

DAY 5 - TESTING, ERROR HANDLING, AND BACKEND INTEGRATION REFINEMENT

Optimizing Q-Commerce Food Marketplace: Key Refinements and Performance Enhancements

Overview

Today marked a significant milestone in refining the Q-commerce food delivery marketplace. The primary objective was to ensure seamless functionality across all components, optimize performance, and finalize backend integration. The platform boasts dynamic elements powered by Sanity CMS, providing a scalable and efficient solution for users to explore, shop, and manage their orders effortlessly.

Test Case : TC001

Description: Verify the home page loads Correctly

Expected Result: Home page is displayed properly with all elements in place

Status: Passed

Severity: Medium

Remarks: No issues were found during the test

Test Case : TC002

Description: Verify the product page loads Correctly

Expected Result: All products should be displayed correctly with their respective details

Status: Passed

Severity: Medium

Remarks: No issues were found during the test

Test Case : TC003

Description: Verify the product Details page works properly with their functionality

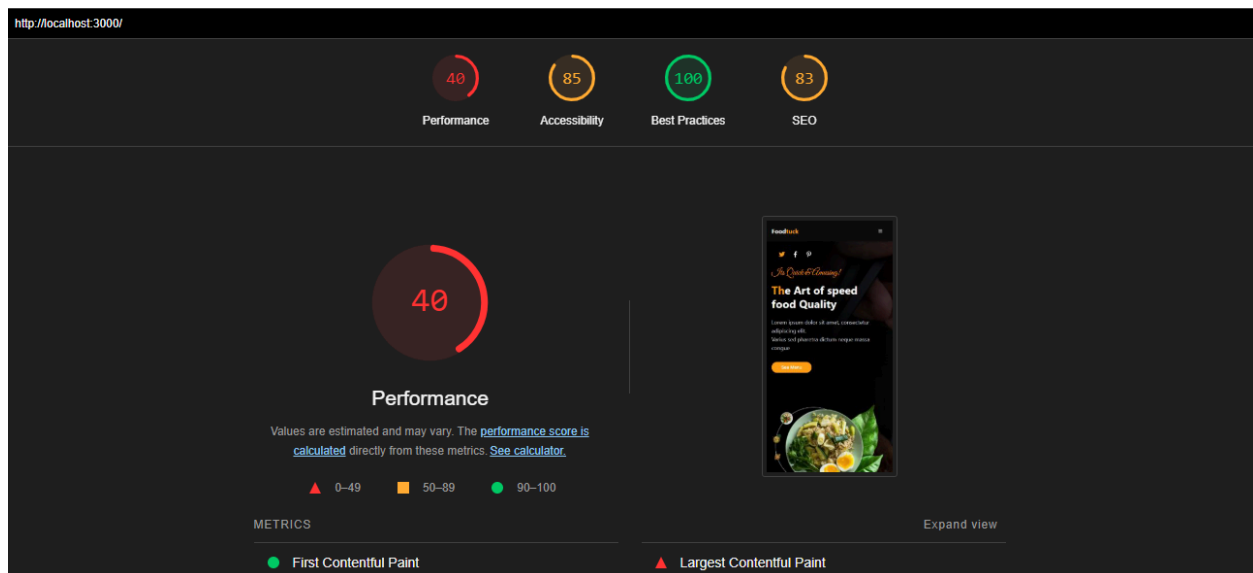
Expected Result: All product details should be displayed correctly with their respective details and allow users to add products to the cart

