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December 10, 2015   Cucumber   By Lakshay Sharma

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In the last chapter of **_Parameterization in Cucumber_**, we learned how to _parameterize_ data. But with that trick only limited functionality can be achieved of Data Driven. As the test can be run multiple times. But by now that you know the anatomy of a _Data-Driven test_, here's a trick that simplifies the process of **Data Driven testing using Cucumber**. _Cucumber_ inherently supports _Data Driven testing_ by the use of the **Scenario Outline** and **Examples** section. It is with these keywords that _Cucumber_ allows for easy _Data Driven testing_ to be completed where no changes need to be made to the Java file. In this tutorial we learn, How to **_Implement_**

- *Scenario Outline* – *This is used to run the same scenario for 2 or more different set of test data. E.g. In our scenario, if you want to register another user you can data drive the same scenario twice.*
- *Examples* – *All scenario outlines have to be followed with the Examples section. This contains the data that has to be passed on to the scenario.*

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Data Driven Testing Using Examples Keyword

If you understood the concept of **_Parameterization in Cucumber_**, you would find this one very easy. In this tutorial as well I am taking the same *LogIn test* scenario.

1) Enter the **Example Data** just below the *LogIn* Scenario of the *Feature* File.

Examples:

```
| username  | password  |
| testuser_1 | Test@153 |
| testuser_2 | Test@153 |
```

Note: The table must have a header row corresponding to the variables in the Scenario Outline steps.

The Examples section is a table where each argument variable represents a column in the table, separated by "**|**". Each line below the header represents an individual run of the test case with the respective data. As a result if there are 3 lines below the header in the Examples table, the script will run 3 times with its respective data.

2) Need to update the Statement in the *feature* file, which tells *Cucumber* to enter *username & Password*.

```
 2
 3   Scenario Outline: Successful Login with Valid Credentials
 4       Given User is on Home Page
 5       When User Navigate to LogIn Page
 6       And User enters "<username>" and "<password>"
 7       Then Message displayed Login Successfully
 8   Examples:
 9       | username   | password |
10       | testuser_1 | Test@153 |
11       | testuser_2 | Test@153 |
```

3) There are no changes in *TestRunner* class.

```
 1   package cucumberTest;
 2
 3   import org.junit.runner.RunWith;
 4   import cucumber.api.CucumberOptions;
 5   import cucumber.api.junit.Cucumber;
 6
 7   @RunWith(Cucumber.class)
 8   @CucumberOptions(
 9           features = "Feature"
10           ,glue={"stepDefinition"}
11           )
12
13   public class TestRunner {
14
15   }
```
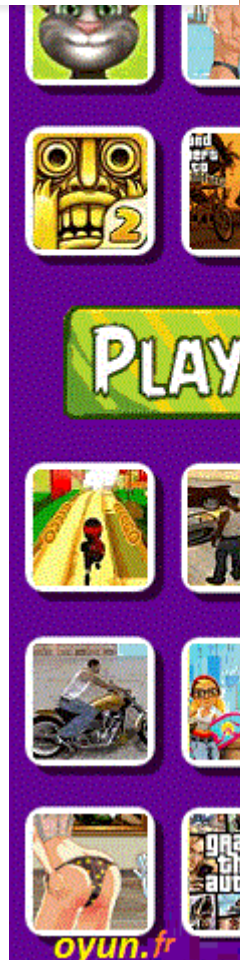
4) There are no changes in *Test_Steps* file from the previous chapter.

```
 1   package stepDefinition;
 2
 3   import java.util.concurrent.TimeUnit;
 4
 5   import org.openqa.selenium.By;
 6   import org.openqa.selenium.WebDriver;
 7   import org.openqa.selenium.firefox.FirefoxDriver;
 8
 9   import cucumber.api.java.en.Given;
10   import cucumber.api.java.en.Then;
11   import cucumber.api.java.en.When;
12
13   public class Test_Steps {
14           public static WebDriver driver;
15       @Given("^User is on Home Page$")
16       public void user_is_on_Home_Page() throws Throwable {
17           driver = new FirefoxDriver();
```

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```
26
27      @When("^User enters \"(.*)\" and \"(.*)\"$")
28      public void user_enters_UserName_and_Password(String userna
29          driver.findElement(By.id("log")).sendKeys(username);
30          driver.findElement(By.id("pwd")).sendKeys(password);
31          //driver.findElement(By.id("login")).click();
32      }
33
34      @Then("^Message displayed Login Successfully$")
35      public void message_displayed_Login_Successfully() throws T
36          System.out.println("Login Successfully");
37      }
38
39      @When("^User LogOut from the Application$")
40      public void user_LogOut_from_the_Application() throws Throw
41          driver.findElement (By.xpath(".//*[@id='account_logout'
42      }
43
44      @Then("^Message displayed LogOut Successfully$")
45      public void message_displayed_LogOut_Successfully() throws
46          System.out.println("LogOut Successfully");
47      }
48
49  }
```

5) Run the test by *Right Click* on **TestRunner class** and Click **Run As > JUnit Test** Application.

This takes the *parameterization* one step further: now our scenario has "**variables**" and they get filled in by the values in each row. To be clear: by defining this, the scenario will run two times, passing in one row at a time. This makes it very easy to define a lot of examples, edge cases and special outcomes. Instead of hardcoding the test data, variables are defined in the Examples section and used in *Scenario Outline* section.

*Note: Please create your own username & password for the test, if you supply wrong **UserName & Password 3 times**, your IP will get blocked.*

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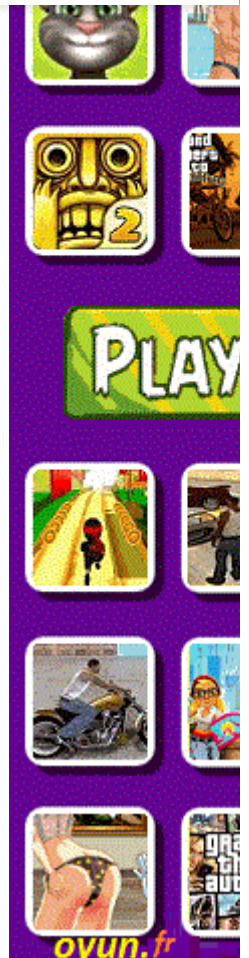Share this post   f   ⟳   8+   ⟳   in

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I'M LAKSHAY SHARMA AND I'M A TEST
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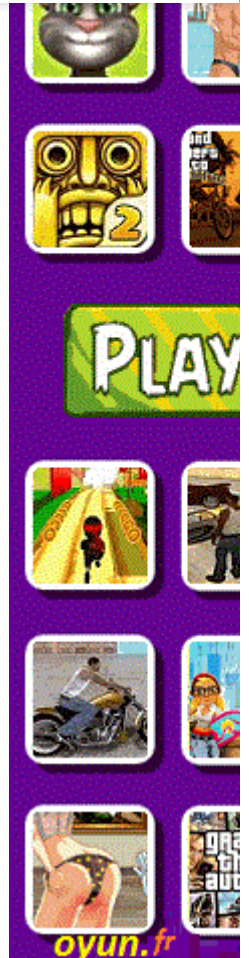October 4, 2017

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automation in mammoth projects like O2 (UK), Sprint (US), TD Bank (CA), Canadian Tire (CA), NHS (UK) & ASOS(UK). Currently I am working with **BLOOMREACH** as SDET.

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