRE-COMMIT



 linkedin.com/in/arthurio

 notivize.com

 github.com/arthurio/pre-commit

TOOLS



FORMATTERS

isort: isort your imports, so you don't have to.

black: The Uncompromising Code Formatter.

flynt: String formatting converter.

LINTERS

bandit: Find common security issues.

flake8: Your Tool For Style Guide Enforcement.

flake8-docstrings: Flake8 plugin to include checks provided by pep257.

mypy: Static type checker.

AUTOMATION

pre-commit: A framework for managing and maintaining multi-language pre-commit hooks.

CONFIGURATION



Keep it to a minimum

BLACK

```
# pyproject.toml

[tool.black]
line-length = 120
```


ISORT

```
# pyproject.toml

[tool.isort]
profile = "black"
line_length = 120
skip_gitignore = true
```

FLYNT

Nothing to see here 🙄 ...

BANDIT

```
# .bandit

[bandit]
targets: src,tests
skips: B101
```

- B101: assert used

FLAKE8/FLAKE8-DOCSTRINGS

```
# .flake8  
  
[flake8]  
max_line_length = 120  
ignore = D1  
docstring-convention = google
```

- **W503**: Line break occurred before a binary operator
- **D1**: Missing docstring

MYPY

```
# mypy.ini
```

```
[mypy]
```

```
mypy_path = ./src:./tests
```

PRE-COMMIT

```
repos:
  - repo: local
    hooks:
      - id: isort
        name: isort
        entry: isort
        types: [python]
        language: python
      - id: flynt
        name: flynt
        entry: flynt
        args: [--fail-on-change]
        types: [python]
        language: python
      - id: black
        name: black
        entry: black
        language: python
        types: [python]
        exclude: node_modules
      - id: flake8
        name: flake8
        entry: flake8
        language: python
        types: [python]
        exclude: .serverless,node_modules
      - id: bandit
        name: bandit
        entry: bandit
        language: python
        types: [python]
        args: [--ini, .bandit, --recursive]
      - id: mypy
        name: mypy
        entry: mypy
        types: [python]
        language: python
  - repo: https://github.com/pre-commit/pre-commit-hooks
    rev: v4.0.1
    hooks:
      - id: end-of-file-fixer
        exclude: .*(min.js|min.css|html|svg|css.map|js.map)
      - id: trailing-whitespace
        exclude: .*(md)
```

DEV REQUIREMENTS

```
# dev-requirements.in  
  
bandit==1.7.0  
black==21.4b2  
flake8-docstrings==1.6.0  
flake8==3.9.1  
flynt==0.64  
isort==5.8.0  
mypy==0.812  
pre-commit==2.12.1
```

USAGE

SETUP YOUR IDE/EDITOR



INSTALL PRE-COMMIT HOOK

```
pre-commit install  
git add .  
git commit -m "Some bad code"
```

```

~/code/pre-commit  pysprings-pre-commit  main  git commit -m "Move tests and add presentation"
10120 03:12:34
[INFO] Installing environment for https://github.com/pre-commit/pre-commit-hooks.
[INFO] Once installed this environment will be reused.
[INFO] This may take a few minutes...
isort.....Passed
flynt.....Passed
black.....Passed
flake8.....Failed
- hook id: flake8
- exit code: 1

src/isort/test.py:2:1: F401 'sys' imported but unused
src/isort/test.py:8:11: F821 undefined name 'password'
src/isort/test.py:9:5: F841 local variable 'access_token' is assigned to but never used
src/isort/test.py:10:5: F841 local variable 'password' is assigned to but never used
src/isort/test.py:13:121: E501 line too long (121 > 120 characters)

bandit.....Passed
mypy.....Failed
- hook id: mypy
- exit code: 1

src/bandit/test.py:2: error: Missing return statement
src/isort/test.py:4: error: Cannot find implementation or library stub for module named 'utils'
src/isort/test.py:4: note: See https://mypy.readthedocs.io/en/latest/running\_mypy.html#missing-imports
src/isort/test.py:8: error: Cannot determine type of 'password'
src/isort/test.py:17: error: Incompatible return value type (got "None", expected "str")
src/isort/test.py:19: error: Incompatible return value type (got "int", expected "str")
src/isort/test.py:22: error: Argument 1 to "test" has incompatible type "str"; expected "int"
src/isort/test.py:23: error: Argument 1 to "test" has incompatible type "Optional[str]"; expected "int"
src/isort/test.py:27: error: Argument 1 to "int" has incompatible type "Optional[str]"; expected "Union[str, SupportsInt, _SupportsIndex, _SupportsTrunc]"
Found 8 errors in 2 files (checked 4 source files)

Fix End of Files.....Failed
- hook id: end-of-file-fixer
- exit code: 1
- files were modified by this hook

Fixing presentation/dist/theme/blood.css
Fixing presentation/dist/theme/sky.css
Fixing presentation/dist/theme/moon.css
Fixing presentation/dist/theme/black.css
Fixing presentation/dist/theme/beige.css
Fixing presentation/dist/theme/serif.css
Fixing presentation/dist/theme/solarized.css
Fixing presentation/dist/theme/night.css
Fixing presentation/dist/theme/white.css
Fixing presentation/dist/theme/simple.css
Fixing presentation/dist/theme/league.css
Fixing presentation/dist/reveal.css

Trim Trailing Whitespace.....Passed

```

```
~/code/ [REDACTED] [REDACTED] [REDACTED] git commit
isort.....Passed
flynt.....Passed
black.....Passed
flake8.....Passed
bandit.....Passed
mypy.....Passed
Fix End of Files.....Passed
Trim Trailing Whitespace.....Passed
```

```
~/code/pre-commit  pysprings-pre-commit  main  git commit -m "Add updated css files and usage"
git isort.....(no files to check)Skipped
flynt.....(no files to check)Skipped
black.....(no files to check)Skipped
flake8.....(no files to check)Skipped
bandit.....(no files to check)Skipped
mypy.....(no files to check)Skipped
Fix End of Files.....pPassed
Trim Trailing Whitespace.....usPassed
h[main 7226ce6] Add updated css files and usage
 14 files changed, 20 insertions(+), 13 deletions(-)
 create mode 100644 presentation/images/git_commit_fail.png
```

CONTINUOUS INTEGRATION

```
pre-commit run --all-files
```

Q&A



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github.com/arthurio/pre-commit