

ΠΑΡΟΥΣΙΑΣΗ ΕΡΓΑΛΕΙΩΝ CHECKSTYLE, FINDBUGS, CODESHIP ΚΑΙ MAVEN

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Τμήμα Διοικητικής Επιστήμης και Τεχνολογίας

Ομάδα : **WebMasters**

**ΟΙΚΟΝΟΜΙΚΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ
ΑΘΗΝΩΝ**



ATHENS UNIVERSITY
OF ECONOMICS
AND BUSINESS

**ΣΧΟΛΗ
ΔΙΟΙΚΗΣΗΣ
ΕΠΙΧΕΙΡΗΣΕΩΝ**

SCHOOL OF
BUSINESS

**ΤΜΗΜΑ
ΔΙΟΙΚΗΤΙΚΗΣ
ΕΠΙΣΤΗΜΗΣ &
ΤΕΧΝΟΛΟΓΙΑΣ**

DEPARTMENT OF
MANAGEMENT
SCIENCE &
TECHNOLOGY

CHEKSTYLE

Λάθη που προέκυψαν



34

Line has trailing spaces.



42

Line is longer than 80 characters (found 88).



18

Multiple markers at this line

19

- Watchpoint:LinksEx [access and modification] - url
- Missing a Javadoc comment.

20



1+

File does not end with a newline.

CHEKSTYLE

Λάθη που προέκυψαν

95	Multiple markers at this line
96	- '-' is not preceded with whitespace.
97	- '-' is not followed by whitespace.
98	- '+' is not followed by whitespace.
99	- '6' is a magic number.
	- '+' is not preceded with whitespace.

106	Multiple markers at this line
107	- '(' is preceded with whitespace.
108	- Parameter linkToBeChecked should be final.

140	'}' at column 3 should be on the same line as the next part of a multi-block statement (one that directly contains multiple blocks: if/else-if/else, do/while or try/catch/finally).
-----	--

