

# 009 Exception Hunters: Test Plan v1.0

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- **Date of Creation:** 28th FEB 2025
- **Software to be Tested:** [Sauce Demo](#)

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## Introduction 🙌:

The purpose of this test plan is to outline the testing approach for the comprehensive validation of the Online Shopping Platform [Sauce Demo](#). This includes both manual and automated testing to ensure functionality, performance, security, and usability.

**Test Plan ID:** TP-2025-002

## Objectives 🚀:

- The objective of the test plan is validating core functionalities of the website including -
  - **Product Search**
  - **Product Details**
  - **Shopping Cart**
  - **Checkout**
  - **User Authentication**
  - **Order History**
- Ensure high test coverage across:
  - **UI**
  - **API**
  - **Backend components**
- Identify bugs and usability issues before production deployment.
- Provide clear test execution reports.

## Testing Scope 🔍:

This test plan focuses on automating the core functionalities of the website using Selenium and Page Object Model (POM). The objective is to validate key user interactions and ensure a seamless shopping experience.

### In-Scope

The following functionalities will be covered in the automation testing framework:

- Manual Testing for functional verification, exploratory testing, and negative test cases.
- Automated Testing using Selenium with Cucumber and POM for UI testing.
- API Testing using Postman and Rest Assured for backend validation.

### Out of Scope

The testing scope excludes security testing and advanced performance testing as the focus is on functional automation so performance under heavy load is not covered. By defining this scope, we ensure that the automation testing effectively covers critical user journeys while maintaining clear boundaries for testing efforts.

## Approach 🛩️:

The testing phase will follow a structured framework using Selenium, cucumber and the Page Object Model (POM). This ensures scalability, reusability, and ease of maintenance while validating critical user interactions.

### Testing Methodology

- **Manual Testing:** Functional, exploratory, and negative testing.
- **Automation Testing:** UI automation with Selenium (Cucumber + POM).
- **API Testing:** Functional and performance testing using Postman and Rest Assured.

## Test Implementation Steps:

1. **Prepare Test Scenarios and Test Cases:** Well documented test scenarios and test cases.
2. **Set Up Selenium Environment:** Install Selenium with required dependencies.
3. **Implement Page Object Model:** Structure test scripts using Cucumber + POM.
4. **Write and Execute Test Cases:** Develop reusable test cases for:
  - Login, signup, and authentication workflows.
  - Product search and details functionality and feature.
  - Cart operations, including add, update, and remove actions.
  - Complete checkout process validation.
  - Navigation across key website sections.
5. **Test Execution & Reporting:** Run test cases, log results, generate reports for analysis.

## Tools & Technologies Used:

- **Selenium:** Test automation framework.
- **API Testing Tools:** Postman, Rest Assured.
- **Java:** Test scripting language.
- **Xmind:** Mindmap creation tool.
- **Microsoft Excel:** Tool to document testing reports.
- **Jira:** Tool for bug tracking and project management.
- **Slack:** Communication platform to collaborate, updates and real-time discussions.

This approach ensures comprehensive automation coverage while maintaining efficiency and reliability in the testing process.

## Entry Criteria 🔑:

The following conditions must be met before starting test automation:

- **Test Environment Readiness:** The website is accessible, stable, & configured for testing.
- **Test Cases/Scenarios Defined:** – All key functionalities have well-documented test cases.
- **Test Data Availability:** Required test data is prepared and accessible.

## Exit Criteria ➡️:

The following conditions must be fulfilled before concluding the testing phase.

- All test cases executed with documented results.
- Critical defects are resolved or logged for further action.
- Test summary report is submitted.

## Test Environment 💻:

- **Devices:** Desktop, laptops, tablets, mobiles etc.
- **OS:** Windows 10, Windows 11, etc.
- **Browsers:** Chrome, Edge, Firefox etc.
- **Network:** 50-75 Mbps Fiber, VPN Enabled.

## Test Execution Plan 📝:

### Manual Testing Execution

- **Phase 1:** Functional Testing (Feature-wise execution)
- **Phase 2:** Regression Testing (After fixes and updates)
- **Phase 3:** Exploratory Testing (Edge cases & negative scenarios)

### Automation Testing Execution

- **Phase 1:** Setup framework & write initial test cases.
- **Phase 2:** Execute automated UI tests & debug failures.
- **Phase 3:** Automate API tests & integrate with CI/CD.

## Scheduling 📅:

Activities	Starting Dates	Ending Dates	Durations	Responsible Persons
Test Planning	28th Feb 2025	28th Feb 2025	1 Day	Nazish Jehangir
Test Scenarios & Test Cases Preparation	28th Feb 2025	28th Feb 2025	1 Day	Nazish Jehangir
Test Scripts Preparation & Execution.	28th Feb 2025	01st March 2025	1 Day	Nazish Jehangir
Test Scripts Execution & Bug Report.	01st March 2025	2nd March 2025	1 Day	Nazish Jehangir
Summary Reporting & Mind Map Creation.	2nd March 2025	2nd March 2025	1 Day	Nazish Jehangir

## Deliverables 📄:

- Mind Map
- Test Scenarios
- Test Cases
- Test Execution Report
- Bug Reporting
- Test Summary Report

## Roles & Responsibilities 👤:

Role	Assigned To	Responsibility/Assignment
Test Lead	Vaishnavi Lakhore	Coordinating the testing efforts.
Automation Tester	Nazish Jehangir	Writing & executing automation scripts.
Manual Tester	Nazish Jehangir	Exploratory Testing and Testinc Documents etc.

## Risks & Assumptions ⚠️:

- Limited time for testing across all browsers and devices.
- Test execution failures due to network issues.

### **Assumptions 🛡️:**

- Due to limited time, testing will focus on the most commonly used browsers & devices.
- Execution is assumed to run in reliable network environment to reduce network failures.

### **Sign Off/Conclusion 🏁:**

The test plan for the [Sauce Demo](#) website provides an end-to-end framework to ensure all critical functionalities functions well without malfunctioning across different devices or platforms, operating systems and browsers. By covering the main functional aspects the test plan helps ensuring a successful release of the software.