Day-6 Outcome Document – Deployment Preparation and Staging

Project Name: Furniture Store
Hackathon: Marketplace Hackathon

Objective

Day-6 focused on preparing the Furniture Store marketplace for deployment by setting up a staging environment, configuring hosting platforms, and ensuring readiness for a production launch. The goal was to ensure the application functions smoothly in a production-like setting while implementing industry-standard deployment practices.

Key Learning Outcomes

1. **Staging Environment Setup**

   - Selected Vercel as the hosting platform for efficient deployment.

   - Connected the GitHub repository to the hosting platform.

   - Configured build and deployment settings for a smooth deployment process.

   - Ensured secure handling of environment variables within the hosting platform.

   - Verified that the application functions correctly in a staging environment before production deployment.

2. Professional Environment Management

   - Understood different environment stages:

3. Testing in a Staging Environment

   - Functional Testing: Ensured all marketplace features, including product listing, search, cart operations, and checkout, were working correctly.

   - Performance Testing: Used Lighthouse, responsiveness, and page load times.

   - Security Testing:

       - Validated input fields to prevent security vulnerabilities.

       - Ensured HTTPS was enabled for secure data transmission.

▪ Confirmed API keys were securely handled.

4. Deployment Strategy & Environment Variables

   o Created a .env file with secure keys:

NEXT_PUBLIC_SANITY_PROJECT_ID=your_project_id

NEXT_PUBLIC_SANITY_DATASET=production

API_KEY=your_api_key

   o Uploaded environment variables to Vercel's settings to ensure secure API access.

5. Finalizing Project Documentation & GitHub Organization

   o Created a structured GitHub repository, including:

      ▪ documents/ folder for all hackathon reports.

      ▪ src/ folder for the front-end source code.

      ▪ public/ folder for assets and images.

   o Updated README.md

Implementation Steps

Step 1: Hosting Platform Setup

☑ Chose Vercel for hosting.
☑ Linked GitHub repository to Vercel for automated deployments.
☑ Configured build settings and deployment scripts.

Step 2: Secure Environment Variables

☑ Created a .env file with API keys and sensitive data.
☑ Uploaded environment variables to Vercel's dashboard.

Step 3: Deploy to Staging

☑ Successfully deployed the application to a staging environment.
☑ Validated the staging build completion and website loading.

Step 4: Testing & Performance Validation

Test Case ID	Description	Steps	Expected Result	Actual Result	Status
TC001	Validate product listing	Open product page	Products displayed	Products displayed	☑ Passed
TC002	Test API error handling	Disconnect API & refresh page	Show fallback message	Fallback message shown	☑ Passed
TC003	Check cart functionality	Add item & verify cart	Cart updates correctly	Cart updates correctly	☑ Passed
TC004	Test responsiveness layout	Resize browser window	Layout adjusts properly	Layout adjusts properly	☑ Passed

