**sonar RULES**

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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...

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Inheritance tree of classes should not be too deep

⊚ Code Smell

Nested blocks of code should not be left empty

⊚ Code Smell

Methods should not have too many parameters

⊚ Code Smell

Unused "private" fields should be removed

⊚ Code Smell

Collapsible "if" statements should be merged

⊚ Code Smell

Unused labels should be removed

⊚ Code Smell

Standard outputs should not be used directly to log anything

⊚ Code Smell

OS commands should not be vulnerable to argument injection attacks

🔒 Vulnerability

"ActiveMQConnectionFactory" should not be vulnerable to malicious code deserialization

🔒 Vulnerability

Logging should not be vulnerable to injection attacks

🔒 Vulnerability

Exceptions should not be thrown from servlet methods

🔒 Vulnerability

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## "notifyAll" should be used

**Analyze your code**

🐛 Bug    🔺 Major ⑦    Quick Fix ⑦    🏷 multi-threading  cert

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`notify` and `notifyAll` both wake up sleeping threads, but `notify` only rouses one, while `notifyAll` rouses all of them. Since `notify` might not wake up the right thread, `notifyAll` should be used instead.

**Noncompliant Code Example**

```
class MyThread extends Thread{

  @Override
  public void run(){
    synchronized(this){
      // ...
      notify();  // Noncompliant
    }
  }
}
```

**Compliant Solution**

```
class MyThread extends Thread{

  @Override
  public void run(){
    synchronized(this){
      // ...
      notifyAll();
    }
  }
}
```

**See**

- CERT, THI02-J. - Notify all waiting threads rather than a single thread

Available In:

sonarlint ⊝ | sonarcloud ⌬ | sonarqube ⦚

**Return values should not be ignored when they contain the operation status code**

🐞 Bug

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**Repeated patterns in regular expressions should not match the empty string**

🐞 Bug

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**AssertJ assertions "allMatch" and "doesNotContains" should also test for emptiness**

🐞 Bug

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**Double Brace Initialization should not be used**