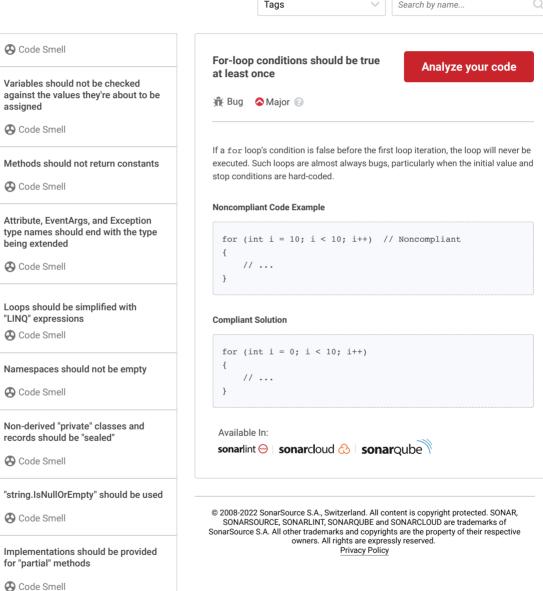# C# static code analysis

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

| All rules 409 | 🔒 Vulnerability 34 | 🐛 Bug 76 | 🛡 Security Hotspot 28 | ⊕ Code Smell 271 | ⚡ Quick Fix 52 |

Sidebar:
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- COBOL COBOL
- C# **C#**
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- JS JavaScript
- Kotlin
- Objective C
- PHP PHP
- PL/I PL/I
- PL/SQL PL/SQL
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- Text
- TS TypeScript
- T-SQL
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- VB6 VB6
- XML XML

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Rules list (left column):

⊗ Code Smell

Variables should not be checked against the values they're about to be assigned

⊗ Code Smell

Methods should not return constants

⊗ Code Smell

Attribute, EventArgs, and Exception type names should end with the type being extended

⊗ Code Smell

Loops should be simplified with "LINQ" expressions

⊗ Code Smell

Namespaces should not be empty

⊗ Code Smell

Non-derived "private" classes and records should be "sealed"

⊗ Code Smell

"string.IsNullOrEmpty" should be used

⊗ Code Smell

Implementations should be provided for "partial" methods

⊗ Code Smell

Duplicate casts should not be made

⊗ Code Smell

Methods should not return values that are never used

⊗ Code Smell

Caller information arguments should not be provided explicitly

⊗ Code Smell

Method calls should not resolve

For-loop conditions should be true at least once

Analyze your code

🐛 Bug   🔺 Major ⓘ

If a `for` loop's condition is false before the first loop iteration, the loop will never be executed. Such loops are almost always bugs, particularly when the initial value and stop conditions are hard-coded.

Noncompliant Code Example

```
for (int i = 10; i < 10; i++)  // Noncompliant
{
    // ...
}
```

Compliant Solution

```
for (int i = 0; i < 10; i++)
{
    // ...
}
```

Available In:

sonarlint 😣 | sonarcloud ☁ | sonarqube 📡

ambiguously to overloads with "params"

⊗ Code Smell

"catch" clauses should do more than rethrow

⊗ Code Smell

Generic exceptions should not be ignored

⊗ Code Smell

Mutable fields should not be "public static"

⊗ Code Smell