

Tutorial Web UI Automation serenity-cucumber-archetype Selenium 2 + JUnit + Cucumber

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1. System requirements and environment setup: (See EVOZONdocumentation)

Download and install:

Java JDK	http://www.oracle.com/technetwork/java/javase/downloads/index.html (JDK)
Maven	https://maven.apache.org/download.cgi (Binary zip)
Firefox (11)	http://www.filehippo.com/download_firefox/11868/
Chrome (22)	http://www.oldapps.com/google_chrome.php
Eclipse	https://eclipse.org/downloads/ (for Java EE Developers)

Note: in some cases the latest version of the browser might not work with the version of the webdriver you have.

a. System setup:

- Download and install Java JDK
- Download and place Maven on your [c:](#) drive
- Download and install desired web browsers

b. Windows 7 Setup:

Right Click on My Computer - Properties
Click on Advanced System Settings
Click on Environment Variables

In the System Variables section:

Add new variables

M2_HOME	C:\maven
M2	%M2_HOME%\bin

Add new variables

JAVA_HOME	C:\Program Files\Java\jdk1.7.0_04
JAVA	%JAVA_HOME%\bin

In the Path variable add at the end: ;%M2%;%JAVA%

c. To validate the installation is correct:

Click on start (Windows key) and type **cmd**

Type **mvn -version** (maven version should be displayed)

Type **java -version** (java version should be displayed)

2. Create Maven Project (serenity-cucumber-archetype, i.e. Selenium 2 + JUnit+Cucumber)

2.1. Generate the project

- click **Start** and open a Command prompt window with **cmd**
- use the command: **mvn archetype:generate**

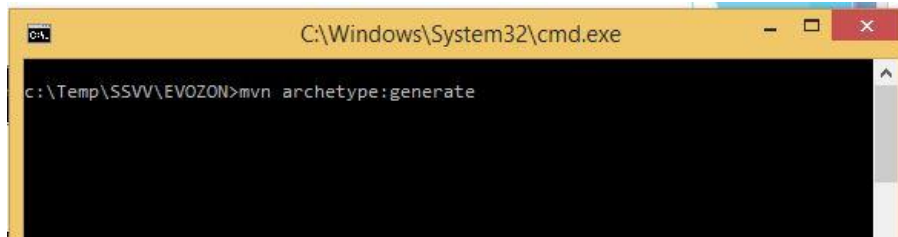


Figure 1a. Generate the Maven project (command)

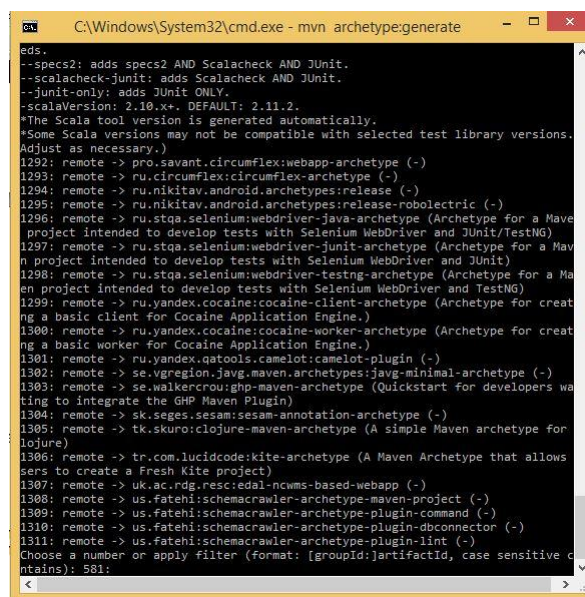
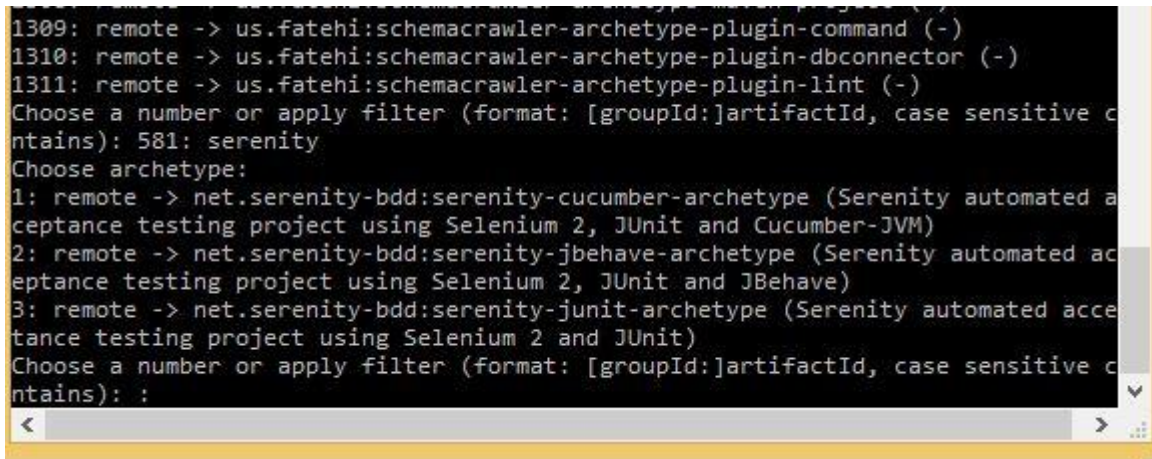


