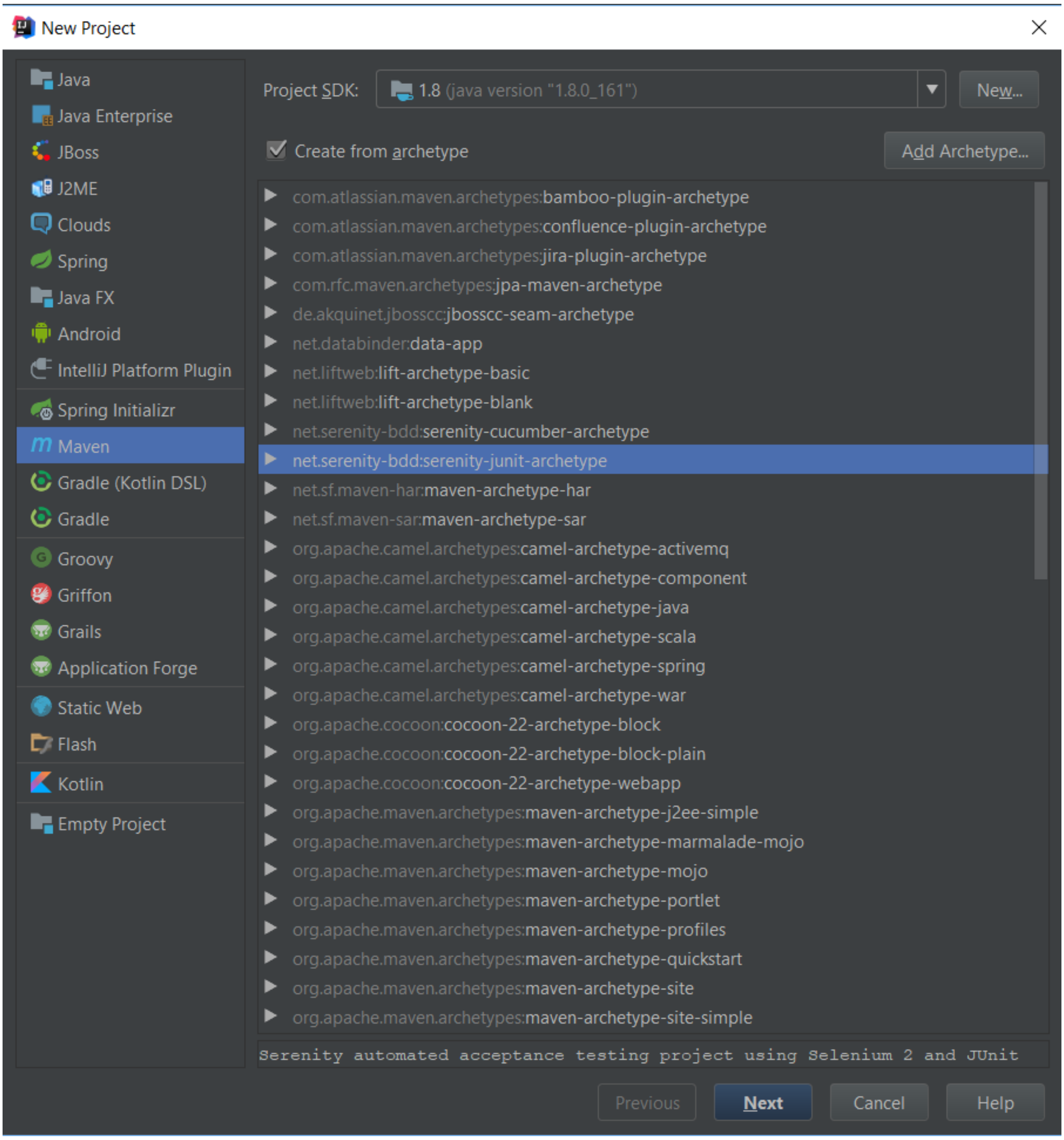
Tutorial Web UI Automation
serenity-junit-archetype
Serenity + JUnit

