Project Report

E-commerce Android Automation Testing For Mobile App (Sauce labs)

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1. Project Overview

1.1 Name Of the Project:

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

1.2 Objective:

The objective of this E-commerce mobile app testing project is to thoroughly assess the functionality, usability, and reliability of the Sauce Labs E-commerce application. To automate testing for the E-commerce mobile app (Sauce Labs) and project aims to ensure that the application meets its intended purpose and provides a seamless and satisfying experience for end-users.

1.3 Technology Stack Requirements:

- **Mobile App:** Sauce Labs Mobile App
- **Coding Platform:** IntelliJ Idea IDE
- **GUI Inspecting Tool:** Appium Inspector
- **GUI Tool:** Android Emulator (Android Studio)
- **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.**

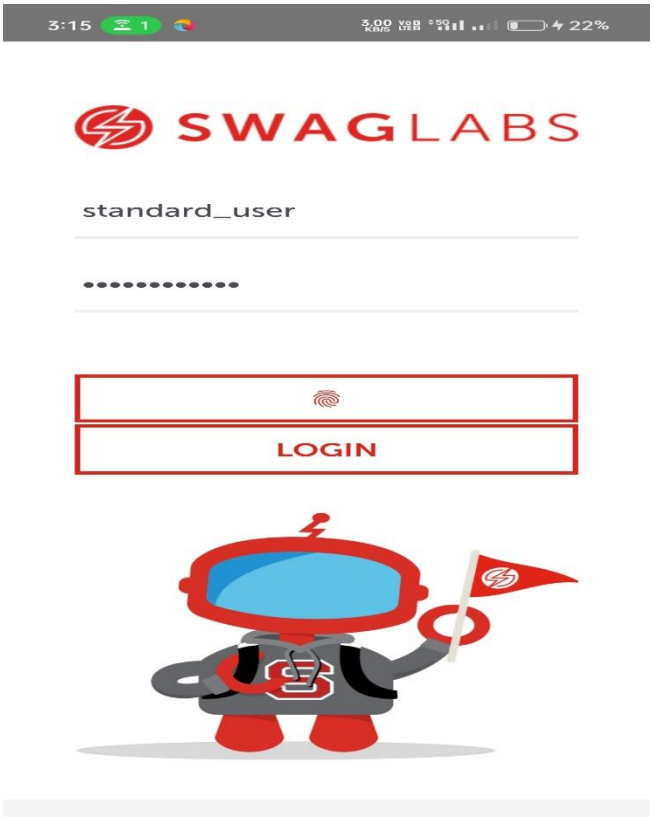
2. Test Cases

2.1 Test Case 1: Login with Valid Username and Password

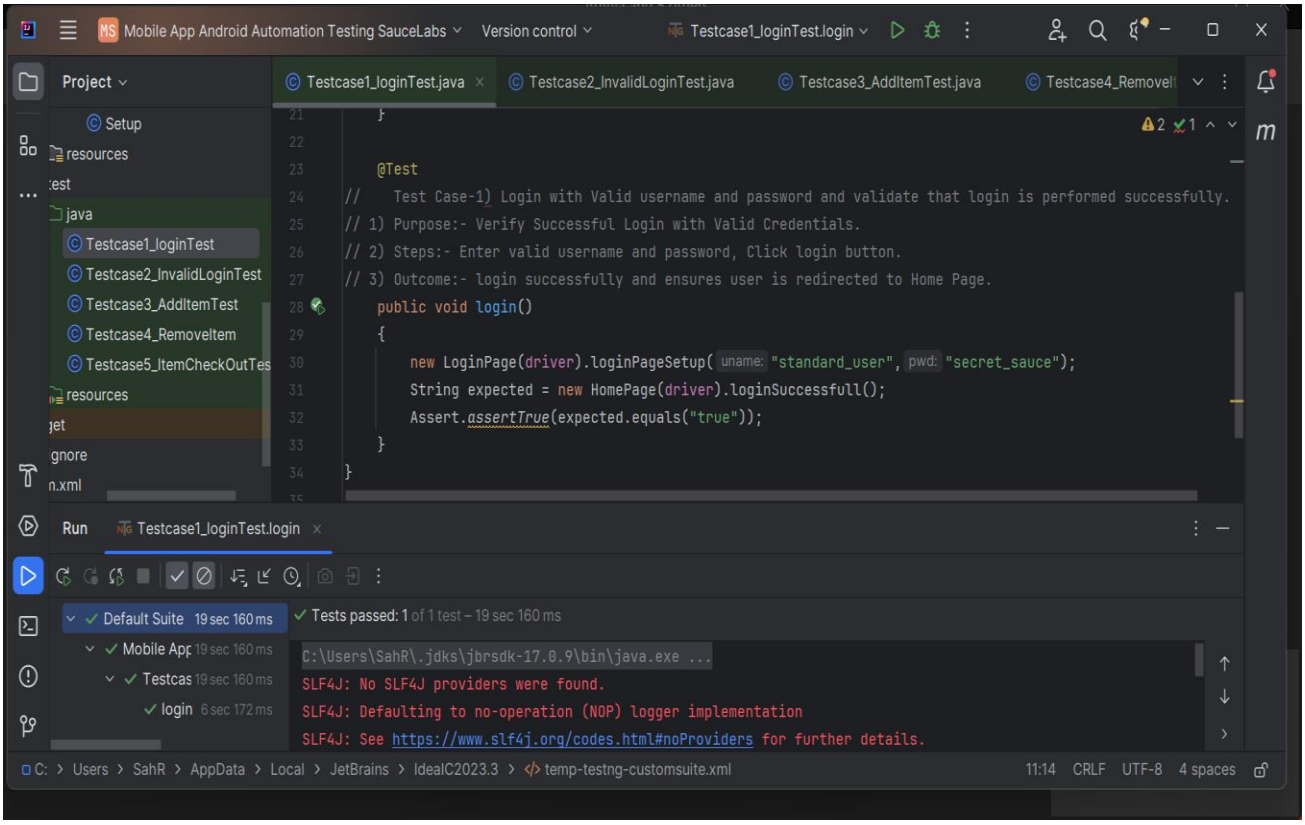
❖ **Objective: -** **Verify that a user can successfully login with valid credentials.**

❖ **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.**



❖ **Outcomes: -**

The login is performed successfully.

