ADIDAS CHALLENGE

Selenium Test Automation Challenge

Browses

- Google Chrome

- Mozilla Firefox

URL

https://en.wiktionary.org/

JAVA

Java version 1.8.0_201

https://www.oracle.com/technetwork/java/javase/downloads/index.html

IDE

Java IDE Eclipse Jee (Version 2019 - 03).

https://www.eclipse.org/downloads/

Testing Framework SELENIUM

Selenium Webdriver. Latest Selenium Java jars, latest Selenium WebDriver jars.

https://www.seleniumhq.org/download/ *(*Selenium-java-3.141.59*)*

Testing Framework Junit 5

https://junit.org/junit5/

Drivers

TestAutomationChallenge \Adidas Challenge\SeleniumTA\Drivers

- Driver geckodriver-v0-24-0-win64 (Mozilla Firefox)

- Driver chromedriver-win32 (Google Chrome)

Libraries. Add External JARs

Selenium: *https://mvnrepository.com/*

Folder: *TestAutomationChallenge \Adidas Challenge\SeleniumTA\selenium-java-3.141.59*

- *client-combined-3.141.59.jar*
- *client-combined-3.141.59-sources.jar*

Folder: *TestAutomationChallenge \Adidas Challenge\SeleniumTA\selenium-java-3.141.59\libs*
- byte-buddy-1.8.15.jar
- commons-exec-1.3.jar
- guava-25.0-jre.jar
- okhttp-3.11.0.jar
- okio-1.14.0.jar

JUnit 5 library
Folder: *TestAutomationChallenge \ Adidas Challenge \ SeleniumTA \ plugins*

Note: If I had to do this project again I would use MAVEN, to simplify the management of the libraries. I decided not to use MAVEN because it is a small application. But I think it would have been a better option.

¿Why Selenium Webdriver with JUnit 5?

The **JUnit + Selenium** combination allows you to automate tests on web applications, in an easy and intuitive way.

Selenium is a tool that allows to automate tests in different languages on WEB applications. Using its API, it simulates the WEB navigation in the same way as the final user, testing the application WEB.

Selenium WebDriver accepts commands and sends them to a browser. This is implemented through a specific browser driver for each browser.

Some of its most interesting features are:
- It's an opensource framework
- Can be run using in different web browsers: Google Chrome, Firefox, and IE.
- Can be executed in different operating systems: Windows, Linux and OSX.
- The tests can be written in several languages, they communicate with Selenium through calls to Selenium Client API methods.
- It´s easy to execution of the tests.
- Reference to DOM objects based on ID, name or XPath.
- The actions can be executed step by step.

JUnit is a framework that allows you to prepare, execute and verify the tests recorded with Selenuim, so that they can be executed with any browser in a fast and easy way.
When used with Selenium, JUnit provides tools to start and manage Selenium WebDriver.

¿Why JAVA?

For previous experience with this language

Previous configuration

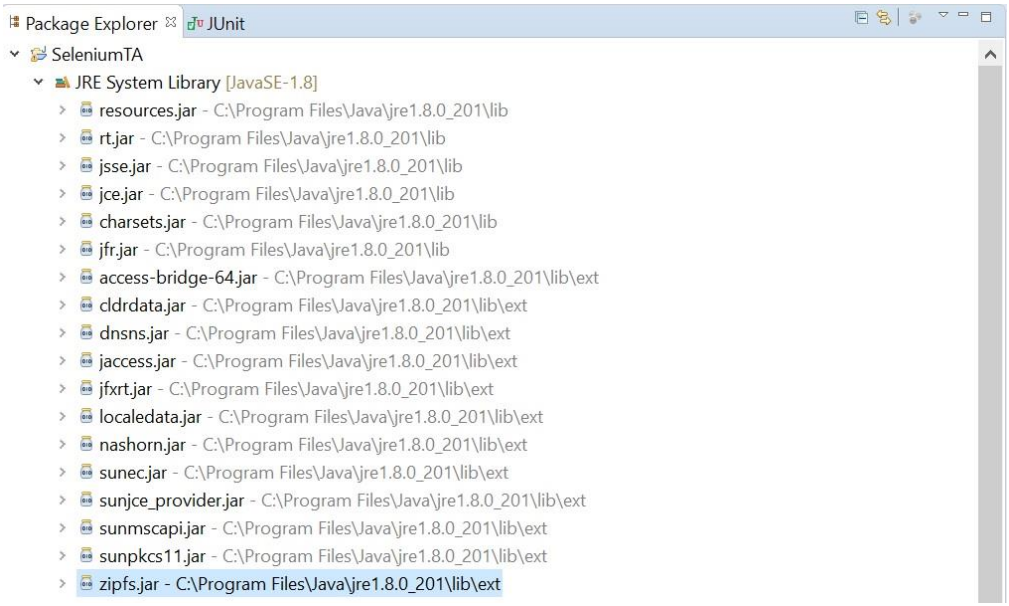
We need to have installed the programs and tools that have been detailed previously, and in the versions that are specified. (Important Java version 1.8.0_201.)