1. Create Maven Project (serenity-junit-archetype)

- **IntelliJ → File → New → Project → Maven**
  - Create from archetype: **serenity-junit-archetype**


New Project

Project SDK: 1.8 (java version "1.8.0_161")

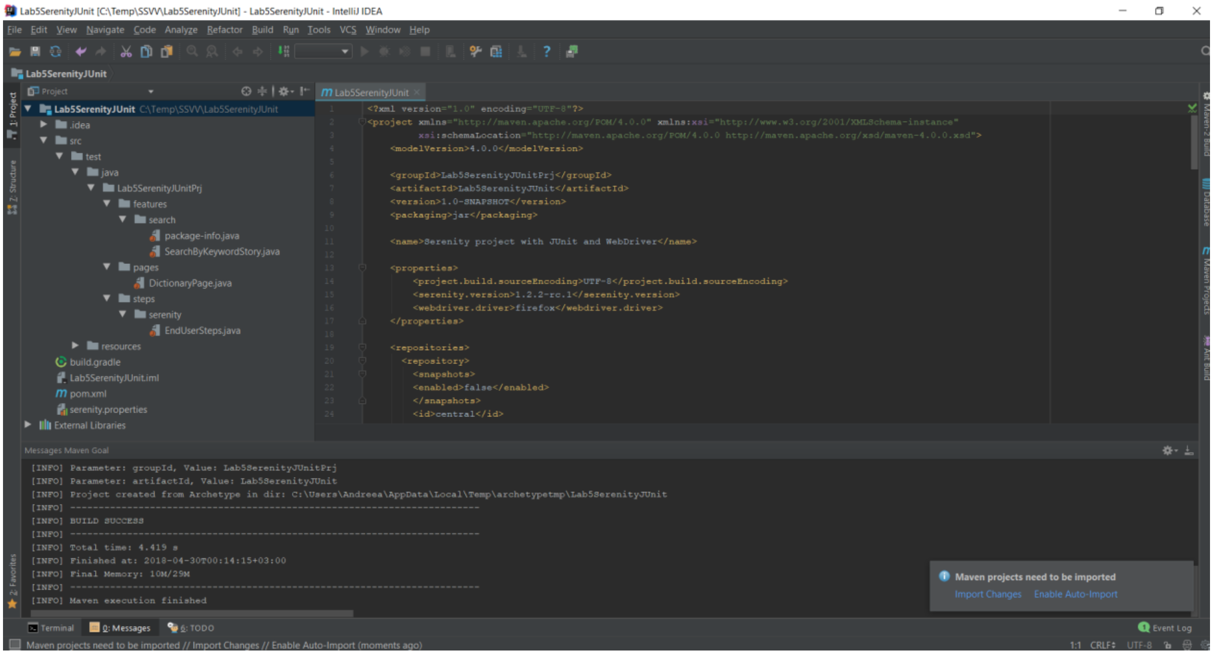
☑ Create from archetype

▶ net.serenity-bdd:serenity-junit-archetype

Serenity automated acceptance testing project using Selenium 2 and JUnit

Java
Java Enterprise
JBoss
J2ME
Clouds
Spring
Java FX
Android
IntelliJ Platform Plugin
Spring Initializr
Maven
Gradle (Kotlin DSL)
Gradle
Groovy
Griffon
Grails
Application Forge
Static Web
Flash
Kotlin
Empty Project
New...
Add Archetype...
com.atlassian.maven.archetypes:bamboo-plugin-archetype
com.atlassian.maven.archetypes:confluence-plugin-archetype
com.atlassian.maven.archetypes:jira-plugin-archetype
com.rfc.maven.archetypes:jpa-maven-archetype
de.akquinet.jbosscc:jbosscc-seam-archetype
net.databinder:data-app
net.liftweb:lift-archetype-basic
net.liftweb:lift-archetype-blank
net.serenity-bdd:serenity-cucumber-archetype
net.serenity-bdd:serenity-junit-archetype
net.sf.maven-har:maven-archetype-har
net.sf.maven-sar:maven-archetype-sar
org.apache.camel.archetypes:camel-archetype-activemq
org.apache.camel.archetypes:camel-archetype-component
org.apache.camel.archetypes:camel-archetype-java
org.apache.camel.archetypes:camel-archetype-scala
org.apache.camel.archetypes:camel-archetype-spring
org.apache.camel.archetypes:camel-archetype-war
org.apache.cocoon:cocoon-22-archetype-block
org.apache.cocoon:cocoon-22-archetype-block-plain
org.apache.cocoon:cocoon-22-archetype-webapp
org.apache.maven.archetypes:maven-archetype-j2ee-simple
org.apache.maven.archetypes:maven-archetype-marmalade-mojo