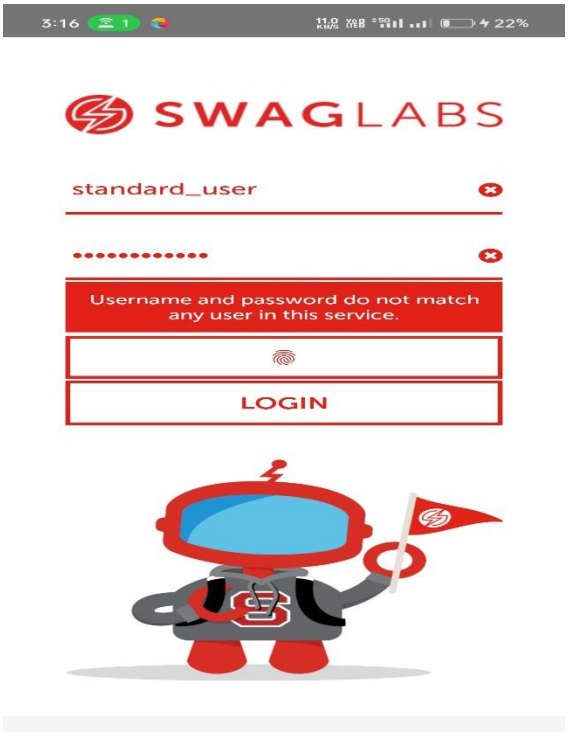
- **Execution Time – 19 sec 160 msec.**
- **Status – Tests Passed**

2.2 Test Case 2: Login with Invalid Username and Password

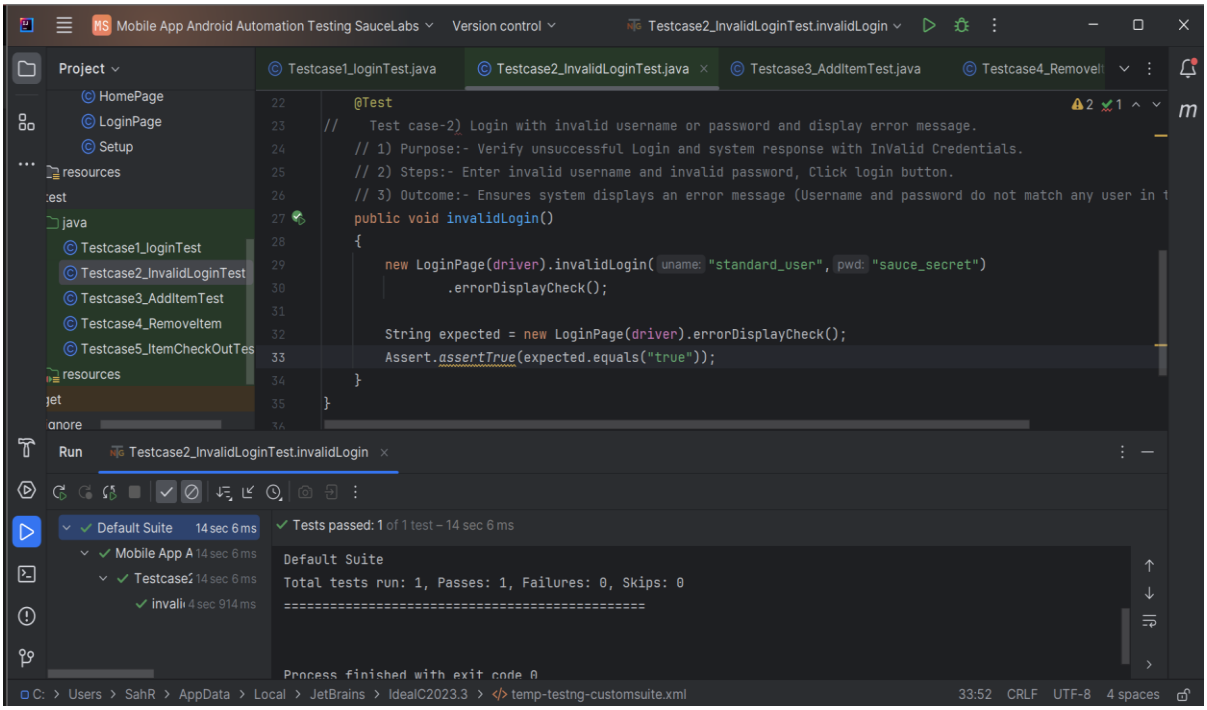
❖ **Objective: - Verify the behavior of login page when attempting to login with invalid credentials.**

