**Test Plan for Swag Labs Website**

**1. Objective**

The objective is to ensure the functionality, usability, and performance of the Swag Labs website across all its features. This includes login, product overview, menu navigation, cart functionality, checkout process, and footer social media links.

**2. Scope**

This plan covers:

1. Login and logout functionality.
2. Product overview and cart operations.
3. Menu navigation and reset app state behavior.
4. Checkout form validation and successful order placement.
5. Footer social media links (X, Facebook, LinkedIn).
6. UI responsiveness across devices.

**3. Features to be Tested**

* **Login/Logout:**
  + User authentication with various accounts.
  + Logout functionality.
  + Session management and app state behavior.
* **Product Overview:**
  + Display of 6 products with correct details (name, price, image).
  + Adding and removing items from the cart.
  + Verifying the cart's item count and total price.
* **Menu Navigation:**
  + Menu items: All Items, About, Logout, Reset App State.
  + Correct functionality of reset app state (clearing cart and refreshing page state).
  + Navigation to external links (e.g., "About").
* **Checkout Information Form:**
  + Validation of required fields (First Name, Last Name, Zip/Postal Code).
  + Successful checkout flow.
  + Error messages for incomplete or invalid inputs.
* **Footer Social Media Links:**
  + Redirection to X, Facebook, and LinkedIn pages.
  + Verification of links opening in new tabs.

**4. Test Scenarios**

**4.1 Login and Logout**

1. Test login with valid credentials (standard\_user, locked\_out\_user, performance\_glitch\_user).
2. Test invalid credentials and error message display.
3. Validate logout functionality and redirection to the login page.
4. Verify clearing upon logout.

**4.2 Product Overview**

1. Verify all 6 products are displayed with correct details (name, price, image).
2. Test adding a single product to the cart and verify cart count updates.
3. Add multiple products and validate the cart's total price.
4. Remove an item and confirm cart updates correctly.
5. Test the display of product details if applicable (expandable views).

**4.3 Menu Navigation**

1. Test "All Items" to ensure it redirects to the product overview.
2. Validate the "About" link for correct redirection to the information page.
3. Test "Reset App State" to ensure the cart is cleared and the app is refreshed.
4. Test "Logout" to ensure the session ends and the user is redirected to the login page.

**4.4 Checkout Information Form**

1. Verify form field validations:
   * Required fields: First Name, Last Name, Zip/Postal Code.
   * Invalid inputs (e.g., empty or incorrect formats).
2. Validate error messages for missing or invalid fields.
3. Test successful form submission and proceed to the checkout overview page.
4. Verify correct product and price details in the final order summary.

**4.5 Footer Social Media Links**

1. Test the "X" link to ensure it redirects to the correct social media page.
2. Test the Facebook link for proper redirection.
3. Validate the LinkedIn link functionality.
4. Confirm all links open in new tabs and do not navigate away from the website.

**5. Test Data**

1. **User Accounts:**
   * standard\_user, problem\_user, performance\_glitch\_user, locked\_out\_user.
   * Password for all users: secret\_sauce.
2. **Product Details:**
   * Names, prices, and images for the 6 products.
3. **Checkout Information:**
   * Valid: Random names and valid zip/postal codes.
   * Invalid: Empty fields or incorrect formats.

**6. Tools**

* **Functional testing:** TestRail for creating and executing test plans and test cases and Jira or similar tools for logging and tracking issues.
* **Performance Testing:** JMeter to ensure site responsiveness.
* **Automation Tools:** Selenium or Cypress for repetitive actions like login and checkout.

**7. Test Execution**

* **Environment:** Desktop/Windows (Chrome, Opera)
* **Testing Types:**
  + **Smoke Testing:** Validate critical features like login, product view, and checkout.
  + **Regression Testing:** Ensure new changes do not affect existing functionality.
  + **Usability Testing:** Confirm intuitive design and responsiveness.

**8. Deliverables**

* Detailed test cases for all scenarios.
* Defect reports with clear steps to reproduce.
* Test execution summary, including pass/fail rates.