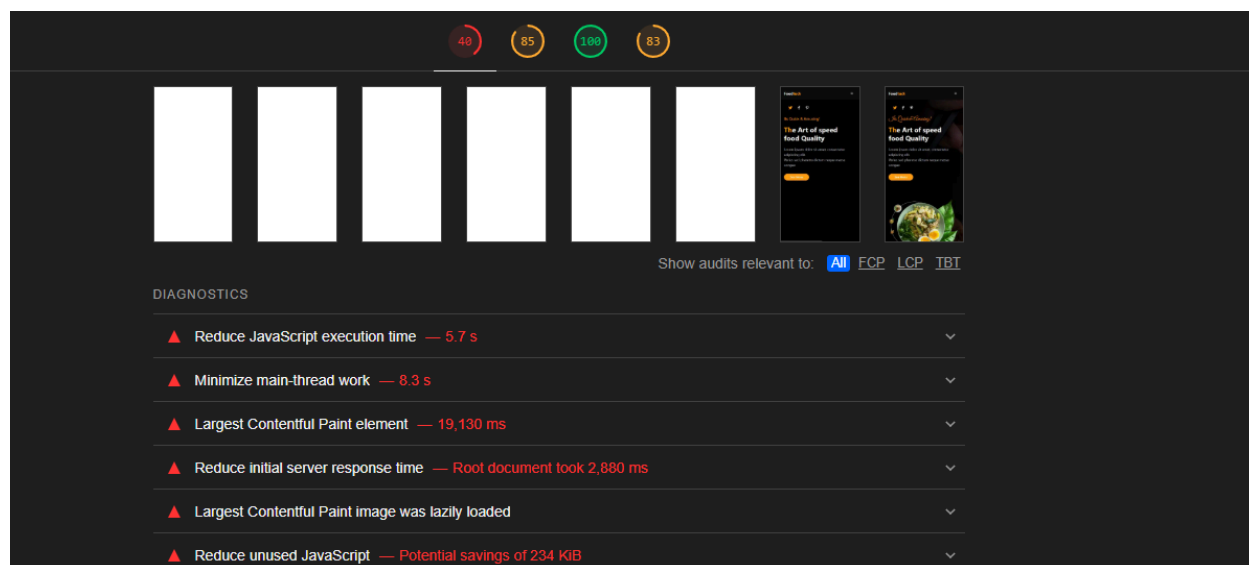
Status: Passed

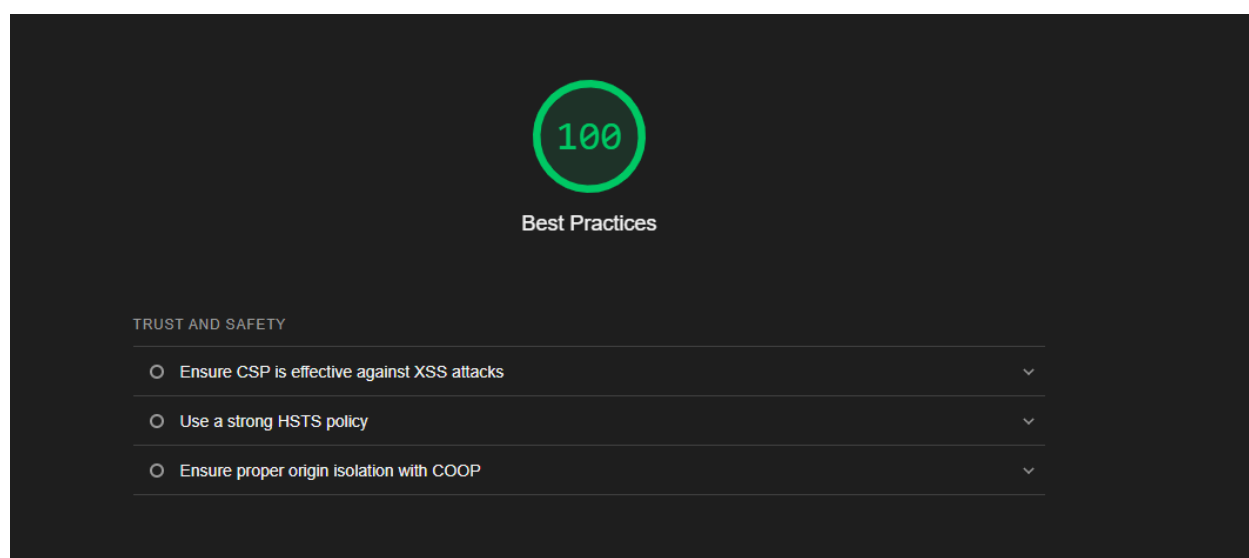
