

LAB REPORT #1

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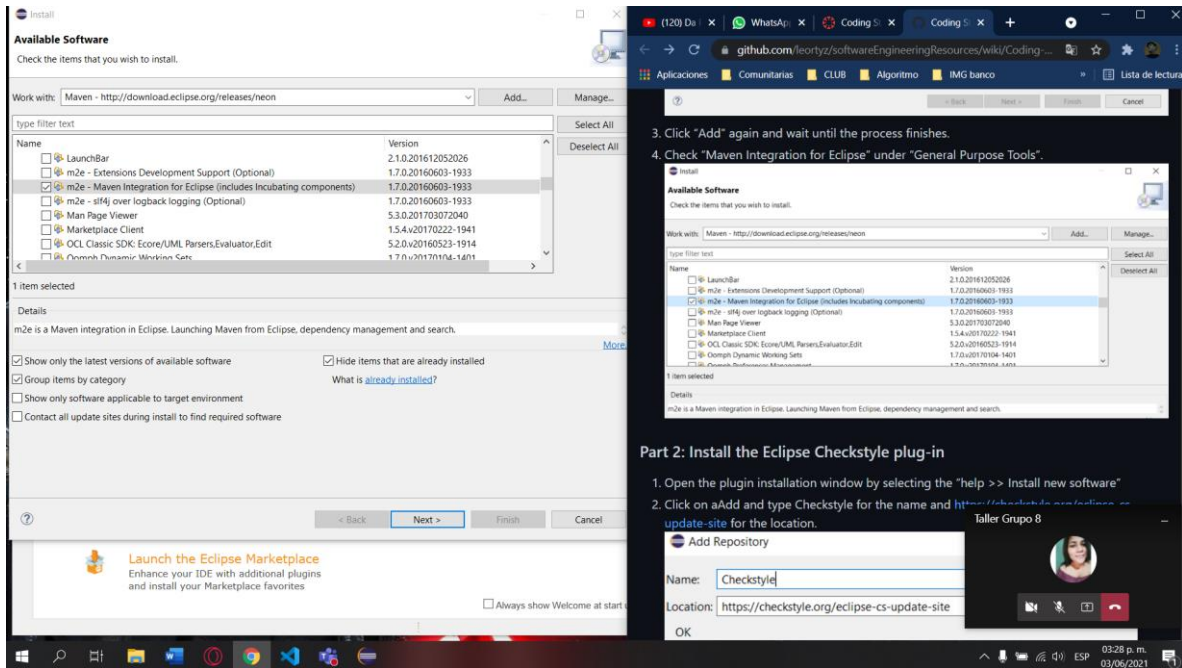
Date: 04/06/2021

1. Source Code (Repository):

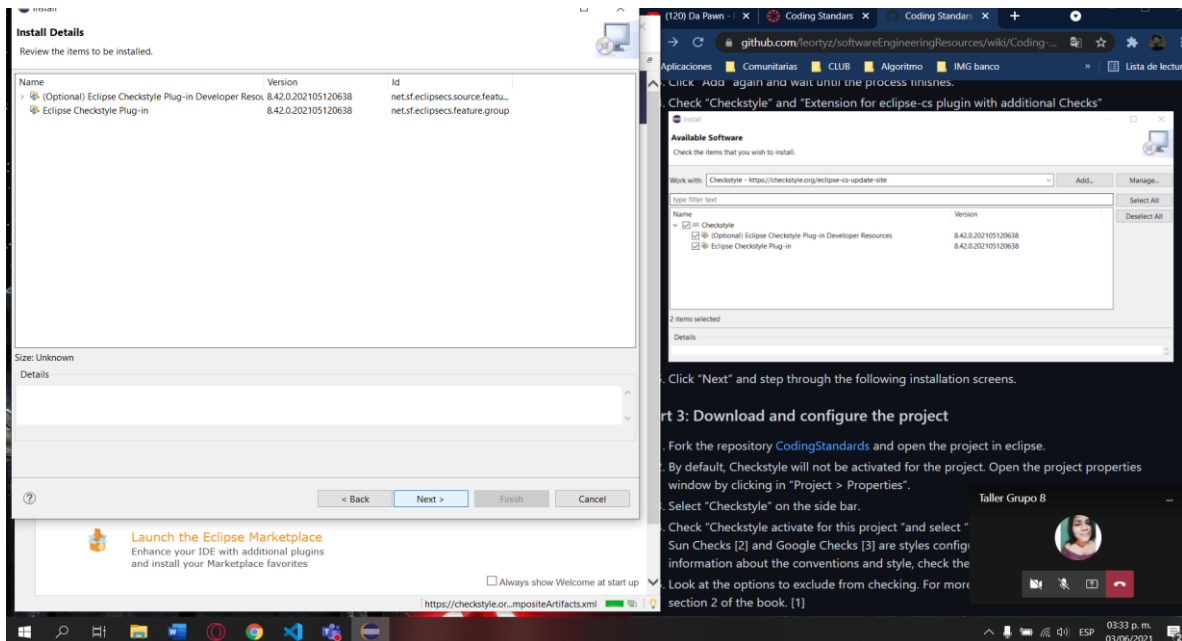
<https://github.com/RogwiCajas/CodingStandards.git>

