

Selenium Level 2 Framework Guidelines

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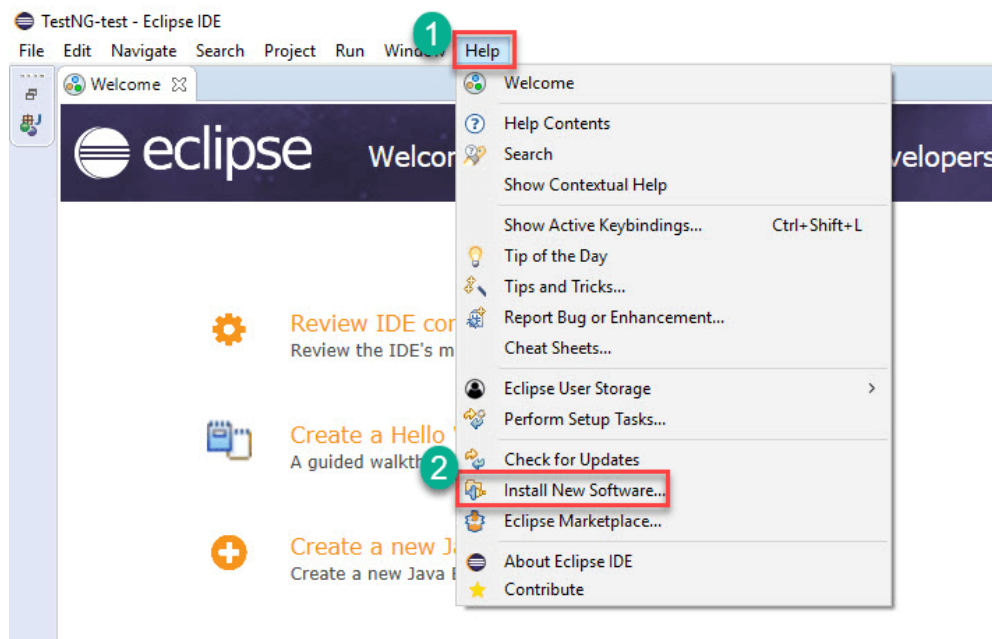
Automation Environment Setup

I. Setup Java

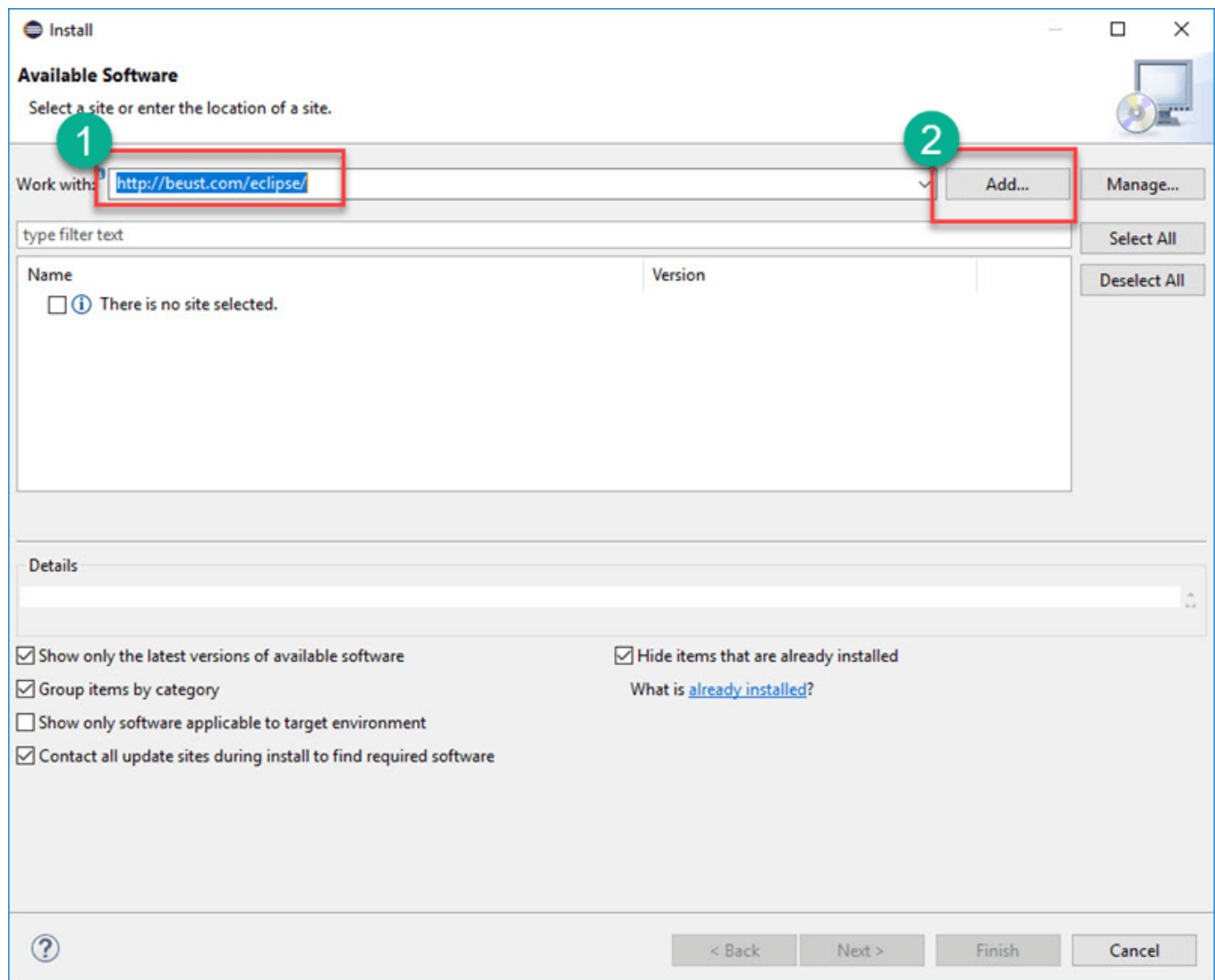
- Window must be installed Java 8
- Link download:
 - JDK (version: 8u171):
<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
 - JRE (version: 8u171):
<http://www.oracle.com/technetwork/java/javase/downloads/jre8-downloads-2133155.html>
- After installing Java, path in system variables (System Properties > Environment Variables) should be "C:\Program Files\Java\jdk1.8.0_171\bin" (window 64 bit)