❖ **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."**

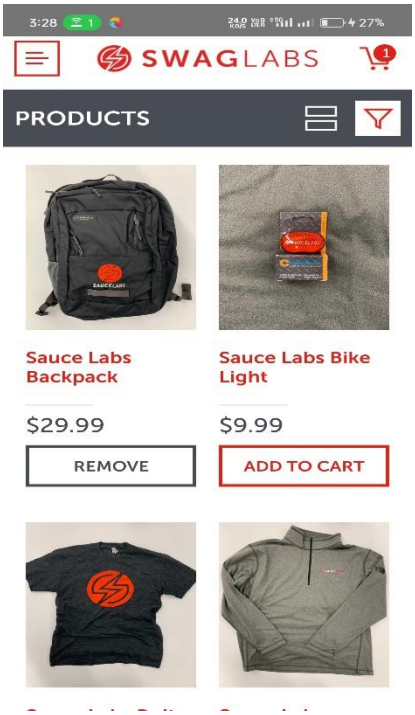
- **Execution Time – 14 sec 6 msec.**
- **Status – Tests Passed**

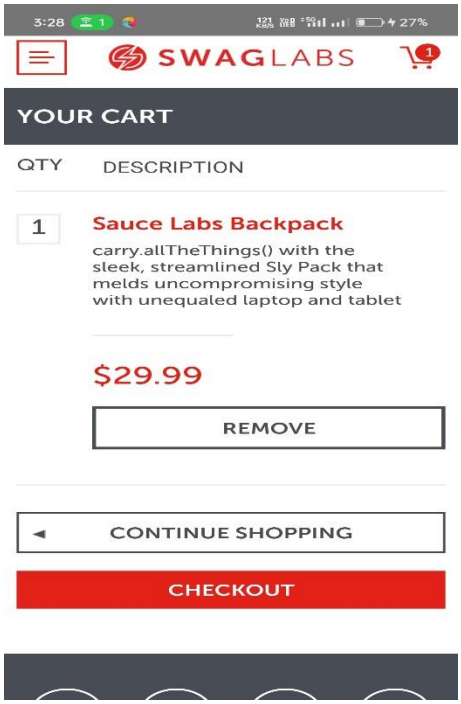
2.3 Test Case 3: Add any Item to Cart and Validate the title and price of item.

