

Project Report

E-commerce Mobile App Testing (Sauce labs)

1. Project Overview

1.1 Name Of the Project

E-commerce Mobile App (Sauce Labs) Testing Project.

1.2 Objective

To automate testing for the E-commerce mobile app (Sauce Labs).

1.3 Technologies and Tools Used

- **Mobile App:** Sauce Labs App
- **Test Automation Framework:** Appium
- **Test Execution Framework:** TestNG
- **Design Pattern:** Page Object Model (POM)
- **Version Control:** Git
- **Reporting:** Extent Reports
- **Documentation:** Microsoft Word

❖ Valid Login Credentials:

- ◆ **Username :- standard_user.**
- ◆ **Password :- secret_sauce.**

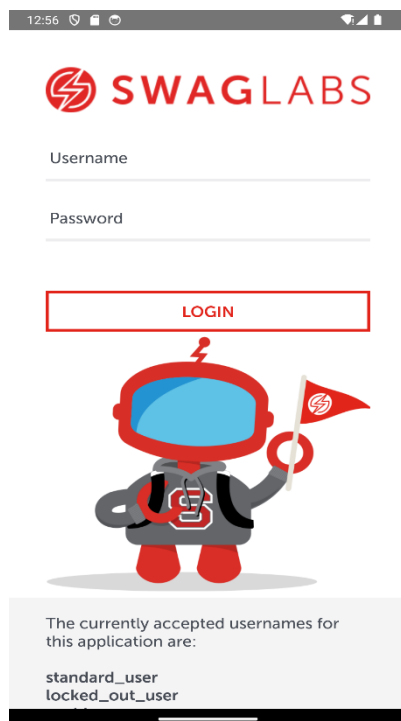
2. Test Cases

2.1 Test Case 1: Login with Valid Username and Password

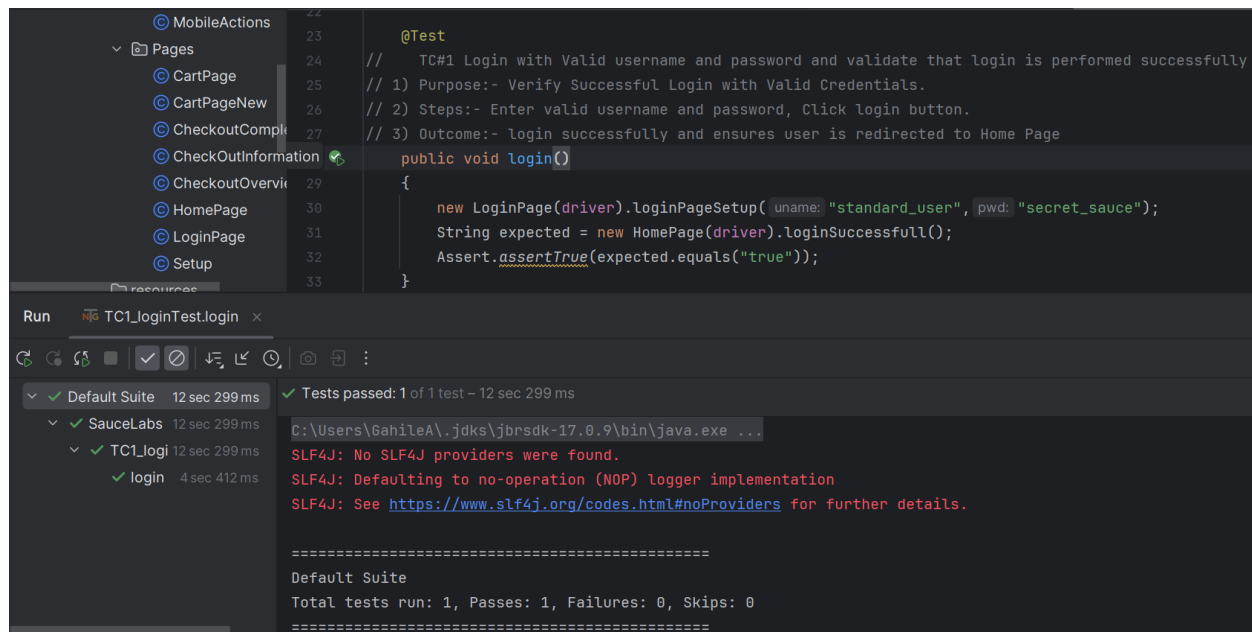
❖ **Objective:** - Verify that a user can successfully login with valid credentials.