2. Process:

• Part1: Maven Installation

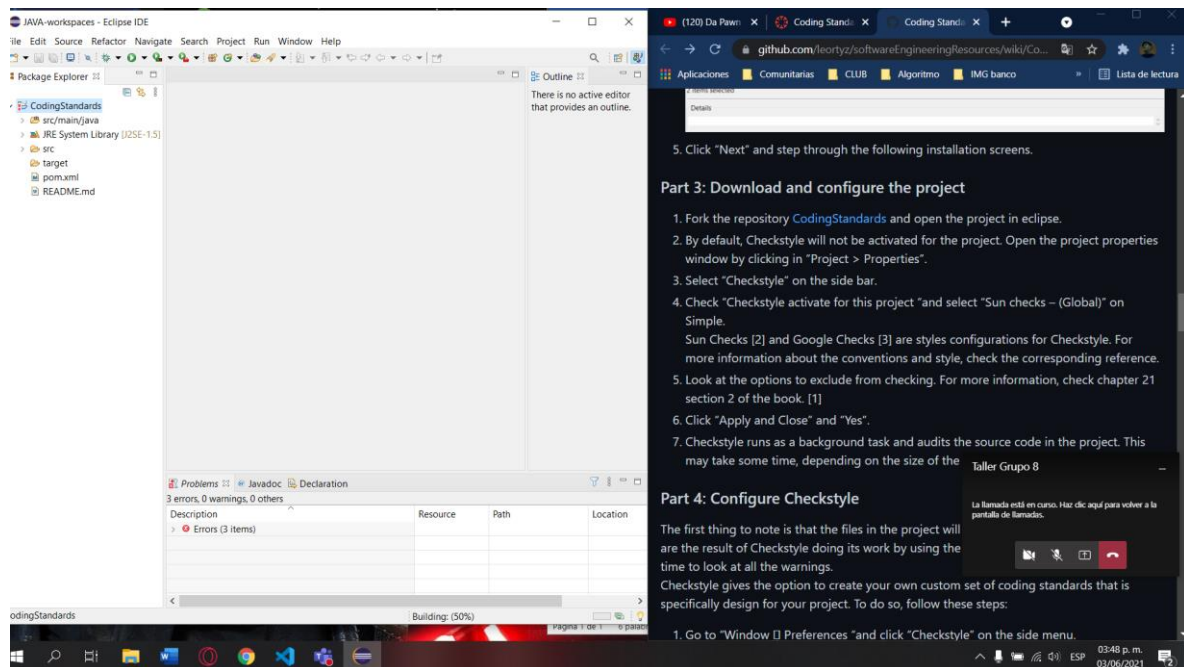


• Part2: Eclipse Checkstyle