

TCS iON Remote Internships RIO-125

**Project - Functional Testing using Selenium
WebDriver**



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TCS iON RIO | Project Description

Project Objective and Brief

Develop automated functional testing project using Selenium WebDriver with the following objectives:

- Perform automated functional testing on the site <https://phptravels.com/demo/> available on public domain.
- Design the functional testing project using java-based Selenium WebDriver API.
- End-to-End functional testing need to be performed on all web elements and appropriate test design and test case templates need to be populated with defect log.

Project Guidelines

Context: To develop a system using java-based Selenium WebDriver API that can perform automated functional testing on the site <https://phptravels.com/demo/> available on public domain.

Background: Selenium WebDriver drives a browser natively, as a real user would, either locally or on remote machines and hence automation testing can be designed by developing the code to test various web components end-to-end without manual intervention.

Brief: The site has 4 parts to test like "Customer Front-End", "Agent Front-End", "Admin Back-End", and "Supplier Back-End". Need to develop java-based code for automation testing that would test all components like an actual user and create reports in templates accordingly. The automated functional test would be controlled by Test Design, Test Scenario and Test cases which needs to be developed as part of the project and would be an important component of the deliverables of this project.

TCS iON RIO | Project Description (Continued)

Project Guidelines (Continued)

Brief:

For each of the Stages, you need to develop the following:

- i) Test Design ii) Test Scenario iii) Test Cases iv) Selenium WebDriver based automation script.
- v) Defect Log

Stage-1: Customer Front-End

Login Url and Credentials as given in the site: <https://www.phptravels.net/login>

Email: user@phptravels.com

Password: demouser

Create an automation script that would perform the following:

- i. Login using the credentials. Check for valid and invalid test cases.
- ii. Test the links My Bookings, Add Funds, My Profile and Logout. Test by auto-clicking all the links to verify the functionalities.
- iii. Create a script that would make an automated payment of USD 50 using PayPal.
- iv. Check bookings and display the voucher.
- v. Develop the script that would read from the test cases and update the address in the profile.

TCS iON RIO | Project Description (Continued)

Project Guidelines (Continued)

Stage-2: Agent Front-End

Login Url and Credentials as given in the site: <https://www.phptravels.net/login>

Email: agent@phptravels.com

Password: demoagent

Design the Test Scenarios and Test Cases for all events and actions.

Create an automation script that would perform the following:

- i. Login using the credentials. Check for valid and invalid test cases.
- ii. Test the links My Bookings, Add Funds, My Profile and Logout. Test by auto-clicking all the links to verify the functionalities.
- iii. Create a script that would test the links Home, Hotel, Flights, Tours, Visa, Blog, Offers and direct to the destination page.
- iv. Script to search hotels by city and test results.
- v. Develop the script that would update USD to INR for the account.

TCS iON RIO | Project Description (Continued)

Project Guidelines (Continued)

Stage-3: Admin Back-End

Login Url and Credentials as given in the site: <https://www.phptravels.net/admin>

Email: admin@phptravels.com

Password: demoadmin

Design the Test Scenarios and Test Cases for all events and actions.

Create an automation script that would perform the following:

- i. Login using the credentials. Check for valid and invalid test cases.
- ii. Test the link Bookings and then test display of Booking Invoice where payment is successful.
- iii. Create a script that would delete a record having Booking Status as Cancelled.
- iv. Script to change the Booking Status from "Pending" to "Confirmed" and verify the count in Dashboard.
- v. Check whether the "Website" link is working and re-directing to a different page.

TCS iON RIO | Project Description (Continued)

Project Guidelines (Continued)

Stage-4: Supplier Back-End

Login Url and Credentials as given in the site: <https://www.phptravels.net/supplier>

Email: supplier@phptravels.com

Password: demosupplier

Design the Test Scenarios and Test Cases for all events and actions.