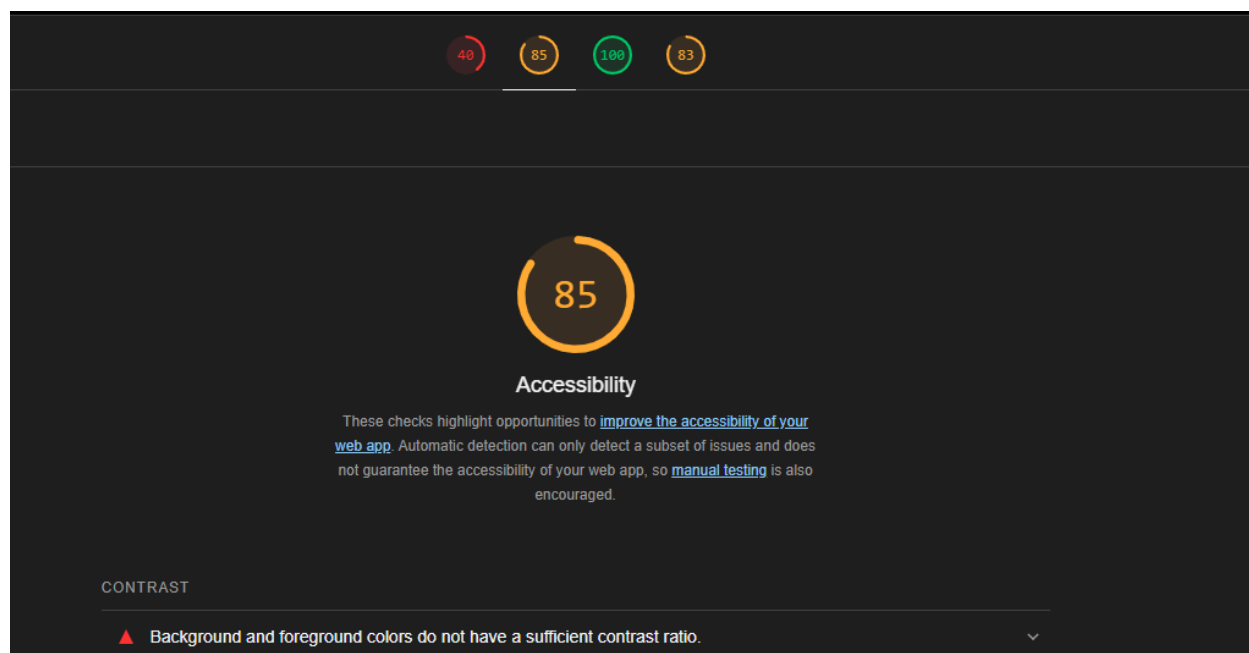
Severity: High