plug-in installation

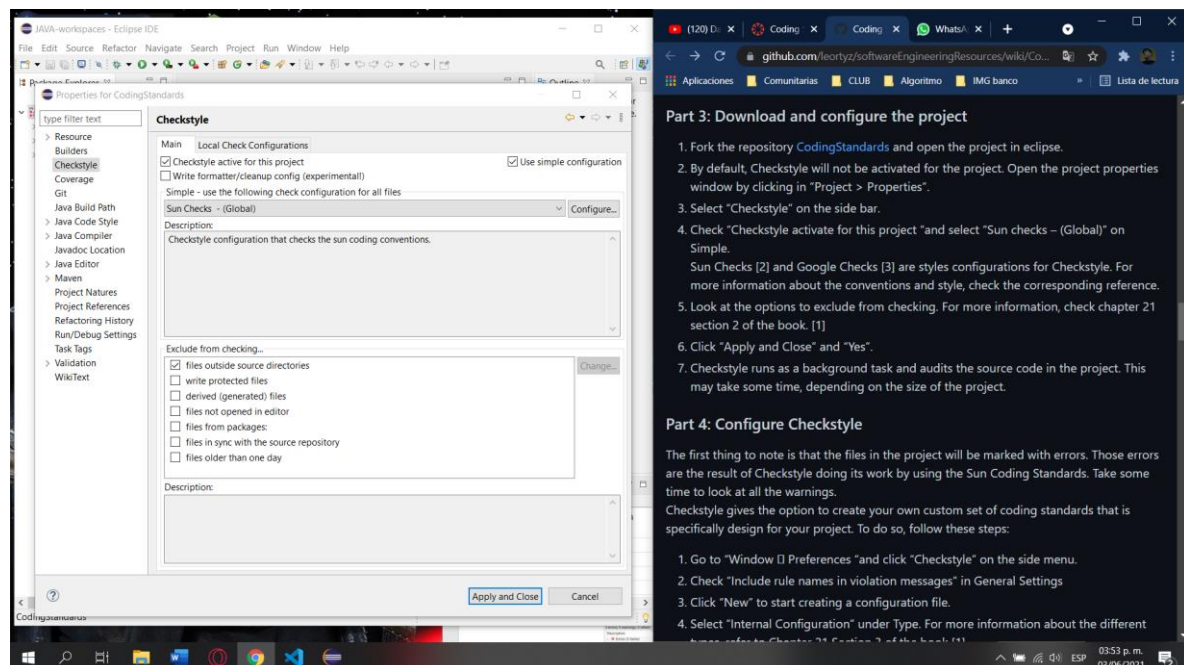


- **Part3: Project local configuration**