II. Setup TestNG

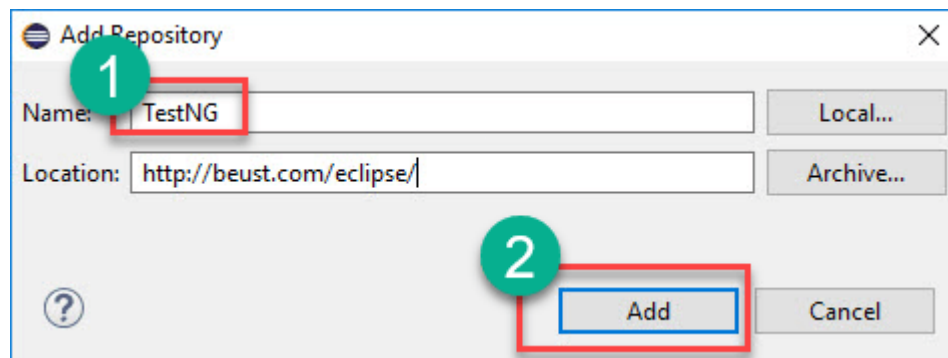
- Launch Eclipse
- On the menu bar > Click on 'Help' > Select 'Install new software option...'



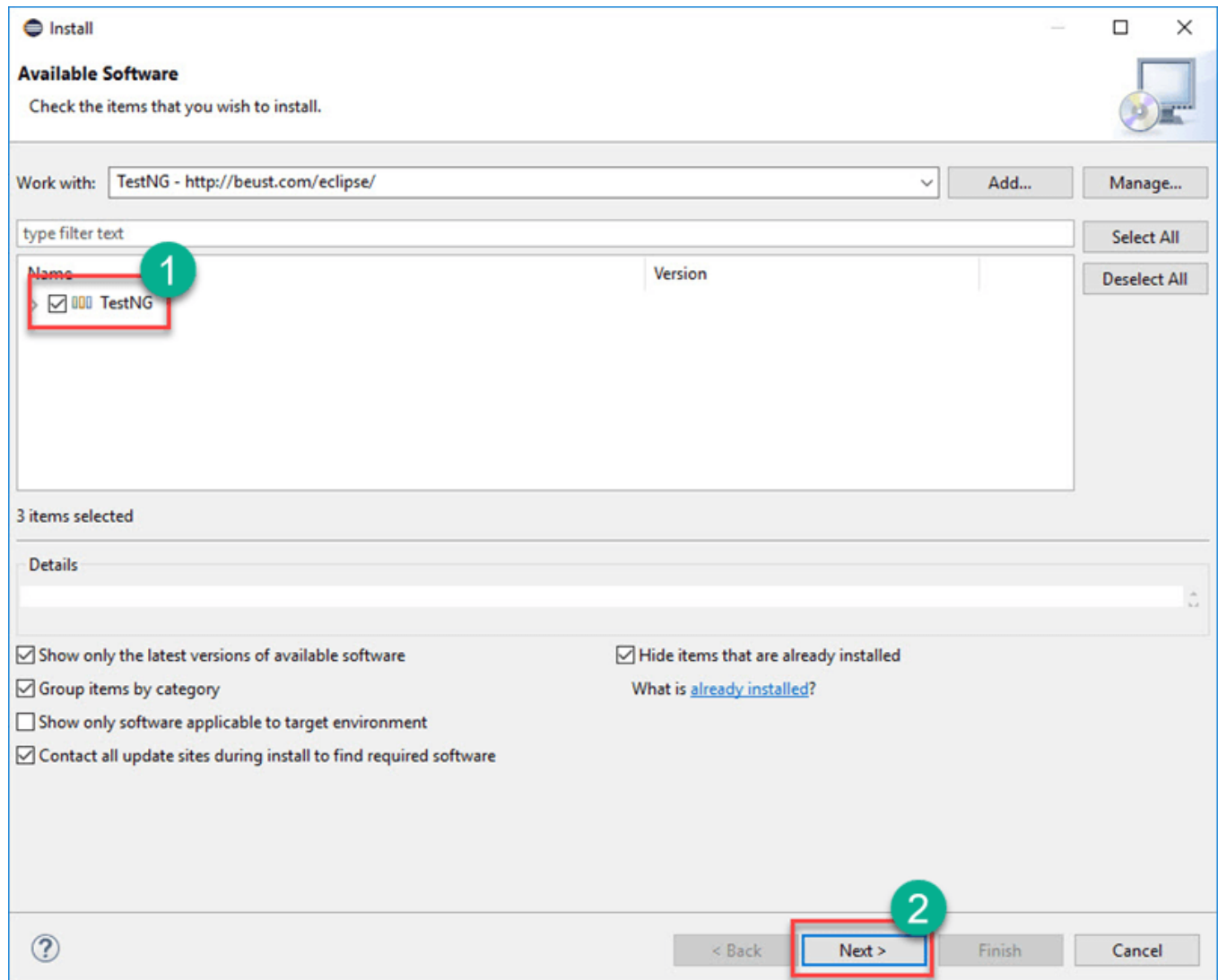
- In the Install dialog box > Enter <http://dl.bintray.com/testng-team/testng-eclipse-release/> in the Work with box



