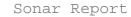


spring01 1.0

java:Sonar way xml:Sonar way 2020-02-13







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1. spring01

报告提供了项目指标的概要,显示了与项目质量相关的最重要的指标。如果需要获取更详细的信息,请登陆网站进一步查询。

报告的项目为spring01,生成时间为2020-02-13,使用的质量配置为 java:Sonar way xml:Sonar way,共计 385条规则。

1.1. 概述

编码问题

Bug	可靠性修复工作
0	0min

漏洞	安全修复工作
3	30min

坏味道	技术债务
22	2h33min

25	开启问题	25
问题	重开问题	0
1 3.4	确认问题	0
	误判问题	0
	不修复的问题	0
	已解决的问题	0
	已删除的问题	0
	阻断	0
	严重	0
	主要	17
	次要	8

提示

静态分析

项目规模

0



spring01

Sonar Report

201	行数	360
代码行数	方法	17
1043132	类	8
	文件	9
	目录	N/A
	重复行(%)	0.0

复杂度

16	类	N/A
复杂度	方法	N/A
~	文件	2.0

注释(%)

25.3注释行数68注释(%)

1.2. 问题分析

违反最多的规则TOP10	
Sections of code should not be commented out	8
Standard outputs should not be used directly to log anything	8
Throwable.printStackTrace() should not be called	3
Catches should be combined	2
Utility classes should not have public constructors	1
Unnecessary imports should be removed	1
The diamond operator ("<>") should be used	1
"@Deprecated" code should not be used	1

违规最多的文件TOP5		
BeanFactory.java	9	
AccountServiceImpl3.java	6	



Sonar Report



Client.java	5
AccountServiceImpl.java	2
AccountServiceImpl2.java	2

复杂度最高的文件TOP5		
AccountServiceImpl3.java	6	
AccountServiceImpl2.java	4	
AccountServiceImpl.java	2	
BeanFactory.java	2	
AccountDaoImpl.java	1	

重复行最多的文件TOP5	
No duplications	

1.3. 问题详情

规则	Sections	s of code should not be commented out			
规则描述		Programmers should not comment out code as it bloats programs and reduces readability. Unused code should be deleted and can be retrieved from source control history if required. See			
"C		MISRA C:2004, 2.4 - Sections of code should not be "commented out". MISRA C++:2008, 2-7-2 - Sections of code shall not be "commented out" using C-style comments. MISRA C++:2008, 2-7-3 - Sections of code should not be "commented out" using C++ comments. MISRA C:2012, Dir. 4.4 - Sections of code should not be "commented out"			
<u>~ //L /~ 7</u>	· L	\++\to\-			

文件名称	违规行
BeanFactory.java	59
AccountServiceImpl3.java	15
Client.java	17, 21, 31, 33
AccountServiceImpl.java	16
AccountServiceImpl2.java	16

规则 Standard outputs should not be used directly to log anything



Sonar Report



规则描述

When logging a message there are several important requirements which must be fulfilled:

The user must be able to easily retrieve the logs
The format of all logged message must be uniform to allow the
user to easily read the log
Logged data must actually be recorded
Sensitive data must only be logged securely

If a program directly writes to the standard outputs, there is absolutely no way to comply with those requirements. That's why defining and using a dedicated logger is highly recommended.

Noncompliant Code Example

System.out.println("My Message"); // Noncompliant

Compliant Solution

logger.log("My Message");

See

CERT, ERR02-J. - Prevent exceptions while logging data

文件名称	违规行
AccountServiceImpl3.java	45, 46, 47, 48, 49
AccountServiceImpl.java	29
AccountServiceImpl2.java	36
AccountDaoImpl.java	7

规则 Throwable.printStackTrace(...) should not be called



规则描述	Throwable.printStackTrace() prints a Throwable and its stack trace to some stream. By default that stream System.Err, which could inadvertently expose sensitive information. Loggers should be used instead to print Throwable s, as they have many advantages:
	Users are able to easily retrieve the logs. The format of log messages is uniform and allow users to browse the logs easily.
	This rule raises an issue when printStackTrace is used without arguments, i.e. when the stack trace is printed to the default stream. Noncompliant Code Example
	try { /* */ } catch(Exception e) { e.printStackTrace(); // Noncompliant }
	Compliant Solution
	try { /* */ } catch(Exception e) { LOGGER.log("context", e); }
	See
	OWASP Top 10 2017 Category A3 - Sensitive Data Exposure
	MITRE, CWE-489 - Leftover Debug Code
立	