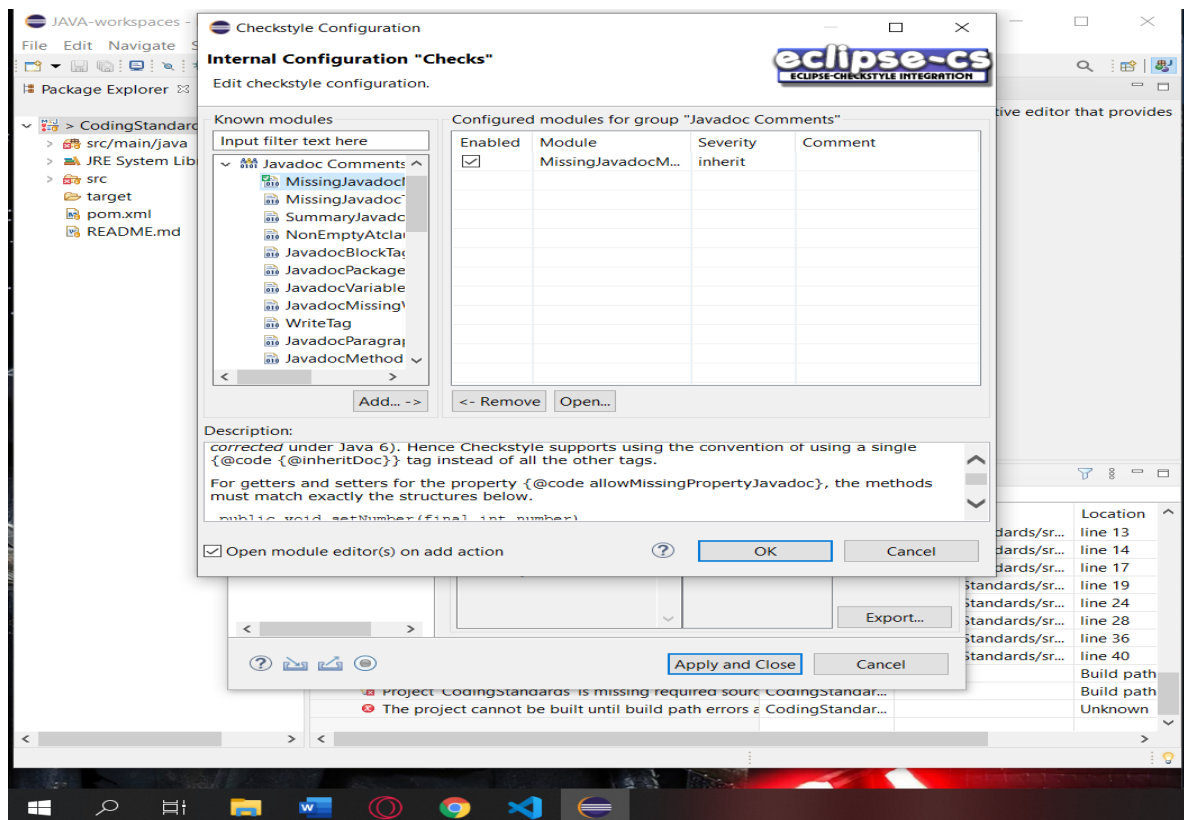
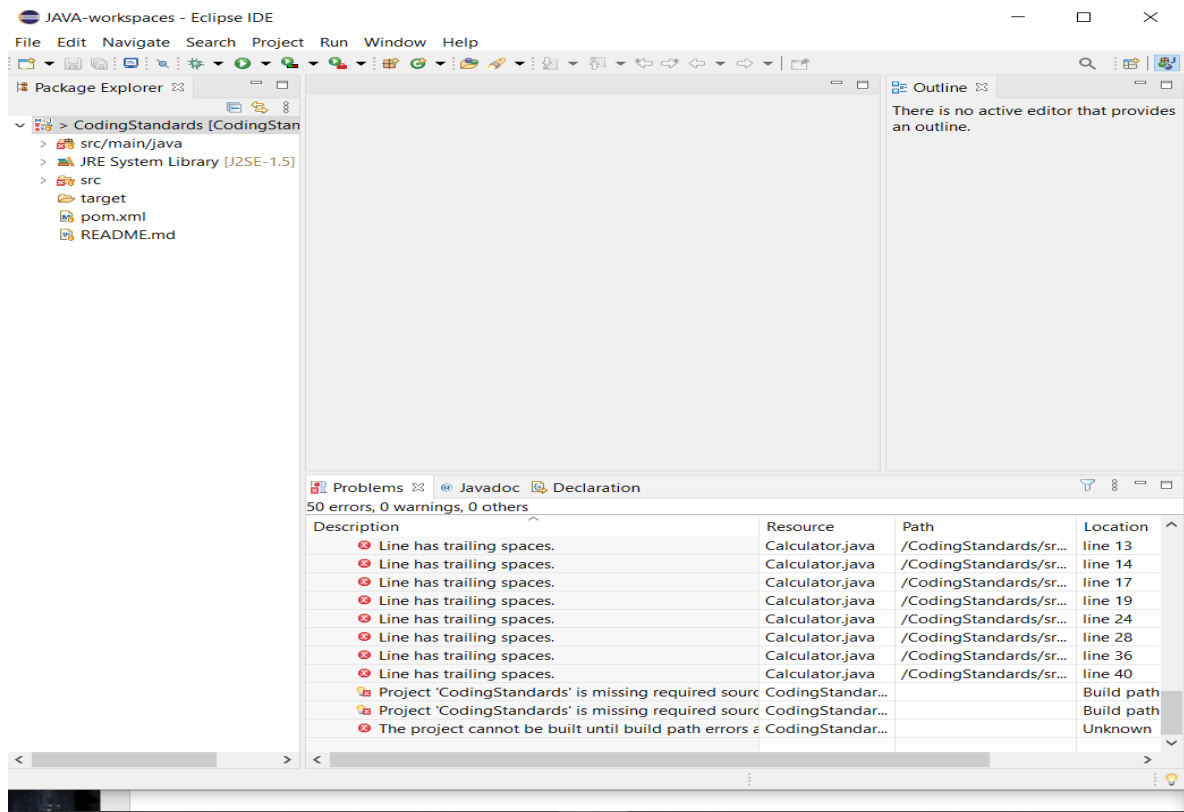
View on Eclipse IDE

