

Test Plan - Swag Labs E-commerce Testing

1. Summary

This test plan outlines the strategy for testing the Swag Labs demo e-commerce application. The primary focus is on functional testing of core user workflows including authentication, product management, shopping cart operations, and checkout processes. Testing will be performed manually and through automated scripts using Selenium WebDriver with TestNG.

Key Highlights:

- Application: Swag Labs (<https://www.saucedemo.com>)
- Testing Type: Functional, UI, End-to-End
- Approach: Manual + Automated (70% automated, 30% manual)
- Tools: Selenium WebDriver, TestNG, Edge Browser, Excel Sheet

2. Test Objectives

- Validate all user journeys work as expected
- Identify functional defects in the application
- Ensure data consistency across user sessions
- Verify proper error handling and user feedback
- Confirm UI responsiveness and usability

3. In-Scope & Out-of-Scope

Scope: Automate testing of Swag Labs e-commerce demo website covering user authentication, product management, shopping cart operations, checkout process, and system reliability under typical user loads.

In-Scope:

- ✓ Login/Logout functionality
- ✓ Product browsing, sorting, and filtering
- ✓ Shopping cart operations (add/remove/update)
- ✓ Checkout process and order completion
- ✓ Side menu navigation
- ✓ Session management
- ✓ Cross-browser testing (Edge, Chrome)

Out-of-scope:

- ✗ Performance/Load testing
- ✗ Security penetration testing
- ✗ Mobile responsive testing
- ✗ Payment gateway integration
- ✗ Database/API testing
- ✗ Accessibility compliance

4. Test Approach

Test Type	Method	Tools	Coverage
Functional Testing	Manual + Automated	Selenium, TestNG	Core workflows
UI Testing	Manual + Automated	Selenium	Layout, responsiveness

Negative Testing	Manual	Exploratory	Error conditions
Regression Testing	Automated	Selenium scripts	Previous fixes

5. Entry & Exit Criteria

Entry Criteria (Must be met):

- Test environment is available and stable
- Requirements/User stories are baselined
- Test cases are written and reviewed
- Test data is prepared
- Automation framework is ready

Exit Criteria (Must be met):

- 95% of test cases executed
- All critical test cases PASSED
- No critical/blocker defects open
- Test execution report approved
- All defects documented and prioritized

6. Risks & Mitigation

Risk	Impact	Probability	Mitigation
UI changes break locators	High	Medium	Use Page Object Model, relative locators
Environment instability	High	Low	Schedule tests during stable periods
Test data corruption	Medium	Low	Backup test data, use isolated data sets
Browser compatibility issues	Medium	Low	Test on multiple browsers early

7. Test Scenarios (10 Scenarios)

Scenario 1: Successful Login

Feature: Authentication | **Type:** Happy Path

Description: Verify user can login with valid credentials

Expected: User redirected to products page

Scenario 2: Invalid Login Attempt

Feature: Authentication | **Type:** Negative Path

Description: Test login with wrong credentials

Expected: Appropriate error message displayed

Scenario 3: Add Item to Cart

Feature: Shopping Cart | **Type:** Happy Path

Description: Add product to shopping cart

Expected: Product appears in cart with correct details

Scenario 4: Empty Cart Checkout

Feature: Checkout | **Type:** Negative Path

Description: Attempt checkout with empty cart

Expected: Checkout prevented with proper message

Scenario 5: Sort Products

Feature: Product Listing | **Type:** Happy Path

Description: Sort products by price (low to high)

Expected: Products displayed in correct order

Scenario 6: Reset App State

Feature: Session Management | **Type:** Happy Path

Description: Reset application to clear cart

Expected: Cart emptied, session reset

Scenario 7: Incomplete Checkout

Feature: Checkout Form | **Type:** Negative Path

Description: Submit checkout with missing fields

Expected: Validation errors shown

Scenario 8: Open External Link

Feature: Navigation | **Type:** Happy Path

Description: Open About page in new tab

Expected: New tab opens, session preserved

Scenario 9: Locked User Login

Feature: User Management | **Type:** Negative Path

Description: Attempt login with locked account

Expected: Access denied with proper message

Scenario 10: Remove from Details Page

Feature: Shopping Cart | **Type:** Happy Path

Description: Remove item from product page

Expected: Item removed from cart