We need to add the external libraries listed above, as follows:

Right click on the name of the project- 'Properties' - 'Java Build Path' - 'Libraries' - 'Add External JARs' - 'Apply and Close'

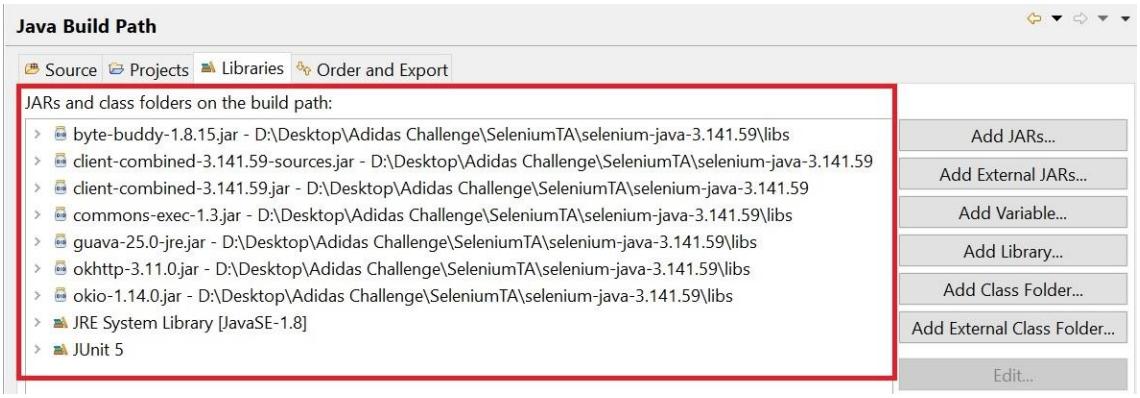
1) JRE System Library (JRE 1.8.0_201):

The JAVA version that is used is Java 1.8.0_201



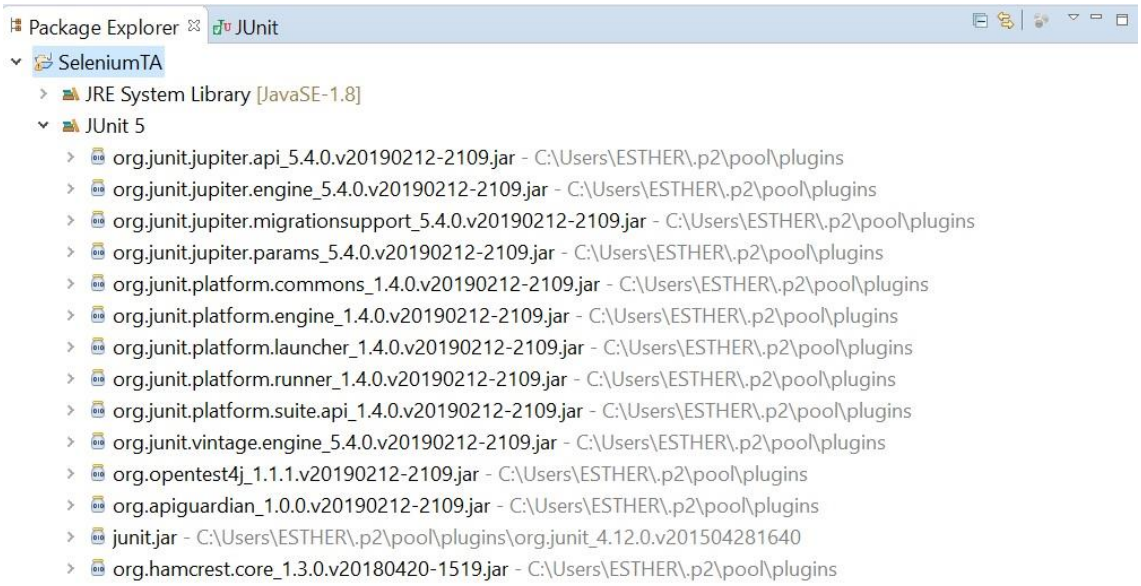
2) **Add External JARs of Selenium** – Folders library of Selenium:

TestAutomationChallenge \ Adidas Challenge SeleniumTA Selenium-java-3.141.59
TestAutomationChallenge \ Adidas Challenge \ SeleniumTA \ selenium-java-3.141.59 \ libs



3) **JUnit 5**

Folders library of JUnit 5: *TestAutomationChallenge \ Adidas Challenge \ SeleniumTA \ plugins*



How to execute?

