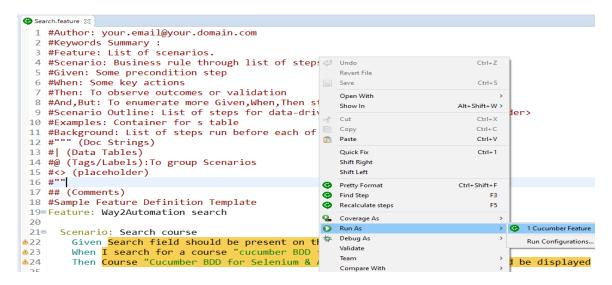
<u>Way2Automation - Tutorial 4 - Create runner file</u>

What you will Learn:

- o Create runner file
- o Execute runner file as junit test
- o Print the pretty output
- o Monochrome option
- o Execute runner file as mayen test

Create runner file

So far, we have been executing our feature file by right clicking the feature file >Run As > Cucumber Feature

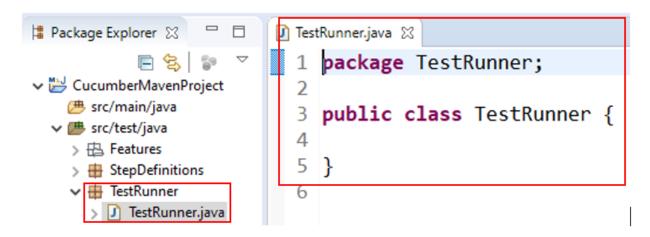


Now, if we have multiple feature files, we cannot execute our feature files using the above method. It will be quite tedious. A better approach would be to create a runner file.

Also, recall cucumber design flow steps. We create TestRunner.java file to execute our step def file



See below. Create a new package 'TestRunner' under src/test/java. Under this package, create a java class 'TestRunner'



Now we will add 2 annotations to this class: @RunWith and @CucumberOptions Let us first add @RunWith(Cucumber.class)

To resolve error, import the classes [Ctrl + Shift + O]

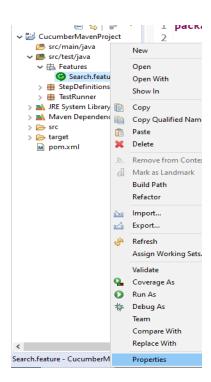
Let us now add the second annotation

```
1 package TestRunner;
2
3 import org.junit.runner.RunWith;
4 import io.cucumber.junit.Cucumber;
5
6 @RunWith(Cucumber.class)
6 @CucumberOptions()
8 public class TestRunner {
```

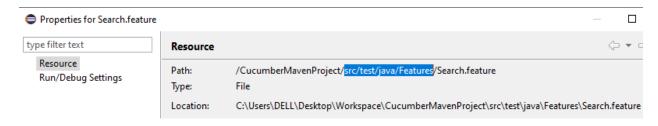
To resolve error, import the classes [Ctrl + Shift + O]

We will now add some options. Now, how will the TestRunner file know the location of feature file? The first option does that. We use the 'features' keyword

To find the location of feature file, right click the feature file > properties



The below window comes up. Just copy the path starting from src/test/java/Features



Paste it

```
#TestRunner.java 
package TestRunner;

import org.junit.runner.RunWith;

RunWith(Cucumber.class)

RunWith(Cucumber.class)

CucumberOptions(
features = {"src/test/java/Features"},

public class TestRunner {
```

Note that, we copied the path only upto 'Features' package. We could have also copied the path upto the exact feature filename viz src/test/java/Features/Search.feature

However, tomorrow if there are multiple feature files inside 'Features' package and we want to execute all of them, than it would be better to mention the path ony uptill 'Features' package.

