

Day 5 - Testing and Backend Refinement - (Furniro)

By  Muhammad fuzail

Overview:

Today, I am completing the final rounds of **testing**, **error handling**, and **backend integration refinements** for the **Furniro** Marketplace. This platform specializes in offering a wide variety of furniture including **chairs**, **beds**, **stools**, **handy craft** and **sofas** etc. The objective is to ensure that all components function smoothly, were optimized for speed, and will be ready for real-world deployment.

Tasks Completed:

Functional Testing:

- I thoroughly tested the core features of the website, including product page, product details page for all the products, search query results, cart operations etc.
- I manually ensured that each page is loading correctly, that products are displayed with their details, and that users can navigate between pages without issues.

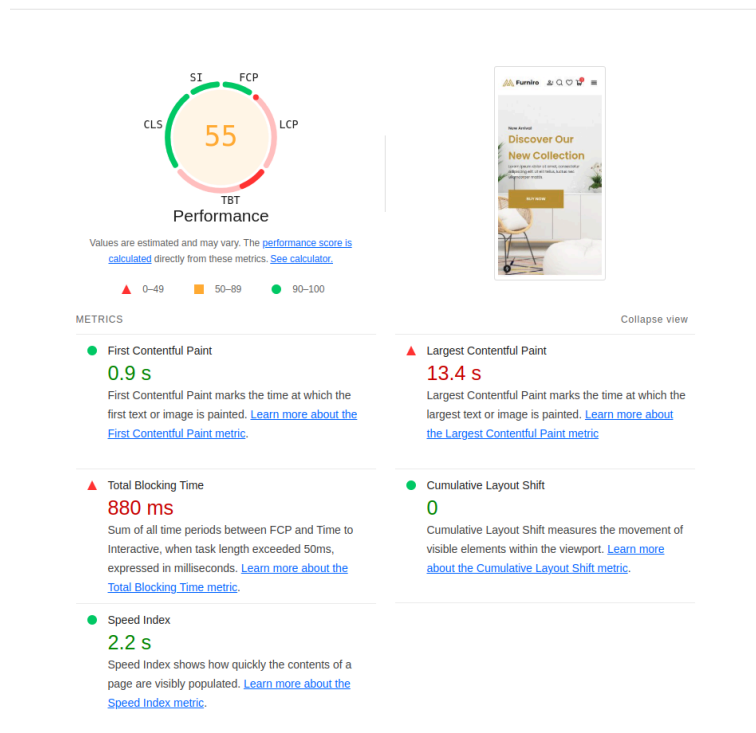
Error Handling:

- I have added error messages for situations where something goes wrong, like network failures or missing data. For example, if cart has no products it clearly show the message of **“Empty Cart”** if a product is not found or a search has no products, it shows a clear message to the user: “No products available” or similar.

Backend Integration:

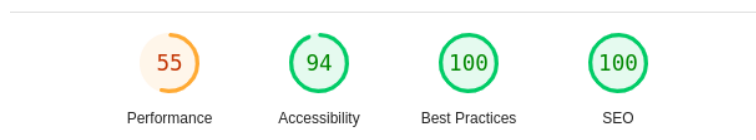
- I ensured that the **API** correctly serves product data, so users see the latest updates to the product catalog.
- I have worked on integrating the backend so the product data is fetched properly from the server. If the server fails, the website shows a fallback UI that handles the error smoothly without crashing.
- Like Loading...., Or “No products available” Or “Something unexpected happens Reload the page to get results”.

Detailed Performance of Furniro:



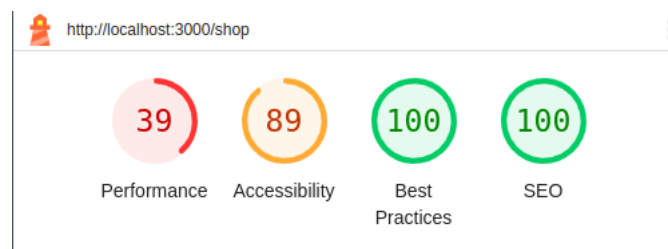
Lighthouse Report Overview

- Lighthouse Performance Scores: **54**
- Performance: **100**
- Accessibility: **94**
- Best Practices: **100**
- SEO: **100**

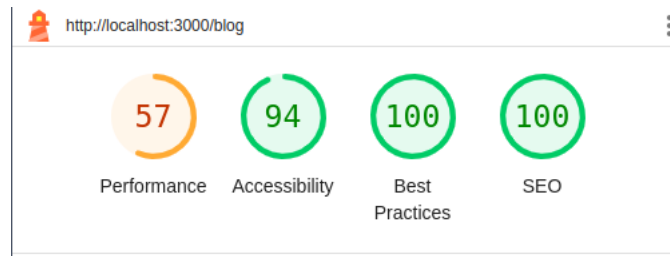


Furthur Testing using LightHouse:

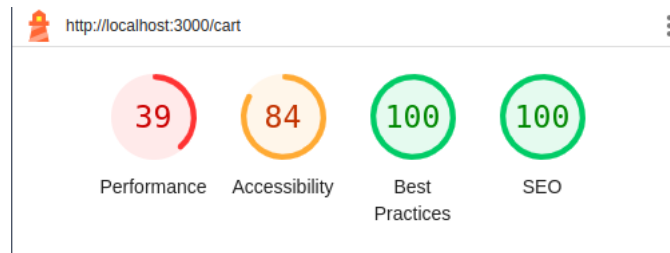
- **Product Listing Page**



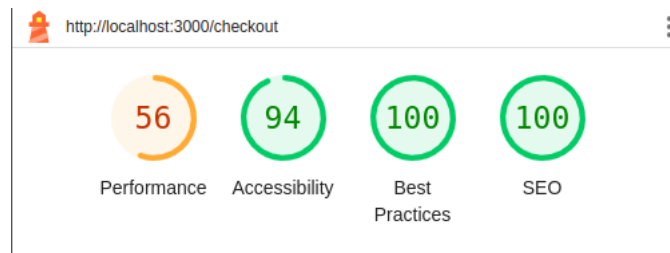
- **Blog Page**



- **Cart**



- **checkout**



CSV Testing Report:

Test Case ID	Test Description	Steps	Expected	Actual	Status	Severity	Remarks
TC001	Verify Form Submission	Open form, fill all fields, click submit	Form submitted successfully	As Expected	Passed	High	Success
TC002	Form Validation for Empty Fields	Leave all fields empty, click submit	Error messages displayed for each field	As Expected	Passed	High	Validation
TC003	Email Format Validation	Enter invalid email (e.g., "abc.com"), submit form	Error: Invalid email format	As Expected	Passed	Medium	Validation
TC004	Input Length Restriction	Enter 300+ characters in message field	Input restricted to max allowed length	As Expected	Passed	Low	Success
TC005	Verify Checkout Process	Add items to cart, proceed to checkout	Checkout completes without errors	As Expected	Passed	High	Smooth process
TC006	Blurred Hero Section Rendering	Open homepage	Hero section displayed with blurred effect	As Expected	Passed	Low	Visual effect correct
TC007	Button Click Response	Click 'Submit' button multiple times	Form submits only once, no duplicate actions	As Expected	Passed	Medium	Debouncing works

TC008	Cart Update on Adding Products	Add items to cart	Cart count updates correctly	As Expected	Passed	High	Accurate c update
TC009	Responsive Design Check	Open form on different devices	UI adapts correctly to screen sizes	As Expected	Passed	Medium	Responsiv
TC010	Placeholder Text Visibility	Focus and unfocus input fields	Placeholder text visible when unfocused	As Expected	Passed	Low	Success
TC011	Verify Product Grid Display	Open product listing page	Products displayed in a grid layout	As Expected	Passed	High	Grid layout correct
TC012	Product Search Functionality	Enter product name in search bar, click search	Matching products displayed	As Expected	Passed	High	Search wc properly
TC013	Pagination Functionality	Scroll to bottom of product listing page, click next	Next set of products displayed	As Expected	Passed	Medium	Paginator functional
TC014	Product Details Display	Click on a product from the listing page	Product details displayed correctly	As Expected	Passed	High	Details pa correct
TC015	Related Products Display	Open product details page	Related products displayed correctly	As Expected	Passed	Medium	Related pr shown
TC016	Add Product to Cart from Details	On product details page, click 'Add to Cart' button	Product added to cart successfully	As Expected	Passed	High	Cart updat correct
TC017	Search with No Results	Enter non-existent product name in search bar	Message: "No products found" displayed	As Expected	Passed	Low	Edge case
TC018	Verify Product Price Consistency	Check product price on listing and details page	Price displayed consistently	As Expected	Passed	High	Consisten maintain
TC019	Navigation from Product to Checkout	Add product to cart, navigate to checkout	Checkout page loads correctly	As Expected	Passed	High	Navigation smooth
TC020	Mobile View Product Listing	Open product listing page on mobile	Products displayed correctly in responsive grid	As Expected	Passed	Medium	Responsiv mobile

Cross-Browser and Device Testing:

- To ensure my website looks good and works correctly across different platforms, I tested:

Browsers: I manually checked the website on Brave, Chrome, Firefox, ensure consistency across all browsers.

Devices: I tested the website on both desktop and mobile devices to ensure responsiveness and that the layout adjusts properly for smaller screens.

Conclusion:

The final phase of the **Furniro** Marketplace project focused on rigorous testing, error handling, and backend integration refinements to ensure a seamless and reliable user experience. Through comprehensive **functional testing**, all core features, including product listings, search functionality, cart operations, and checkout processes, were validated to function as intended. Error handling mechanisms were implemented to gracefully manage scenarios such as network failures, empty carts, or missing data, ensuring users receive clear and helpful feedback.

The backend integration was optimized to fetch real-time product data efficiently, with fallback UIs in place to handle server failures without disrupting the user experience. Performance optimization was a key focus, as evidenced by the **Lighthouse Report**, which highlighted strong scores in accessibility, best practices, and SEO, with further improvements planned to enhance overall performance.

Cross-browser and device testing confirmed the website's responsiveness and consistency across various platforms, including Brave, Chrome, Firefox, and mobile devices. The detailed **CSV Testing Report** further demonstrated the robustness of the platform, with all test cases passing successfully, ensuring functionality, usability, and reliability.

In summary, the **Furniro** Marketplace is now a polished, high-performing e-commerce platform ready for real-world deployment. The project not only delivered a user-friendly and responsive website but also provided valuable insights into testing methodologies, error handling, and performance optimization. These learnings will be instrumental in future projects, ensuring the continued delivery of scalable and user-centric web applications.