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

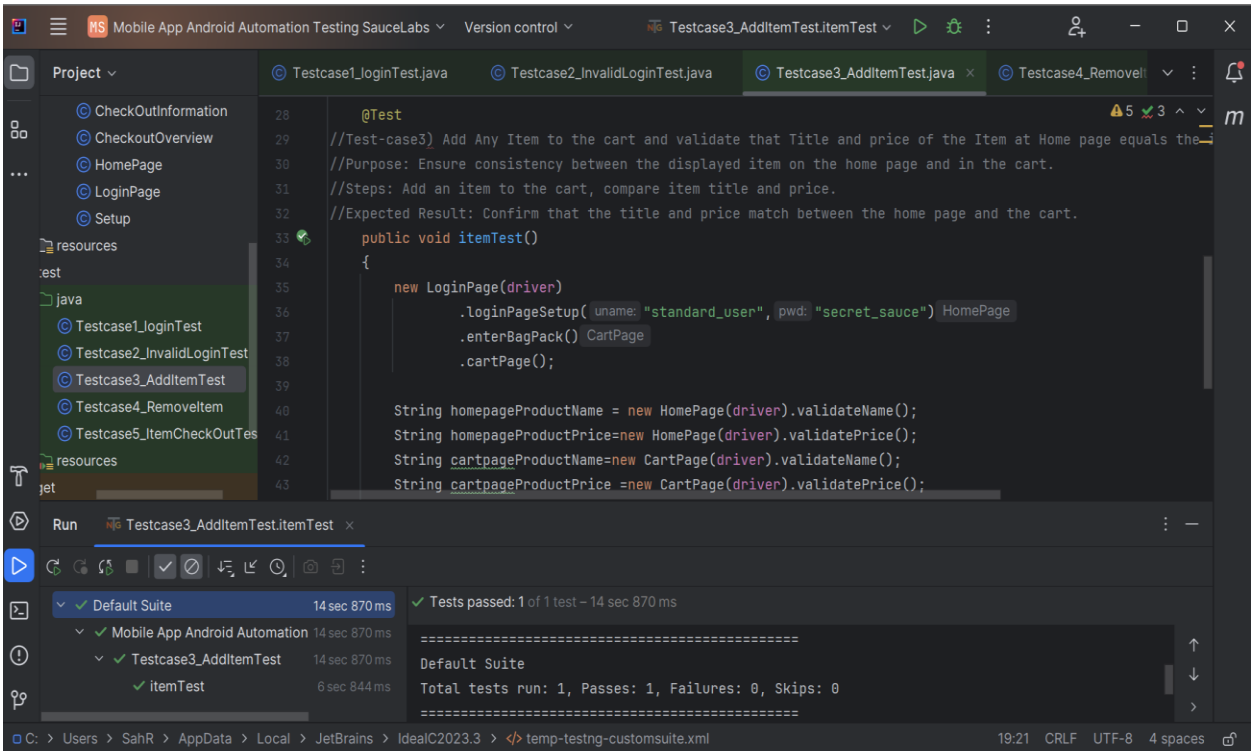
❖ **Steps: -**

- **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.**



❖ **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.**

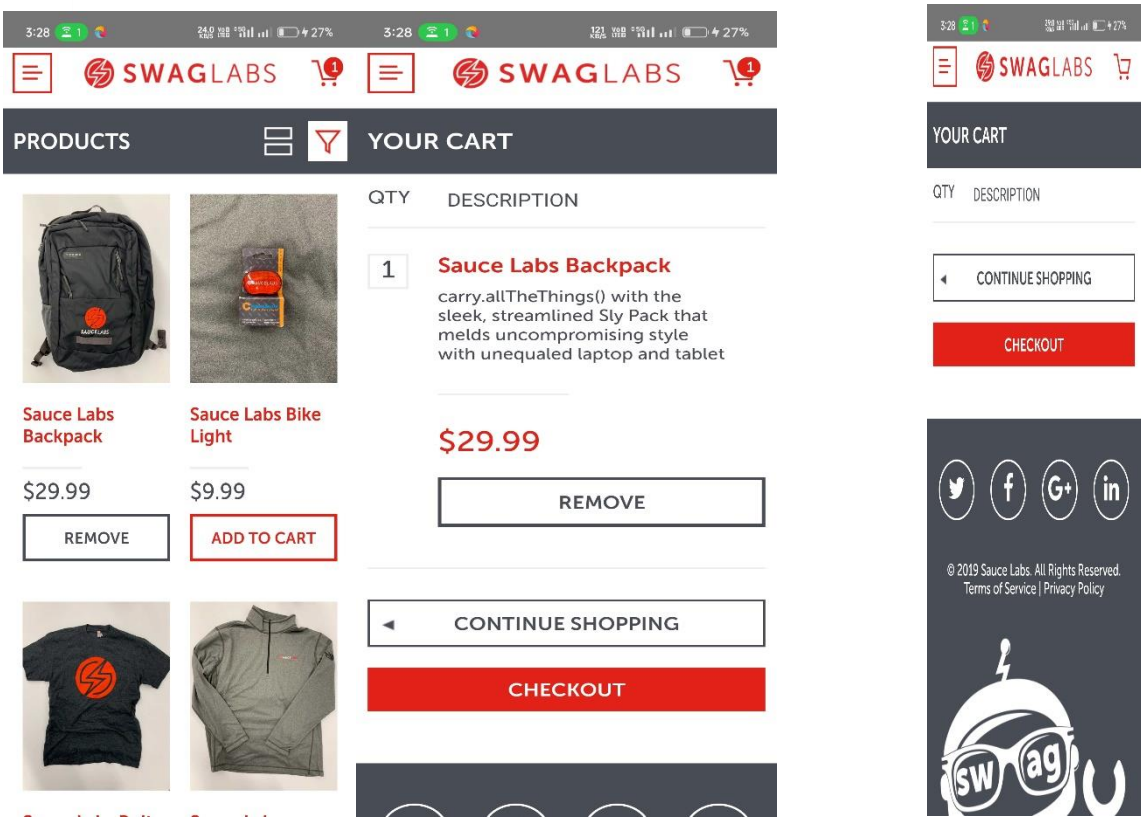
- **Execution Time – 14 sec 870 msec.**
- **Status – Tests Passed**

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

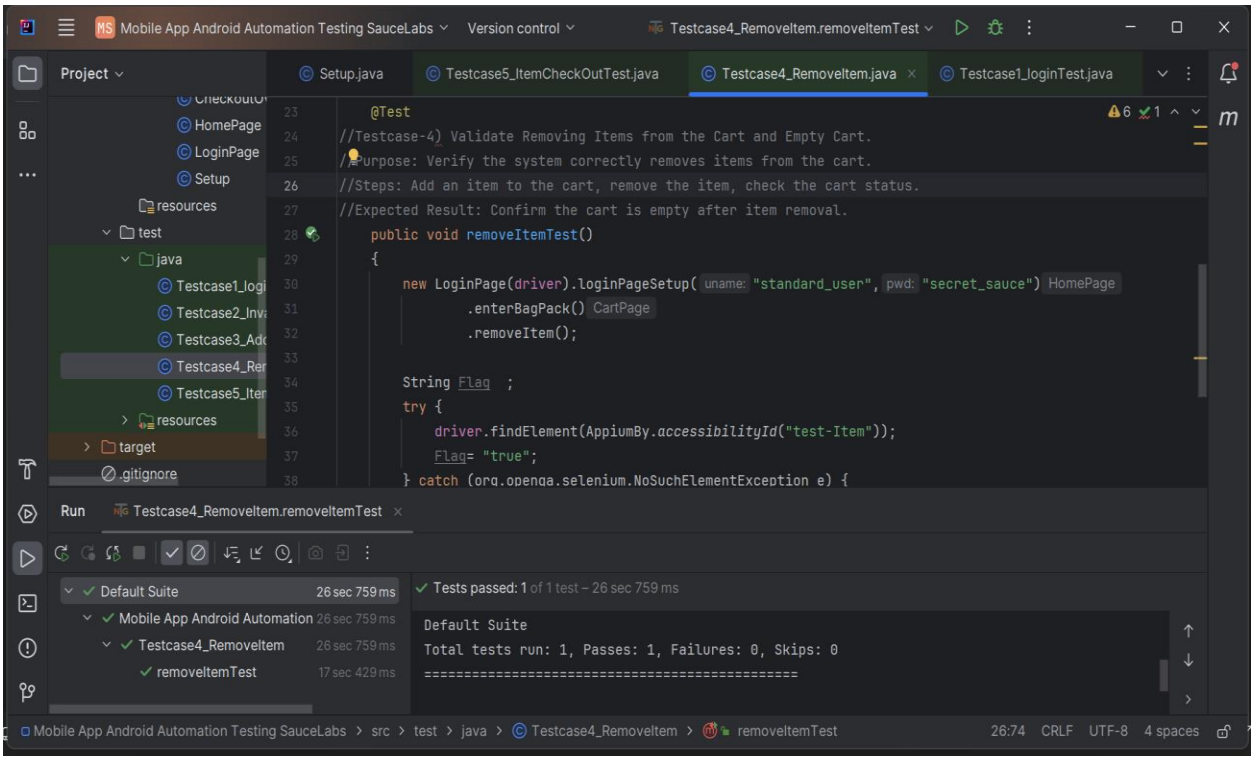
❖ **Objective: - Verify the ability to remove items from the shopping cart and validate the cart is empty.**

❖ **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.