文件名称	违规行
BeanFactory.iava	41, 43, 45

规则	Catches should be combined
12022	Catches should be combined



```
规则描述
                        Since Java 7 it has been possible to catch multiple exceptions at
                       once. Therefore, when multiple catch blocks have the same code,
                      they should be combined for better readability.

Note that this rule is automatically disabled when the project's sonar.java.source is lower than 7.

Noncompliant Code Example
                       catch (IOException e) {
  doCleanup();
  logger.log(e);
                       catch (SQLException e) { // Noncompliant
                        doCleanup();
logger.log(e);
                       catch (TimeoutException e) { // Compliant; block contents are
                       different
                        doCleanup();
                        throw e;
                        Compliant Solution
                       catch (IOException|SQLException e) {
  doCleanup();
                        logger.log(e);
                       catch (TimeoutException e) {
  doCleanup();
                        throw e;
```

文件名称	违规行
BeanFactory.java	42, 44

规则 Utility classes should not have public constructors



```
Utility classes, which are collections of static members, are not meant to be instantiated. Even abstract utility classes, which can be extended, should not have public constructors.

Java adds an implicit public constructor to every class which does not define at least one explicitly. Hence, at least one non-public
规则描述
                              constructor
                              should be defined.

Noncompliant Code Example
                              class StringUtils { // Noncompliant
                                public static String concatenate(String s1, String s2) {
                                 return s1 + s2;
                               Compliant Solution
                              class StringUtils { // Compliant
                                private StringUtils() {
  throw new IllegalStateException("Utility class");
                                public static String concatenate(String s1, String s2) {
                                  return s1 + s2;
                               Exceptions
                              When class contains public static void main(String[] args) method it is not considered as utility class and will be ignored by
                              this
                              rule.
```

·	
文件名称	违规行
BeanFactory.java	10

规则 Unnecessary imports should be removed



规则描述	The imports part of a file should be handled by the Integrated Development Environment (IDE), not manually by the developer. Unused and useless imports should not occur if that is the case. Leaving them in reduces the code's readability, since their presence can be confusing. Noncompliant Code Example	
	package my.company;	
	import java.lang.String; // Noncompliant; java.lang classes are always implicitly imported import my.company.SomeClass; // Noncompliant; same-package files are always implicitly imported import java.io.File; // Noncompliant; File is not used	
	import my.company2.SomeType; import my.company2.SomeType; // Noncompliant; 'SomeType' is already imported	
	class ExampleClass {	
	public String someString; public SomeType something;	
	}	
Exceptions Imports for types mentioned in comments, such as Javadociignored.		
文件名称	违规行	
Client.java	7	

规则 The diamond operator ("<>") should be used				
规则描述	Java 7 introduced the diamond operator (<>) to reduce the verbosity of generics code. For instance, instead of having to declare a List 's type in both its declaration and its constructor, you can now simplify the constructor declaration with <> , and the compiler will infer the type. Note that this rule is automatically disabled when the project's sonar.java.source is lower than 7. Noncompliant Code Example List < String > strings = new ArrayList < String > (); // Noncompliant Map < String, List < Integer >> map = new HashMap < String, List < Integer >> (); // Noncompliant Compliant Solution List < String > strings = new ArrayList <> (); Map < String, List < Integer >> map = new HashMap <> ();			
文 <i>此</i> 友称				
文件名称 违规行				
BeanFactory.java 21				