❖ **Steps:** -

- Open the Sauce Labs mobile app.
- Enter a valid Username and password.
- Click on the login button.



- **Overview:** - This test case validates the login functionality with a valid Username and password.



The screenshot displays an IDE with a project structure on the left and a code editor on the right. The project structure includes a 'Pages' folder with files like 'LoginPage', 'HomePage', and 'CheckoutPage'. The code editor shows a Java class with a test method 'login()' that uses Selenium WebDriver to perform a login. The test method includes comments describing the purpose, steps, and outcome. Below the code editor, the 'Run' tab shows the execution results, indicating that the test passed successfully.

```
@Test
// TC#1 Login with Valid username and password and validate that login is performed successfully
// 1) Purpose:- Verify Successful Login with Valid Credentials.
// 2) Steps:- Enter valid username and password, Click login button.
// 3) Outcome:- login successfully and ensures user is redirected to Home Page
public void login()
{
    new LoginPage(driver).loginPageSetup( uname: "standard_user", pwd: "secret_sauce");
    String expected = new HomePage(driver).loginSuccessfull();
    Assert.assertTrue(expected.equals("true"));
}
```

Run TC1_loginTest.login x

Tests passed: 1 of 1 test - 12 sec 299 ms

Default Suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0

❖ Outcomes:-

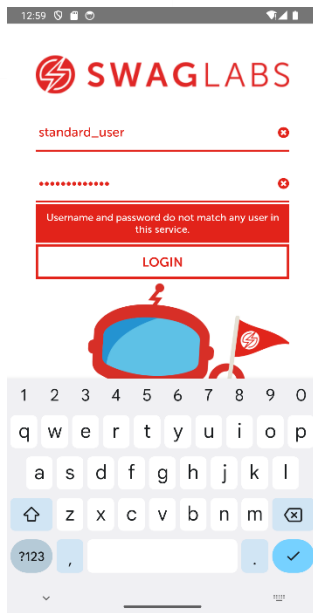
The login is performed successfully.

2.2 Test Case 2: Login with Invalid Username and Password

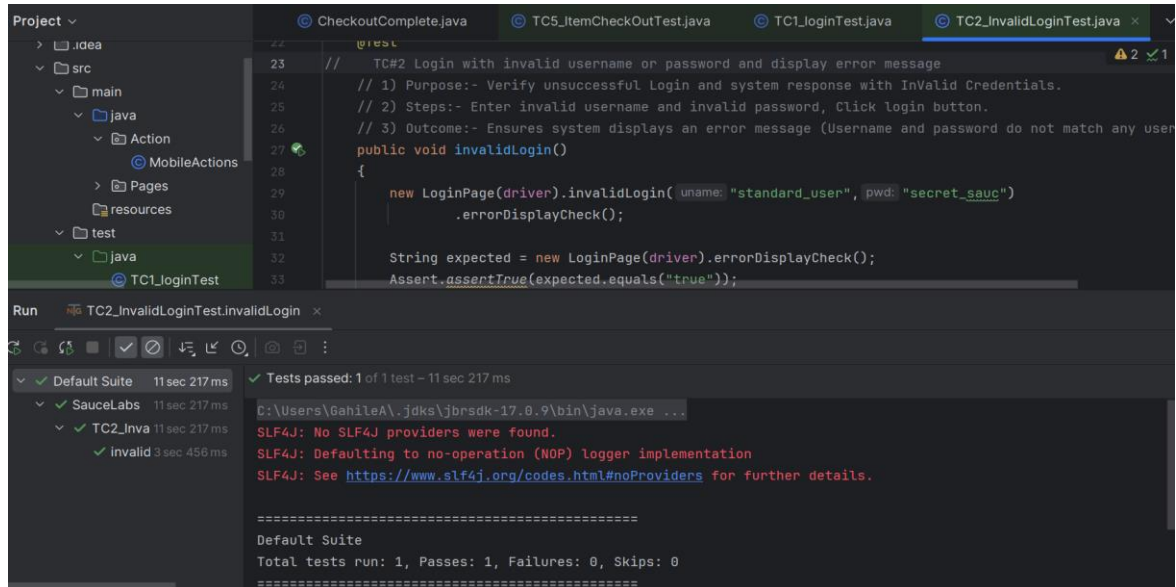
❖ Objective: - Verify the behavior of login page when attempting to login with invalid credentials.

