

CodeNarc Report



CODENARC
Less Bugs Better Code

Report title:	
Date:	28 nov. 2013 18:52:44
Generated with:	CodeNarc v0.19

Summary by Package

Package	Total Files	Files with Violations	Priority 1	Priority 2	Priority 3
All Packages	25	22	-	54	7
grails-app/controllers/pastamanga	8	7	-	27	5
grails-app/domain/pastamanga	6	6	-	13	-
test/unit/pastamanga	11	9	-	14	2

Package: grails-app.controllers.pastamanga

➡ AnimeController.groovy

Rule Name	Priority	Line #	Source Line / Message
GrailsPublicControllerMethod	2	13	[SRC]def addAnimeToUser(Anime animeInstance){ [MSG]Violation in class AnimeController. The Grails controller has a public method addAnimeToUser. This should be a closure property or moved
GrailsPublicControllerMethod	2	34	[SRC]def index(Integer max) { [MSG]Violation in class AnimeController. The Grails controller has a public method index. This should be a closure property or

			<i>moved</i>
<u>GrailsPublicControllerMethod</u>	2	39	[SRC]def show(int id) { [MSG]Violation in class AnimeController. The Grails controller has a public method show. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	52	[SRC]def create() { [MSG]Violation in class AnimeController. The Grails controller has a public method create. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	57	[SRC]def save(Anime animeInstance) { [MSG]Violation in class AnimeController. The Grails controller has a public method save. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	79	[SRC]def edit(Anime animeInstance) { [MSG]Violation in class AnimeController. The Grails controller has a public method edit. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	84	[SRC]def update(Anime animeInstance) { [MSG]Violation in class AnimeController. The Grails controller has a public method update. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	107	[SRC]def delete(Anime animeInstance) { [MSG]Violation in class AnimeController. The Grails controller has a public method delete. This should be a closure property or moved

➡ ApiController.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsPublicControllerMethod</u>	2	17	[SRC]def index() { [MSG]Violation in class ApiController. The Grails controller has a public method index. This should be a closure

			<i>property or moved</i>
<u>UnusedImport</u>	3	7	[SRC]import groovyx.net.http.RESTClient [MSG]The [groovyx.net.http.RESTClient] import is never referenced
<u>UnusedImport</u>	3	8	[SRC]import groovyx.net.http.HttpResponseDecor ator [MSG]The [groovyx.net.http.HttpResponseDecorato r] import is never referenced
<u>MisorderedStaticImports</u>	3	11	[SRC]import static groovyx.net.http.ContentType.* [MSG]Static imports should appear before normal imports
<u>MisorderedStaticImports</u>	3	13	[SRC]import static groovyx.net.http.Method.* [MSG]Static imports should appear before normal imports

➡ EpisodeController.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>EmptyMethod</u>	2	5	[SRC]def index() { } [MSG]Violation in class EpisodeController. The method index is both empty and not marked with @Override
<u>GrailsPublicControllerMethod</u>	2	5	[SRC]def index() { } [MSG]Violation in class EpisodeController. The Grails controller has a public method index. This should be a closure property or moved

➡ LoginController.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>UnusedVariable</u>	2	92	[SRC]def username = session[UsernamePasswordAuthenticationFil..SERNA ME_KEY] [MSG]The variable [username] in class pastamanga.LoginController is not used

➡ RoleController.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsPublicControllerMethod</u>	2	13	[SRC]def index(Integer max) { [MSG]Violation in class RoleController. The Grails controller has a public method index. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	18	[SRC]def show(Role roleInstance) { [MSG]Violation in class RoleController. The Grails controller has a public method show. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	22	[SRC]def create() { [MSG]Violation in class RoleController. The Grails controller has a public method create. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	27	[SRC]def save(Role roleInstance) { [MSG]Violation in class RoleController. The Grails controller has a public method save. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	49	[SRC]def edit(Role roleInstance) { [MSG]Violation in class RoleController. The Grails controller has a public method edit. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	54	[SRC]def update(Role roleInstance) { [MSG]Violation in class RoleController. The Grails controller has a public method update. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	77	[SRC]def delete(Role roleInstance) { [MSG]Violation in class RoleController. The Grails controller has a public method delete. This should be a closure property or moved

