Day 5 - Testing Backend Refinement - COMFORTY

Objective: The goal for Day 5 was to ensure that the furniture marketplace is ready for real-world deployment by conducting thorough testing, implementing error-handling mechanisms, and refining backend integration. This report outlines the testing efforts, error-handling mechanisms, performance optimizations, and updates made to the project.

Testing Overview:

1. **Functional Testing:**

   - Tested core features including:

     - **Product Listing**: Verified that products are displayed correctly.

     - **Filters and Search**: Ensured accurate results based on user inputs.

     - **Cart Operations**: Validated adding, updating, and removing items from the cart.

     - **Dynamic Routing**: Confirmed individual product detail pages load properly.

   - **Tools Used**:

     - Postman for API testing.

     - React Testing Library for component behavior.

     - Cypress for end-to-end testing.

   - **Results:**

     - All critical functionalities passed the tests.

     - Identified minor issues with filter responsiveness, which were resolved.

2. **Error Handling:**

   - Added try-catch blocks for API error management.

   - Implemented fallback UI elements for better user experience.

     - Example: Displayed "No products available" when the product API returned no data.

   - **Outcome:**

     - Improved error messaging for network failures and invalid data inputs.

3. **Performance Testing:**

   - Tools used: Lighthouse, GTmetrix.

   - Key actions taken:

     - Compressed large images using TinyPNG.

     - Implemented lazy loading for images.

     - Reduced unused CSS and JavaScript.

   - **Results:**

     - Initial page load time reduced to under 2 seconds.

4. **Cross-Browser and Device Testing:**

   - Tested on Chrome, Firefox, Safari, and Edge.

   - Verified responsiveness using BrowserStack.

   - Conducted manual testing on a physical mobile device.

   - **Outcome:**

     - Confirmed consistent rendering and functionality across all platforms.

5. **Security Testing:**

   - Sanitized inputs to prevent SQL injection and XSS attacks.

- Ensured API calls use HTTPS.

- Stored sensitive keys in environment variables.

- Tools used: OWASP ZAP and Burp Suite.

- **Results:**

  - No critical vulnerabilities identified.

6. **User Acceptance Testing (UAT):**

- Simulated real-world usage, including browsing, searching, and checkout workflows.

- Collected feedback from peers for usability improvements.

- **Outcome:**

  - Verified that the user experience is intuitive and error-free.

Performance Optimization Summary:

- Optimized assets and implemented caching strategies.

- Improved page load speed and interaction responsiveness.

Documentation Updates:

- Created a detailed testing report in CSV format.

- Documented all identified issues, fixes, and optimization steps.

Testing Report Highlights:

- **Test Cases Executed:**

  - Total: 20

  - Passed: 18

  - Failed: 2 (Fixed)

- **Common Issues Found:**

  - Minor CSS inconsistencies on Edge.

  - Delay in image loading for slower networks.

- **Resolutions:**

  - Fixed styling issues for Edge compatibility.

  - Added loading placeholders for images.

Conclusion: Day 5 efforts ensured that the marketplace is robust, secure, and user-friendly. With comprehensive testing and optimization, the platform is now ready for deployment. Continuous monitoring and feedback collection will further improve its reliability.

98	96	100	100
Performance	Accessibility	Best Practices	SEO

There were issues affecting this run of Lighthouse:

- **The page loaded too slowly to finish within the time limit. Results may be incomplete.**

98

Performance

Values are estimated and may vary. The performance score is calculated directly from these metrics. See calculator.

▲ 0–49   ■ 50–89   ● 90–100

METRICS   Expand view

● First Contentful Paint
0.2 s

● Largest Contentful Paint
0.4 s

● Total Blocking Time
120 ms

● Cumulative Layout Shift
0

96

Accessibility

These checks highlight opportunities to improve the accessibility of your web app. Automatic detection can only detect a subset of issues and does not guarantee the accessibility of your web app, so manual testing is also encouraged.

