**PART 1- TEST PLAN**

**1. Key elements of Comprehensive Test Plan for SauceDemo Application:**

* **Scope :** This e-commerce website allows users to register or log in as new or existing customers, browse the homepage, manage their shopping cart (add/remove items), and complete product checkout.
* **Objective :** The objective of this test plan is to validate that all core functionalities (authentication, product browsing, cart management, and checkout) work as expected, ensuring a seamless user experience.
* **Features to be Tested:**

1)Verifying the Login Flow

2)Verifying the Signup Flow

3)Verifying the Home page of the website

4)Verifying the Search Option

5)Verifying the Add/Remove from Cart including Checkout

* **Test Types:**

1) Smoke Testing

2) System Testing -Functional Testing

3) Usability Testing

3) Sanity Testing

4) Regression Testing

* **Test Environment:**

Browser: Chrome

Device: Win 10

Website: SauceDemo Shopify demo site ([https://sauce-demo.myshopify.com/](https://sauce-demo.myshopify.com/?utm_source=chatgpt.com))

* **Resources:**

QA Engineer for test case design and execution, Developer for bug fixes, and Test Lead for review and reporting.

**2. Importance of defining Test scope and Test Objectives:**

Defining the **test scope** and **test objectives** is important because scope sets the boundaries of what will be tested, while objectives explain why the testing is done and what it should achieve.

**3. Different types of Testing outlined for this application:**

**1)Smoke Testing:** A quick check of the most critical functionalities (login, add to cart, checkout) to ensure the build is stable enough for further testing.

**2) System Testing -Functional Testing:** Essential to check end-to-end functional flows in an e-commerce site.

**3) Usability Testing:** Ensures a good user experience, important for shopping sites.

**4) Sanity Testing:** Useful since the demo app may get updates or fixes, and you want quick validation.

**5) Regression Testing:** Very important for e-commerce flows where one change can impact many areas.

6) **Manual Testing:** Testing performed by QA engineers without automation, by manually executing test cases to validate functionality, usability, and user experience.

**PART-2**

**1. Five user functionalities:**

1)Verifying the Login/Logout Flow

2)Verifying the Signup Flow

3)Verifying the Home page of the website

4)Verifying the Search Option

5)Verifying the Add/Remove from Cart including Checkout

**2. Test Scenarios:**

1. Verifying the Login Flow:

**Description:** Verify that the user able to login.

**Preconditions:** Internet access-NAVIGATE to the website and user must have an signed-up account.

**Postconditions:** Navigate to the My Account page.

**Test Conditions:**

TC001 – Verify login with valid credentials.  
 TC002 – Verify error message for invalid email address.  
 TC003 – Verify error message for invalid password.

TC004 – Verify error message when both fields are empty.  
TC005 – Verify error message when password is blank and email is provided.  
TC006 – Verify error message when email is blank and password is provided.  
TC007 – Verify email format validation when “@” is missing.  
TC008 – Verify Forgot Password link.  
TC009 – Verify email format validation “@” on reset password page.  
TC010 – Verify Submit button on reset password page.

TC011 – Verify Cancel button on reset password page.

TC012 - Verify the successful logout button and return to the homepage.

2. Verifying the Signup Flow:

Verify that the user able to fill all the required fields(name,mail,password).

Verify that the user gets the invalid messages if the field is NOT filled properly(email format (without “@”, without “.com”), password strength rules (minimum length, special chars).

If an email must be unique, creating an existing email should throw an error.

Confirm successful signup leads to an account page.

3)Verifying the Home page of the website:

Verify that the homepage has its official logo and is clearly visible.

Verify that featured products are visible (e.g. “Grey Jacket”, “Noir Jacket” etc.).

Verify that footer links (About Us, payment methods logos) are displayed.

Verify that when you click “Catalog” or product names, you get to the correct product pages.

4)Verifying the Search Option:

Verify that the search engine works properly for the given input and shows the results.

Verify that the number of products searched are correctly displayed with image/name/price.

Verify that search with gibberish (e.g. “xyz123”) and see “no results” message.

5)Verifying the Add/Remove from Cart including Checkout:

Verify that the user can select the item and is able to filter the product (size/colour).

Verify that the user can select the add cart and be able to see the product in my cart.

Verify that the user can remove the item from the cart when it's NOT required.

Verify that the user can navigate to the checkout page and be able to see the required fields for payment.

**3. Positive and Negative Test scenarios:**

| Test Scenarios | Positive | Negative |
| --- | --- | --- |
| Verifying the Login Flow | Login into the account only if the user provides the valid(mail/password) credentials.  Forgot password links works fine and navigate to reset password page.  Accepts the mail address in the reset password page and sends the message to the mail address. | Stop the login if the user entered invalid (mail/password).  Provides the error message if any of the fields is NOT filled.  User enters an invalid email format (e.g., user.com, @test) system shows “i.e @missing”. |

**4: Difference between Test Scenario and Test Case:**

* Level of Detail: Test cases are detailed and provide step-by-step instructions, while test scenarios are high-level descriptions.
* Purpose: Test scenarios outline what needs to be tested, whereas test cases provide how to perform those tests.
* Focus: Test scenarios focus on features or functionalities as a whole, while test cases focus on specific conditions and outcomes.

**5: How to handle steps involving browser interaction:**

1.Open browser & navigate to the website.

2.Enter a valid username and password.

3.Click login button.

4.Click Add to Cart on a product .

5.Click cart icon.

6.Click Checkout.