➡ SecureController.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>UnusedImport</u>	3	4	[SRC]import grails.transaction.Transactional [MSG]The [grails.transaction.Transactional] import is never referenced

➡ UserController.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsPublicControllerMethod</u>	2	16	[SRC]def index(Integer max) { [MSG]Violation in class UserController. The Grails controller has a public method index. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	21	[SRC]def show(User userInstance) { [MSG]Violation in class UserController. The Grails controller has a public method show. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	25	[SRC]def create() { [MSG]Violation in class UserController. The Grails controller has a public method create. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	30	[SRC]def save(User userInstance) { [MSG]Violation in class UserController. The Grails controller has a public method save. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	55	[SRC]def edit(User userInstance) { [MSG]Violation in class UserController. The Grails controller has a public method edit. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	60	[SRC]def update(User userInstance) { [MSG]Violation in class UserController. The Grails controller has a public method update. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	83	[SRC]def delete(User userInstance)

			{ [MSG]Violation in class UserController. The Grails controller has a public method delete. This should be a closure property or moved
<u>GrailsPublicControllerMethod</u>	2	101	[SRC]def showAnime(Integer max) { [MSG]Violation in class UserController. The Grails controller has a public method showAnime. This should be a closure property or moved

Package: grails-app.domain.pastamanga

➡ Anime.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsDomainHasEquals</u>	2	4	[SRC]class Anime { [MSG]The domain class pastamanga.Anime should define an equals(Object) method
<u>GrailsDomainHasToString</u>	2	4	[SRC]class Anime { [MSG]The domain class pastamanga.Anime should define a toString() method
<u>GrailsDomainReservedSqlKeywordName</u>	2	8	[SRC]String date [MSG]'date' is a reserved SQL keyword and - as such - a problematic domain class' field name.

➡ Episode.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsDomainHasEquals</u>	2	3	[SRC]class Episode { [MSG]The domain class pastamanga.Episode should define an equals(Object) method

<u>GrailsDomainHasToString</u>	2	3	[SRC]class Episode { [MSG]The domain class pastamanga.Episode should define a toString() method
<u>GrailsDomainReservedSqlKeywordName</u>	2	6	[SRC]String date [MSG]'date' is a reserved SQL keyword and - as such - a problematic domain class' field name.

➡ Role.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsDomainHasEquals</u>	2	3	[SRC]class Role { [MSG]The domain class pastamanga.Role should define an equals(Object) method
<u>GrailsDomainHasToString</u>	2	3	[SRC]class Role { [MSG]The domain class pastamanga.Role should define a toString() method

➡ User.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsDomainHasEquals</u>	2	3	[SRC]class User { [MSG]The domain class pastamanga.User should define an equals(Object) method
<u>GrailsDomainHasToString</u>	2	3	[SRC]class User { [MSG]The domain class pastamanga.User should define a toString() method
<u>GrailsDomainWithServiceReference</u>	2	5	[SRC]transient springSecurityService [MSG]Violation in class pastamanga.User. Domain class User should not reference services (offending field: springSecurityService)

➡ UserAnime.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsDomainHasToString</u>	2	5	[SRC]class UserAnime implements Serializable { [MSG]The domain class pastamanga.UserAnime should define a toString() method

➡ UserRole.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>GrailsDomainHasToString</u>	2	5	[SRC]class UserRole implements Serializable { [MSG]The domain class pastamanga.UserRole should define a toString() method

Package: test.unit.pastamanga

➡ AnimeControllerSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>UnusedImport</u>	3	6	[SRC]import java.sql.Date; [MSG]The [java.sql.Date] import is never referenced
<u>UnusedImport</u>	3	8	[SRC]import javax.validation.constraints.AssertTrue; [MSG]The [javax.validation.constraints.AssertTrue] import is never referenced

