

Enhance Automation Test Documentation

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Web URL: <https://www.trademe.co.nz/>

TradeMe Sandbox API URL: <https://api.tmsandbox.co.nz>

THE TEST

Part 1: Web UI Test

Using the [TradeMe web site](https://www.trademe.co.nz/) write automation code which does the following:

- 1) Search an existing Used Car listing with any relevant details like Keyword, Make, Model, Body Style etc.
- 2) Confirm that the following details are shown for that car
 - a) Number plate
 - b) Kilometers
 - c) Body
 - d) Seats
- 3) Confirm that the above values always match with the test data

Part 2: API Test

Using the TradeMe Sandbox environment API, write automation code which does the following:

1. Retrieve a list of charities and confirm that St John is included in the list.
2. Create a new listing with any relevant details in the category 0002-0356-0032-2273- and confirm the listing was created successfully.

Design

The automation design is based on the BDD framework and following components have been used:

- Feature File for Web and API automation (using Gherkin)
- Step Definition Web- The automation code for each step defined in feature file is mapped
- Page(s) – Automation code specific to trademe listing search page and Web element mappings/identification.
- Test Runner Class: A starting point to run all test cases execution

Libraries used and Dependencies structure

The libraries used primarily are Selenium, Cucumber, TestNg, RestAssured, Junit and slf4j-api

```
[INFO] +- org.apache.httpcomponents:httpmime:jar:4.5.3:test
[INFO] +- org.hamcrest:hamcrest:jar:2.1:test
[INFO] +- org.ccil.cowan.tagsoup:tagsoup:jar:1.2.1:test
[INFO] +- io.rest-assured:json-path:jar:4.3.0:test
[INFO] | +- org.codehaus.groovy:groovy-json:jar:3.0.2:test
[INFO] | \- io.rest-assured:rest-assured-common:jar:4.3.0:test
[INFO] \- io.rest-assured:xml-path:jar:4.3.0:test
[INFO] +- org.apache.commons:commons-lang3:jar:3.4:test
[INFO] +- jakarta.xml.bind:jakarta.xml.bind-api:jar:2.3.2:test
[INFO] | \- jakarta.activation:jakarta.activation-api:jar:1.2.1:test
[INFO] +- com.sun.xml.bind:jaxb-osgi:jar:2.3.0.1:test
[INFO] \- org.apache.sling.org.apache.sling.javax.activation:jar:0.1.0:test
[INFO] | \- javax.activation:activation:jar:1.1.1:test
[INFO] +- org.slf4j:slf4j-api:jar:1.7.5:compile
[INFO] +- org.slf4j:slf4j-log4j12:jar:1.7.5:compile
[INFO] | \- log4j:log4j:jar:1.2.17:compile
[INFO] +- junit:junit:jar:4.13.2:test
[INFO] | \- org.hamcrest:hamcrest-core:jar:1.3:test
[INFO] \- io.cucumber:cucumber-junit:jar:6.0.0:compile
```