Remarks: No issues were found during the test

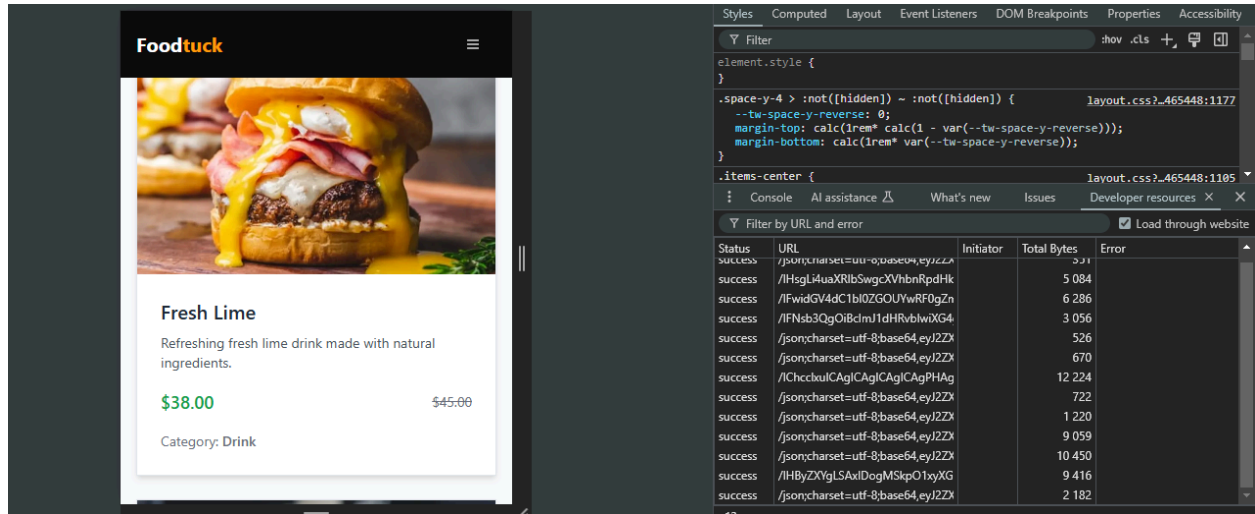
Lighthouse Performance Report







Developer resources



Test Case : TC004

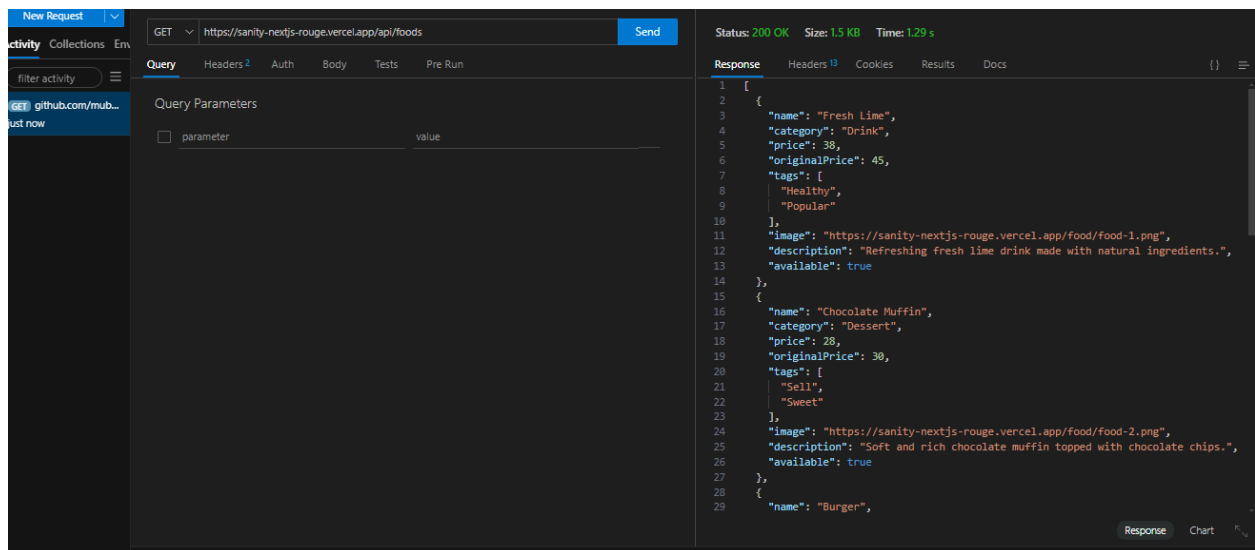
Description: Verify the correct API response for fetching product data

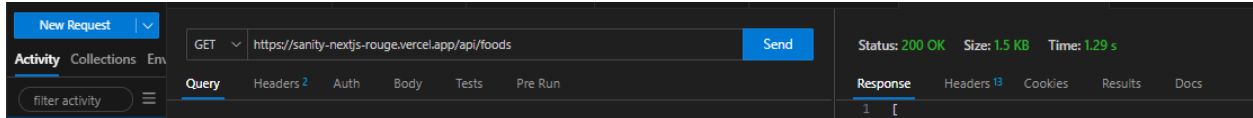
Expected Result: The API should return a 200 status with correct product data

