**TEST REPORT FOR SAUCE DEMO APP**

**1. Introduction**

This test report provides an overview of the testing activities and outcomes for the Sauce Demo application. The primary objective of the testing was to ensure that the application functions as expected in various scenarios and environments. Both manual and automated tests were executed, and all test cases passed successfully, meeting the exit criteria outlined in the test plan.

**2. Test Objectives**

- Validate the core functionalities, including login, product page, cart, and checkout processes.

- Ensure cross-browser compatibility across Chrome, Firefox, and webkit.

- Verify functionality of key features, usability, accessibility, and visual consistency.

**3. Test Summary**

**- Application Name:** Sauce Demo

**- Test Types:** Manual Testing and Automation Testing (Playwright, BackstopJs, Axe-playwright)

**- Total Test Cases Executed:** 25 (12 manual, 13 automated)

**- Test Execution Period:** 21/09/2024 – 25/09/2024

**- Test Environment:**

* **Browsers:** Chrome, Firefox, webkit
* **Platforms:** Windows, macOS

**4. Test Case Execution**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Title** | | **Type** | **Result** | |
| TC01 | Login with valid user | | Manual | Passed | |
| TC02 | Login with invalid user | | Manual | Passed | |
| TC03 | Login without any credentials | | Manual | Passed | |
| TC04 | Login with only username | | Manual | Passed | |
| TC05 | Login with only password | | Manual | Passed | |
| TC06 | Change sorting to Z-A | | Manual | Passed | |
| TC07 | Change price sorting (High-Low) | | Manual | Passed | |
| TC08 | Change price sorting (Low-High) | | Manual | Passed | |
| TC09 | Add product to cart | | Manual | Passed | |
| TC10 | Remove product from cart | | Manual | Passed | |
| TC11 | Complete checkout step-one process | | Manual | Passed | |
| TC12 | Complete checkout | | Manual | Passed | |
| FTC01 | Login Test | | Automated (Functional Test) | Passed | |
| FTC02 | Sorting by Z-A | | Automated (Functional Test) | Passed | |
| FTC03 | Price Sorting (High-Low) | | Automated (Functional Test) | Passed | |
| FTC04 | Add Multiple Items and Checkout | | Automated (Functional Test) | Passed | |
| VTC01 | | Login Page | Automated (Visual Test) | | Passed |
| VTC02 | | Inventory Page | Automated (Visual Test) | | Passed |
| VTC03 | | Cart Page | Automated (Visual Test) | | Passed |
| VTC04 | | Checkout step-one page | Automated (Visual Test) | | Passed |
| VTC05 | | Checkout step-two (Overview) page | Automated (Visual Test) | | Passed |
| ATC01 | | Login Page | Automated (Accessibility Test) | | Fail |
| ATC02 | | Inventory Page | Automated (Accessibility Test) | | Fail |
| ATC03 | | Cart Page | Automated (Accessibility Test) | | Fail |
| ATC04 | | Checkout Page | Automated (Accessibility Test) | | Fail |

**5. Test Execution Details**

**- Manual Testing:**

* UI elements (buttons, fields) were verified across browsers.
* Functional testing covered login, product selection, cart management, and checkout.
* Edge cases such as invalid login credentials and incomplete checkout forms were handled appropriately with error messages.
* Manual cross-browser testing on Chrome, Firefox, and Safari confirmed the app’s consistent behavior across platforms.

**- Automation Testing**

**A. Functional Testing (Playwright):**

* Scripts validated sorting functionality for product names (Z-A) and prices (high-low).
* The entire checkout journey was automated, including adding multiple items to the cart and completing the purchase.
* Automation scripts ran successfully on Chrome, Firefox, and webkit browsers with no failures.
* Parallel execution reduced the test run time significantly, and logs captured detailed steps for each test case.

**B. Visual Testing (Backstopjs):**

 Visual tests were conducted for key pages, including:

* Login Page
* Inventory Page
* Cart Page
* Checkout Step One Page
* Checkout Step Two (Overview) Page

 All **visual test cases passed**: The screenshots captured during the execution matched the baseline images, confirming no unexpected visual changes on these pages.

**C. Accessibility Testing (Axe-Playwright):**

**Accessibility violations were detected** on multiple pages (Login, Inventory, Cart, Checkout):

1. **Moderate Issues:**

**i. Landmark-one-main**: Ensure the document has a main landmark.

* **Solution**: Add a <main> element to the page. Ensure the main content of the page is wrapped inside this element.

<main>

<!-- Main content goes here -->

</main>

1. **Page-has-heading-one**: Ensure there is at least one level-one heading on the page.

* **Solution**: Ensure each page has exactly one <h1> heading that accurately describes the page's main content:

<h1>Page Title</h1>

* Only one <h1> should be present per page, and it should be placed meaningfully to represent the content hierarchy.

1. **Region**: Ensure all content is within landmarks.

* **Solution**: Make sure all key content sections are wrapped in appropriate landmark elements:

<header>

<!-- Header content (e.g., navigation) -->

</header>

<nav>

<!-- Navigation content -->

</nav>

<main>

<!-- Main content of the page -->

</main>

<footer>

<!-- Footer content -->

</footer>

1. **Critical Issue:**
2. **Select-name**: Ensure select elements have accessible names.

* **Solution**: Add a label to each <select> element, ensuring the label is properly associated using the for attribute to provide accessible names.

<label for="my-select">Select an option:</label>

<select id="my-select" name="my-select">

<option value="option1">Option 1</option>

<option value="option2">Option 2</option>

</select>

 These issues will need to be addressed to improve compliance with accessibility standards.

**6. Bugs and Issues**

Accessibility violations were identified during the execution of accessibility test cases. All functionalities and visual tests worked as expected.

**7. Test Exit Criteria**

- All critical and high-severity bugs of key features were resolved.

- 100% test case execution was achieved, with 4 cases failing and 21 passing.

- No blocker or critical bugs were open at the time of the product release.

**8. Risk Management**

**- Automation Script Failures:** Regular updates to Playwright scripts minimized risk.

**- Cross-Browser Compatibility**: All key functionalities were tested and passed on Chrome, Firefox, and Safari.

**- Script Maintenance:** A modular framework using the Page Object Model was implemented, improving script maintainability and scalability.

**9. Conclusion**

All functional test cases, both manual and automated, were executed successfully without any failures. The key features of the application are functioning as expected, meeting the test plan objectives. The app is ready for release with no major bugs, ensuring functionality across different browsers and platforms.