

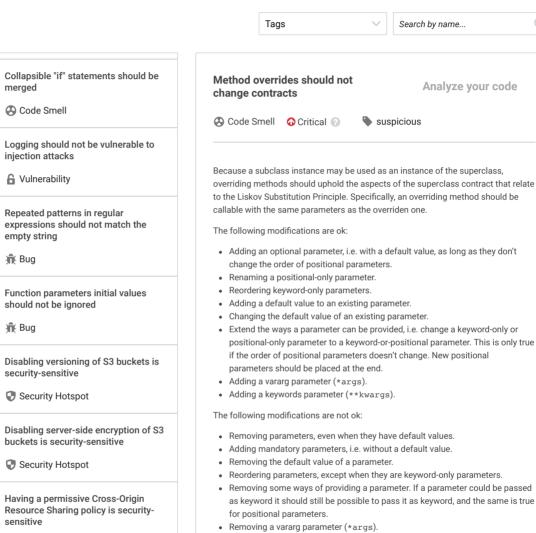
Creating cookies without the "secure"

flag is security-sensitive Security Hotspot



Unique rules to find Bugs, Vulnerabilities, Security Hotspots, and Code Smells in your PYTHON code





Removing a keywords parameter (\*\*kwargs). This rule raises an issue when the signature of an overriding method does not

accept the same parameters as the overriden one. Only instance methods are considered, class methods and static methods are ignored.

## Noncompliant Code Example

```
class ParentClass(object):
    def mymethod(self, param1):
        pass
class ChildClassMore(ParentClass):
    def mymethod(self, param1, param2, param3): # Noncomplia
        # Remove parameter "param2" or provide a default val
        # Remove parameter "param3" or provide a default val
        pass
class ChildClassLess(ParentClass):
    def mymethod(self): # Noncompliant. Add missing paramete
        pass
class ChildClassReordered(ParentClass):
```

Using hardcoded IP addresses is security-sensitive

Security Hotspot

Regular expression quantifiers and character classes should be used concisely

Code Smell

Character classes should be preferred over reluctant quantifiers in regular expressions

Code Smell

A subclass should not be in the same "except" statement as a parent class

```
def mymethod(self, inserted, param1): # Noncompliant
    # Remove parameters "inserted" or provide a default
    pass
```

## **Compliant Solution**

```
class ParentClass(object):
    def mymethod(self, param1):
        pass

class ChildClassMore(ParentClass):
    def mymethod(self, param1, param2=None, param3=None):
        pass

class ChildClassLess(ParentClass):
    def mymethod(self, param1=None):
        pass

class ChildClassReordered(ParentClass):
    def mymethod(self, param1, inserted=None):
        pass
```

## Exceptions

In theory renaming parameters also breaks Liskov Substitution Principle.

Arguments can't be passed via keyword arguments anymore. However, as PEP-570

says, it is common to rename parameters when it improves code readability and when arguments are always passed by position.

"Positional-Only Parameters" were introduced in python 3.8 to solve this problem. As most programs will need to support older versions of python, this rule won't raise an issue on renamed parameters.

```
class ParentClass(object):
    def mymethod(self, param1):
        pass

class ChildClassRenamed(ParentClass):
    def mymethod(self, renamed): # No issue but this is susp
        pass
```

## See

- Wikipedia Liskov substitution principle
- Python Enhancement Proposal (PEP) 3102 Keyword-Only Arguments
- Python Enhancement Proposal (PEP) 570 Python Positional-Only Parameters

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