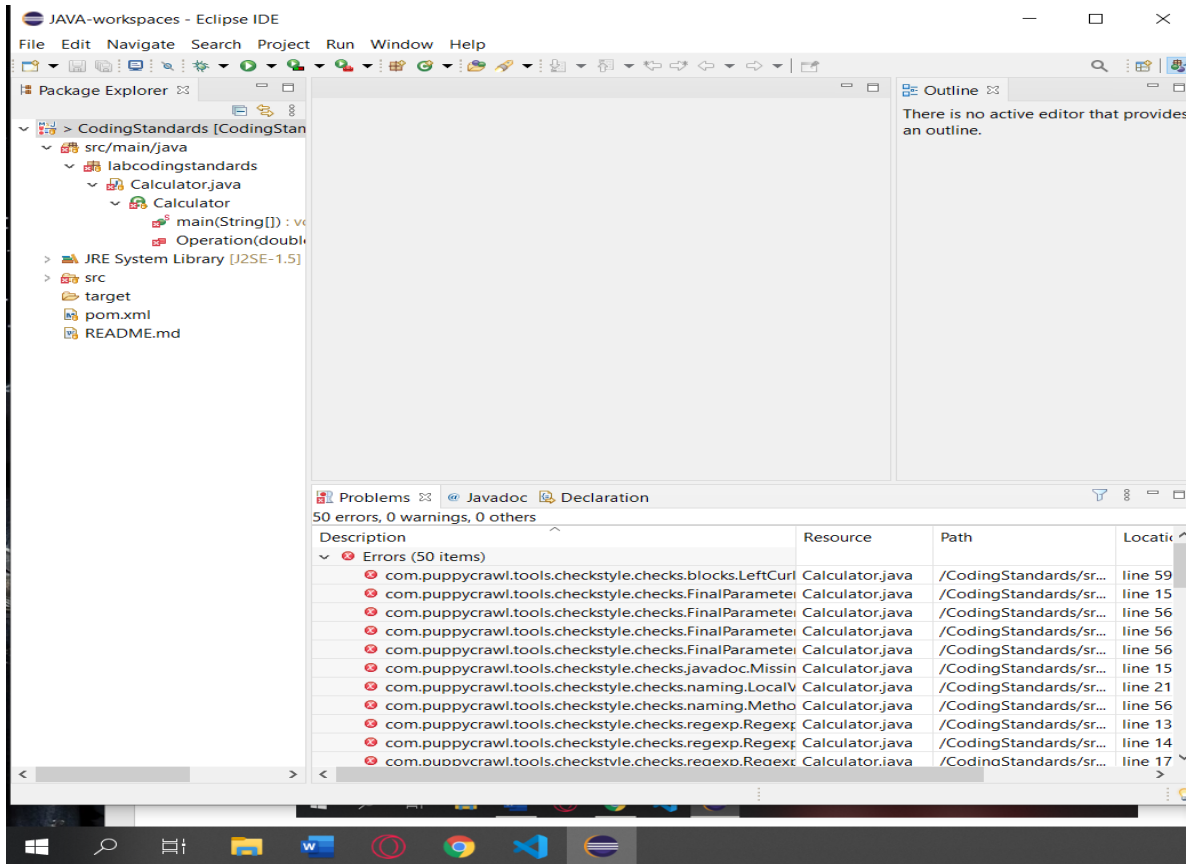


Properties configuration

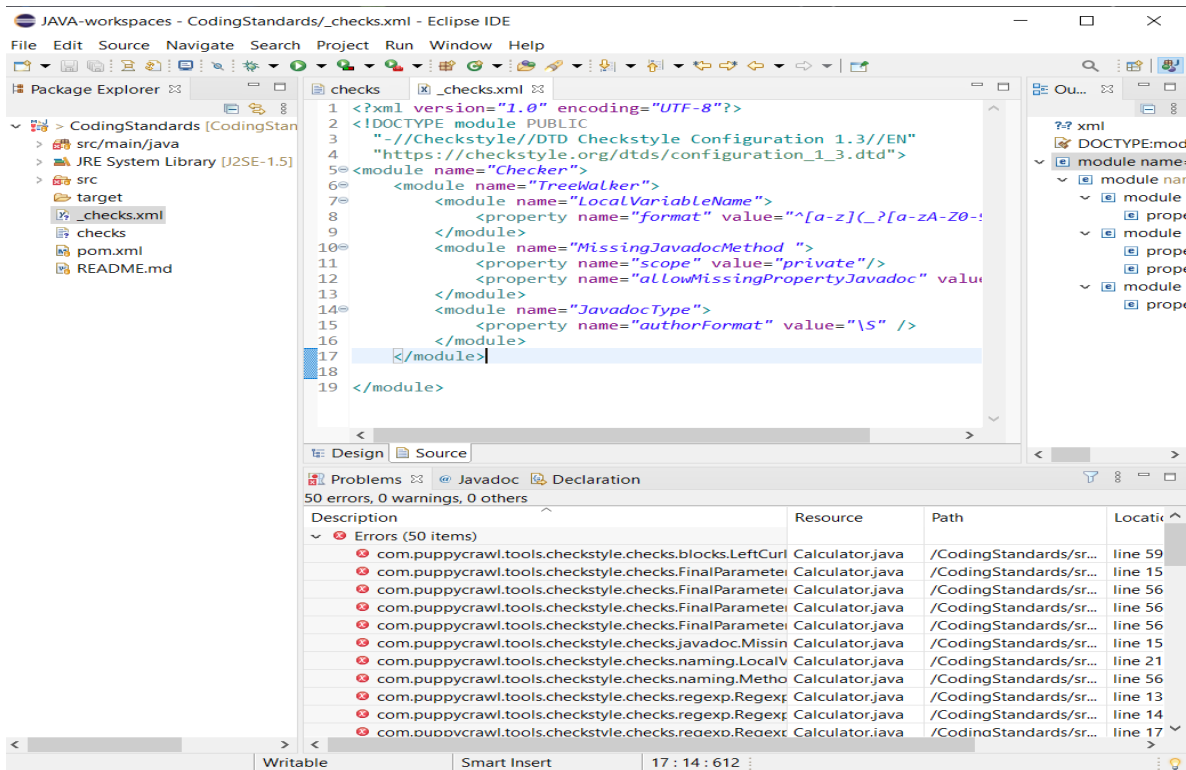


• Part4: Checkstyle Configuration

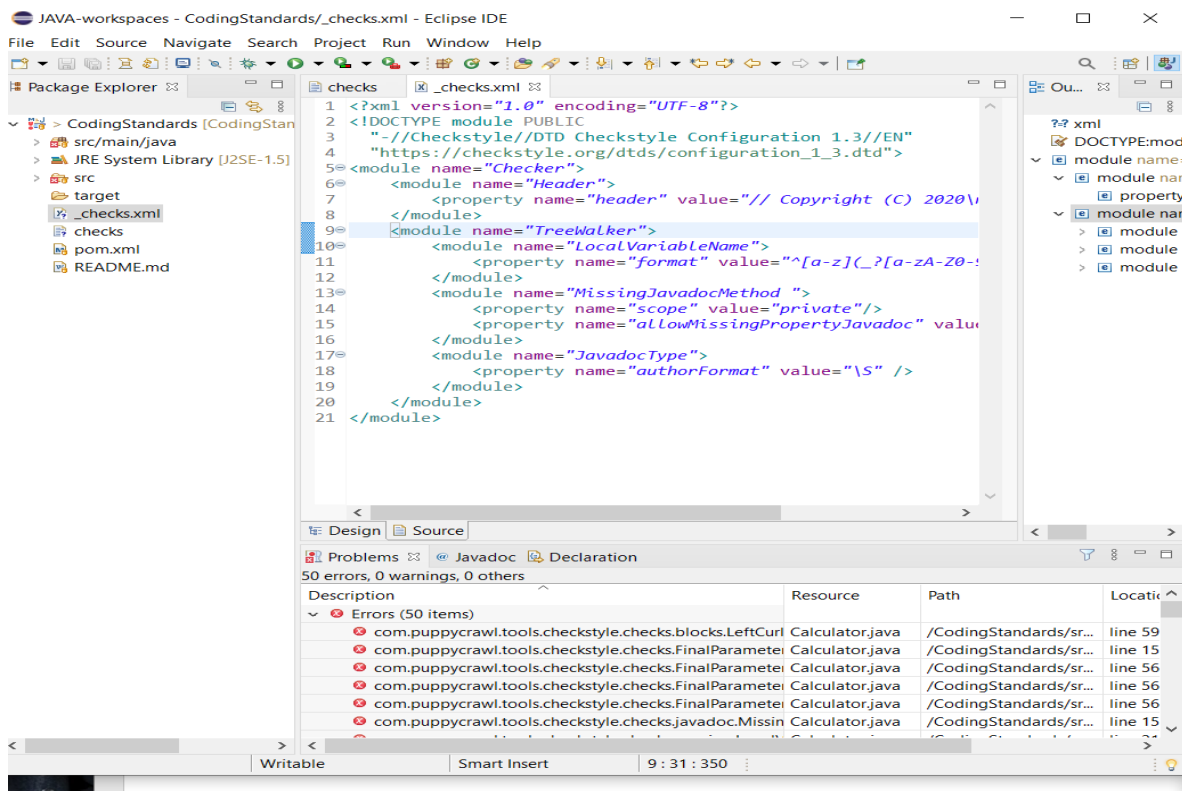




- Part5: Checkstyle configuration using XML



- Part6: Check for headers



- Part7: Suppressing Checkstyle Tests

```

11 public class Calculator {
12     //CHECKSTYLE:OFF
13     public static void main(String[] args) {
14         Scanner reader = new Scanner(System.in);
15
16         System.out.print("1. +\n2. -\n3. *\n4. /\nEnter an operator: ");
