

# PMD Rulesets index: Current Rulesets

List of rulesets and rules contained in each ruleset.

- **Android:** These rules deal with the Android SDK, mostly related to best practices. To get better results, make sure that the auxclasspath is defined for type resolution to work.
- **Basic:** The Basic ruleset contains a collection of good practices which should be followed.
- **Braces:** The Braces ruleset contains rules regarding the use and placement of braces.
- **Clone Implementation:** The Clone Implementation ruleset contains a collection of rules that find questionable usages of the clone() method.
- **Code Size:** The Code Size ruleset contains rules that find problems related to code size or complexity.
- **Comments:** Rules intended to catch errors related to code comments
- **Controversial:** The Controversial ruleset contains rules that, for whatever reason, are considered controversial. They are held here to allow people to include them as they see fit within their custom rulesets.
- **Coupling:** Rules which find instances of high or inappropriate coupling between objects and packages.
- **Design:** The Design ruleset contains rules that flag suboptimal code implementations. Alternate approaches are suggested.
- **Empty Code:** The Empty Code ruleset contains rules that find empty statements of any kind (empty method, empty block statement, empty try or catch block, ...).
- **Finalizer:** These rules deal with different problems that can occur with finalizers.
- **Import Statements:** These rules deal with different problems that can occur with import statements.
- **J2EE:** Rules specific to the use of J2EE implementations.
- **Jakarta Commons Logging:** The Jakarta Commons Logging ruleset contains a collection of rules that find questionable usages of that framework.
- **JavaBeans:** The JavaBeans Ruleset catches instances of bean rules not being followed.
- **Java Logging:** The Java Logging ruleset contains a collection of rules that find questionable usages of the logger.
- **JUnit:** These rules deal with different problems that can occur with JUnit tests.
- **Migration:** Contains rules about migrating from one JDK version to another. Don't use these rules directly, rather, use a wrapper ruleset such as migrating\_to\_13.xml.
- **Naming:** The Naming Ruleset contains rules regarding preferred usage of names and identifiers.
- **Optimization:** These rules deal with different optimizations that generally apply to best practices.
- **Security Code Guidelines:** These rules check the security guidelines from Sun, published

at <http://java.sun.com/security/seccodeguide.html#gcg> 🌐

- **Strict Exceptions:** These rules provide some strict guidelines about throwing and catching exceptions.
- **String and StringBuffer:** These rules deal with different issues that can arise with manipulation of the String, StringBuffer, or StringBuilder instances.
- **Type Resolution:** These are rules which resolve java Class files for comparison, as opposed to a String
- **Unnecessary:** The Unnecessary Ruleset contains a collection of rules for unnecessary code.
- **Unused Code:** The Unused Code ruleset contains rules that find unused or ineffective code.

## Android (java)

- **CallSuperFirst:** Super should be called at the start of the method
- **CallSuperLast:** Super should be called at the end of the method
- **DoNotHardCodeSDCard:** Use Environment.getExternalStorageDirectory() instead of "/sdcard"

## Basic (java)

- **JumbledIncrementer:** Avoid jumbled loop incrementers - its usually a mistake, and is confusing even if intentional.
- **ForLoopShouldBeWhileLoop:** Some for loops can be simplified to while loops, this makes them more concise.
- **OverrideBothEqualsAndHashCode:** Override both public boolean Object.equals(Object other), and public int Object.hashCode(), or override neither. Even if you are inheriting a hashCode() from a parent class, consider implementing hashCode and explicitly delegating to your superclass.
- **DoubleCheckedLocking:** Partially created objects can be returned by the Double Checked Locking pattern when used in Java. An optimizing JRE may assign a reference to the baz variable before it creates the object thereference is intended to point to. For more details refer to: <http://www.javaworld.com/javaworld/jw-02-2001/jw-0209-double.html> 🌐 <http://www.cs.umd.edu/~pugh/java/memoryModel/DoubleCheckedLocking.html> 🌐
- **ReturnFromFinallyBlock:** Avoid returning from a finally block, this can discard exceptions.
- **UnconditionalIfStatement:** Do not use "if" statements whose conditionals are always true or always false.
- **BooleanInstantiation:** Avoid instantiating Boolean objects; you can reference Boolean.TRUE, Boolean.FALSE, or call Boolean.valueOf() instead.
- **CollapsibleIfStatements:** Sometimes two consecutive 'if' statements can be consolidated by separating their conditions with a boolean short-circuit operator.
- **ClassCastExceptionWithToArray:** When deriving an array of a specific class from your Collection, one should provide an array of the same class as the parameter of the toArray() method. Doing otherwise you will result in a ClassCastException.