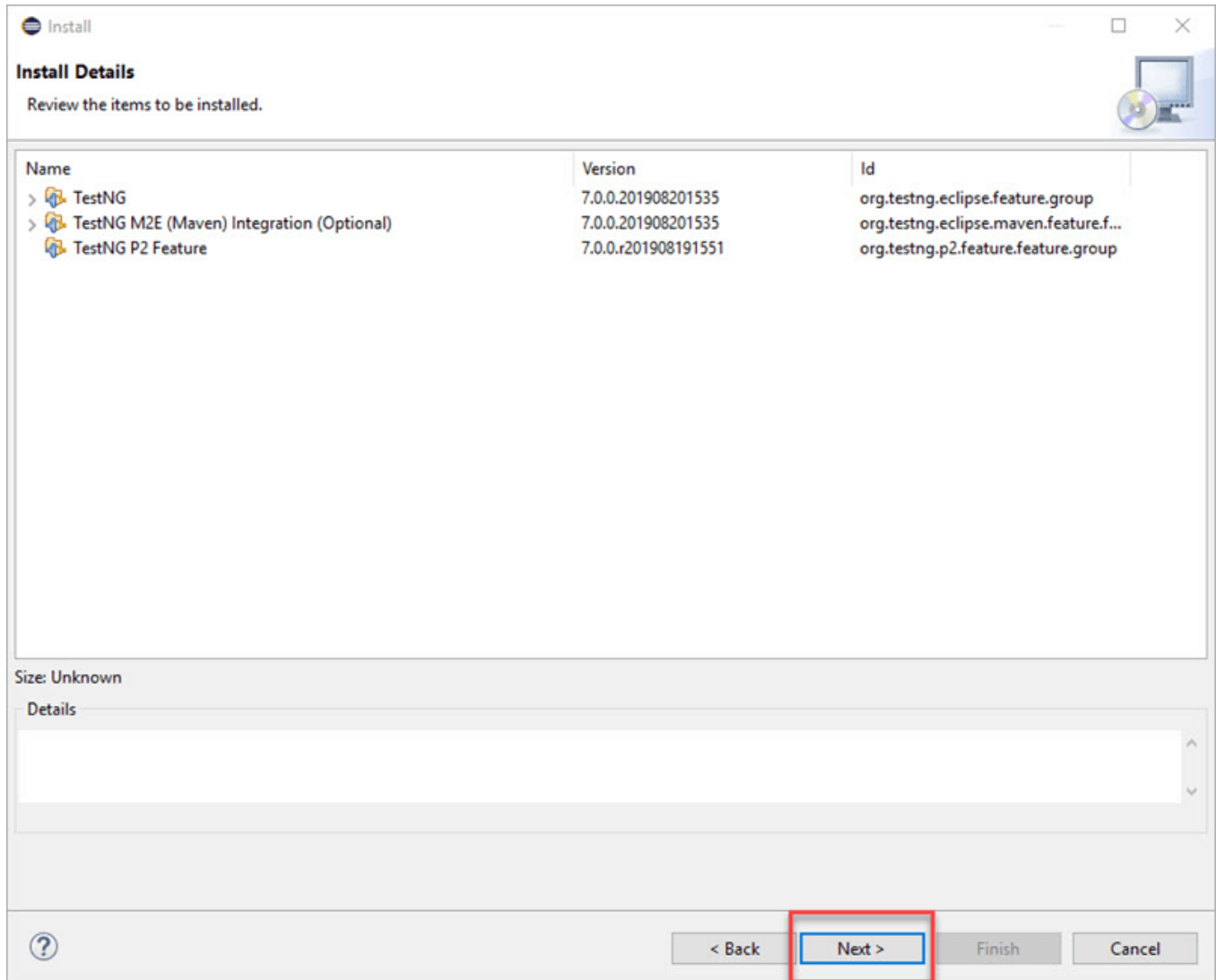
- In Add repository dialog > Enter "TestNG" in Name Text Field > Click on Add button.



