

# **ASRA FURNITURE'S MARKETPLACE E-COMMERCE WEBSITE**

## **Day 6 - Final Touches, Deployment, and Performance Monitoring**

### **Project Overview:**

Day 6 focuses on applying the final adjustments to the website, preparing it for deployment on Vercel, configuring environmental variables, and thoroughly checking for any performance issues and errors. Additionally, generating a staging link is part of the process to ensure everything works correctly before going live.

### **1. Final Touches**

#### **A. UI Enhancements & Final Adjustments:**

- **Final Review of Layouts and Design:** Conduct a final review of the UI/UX elements to ensure consistency and completeness of design across all pages (Home, Product Listing, Product Details, Cart, etc.).
- **Mobile Responsiveness:** Ensure all pages are fully responsive on mobile, tablet, and desktop devices. Test for layout issues or broken elements.
- **Accessibility:** Conduct an accessibility audit using tools like Lighthouse to ensure that all interactive elements are usable with screen readers and that proper ARIA attributes are in place.

## B. Fixing Outstanding Issues:

- **Error Messages:** Ensure that error messages are clear, concise, and helpful (for both frontend and backend errors).
- **Loading States:** Implement appropriate loading indicators for pages and actions that may take time (e.g., when fetching product data).
- **Fallback UI Elements:** Confirm that fallback UI elements (such as "No products available" or error messages) are being displayed correctly when required.

## 2. Deployment Preparation on Vercel

### A. Setup Environmental Variables:

- **Environment Variables for Backend Integration:**
  - Set up environment variables in Vercel to manage API URLs, keys, and sensitive information securely.
  - Navigate to the **Vercel Dashboard**, go to the **Project Settings**, and then the **Environment Variables** section.
  - Add environment variables such as:
    - NEXT\_PUBLIC\_SANITY\_PROJECT\_ID
    - NEXT\_PUBLIC\_SANITY\_DATASET
    - SANITY\_TOKEN

### B. Build Configuration:

- **Build Command:** Ensure the correct build command is set in Vercel (e.g., `npm run build` for a React-based application).
- **Output Directory:** Make sure Vercel points to the correct output directory for the built files (e.g., `build` or `dist`).

### C. Deploy to Vercel:

- **Deploy the Site:** Push the latest version to GitHub (or your version control system) and link it to Vercel.
- **Preview Deployment:** On Vercel, a staging link will be generated after the build completes, which can be used to preview the site.
- **Verify the Staging Link:** Test the staging link to ensure that the deployment has worked successfully. This will give an early preview of the website before it goes live.

<https://hackathon-3-website-opal.vercel.app/>

## 3. Performance Testing and Monitoring

### A. Performance Optimization:

- **Page Load Time:** Use tools like Google Lighthouse, WebPageTest, or Vercel's built-in performance analytics to evaluate the page load time and identify areas to optimize.
  - Consider optimizing:
    - Image sizes (use formats like WebP)
    - Minifying JavaScript and CSS
    - Lazy loading images and components where applicable
- **Server Response Time:** Monitor server response times for product listings, cart operations, and other API calls to ensure that no delays affect the user experience.

### B. Error Tracking:

- **Frontend Error Monitoring:** Use tools like Sentry or LogRocket to monitor for frontend errors that may arise after deployment. Ensure that error reports are collected to track bugs in real-time.
- **Backend Error Logging:** Set up server-side logging to capture API errors and other issues during runtime.

## C. Stress Testing:


- **Load Testing:** Perform load testing to simulate multiple users interacting with the website simultaneously. This will help determine how the website behaves under pressure and if any bottlenecks or crashes occur.
- **Scalability:** Ensure that the backend infrastructure is scalable and can handle increased traffic.