org.apache.maven.archetypes:maven-archetype-mojo
org.apache.maven.archetypes:maven-archetype-portlet
org.apache.maven.archetypes:maven-archetype-profiles
org.apache.maven.archetypes:maven-archetype-quickstart
org.apache.maven.archetypes:maven-archetype-site
org.apache.maven.archetypes:maven-archetype-site-simple
Previous
Next
Cancel
Help

- After creating the project, check "**Enable Auto-Import** "



Lab5SerenityJUnit [C:\Temp\SSVV\Lab5SerenityJUnit] - Lab5SerenityJUnit - IntelliJ IDEA

```xml
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>

    <groupId>Lab5SerenityJUnitPrj</groupId>
    <artifactId>Lab5SerenityJUnit</artifactId>
    <version>1.0-SNAPSHOT</version>
    <packaging>jar</packaging>

    <name>Serenity project with JUnit and WebDriver</name>

    <properties>
        <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
        <serenity.version>1.2.2-rc.1</serenity.version>
        <webdriver.driver>firefox</webdriver.driver>
    </properties>

    <repositories>
      <repository>
        <snapshots>
        <enabled>false</enabled>
        </snapshots>
        <id>central</id>
```

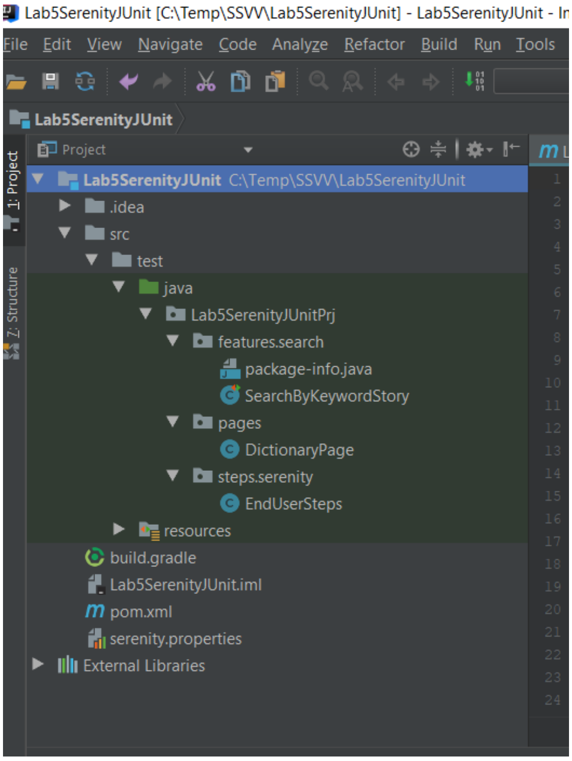
Messages Maven Goal

```
[INFO] Parameter: groupId, Value: Lab5SerenityJUnitPrj
[INFO] Parameter: artifactId, Value: Lab5SerenityJUnit
[INFO] Project created from Archetype in dir: C:\Users\Andreea\AppData\Local\Temp\archetypetmp\Lab5SerenityJUnit
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 4.419 s
[INFO] Finished at: 2018-04-30T00:14:15+03:00
[INFO] Final Memory: 10M/29M
[INFO] ------------------------------------------------------------------------
[INFO] Maven execution finished
```

