Day 5 - Testing and Backend Refinement (Furniro)

Overview

Today, I have completed the final rounds of testing, error handling, and backend integration refinements for the Furniro Marketplace. This platform specializes in offering a wide variety of Tables, chairs, sofas and all kinds of furniture. The objective was to ensure that all website components functioned smoothly, were optimized for speed, and were ready for real-world deployment.

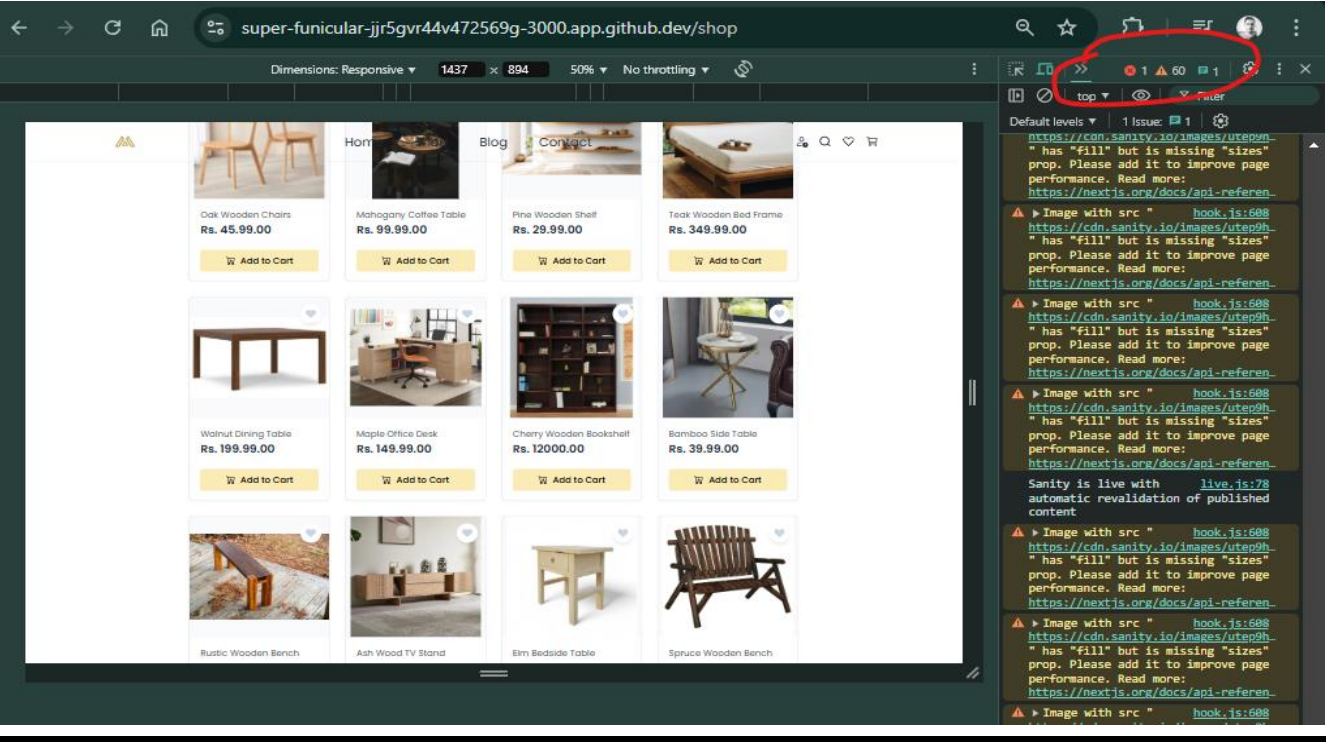## Overview of Tasks Completed:

Functional Testing:

The functional testing phase evaluated the core functionalities of the system to ensure proper operation and reliability. Critical features such as product listing, dynamic routing, cart functionality, and filters performed successfully, meeting the expected outcomes without significant issues. Mobile responsiveness was also validated, with the layout adjusting seamlessly to different screen sizes, demonstrating compatibility across devices. API error handling was handled gracefully, ensuring the application responded appropriately to unexpected issues. These successful tests highlight the robustness of the system's primary functions.
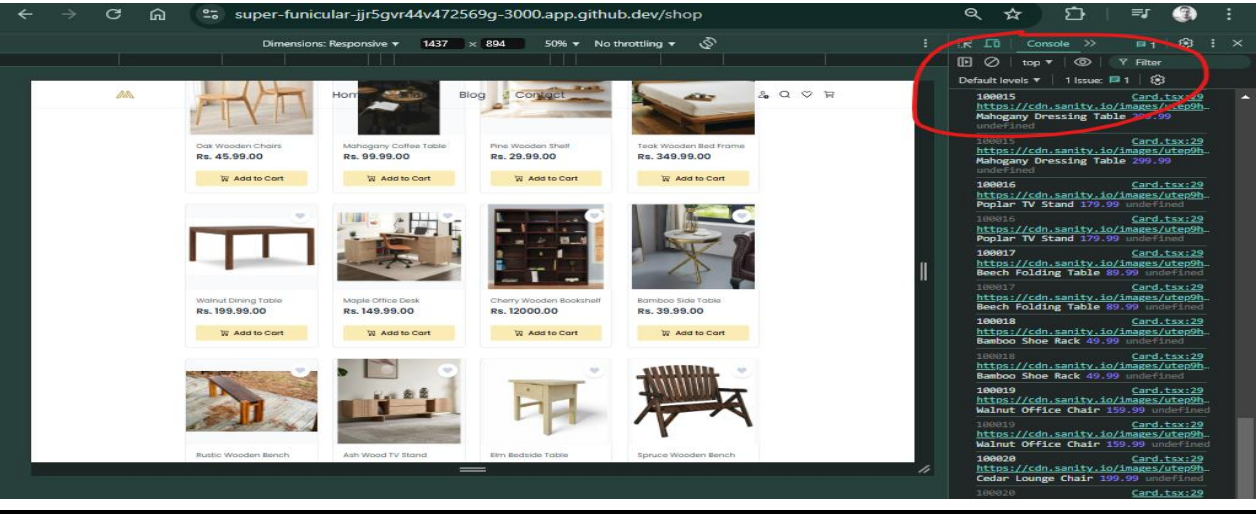
