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Java static code analysis

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

All rules 632 | Vulnerability 53 | Bug 154 | Security Hotspot 36 | Code Smell 389 | Quick Fix 42

Tags | Search by name...

Abstract class names should comply with a naming convention
Code Smell

Strings literals should be placed on the left side when checking for equality
Code Smell

Files should contain an empty newline at the end
Code Smell

Source code should be indented consistently
Code Smell

A close curly brace should be located at the beginning of a line
Code Smell

Close curly brace and the next "else", "catch" and "finally" keywords should be on two different lines
Code Smell

Close curly brace and the next "else", "catch" and "finally" keywords should be located on the same line
Code Smell

An open curly brace should be located at the beginning of a line
Code Smell

An open curly brace should be located at the end of a line
Code Smell

Tabulation characters should not be used
Code Smell

Functions should not be defined with a variable number of arguments
Code Smell

Classes that don't define "hashCode()" should not be used in hashes

Analyze your code

Bug Major

Because `Object` implements `hashCode`, any Java class can be put into a hash structure. However, classes that define `equals(Object)` but not `hashCode()` aren't truly hash-able because instances that are equivalent according to the `equals` method can return different hashes.

Noncompliant Code Example

```
public class Student {  // no hashCode() method; not hash-ab
  // ...

  public boolean equals(Object o) {
    // ...
  }
}

public class School {
  private Map<Student, Integer> studentBody = // okay so far
          new HashTable<Student, Integer>(); // Noncompliant

  // ...
```

Compliant Solution

```
public class Student {  // has hashCode() method; hash-able
  // ...

  public boolean equals(Object o) {
    // ...
  }
  public int hashCode() {
    // ...
  }
}

public class School {
  private Map<Student, Integer> studentBody = new HashTable<

  // ...
```

Available In:

sonarlint | sonarcloud | sonarqube

Local-Variable Type Inference should be used

Code Smell

Migrate your tests from JUnit4 to the new JUnit5 annotations

Code Smell

Track uses of disallowed classes

Code Smell

Track uses of "@SuppressWarnings" annotations

Code Smell