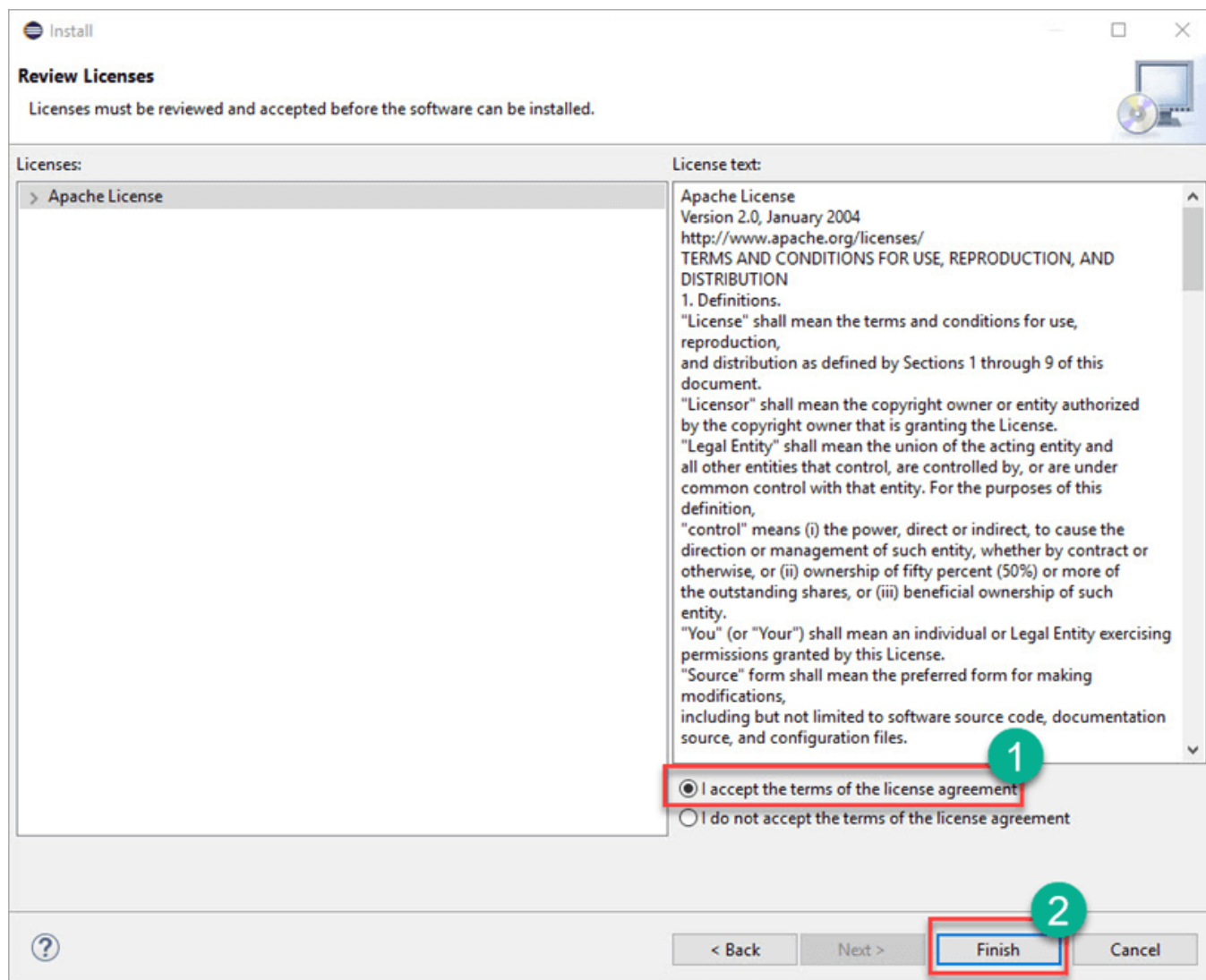
- Select the "TestNG" checkbox > Click on the "Next" button.



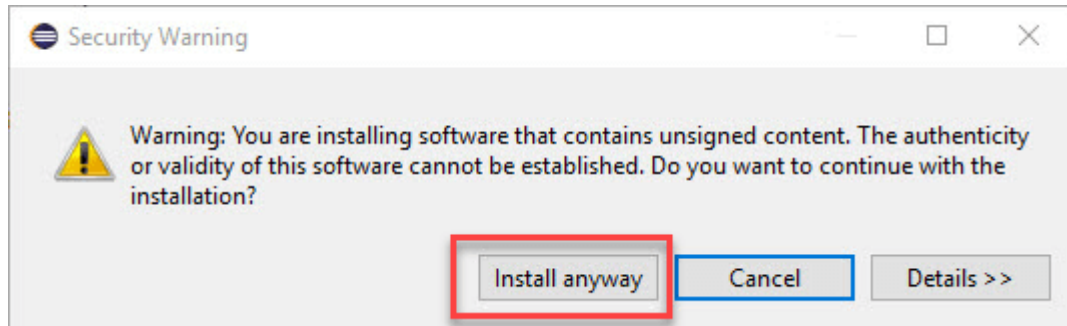
- It will give you a review of Items to be installed. Click on Next.



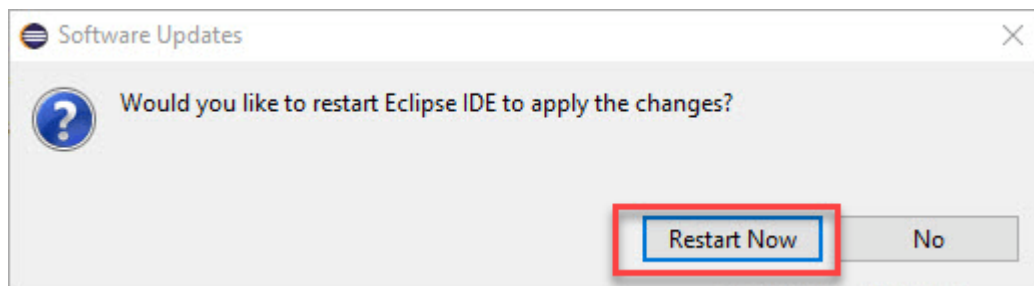
- Select the radio button "I accept the terms of the license agreement" > Click on Finish. Waiting for it. It will take time depending on your Internet speed.



