**Practical Assignment: Automated End-to-End Testing**

**Website**:

[**https://www.saucedemo.com**](https://www.saucedemo.com)

**Objective**:

The objective of this practical assignment is to evaluate your technical skills in designing and executing automated end-to-end tests for the website "https://www.saucedemo.com." The focus will be on testing the login functionality, product listing and sorting, shopping cart operations, and the checkout process. You should provide test cases, test data, and the automated scripts along with any necessary documentation and observations. Try to cover as many scenarios as you can while prioritizing the ones that you consider to be more critical to the business.

**Estimated Time**: 2 hours

**Test Scenarios**:

1. Login Functionality:

* Verify that the login form is displayed when accessing the website.
* Test successful login using valid username and password. (username: standard\_user, password: secret\_sauce)
* Test unsuccessful login using invalid credentials and verify the error message.

2. Product Listing and Sorting:

* Test that the list of products is displayed correctly with the expected information (picture, title, description, price, and "Add to cart" button).
* Test sorting by Name (Z to A) and verify the order of products.
* Test sorting by Price (high to low) and verify the order of products.

3. Shopping Cart Operations:

* Verify that clicking on the shopping cart icon redirects the user to the "Your Cart" page.
* Test adding multiple products to the cart by clicking on the “Add to cart” button, and verify the number badge updates accordingly.
* Test removing a product from the cart by clicking on the “Remove” button, and verify the number badge decreases by one and the product is removed from the cart.
* Test that the product details (quantity, title, description, and price) are displayed correctly on the "Your Cart" page.
* Verify that clicking the "Continue shopping" button redirects the user back to the product list page.

4. Checkout Process:

* Verify that clicking the "Checkout" button redirects the user to the "Checkout: Your Information" page.
* Test filling out the form with valid inputs and proceed to the next page.
* Test submitting the form with missing required inputs and verify the error messages and input highlighting.
* Verify that clicking the "Cancel" button on the "Checkout: Your Information" page redirects the user back to the shopping cart.
* Verify that clicking the "Continue" button on the "Checkout: Your Information" page redirects the user to the "Checkout: Overview" page.
* Test that the "Checkout: Overview" page displays the order details (Products list, Payment Information, Shipping Information, Price total, and Total).
* Verify that clicking the "Cancel" button on the "Checkout: Overview" page redirects the user back to the product list page.
* Verify that clicking the "Finish" button on the "Checkout: Overview" page redirects the user to the "Checkout: Complete" page.
* Test clicking the "Back Home" button on the "Checkout: Complete" page and verify it redirects the user to the product list page.