Create an automation script that would perform the following:

- i. Login using the credentials. Check for valid and invalid test cases.
- ii. Check the Dashboard view and check the text "Sales overview and summary".
- iii. Test whether it displays the Revenue Breakdown.
- iv. Script to change the Booking Status from "Pending" to "Confirmed" and verify the count in Dashboard.
- v. Check whether the modules "Flight", "Visa", "Tours", "Bookings" are displayed and can be clicked.

TCS iON RIO | Project Description (Continued)

Project Guidelines (Continued)

Templates/Documents Required:

I) Test Design document should have the following fields:

1. Test Case #
2. Test Step #
3. Application / Feature / Function / Screen
4. Test Case/Script Description
5. Expected Result
6. Pre-Requisites
7. "Test Data (or complete "" Data Sheet Scenarios"" Tab)"
8. Business Priority
9. Iteration #
10. Test Case/Script Description
11. Expected Result
12. Cross-Validation Method
13. Actual result
14. Defect[Y/N]

II) Test Case template should have the following fields:

1. Test Case #
2. Test Case Description
3. Application / Feature / Function / Screen
4. Test Step #
5. Test Step Description
6. Expected Result
7. Pre-Requisites
8. "Test Data(or complete "" Data Sheet Scenarios"" Tab)"
9. Test Case/Script Description
10. Expected Result

III) Test Scenario Template should have the following fields:

1. Req Id
2. Test Scenario Id
3. Application Name / Module Name
4. High Level Test Conditions/Test Scenarios
5. Expected Results
6. Priority

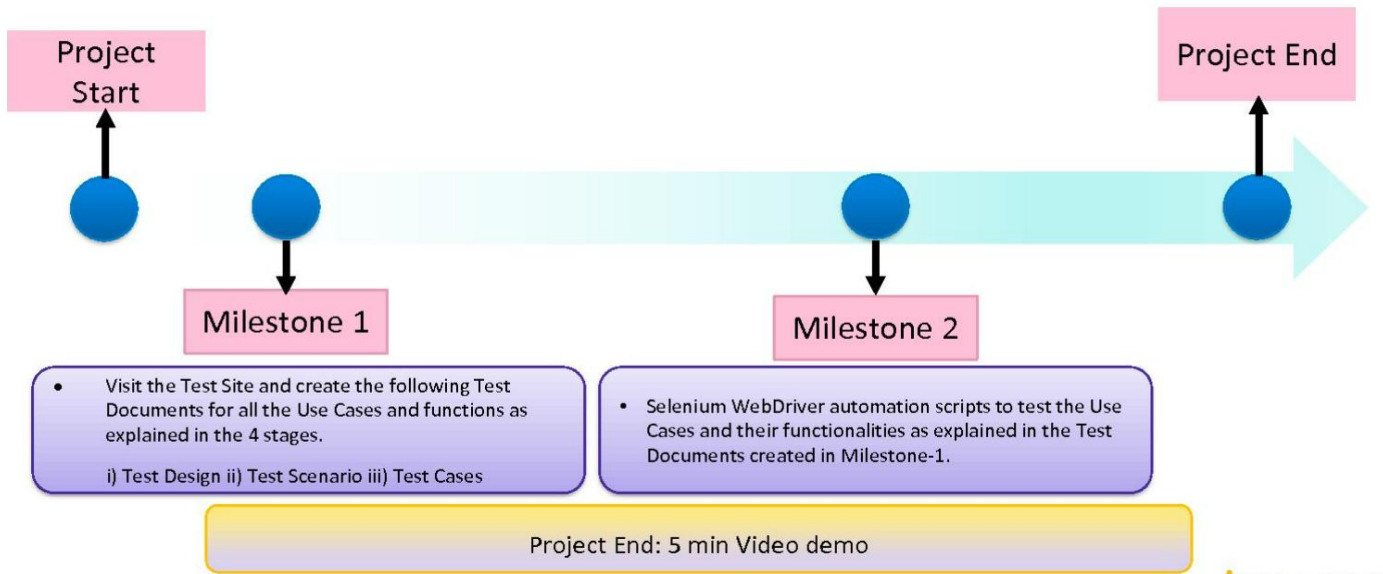
TCS iON RIO | Project Description (Continued)