17
18         char operator = reader.nextLine().charAt(0);
19         double First;
20         double second;
21         String input;
22
23         while (true) {
24             System.out.print("Enter first number: ");
25             input = reader.nextLine();
26
27             try {
28                 First=Integer.parseInt(input);
29                 break;
30             } catch (NumberFormatException e) {
31                 System.out.println("Not valid!");
32             }
33         }

```

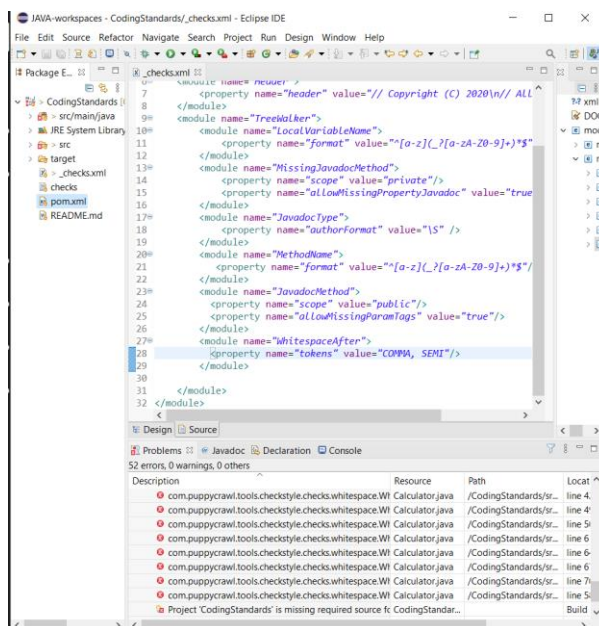


```

35     while (true) {
36         System.out.print("Enter second number: ");
37         input = reader.nextLine();
38
39         try {
40             second=Integer.parseInt(input);
41             break;
42         } catch (NumberFormatException e) {
43             System.out.println("Not valid!");
44         }
45     }
46
47     Calculator cal=new Calculator();
48     String result=cal.Operation(First,second,operator);
49
50     System.out.printf(result);
51     reader.close();
52 }
53 //CHECKSTYLE:ON

