

REPORT ON EXPLORATORY TESTING CARRIED OUT ON THE SAUCE DEMO APPLICATION

URL: (<https://www.saucedemo.com>)

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Test accounts used: standard_user, problem_user, blocked_user

TEST OBJECTIVE

The purpose of this test is to explore the core user journeys of the Sauce Demo application, identify functional issues, assess usability and security risks, and suggest improvements that align with real-world e-commerce expectations.

SCOPE/AREAS TESTED AND ISSUES FOUND

Testing was performed using Standard User, Problem User, and Blocked User accounts in order to identify role-based differences in system behavior, content rendering, and navigation flow.

The following areas were covered without predefined scripts, guided by user behavior and risk-based assessment:

1. Authentication & Access Control
2. Product Listing (Products Page)
3. Navigation (Hamburger Menu)
4. Cart Management
5. Checkout Process
6. Session Handling & URL Access
7. Page Navigation (Back/Forward/Refresh)
8. Footer Links

1. Authentication & Access Control

- Login with valid and invalid credentials
- Access to protected pages via direct URL while logged out

- Session behavior after logout

Observation/Issues found:

- Only authorized and valid users are allowed access to the platform
- Unauthorized users are redirected to the login page when accessing protected URLs.
- There isn't a strict authentication process to be able to distinguish a registered user from a visiting user, no option to sign up. This could be the intended design, it being a demo application, but worthy to take note of it incase otherwise. This could affect user individual activity on the platform

2. Product Listing (Products Page)

- Product name, image, description, and price consistency
- Product display after applying the different filters
- Filtering/Sorting

Observation/Issues found:

- Product details remain consistent across filters for the Standard User, while for the Problem User, some product images and descriptions were inconsistent and did not match the product.
- User cannot add more than one of each item to cart.
- With the Standard User, sorting works correctly, but page refresh resets sort order back to original, while with the Problem User the filter behaves inconsistently and sometimes doesn't even work at all.

3. Navigation (Hamburger Menu)

- Open/close menu
- Navigation to All Items, About, Logout, Reset App State

Observation/Issues found:

- Menu functions as expected for the Standard User.
- For the Problem User accessing the About page initially returned a 404 error and then

displayed content different from the Standard User.

4. Cart Management

- Add items to cart
- Remove items from cart
- Cart badge count behavior
- Cart persistence after logout/login

Observation/Issues found:

- Items can be successfully added and removed from the cart by the Standard User, but for the Problem User, some products cannot be added even after clicking the button.
- User cannot add more than one of an item to cart, but in a real e-commerce application this should be a requirement and feature made available to users.
- Cart badge updates correctly.

5. Checkout Process

- Checkout with items in cart
- Checkout with empty cart
- Checkout without filling required fields
- Order summary validation

Observation/Issues found:

- User can proceed to checkout with an empty cart.
- Validation messages appear when required fields are missing.
- With Problem User, checkout form misroutes input between First Name and Last Name fields, making it impossible to fill out these fields and checkout.
- No provision to select payment information but payment info was included in the checkout overview

6. Session Handling & URL Access

- Direct access to different pages via their individual URLs
- Page reload behavior
- Session timeout
- Observation/Issues found:
- Direct access via URL works
- Checkout steps remain accessible via URL even after the order process has been completed. This may cause confusion, duplicate submissions, or data inconsistency.
- User session expires while user is still active on the platform.

7. Page Navigation

- Browser back and forward buttons functionality across pages
- Page refresh during checkout flow

Observation/Issues found:

- All work as expected

8. Footer Links

- Social media links functionality

Observation/Issues found:

- Links open correctly in new tabs.

RISKS / IMPROVEMENT SUGGESTIONS

- User should not be allowed to proceed to checkout with an empty cart. Lack of strict checkout validation could lead to invalid transactions in a real system.
- Implement stronger session and state validation for multi-step workflows.
- User should be able to select more than one of an item and add to cart

- Persistent access to completed workflow pages indicates weak state validation. Users should not be able to access checkout step pages after the checkout flow has been completed.
- Maintain sort/filter state after page refresh.
- The system should be persistent across mobile and web platforms to allow users have the same experience regardless of gadget used.
- Review and increase session timeout duration or implement activity-based session extension.

CONCLUSION

Exploratory testing revealed multiple UI and data inconsistencies, with the different users, including mismatched product images, incorrect cart behavior, navigation-related issues, session handling etc, which could impact user experience and purchasing accuracy.

Addressing these issues would significantly improve reliability, security, and user experience in a production environment.