After opening eclipse and importing the project:

Opción 1. You can run each test separately. For example in the case of *'Apple' / 'Pear' / 'CreatAccountKO':*
From *'SeleniumTA\src\Wiki\Apple.java'*, click on the right button of the mouse, option *'Run As'*, and click on *'Junit Test'*.

Opción 2. You can run complete test suite.

From *'SeleniumTA\src\WikiTestRUnner*TestRunner.java', click on the right button of the mouse, option *'Run As'*, y click on *'Java Aplication'*.

API Test Automation Challenge

Browses

- Google Chrome
- Mozilla Firefox

URL

https://en.wiktionary.org/

JAVA

Java version 1.8.0_201

https://www.oracle.com/technetwork/java/javase/downloads/index.html

IDE

Java IDE Eclipse Jee (Versión 2019 - 03).

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Testing Framework SELENIUM

Selenium WebDriver. Latest Selenium Java jars, latest Selenium WebDriver jars.

https://www.seleniumhq.org/download/ *(*Selenium-java-3.141.59*)*

Testing Framework Junit 4

https://junit.org/junit4/

Testing Framework CUCUMBER

Behavior-driven development (BDD).

Drivers

TestAutomationChallenge \Adidas Challenge\ WeatherApiTA \Drivers

- Driver geckodriver-v0-24-0-win64 (Mozilla Firefox)

- Driver chromedriver-win32 (Google Chrome)

Libraries. Add External JARs

Selenium:

Folder: *TestAutomationChallenge \Adidas Challenge\WeatherApiTA \selenium-java-3.141.59*
- *client-combined-3.141.59.jar*
- *client-combined-3.141.59-sources.jar*

Folder: *TestAutomationChallenge \Adidas Challenge\WeatherApiTA \lib\selenium-java-3.141.59\libs*
- byte-buddy-1.8.15.jar
- commons-exec-1.3.jar
- guava-25.0-jre.jar
- okhttp-3.11.0.jar
- okio-1.14.0.jar

Cucumber:

Folder: *TestAutomationChallenge \Adidas Challenge\WeatherApiTA\Jar cucumber*
- cucumber-core-2.3.1.jar
- cucumber-java-2.3.1.jar
- cucumber-junit-2.3.1.jar
- cucumber-jvm-deps-1.0.6.jar
- gherkin-5.0.0.jar
- junit-4.12.jar
- mockito-all-1.10.19.jar

Junit 4
In the folder: *TestAutomationChallenge \Adidas Challenge \ WeatherApiTA \ plugins*

¿Why Selenium WebDriver with Cucumber?

Cucumber is a test approach that **supports behavior-driven development (BDD).**

It makes reading and understanding the application flow easier, explains the behavior of the application in a simple English text using the Gherkin language.

The **Gherkin** language helps the tests to be understood by the technical team members and the client. The Gherkin syntax is a simple text, easily readable and understandable.
Keywords: **Feature / Scenario / Given / When / Then**

The **Cucumber + JUnit + Selenium** combination allows you to automate tests on web applications in an easy and intuitive way.

Previous configuration

We need to have installed the programs and tools that have been detailed previously, and in the versions that are specified. (Important Java version 1.8.0_201.)
We need to add the external libraries listed above, as follows:

Right click on the name of the project- 'Properties' - 'Java Build Path' - 'Libraries' - 'Add External JARs' - 'Apply and Close'