☑ Performance Report:
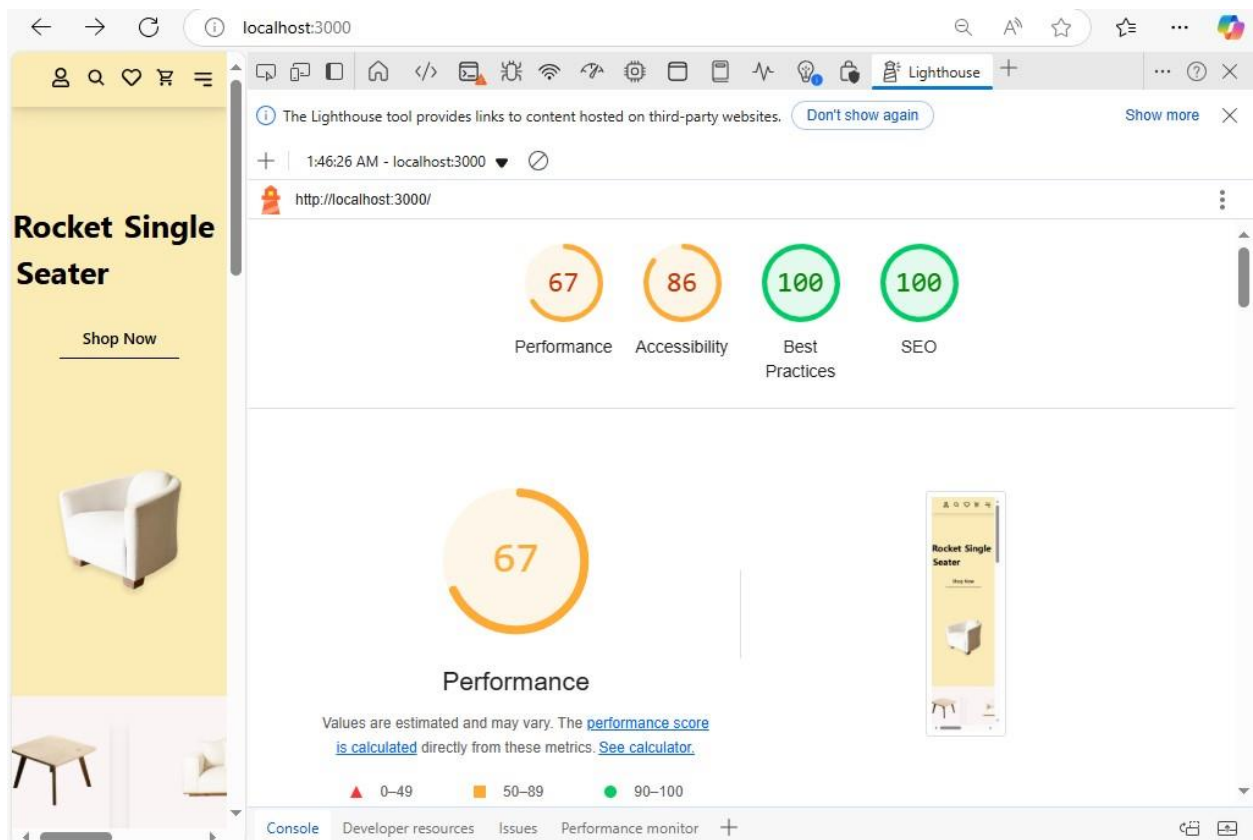
☑ Security Check:
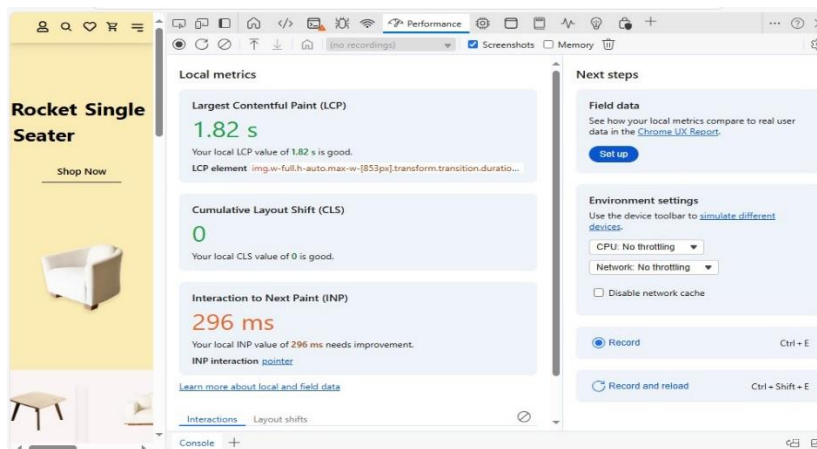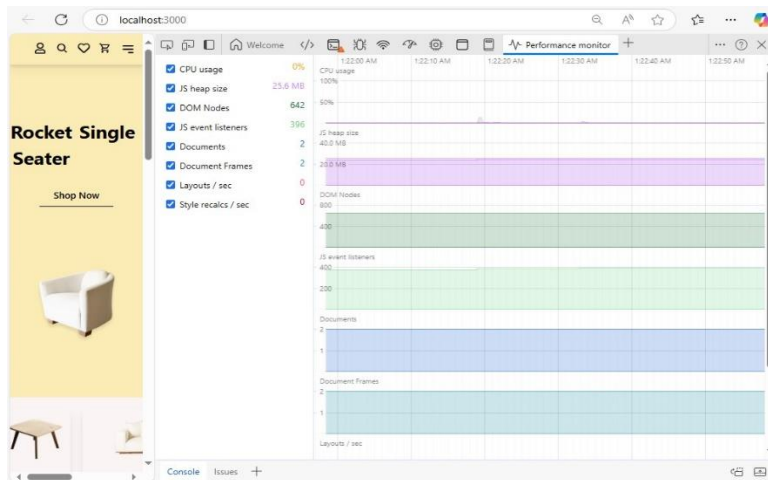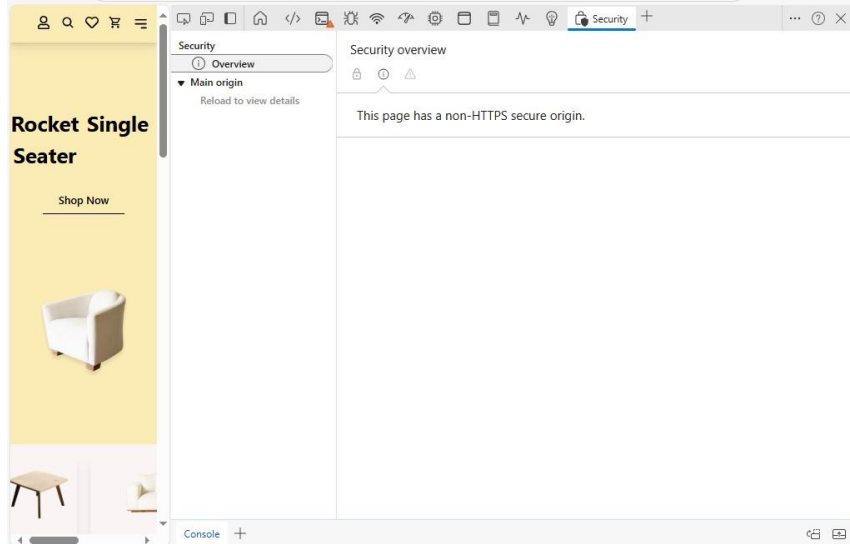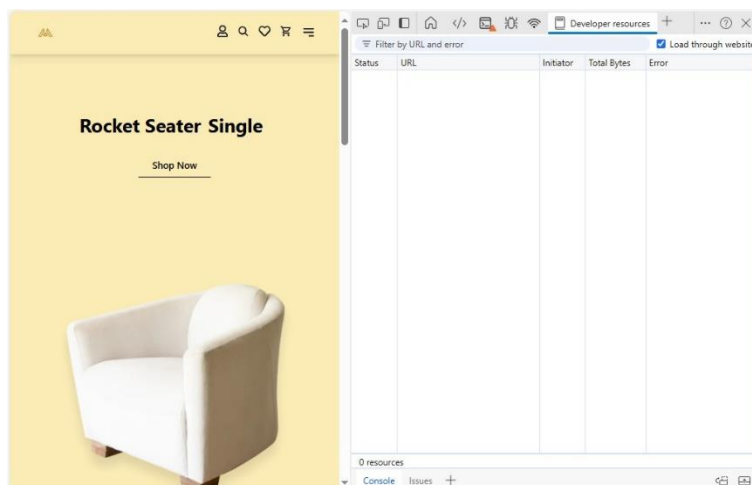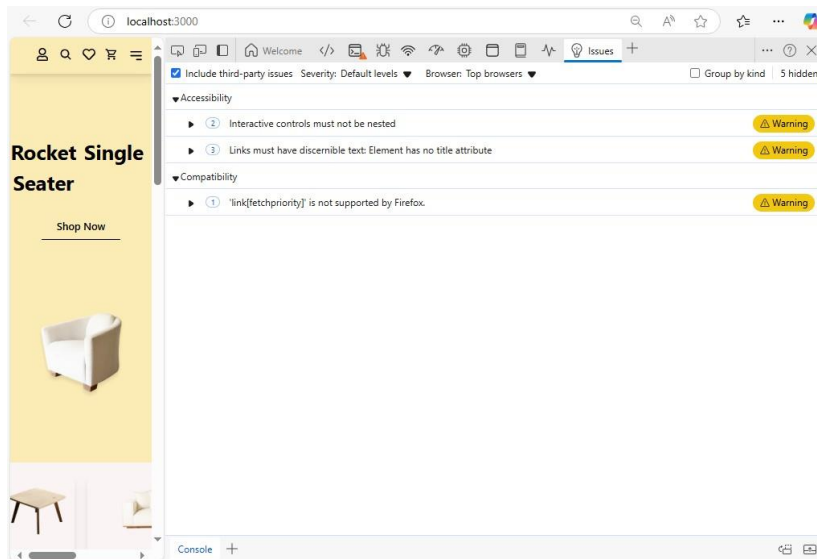
- HTTPS enabled for secure communication

- API keys secured in the environment

- SQL Injection & XSS checks performed

Step 5: Documentation & Repository Cleanup

☑ Created README.md summarizing the project and deployment steps.

☑ Organized project files into a structured GitHub repository.

☑ Uploaded test case reports & performance results.

Expected Output

1. ☑ Fully deployed staging environment for the marketplace.

   o [Staging Deployment Link: Insert Link]

2. ☑ Securely configured environment variables.

3. ☑ Documented test case results & performance reports.

4. ☑ Structured GitHub repository with all required documentation.

   o [GitHub Repository Link: Insert Link]

5. ☑ README.md file updated.