Maven projects need to be imported
Import Changes Enable Auto-Import

Maven projects need to be imported // Import Changes // Enable Auto-Import (moments ago)

- The Maven project will have the following structure



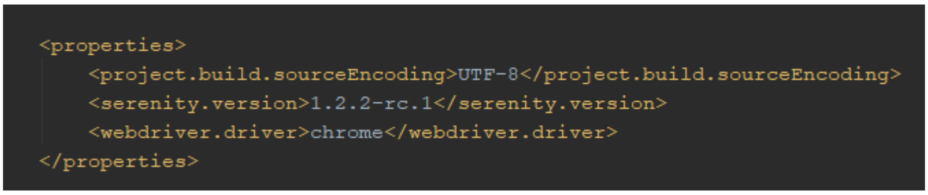
Lab5SerenityJUnit [C:\Temp\SSVV\Lab5SerenityJUnit] - Lab5SerenityJUnit - Ir

```
Lab5SerenityJUnit C:\Temp\SSVV\Lab5SerenityJUnit
    .idea
    src
        test
            java
                Lab5SerenityJUnitPrj
                    features.search
                        package-info.java
                        SearchByKeywordStory
                    pages
                        DictionaryPage
                    steps.serenity
                        EndUserSteps
            resources
    build.gradle
    Lab5SerenityJUnit.iml
    pom.xml
    serenity.properties
External Libraries
```