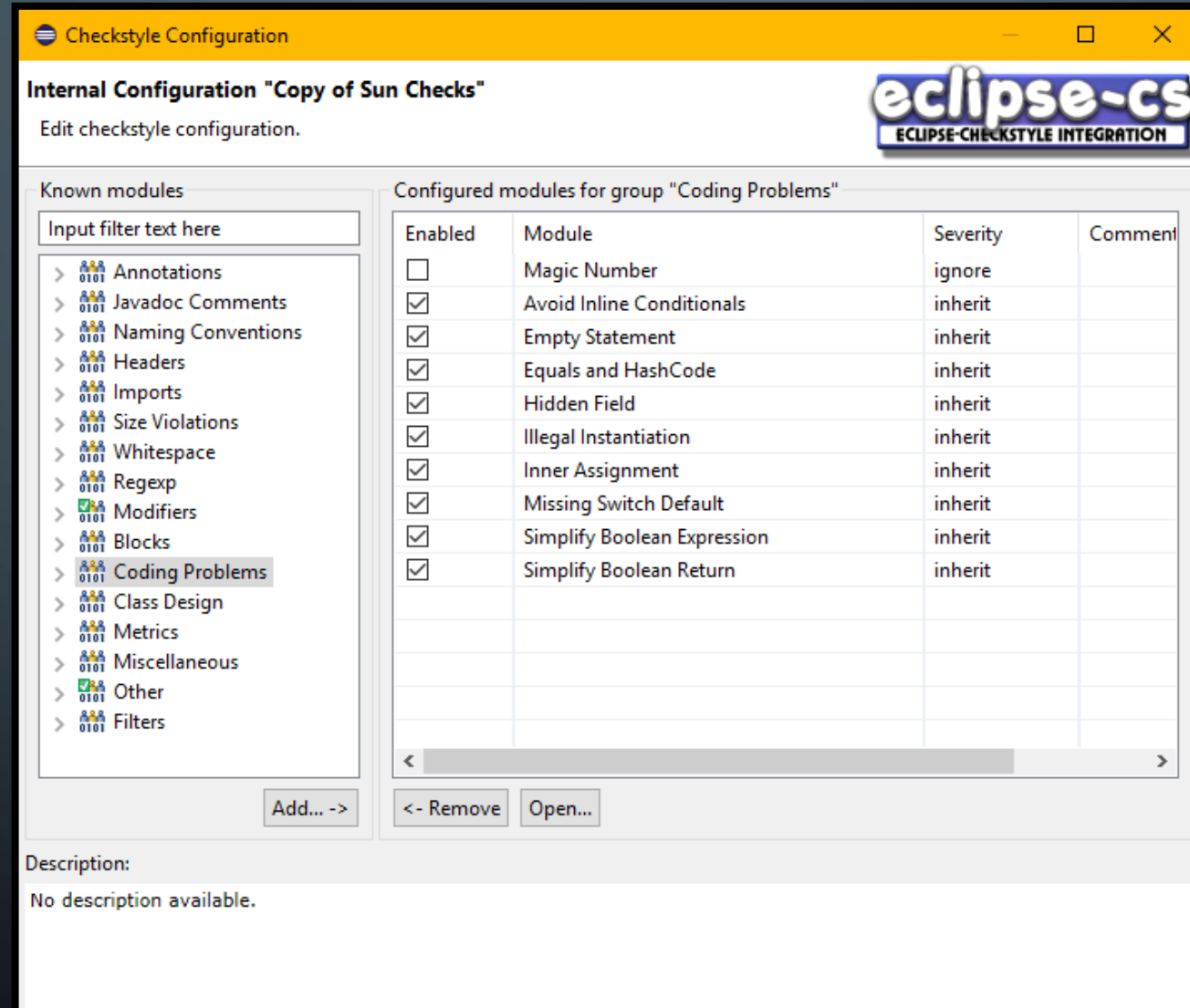
CHEKSTYLE

Λάθη που προέκυψαν

128	Multiple markers at this line <ul style="list-style-type: none">- 'for' is not followed by whitespace.- '<' is not preceded with whitespace.- '<' is not followed by whitespace.