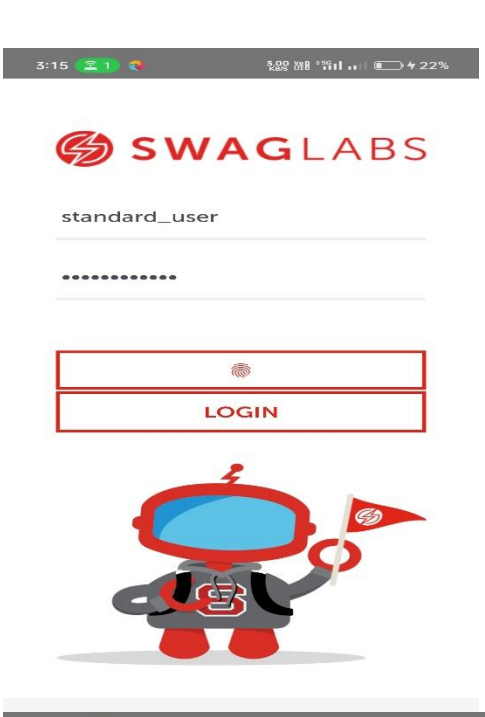
- Execution Time – 26 sec 759 msec.
- Status – Tests Passed

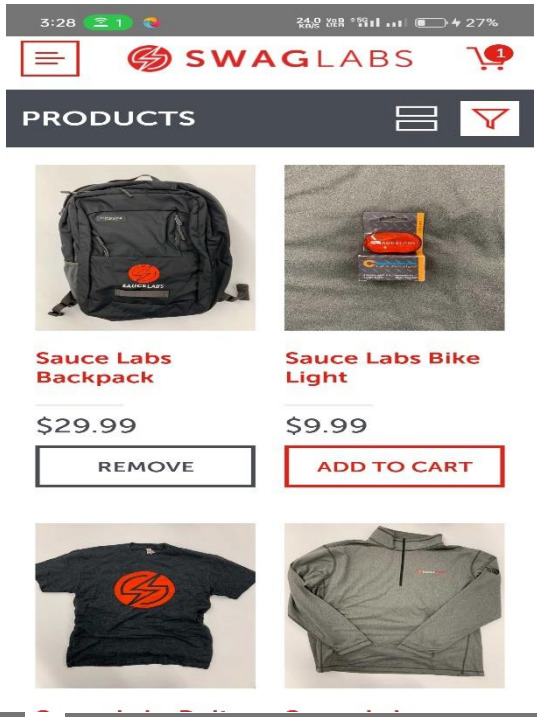
2.5 Test Case 5: Online Ordering and complete the flow from adding element to cart till the checkout. Also Validate the price and success purchase.

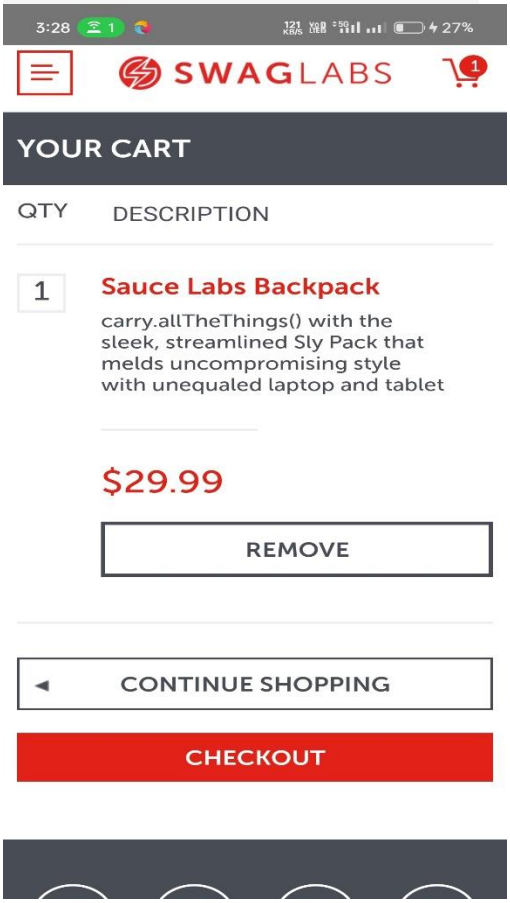
❖ **Objective: -** Verify the complete online ordering flow and checkout process.