❖ Steps: -

- Open the Sauce Labs mobile app.
- Enter an Invalid Username and password.
- Click on the login button.



❖ **Overview:** - This test case checks the application's response to invalid login attempts.



❖ **Outcomes:-**

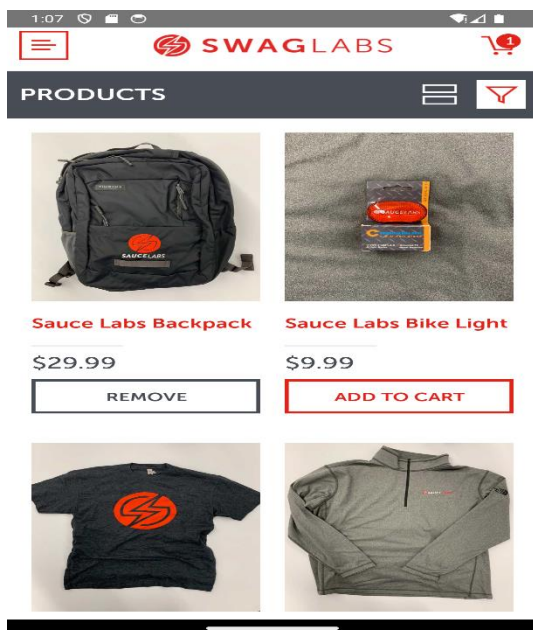
- Unsuccessful login.
- The application displays an appropriate error message: "Username and password do not match any user in this service."

2.3 Test Case 3: Add any Item to Cart and Validate the title and price of item.

❖ **Objective:** - Verify the ability to add an item to the shopping cart and validate that the title and price of the item.

❖ **Steps:** -

- Open the Sauce Labs mobile app.
- Enter a valid Username and password.
- Click on the login button.
- Browse through the items.
- Add any item to the cart.
- Navigate to the home page.



❖ **Overview:** - This test case ensures that users can add items to the cart and verifies the displayed details.

The screenshot shows an IDE with a project structure on the left, a code editor in the center, and a Run console at the bottom. The project structure includes a 'test' directory with a 'java' subdirectory containing several test classes. The code editor displays the implementation of the 'itemTest()' method in 'TC3_AddItemTest.java'. The Run console shows the execution of the 'TC3_AddItemTest.itemTest' test, which passed successfully. The console output includes the following details:

```

Run TC3_AddItemTest.itemTest
Default Suite 15 sec 146 ms
SauceLabs 15 sec 146 ms
TC3_Add 15 sec 146 ms
itemTest 6 sec 570 ms
Tests passed: 1 of 1 test - 15 sec 146 ms
C:\Users\GahileA\jdk\jbrsdk-17.0.9\bin\java.exe ...
SLF4J: No SLF4J providers were found.
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See https://www.slf4j.org/codes.html#noProviders for further details.
Sauce Labs Backpack$29.99
=====
Default Suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0

```

❖ Outcomes:-

- An item is added to the cart.
- The title and price of the item on the home page match the title and price of the item from the cart.