File Edit View Navigate Code Analyze Refactor Build Run Tools
Lab5SerenityJUnit
Project
1: Project
Z: Structure

2. Setting the web browser to run the tests

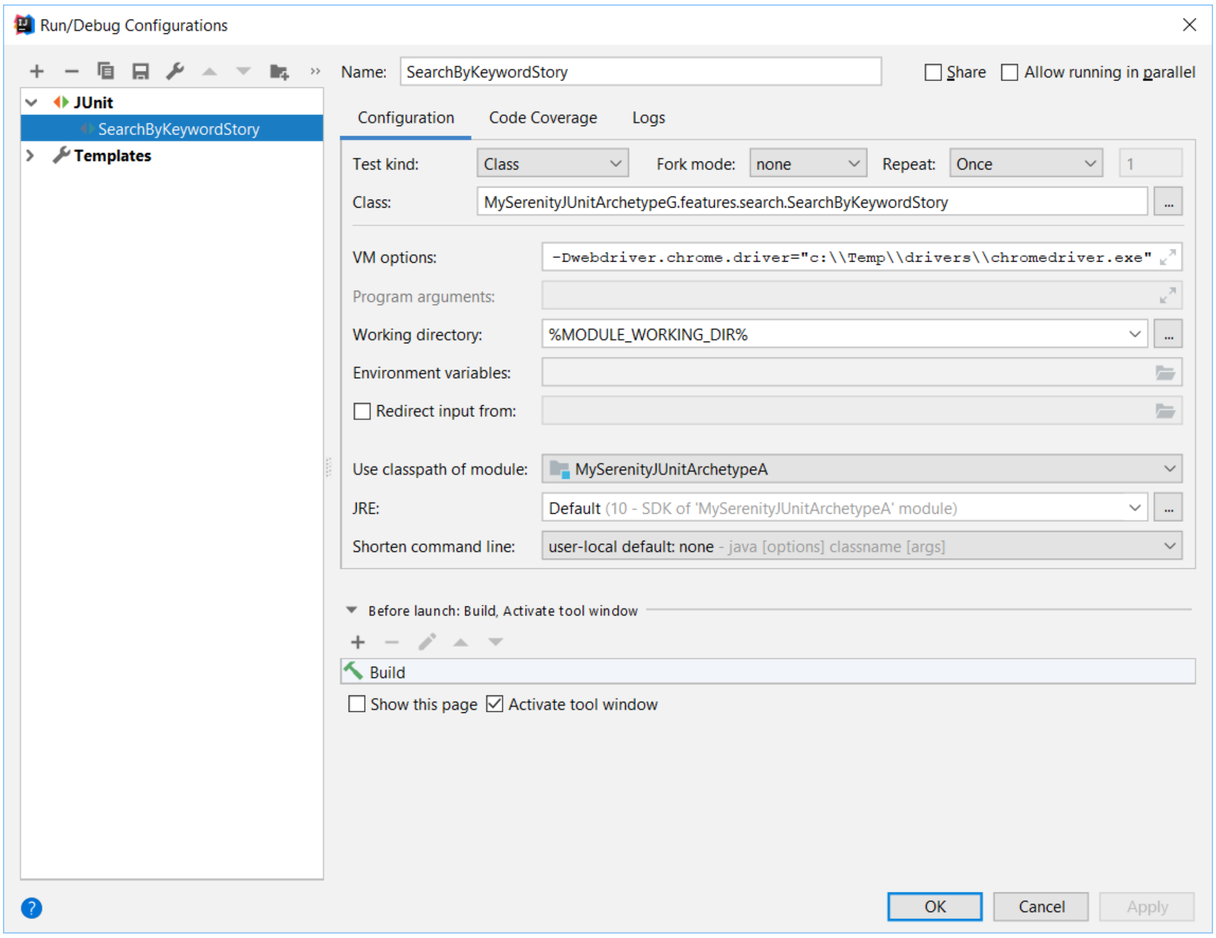
- In the pom.xml file Firefox driver is set implicitly
- Driver for chrome
  - https://sites.google.com/a/chromium.org/chromedriver/downloads
- the drivers are downloaded, unzipped and saved to a folder, eg c:\Temp\drivers, from where they can be used later by any testing project;
- the path to the folder containing the web browser drivers, i.e. c:\Temp\drivers, is added to the Path environment variable
- to modify the browser used to run the test, the file type pom.xml changes to the driver, e.g., chrome



```
<properties>
    <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
    <serenity.version>1.2.2-rc.1</serenity.version>
    <webdriver.driver>chrome</webdriver.driver>
</properties>
```

