

Web Testing with Selenium

Lab #4

Converting the Selenium IDE Tests to Java WebDriver Tests

The Selenium IDE is a powerful tool to create a manual tests, however to automate these tests we need a programming language. Selenium supports a number of languages including:

- Java
- Python
- Ruby
- CSharp
- JavaScript
- Kotlin

We are going to be using Java with the JUnit 5 testing framework

Step 1:

Open the Browser again, and restart the Selenium IDE extension.

Select **Open an Existing Project**.

Browse to **C:\WebTestingClass\CustomerTest.side**.

There should be two test listed:

- **ListProducts**
- **ListSuppliers**

Step 2:

Hover over the **ListProducts** test and you will see a vertical ellipse (three dots stacked vertically) . This menu includes an option to export the test to a programming language.

Click the vertical ellipse menu and select **Export**. Select Java JUnit and click **Export**. Note the Selenium IDE will use JUnit 4, we will convert these to JUnit 5 later.

Browse to the **C:\WebTestingClass** folder, Selenium will name the new file by adding the word Test to the test name, resulting in **ListProductTest.java**.

Click **save**.

Repeat these action to export the **ListSuppliers** test to **C:\WebTestingClass>ListSupplierTest.java**.

Close the Selenium IDE, and close the Browser.

Step 3:

Open Eclipse, and navigate to lab-4 project src/test/java folder.

Using the Windows File Explorer (on the Lab Machine) copy both **ListProductTest.java** and **ListSupplierTest.java** into the src/test/java folder of the lab-4 project. The lab-4 project is Maven project and the pom.xml file has the JUnit and Selenium dependencies included.

Step 4:

In Eclipse, right click the **ListProductsTest.java** and select Run AS → JUnit Test.

It will open the Browser and run the test.

Run the **ListSuppliersTest.java** the same way.

Step 5:

Open the **ListProductsTest.java** and view the source code.

The original test was:

Run the Web Application following these steps:

1. Enter the URL of our Web Application:
<http://localhost:8080/CustomerWeb>
2. Logon as **Worker**
3. Select **List Products**
4. From the drop down list select **Tofu**
5. Click the **Submit Query** button
6. Click the Main Menu link (at the bottom of the page)
7. Click the **Logout** link (at the bottom of the page)
8. Click the **Logout** button

Find each of these steps in the Java code.

You should note the three main Selenium API classes are:

- **WebDriver** → representing the Browser
- **WebElement** → representing a location on the web page
- **By** → the methods to find a specific location(s)

The **WebDriver** class includes method to locate a **WebElement** by a number of techniques using the **By** class.