1. Login Page

1.1 Valid Login with Standard User

Test Case ID	TC_01
Description	Verify user can log in with valid credentials.
Preconditions	User is on the login page.
Test Data	Username: standard_user
	Password: secret_sauce
Test Steps	Expected Results
1. Navigate to the Swag Labs login page.	The login page loads successfully.
2. Enter a valid username.	The username is entered into the input field.
3. Enter a valid password.	The password is entered into the input field.
4. Click the "Login" button.	User is redirected to the Inventory page.
Status	Pass

1.2 Successful Logout with Session Verification

Test Case ID	TC_02
Description	Verify that a user can successfully log out and that session data is
	cleared.
Preconditions	User is logged in and on the Inventory page.
Test Steps	Expected Results
1. Click the menu button.	The menu options are displayed.
2. Click the "Logout" button.	User is redirected to the login page.
3. Attempt to navigate back to the Inventory page using the browser's back button.	User remains on the login page; session data is cleared.
Status	Pass

2. Inventory

2.1 Sort Products - Name (Z to A)

Test Case ID	TC_03

Description	Verify sorting of products from Z to A.
Preconditions	User is logged in and on the Inventory page.
Test Steps	Expected Results
1. Click the sorting dropdown.	Sorting dropdown expands.
2. Select "Name (Z to A)."	Products reorder in descending order.
Status	Pass

2.2 Sort Products - Price (Low to High)

Test Case ID	TC_04
Description	Verify sorting of products by price (low to high).
Preconditions	User is logged in and on the Inventory page.
Test Steps	Expected Results
1. Click the sorting dropdown.	Sorting dropdown expands.
2. Select "Price (low to high)."	Products reorder by increasing price.
Status	Pass

2.3 Sort Products - Price (High to Low)

Test Case ID	TC_05
Description	Verify sorting of products by price (high to low).
Preconditions	User is logged in and on the Inventory page.
Test Steps	Expected Results
1. Click the sorting dropdown.	Sorting dropdown expands.
2. Select "Price (high to low)."	Products reorder by decreasing price.
Status	Pass

2.4 Add Multiple Items from Product Details

Test Case ID	TC_06	

Description	Verify that clicking on a product, checking the price, adding it to the cart, going back to products, selecting another product, and adding it to the cart correctly updates the cart count.
Preconditions	User is logged in and on the Products page.
Test Steps	Expected Results
1. Click on a product (e.g., Sauce Labs Backpack).	Product details page is displayed.
2. Verify that the product price is correct (e.g., \$29.99).	The correct price is displayed.
3. Click the Add to Cart button.	The cart icon updates with count 1.
4. Click Back to Products.	User is redirected to the Products page.
5. Click on another product (e.g., Sauce Labs Bike Light).	Product details page is displayed.
6. Verify the product price (e.g., \$9.99).	The correct price is displayed.
7. Click the Add to Cart button.	The cart icon updates with count 2.
8. Click on the cart icon.	Cart page is displayed.
9. Verify both products are listed.	Products are correctly listed in the cart.
10. Verify the total price is correct.	The total sum is accurate.
Status	Pass

3. Checkout

3.1 Add Single Product to Cart

Test Case ID	TC_07
Description	Verify that a product can be added to the cart.
Preconditions	User is logged in.
Test Steps	Expected Results

1. Click the "Add to Cart" button for a product.	Cart badge increments by 1.
2. Navigate to the cart.	Product appears in the cart list.
Status	Pass

3.2 Remove Product from Cart

Test Case ID	TC_08
Description	Verify that a product can be removed from the cart.
Preconditions	User has at least one item in the cart.
Test Steps	Expected Results
1. Click the cart icon.	User is taken to the cart page.
2. Click the "Remove" button next to a product.	Product is removed from the cart.
Status	Pass

3.3 Add Maximum Items to Cart

Test Case ID	TC_09
Description	Verify that a user can add the maximum number of items to the cart.
Preconditions	User is logged in and on the Inventory page.
Test Steps	Expected Results
1. Click the "Add to Cart" button for each available product.	Each selected product is added to the cart.
2. Verify the cart icon updates accordingly.	The cart badge displays the total count of added products.
3. Navigate to the cart page.	All added products are listed correctly in the cart.
4. Verify no errors occur when adding all products.	The website handles the maximum cart capacity without issues.
Status	Pass

3.4 Add and Remove Multiple Items from Cart

Test Case ID	TC_10	

Description	Verify that adding three items to the cart, removing all items, and
	clicking Continue Shopping works correctly.
Preconditions	User is logged in and on the Products page.
Test Steps	Expected Results
1. Add three different items to the cart.	The cart icon updates with count 3.
2. Click on the cart icon.	Cart page is displayed.
3. Verify all three products appear in the cart.	All added products are listed.
4. Click the Remove button for each product.	Products are removed one by one.
5. Verify that the cart is empty.	No items remain in the cart.
6. Click the Continue Shopping button.	User is redirected back to the Products page.
Status	Pass

4. Happy Path

4.1 Complete Checkout - Happy Path

Test Case ID	TC_11
Description	Verify successful checkout process from cart to order completion.
Preconditions	User is logged in and has items in the cart
Test Steps	Expected Results
1. Click on the cart icon.	User is redirected to the cart page.
2. Click the "Checkout" button.	User is redirected to the checkout page.
3. Enter "First Name," "Last Name," and "ZIP/Postal Code."	Fields accept valid input.
4. Click the "Continue" button.	User is redirected to the Checkout Overview page.
5. Verify the checkout overview displays QTY, product description, payment info, shipping info, item total, tax, and total amount.	All information is correctly displayed, the sum of each product equals to the item total, and the sum of the items total and tax equals to the total amount.
6. Click the "Finish" button.	User is redirected to the Order Confirmation page.