- add VM options:
  - Run->Edit configurations….-> VM options:

-Dwebdriver.chrome.driver="c:\\Temp\\drivers\\chromedriver.exe"



Run/Debug Configurations

Name: SearchByKeywordStory

□ Share □ Allow running in parallel

JUnit
SearchByKeywordStory
Templates

Configuration | Code Coverage | Logs

Test kind: Class
Fork mode: none
Repeat: Once
1

Class: MySerenityJUnitArchetypeG.features.search.SearchByKeywordStory

VM options: -Dwebdriver.chrome.driver="c:\\Temp\\drivers\\chromedriver.exe"

Program arguments:

Working directory: %MODULE_WORKING_DIR%

Environment variables:

□ Redirect input from:

Use classpath of module: MySerenityJUnitArchetypeA

JRE: Default (10 - SDK of 'MySerenityJUnitArchetypeA' module)

Shorten command line: user-local default: none - java [options] classname [args]

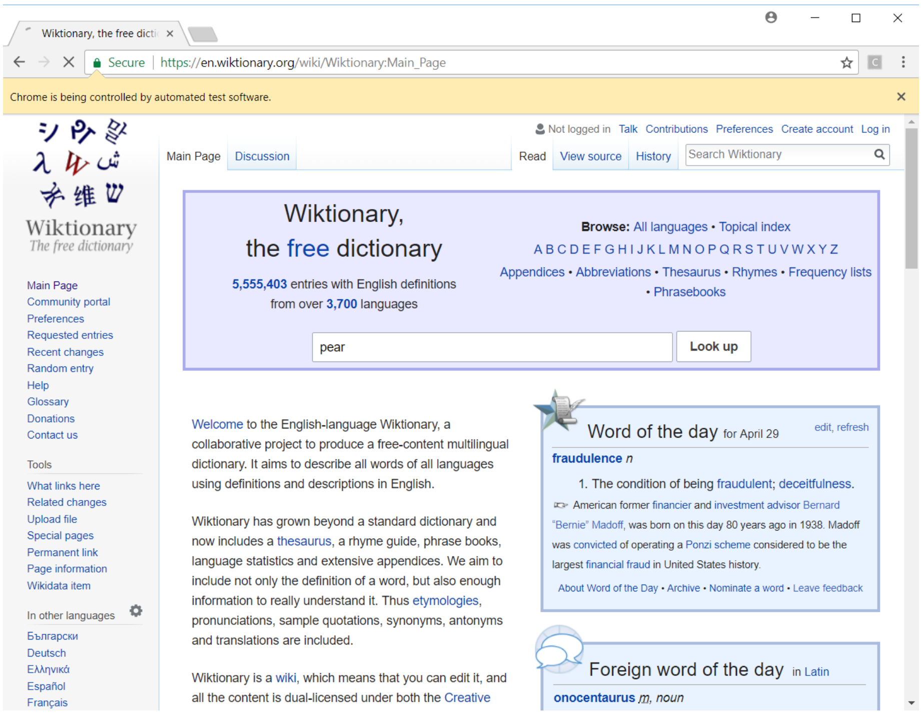
Before launch: Build, Activate tool window

Build

□ Show this page ☑ Activate tool window

3. Run as JUnit test

- In ProjectExplorer- Right-click on a TestCase (e.g. **SearchByKeywordStory)** and select Run
- The Chrome browser is opened and the definitions for "pear" and "apple" are searched.


Wiktionary, the free dicti ×
Secure | https://en.wiktionary.org/wiki/Wiktionary:Main_Page
Not logged in Talk Contributions Preferences Create account Log in
Main Page Discussion
Read View source History
Search Wiktionary
Wiktionary
The free dictionary
Main Page
Community portal
Preferences
Requested entries
Recent changes
Random entry
Help
Glossary
Donations
Contact us
Tools
What links here
Related changes
Upload file
Special pages
Permanent link
Page information
Wikidata item
In other languages
Български
Deutsch
Ελληνικά
Español
Français
Browse: All languages • Topical index
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Appendices • Abbreviations • Thesaurus • Rhymes • Frequency lists • Phrasebooks
Look up
edit, refresh
About Word of the Day • Archive • Nominate a word • Leave feedback

Chrome is being controlled by automated test software.

Wiktionary, the free dictionary

5,555,403 entries with English definitions from over 3,700 languages

pear

Welcome to the English-language Wiktionary, a collaborative project to produce a free-content multilingual dictionary. It aims to describe all words of all languages using definitions and descriptions in English.

Wiktionary has grown beyond a standard dictionary and now includes a thesaurus, a rhyme guide, phrase books, language statistics and extensive appendices. We aim to include not only the definition of a word, but also enough information to really understand it. Thus etymologies, pronunciations, sample quotations, synonyms, antonyms and translations are included.

Wiktionary is a wiki, which means that you can edit it, and all the content is dual-licensed under both the Creative

Word of the day for April 29

fraudulence *n*

1. The condition of being fraudulent; deceitfulness.

☞ American former financier and investment advisor Bernard "Bernie" Madoff, was born on this day 80 years ago in 1938. Madoff was convicted of operating a Ponzi scheme considered to be the largest financial fraud in United States history.

Foreign word of the day in Latin

onocentaurus *m, noun*

-

4. Obtaining the documentation for the executed test cases

- Add in the file “serenity.properties” file in the **IntelliJ project**

```
webdriver.driver=chrome

webdriver.chrome.driver = C:\\Temp\\drivers\\chromedriver.exe
```

[Option 1]