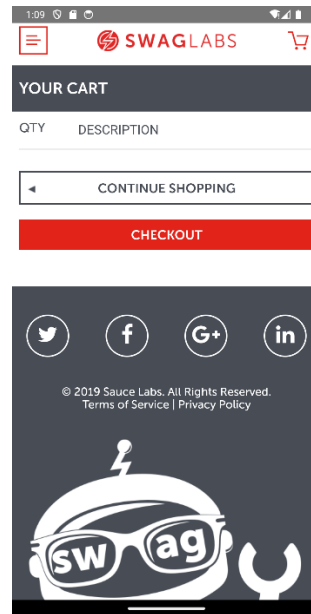
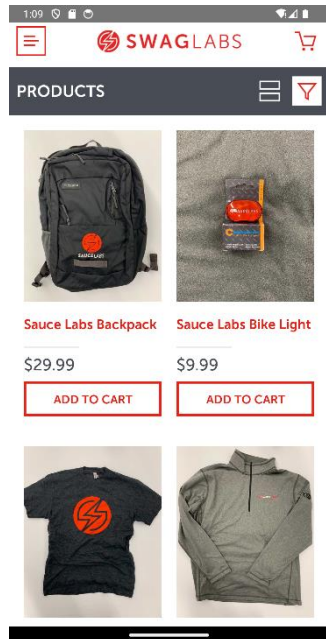
2.4 Test Case 4: Validate removing items from the cart and and validate that the cart is empty.

❖ Objective: - Verify the ability to remove items from the shopping cart and validate the cart is empty.

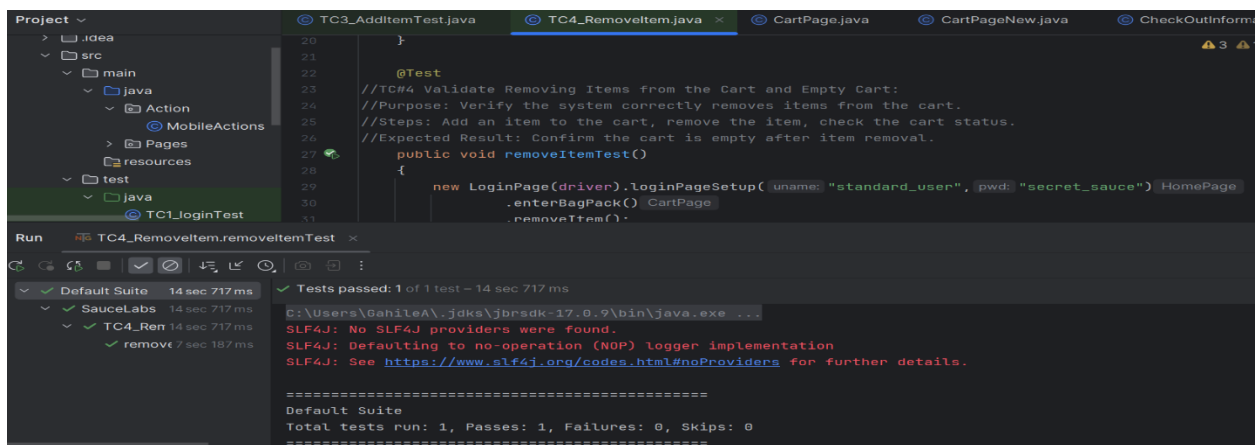
❖ Steps: -

- Open the Sauce Labs mobile app.
- Enter a valid Username and password.
- Click on the login button.
- Browse through the items.
- Add an item to the cart.
- Navigate to the cart.

- Remove the item from the cart.
- Validate that the cart is empty.



❖ **Overview:** - This test case ensures that users can successfully remove items from the cart and displays the cart is empty.



❖ **Outcomes:-**

- An item is removed from the cart.
- The cart is empty after item removal.