Figure 1b. Generate the Maven project (command execution)

2.2. Viewing options for archetype serenity

- Display the options for the Serenity archetype
- Enter option ...> serenity

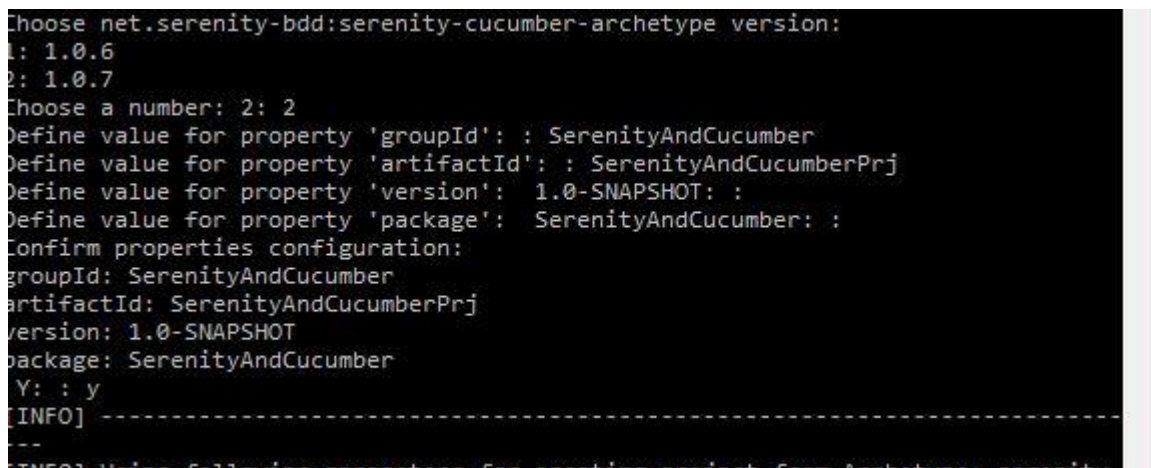


```
1309: remote -> us.fatehi:schemacrawler-archetype-plugin-command (-)
1310: remote -> us.fatehi:schemacrawler-archetype-plugin-dbconnector (-)
1311: remote -> us.fatehi:schemacrawler-archetype-plugin-lint (-)
Choose a number or apply filter (format: [groupId:]artifactId, case sensitive contains): 581: serenity
Choose archetype:
1: remote -> net.serenity-bdd:serenity-cucumber-archetype (Serenity automated acceptance testing project using Selenium 2, JUnit and Cucumber-JVM)
2: remote -> net.serenity-bdd:serenity-jbehave-archetype (Serenity automated acceptance testing project using Selenium 2, JUnit and JBehave)
3: remote -> net.serenity-bdd:serenity-junit-archetype (Serenity automated acceptance testing project using Selenium 2 and JUnit)
Choose a number or apply filter (format: [groupId:]artifactId, case sensitive contains): :
```