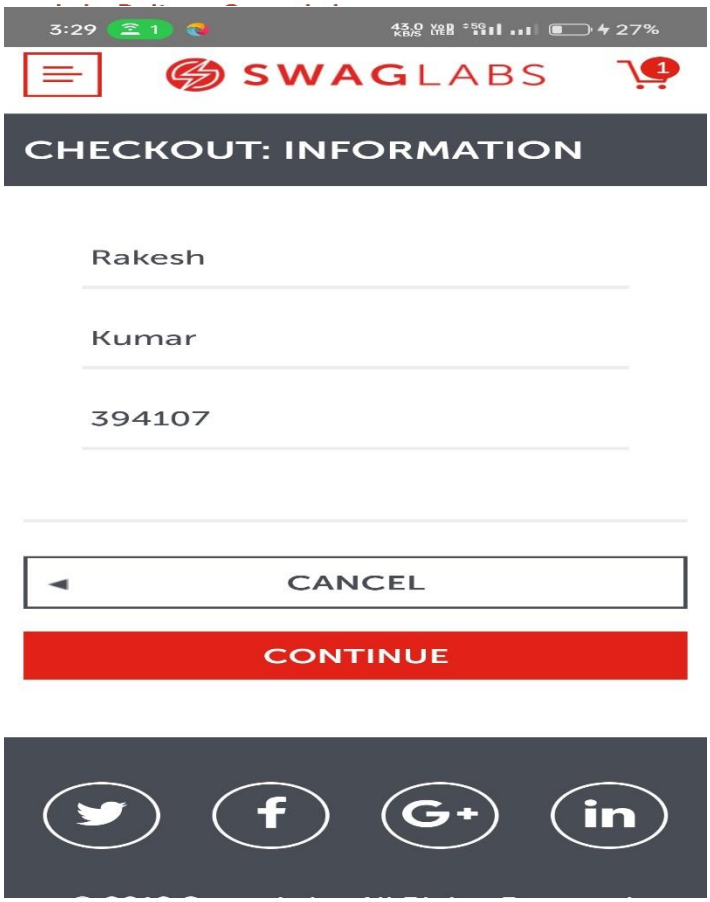
❖ **Steps: -**

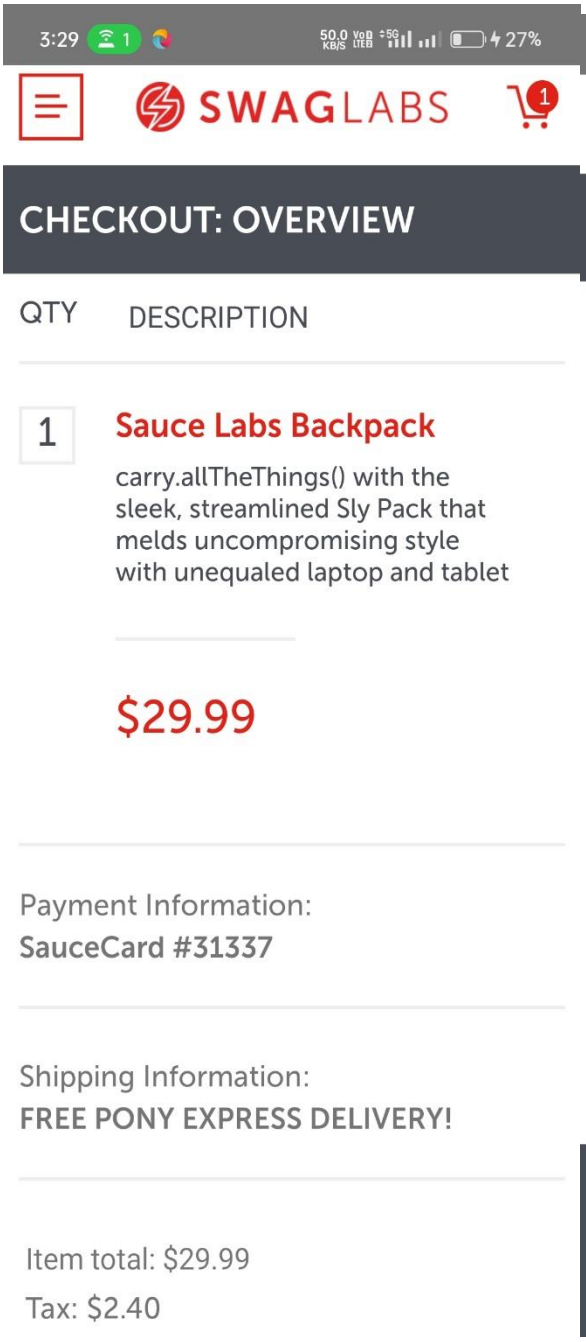
- Open the Sauce Labs mobile app.
- Enter a valid Username and password.
- Click on the login button.
- Browse through the items.
- Add an item to the cart.
- Navigate to the cart.
- Verify the item and its prices.
- Proceed to checkout.
- Complete the checkout flow, providing necessary information like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