➡ AnimeSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>UnusedVariable</u>	2	14	[SRC]def Anime01 = new Anime(name: "test01", category: "scar"..on) == true [MSG]The variable [Anime01] in class pastamanga.AnimeSpec is not used

➡ ApiControllerSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
EmptyMethod	2	12	[SRC]def setup() { [MSG]Violation in class ApiControllerSpec. The method setup is both empty and not marked with @Override
EmptyMethod	2	15	[SRC]def cleanup() { [MSG]Violation in class ApiControllerSpec. The method cleanup is both empty and not marked with @Override
EmptyMethod	2	18	[SRC]void "test something"() { [MSG]Violation in class ApiControllerSpec. The method test something is both empty and not marked with @Override

➡ EpisodeControllerSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
EmptyMethod	2	12	[SRC]def setup() { [MSG]Violation in class EpisodeControllerSpec. The method setup is both empty and not marked with @Override
EmptyMethod	2	15	[SRC]def cleanup() { [MSG]Violation in class EpisodeControllerSpec. The method cleanup is both empty and not marked with @Override
EmptyMethod	2	18	[SRC]void "test something"() { [MSG]Violation in class EpisodeControllerSpec. The method test something is both empty and not marked with @Override

➡ EpisodeSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
UnusedVariable	2	14	[SRC]def Episode01 = new Episode(name: "EpisodeTest01",nameAn..) == true [MSG]The variable [Episode01] in class pastamanga.EpisodeSpec is not used

➡ SecureControllerSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
-----------	----------	--------	-----------------------

<u>EmptyMethod</u>	2	12	[SRC]def setup() { [MSG]Violation in class SecureControllerSpec. The method setup is both empty and not marked with @Override
<u>EmptyMethod</u>	2	15	[SRC]def cleanup() { [MSG]Violation in class SecureControllerSpec. The method cleanup is both empty and not marked with @Override
<u>EmptyMethod</u>	2	18	[SRC]void "test something"() { [MSG]Violation in class SecureControllerSpec. The method test something is both empty and not marked with @Override

➡ UserAnimeSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>UnusedVariable</u>	2	16	[SRC]def UserAnime01 = new UserAnime(user: User01, anime: Anime01) == true; [MSG]The variable [UserAnime01] in class pastamanga.UserAnimeSpec is not used

➡ UserRoleSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>UnusedVariable</u>	2	16	[SRC]def UserRole01 = new UserRole(user: User01,role: Role01) == true [MSG]The variable [UserRole01] in class pastamanga.UserRoleSpec is not used

➡ UserSpec.groovy

Rule Name	Priority	Line #	Source Line / Message
<u>UnusedVariable</u>	2	14	[SRC]def User01 = new User(username: "UserTest01", password: ..lse) == true [MSG]The variable [User01] in class pastamanga.UserSpec is not used