- '=' is not preceded with whitespace.- '=' is not followed by whitespace.
129	
130	
131	
132	

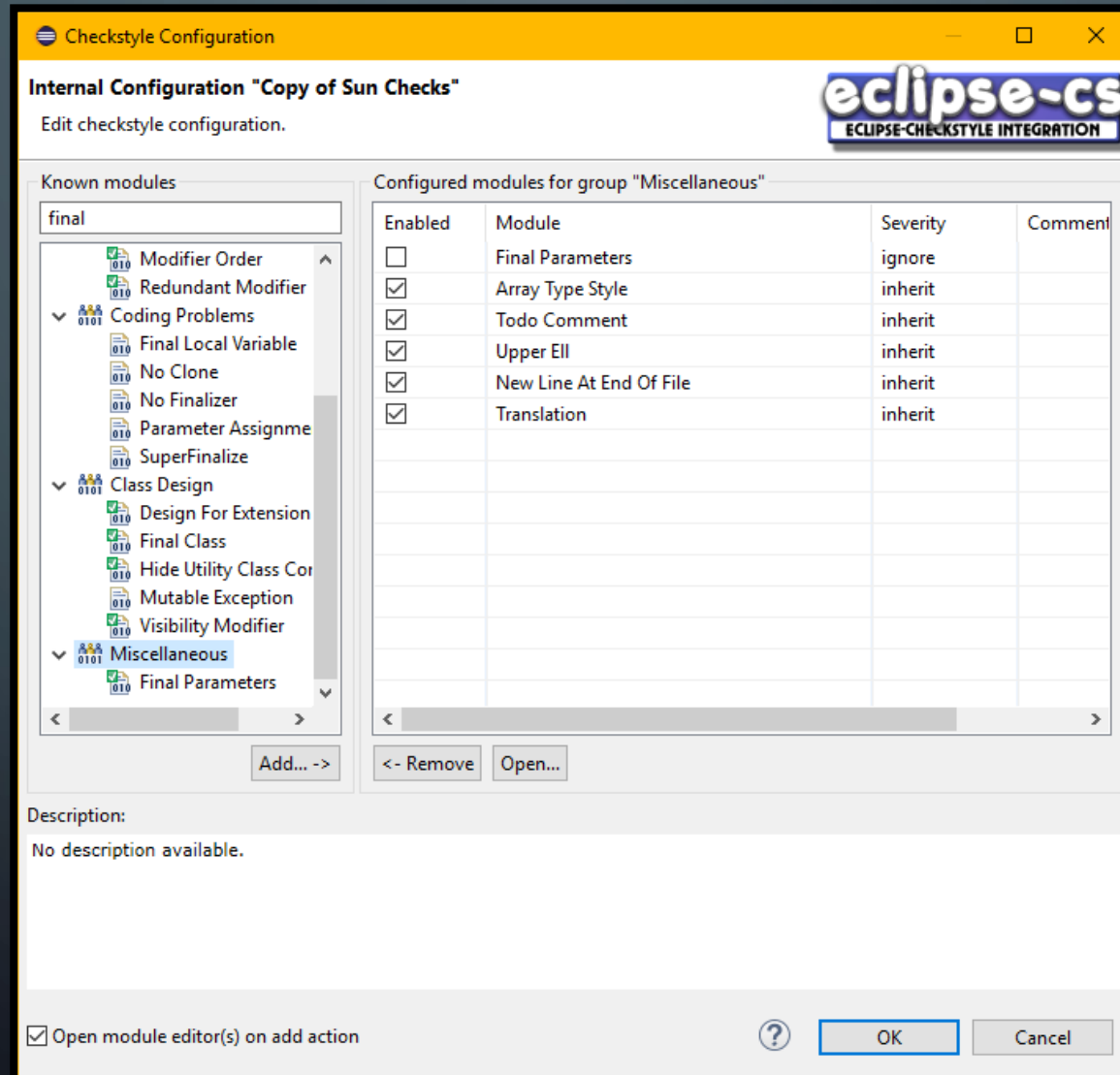
30	Multiple markers at this line <ul style="list-style-type: none">- Parameter url should be final.- 'url' hides a field.
31	
32	