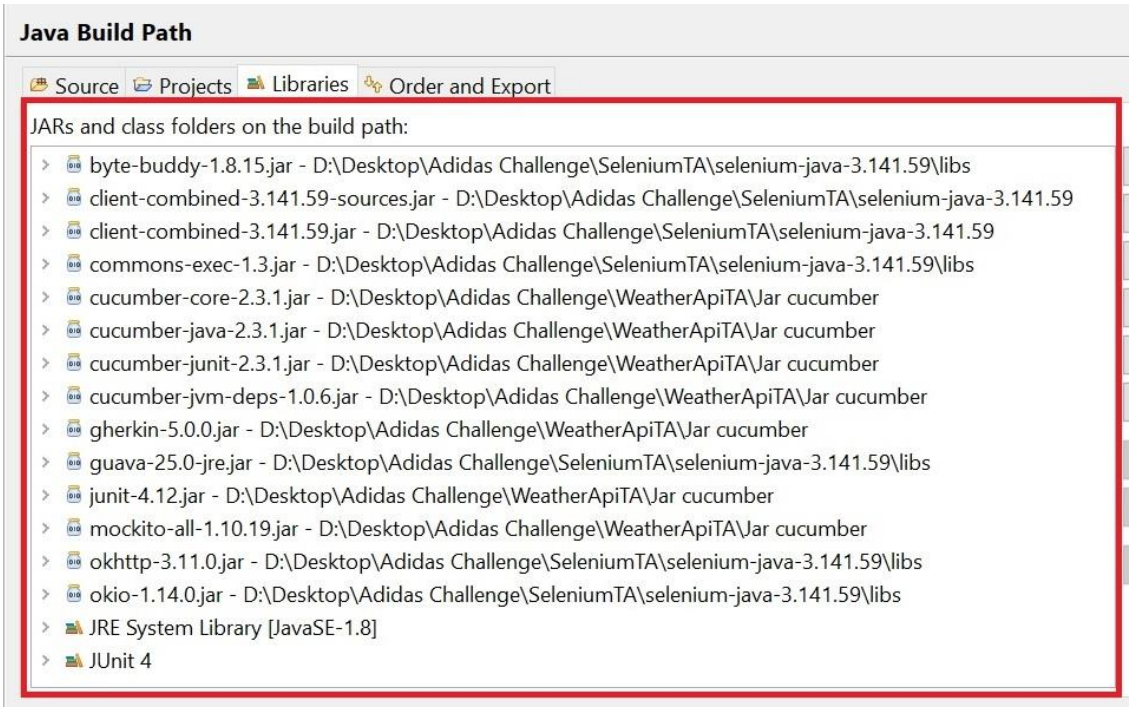
1) **Add External JARs of Selenium and Cucumber.**

Folder with External Libraries:

TestAutomationChallenge \Adidas Challenge\WeatherApiTA \selenium-java-3.141.59

TestAutomationChallenge \Adidas Challenge\WeatherApiTA \lib\selenium-java-3.141.59\libs

TestAutomationChallenge \Adidas Challenge\WeatherApiTA\Jar cucumber

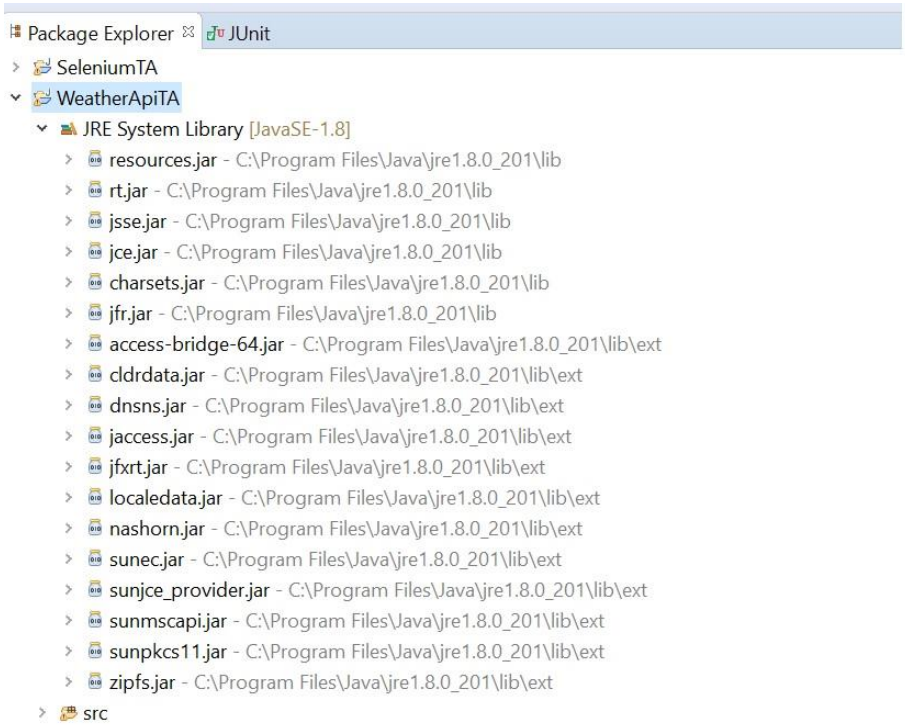


2) **JUnit 4:**

JUnit folder in peoject: *TestAutomationChallenge \Adidas Challenge \ WeatherApiTA \ plugins*

3) JRE System Library (JRE 1.8.0_201):

The JAVA version that is used is Java 1.8.0_201



How to execute?

After opening eclipse and importing the project:

The complete test suite is executed.

From '/WeatherApiTA/src/WeatherTestRunner/Runner.java', click on the right button of the mouse, option 'Run As', y click on 'Junit Test'.