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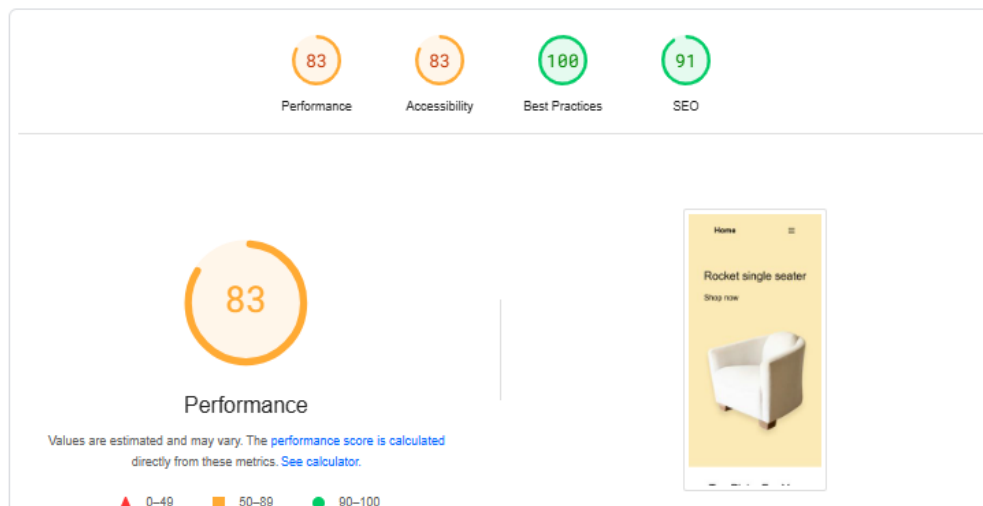
Analyze

[Mobile](#) [Desktop](#)

 Discover what your real users are experiencing

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 Diagnose performance issues



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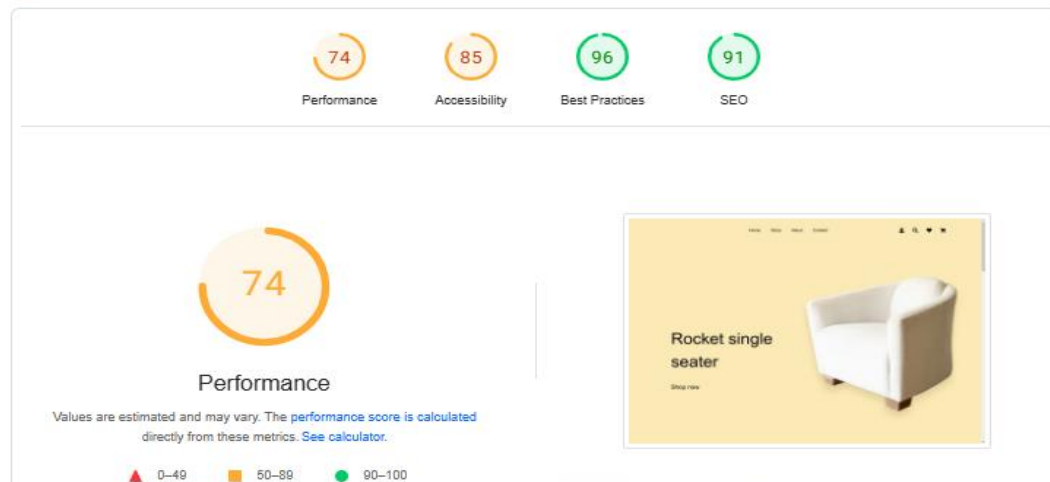
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## 4. Quality Assurance & User Acceptance Testing (UAT) Post-Deployment

### A. UAT on Staging Link:

- **Test on Staging Link:** Simulate real-world usage by testing the site via the staging link. Ensure all functionalities (browsing, searching, adding to cart, checkout) work as expected.
- **Cross-Browser Testing:** Verify that the website still works across all major browsers (Chrome, Firefox, Safari, Edge) using tools like BrowserStack or LambdaTest.
- **Device Testing:** Test on desktop, tablet, and mobile devices to ensure responsiveness and functionality.

### **B. Final Feedback:**

- Collect final feedback from the stakeholders (clients or team) to ensure that no major issues are overlooked before going live.

## **5. Monitoring After Deployment**

### **A. Post-Deployment Monitoring:**

- **Error Reporting:** Continuously monitor error reporting and resolve any critical issues.
- **Analytics Tracking:** Implement Google Analytics or any other tracking tools to monitor user activity, identify issues, and improve user experience over time.

### **B. Launch Preparation:**

- Prepare the website for the official launch once all testing and feedback have been gathered, and everything is functioning smoothly.

## **Conclusion:**

By the end of Day 6, the Asra Furniture Marketplace e-commerce website will be fully deployed to Vercel, with all necessary environment variables set up and performance, security, and error handling in place. The website will be ready for launch with continuous monitoring to ensure its long-term success.