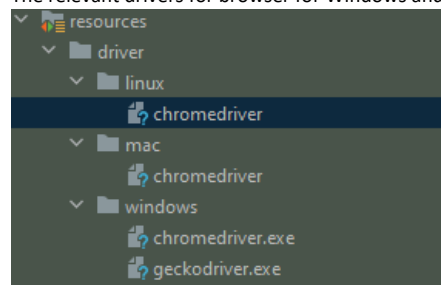
```

[INFO] --- maven-dependency-plugin:2.8:tree (default-cli) @ TradeMe ---
[INFO] org.example:TradeMe:jar:1.0-SNAPSHOT
[INFO] +- org.seleniumhq.selenium:selenium-java:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-api:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-chrome-driver:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-edge-driver:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-firefox-driver:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-ie-driver:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-opera-driver:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-remote-driver:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-safari-driver:jar:3.141.59:compile
[INFO] | +- org.seleniumhq.selenium:selenium-support:jar:3.141.59:compile
[INFO] +- net.bytebuddy:byte-buddy:jar:1.8.15:compile
[INFO] +- org.apache.commons:commons-exec:jar:1.3:compile
[INFO] +- com.google.guava:guava:jar:25.0-jre:compile
[INFO] | +- com.google.code.findbugs:jsr305:jar:1.3.9:compile
[INFO] | +- org.checkerframework:checker-compat-qual:jar:2.0.0:compile
[INFO] | +- com.google.errorprone:error_prone_annotations:jar:2.1.3:compile
[INFO] | +- com.google.j2objc:j2objc-annotations:jar:1.1:compile
[INFO] | \- org.codehaus.mojo:animal-sniffer-annotations:jar:1.14:compile
[INFO] +- com.squareup.okhttp3:okhttp:jar:3.11.0:compile
[INFO] \- com.squareup.okio:okio:jar:1.14.0:compile
[INFO] +- org.testng:testng:jar:6.14.3:test
[INFO] | +- com.beust:jcommander:jar:1.72:test
[INFO] | \- org.apache-extras.beanshell:bsh:jar:2.0b6:test
[INFO] +- io.cucumber:cucumber-java:jar:6.0.0:compile
[INFO] | \- org.apiguardian:apiguardian-api:jar:1.1.0:compile
[INFO] +- io.cucumber:cucumber-core:jar:6.0.0:compile
[INFO] | +- io.cucumber:cucumber-gherkin:jar:6.0.0:compile
[INFO] | +- io.cucumber:cucumber-gherkin-messages:jar:6.0.0:compile
[INFO] | +- io.cucumber:messages:jar:12.1.1:compile
[INFO] | +- io.cucumber:tag-expressions:jar:2.0.4:compile
[INFO] | +- io.cucumber:cucumber-expressions:jar:10.2.0:compile
[INFO] | +- io.cucumber:datatable:jar:3.3.1:compile
[INFO] | +- io.cucumber:cucumber-plugin:jar:6.0.0:compile
[INFO] | +- io.cucumber:docstring:jar:6.0.0:compile
[INFO] | \- io.cucumber:html-formatter:jar:6.0.2:compile
[INFO] +- io.cucumber:cucumber-testng:jar:6.0.0:compile
[INFO] +- io.rest-assured:rest-assured:jar:4.3.0:test
[INFO] | +- org.codehaus.groovy:groovy:jar:3.0.2:test
[INFO] | +- org.codehaus.groovy:groovy-xml:jar:3.0.2:test
[INFO] | +- org.apache.httpcomponents:httpclient:jar:4.5.3:test
[INFO] | +- org.apache.httpcomponents:httpcore:jar:4.4.6:test
[INFO] | +- commons-logging:commons-logging:jar:1.2:test

```

Drivers

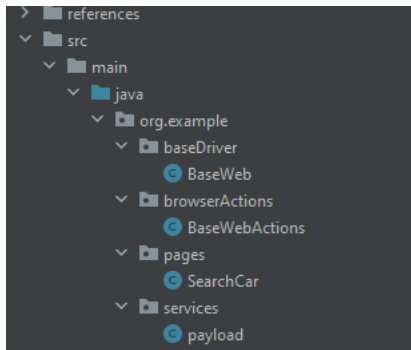
The relevant drivers for browser for Windows and Mac are under [\\trademe\src\test\resources](#)



Common or Reusable packages/classes

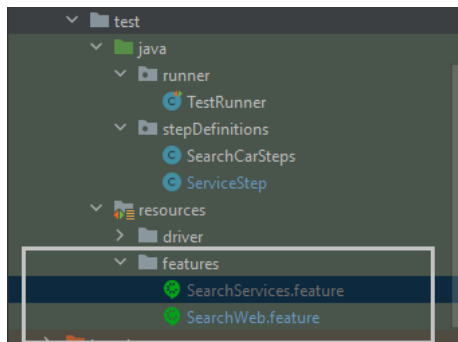
The packages in the automation code those are common and reusable for web and API automation are as below: -

- **baseDriver:** Contains the Baseweb class where code for browser invocation is defined for each platform i.e., mac, windows and linux.
- **browserActions:** Contains the BasewebActions class where code where all the reusable methods for browser actions like: sendkeys, wait, click, gettextfromelement and close browser are defined.
- **pages:** Contains the SearchCar class where all the methods and search page and Web element mappings/identification are defined.
- **Services:** Contains the payload for the post request for adding ne listing action. Added this class to reuse to define payloads for other post API requests and parameterize input values.