Project Guidelines (Continued)

Final Deliverables Required:

- I) All Test Documents (Test Design, Test Scenario, Test Cases)
- II) Selenium WebDriver API on Java based automation scripts for testing and its outputs for all stages described.
- III) Test Reports.
- IV) Project document covering topics like Approach, Logic Flow, Solutions and templates, enhancements suggested, etc.
- V) The entire set of documents along with code/scripts and outputs to be created as a zip file and uploaded to a public repository like GitHub. Share the public link of GitHub for final evaluation.
- VI) Video of automation test scripts executing and performing the browser-based testing of the Use Cases as per Test Design.

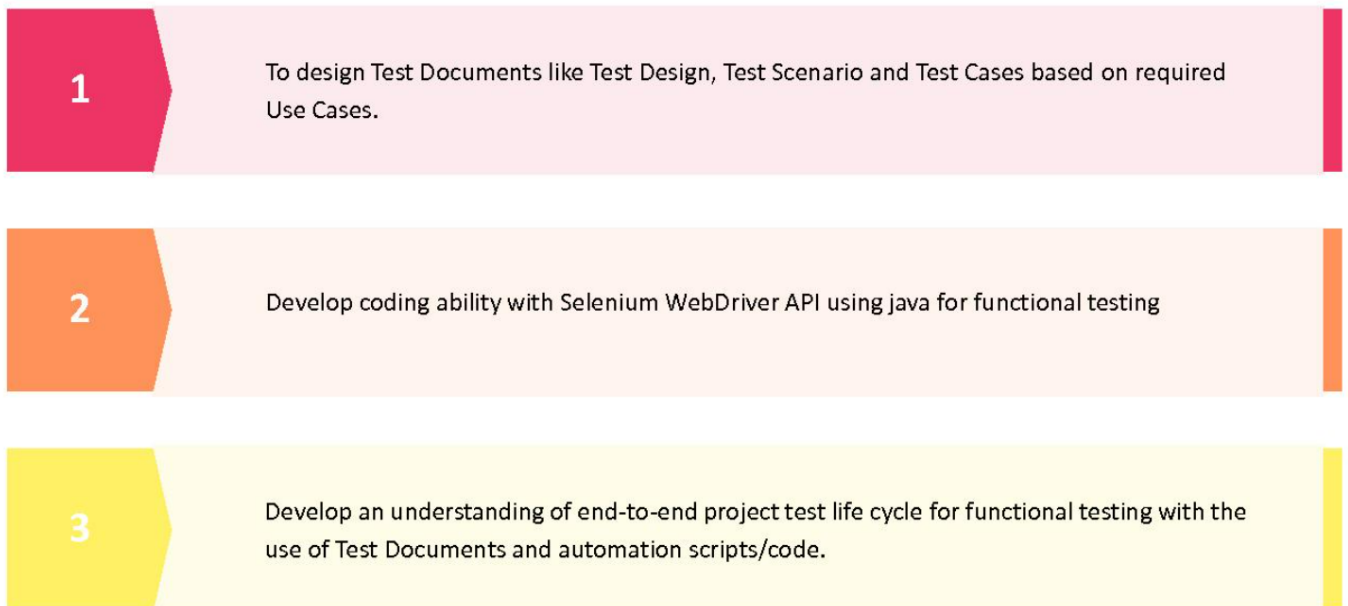
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TCS iON RIO | Expected Project Outcomes



TCS iON RIO | Hands-on environment details

Project Hands-on Resources

Below are the hands-on environments or software required to implement the project -

- Working Internet Connection
- Operating Systems: Windows / Linux / MacOS with Google Chrome/Mozilla Firefox browsers.
- JDK with JRE
- IDEs like Eclipse or IntelliJ
- Selenium Clients and WebDriver Language Bindings API based on Java
- Selenium Plugins for IDEs.
- Other necessary software packages/APIs and/or dependencies required to build the application.
- Github account
- Any Free Video/Screen recording software for final demonstration of the execution of the project.

Note:

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