Test Automation Document: {Project Name}

1. Test Automation Strategy:
    a. Objective:
        i. To automate the end-to-end testing of the {projectName} website using the Cypress framework.
    b. Test Automation Framework:
        i. Cypress
    c. Test Environment:
        i. Windows 10, Google Chrome, Mozilla Firefox, Microsoft Edge
    d. Test Data:
        i. Sample user credentials for login and checkout process
2. Test Plan:
    a. Scope: The test automation will cover the following scenarios:
        i. User login and authentication
        ii. Product browsing and selection
        iii. Shopping cart management
        iv. Checkout process
    b. Test Coverage:
        i. Ensure that all critical functionalities of the website are thoroughly tested
    c. Test Environment Setup:
        i. Install Cypress and the required browser drivers (Chrome, Firefox, Edge)
3. Test Scripts:
    a. Script 1: Login Test
        i. Purpose: Verify that a user can successfully log in to the website.
        ii. Steps:
            - Visit the saucedemo.com website.
            - Enter valid username and password.
            - Click the login button.

iii. Expected Result: User is successfully logged in and redirected to the homepage.

b. Script 2: Product Selection Test
   i. Purpose: Verify that a user can select and add products to the shopping cart.
   ii. Steps:
      - Log in to the website.
      - Browse the product catalogue.
      - Select a product.
      - Add the product to the shopping cart.
   iii. Expected Result: The selected product is added to the shopping cart.

c. Script 3: Checkout Process Test
   i. Purpose: Verify that a user can complete the checkout process.
   ii. Steps:
      - Log in to the website.
      - Browse the product catalogue.
      - Select a product.
      - Add the product to the shopping cart.
      - Proceed to the checkout page.
      - Enter shipping and payment details.
      - Complete the checkout process.
   iii. Expected Result: The checkout process is successfully completed, and the user receives a confirmation message.

4. Test Environment Setup:

a. Install Node.js and npm.
b. Install Cypress globally using npm.
c. Set up a Cypress project by running the Cypress initialization command.
d. Configure Cypress to use different browsers (Chrome, Firefox, Edge).
e. Set up a project directory structure for storing test scripts and test data.

5. Execution and Reporting:

a. Execute the test scripts using Cypress and the desired browsers.
b. Use Cypress's built-in test runner to view test execution and logs.

c. Capture and log any failures, errors, or issues encountered during test execution.
d. Generate test execution reports using Cypress's built-in reporting features.
e. Communicate the test results to stakeholders and track any identified issues for resolution.

6. Maintenance and Updates:

a. Regularly review and update the test automation document as needed.
b. Keep the test scripts up-to-date with any changes to the saucedemo.com website.
c. Stay updated with the latest versions of Cypress and browser updates for compatibility.

The test automation document should be prepared by a QA (Quality Assurance) professional during the initial stages of the test automation effort. Ideally, it should be created before starting the actual test automation implementation. Here are the key points regarding when the document should be prepared:

1. Test Automation Planning Phase: The document should be prepared as part of the test automation planning phase, which typically occurs at the beginning of a project. During this phase, the QA team identifies the goals, objectives, scope, and strategy for test automation. The test automation document should be created alongside the overall test plan and strategy.

2. Before Test Automation Implementation: It is essential to have the test automation document ready before starting the implementation of test automation. This ensures that the QA team has a clear understanding of the requirements, test scenarios, and objectives for automation. It also helps in maintaining consistency and providing guidance throughout the automation process.

3. Collaboration with Stakeholders: The QA professional should collaborate with stakeholders, such as project managers, developers, and other members of the testing team, while preparing the test automation document. This

collaboration ensures that everyone involved in the project has a shared understanding of the automation goals, scope, and requirements.

4. Iterative Approach: The document should be considered as a living document that evolves and updates throughout the project's lifecycle. It may initially be prepared with the high-level details and then refined as more information becomes available or as the project progresses. It is important to review and update the document regularly to reflect any changes or updates in the test automation process.

5. Before Test Execution: The test automation document should be ready before initiating the execution of automated tests. It should serve as a reference for the QA team to understand the purpose, steps, expected results, and test coverage of each automated test script.

6. By preparing the test automation document early in the project, the QA team can effectively plan, implement, and execute the test automation effort. It provides a clear roadmap for the team, ensures proper communication and collaboration with stakeholders, and helps in maintaining the quality and consistency of the automated testing process.