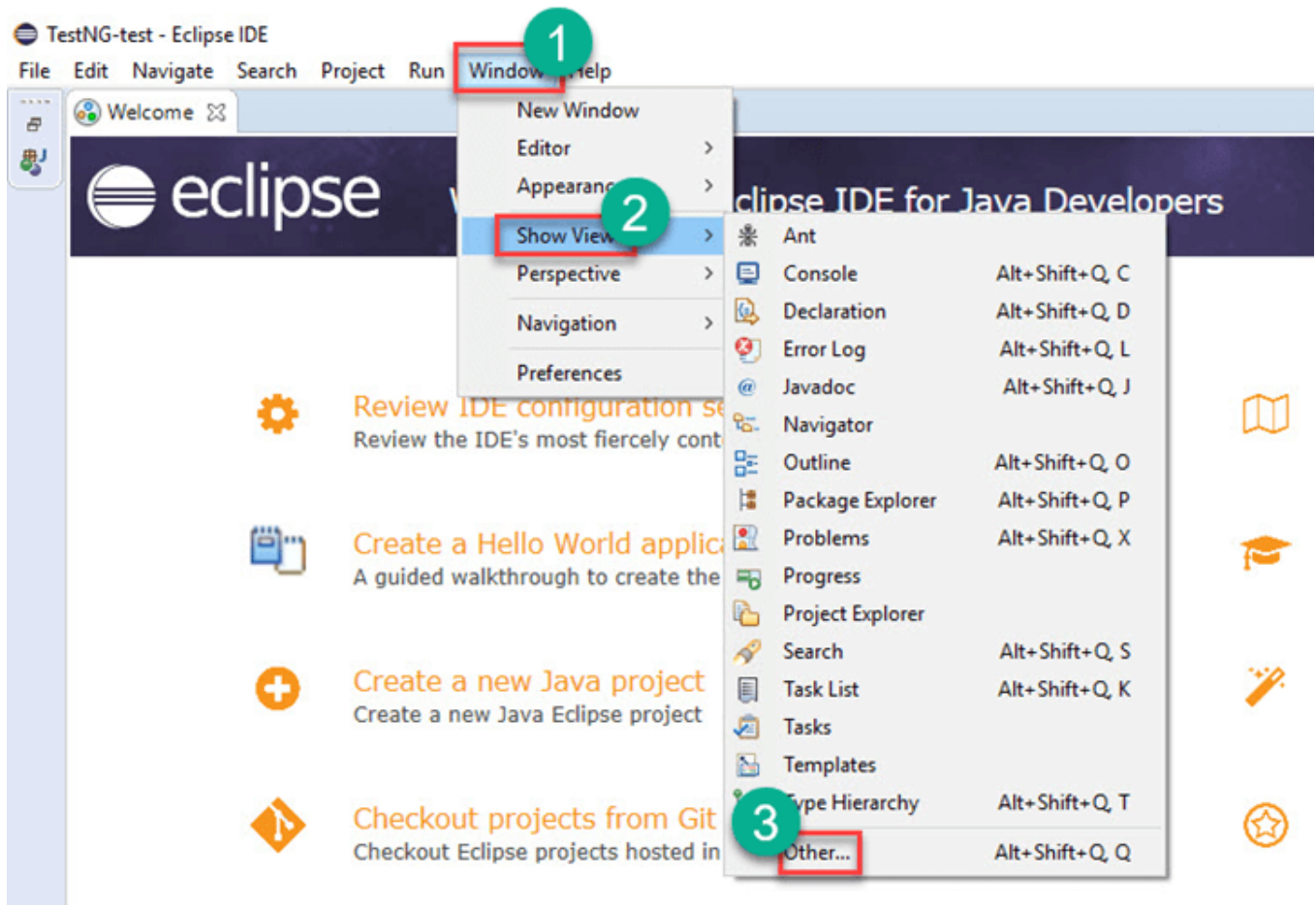
- If you encounter a Security warning, just click "Install Anyway".



