Automated Testing Suite Documentation for My Store

Introduction

This document outlines the automated testing strategies implemented for the "My Store" web application using Nightwatch.js. The primary focus is on ensuring the Contact Us form's robustness and the accuracy of the search functionality. The tests aim to cover a broad spectrum of user interactions to guarantee a seamless experience.

Test Environment

- Framework: Nightwatch.js
- Browsers Tested: Chrome.
- Test URL: My Store

Test Scenarios

Contact Us Form Validation

The Contact Us form is a critical component of the "My Store" web application, allowing users to communicate with the store's team. The following tests ensure its proper functionality and validation handling.

Required Fields

- Fields Required: Email, Subject, Message
- Note: Each field must be filled out correctly for successful form submission.

Test Cases

Valid Submission

- Objective: Confirm the form submits successfully with valid inputs.
- Steps:
  Navigate to the Contact Us page.
  Fill out the form with valid data and submit.
  Verify a success message appears.
- Expected Outcome: Success message stating "Your message has been successfully sent to our team."

Invalid Submission: Empty Email

- Objective: Ensure the form identifies missing email input.
- Expected Outcome: Error message "Invalid email address."

Invalid Submission: Wrong Email Format

- Objective: Validate the email format verification.
- Expected Outcome: Error message "Invalid email address."

Invalid Submission: Empty Message

- Objective: Test the requirement for a non-empty message.
- Expected Outcome: Error message "The message cannot be blank."

Invalid Submission: Missing Subject

- Objective: Confirm subject selection is enforced.
- Expected Outcome: Error message "Subject is required."

Additional Validation Tests

- File Upload: Verifies file attachment functionality.
- Field State After Reload: Checks if form fields are reset after page reload.
- Script Injection: Tests form's resilience against XSS attacks.
- Excessively Long Text: Ensures the form handles overly lengthy inputs gracefully.
- HTML Injection: Validates protection against HTML code injections.

Product Search Functionality

Test Case: Search for "Dress" and Verify Product Titles

- Objective: Ensure that searching for "dress" returns only relevant products labeled as dresses.
- Criteria for Success: 100% of search results should be relevant to the query "dress".
- Observed Outcome: Out of 7 products listed in the search results, 5 were identified as dresses, resulting in a relevance rate of approximately 71%.
- Analysis: The test did not meet the defined criteria for success, indicating a potential area for improvement in search result relevance. While the majority of results were relevant, the presence of unrelated products suggests that the search algorithm may need refinement to better match user queries with appropriate product listings.
- Conclusion: The test failed to achieve the 100% relevance rate specified in the success criteria. Further investigation and potential adjustments to the search functionality are recommended to enhance accuracy and user satisfaction.

Recommendations for Improvement

- Review and Refine Search Algorithms: Analyze how search queries are matched to product titles and descriptions. Consider incorporating more sophisticated matching criteria or machine learning models to improve relevance.
- Enhance Product Tagging: Ensure that all products are tagged accurately and comprehensively to facilitate more precise search results.
- User Feedback: Consider gathering user feedback on search relevance to identify specific areas where results may not meet expectations.

Conclusion

This testing suite provides a comprehensive assessment of key functionalities within the "My Store" web application. Through detailed validation of the Contact Us form and evaluation of the search feature's accuracy, we ensure a high-quality user experience. Continued refinement and expansion of test scenarios will further enhance the robustness and reliability of the web application.