Figure 2. Filter serenity for archetype

2.3 Selecting archetype for serenity and Cucumber

- Select the first option (3 options available, select the 1st one)
- ...>1



```
Choose net.serenity-bdd:serenity-cucumber-archetype version:
1: 1.0.6
2: 1.0.7
Choose a number: 2: 2
Define value for property 'groupId': : SerenityAndCucumber
Define value for property 'artifactId': : SerenityAndCucumberPrj
Define value for property 'version': 1.0-SNAPSHOT: :
Define value for property 'package': SerenityAndCucumber: :
Confirm properties configuration:
groupId: SerenityAndCucumber
artifactId: SerenityAndCucumberPrj
version: 1.0-SNAPSHOT
package: SerenityAndCucumber
Y: : y
[INFO] -----
[INFO] Using following parameters for creating project from Archetype: serenity
```

Figure 3. Choose option for serenity and cucumber

- Select the last version (2 versions available, select the 2nd one)

2.4. Establish property values for the Maven project

- `groupId`: `SerenityAndCucumber`
- `artifactId`: `SerenityAndCucumberPrj`
- `version`: <enter>

- **package :** <enter>
- at the end the properties of the project are confirmed with command “y”

3. Import the project in Eclipse

- Open Eclipse
- Menu-> File->Import->Maven->Existing Maven Projects

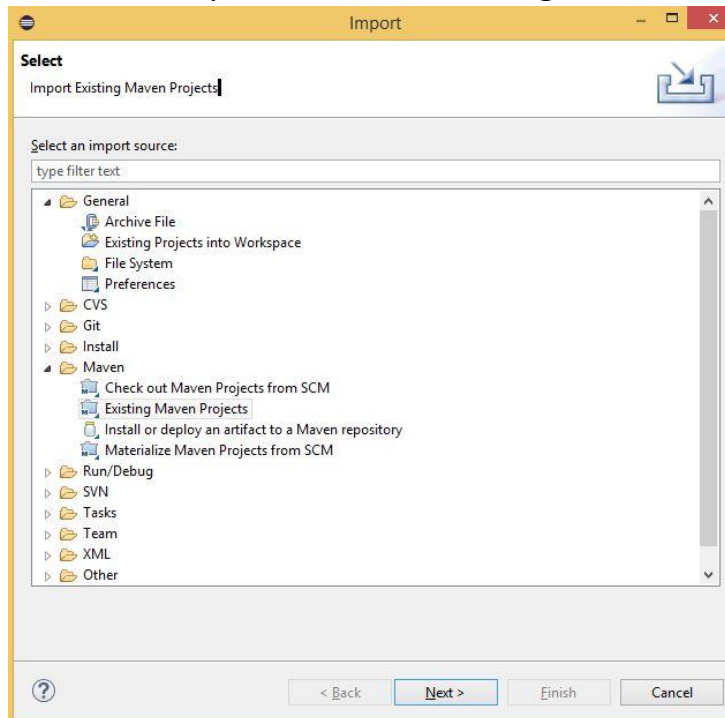


Figure 4 Maven project import in Eclipse

- Browse the files and select the created project and click Finish

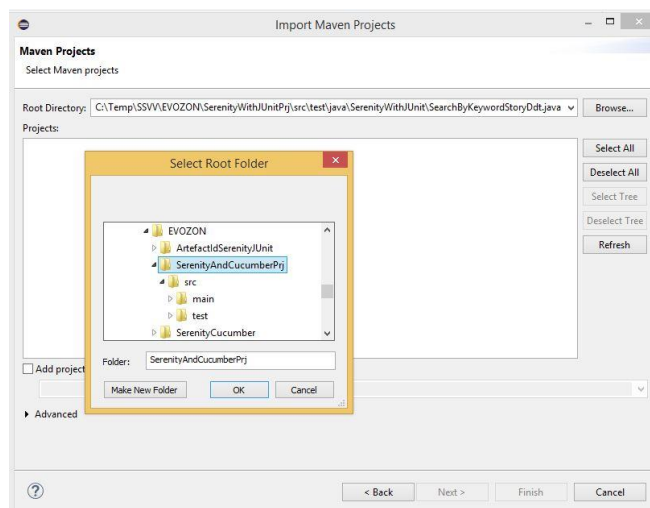


Figure 5 Select the Maven project created in command line

The result is the project with the following package explorer structure

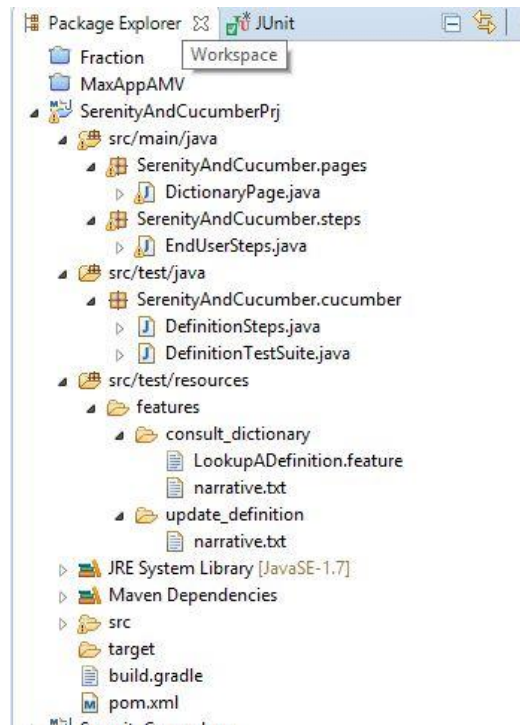


Figure 6 Structure of the Maven project in Eclipse

4. The Scenarios for testing

- In the src/test/resources/ at the LookupADefinition .feature file

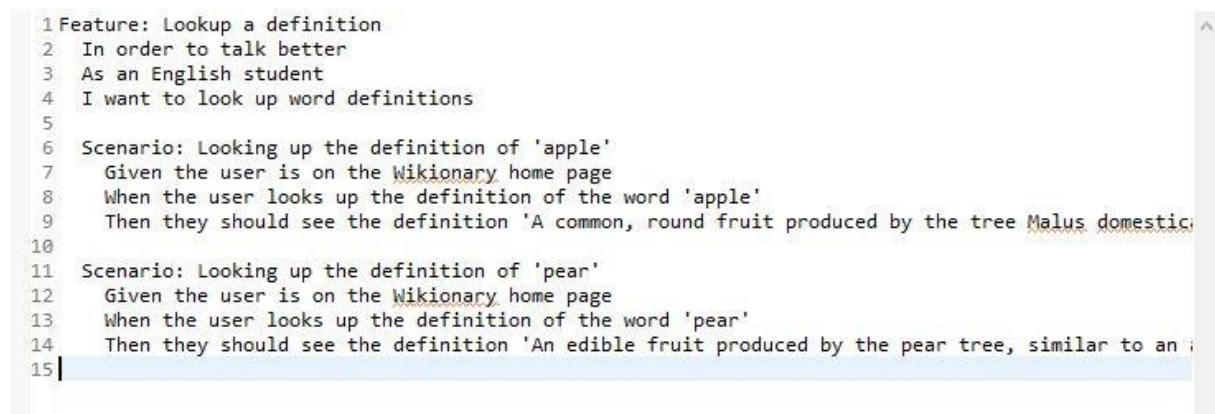


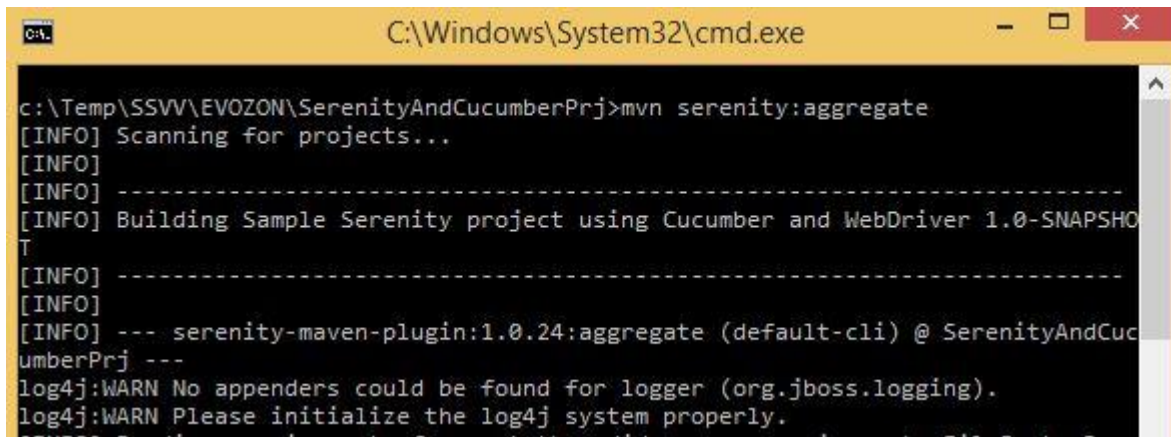
Figure 7 Scenarios for testing

5. Run as JUnit test

- Right-click on the project in Project Explorer and select Run As-> JUnit test
- The Firefox browser is opened and the definitions for "apple" and "pear" and "banana" are searched.

6. Obtaining the documentation for the executed test cases

- Remark: execute the command from the project directory
- ...>mvn serenity:aggregate



```
C:\Windows\System32\cmd.exe

c:\Temp\SSVV\EVOZON\SerenityAndCucumberPrj>mvn serenity:aggregate
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building Sample Serenity project using Cucumber and WebDriver 1.0-SNAPSHOT
[INFO] -----
[INFO]
[INFO] --- serenity-maven-plugin:1.0.24:aggregate (default-cli) @ SerenityAndCucumberPrj ---
log4j:WARN No appenders could be found for logger (org.jboss.logging).
log4j:WARN Please initialize the log4j system properly.
```

Figure 8. Generate Serenity report

7. View the serenity report

- in the project directory ...\\target\\site\\serenity\\index.html



Serenity BDD

Home > Lookup A Definition > Looking up the definition of 'apple'

☒ Overall Test Results ☐ Requirements ☐ Capabilities ☐ Features

Report generated 06-04-2015 23:37

Test Outcome
Looking Up The Definition Of 'Apple'