Προσαρμογή των ρυθμίσεων (Αγνόηση «μαγικών αριθμών»)



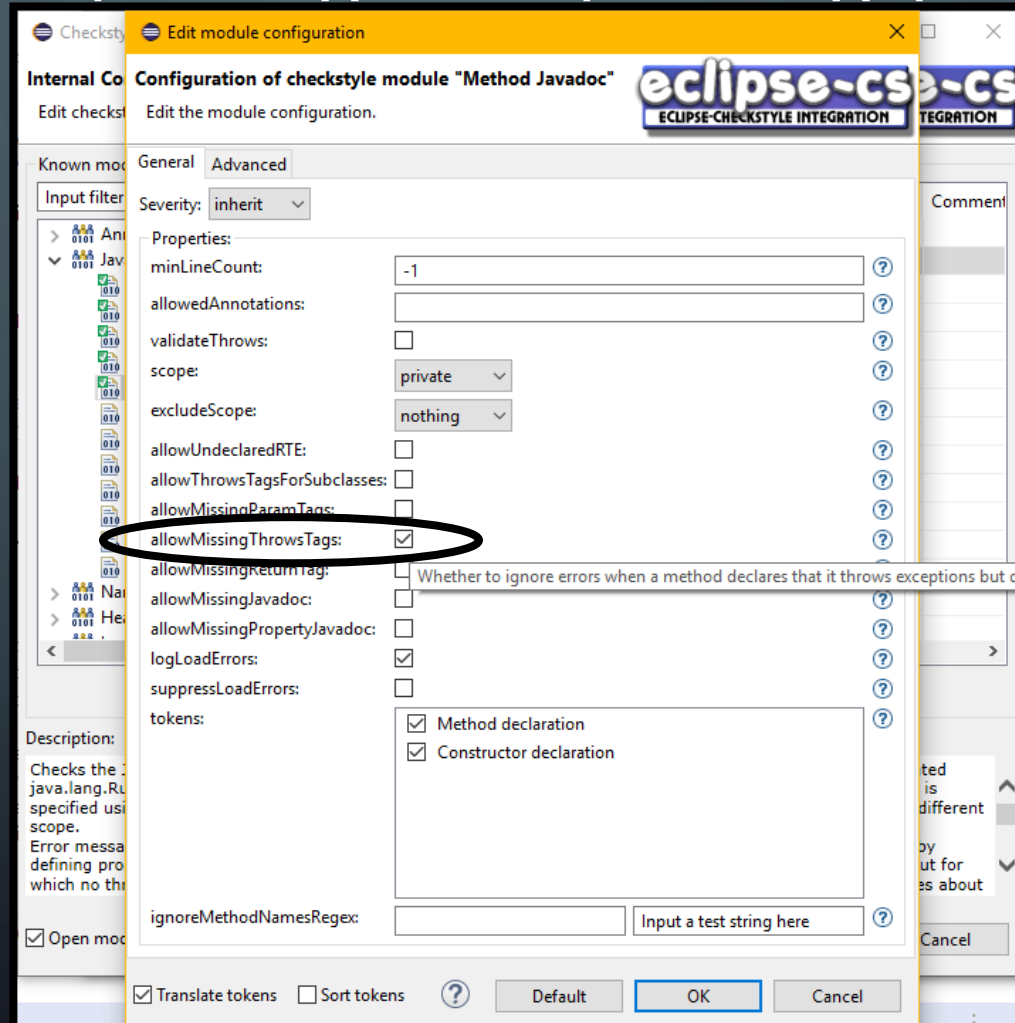
CHEKSTYLE

Προσαρμογή των ρυθμίσεων



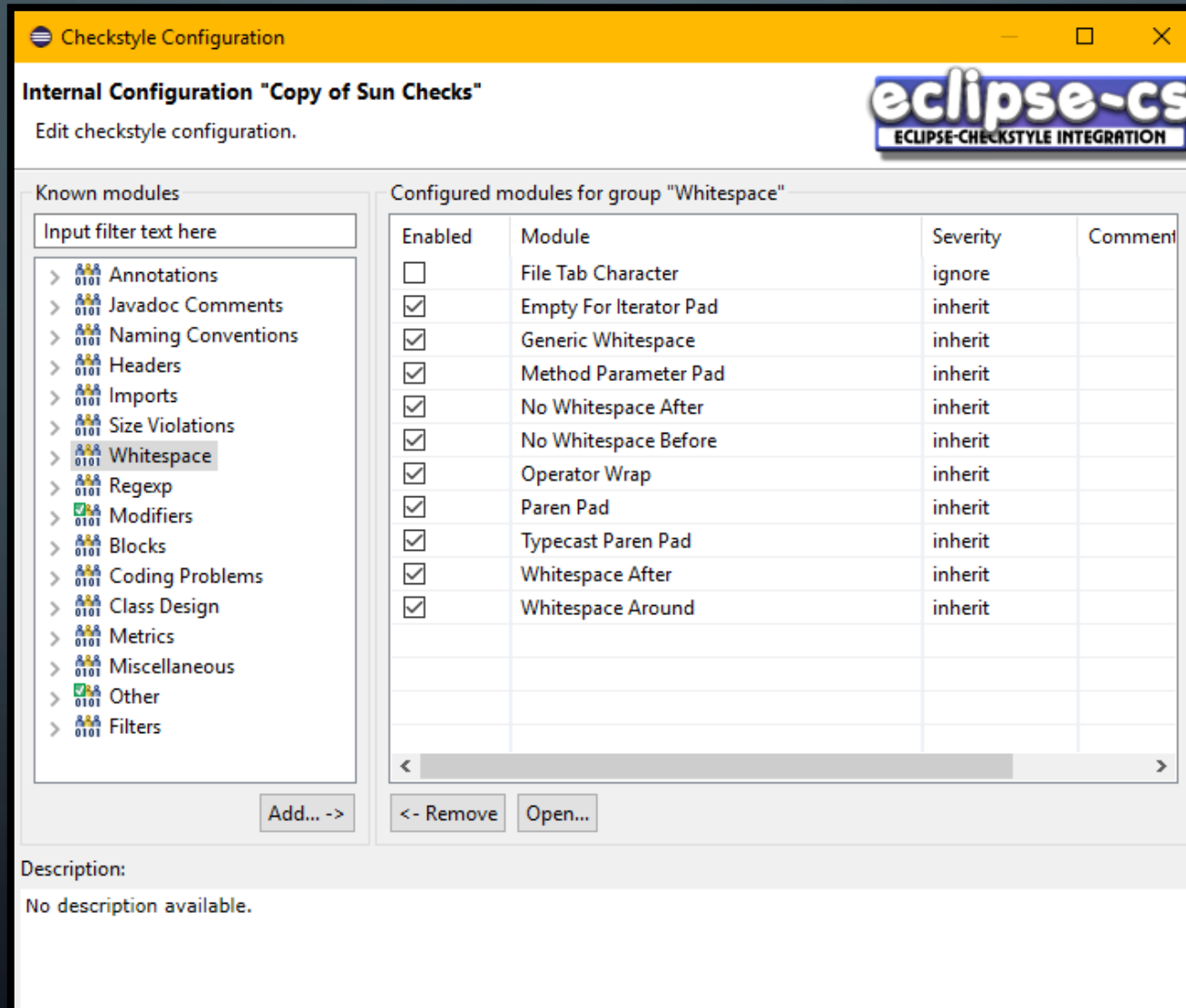
CHECKSTYLE

Προσαρμογή των ρυθμίσεων
(Αγνόηση ελλείψεων σχολίων για ενδεχόμενες εξαιρέσεις)