Status: Passed

Severity: High

Remarks: No issues were found during the test





Test Case : TC005

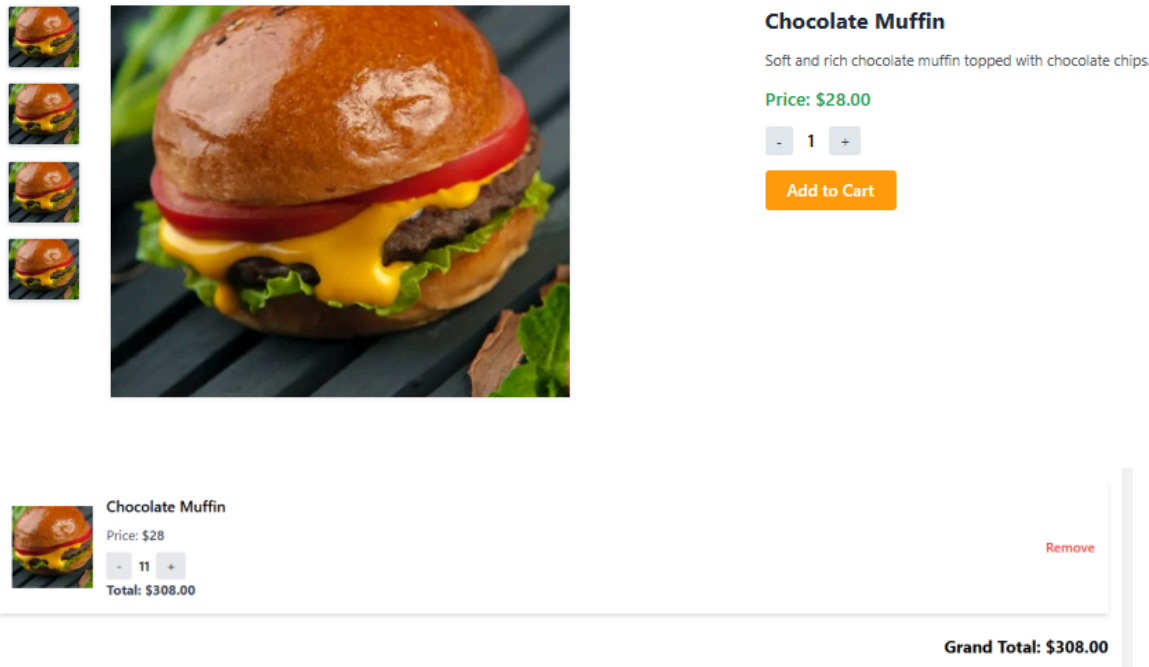
Description: Verify that the cart page displays the correct products

Expected Result: The cart page should display the correct products and allow the user to remove items

Status: Passed

Severity: High

Remarks: No issues were found during the test



Test Case : Product Display Page Load Efficiency

Description: Validate the speed and accuracy of loading the product list page.

Expected Result: The page should load in under 2 seconds, and all elements should display without any errors or delays.

Status: Passed

Severity: Medium

Remarks: No issues found during the performance test

Description: Check the performance and accuracy of the product details page.

Expected Result: The product details page should load quickly and display accurate information.

Status: Passed

Severity: High

Remarks: The page loaded efficiently with all details intact.

Description: Test the API response time and data consistency for fetching product information.

Expected Result: The API should return data within an acceptable time frame and maintain accuracy.

Status: Passed

Severity: Medium

Remarks: API response was timely and accurate.

Description: Ensure that the cart page loads correctly and functions smoothly.

Expected Result: The cart page should load efficiently and allow seamless updates.

Status: Passed

Severity: Medium

Remarks: The cart functioned well and updated promptly without performance issues.

