

Daraz.lk Test Automation Project Documentation

1. Project Overview

1.1 Project Title:

Daraz.lk Web Application Test Automation

1.2 Project Description:

This project automates the testing of key functionalities on the Daraz.lk e-commerce platform, including user login, product search, viewing product details, and adding items to the cart. The goal is to ensure that these critical user flows are functioning correctly and efficiently.

1.3 Objectives:

- Validate the login functionality.
- Ensure that the search function returns accurate results.
- Verify that product details are displayed correctly.
- Confirm that products can be added to the cart successfully.

1.4 Technologies and Tools:

- Programming Language: Java
- Automation Framework: Selenium WebDriver
- Test Framework: TestNG
- Build Tool: Maven
- Version Control: GitHub
- CI/CD Tool (optional): Jenkins
- Reporting Tool: Extent Reports

2. Test Strategy

2.1 Scope of Testing:

The testing scope includes functional testing of the following features:

- User Login
- Product Search
- Viewing Product Details
- Adding Products to Cart

2.2 Types of Testing:

- **Functional Testing:** Ensure that each feature works according to the specifications.
- **Regression Testing:** Verify that new code changes do not affect existing functionality.
- **Data-Driven Testing:** Test with various inputs to ensure the application behaves as expected.

2.3 Test Environments:

- **Browser:** Chrome (version X.X), Firefox (version X.X)
- **Operating System:** Windows 11

3. Test Cases

3.1 Test Case Format:

Each test case includes a unique ID, a title, a description, preconditions, steps, expected results, and postconditions.

3.2 Test Cases:

Test Case Template For Project	
Project Name	Daraz.lk
Module Name	Login
Created By	Pasindu
Created Date	1/9/2024

Test Case ID	Test Case Description	Prerequisites	Test Steps	Test data	Expected Results	Actual Results	Status	Created By	Date Of Creation	Executed By	Date Of Execute
TC001	Verify that the Login should work with the valid User & password	daraz.lk Page is loaded User account exists.	01. Navigate to the daraz.lk. 02. Enter valid username and password 03. Click on the Login button	01. Email - 02. Password -	Login should work with valid CREDENTIALS	Login is working with Valid CREDENTIALS	Pass	Pasindu	1/9/2024	Pasindu	1/9/2024
TC002	Verify Product Search Functionality	User Logged in or on the homepage	01. 01. Enter a valid product name (e.g., "laptop") in the search bar. 02. Click on the search button or press Enter	product name	The system should show a list of product matching the search item.	The system show product list matching the search item.	Pass	Pasindu	1/9/2024	Pasindu	1/9/2024
TC003	Verify Product Details Display	User is on the search results page	01. Click on a product from the search results. 02. View the product details.	product details	The product details page should display all relevant information about the product.	The product details page show all relevant information about the product	Pass	Pasindu	1/9/2024	Pasindu	1/9/2024
TC004	Verify Add to Cart Functionality. Ensure that products can be added to the cart.	01. User account exists. 02. User logged in 03. User is on the product details page	01. Logged in 02. Enter a valid product name (e.g., "laptop") in the search bar. 03. Click on the search button or press Enter 04. Click on a product from the search results. 05. View the product details. 06. Click on the "Add to Cart" button. 07. Confirm that the product is added to the cart.	01. email 02. password 03. productname 04. product detail 05. cart	The product should be added to the cart, and the cart should update to reflect this.	The product added to the cart, and the cart update to reflect this successfully.	Pass	Pasindu	01/09/2024	Pasindu	1/9/2024

4. Test Execution and Reporting

4.1 Test Execution:

- **Manual Execution:** All test cases are documented manually and can be executed manually if required.

- Automated Execution: The above test cases are automated using Selenium WebDriver, and can be executed via TestNG.

4.2 Test Reporting:

- TestNG Reports: TestNG will generate default HTML reports after the execution of the test suite.
- Extent Reports (optional): For enhanced reporting, integrate Extent Reports to generate detailed and visually appealing test reports.

4.3 Continuous Integration (Optional):

- Jenkins Integration: Integrate the project with Jenkins for continuous integration, enabling automated test runs on every code commit.

5. Version Control

5.1 GitHub Repository:

- Repository URL: <https://github.com/ptilege/Daraz.lk-Automation-Testing.git>

5.2 Commit Message Guidelines:

- Use clear and concise commit messages. Example: "Added login page POM class", "Implemented search product test case".

6. Maintenance Strategy

6.1 Test Case Updates:

- Regular Updates: Update test cases and scripts as the application evolves.
- Deprecation: Remove or refactor outdated or redundant test cases.

6.2 Code Reviews:

- Peer Reviews: Conduct regular code reviews to maintain code quality and consistency.
- Refactoring: Regularly refactor code to improve maintainability and readability.

7. Future Enhancements

7.1 Additional Features:

- Payment Gateway Testing: Automate tests for the payment process.
- Cross-Browser Testing: Implement cross-browser testing using Selenium Grid or cloud-based services like BrowserStack or Sauce Labs.
- Performance Testing: Integrate performance testing tools like JMeter for load testing.

7.2 Advanced Test Scenarios:

- Data-Driven Testing: Use external data sources like Excel or CSV files for data-driven tests.

- API Testing: Integrate API testing for backend validation using tools like Postman or RestAssured.

8. Conclusion

This document outlines the detailed process of setting up, executing, and maintaining a test automation project for Daraz.lk. It covers everything from the initial setup to advanced enhancements, ensuring a comprehensive approach to automated testing.