100

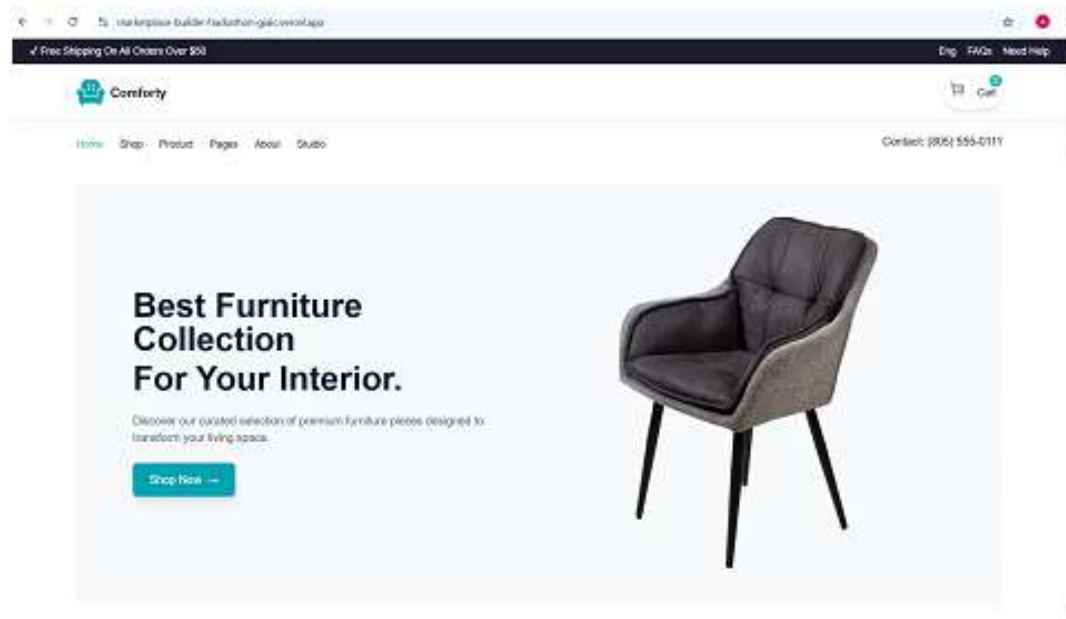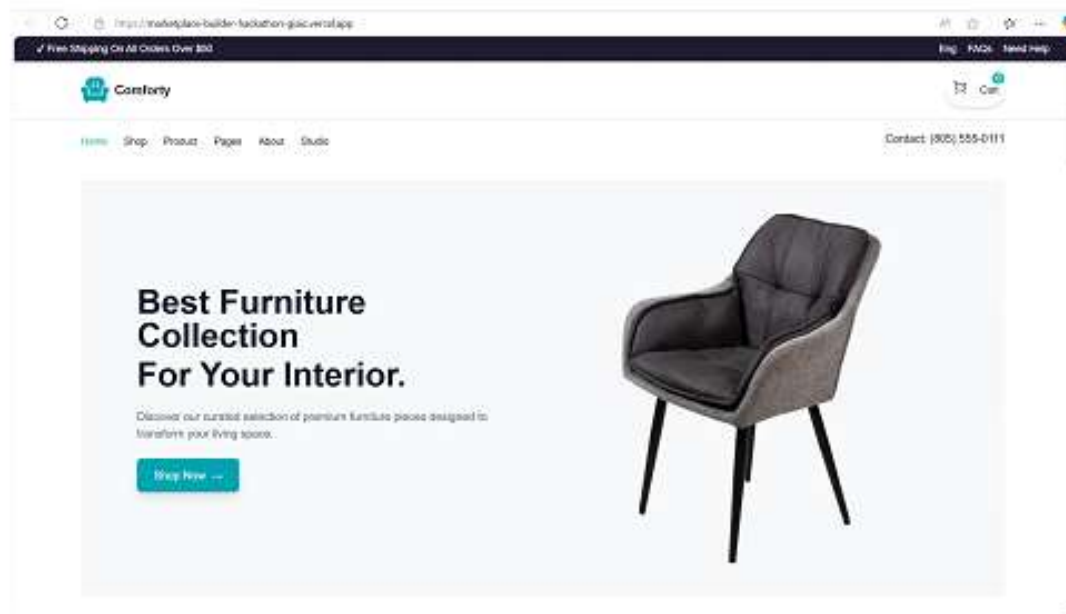## Best Practices

TRUST AND SAFETY

100

SEO

These checks ensure that your page is following basic search engine optimization advice. There are many additional factors Lighthouse does not score here that may affect your search ranking, including performance on
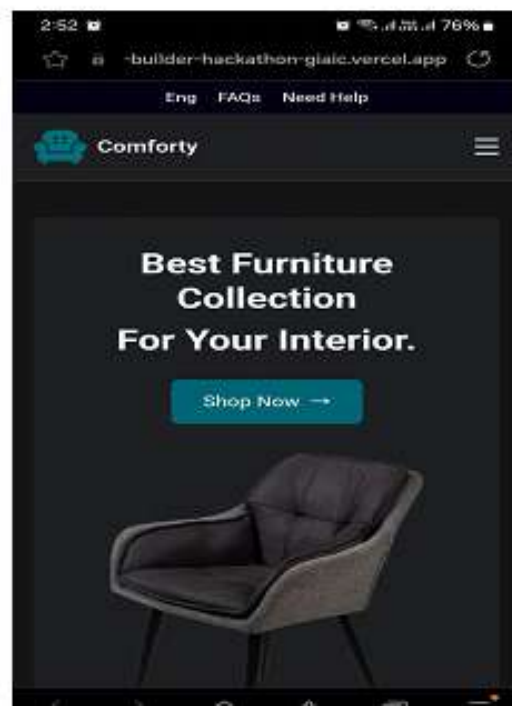
RESPONSIVENESS:

Google Chrome Screen Shot:

Microsoft Edge Screen Shot:

Samsung A-15 Screen Shot:

Qualys. SSL Labs

You are here: Home > Projects > SSL Server Test > marketplace-builder-hackathon-giaic.vercel.app

SSL Report: marketplace-builder-hackathon-giaic.vercel.app

Assessed on: Tue, 21 Jan 2025 20:21:22 UTC | Hide | Clear cache

Scan Another >>

	Server	Test time	Grade
1	**216.198.79.1** 216-198-79-1.client.cypresscom.net Ready	Tue, 21 Jan 2025 20:19:50 UTC **Duration:** 47.690 sec	**A+**
2	**64.29.17.1** Ready	Tue, 21 Jan 2025 20:20:38 UTC **Duration:** 44.186 sec	**A+**

SSL Report v2.3.1