Rule Descriptions

#	Rule Name	Description
1	AssertWithinFinallyBlock	Checks for <i>assert</i> statements within a <i>finally</i> block. An <i>assert</i> can throw an exception, hiding the original exception, if there is one.
2	AssignmentInConditional	An assignment operator (=) was used in a conditional test. This is usually a typo, and the comparison operator (==) was intended.
3	BigDecimalInstantiation	Checks for calls to the <i>BigDecimal</i> constructors that take a <i>double</i> parameter, which may result in an unexpected <i>BigDecimal</i> value.
4	BitwiseOperatorInConditional	Checks for bitwise operations in conditionals, if you need to do a bitwise operation then it is best practice to extract a temp variable.
5	BooleanGetBoolean	This rule catches usages of <code>java.lang.Boolean.getBoolean(String)</code> which reads a boolean from the System properties. It is often mistakenly used to attempt to read user input or parse a String into a boolean. It is a poor piece of API to use; replace it with <code>System.properties['prop']</code> .
6	BrokenNullCheck	Looks for faulty checks for null that can cause a <i>NullPointerException</i> .
7	BrokenOddnessCheck	The code uses <code>x % 2 == 1</code> to check to see if a value is odd, but this won't work for negative numbers (e.g., <code>(-5) % 2 == -1</code>). If this code is intending to check for oddness, consider using <code>x & 1 == 1</code> , or <code>x % 2 != 0</code> .
8	CatchArrayIndexOutOfBoundsException	Check the size of the array before accessing an array element rather than catching <i>ArrayIndexOutOfBoundsException</i> .
9	CatchError	Catching <i>Error</i> is dangerous; it can catch exceptions such as <i>ThreadDeath</i> and <i>OutOfMemoryError</i> .
10	CatchException	Catching <i>Exception</i> is often too broad or general. It should usually be restricted to framework or infrastructure code, rather than application code.
11	CatchIllegalMonitorStateException	Dubious catching of <i>IllegalMonitorStateException</i> . <i>IllegalMonitorStateException</i> is generally only thrown in case of a design flaw in your code (calling <code>wait</code> or <code>notify</code> on an object you do not hold a lock on).
12	CatchIndexOutOfBoundsException	Check that an index is valid before accessing an indexed element rather than catching <i>IndexOutOfBoundsException</i> .
13	CatchNullPointerException	Catching <i>NullPointerException</i> is never appropriate. It should be avoided in the first place with proper null checking, and it can mask underlying errors.
14	CatchRuntimeException	Catching <i>RuntimeException</i> is often too broad or general. It should usually be restricted to framework or infrastructure code, rather than application code.
15	CatchThrowable	Catching <i>Throwable</i> is dangerous; it can catch exceptions such

		as <i>ThreadDeath</i> and <i>OutOfMemoryError</i> .
16	ClassForName	Using <code>Class.forName(...)</code> is a common way to add dynamic behavior to a system. However, using this method can cause resource leaks because the classes can be pinned in memory for long periods of time.
17	ComparisonOfTwoConstants	Checks for expressions where a comparison operator or <i>equals()</i> or <i>compareTo()</i> is used to compare two constants to each other or two literals that contain only constant values., e.g.: <code>23 == 67</code> , <code>Boolean.FALSE != false</code> , <code>0.17 <= 0.99</code> , <code>"abc" > "ddd"</code> , <code>[a:1] <=> [a:2]</code> , <code>[1,2].equals([3,4])</code> or <code>[a:false, b:true].compareTo(['a':34.5, b:Boolean.TRUE])</code> .
18	ComparisonWithSelf	Checks for expressions where a comparison operator or <i>equals()</i> or <i>compareTo()</i> is used to compare a variable to itself, e.g.: <code>x == x</code> , <code>x != x</code> , <code>x <=> x</code> , <code>x < x</code> , <code>x ==> x</code> , <code>x.equals(x)</code> or <code>x.compareTo(x)</code> , where <i>x</i> is a variable.
19	ConfusingClassNameException	This class is not derived from another exception, but ends with 'Exception'. This will be confusing to users of this class.
20	ConstantAssertExpression	Checks for <i>assert</i> statements where the assert boolean condition expression is a constant or literal value.
21	ConstantIfExpression	Checks for <i>if</i> statements with a constant value for the if expression, such as <i>true</i> , <i>false</i> , <i>null</i> , or a literal constant value.
22	ConstantTernaryExpression	Checks for ternary expressions with a constant value for the boolean expression, such as <i>true</i> , <i>false</i> , <i>null</i> , or a literal constant value.
23	DeadCode	Dead code appears after a return statement or an exception is thrown. If code appears after one of these statements then it will never be executed and can be safely deleted.
24	DoubleNegative	There is no point in using a double negative, it is always positive. For instance <i>!!x</i> can always be simplified to <i>x</i> . And <i>!(!x)</i> can as well.
25	DuplicateCaseStatement	Check for duplicate <i>case</i> statements in a <i>switch</i> block, such as two equal integers or strings.
26	DuplicateImport	Duplicate import statements are unnecessary.
27	DuplicateMapKey	A map literal is created with duplicated key. The map entry will be overwritten.
28	DuplicateSetValue	A Set literal is created with duplicate constant value. A set cannot contain two elements with the same value.
29	EmptyCatchBlock	In most cases, exceptions should not be caught and ignored (swallowed).
30	EmptyClass	Reports classes without methods, fields or properties. Why would you need a class like this?
31	EmptyElseBlock	Empty <i>else</i> blocks are confusing and serve no purpose.

