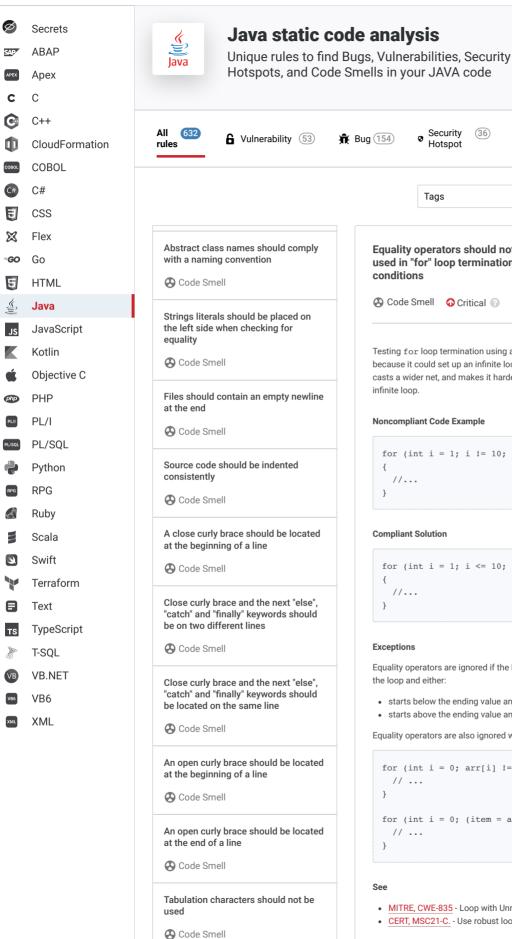
Security

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# Bug (154)
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Equality operators should not be
used in "for" loop termination
                                                Analyze your code
conditions
cwe cert suspicious
Testing for loop termination using an equality operator (== and !=) is dangerous,
because it could set up an infinite loop. Using a broader relational operator instead
casts a wider net, and makes it harder (but not impossible) to accidentally write an
infinite loop.
Noncompliant Code Example
  for (int i = 1; i != 10; i += 2) // Noncompliant. Infinite;
    //...
Compliant Solution
  for (int i = 1; i <= 10; i += 2) // Compliant
    //...
Exceptions
Equality operators are ignored if the loop counter is not modified within the body of
the loop and either:
 • starts below the ending value and is incremented by 1 on each iteration.
 • starts above the ending value and is decremented by 1 on each iteration.
Equality operators are also ignored when the test is against null.
  for (int i = 0; arr[i] != null; i++) {
```

for (int i = 0; (item = arr[i]) != null; i++) {

• MITRE, CWE-835 - Loop with Unreachable Exit Condition ('Infinite Loop')

CERT, MSC21-C. - Use robust loop termination conditions

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Available In:

Functions should not be defined with

a variable number of arguments

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Local-Variable Type Inference should be used

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Migrate your tests from JUnit4 to the new JUnit5 annotations

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Track uses of disallowed classes

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Track uses of "@SuppressWarnings" annotations

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