

Test Plan

SauceDemo E-Commerce Application

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1. Introduction

1.1 Objective

The objective of this test plan is to define the strategy, scope, resources, and schedule for testing the **SauceDemo E-Commerce Application (Swag Labs)**. The goal is to ensure the application allows users to browse products, manage their cart, and complete purchases seamlessly across different user personas and environments.

1.2 Scope

In-Scope:

- **Authentication:** Login functionality for all valid and invalid user scenarios.
- **Inventory Management:** Product listing, sorting, and details view.
- **Cart Functionality:** Adding, removing, and retaining items in the cart.
- **Checkout Process:** Information entry, tax/total calculation, and order completion.
- **Global Navigation:** Sidebar menu, logout, and footer links.
- **Cross-Browser Compatibility:** Chrome, Firefox, Edge (Latest Versions).

Out-of-Scope:

- **Payment Gateway Integration:** The application uses mock payments; real credit card processing is out of scope.
- **User Registration:** No sign-up feature exists (pre-defined users only).
- **Backend Database Testing:** Direct database access is not available; validation is limited to frontend behavior and API responses.

2. Test Strategy

2.1 Testing Levels

- **Functional Testing:** Verifying that features (Login, Cart, Checkout) work according to requirements.
- **UI/UX Testing:** Ensuring layout, responsiveness, and visual elements (images, text) are displayed correctly.
- **Negative Testing:** Validating error handling for invalid inputs (e.g., empty fields, wrong passwords).

- **Compatibility Testing:** Verifying application behavior across different browsers and resolutions.
- **Performance Testing (Light):** Specifically testing the performance_glitch_user to ensure the system handles latency gracefully.

2.2 Test Data & User Roles

Testing will leverage the following pre-configured user accounts provided by the application:

User Role	Purpose	Key Test Focus
standard_user	Happy Path Testing	Verify normal flow: Login → Add to Cart → Checkout → Finish.
locked_out_user	Negative Testing	Verify "User Locked" error message prevents access.
problem_user	Edge Case Testing	Verify handling of broken images and incorrect data mapping.
performance_glitch_user	Performance	Verify system stability under high latency (5+ seconds).
visual_user	UI Testing	Verify layout shifts and CSS responsiveness issues.

Password for all users: secret_sauce

3. Test Environment

The testing will be conducted in the following environments:

- **Application URL:** <https://www.saucedemo.com/>
- **Hardware:** Windows 10/11 PC, macOS (Ventura/Sonoma).
- **Browsers:** Google Chrome (Latest), Mozilla Firefox (Latest), Microsoft Edge.
- **Network:** Standard broadband connection (simulating typical user speed).

4. Entry & Exit Criteria

4.1 Entry Criteria (When to start)

- Test Plan is reviewed and approved.
- Test Scenarios and Test Cases are documented.
- The Application URL is accessible.
- QA resources are assigned.

4.2 Exit Criteria (When to stop)

- 100% of "Critical" and "High" priority test cases have passed.
- No "Showstopper" or "Critical" severity bugs remain open.
- 95% Pass rate for "Medium" priority test cases.
- Test Closure Report has been signed off.

5. Test Schedule (Estimates)

Phase	Activity	Estimated Duration	Responsibility
Planning	Requirement Analysis & Test Plan Creation	1 Day	QA Lead
Design	Test Case Creation & Review	2 Days	QA Engineer
Execution	Manual Test Execution (Cycle 1)	3 Days	QA Team
Retesting	Defect Fix Verification	1 Day	QA Team
Closure	Final Reporting & Sign-off	0.5 Days	QA Lead

6. Risks & Mitigation

Risk	Impact	Mitigation Strategy
Environment Unavailability	High	Since it is a public demo site, downtimes are rare but possible. Testing will pause and resume upon availability.
Browser Caching Issues	Medium	Testers must clear cache/cookies or use Incognito mode between user role switches to prevent data bleed.
Limited Backend Access	Low	Testing will focus heavily on Frontend and API Network responses (via DevTools) to compensate for lack of DB access.

7. Deliverables

1. **Test Plan Document:** (This document).
2. **Test Case Suite:** Excel or Jira export containing all positive/negative scenarios.
3. **Defect Report:** Log of all bugs found (Critical/High/Medium/Low).
4. **Test Summary Report:** Final document summarizing pass/fail rates and recommendation for release.

8. Approval

Approved By: _____ (Project Manager)
Date: _____

Approved By: _____ (QA Lead)
Date: _____