32	EmptyFinallyBlock	Empty <i>finally</i> blocks are confusing and serve no purpose.
33	EmptyForStatement	Empty <i>for</i> statements are confusing and serve no purpose.
34	EmptyIfStatement	Empty <i>if</i> statements are confusing and serve no purpose.
35	EmptyInstanceInitializer	An empty class instance initializer was found. It is safe to remove it.
36	EmptyMethod	A method was found without an implementation. If the method is overriding or implementing a parent method, then mark it with the <code>@Override</code> annotation.
37	EmptyStaticInitializer	An empty static initializer was found. It is safe to remove it.
38	EmptySwitchStatement	Empty <i>switch</i> statements are confusing and serve no purpose.
39	EmptySynchronizedStatement	Empty <i>synchronized</i> statements are confusing and serve no purpose.
40	EmptyTryBlock	Empty <i>try</i> blocks are confusing and serve no purpose.
41	EmptyWhileStatement	Empty <i>while</i> statements are confusing and serve no purpose.
42	EqualsAndHashCode	If either the <i>boolean equals(Object)</i> or the <i>int hashCode()</i> methods are overridden within a class, then both must be overridden.
43	EqualsOverloaded	The class has an equals method, but the parameter of the method is not of type Object. It is not overriding equals but instead overloading it.
44	ExceptionExtendsError	Errors are system exceptions. Do not extend them.
45	ExceptionNotThrown	Checks for an exception constructor call without a <i>throw</i> as the last statement within a catch block.
46	ExplicitGarbageCollection	Calls to <code>System.gc()</code> , <code>Runtime.getRuntime().gc()</code> , and <code>System.runFinalization()</code> are not advised. Code should have the same behavior whether the garbage collection is disabled using the option <code>-Xdisableexplicitgc</code> or not. Moreover, "modern" jvms do a very good job handling garbage collections. If memory usage issues unrelated to memory leaks develop within an application, it should be dealt with JVM options rather than within the code itself.
47	ForLoopShouldBeWhileLoop	A for loop without an init and update statement can be simplified to a while loop.
48	GrailsDomainHasEquals	Checks that Grails domain classes redefine <code>equals()</code> .
49	GrailsDomainHasToString	Checks that Grails domain classes redefine <code>toString()</code>
50	GrailsDomainReservedSqlKeywordName	Forbids usage of SQL reserved keywords as class or field names in Grails domain classes. Naming a domain class (or its field) with such a keyword causes SQL schema creation errors and/or redundant table/column name mappings.

