# Test Plan

**Project Name**: SauceDemo Functional and UI Testing

**Version**: 1.0

**Date**: 1st December 2024

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## 1. Test Plan Overview

This test plan outlines the strategy, scope, objectives, and resources required to validate the functionality, user interface, and performance of the SauceDemo website. The focus is on ensuring quality and identifying defects in a systematic manner.

## 2. Scope

In-Scope:

* Functional testing of login, product listing, cart, and checkout workflows.
* UI and UX checks for consistency across supported browsers and devices.
* Backend integration tests focusing on API functionality.
* Performance testing for critical workflows.

Out-of-Scope:

* Security and penetration testing.

## 3. Objectives

* Validate that users can complete purchase workflows without errors.
* Ensure UI elements are responsive and visually consistent across browsers.
* Verify backend changes (if any) do not disrupt functionality.

## 4. Test Strategy

### 4.1. Approach

* UI Changes: Perform cross-browser and responsive testing using Chrome, Firefox, Edge, and Safari on desktop and mobile. Validate layout, font consistency, and navigation flow.
* Functional Changes: Test login, product filtering, and cart management for proper functionality and edge case handling.
* Backend Changes: Perform API testing for key endpoints (e.g., login, product retrieval, checkout). Ensure data integrity and proper error handling.

### 4.2. Entry and Exit Criteria

* Entry: Development is complete, and the test environment is stable.
* Exit: All critical and high-severity bugs are resolved, and regression tests pass.

### 4.3. Test Types

* Functional Testing: Validate workflows like login, product selection, and checkout.
* UI Testing: Cross-browser and device compatibility checks.
* Regression Testing: Re-run key test cases to ensure existing functionality works.
* Performance Testing: Measure page load times and responsiveness under load.

## 5. Test Environment

* Browsers: Chrome, Firefox, Edge, Safari (latest versions).
* Devices: Desktop (Windows, macOS), Mobile (Android, iOS).
* Test Data: Dummy user credentials, sample products, and cart scenarios.

## 6. Test Schedule

|  |  |  |
| --- | --- | --- |
| Activity | Timeline | Responsibility |
| Test Plan Approval | 05/12/2024 | QA Lead |
| Test Case Design | 07/12/2024 | QA Team |
| Test Execution | 10/12/2024 | QA Team |
| Defect Reporting & Fixes | 13/12/2024 | QA & Development Team |

## 7. Risks and Mitigation

|  |  |  |
| --- | --- | --- |
| Risk | Impact | Mitigation |
| Delayed test environment | High | Use a staging environment for testing. |
| Unclear requirements | Medium | Clarify requirements with stakeholders. |

## 8. Deliverables

Test cases (manual and automated).

* Bug reports with priority and severity details.
* Test summary report.

## 9. Approval

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Role | Signature | Date |
|  | QA Lead |  |  |
|  | Project Manager |  |  |