**Test Strategy**

Project Name

SauceDemo Ecommerce Website

**1. Scope**

The testing will be performed on the Ecommerce web application which includes the following areas:

* **User Login Functionality:** Testing of login needs complete coverage as it is most essential feature for Ecommerce or for any website/application since it provides access to entire website.
* **Inventory Page:** This page lists all the available and newly added items and product details where the end user access to this page initially when they login.
* **Cart Section:** Based on customer behaviour they might have select, compare, manage and increase the quantity of the items before buying them, so the cart area is most effective area which needs to be tested
* **Checkout Page:** This is the critical area where user performs payment transactions, enter the billing address, enter credit card details and total cost of all the product which user willing to purchase is displayed.

**2. Test Approach**

The testing approach for the Ecommerce web application will include the following steps:

**Test Planning:** Here testing team will decide how many test engineers are needed and what each engineer should do. When exactly we should start which activity and end the activity.

**Test design:** The testing team will develop test cases by identifying all possible scenarios based on the user requirement.

**Test Execution:** In this stagewe test the product for many times. Testing team will perform all different types of testing so that to improve the quality of the product.

**Test Execution Report:** Here testing team will document how many test cases are there, how many test cases are executed and not executed, how many test cases are pass or fail, and how much percentage of pass of fail of test cases.

**3. Testing Types**

**Functional testing:** Here we test each and every feature of Ecommerce application against the requirement specification which includes form field validation, login functionality, inventory section, cart and checkout pages.

**Performance testing:** Performance testing should be done for better stability, scalability and speed of the ecommerce application as the end user might use the application all across the world.

**Security Testing:** Since user personal information like credit card details, address, payments are involved, there is a chance of getting hacked by the hackers. Hence security testing would be more critical.

**Usability Testing:** To check the user friendliness of an application so that the user can takes less number of action to get to his/her requested feature.

**Compatibility Testing:** End user might use the ecommerce application on different hardware/software, or through different browsers or different operating system or through different mobile phones. So the compatibility testing would be more handy.

**Testing Tools:**

**Test Management Tool:** Zephyr, Excel Sheet.

**Automation Tool:** Selenium

**Defect tracking tool:** Jira

**Performance:** Jmeter

**Security:** Zed Attack Proxy

**CI/CD tool:** Jenkins

**Hardware or Software configuration:**

**Operating system:** Windows, Mac, Linux

**Browser:** Chrome, Firefox, Edge

**Reports:**

To summarize the result of execution of test cases test engineers need to prepare a report at the end of the project.

**Defect Report:** On executing testcase the defects which was found by test engineers should be tracked in organized manner which includes testcase ID, Summary of defects, Severity, Priority, Status and Steps to reproduce.

**Test Execution Report:** Here testing team will document how many test cases are there, how many test cases are executed and not executed, how many test cases are pass or fail, and how much percentage of pass of fail of test cases.

**Q1- Choose which test-cases you would evaluate as critical and execute given that you do not have unlimited time and provide a brief explaination of why and rank them according to priority.**

Ans- I would execute a smoke test cases which will be impacted more to customers and the area which user access to it frequently. For instance if it is a Ecommerce website then I would prioritize the test execution based on critical features such as with login functionality, user registration, adding product to cart, billing section and with checkout process. Since these are the areas where user navigates to it frequently and suppose if we find defect in these areas there is a chance of huge business loss and organization might face a bad remark. So I immediately ask developers to fix it. According to priority I would rank it in following order.

* Smoke Test Cases
* Functional Test Cases
* Regression Test Cases
* System Test cases
* Performance Test cases

**Q2- If we had testcases to run nightly as an automated smoke test suite for sauce demo, which of the testcases would you add to this and why?**

Ans- From the test case which I had written I would add the following test cases:

1. TC\_1 -- Verify the functionality of Login Page with valid credentials
2. TC\_4 -- Check if the product details page opens when a product/image is clicked.
3. TC\_5 -- Verify the functionality of Add to cart button in inventory page.
4. TC\_6 -- Verify the functionality of Remove button in inventory page.
5. TC\_9 -- Verify the functionality of dropdown in inventory.html page.
6. TC\_10 -- Verify the functionality of 'About' link in inventory.html page.
7. TC\_11 -- Verify the functionality of 'Logout' link
8. TC\_12 -- Verify the functionality of Reset App State link in inventory.html page
9. TC\_15 -- Check the functionality of empty cart section.

10 - TC\_17 -- Check the functionality of cart section with multiple product.

11- TC\_18 -- Check the functionality of remove button from cart section.

12- TC\_19 -- Verify the functionality of continue shopping button

13- TC\_20 -- Verify increasing the quantity of product listed in cart section.

14- TC\_25-- Verify the functionality of checkout button

15- TC\_26 -- Verify the functionality of continue button with invalid entry in checkout- your information page

16- TC\_30 -- Verify the functionality of cancel button in checkout your information page.

17- TC\_34 -- Verify total price with tax amount in checkout overview page by adding multiple products.

18- TC\_35 -- Verify the functionality of cancel button in checkout overview page

19- TC\_36 -- Verify total price with tax amount in checkout overview page by removing a product from cart section.

Since these are the areas which user has got more access to it, I would automate these testcases and schedule it, So that if there is any issues or defects found in this area we would come to know at next morning and developers can fix this at the earliest.