51	GrailsDomainWithServiceReference	Checks that Grails domain classes do not have service classes injected.
52	GrailsDuplicateConstraint	Check for duplicate entry in domain class constraints
53	GrailsDuplicateMapping	Check for duplicate name in a domain class mapping
54	GrailsPublicControllerMethod	Checks for <i>public</i> methods on Grails controller classes. Static methods are ignored.
55	GrailsServletContextReference	Checks for references to the <i>servletContext</i> object from within Grails controller and taglib classes.
56	GrailsStatelessService	Checks for fields on Grails service classes. Grails service classes are singletons, by default, and so they should be reentrant and typically stateless. The <i>ignoreFieldNames</i> property (dataSource,scope,sessionFactory,transactional,*Service) specifies one or more field names that should be ignored. The <i>ignoreFieldTypes</i> property (null) specifies one or more field type names that should be ignored. Both can optionally contain wildcard characters ('*' or '?').
57	HardCodedWindowsFileSeparator	This rule finds usages of a Windows file separator within the constructor call of a File object. It is better to use the Unix file separator or use the File.separator constant.
58	HardCodedWindowsRootDirectory	This rule find cases where a <i>File</i> object is constructed with a windows-based path. This is not portable, and using the <i>File.listRoots()</i> method is a better alternative.
59	ImportFromSamePackage	An import of a class that is within the same package is unnecessary.
60	ImportFromSunPackages	Avoid importing anything from the 'sun.*' packages. These packages are not portable and are likely to change.
61	IntegerGetInteger	This rule catches usages of java.lang.Integer.getInteger(String, ...) which reads an Integer from the System properties. It is often mistakenly used to attempt to read user input or parse a String into an Integer. It is a poor piece of API to use; replace it with System.properties['prop'].
62	MisorderedStaticImports	Static imports should never be declared after nonstatic imports.
63	MissingNewInThrowStatement	A common Groovy mistake when throwing exceptions is to forget the new keyword. For instance, "throw RuntimeException()" instead of "throw new RuntimeException()". If the error path is not unit tested then the production system will throw a Method Missing exception and hide the root cause. This rule finds constructs like "throw RuntimeException()" that look like a new keyword was meant to be used but forgotten.
64	RandomDoubleCoercedToZero	The Math.random() method returns a double result greater than or equal to 0.0 and less than 1.0. If you coerce this result into an Integer or int, then it is coerced

		to zero. Casting the result to int, or assigning it to an int field is probably a bug.
65	RemoveAllOnSelf	Don't use <i>removeAll</i> to clear a collection. If you want to remove all elements from a collection c, use c.clear, not c.removeAll(c). Calling <i>c.removeAll(c)</i> to clear a collection is less clear, susceptible to errors from typos, less efficient and for some collections, might throw a <i>ConcurrentModificationException</i> .
66	ReturnFromFinallyBlock	Returning from a <i>finally</i> block is confusing and can hide the original exception.
67	ReturnNullFromCatchBlock	Returning <i>null</i> from a catch block often masks errors and requires the client to handle error codes. In some coding styles this is discouraged.
68	SwallowThreadDeath	Checks for code that catches ThreadDeath without re-throwing it.
69	ThrowError	Checks for throwing an instance of <i>java.lang.Error</i> .
70	ThrowException	Checks for throwing an instance of <i>java.lang.Exception</i> .
71	ThrowExceptionFromFinallyBlock	Throwing an exception from a <i>finally</i> block is confusing and can hide the original exception.
72	ThrowNullPointerException	Checks for throwing an instance of <i>java.lang.NullPointerException</i> .
73	ThrowRuntimeException	Checks for throwing an instance of <i>java.lang.RuntimeException</i> .
74	ThrowThrowable	Checks for throwing an instance of <i>java.lang.Throwable</i> .
75	UnnecessaryGroovyImport	A Groovy file does not need to include an import for classes from <i>java.lang</i> , <i>java.util</i> , <i>java.io</i> , <i>java.net</i> , <i>groovy.lang</i> and <i>groovy.util</i> , as well as the classes <i>java.math.BigDecimal</i> and <i>java.math.BigInteger</i> .
76	UnusedArray	Checks for array allocations that are not assigned or used, unless it is the last statement within a block.
77	UnusedImport	Imports for a class that is never referenced within the source file is unnecessary.
78	UnusedMethodParameter	This rule finds instances of method parameters not being used. It does not analyze private methods (that is done by the UnusedPrivateMethodParameter rule) or methods marked @Override.
79	UnusedObject	Checks for object allocations that are not assigned or used, unless it is the last statement within a block
80	UnusedPrivateField	Checks for private fields that are not referenced within the same class.
81	UnusedPrivateMethod	Checks for private methods that are not referenced within the same class.
82	UnusedPrivateMethodParam	Checks for parameters to private methods that are not

	eter	referenced within the method body.
83	UnusedVariable	Checks for variables that are never referenced. The <i>ignoreVariableNames</i> property (null) specifies one or more variable names that should be ignored, optionally containing wildcard characters ('*' or '?').