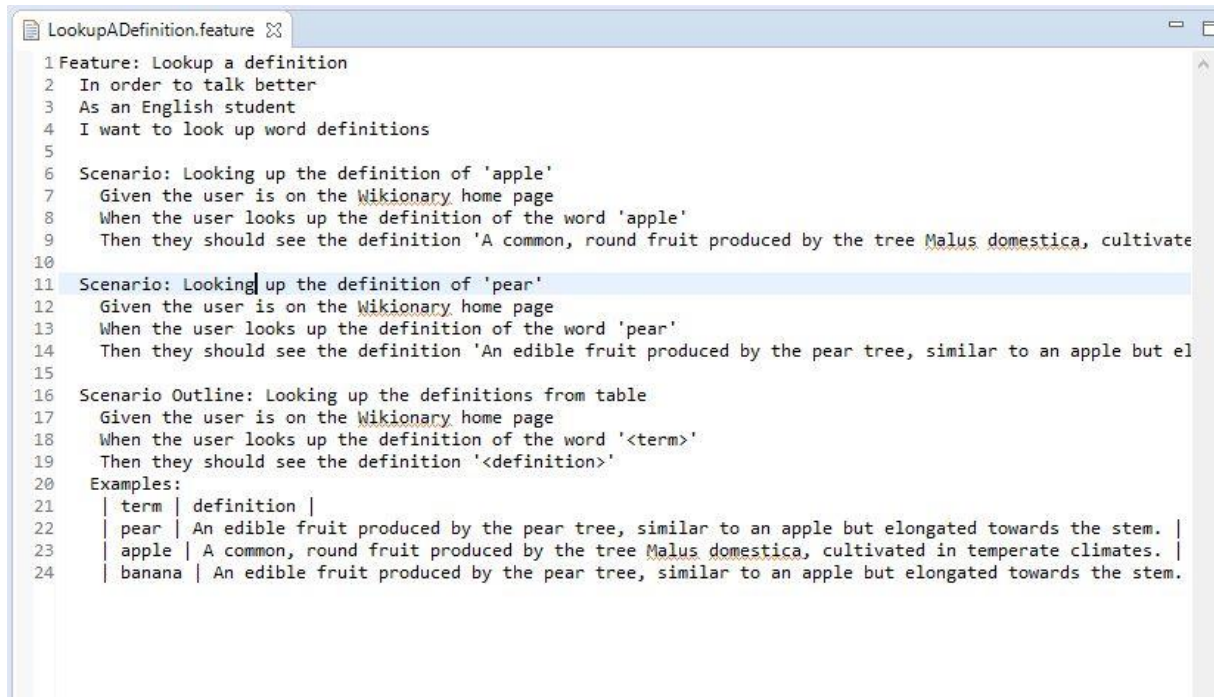
Feature: Lookup A Definition
In order to talk better
As an English student
I want to look up word definitions

Steps	Screenshot	Outcome	Duration
+ Given the user is on the Wikionary home page		SUCCESS	13.01s
+ When the user looks up the definition of the word 'apple'		SUCCESS	8.17s
+ Then they should see the definition 'A common, round fruit produced by the tree Malus domestica, cultivated in temperate climates.'		SUCCESS	3.77s

Figure 9. View Serenity report

8. Test Data Driven - data for test from csv file

- In the LookupADefinition.feature file add the Scenario Outline



```
1 Feature: Lookup a definition
2   In order to talk better
3   As an English student
4   I want to look up word definitions
5
6   Scenario: Looking up the definition of 'apple'
7     Given the user is on the Wikionary home page
8     When the user looks up the definition of the word 'apple'
9     Then they should see the definition 'A common, round fruit produced by the tree Malus domestica, cultivate
10
11  Scenario: Looking up the definition of 'pear'
12    Given the user is on the Wikionary home page
13    When the user looks up the definition of the word 'pear'
14    Then they should see the definition 'An edible fruit produced by the pear tree, similar to an apple but el
15
16  Scenario Outline: Looking up the definitions from table
17    Given the user is on the Wikionary home page
18    When the user looks up the definition of the word '<term>'
19    Then they should see the definition '<definition>'
20  Examples:
21    | term | definition |
22    | pear | An edible fruit produced by the pear tree, similar to an apple but elongated towards the stem. |
23    | apple | A common, round fruit produced by the tree Malus domestica, cultivated in temperate climates. |
24    | banana | An edible fruit produced by the pear tree, similar to an apple but elongated towards the stem.
```

Figure 10. Data driven testing

9. Run as JUnit test

- Right-click on the project tree and select Run As-> JUnit test
- The Firefox browser is opened and the definitions for "pear" and "apple" are searched.

10. Obtaining the documentation for the executed test cases

- Remark: execute the command from the project directory
- ...>mvn serenity:aggregate
- in the project directory ...\\target\\site\\serenity\\index.html