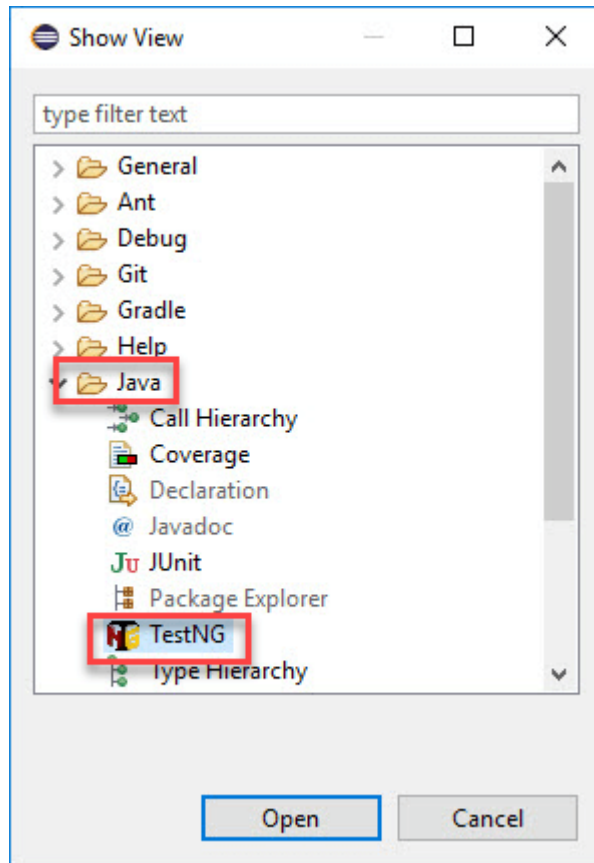
- Wait for the installation to finish. When Eclipse prompts you for a restart, click "Restart now."



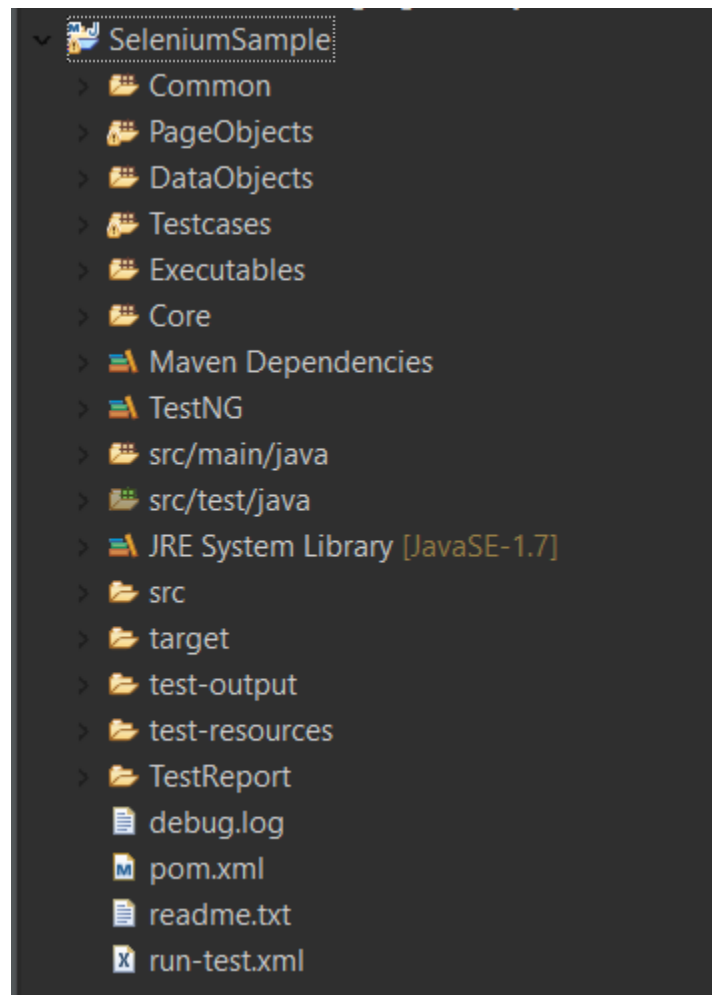
- After the restart, verify if TestNG was indeed successfully installed. Click Window > Show View > Other.