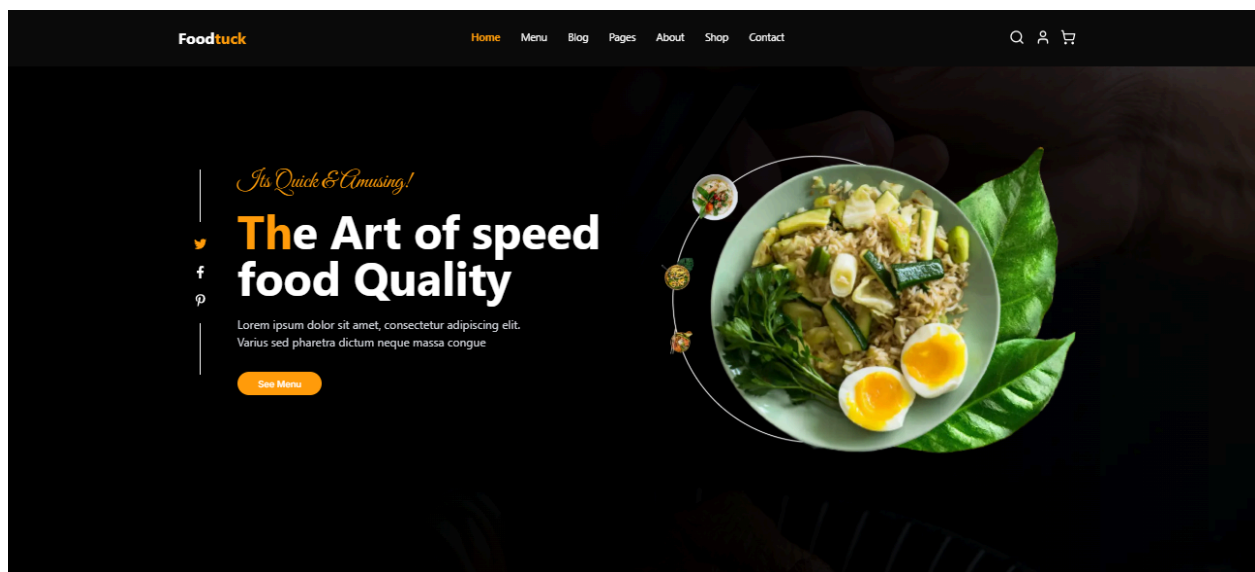
Description: Evaluate the performance of the homepage loading and content rendering.

Expected Result: The homepage should load in under 3 seconds with all content rendering correctly.

Status: Passed

Severity: High

Remarks: Homepage loaded quickly, and there were no performance issues.



Description: Verify the product search functionality on the website.

Expected Result:

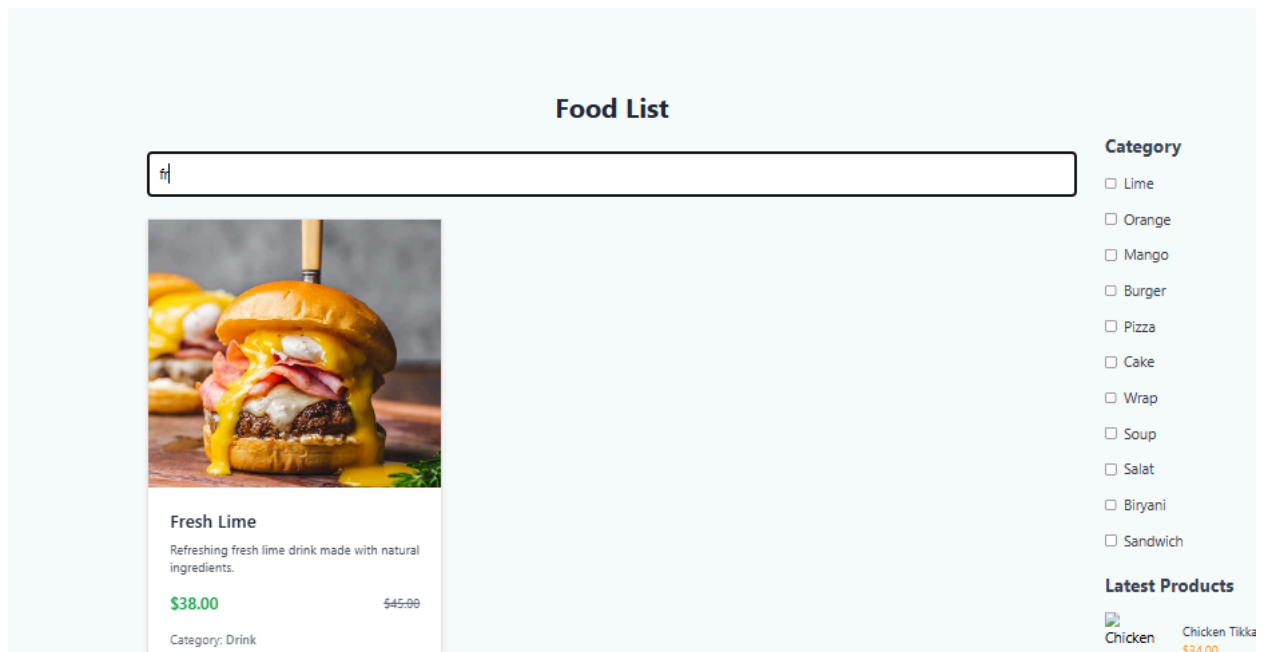
- For valid product names: Relevant product(s) should be displayed with proper details (e.g., product name, price, image, etc.).