7. Verify the "Thank you for your order!" message is displayed.	Order is completed successfully.
Status	Pass

5. Negative Cases

5.1 Invalid Login – Incorrect Password

Test Case ID	TC_12
Description	Verify login fails with a valid username but incorrect password.
Preconditions	User is on the login page.
Test Data	Username: standard_user
	Password: password123
Test Steps	Expected Results
1. Enter a valid username.	The username is entered into the input field.
2. Enter an incorrect password.	The incorrect password is entered into the input field.
3. Click the "Login" button.	Error message: "Username and password do not match any user in this service."
Status	Pass

5.2 Invalid Login – Incorrect Username

Test Case ID	TC_13
Description	Verify login fails with an incorrect username and valid password.
Preconditions	User is on the login page.
Test Data	Username: user123
	Password: secret_sauce
Test Steps	Expected Results
1. Enter an incorrect username.	The incorrect username is entered into the input field.
2. Enter a valid password.	The valid password is entered into the input field.

3. Click the "Login" button.	Error message: "Username and password do not match any user in this service."
Status	Pass

5.3 Login Attempt with Empty Credentials

Test Case ID	TC_14
Description	Verify login fails when username and password fields are empty.
Preconditions	User is on the login page.
Test Steps	Expected Results
Leave username and password fields empty.	Fields remain blank.
2. Click the "Login" button.	Error message: "Username is required."
Status	Pass

5.4 Login attempt with locked out user

Test Case ID	TC_15
Description	Verify login restriction for locked out user.
Preconditions	User tries to log in with "locked_out_user" credentials
Test Data	Username: locked_out_user
	Password: secret_sauce
Test Steps	Expected Results
1. Navigate to the SauceDemo login page.	The login page is displayed.
2. Enter username "locked_out_user" and password "secret_sauce".	Credentials are entered successfully.
3. Click the "Login" button.	An error message "Epic sadface: Sorry, this user has been locked out." appears, and login is restricted.
Status	Pass

5.5 Checkout Validation - Empty First Name

Test Case ID	TC_16
Description	Verify error message when "First Name" field is left empty.
Preconditions	User is logged in and has items in the cart.

Test Data	Last Name: Doe ZIP/Postal Code: 12345
Test Steps	Expected Results
1. Click on the cart icon.	User is redirected to the cart page.
2. Click the "Checkout" button.	User is redirected to the checkout page.
3. Leave "First Name" field empty, enter "Last Name" and "ZIP/Postal Code."	Input fields accept text except for the empty field.
4. Click the "Continue" button.	Error message "Error: First Name is required." appears.
Status	Pass

5.2 Checkout Validation - Empty Last Name

Test Case ID	TC_17
Description	Verify error message when "Last Name" field is left empty.
Preconditions	User is logged in and has items in the cart.
Test Data	First Name: John
	ZIP/Postal Code: 12345
Test Steps	Expected Results
1. Click on the cart icon.	User is redirected to the cart page.
2. Click the "Checkout" button.	User is redirected to the checkout page.
3. Enter "First Name," leave "Last Name" empty, and enter "ZIP/Postal Code."	Input fields accept text except for the empty field.
4. Click the "Continue" button.	Error message "Error: Last Name is required." appears.
Status	Pass

5.3 Checkout Validation - Empty Postal Code

Test Case ID	TC_18
Description	Verify error message when "ZIP/Postal Code" field is left empty.
Preconditions	User is logged in and has items in the cart.
Test Data	First Name: John
	Last Name: Doe
Test Steps	Expected Results
1. Click on the cart icon.	User is redirected to the cart page.

2. Click the "Checkout" button.	User is redirected to the checkout page.
3. Enter "First Name" and "Last Name," but leave "ZIP/Postal Code" empty.	Input fields accept text except for the empty field.
4. Click the "Continue" button.	Error message "Error: Postal Code is required." appears.
Status	Pass

5.4 Checkout Validation - Invalid Postal Code

Test Case ID	TC_19
Description	Verify that invalid ZIP/Postal Code triggers an error message.
Preconditions	User is logged in and has items in the cart.
Test Data	First Name: John
	Last Name: Doe
	ZIP/Postal Code: abcd#\$%
Test Steps	Expected Results
1. Click on the cart icon.	User is redirected to the cart page.
2. Click the "Checkout" button.	User is redirected to the checkout page.
3. Enter "First Name" and "Last Name" with an invalid ZIP/Postal Code (e.g., "abcd#\$%").	The system accepts the input.
4. Click the "Continue" button.	If checkout proceeds successfully despite an obviously invalid ZIP code, this is a defect.
Status	Fail (Bug identified)