

Nixonex E-commerce Automation Project Report

1. Project Title & Objective

Project Title: Automation Testing for Nixonex E-commerce

Objective: To automate key workflows of the demo site <https://www.demoblaze.com> using Selenium WebDriver, Java, TestNG, and Extent Reports, following Page Object Model (POM) structure.

2. Tools & Technologies Used

- Java
- Selenium WebDriver
- Chrome & Firefox (Cross-browser execution using TestNG parameters)
- TestNG
- Maven
- ExtentReports
- GitHub
- Eclipse

3. Scope of Testing

In Scope:

- User Registration
- Login
- Product Search & Selection
- Add to Cart & Remove
- Checkout & Order Confirmation

3.1 Cross-Browser Testing

- The project supports cross-browser testing on both Chrome and Firefox using TestNG parameterization.
- By updating the testng.xml suite and parameterizing the browser in the Base class, tests can now run in parallel across different browsers.
- This ensures better coverage and validates the application's behavior consistently on multiple browsers.

Out of Scope:

- API Testing
- Performance/Load Testing

4. Project Architecture

The project follows a layered Page Object Model structure with utilities for screenshot capture, and reporting.

Tests support full regression execution through testng.xml.

5. Test Scenarios

- RegisterTest: Valid user registration with alert handling
- LoginTest: Successful login validation
- ProductSearchTest: Product selection by category
- AddToCartTest: Add selected product to cart
- CheckoutTest: Complete checkout and capture confirmation
- EndToEndTest: Full flow from registration to order confirmation

6. How to Run the Project

1. Clone the GitHub repo
2. Run ``mvn clean install``
3. Execute tests using ``testng.xml``
4. View reports in ``/reports/ExtentReport.html``
5. Screenshots captured in ``/screenshots`` folder and integrated in Extent Report also

7. **GitHub Repository Link** https://github.com/LakshmisriAkula/NixonexEcommerce_Automation

8. **Conclusion**

This project successfully demonstrates the application of automation testing techniques in an e-commerce context using open-source tools and modern frameworks. It ensures modular, maintainable, and scalable test automation with detailed reporting and visual logs.