- For invalid product names: A message such as "No products found" should be displayed. The search should handle case sensitivity and partial matches correctly.

Status: Passed

Severity: High

- Remarks**
- Valid search results displayed correctly.
 - Proper error message shown for invalid searches.



Description: Verify responsive design on mobile view.

Expected Result: The full layout adjusts correctly with appropriate font sizes and images for mobile view.

Status: Passed

Severity: High

Remarks: No layout issues were found on the mobile device.



Description: Verify error handling when an invalid URL is accessed.

Expected Result: The user should be redirected to a 404 error page or see a message indicating the page is not found.

Status: Passed

Severity: High

Remarks: The error page loads as expected with the proper error message.

Test case ID	Description	steps	Expected Result	Actual Result	Status	Severity	Remarks
TC001	Validate Home Page loading	Open home page	Home page displayed correctly	Displayed correctly	Passed	Medium	No Issue Found
TC002	Validate Product Page loading	Open Product page > Verify products	Product page Displayed correctly	Products displayed correctly	Passed	Medium	No Issue Found
TC003	Test API Handling	Disconnected Api > Refresh Page	Show fail back ui with error message	Error message shown	Passed	Medium	Handled Gracefully
TC004	Check Cart functionality	Add product to cart > Verify cart contents	Cart updates With added products	Cart updates as expected	Passed	High	Test successfully
TC005	Responsive Design For Mobile	Resize browser windows	Layout adjust properly to screen size	Responsive design works as expected	Passed	Medium	
TC006	Product search Functionality	Search valid invalid products	Relevant message Or error message displayed	Results handled correctly	Passed	High	No Issue Found

Task Completed

1. Functional Testing

- **Product Listing Verification**

Ensured all products are correctly displayed, with accurate details such as name, price, stock status, and images fetched from the CMS.

- **Search Functionality**

Verified that the search bar performs a full-text search across product names and tags, providing real-time suggestions as users type.

- **Cart Operations**
Conducted tests for adding, updating, and removing products from the shopping cart to ensure smooth functionality.
 - **Checkout Flow Simulation**
Simulated the complete checkout process, including validation and API calls, ensuring a seamless user experience.
 - **Dynamic Routing Validation**
Validated dynamic product detail pages and routes, ensuring user-friendly URLs are functional and consistent.
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2. Backend Integration

- **Sanity CMS Integration**
Seamlessly integrated with Sanity CMS to dynamically manage and update product listings, categories, and real-time product data.
 - **User Profile Management**
Enabled functionality for storing user profiles, including saved addresses and order history, ensuring personalized experiences.
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3. Graceful API Failures

- **Placeholder Data Implementation**
Ensured the website remains operational, even during API downtime, by implementing graceful fallbacks and placeholder data.
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4. Performance Evaluation

- **Lighthouse Report Analysis**
Conducted a detailed performance assessment using Google Lighthouse, identifying areas for improvement and optimizing page load speeds and accessibility.