规则 "@Deprecated" code should not be used			
规则描述	Once deprecated, classes, and interfaces, and their members should be avoided, rather than used, inherited or extended. Deprecation is a warning that the class or interface has been superseded, and will eventually be removed. The deprecation period allows you to make a smooth transition away from the aging, soon-to-be-retired technology.		
	Noncompliant Code Example		
	/** * @deprecated As of release 1.3, replaced by {@link #Fee} */		
	@Deprecated public class Fum { }		
	public class Foo { /**		
	<pre>'* @deprecated As of release 1.7, replaced by {@link #doTheThingBetter()}</pre>		
	<pre>@Deprecated public void doTheThing() { }</pre>		
	<pre>public void doTheThingBetter() { } }</pre>		
	<pre>public class Bar extends Foo { public void doTheThing() { } // Noncompliant; don't override a deprecated method or explicitly mark it as @Deprecated }</pre>		
	public class Bar extends Fum { // Noncompliant; Fum is deprecated		
	<pre>public void myMethod() { Foo foo = new Foo(); // okay; the class isn't deprecated foo.doTheThing(); // Noncompliant; doTheThing method is deprecated }</pre>		
	}		
	See		
	MITRE, CWE-477 - Use of Obsolete Functions CERT, MET02-J Do not use deprecated or obsolete classes or methods		
文件名称	<u></u>		
BeanFactory.jav	a 38		

1.4. 质量配置

质量配置	java:Sonar way	Bug:109	漏洞:36	坏味道:206	
规则				类型	违规级别



		1
Methods should not call same-class methods with incompatible "@Transactional" values	Bug	阻断
Methods "wait()", "notify()" and "notifyAll()" should not be called on Thread instances	Bug	阻断
Files opened in append mode should not be used with ObjectOutputStream	Bug	阻断
"PreparedStatement" and "ResultSet" methods should be called with valid indices	Bug	阻断
"wait()" should be used instead of "Thread.sleep()" when a lock is held	Bug	阻断
Printf-style format strings should not lead to unexpected behavior at runtime	Bug	阻断
"@SpringBootApplication" and "@ComponentScan" should not be used in the default package	Bug	阻断
"@Controller" classes that use "@SessionAttributes" must call "setComplete" on their "SessionStatus" objects	Bug	阻断
Loops should not be infinite	Bug	阻断
"wait" should not be called when multiple locks are held	Bug	阻断
Double-checked locking should not be used	Bug	阻断
Resources should be closed	Bug	阻断
Locks should be released	Bug	严重
Jump statements should not occur in "finally" blocks	Bug	严重
"Random" objects should be reused	Bug	严重
Dependencies should not have "system" scope	Bug	严重
The signature of "finalize()" should match that of "Object.finalize()"	Bug	严重
"runFinalizersOnExit" should not be called	Bug	严重
"ScheduledThreadPoolExecutor" should not have 0 core threads	Bug	严重
Hibernate should not update database schemas	Bug	严重
"super.finalize()" should be called at the end of "Object.finalize()" implementations	Bug	严重
Zero should not be a possible denominator	Bug	严重
Getters and setters should access the expected fields	Bug	严重
"toString()" and "clone()" methods should not return null	Bug	主要
Servlets should not have mutable instance fields	Bug	主要
Value-based classes should not be used for locking	Bug	主要
Conditionally executed blocks should be reachable	Bug	主要
Overrides should match their parent class methods in synchronization	Bug	主要
"DefaultMessageListenerContainer" instances should not drop messages during restarts	Bug	主要



	ı	
Reflection should not be used to check non- runtime annotations	Bug	主要
"SingleConnectionFactory" instances should be set to "reconnectOnException"	Bug	主要
"hashCode" and "toString" should not be called on array instances	Bug	主要
Collections should not be passed as arguments to their own methods	Bug	主要
"BigDecimal(double)" should not be used	Bug	主要
Non-public methods should not be "@Transactional"	Bug	主要
Invalid "Date" values should not be used	Bug	主要
Non-serializable classes should not be written	Bug	主要
Optional value should only be accessed after calling isPresent()	Bug	主要
".equals()" should not be used to test the values of "Atomic" classes	Bug	主要
Blocks should be synchronized on "private final" fields	Bug	主要
"notifyAll" should be used	Bug	主要
Return values from functions without side effects should not be ignored	Bug	主要
Non-serializable objects should not be stored in "HttpSession" objects	Bug	主要
InputSteam.read() implementation should not return a signed byte	Bug	主要
"InterruptedException" should not be ignored	Bug	主要
Silly equality checks should not be made	Bug	主要
Dissimilar primitive wrappers should not be used with the ternary operator without explicit casting	Bug	主要
"wait", "notify" and "notifyAll" should only be called when a lock is obviously held on an object	Bug	主要
"Double.longBitsToDouble" should not be used for "int"	Bug	主要
Values should not be uselessly incremented	Bug	主要
Null pointers should not be dereferenced	Bug	主要
Expressions used in "assert" should not produce side effects	Bug	主要
Classes extending java.lang.Thread should override the "run" method	Bug	主要
Loop conditions should be true at least once	Bug	主要
A "for" loop update clause should move the counter in the right direction	Bug	主要
The Object.finalize() method should not be called	Bug	主要
Intermediate Stream methods should not be left unused	Bug	主要
Consumed Stream pipelines should not be reused	Bug	主要
Variables should not be self-assigned	Bug	主要
Inappropriate regular expressions should not be used	Bug	主要