CHEKSTYLE

Προσαρμογή των ρυθμίσεων



The screenshot shows the 'Checkstyle Configuration' dialog box in Eclipse. The title bar is yellow and contains the text 'Checkstyle Configuration'. The main area is titled 'Internal Configuration "Copy of Sun Checks"' and includes a sub-header 'Edit checkstyle configuration.' and the 'eclipse-cs ECLIPSE-CHECKSTYLE INTEGRATION' logo. The dialog is divided into two main sections: 'Known modules' on the left and 'Configured modules for group "Whitespace"' on the right. The 'Known modules' section has a search bar 'Input filter text here' and a list of modules with expandable icons. The 'Configured modules' section is a table with columns 'Enabled', 'Module', 'Severity', and 'Comment'. At the bottom, there are buttons for 'Add... ->', '<- Remove', and 'Open...'. A 'Description:' section at the very bottom states 'No description available.'

Known modules

Input filter text here

- > Annotations
- > Javadoc Comments
- > Naming Conventions
- > Headers
- > Imports
- > Size Violations
- > Whitespace
- > Regexp
- > Modifiers
- > Blocks
- > Coding Problems
- > Class Design
- > Metrics
- > Miscellaneous
- > Other
- > Filters

Configured modules for group "Whitespace"

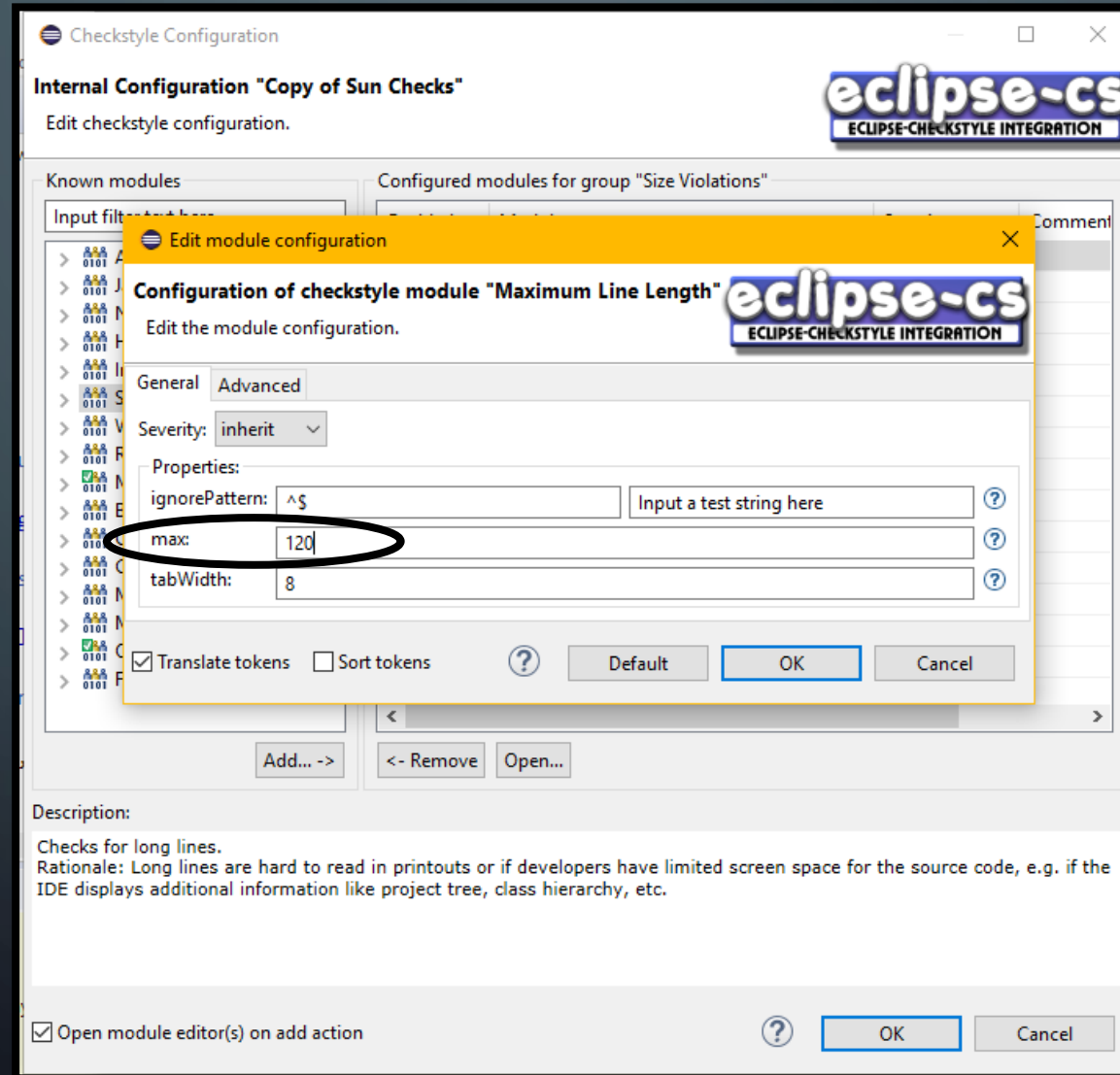
Enabled	Module	Severity	Comment
<input type="checkbox"/>	File Tab Character	ignore	
<input checked="" type="checkbox"/>	Empty For Iterator Pad	inherit	
<input checked="" type="checkbox"/>	Generic Whitespace	inherit	
<input checked="" type="checkbox"/>	Method Parameter Pad	inherit	
<input checked="" type="checkbox"/>	No Whitespace After	inherit	
<input checked="" type="checkbox"/>	No Whitespace Before	inherit	
<input checked="" type="checkbox"/>	Operator Wrap	inherit	
<input checked="" type="checkbox"/>	Paren Pad	inherit	
<input checked="" type="checkbox"/>	Typecast Paren Pad	inherit	
<input checked="" type="checkbox"/>	Whitespace After	inherit	
<input checked="" type="checkbox"/>	Whitespace Around	inherit	