```

3. Part8: Checkstyle with Maven



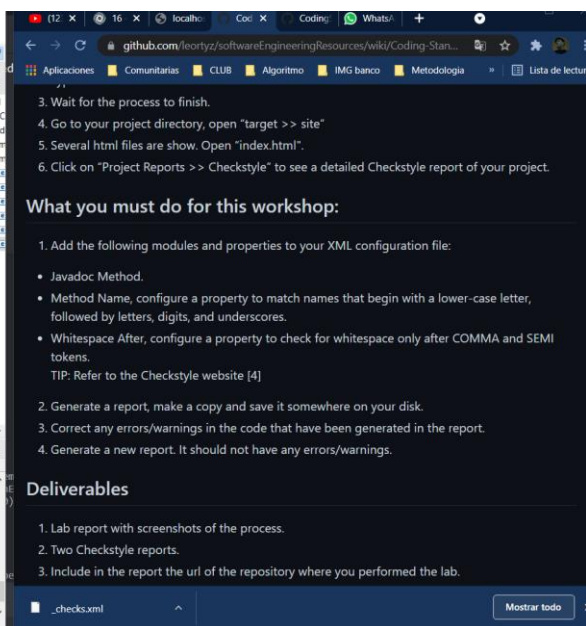
The screenshot shows an IDE with the following components:

- Package Explorer:** Shows the project structure with folders like `src/main/java`, `src`, `target`, and files like `_checks.xml`, `checks`, `pom.xml`, and `README.md`.
- Source Editor:** Displays the `checks.xml` file with the following configuration:


```

<?xml version="1.0" encoding="UTF-8"?>
<module name="Checker">
  <property name="header" value="// Copyright (C) 2020 In// ALL
  </module>
  <module name="TreeWalker">
    <module name="LocalVariableName">
      <property name="format" value="[a-z][_?a-zA-Z0-9-]*" />
    </module>
    <module name="MissingJavadocMethod">
      <property name="scope" value="private" />
    </module>
    <module name="JavadocType">
      <property name="allowMissingPropertyJavadoc" value="true" />
    </module>
    <module name="authorFormat" value="JS" />
  </module>
  <module name="MethodName">
    <property name="format" value="[a-z][_?a-zA-Z0-9-]*" />
  </module>
  <module name="JavadocMethod">
    <property name="scope" value="public" />
    <property name="allowMissingParamTags" value="true" />
  </module>
  <module name="WhitespaceAfter">
    <property name="tokens" value="COMMA, SEMI" />
  </module>
</module>

```
- Problems View:** Shows 52 errors, 0 warnings, and 0 others. The errors are related to the Checkstyle configuration and the code being checked.



The screenshot shows a GitHub page with the following content:

- Instructions:**
 - Wait for the process to finish.
 - Go to your project directory, open "target >> site"
 - Several html files are show. Open "index.html".
 - Click on "Project Reports >> Checkstyle" to see a detailed Checkstyle report of your project.
- What you must do for this workshop:**
 - Add the following modules and properties to your XML configuration file:
 - Javadoc Method.
 - Method Name, configure a property to match names that begin with a lower-case letter, followed by letters, digits, and underscores.
 - Whitespace After, configure a property to check for whitespace only after COMMA and SEMI tokens.
 - Generate a report, make a copy and save it somewhere on your disk.
 - Correct any errors/warnings in the code that have been generated in the report.
 - Generate a new report. It should not have any errors/warnings.
- Deliverables**
 - Lab report with screenshots of the process.
 - Two Checkstyle reports.
 - Include in the report the url of the repository where you performed the lab.

Run as >> Maven Build...

Run with solved problems and report

The screenshot displays the Eclipse IDE on the left and a web browser on the right. The IDE shows a Java file named `Calculator.java` with a switch statement for arithmetic operations. The console at the bottom shows the output of a Maven build, including Checkstyle reports and a successful build status.

The web browser on the right shows the "Checkstyle Results" page. It contains a summary table with 1 file, 0 warnings, and 0 errors. Below the summary, there are sections for "Files", "Rules", and "Details".

Checkstyle Results

The following document contains the results of Checkstyle 8.29 with `_checks.xml` ruleset.

Summary

Files	Info	Warnings	Errors
1	0	0	0

Files

File	I	W	E
------	---	---	---

Rules

Category	Rule	Violations	Severity
----------	------	------------	----------

Details

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