"=+" should not be used instead of "+="	Bug	主要
Loops with at most one iteration should be	Bug	<u>工女</u> 主要
refactored	Dug	<u> </u>
Classes should not be compared by name	Bug	主要
Identical expressions should not be used on both sides of a binary operator	Bug	主要
"Thread.run()" should not be called directly	Bug	主要
"null" should not be used with "Optional"	Bug	主要
"read" and "readLine" return values should be used	Bug	主要
Strings and Boxed types should be compared using "equals()"	Bug	主要
Methods should not be named "tostring", "hashcode" or "equal"	Bug	主要
Non-thread-safe fields should not be static	Bug	主要
Getters and setters should be synchronized in pairs	Bug	主要
Unary prefix operators should not be repeated	Bug	主要
"StringBuilder" and "StringBuffer" should not be instantiated with a character	Bug	主要
Week Year ("YYYY") should not be used for date formatting	Bug	主要
"equals" method overrides should accept "Object" parameters	Bug	主要
Exception should not be created without being thrown	Bug	主要
Collection sizes and array length comparisons should make sense	Bug	主要
Related "if/else if" statements should not have the same condition	Bug	主要
Synchronization should not be based on Strings or boxed primitives	Bug	主要
All branches in a conditional structure should not have exactly the same implementation	Bug	主要
"Iterator.hasNext()" should not call "Iterator.next()"	Bug	主要
Raw byte values should not be used in bitwise operations in combination with shifts	Bug	主要
Custom serialization method signatures should meet requirements	Bug	主要
"Externalizable" classes should have no- arguments constructors	Bug	主要
"iterator" should not return "this"	Bug	主要
Child class methods named for parent class methods should be overrides	Bug	主要
Inappropriate "Collection" calls should not be made	Bug	主要
"compareTo" should not be overloaded	Bug	主要
"volatile" variables should not be used with compound operators	Bug	主要



Map values should not be replaced unconditionally "getClass" should not be used for synchronization Bug 主要 Min and max used in combination should not always return the same value "compareTo" results should not be checked for specific values Double Brace Initialization should not be used Boxing and unboxing should not be immediately reversed "Iterator.next()" methods should throw "NoSuchElementException" "@NonNull" values should not be set to null Neither "Math.abs" nor negation should be used on numbers that could be "MIN VALUE" The value returned from a stream read should be checked Method parameters, caught exceptions and foreach variables' initial values should not be ignored "equals(Object obj)" and "hashCode()" should be overridden in pairs "Serializable" inner classes of non-serializable classes should be 'static" Math operands should be cast before assignment linte prove that their number of bits-1 "compareTo" should not return "Integer.MIN VALUE" The non-serializable super class of a "Serializable" also should not return "Integer.MIN VALUE" The non-serializable super class of a "Serializable" also should have a no-argument constructor "Yea was should be passed an array of the proper type Non-primitive fields should not be "volatile" "Quals(Object obj)" should test argument type Non-primitive fields should not be "volatile" "Quals(Object obj)" should test argument type Databases should be password-protected Requals(Object obj) should be disabled Cryptographic keys should not be too short "Javax.crypto.NullCipher" should not be used for anything other than testing LDAP deserialization should be disabled Untrusted XML should be parsed with a local, static DTD "GeRequestMapping" methods should be "public" "QeRequestMapping" methods should be "public" "GeRequestMapping" methods should be "public" "GeRequestMapping" methods should be "public" "G			1 .
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Assertions should be complete		坏味道	阻断
"clone" should not be overridden	1	坏味道	阻断
	"clone" should not be overridden	坏味道	阻断