Add... -> <- Remove Open...

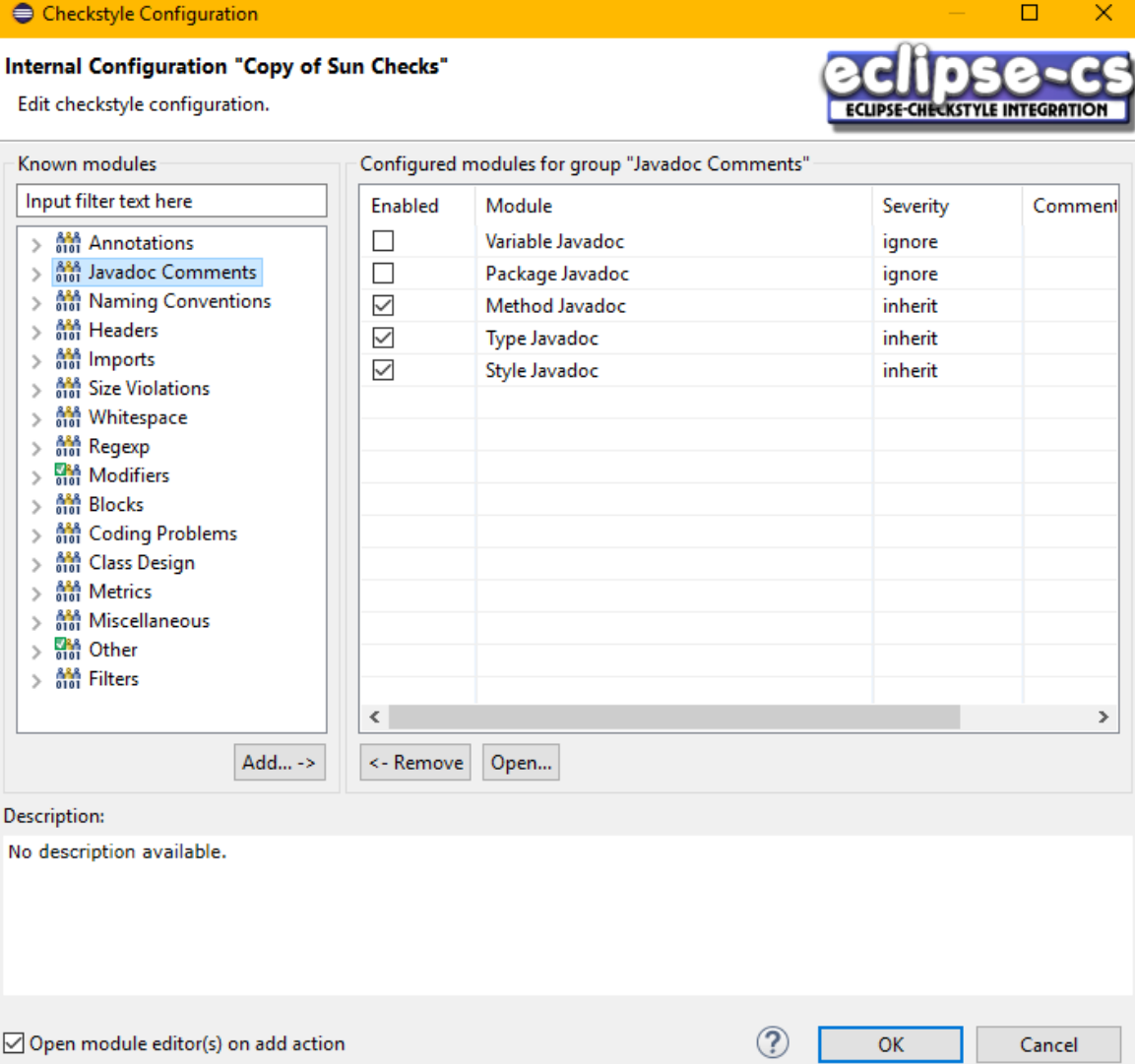
Description:
No description available.