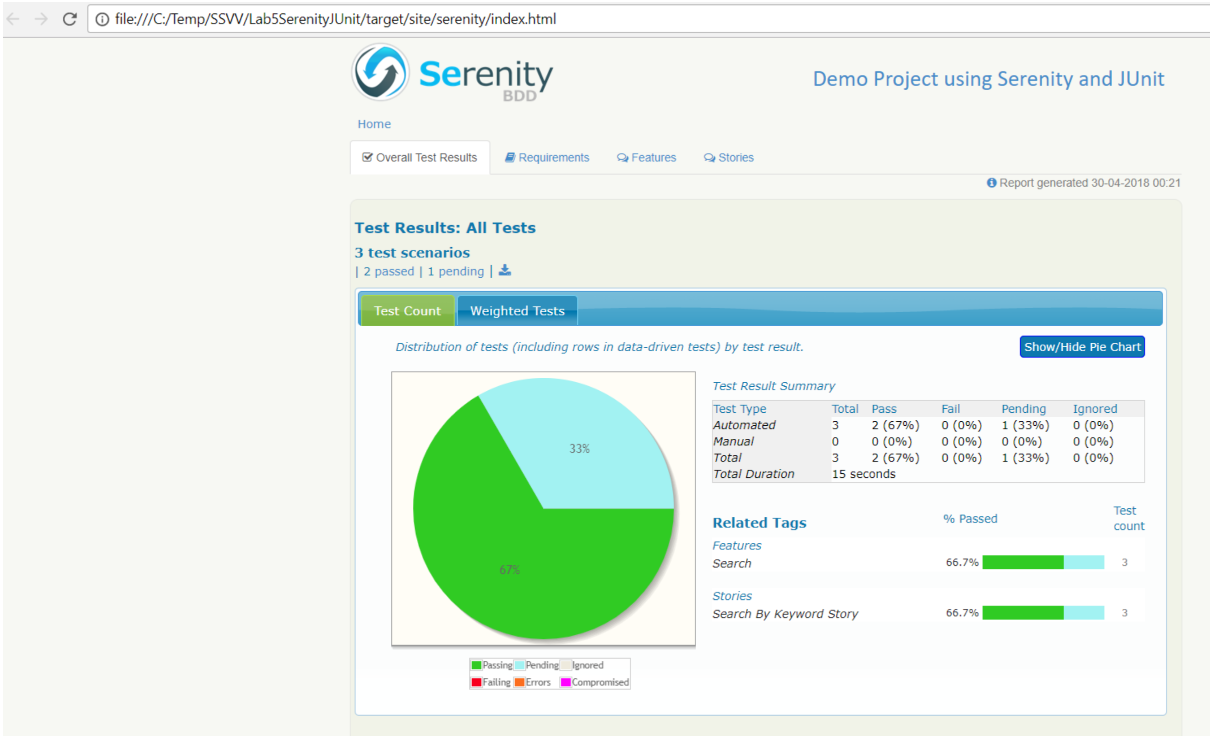
- **IntelliJ → View →Tool Windows →Maven Projects**
- Select *Lifecycle*-> the “verify” option
- the generated report will be saved in the project folder in \target\ site\serenity;

[Option 2]

- click **Start** and open a Command prompt window with **cmd**
- Remark: execute the command from the project directory
- ...>mvn serenity:aggregate
- The generated report will be saved in the folder **\target\site\serenity**

5. Viewing the Serenity report

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



file:///C:/Temp/SSVV/Lab5SerenityJUnit/target/site/serenity/index.html

Serenity BDD

Demo Project using Serenity and JUnit

Home

Overall Test Results | Requirements | Features | Stories

Report generated 30-04-2018 00:21

Test Results: All Tests

3 test scenarios

| 2 passed | 1 pending |

Test Count | Weighted Tests

Distribution of tests (including rows in data-driven tests) by test result.