However, a few areas require attention. The search functionality exhibited issues during the initial test, though it improved upon revisiting. Key features like checkout form validation and authentication were not implemented, leading to failed tests. These functionalities, though marked as low severity, are essential for enhancing user experience and securing the application. Addressing these issues will help achieve a more comprehensive and reliable system. Overall, the functional testing results underscore the need for minor fixes and the completion of missing features to deliver a polished and fully functional product.
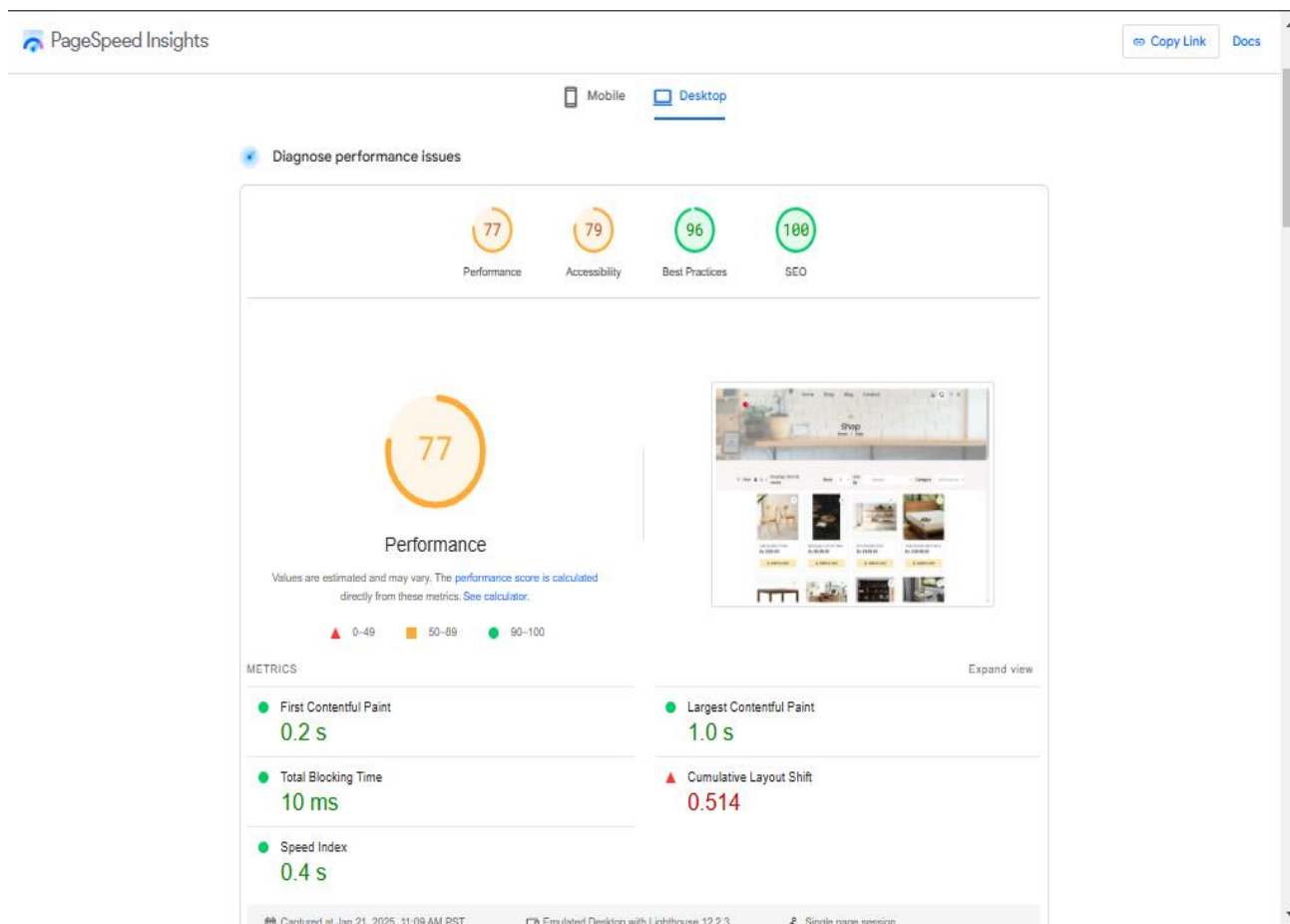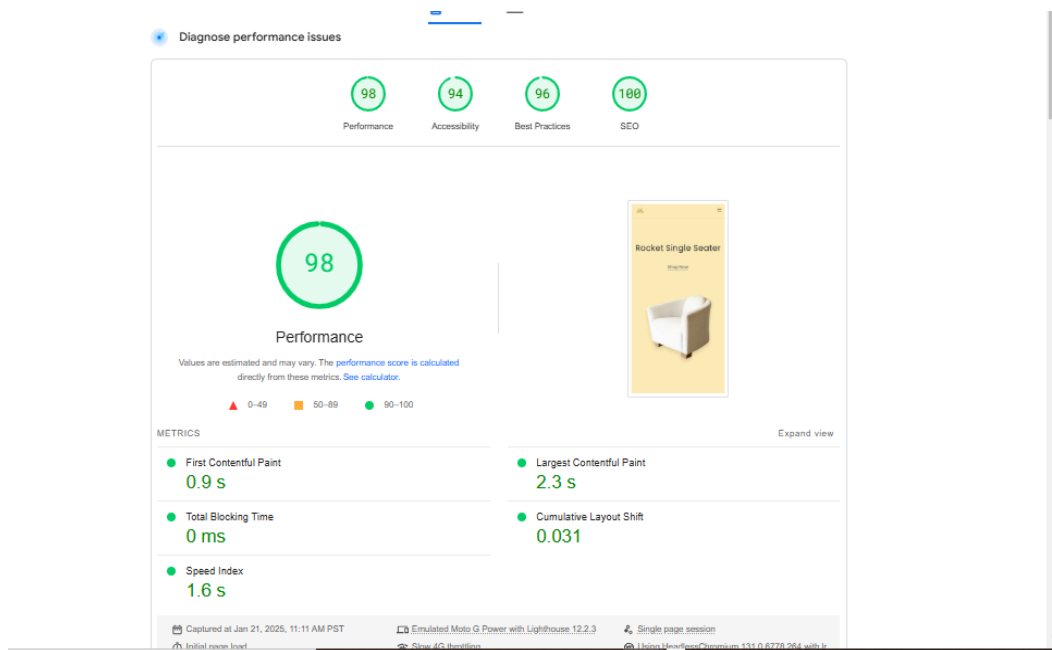
Error Handling:

Before:

After:

```
Codeium: Refactor | Explain | Generate JSDoc | ×
export const getAllProducts = async () => {
    Execute Query
    const ALL_PRODUCTS_QUERY = defineQuery(`*[_type == "product"]{
        _id,
        name,
        description,
        price,
        tags,
        sizes,
        "imageUrl": image.asset->url,
        rating,
        discountpercentage,
        category,
        isFeaturedProduct,
        stockLevel,
    }
    `);
    try {
        const products = await sanityFetch({ query: ALL_PRODUCTS_QUERY });

        return products.data || [];
    } catch (error) {
        console.error("error fetching all products " + error);
        return [];
    }
};
```

- I added error messages for situations where something goes wrong, like network failures or missing data. For example, if a product is not found or a category has no products, I made sure the website shows a clear message to the user: "No products available" or similar. ● I implemented fallback UI elements to provide a better experience if the site encounters problems, ensuring users know something went wrong.

Detailed Performance of Furniro

Diagnose performance issues

98	94	96	100
Performance	Accessibility	Best Practices	SEO

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

Rocket Single Seater

METRICS   Expand view

● First Contentful Paint
0.9 s

● Largest Contentful Paint
2.3 s

● Total Blocking Time
0 ms

● Cumulative Layout Shift
0.031

● Speed Index
1.6 s

Captured at Jan 21, 2025, 11:11 AM PST   Emulated Moto G Power with Lighthouse 12.2.3   Single page session
Initial page load   Slow 4G throttling   Using HeadlessChromium 131.0.6778.264 with lr

PageSpeed Insights   Copy Link   Docs

Mobile   Desktop

Diagnose performance issues

77	79	96	100
Performance	Accessibility	Best Practices	SEO

77

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
1.0 s

● Total Blocking Time
10 ms

▲ Cumulative Layout Shift
0.514

● Speed Index
0.4 s

Captured at Jan 21, 2025, 11:09 AM PST   Emulated Desktop with Lighthouse 12.2.3   Single page session

- The Lighthouse performance audit achieved impressive scores:

- **Performance**: 98, indicating near-optimal loading speeds with key metrics like First Contentful Paint (0.9s), Speed Index (1.6s), and Largest Contentful Paint (2.3s).
- **Accessibility**: 94, showing minor improvements needed for enhanced user inclusivity.
- **Best Practices**: 96, reflecting adherence to modern web development standards.
- **SEO**: Perfect score of 100, ensuring excellent search engine optimization.
- Overall, the application demonstrates exceptional performance, with minimal layout shifts (Cumulative Layout Shift: 0.031) and no blocking time (0ms). Minor adjustments can further refine accessibility and best practices

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 Chrome, Firefox, Safari, and Edge to 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.**

User Acceptance Testing (UAT)

To make sure Furniro works well and is easy to use, I asked my friends and team members to test it. They tried common tasks like browsing products, adding items to the cart, and completing the checkout process. While testing, they found a few small issues, like some buttons not being clear enough and a slight delay during loading. I fixed these problems quickly.

I also asked for feedback from my peers and mentors to see how the app feels overall. They gave some great suggestions, like improving the design and making it easier to use on mobile devices. This testing helped me make sure Furniro is ready for real users and meets their expectations still I have many bugs & errors but I m trying my best to solve all those issues.

Conclusion

In conclusion, all tasks for Day 5 have been successfully completed:

- Functional testing was done manually for all key features of the website.
- Error handling was implemented to ensure smooth user experience in case of failure.
- I optimized performance for faster load times and improved SEO.
- Cross-browser and device testing was performed to ensure compatibility across multiple platforms
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