CHECKSTYLE

Προσαρμογή των ρυθμίσεων (Μέγιστο μέγεθος γραμμής : 120 χαρ.)



Προσαρμογή των ρυθμίσεων (Αγνόηση σχολίων πακέτου και μεταβλητών)



FINDBUGS

The screenshot shows an IDE with a Java file named `DownloadHtml.java`. The code is as follows:

```
92  // return the name of the new folder created
93  */
94  private String nameFolder() {
95      String urlString = url.toString();
96      int position1 = urlString.indexOf("://www.");
97      int position2;
98
99      try {
100         // case link is something "http://listofrandom
101         if (position1 == -1) {
102             position1 = urlString.indexOf("://");
103             position2 = urlString.indexOf(".", 6);
104             return urlString.substring(position1 + 3,
105                                     position2);
106         } else {
107             position2 = urlString.indexOf(".", 12);
108             return urlString.substring(position1 + 7,
109                                     position2);
110         }
111     } catch (StringIndexOutOfBoundsException e) {
112         Random ran = new Random(RANDOM_WORDS.length -
113                                position1);
114         return RANDOM_WORDS[ran.nextInt()];
115     }
116 }
117
118 /**
119  * Method which helps to check if a folder exists.
120  * @param folderNameFile the name of the folder which
121  * @return true if the folder exists or false if the f
122  */
123 private boolean existsFolder(File folderNameFile) {
```

A FindBugs warning is circled on line 111. The warning details are shown in the Bug Explorer:

DownloadHtml.java: 111

Remainder of 32-bit signed random integer computed in `DownloadHtml.nameFolder()`

Bug: Remainder of 32-bit signed random integer computed in `DownloadHtml.nameFolder()`

This code generates a random signed integer and then computes the remainder of that value modulo another value. Since the random number can be negative, the result of the remainder operation can also be negative. Be sure this is intended, and strongly consider using the `Random.nextInt(int)` method instead.

Rank: Of Concern (15), **confidence:** High
Pattern: RV_REM_OF_RANDOM_INT
Type: RV, **Category:** STYLE (Dodgy code)

MAVEN

Αρχείο pom.xml

```
1 <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
2   xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
3   <modelVersion>4.0.0</modelVersion>
4
5   <groupId>com.webmasters.demo</groupId>
6   <version>1.0-SNAPSHOT</version>
7   <packaging>jar</packaging>
8
9   <name>WebCrawler</name>
10
11   <properties>
12     <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
13   </properties>
14
15   <dependencies>
16     <dependency>
17       <groupId>junit</groupId>
18       <artifactId>junit</artifactId>
19       <version>3.8.1</version>
20       <scope>test</scope>
21     </dependency>
22
23     <dependency>
24       <groupId>org.apache.maven.plugins</groupId>
25       <artifactId>maven-checkstyle-plugin</artifactId>
26       <version>2.17</version>
27     </dependency>
28
29     <dependency>
30       <groupId>org.codehaus.mojo</groupId>
31       <artifactId>findbugs-maven-plugin</artifactId>
32       <version>3.0.4</version>
33     </dependency>
34   </dependencies>
```

