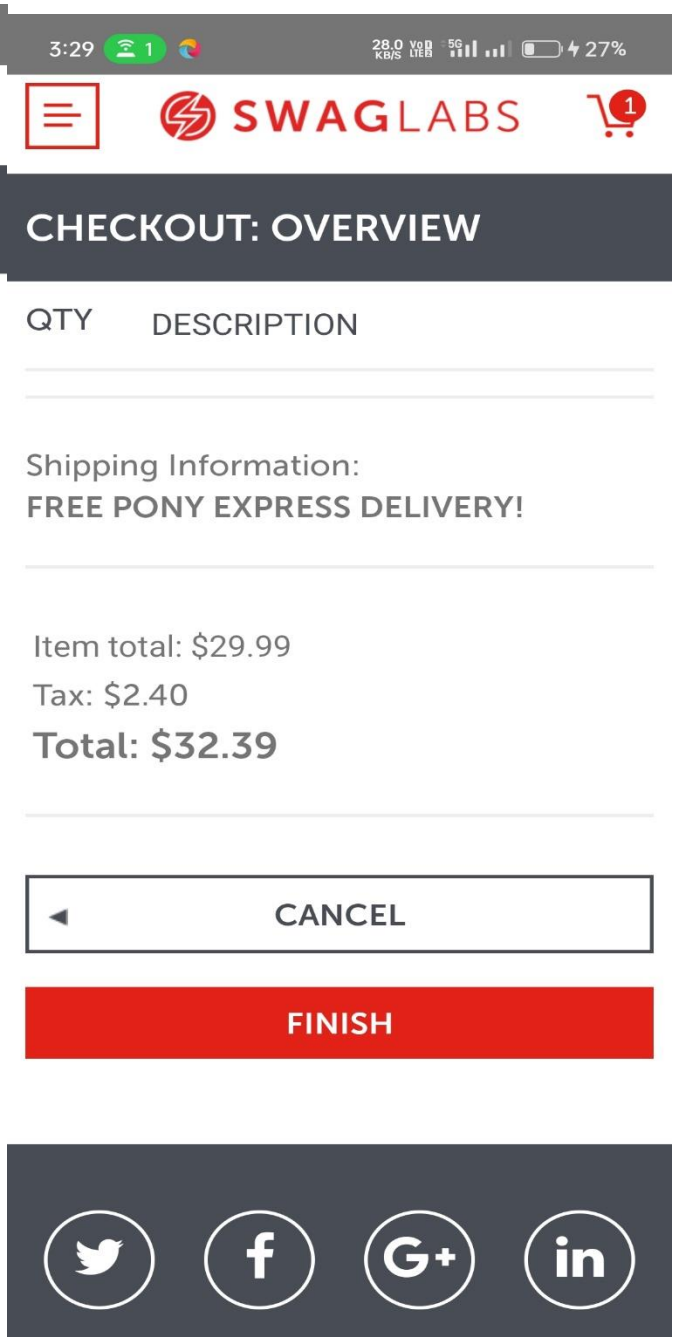

SWAGLABS
standard_user
LOGIN

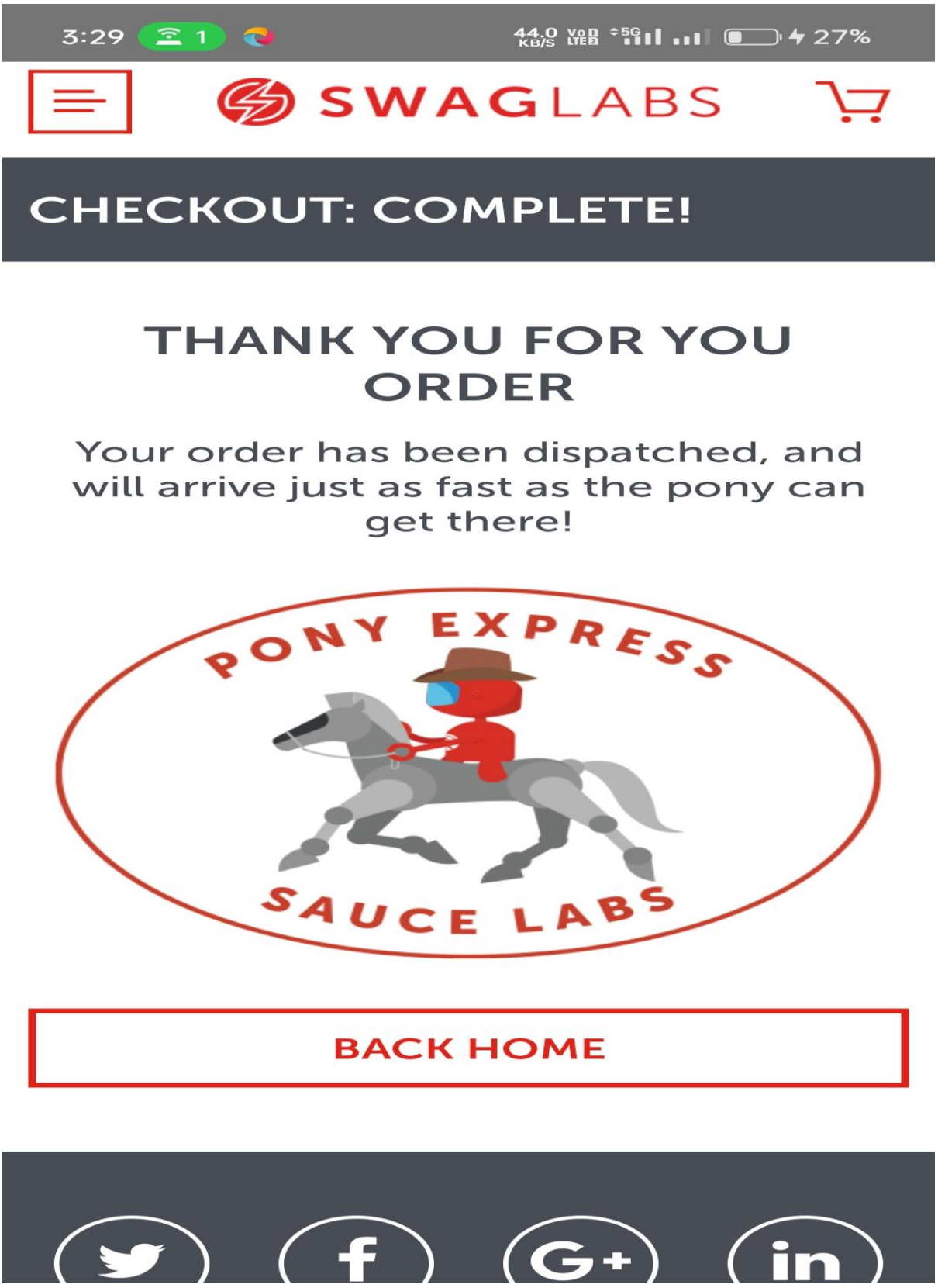

SWAGLABS
PRODUCTS
Sauce Labs Backpack
$29.99
REMOVE
Sauce Labs Bike Light
$9.99
ADD TO CART


SWAGLABS
YOUR CART
QTY
DESCRIPTION
1
Sauce Labs Backpack
carry.allTheThings() with the sleek, streamlined Sly Pack that melds uncompromising style with unequaled laptop and tablet
$29.99
REMOVE
CONTINUE SHOPPING
CHECKOUT

