QA Engineer Skill Test: Web Automation

This test aims to evaluate your ability to implement web automation tests using either Cypress or Playwright within a limited time frame (up to 2 hours) choosing any other framework will result in your submission being disqualified. The focus will be on automating critical user flows for a clothing store website, the expected code should cover one test case only, we encourage this test case to be adaptive to Desktop and Mobile viewport. You are encouraged to use libraries such as Faker for generating random data and have the option to include accessibility and performance testing using Lighthouse or similar.

The website

https://automationexercise.com/

B. User flow

1. Navigate to the website.
2. Go to the Products section.
3. Choose the third product shown in the product list and view its details.
4. Enter a random quantity generated by a function or by a library between 1 to 20.
5. Add the product to the cart.
6. Proceed to checkout.

   Final Mandatory step will be by the Register Login modal.

   Optional Steps:
7. Register a new user account using random data (use Faker for name, email, etc.).
8. Proceed to the cart and confirm the order.
9. Log out of the account.

Task and Deliverables

1. Framework Selection

- Choose either Cypress or Playwright for the automation.
- Provide a brief justification for your choice, highlighting factors like ease of use, community support, and testing features.

2. Test Case Design

- Write a brief test case document that outlines the user flow steps. Include:
    - Preconditions
    - Test Steps
    - Expected Results

3. Automation Test Script Development

- Develop a script to automate the given user flow using the selected framework.
- Ensure that the script is modular, reusable, and easy to understand.
- Add comments within the code for clarity.
- Use of known Design Patterns such as POM.

4. <u>Optional</u> Tasks

- **Accessibility Testing:** Use Lighthouse or similar to check the accessibility score of the <u>home screen.</u>
- **Performance Testing:** Use Lighthouse or similar to measure the performance score of the <u>home screen</u>.

5. Execution

- Execute the test case demonstrating the automation.

6. Analysis and Test Report

- Prepare a brief report summarizing:
    - The status of test execution (pass/fail).

- ○ Any issues or failures encountered.
- ○ Lighthouse scores for accessibility or performance (if these optional tasks were completed).

7. Documentation and Submission

- ● Submit a link to the repository that includes:
  - ○ Test case document.
  - ○ Source code of the automation script.
  - ○ Instructions for running the test.
  - ○ Test reporting, include a test report using tools such as mochawesome.

Evaluation Criteria

- ● **Understanding of Automation Tools:** Proper usage and implementation of Cypress or Playwright.
- ● **Data Management:** Effective use of libraries for generating random user data, data file segmentation.
- ● **Code Quality:** Maintainable, readable, and well-documented code.
- ● **Responsiveness:** The test case submitted works on Mobile and Desktop viewports.
- ● **Execution and Reporting:** Ability to execute tests, handle failures, and clearly report results.
- ● **Optional Evaluation:** Consideration and implementation of accessibility and performance testing using Lighthouse.

Time Constraint

- ● The entire test, including script development, execution, and reporting, should take less than 2 hours to complete.

Feedback

- ● Feedback of your skill test will be given during the Technical Interview Session.