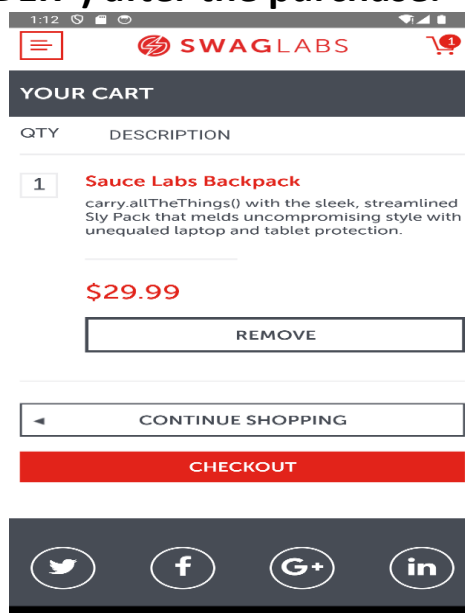
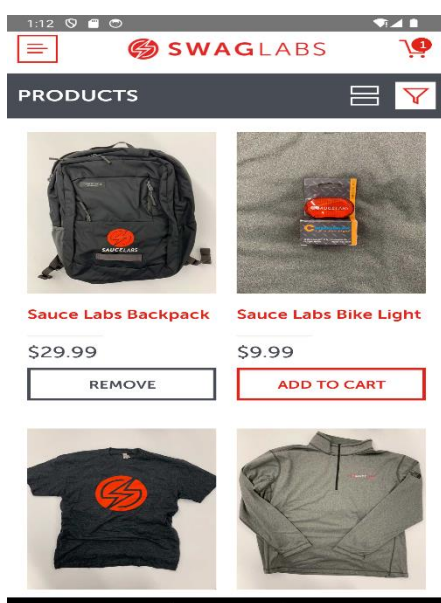
2.5 Test Case 5: Online Ordering and complete the flow from adding element to cart till the checkout.

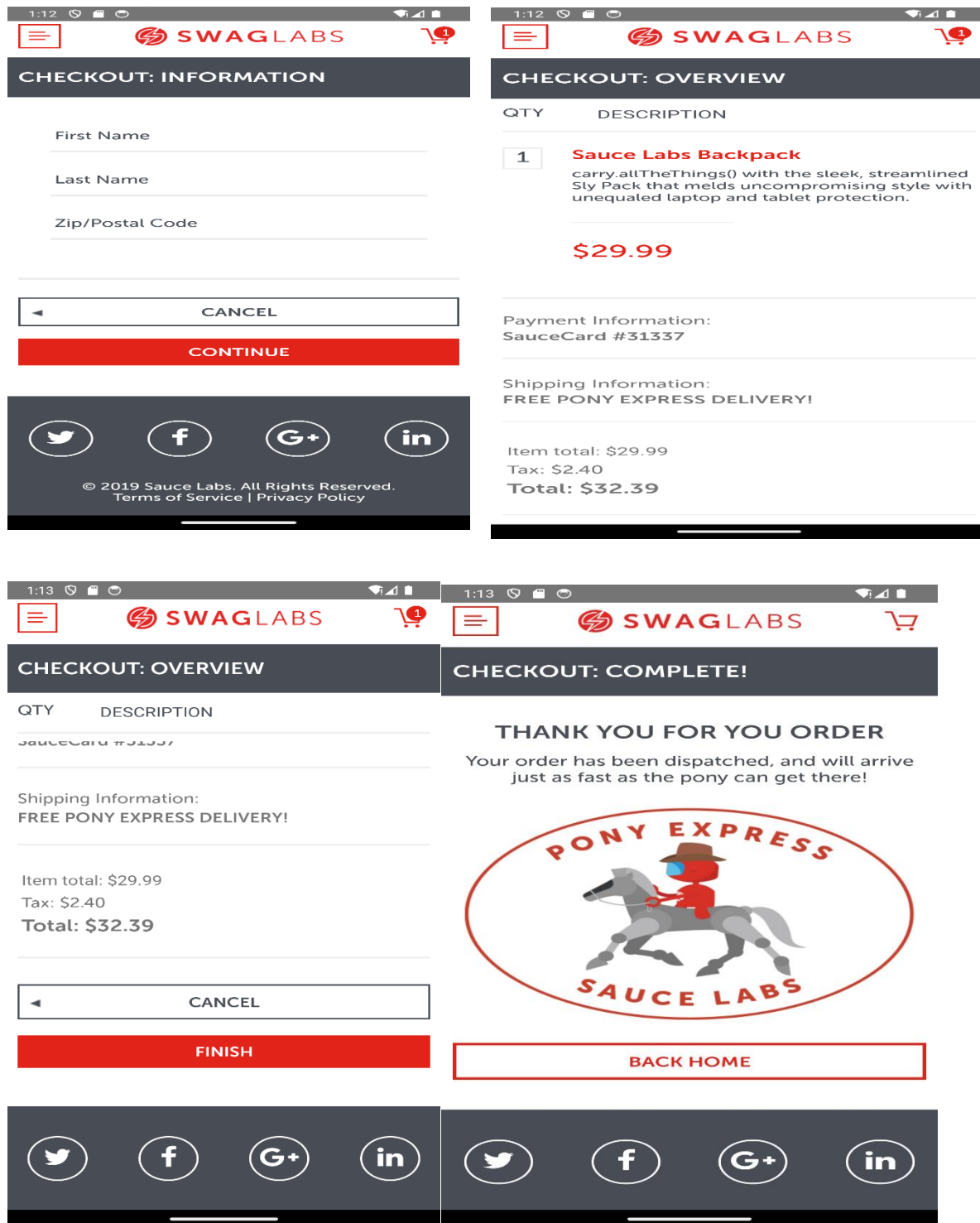
Also Validate the price and success purchase.