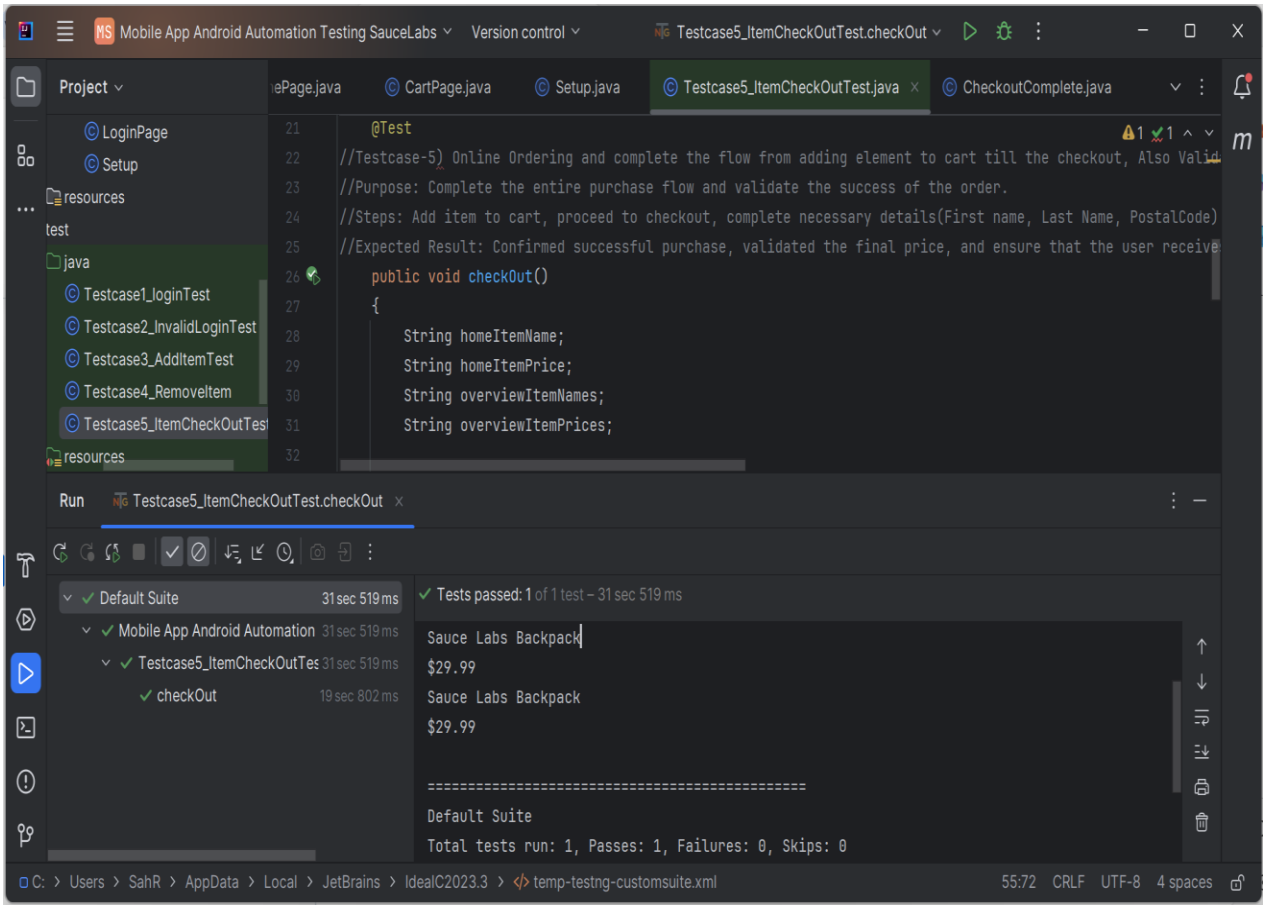

SWAGLABS
CHECKOUT: INFORMATION
Rakesh
Kumar
394107
CANCEL
CONTINUE


3:29
27%
SWAGLABS
CHECKOUT: OVERVIEW
QTY
DESCRIPTION
1
Sauce Labs Backpack
carry.allTheThings() with the sleek, streamlined Sly Pack that melds uncompromising style with unequaled laptop and tablet
$29.99
Payment Information:
SauceCard #31337
Shipping Information:
FREE PONY EXPRESS DELIVERY!
Item total: $29.99
Tax: $2.40


3:29
27%
SWAGLABS
CHECKOUT: OVERVIEW
QTY
DESCRIPTION
Shipping Information:
FREE PONY EXPRESS DELIVERY!
Item total: $29.99
Tax: $2.40
Total: $32.39
CANCEL
FINISH


3:29
1
44.0 KB/S
27%
SWAGLABS
CHECKOUT: COMPLETE!
THANK YOU FOR YOU ORDER
Your order has been dispatched, and will arrive just as fast as the pony can get there!
PONY EXPRESS
SAUCE LABS
BACK HOME

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



❖ **Outcomes: -**

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

- **Execution Time – 31 sec 519 msec**
- **Status – Tests Passed**

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

- **This helps us to save and document the automated test and the data.**
- **Here is the GitHub Repository Link –**

rksahani/Android-Automation-Testing-Project (github.com)

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.
The project successfully demonstrated the capability to interact with the mobile application, emphasizing key functionalities such as login authentication, item addition to the shopping cart, and seamless online ordering.

Extensive logging and reporting practices were implemented using Extent Reports, offering a clear and organized representation of the test execution. Test cases were designed to not only verify expected behaviors but also to provide insights into potential user interface issues, ensuring a positive user experience.

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