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"switch" statements should not contain non-case labels	坏味道	阻断
Methods returns should not be invariant	坏味道	阻断
Silly bit operations should not be performed	坏味道	阻断
Switch cases should end with an unconditional "break" statement	坏味道	阻断
Methods and field names should not be the same or differ only by capitalization	坏味道	阻断
JUnit test cases should call super methods	坏味道	阻断
TestCases should contain tests	坏味道	阻断
"ThreadGroup" should not be used	坏味道	阻断
Future keywords should not be used as names	坏味道	阻断
Short-circuit logic should be used in boolean contexts	坏味道	阻断
Constant names should comply with a naming convention	坏味道	严重
"default" clauses should be last	坏味道	严重
IllegalMonitorStateException should not be caught	坏味道	严重
Cognitive Complexity of methods should not be too high	坏味道	严重
Package declaration should match source file directory	坏味道	严重
Null should not be returned from a "Boolean" method	坏味道	严重
Instance methods should not write to "static" fields	坏味道	严重
String offset-based methods should be preferred for finding substrings from offsets	坏味道	严重
"indexOf" checks should not be for positive numbers	坏味道	严重
Factory method injection should be used in "@Configuration" classes	坏味道	严重
"Object.finalize()" should remain protected (versus public) when overriding	坏味道	严重
"Cloneables" should implement "clone"	坏味道	严重
Methods should not be empty	坏味道	严重
"Object.wait()" and "Condition.await()" should be called inside a "while" loop	坏味道	严重
"equals" method parameters should not be marked "@Nonnull"	坏味道	严重
Classes should not access their own subclasses during initialization	坏味道	严重
Exceptions should not be thrown in finally blocks	坏味道	严重
Method overrides should not change contracts	坏味道	严重
"for" loop increment clauses should modify the loops' counters	坏味道	严重
Constants should not be defined in interfaces	坏味道	严重
Generic wildcard types should not be used in return parameters	坏味道	严重



Execution of the Garbage Collector should be triggered only by the JVM	坏味道	严重
The Object.finalize() method should not be overriden	坏味道	严重
Conditionals should start on new lines	坏味道	严重
A conditionally executed single line should be denoted by indentation	坏味道	严重
Fields in a "Serializable" class should either be transient or serializable	坏味道	严重
"switch" statements should have "default" clauses	坏味道	严重
JUnit assertions should not be used in "run" methods	坏味道	严重
"readResolve" methods should be inheritable	坏味道	严重
String literals should not be duplicated	坏味道	严重
Class names should not shadow interfaces or superclasses	坏味道	严重
Try-with-resources should be used	坏味道	严重
Boolean expressions should not be gratuitous	坏味道	主要
Track uses of "FIXME" tags	坏味道	主要
Parameters should be passed in the correct order	坏味道	主要
"ResultSet.isLast()" should not be used	坏味道	主要
Nested blocks of code should not be left empty	坏味道	主要
"URL.hashCode" and "URL.equals" should be avoided	坏味道	主要
Methods should not have too many parameters	坏味道	主要
Try-catch blocks should not be nested	坏味道	主要
Generic exceptions should never be thrown	坏味道	主要
Synchronized classes Vector, Hashtable, Stack and StringBuffer should not be used	坏味道	主要
Classes with only "static" methods should not be instantiated	坏味道	主要
"Lock" objects should not be "synchronized"	坏味道	主要
Multiline blocks should be enclosed in curly braces	坏味道	主要
"static" members should be accessed statically	坏味道	主要
Utility classes should not have public constructors	坏味道	主要
Assertion arguments should be passed in the correct order	坏味道	主要
Unused type parameters should be removed	坏味道	主要
"switch" statements should not have too many "case" clauses	坏味道	主要
Unused "private" methods should be removed	坏味道	主要
Redundant pairs of parentheses should be removed	坏味道	主要
Ternary operators should not be nested	坏味道	主要
Inner class calls to super class methods should be unambiguous	坏味道	主要
Nullness of parameters should be guaranteed	坏味道	主要
Only static class initializers should be used	坏味道	主要



