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# Swift static code analysis

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

All rules 119 | Vulnerability 3 | Bug 14 | Security Hotspot 3 | Code Smell 99

Tags

Search by name...

Hard-coded credentials are security-sensitive
Security Hotspot

Methods and field names should not be the same or differ only by capitalization
Code Smell

Cipher algorithms should be robust
Vulnerability

Using weak hashing algorithms is security-sensitive
Security Hotspot

Cognitive Complexity of functions should not be too high
Code Smell

"try!" should not be used
Code Smell

String literals should not be duplicated
Code Smell

Functions and closures should not be empty
Code Smell

Collection elements should not be replaced unconditionally
Bug

Collection sizes comparisons should make sense
Bug

All branches in a conditional structure should not have exactly the same implementation
Bug

Infix operators that end with "=" should update their left operands
Bug

Precedence and associativity of standard operators should not be changed

## Backticks should not be used around symbol names

Analyze your code

Code Smell | Major | pitfall

You can’t create a variable named "for". Unless you put backticks (`) around it.

Since that would be the first step down a slippery slope of hopeless confusion, backticks should be removed from identifier names - whether they’re keywords or not - and the identifiers renamed as required.

### Noncompliant Code Example

```
var `for` = 1   // Noncompliant
for (var `in` = 0; `in` < 10 && `for` > 0; `in`++) {  //
  // ...
}

var `x` = "hello"  // Noncompliant; why would you do thi
```

### Compliant Solution

```
var i = a
for (var j=0; j< 10; j++) {
  // ...
}

var x = "hello"
```

### Exceptions

When Objective-C libraries are used in Swift, backticks may be needed around parameter names which are keywords in Swift but not in Objective C. Therefore this rule ignores backticks around parameter names.

```
var protectionSpace: NSURLProtectionSpace = NSURLProtect
  host: host,
  port: port,
  `protocol`: prot,  // Compliant
  realm: nil,
  authenticationMethod: authenticationMethod
);
```

Available In:

sonarlint | sonarcloud | sonarqube Developer Edition

Bug

**Return values from functions without side effects should not be ignored**

Bug

**Related "if/else if" statements and "cases" in a "switch" should not have the same condition**

Bug

**Identical expressions should not be used on both sides of a binary operator**

Bug

**All code should be reachable**

Bug

**Loops with at most one iteration should be refactored**

Bug

**"IBInspectable" should be used correctly**

Code Smell

**Functions should not have identical implementations**

Code Smell

**Ternary operators should not be nested**

Code Smell

**Closure expressions should not be nested too deeply**

Code Smell

**Backticks should not be used around**