**Test Plan**

**1.1 Introduction**

This document outlines the test plan for the e-commerce website.The objective is to identify core test cases for regression testing, ensuring the website functions correctly when changes are applied.

**1.2 Scope**

Testing will cover the core functionalities of the application, including:

* Login Functionality: User authentication and access control.
* Product Listing and Details
* Shopping Cart Operations
* Checkout Process
* Payment and Order Confirmation
* Log out process
* UI/UX Consistency Across Browsers

**1.3 Testing Strategy**

We will employ a risk-based testing approach, focusing on core functionalities and areas most likely to be affected by changes.

**3.1 Types of Testing**

* Functional Testing: Verify core functionalities such as login, adding/removing items, and checkout.
* Regression Testing: Ensure that new changes do not break existing features
* Cross-Browser Testing: Ensuring compatibility with major browsers (Chrome, Firefox, Safari, Edge).
* Smoke Testing: A quick set of tests to verify the basic functionality after each build
* Usability Testing: Ensure ease of use and intuitive navigation.
* Performance Testing: Check website responsiveness and loading times.
* Priority-Based Testing: Prioritizing test cases based on criticality and frequency of use
* Exploratory Testing**:** To find edge cases and unexpected behavior

**3.2 Test Execution Approach**

* **Manual Testing** will be performed based on predefined test cases.
* **Test Execution Order**:
  1. User authentication and access control
  2. Product list verification
  3. Shopping cart operations
  4. Checkout process validation
  5. Payment and order confirmation
  6. Log out verification
  7. UI/UX validation across browsers

**3.3 Regression Testing Considerations**

**UI Changes**: Validate layout consistency, responsiveness, and accessibility.

**Critical Paths**: Prioritize authentication, checkout, and payment functionalities.

**1.4 Test Environment**

* Browsers: Chrome , Firefox , Safari , Edge .
* Operating Systems: Windows, macOS
* Devices: Desktop, laptop, and potentially mobile emulators/simulators.

**1.5 Testing Approach Based on Change Type**

* **UI Changes:**
  + Focus on cross-browser and cross-device testing to ensure consistent rendering.
  + Verify that all UI elements are correctly aligned and functional.
* **Product Changes:**
  + Verify product information (name, description, price).
  + Test adding and removing products from the cart.
  + Check the impact on the checkout process.
* **Core Updates:**
  + Run the complete regression test suite.
  + Prioritize critical functionalities.
  + Perform smoke testing after each update.

**1.6 Entry and Exit Criteria**

* **Entry Criteria:**
  + Stable build of application
  + Test environment setup.
  + Test data available.
* **Exit Criteria:**
  + All planned test cases have been executed.
  + All critical defects have been resolved.
  + Test report completed.

**1.7 Test Data**

* Accepted usernames are: Password
  + standard\_user secret\_sauce
  + locked\_out\_user. secret\_sauce
  + problem\_user secret\_sauce
  + performance\_glitch\_user secret\_sauce
  + firstname: hakan
  + last name : ali
  + zip code: 34800
  + Url: https://www.saucedemo.com/

**1.8 Test Deliverables**

1. **Test Cases Spreadsheet** – List of test cases with execution priority.
2. **Bug Reports** – Documenting any defects found using a structured template.
3. **Summary Report** – Overview of test execution results and findings.

**1.9 Risks & Mitigation**

**Risk Mitigation Strategy**

Inconsistent UI across browsers Perform cross-browser testing regularly

NetWork latency variation Use a stable testing network

**2. Conclusion**

This test plan aims to establish a structured approach for testing the website, ensuring its functionality, usability, and reliability across different environments.