Unused "private" fields should be removed 坏味道 主要 Unused labels should be removed 坏味道 主要 Throwable and Error should not be caught 坏味道 主要 Printf-style format strings should be used correctly Printf-style format strings should be used to build hexadecimal strings Labels should not be used Constructors should not be used to instantiate "String", "BigInteger", "BigDecimal" and primitive-wrapper classes Enumeration should not be implemented 坏味道 主要 Empty arrays and collections should be returned instead of null Objects should not be boxed just for "String" 坏味道 主要 Primitives should not be boxed just for "String" conversion Exceptions should be either logged or rethrown but not both of und value are needed Assignments should not be made from within sub-expressions "Preconditions" and logging arguments should not require evaluation "Class forName()" should not load JDBC 4.0+		1134	\- <u>-</u>
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Unused labels should be removed	Unused "private" fields should be removed	· · · · —	
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"Stream.peek" should be used with caution	Inheritance tree of classes should not be too		
· · · = - · ·	•	坏味道	主要
<u> </u>	Unused "private" classes should be removed	坏味道	主要



A field should not duplicate the name of its containing class	坏味道	主要
Dead stores should be removed	坏味道	主要
"DateUtils.truncate" from Apache Commons Lang library should not be used	坏味道	主要
Local variables should not shadow class fields	坏味道	主要
"Thread.sleep" should not be used in tests	坏味道	主要
Anonymous inner classes containing only one method should become lambdas	坏味道	主要
Tests should not be ignored	坏味道	主要
Deprecated elements should have both the annotation and the Javadoc tag	坏味道	主要
"Object.wait()" should never be called on objects that implement "java.util.concurrent.locks.Condition"	坏味道	主要
Silly math should not be performed	坏味道	主要
Standard outputs should not be used directly to log anything	坏味道	主要
"writeObject" should not be the only "synchronized" code in a class	坏味道	主要
Classes named like "Exception" should extend "Exception" or a subclass	坏味道	主要
Static fields should not be updated in constructors	坏味道	主要
Exception types should not be tested using "instanceof" in catch blocks	坏味道	主要
Classes from "sun.*" packages should not be used	坏味道	主要
String function use should be optimized for single characters	坏味道	主要
"java.nio.Files#delete" should be preferred	坏味道	主要
Assignments should not be redundant	坏味道	主要
Methods should not have identical implementations	坏味道	主要
Asserts should not be used to check the parameters of a public method	坏味道	主要
Source files should not have any duplicated blocks	坏味道	主要
Field names should comply with a naming convention	坏味道	次要
Interface names should comply with a naming convention	坏味道	次要
Type parameter names should comply with a naming convention	坏味道	次要
Local variable and method parameter names should comply with a naming convention	坏味道	次要
Package names should comply with a naming convention	坏味道	次要
A "while" loop should be used instead of a "for" loop	坏味道	次要
"Collections.EMPTY_LIST", "EMPTY_MAP", and "EMPTY_SET" should not be used	坏味道	次要



Loggers should be named for their enclosing classes	坏味道	次要
Unnecessary imports should be removed	坏味道	次要
Return of boolean expressions should not be wrapped into an "if-then-else" statement	坏味道	次要
Boolean literals should not be redundant	坏味道	次要
Local variables should not be declared and then immediately returned or thrown	坏味道	次要
Deprecated "\${pom}" properties should not be used	坏味道	次要
Unused local variables should be removed	坏味道	次要
Catches should be combined	坏味道	次要
Null checks should not be used with "instanceof"	坏味道	次要
Methods of "Random" that return floating point values should not be used in random integer generation	坏味道	次要
"@CheckForNull" or "@Nullable" should not be used on primitive types	坏味道	次要
Public constants and fields initialized at declaration should be "static final" rather than merely "final"	坏味道	次要
Overriding methods should do more than simply call the same method in the super class	坏味道	次要
Static non-final field names should comply with a naming convention	坏味道	次要
Classes that override "clone" should be "Cloneable" and call "super.clone()"	坏味道	次要
Primitive wrappers should not be instantiated only for "toString" or "compareTo" calls	坏味道	次要
Case insensitive string comparisons should be made without intermediate upper or lower casing	坏味道	次要
Collection.isEmpty() should be used to test for emptiness	坏味道	次要
String.valueOf() should not be appended to a String	坏味道	次要
Method names should comply with a naming convention	坏味道	次要
Class names should comply with a naming convention	坏味道	次要
Exception classes should be immutable	坏味道	次要
Parsing should be used to convert "Strings" to primitives	坏味道	次要
"read(byte[],int,int)" should be overridden	坏味道	次要
Multiple variables should not be declared on the same line	坏味道	次要
"switch" statements should have at least 3 "case" clauses	坏味道	次要
Strings should not be concatenated using '+' in a loop	坏味道	次要
Maps with keys that are enum values should be replaced with EnumMap	坏味道	次要