Next, using second option, we will tell the TestRunner where exactly the step definition file is available. This is done using 'glue' keyword

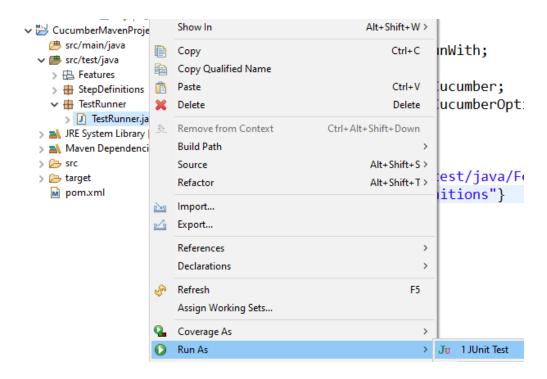
Just mention the name of the 'StepDefinitions' package folder. The TestRunner file will come to know that all the step definition files are present inside this package

```
□ Package Explorer ⋈
                      1 package TestRunner;
CucumberMavenProject
   src/main/java
                         3⊝import org.junit.runner.RunWith;
 > 🕒 Features
                         5 import io.cucumber.junit.Cucumber;
   > # StepDefinitions
                         6 import io.cucumber.junit.CucumberOptions;
   > H TestRunner
 > M JRE System Library [JavaSE-
                         7
 > Maven Dependencies
                         8 @RunWith(Cucumber.class)
 > 🗁 src
                         9 @CucumberOptions(
 > 🗁 target
                                    features = {"src/test/java/Features"},
                       10
   m pom.xml
                                    glue = {"StepDefinitions"}
                       11
                       12
                       13 public class TestRunner {
                       14
                        15 }
```

Save the TestRunner file.

Execute runner file as junit test

Right click TestRunner.java > Run As > Junit Test

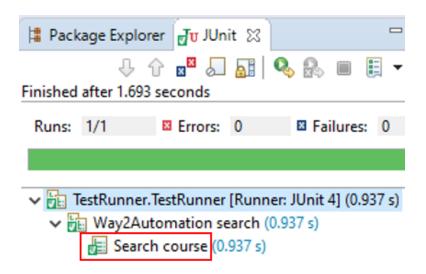


See the console o/p below. All 3 steps are executed fine



- Step 1: I landed on search page
- Step 2: Search the course with name: cucumber BDD for Selenium price: 1000
- Step 3: course Cucumber BDD for Selenium & Appium with Live Projects is displayed

You can also see the Junit plugin o/p. It tells us that the 'Search course' scenario got executed fine



Recall that the name of our scenario is 'Search course'

```
Feature: Way2Automation search

Scenario: Search course

Given Search field should be present on the Way2Automation website

When I search for a course "cucumber BDD for Selenium" having price 1000

Then Course "Cucumber BDD for Selenium & Appium with Live Projects" should be di
```

Print the pretty output

Notice that in the console output that we got above, we do not see the respective Give/When/Then steps.

```
Console 

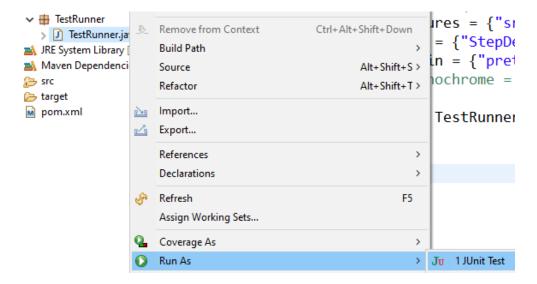
Conso
```

We can see the respective Give/When/Then steps in the console o/p by printing the pretty output. This is done by adding one more cucumber option. There is a 'plugin' keyword that we can use, see below

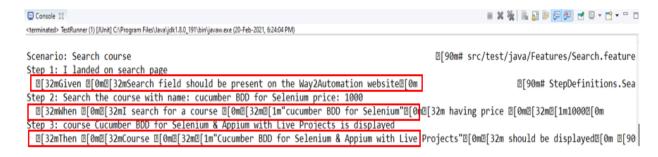
```
1 package TestRunner;
  3⊚import org.junit.runner.RunWith;
 4
  5 import io.cucumber.junit.Cucumber;
 6 import io.cucumber.junit.CucumberOptions;
 7
 8 @RunWith(Cucumber.class)
 9 @CucumberOptions(
           features = {"src/test/java/Features"},
10
           glue = {"StepDefinitions"},
11
12
           plugin = {"pretty"}
13
14 public class TestRunner {
15
16 }
```

Save the file.