MAVEN

Αρχείο pom.xml

```
35
36 <build>
37   <plugins>
38     <plugin>
39       <!-- Build an executable JAR -->
40       <groupId>org.apache.maven.plugins</groupId>
41       <artifactId>maven-jar-plugin</artifactId>
42       <version>3.0.2</version>
43       <configuration>
44         <archive>
45           <manifest>
46             <addClasspath>true</addClasspath>
47             <classpathPrefix>lib/</classpathPrefix>
48             <mainClass>com.webmasters.App</mainClass>
49           </manifest>
50         </archive>
51       </configuration>
52     </plugin>
53   </plugins>
54 </build>
55
56
57
58   <artifactId>WebCrawler</artifactId>
59 </project>
```


CODESHIP

Ενδεικτικές προσπάθειες

	nikosgalanos/Java_Programming_2: Update LinksExtractor.java	chiotisn	87125d70	master	0 min 27 sec	12:38 2016-12-19	FAILED	
	nikosgalanos/Java_Programming_2: Update DataBaseConn.java "url" changed with "String"	chiotisn	503dac3d	master	0 min 30 sec	12:29 2016-12-19	FAILED	
	nikosgalanos/Java_Programming_2: Delete pom.xml	nikosgalan...	ba2dfdb0	master	0 min 35 sec	21:25 2016-12-18	FAILED	
	nikosgalanos/Java_Programming_2: Delete pom.xml	nikosgalan...	863f1ae7	master	0 min 26 sec	12:47 2016-12-18	FAILED	
	nikosgalanos/Java_Programming_2: Update pom.xml checkstyles findbugs	kasthanos	984d7674	master	0 min 23 sec	15:14 2016-12-17	SUCCESS	
	nikosgalanos/Java_Programming_2: Add files via upload	kasthanos	d671f772	master	0 min 40 sec	22:26 2016-12-16	SUCCESS	
	nikosgalanos/Java_Programming_2: final class for connection to a database connects to a local ...	nikosgalan...	9066a851	master	0 min 40 sec	22:08 2016-12-16	SUCCESS	
	nikosgalanos/Java_Programming_2: Update DataBaseConn.java	nikosgalan...	ad8152ef	nikosgalanos-patch-1	0 min 38 sec	21:41 2016-12-16	FAILED	

CODESHIP

Αποτυχημένη προσπάθεια



nikosgalanos/java_programming_2: Exceptions Handled

Vaggelis-M... 2e155159 master 0 min 37 sec 19:48 2016-12-29

FAILED

TEST COMMANDS

1	Exporting Environment	0 min 3 sec	✓
2	git clone --branch "master" --depth 50 git@github.com:nikosgalanos/java_programming_2.git ~/src/github.com/nikosgalanos/J...	0 min 2 sec	✓
3	cd clone	0 min 1 sec	✓
4	git checkout -qf 2e15515921c1e920cc906850ec85d42c9be25b84	0 min 1 sec	✓
5	Preparing Dependency Cache	0 min 6 sec	✓
6	Preparing Virtual Machine	0 min 26 sec	✓
7	mvn -B test	0 min 3 sec	⚠

Scroll down to bottom

```
[INFO] Scanning for projects...
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 0.081 s
[INFO] Finished at: 2016-12-29T19:49:11+00:00
[INFO] Final Memory: 6M/290M
[INFO] -----
[ERROR] The goal you specified requires a project to execute but there is no POM in this directory (/home/rof/src
/github.com/nikosgalanos/Java_Programming_2). Please verify you invoked Maven from the correct directory. -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
```

CODESHIP

Επιτυχημένη προσπάθεια

nikosgalanos/Java_Programming_2



nikosgalanos/Java_Programming_2: final class for connection to a database connects to a local ...

nikosgalan... 9066a851 master 0 min 40 sec 22:08 2016-12-16

SUCCESS



TEST COMMANDS



1	Exporting Environment	0 min 3 sec	✓
2	git clone --branch "master" --depth 50 git@github.com:nikosgalanos/Java_Programming_2.git ~/src/github.com/nikosgalanos/J...	0 min 1 sec	✓
3	cd clone	0 min 1 sec	✓
4	git checkout -qf 9066a8513a13627d5f52b1748946c2f1e6caa9ae	0 min 2 sec	✓
5	Preparing Dependency Cache	0 min 6 sec	✓
6	Preparing Virtual Machine	0 min 28 sec	✓
7	mvn -B test	0 min 4 sec	✓