

Test Strategy - Evallo QA Automation Assignment (UI: Sauce Demo)

Overview

This strategy outlines the approach for automating tests for SauceDemo (<https://www.saucedemo.com>) - an e-commerce demo site. The objective is to validate core functionality like user login, product selection, cart handling, and checkout flow.

Key Risks Identified

1. Login Reliability - Users may be locked out or incorrect credentials may cause unclear errors.
2. Cart Behavior - Items added should persist and be accurately reflected in the cart.
3. Checkout Calculation - Item total, tax, and final amount must match the expected pricing.
4. Broken UI Elements - Buttons or links may not function properly (e.g., Add to Cart, Continue).
5. Session Handling - User sessions must reset between logins to avoid state carryover.

Test Automation Priorities

1. Smoke Tests (Critical Path)

- Login with valid user
- Add an item to the cart
- Proceed through checkout
- Confirm order completion

2. Negative Tests

- Login with locked_out_user
- Try checkout without items
- Missing required checkout fields

3. UI/UX Validations

- Check presence and visibility of key elements
- Validate user redirection after login and logout

Layers of Automation

- UI Layer: Using Selenium + Java with TestNG (Page Object Model)
- No API or backend access: Hence, frontend validation only.

CI/CD Integration (Continuous Testing)

- Tests will run on GitHub Actions on every push and pull request.
- Headless browser mode used for CI.
- Reports (HTML format) generated for review after each run.

Tools & Technologies

- Selenium WebDriver
- Java 11
- TestNG
- Maven
- GitHub Actions (for CI)
- ExtentReports (for reporting)

Conclusion

This strategy aims for stable, scalable, and maintainable test automation. Focus is given to the core purchase flow and error validations, using clean code structure, reusability, and CI integration.