Execute the TestRunner



Notice that the o/p is still not pretty. We do see the Given/When/Then steps but not easily readbale, see below



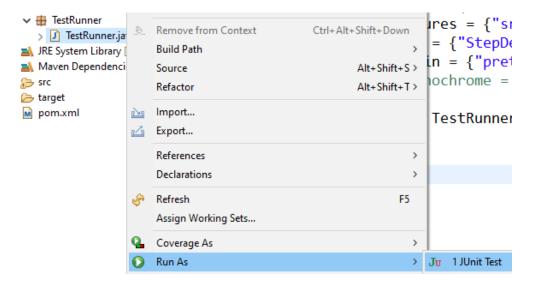
Monochrome option

To make the console o/p further readbale, add another option, see below

```
🚺 TestRunner.java 🖂
 1 package TestRunner;
 2
 30 import org.junit.runner.RunWith;
 5 import io.cucumber.junit.Cucumber;
   import io.cucumber.junit.CucumberOptions;
 7
 8 @RunWith(Cucumber.class)
 9 @CucumberOptions(
            features = {"src/test/java/Features"},
10
11
            glue = {"StepDefinitions"},
12
            plugin = {"pretty"},
13
            monochrome = true
14
15 public class TestRunner {
```

Save the file

Execute the TestRunner



Now, the console o/p shows the readable Give/When/Then steps

```
Scenario: Search course # src/te
Step 1: I landed on search page
Given Search field should be present on the Way2Automation website # StepDe
Step 2: Search the course with name: cucumber BDD for Selenium price: 1000
When I search for a course "cucumber BDD for Selenium" having price 1000
Step 3: course Cucumber BDD for Selenium & Appium with Live Projects is displayed
Then Course "Cucumber BDD for Selenium & Appium with Live Projects" should be displayed # StepDe
```

Execute runner file as maven test

Let us now see how to run the same runner file as a mayen test.

Before we run the maven test, we have to first rename our runner file with 'Test' is prefix (otherwise you will not see the Given/When/Then steps in output)

```
1 package TestRunner;
 3⊚ import org.junit.runner.RunWith;
 4
 5 import io.cucumber.junit.Cucumber;
 6 import io.cucumber.junit.CucumberOptions;
 8 @RunWith(Cucumber.class)
 9 @CucumberOptions(
           features = {"src/test/java/Features"},
10
11
           glue = {"StepDefinitions"},
12
           plugin = {"pretty"},
13
           monochrome = true
14
15 public class Runner Test {
16
17 }
```

Let us fix the error by renaming the class file

So we have

```
📮 Package Expl... 🏻 ♂ JUnit 🗀 🗖
                             1 package TestRunner;
CucumberMavenProject
                               2
   # src/main/java
                               3⊕ import org.junit.runner.RunWith;

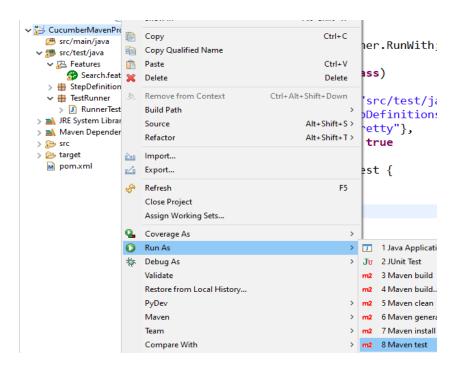
▼ 

## src/test/java

✓ Æ Features

                               8 @RunWith(Cucumber.class)
       Search.feature
                               9 @CucumberOptions(
   > # StepDefinitions
   features = {"src/test/java/Features"},
                              10
     > 🕽 RunnerTest.java
                                           glue = {"StepDefinitions"},
                              11
  > A JRE System Library [JavaSE-1.8]
                                           plugin = {"pretty"},
                              12
 > Maven Dependencies
                              13
                                           monochrome = true
  > 🐎 src
  > 🗁 target
                              14
   m pom.xml
                              15 public class RunnerTest {
```