"catch" clauses should do more than rethrow	坏味道	次要
Nested "enum"s should not be declared static	坏味道	次要
"equals(Object obj)" should be overridden along with the "compareTo(T obj)" method	坏味道	次要
Private fields only used as local variables in methods should become local variables	坏味道	次要
Arrays should not be created for varargs parameters	坏味道	次要
Methods should not return constants	坏味道	次要
The default unnamed package should not be used	坏味道	次要
Declarations should use Java collection interfaces such as "List" rather than specific implementation classes such as "LinkedList"	坏味道	次要
An iteration on a Collection should be performed on the type handled by the Collection	坏味道	次要
Jump statements should not be redundant	坏味道	次要
"StandardCharsets" constants should be preferred	坏味道	次要
Boolean checks should not be inverted	坏味道	次要
"close()" calls should not be redundant	坏味道	次要
"indexOf" checks should use a start position	坏味道	次要
Redundant casts should not be used	坏味道	次要
"ThreadLocal.withInitial" should be preferred	坏味道	次要
"@Deprecated" code should not be used	坏味道	次要
Abstract classes without fields should be converted to interfaces	坏味道	次要
"toString()" should never be called on a String object	坏味道	次要
Lambdas should be replaced with method references	坏味道	次要
Parentheses should be removed from a single lambda input parameter when its type is inferred	坏味道	次要
JUnit rules should be used	坏味道	次要
Annotation repetitions should not be wrapped	坏味道	次要
Lamdbas containing only one statement should not nest this statement in a block	坏味道	次要
Loops should not contain more than a single "break" or "continue" statement	坏味道	次要
Abstract methods should not be redundant	坏味道	次要
"private" methods called only by inner classes should be moved to those classes	坏味道	次要
Fields in non-serializable classes should not be "transient"	坏味道	次要
Composed "@RequestMapping" variants should be preferred	坏味道	次要
Empty statements should be removed	坏味道	次要
"write(byte[],int,int)" should be overridden	坏味道	次要
Nested code blocks should not be used	坏味道	次要



Array designators "[]" should be on the type, not the variable	坏味道	次要
URIs should not be hardcoded	坏味道	次要
"finalize" should not set fields to "null"	坏味道	次要
Array designators "[]" should be located after the type in method signatures	坏味道	次要
Subclasses that add fields should override "equals"	坏味道	次要
"throws" declarations should not be superfluous	坏味道	次要
The diamond operator ("<>") should be used	坏味道	次要
Modifiers should be declared in the correct order	坏味道	次要
"Stream" call chains should be simplified when possible	坏味道	次要
Functional Interfaces should be as specialised as possible	坏味道	次要
Packages containing only "package-info.java" should be removed	坏味道	次要
Classes should not be empty	坏味道	次要
Track uses of "TODO" tags	坏味道	提示
Deprecated code should be removed	坏味道	提示

<u>质量配置</u> xml:Sonar way Bug:1 坏味道:3		
规则	类型	违规级别
XML files containing a prolog header should start with " xml" characters</td <td>Bug</td> <td>严重</td>	Bug	严重
Track uses of "FIXME" tags	坏味道	主要
Sections of code should not be commented out	坏味道	主要
Track uses of "TODO" tags	坏味道	提示