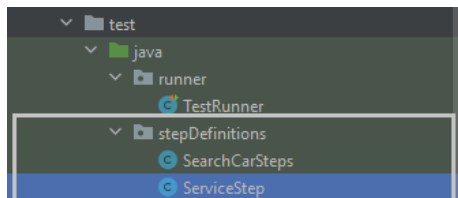


Test packages/classes

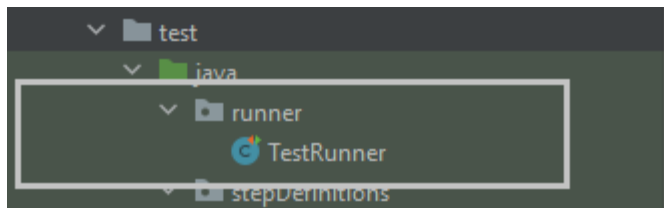
- **features:** Contains the feature file where the test cases for automation are written in BDD format.
 - a) SearchServices.feature: feature file for API automation
 - b) SearchWeb.feature: feature file for API automation



- **stepDefinitions:** Contains the classes where all the methods(code) are defined those are mapped to test cases in feature files.
 - a) SearchCarSteps: Step definition for web automation
 - b) ServiceStep: Step definitions for API automation

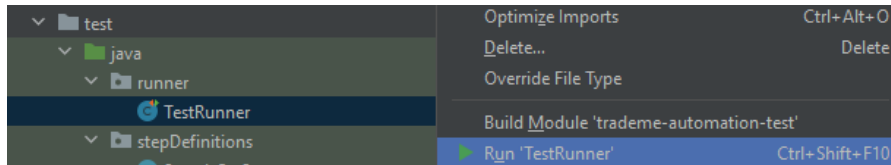


- **runner:** Contains the test runner class for the execution of all tests. Both API and Web feature files are included in this class.



Execution Steps

Right click test runner class, and the test cases will be executed.



Execution Results

file:///C:/repos/trademe-automation-test/src/test/resources/features/SearchServices.feature

Feature: verify the charity search result

Scenario Outline: validating the charity search result

- Given the user launches the charity API end point and gets the response
- Then the user verifies the response list contains the charity name in the list <charityName>

Examples:

charityName
St John
Invalid Charity

Scenario Outline: Adding a new listing by user

- Given the user launches the add listing API end point and gets the response
- Then the user verifies the new listing has been created successfully <statusCode>

Examples:

statusCode
201

```
java.lang.AssertionError: expected:<401> but was:<201>
    at org.junit.Assert.fail(Assert.java:89)
    at org.junit.Assert.failNotEquals(Assert.java:835)
    at org.junit.Assert.assertEquals(Assert.java:647)
    at org.junit.Assert.assertEquals(Assert.java:633)
    at stepDefinitions.ServiceStep.validateNewListingCreation(ServiceStep.java:54)
    at *.the user verifies the new listing has been created successfully 201(file:///C:/repos/trademe-automation-test/src/test/resources/features/SearchServices.feature:14)
```

Please refer the full execution report under /reference/cucumber-reports.html in the repo.

Issues Encountered

- Trademe Sandbox was unavailable until 26th October.
- The add listing API required the Authorization Token. I have tried to generate the token by referring [authentication](#) and [workflow](#) API documentations, however I was unable to create one due to issues in account creation in sandbox environment. Please refer the postman collection under /reference/trademesandbox_generatetoken.

Note: I have written the code using a dummy authorization token, the test will fail in execution but kindly review the code. In addition, I have also included additional test cases in web automation for reference purposes only.