Right click project > Run As > Maven test



Below is console o/p. Notice that it the 'Build' got successfull and it mentions the Given/When/Then steps

```
■ Console ⋈
                                                                                                terminated> C:\Program Files\Java\jdk1.8.0_191\bin\javaw.exe (20-Feb-2021, 7:57:00 PM)
[INFO] Scanning for projects...
[INFO]
[INFO]
        ------ LearningCucumberBDD:CucumberMavenProject >------
[INFO] Building CucumberMavenProject 0.0.1-SNAPSHOT
[INFO]
                   -----[ jar ]-----
[INFO]
          maven-resources-plugin:2.6:resources (default-resources) @ CucumberMavenProject ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\DELL\Desktop\Workspace\CucumberMavenProject\src\main\resources
[TNFO]
      --- maven-compiler-plugin:3.8.1:compile (default-compile) @ CucumberMavenProject ---
[INFO]
[INFO] Nothing to compile - all classes are up to date
[INFO]
          maven-resources-plugin:2.6:testResources (default-testResources) @ CucumberMavenProject ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory C:\Users\DEsktop\Workspace\CucumberMavenProject\src\test\resources
ÎINFOÎ
ÎINFOÎ
      --- maven-compiler-plugin:3.8.1:testCompile (default-testCompile) @ CucumberMavenProject ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
      --- maven-surefire-plugin:2.22.2:test (default-test) @ CucumberMavenProject ---
[TNFO] -----
[INFO] TESTS
[INFO] Running TestRunner.RunnerTest
Scenario: Search course
                                                                                     # src/test/java/Features/Search.feature:21
Step 1: I landed on search page
 Given Search field should be present on the Way2Automation website
                                                                                     # StepDefinitions.SearchSteps.search field s
Step 2: Search the course with name: cucumber BDD for Selenium price: 1000
 When I search for a course "cucumber BDD for Selenium" having price 1000
                                                                                     # StepDefinitions.SearchSteps.i_search_for_a
Step 3: course Cucumber BDD for Selenium & Appium with Live Projects is displayed
 Then Course "Cucumber BDD for Selenium & Appium with Live Projects" should be displayed # StepDefinitions.SearchSteps.course_should_
? Share your Cucumber Report with your team at https://reports.cucumber.io
? Activate publishing with one of the following:
? src/test/resources/cucumber.properties:
                                                cucumber.publish.enabled=true
 src/test/resources/junit-platform.properties:
                                                cucumber.publish.enabled=true
                                                CUCUMBER_PUBLISH_ENABLED=true
 Environment variable:
                                                @CucumberOptions(publish = true)
? More information at https://reports.cucumber.io/docs/cucumber-jvm
? Disable this message with one of the following:
? src/test/resources/cucumber.properties:
                                               cucumber.publish.quiet=true
 src/test/resources/junit-platform.properties:
                                               cucumber.publish.quiet=true
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 4.912 s - in TestRunner.RunnerTest
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] BUILD SUCCESS
[INFO] Total time: 18.237 s
[INFO] Finished at: 2021-02-20T19:57:27+05:30
[INFO]
```

This is how we design and runner the runner file.

So so far, we have seen how to design a simple cucumber feature file, step definition file and a runner file.

Thank you for reading!