❖ **Objective:** - Verify the complete online ordering flow and checkout process.

❖ **Steps:** -

- Open the Sauce Labs mobile app.
- Enter a valid Username and password.
- Click on the login button.
- Browse through the items.
- Add an item to the cart.
- Navigate to the cart.
- Verify the item and its prices.
- Proceed to checkout.
- Complete the checkout flow, providing necessary information like First Name, Last Name and Zip/Postal Code.
- Validate the final price and success message ("THANK YOU FOR YOUR ORDER") after the purchase.





- ❖ **Overview:** - This test case covers the end-to-end flow from adding items to the cart to successful checkout.

The screenshot shows an IDE with a project structure on the left and a code editor on the right. The project structure includes a 'test' directory with a 'java' subdirectory containing 'TC1_loginTest' and 'TC2_InvalidLoginTe'. The code editor displays the 'TC5_ItemCheckOutTest.java' file, which contains a 'checkOut()' method. The method performs a login, enters a bag pack, and validates item names and prices. Below the code editor, the 'Run' tab shows the execution results for 'TC5_ItemCheckOutTest.checkOut'. The results indicate that the test passed successfully, with a duration of 25 seconds and 870 milliseconds. The output also shows the Java command used to run the test and some SLF4J logging messages.

```
public void checkOut()
{
    String homeItemName;
    String homeItemPrice;
    String overviewItemNames;
    String overviewItemPrices;

    new LoginPage(driver).loginPageSetup( uname: "standard_user", pwd: "secret_sauce")
        .enterBagPack();

    homeItemName=new HomePage(driver).validateName();
    homeItemPrice=new HomePage(driver).validatePrice();
}
```

Run TC5_ItemCheckOutTest.checkOut x

✓ Default Suite 25 sec 870 ms ✓ Tests passed: 1 of 1 test – 25 sec 870 ms

✓ SauceLabs 25 sec 870 ms

✓ TC5_Itter 25 sec 870 ms

✓ checkC 18 sec 16 ms

C:\Users\GahileA\.jdk\jdk-17.0.9\bin\java.exe ...

SLF4J: No SLF4J providers were found.

SLF4J: Defaulting to no-operation (NOP) logger implementation

SLF4J: See <https://www.slf4j.org/codes.html#noProviders> for further details.

Sauce Labs Backpack

\$29.99

Sauce Labs Backpack

€70.00

❖ Outcomes:-

- An item is ordered successfully.
- The final price is same as cart page and success message after the purchase is displayed.

3. Technical Implementation

3.1 Modular Design (Page Object Model)

- Implemented Page Object Model (POM) for modular design.
- Separated page classes for login, home, cart, and checkout.

3.2 GitHub Repository

GitHub Repository Link –

https://github.com/AdityaBuddyOfficial/SauceLabs_Project_Appium_Automation_Testing.git

4. Conclusion :-

In conclusion, the E-commerce project conducted on the Sauce Labs platform involved a comprehensive set of test cases aimed at validating the functionality and user experience of the mobile application. The test suite covered critical scenarios, ranging from successful and unsuccessful login attempts to the complete flow of online ordering and checkout processes. By utilizing the Appium framework and Extent Reports for reporting, a systematic and detailed approach was maintained throughout the testing lifecycle.