- Then open the Java directory and see if TestNG is included. Now TestNG is installed on you Eclipse

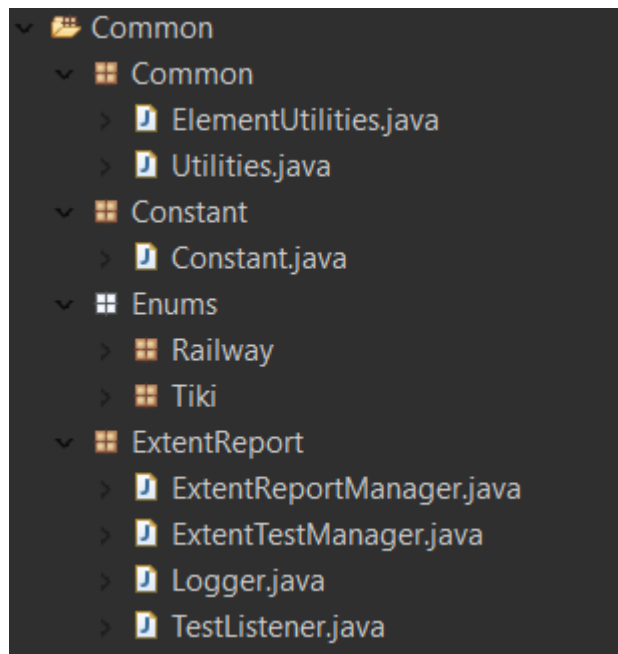


Framework Structure



1. Common

In my framework I divide Common to 4 parts: Common, Constant, Enums and ExtentReport.



- **Common:** contain ElementUtilities.java and Utilities.java which are often used in project.
- **Constant:** contain all string I define as URL, Date format or time to wait.
- **Enums:** contain enum of project
- **ExtentReport:** contain class used to generate report HTML and report Logger.

2. PageObjects

- Contain locators and methods corresponding page.

3. DataObjects

- Object use to get or set data in project.

4. Testcases

- Contain all test cases.

5. Executables

- Contain executables as chrome.exe, firefox.exe, selenium-sever-standalone.jar

6. Core

- Contain Driver Wrapper and Element Wrapper.

7. Test-resources

- Contain Selenium Grid and Docs of the project

8. TestReport

- Contain file HTML report after test case run and screenshots.

Project Abbreviation

There are some abbreviations used to name locators in project:

- **Element:** start with **ele** first. Example you want to name the search element => eleSearch
- **Dropdown:** *drp*
- **Label:** *lbl*
- **Textbox:** *txt*
- **Button:** *btn*
- **String:** start with **s** => sText="example";
- **Combobox:** *cb*

Run

We use file “run-test.xml” which is located in “SeleniumSample\run-test.xml” to run test case we want. Use also call this is test suite. There are two types of running mode designed in project: **Local** and **Remote**.

I. Running with Local mode

Running with Local mode should configuration test suite as image below:



```

1 <?xml version="1.0" encoding="UTF-8"?>
2 <!-- This file is created for running test suit -->
3 <!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
4
5 <!-- Supported browser names: Chrome; Firefox -->
6 <suite name="Suite" thread-count="1" parallel="methods">
7
8   <parameter name="browser" value="Chrome"></parameter>
9   <parameter name="runningMode" value="Local"></parameter>
10
11   <listeners>
12     <listener class-name="ExtentReport.TestListener" />
13   </listeners>
14
15   <test name="Suit test for running test cases">
16
17     <classes>
18
19       <class name="Tiki.TikiTest"><methods><include name="TC001"></include></methods></class>
20
21

```

✓ `<parameter name="browser" value="Chrome"></parameter>`

You can choose browser you want to run: Chrome or Firefox (Only support 2 of browses in project)

✓ `<parameter name="runningMode" value="Local"></parameter>`

You can which mode you want to run: Local or Remote

II. Running with Remote mode

- ⇒ Go to “test-resource/Grid” > Open file “Start_Hub_Server.bat” first then open “Start_Node_Window_Slave.bat”
- ⇒ Go to file test suite “run-test.xml” configuration the value as image below:

```

1 <?xml version="1.0" encoding="UTF-8"?>
2 <!-- This file is created for running test suit -->
3 <!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
4
5 <!-- Supported browser names: Chrome; Firefox -->
6 <suite name="Suite" thread-count="2" parallel="methods">
7
8   <parameter name="browser" value="Chrome"></parameter>
9   <parameter name="runningMode" value="Remote"></parameter>
10
11   <listeners>
12     <listener class-name="ExtentReport.TestListener" />
13   </listeners>
14
15   <test name="Suit test for running test cases">
16
17     <classes>
18
19       <class name="Foody.SearchTest"><methods><include name="TC001"></include></methods></class>
20       <class name="Foody.SearchTest"><methods><include name="TC002"></include></methods></class>
21

```