Show/Hide Pie Chart

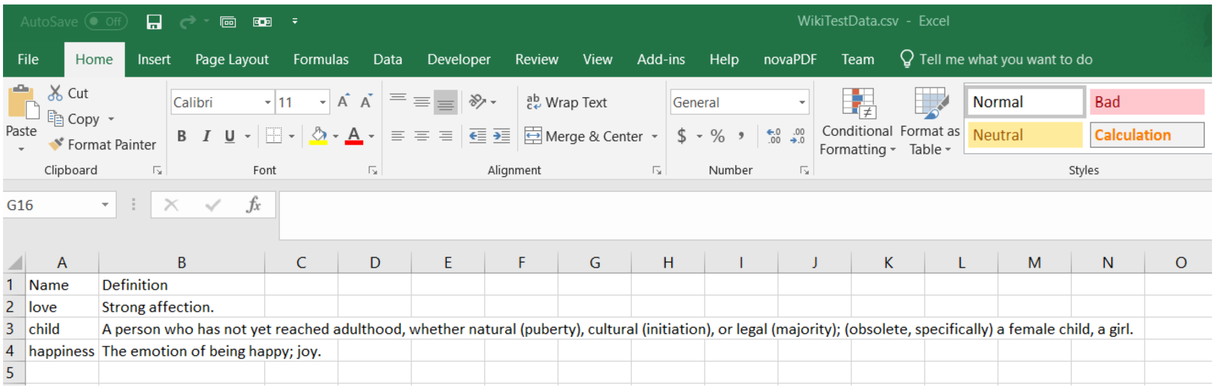
Test Result Summary

Test Type	Total	Pass	Fail	Pending	Ignored
Automated	3	2 (67%)	0 (0%)	1 (33%)	0 (0%)
Manual	0	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	3	2 (67%)	0 (0%)	1 (33%)	0 (0%)
Total Duration	15 seconds				

Related Tags	% Passed	Test count
Features		
Search	66.7%	3
Stories		
Search By Keyword Story	66.7%	3

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

- create the csv file *WikiTestData.csv* with the content:
  - first line indicate the structure of the table with input data
- next lines contain input data for individual test cases.



	A	B
1	Name	Definition
2	love	Strong affection.
3	child	A person who has not yet reached adulthood, whether natural (puberty), cultural (initiation), or legal (majority); (obsolete, specifically) a female child, a girl.
4	happiness	The emotion of being happy; joy.
5		

- add the csv file to the src/test/resources directory
- add a new class to run with Ddt with Parameterized Runner (see the class below)
- run (see Section 3 of the current document)
- obtaining documentation (see Section 4 of the current document)

- view the serenity report (see Section 5 of the current document)

```
•   package WikiExampleGroup.features.search;

    import net.serenitybdd.junit.runners.SerenityParameterizedRunner;
    import net.thucydides.core.annotations.Issue;
    import net.thucydides.core.annotations.Managed;
    import net.thucydides.core.annotations.ManagedPages;
    import net.thucydides.core.annotations.Steps;
    import net.thucydides.core.pages.Pages;
    import net.thucydides.junit.annotations.Qualifier;
    import net.thucydides.junit.annotations.UseTestDataFrom;

    import org.junit.Test;
    import org.junit.runner.RunWith;
    import org.openqa.selenium.WebDriver;

    import Lab5SerenityJUnitPrj.steps.serenity.EndUserSteps;

    @RunWith(SerenityParameterizedRunner.class)
    @UseTestDataFrom("src/test/resources/WikiTestData.csv")
    public class SearchByKeywordStoryDdt {

        @Managed(uniqueSession = true)
        public WebDriver webdriver;

        @ManagedPages(defaultUrl = "http://en.wiktionary.org/wiki/Wiktionary")
        public Pages pages;

        public String name;
        public String definition;

        @Qualifier
        public String getQualifier() {
            return name;
        }

        @Steps
        public EndUserSteps endUser;

        @Issue("#WIKI-1")
        @Test
        public void searchWikiByKeywordTestDDT() {
            endUser.is_the_home_page();
          endUser.looks_for(getName());
            endUser.should_see_definition(getDefinition());
        }

        public String getName() {
            return name;
        }

        public void setName(String name) {
            this.name = name;
        }

       public String getDefinition() {
          return definition;
       }

       public void setDefinition(String definition) {
          this.definition = definition;
       }

    }
```

Test case class that is parametrized using a csv file