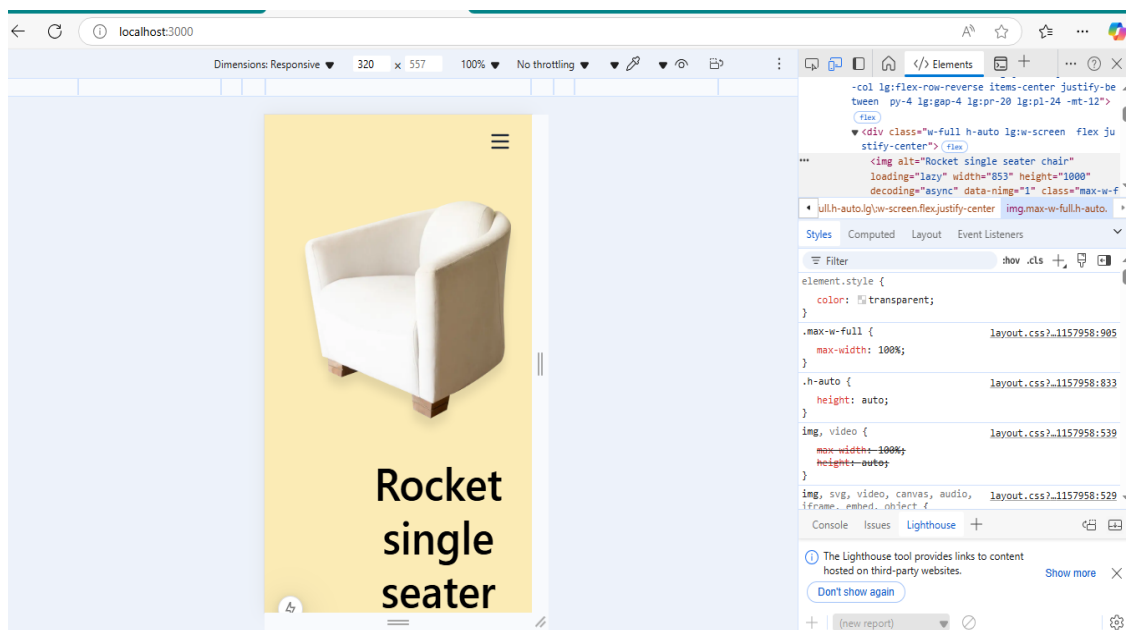


Day 5 - Testing and Backend Refinement - [FURNITURE STORE]

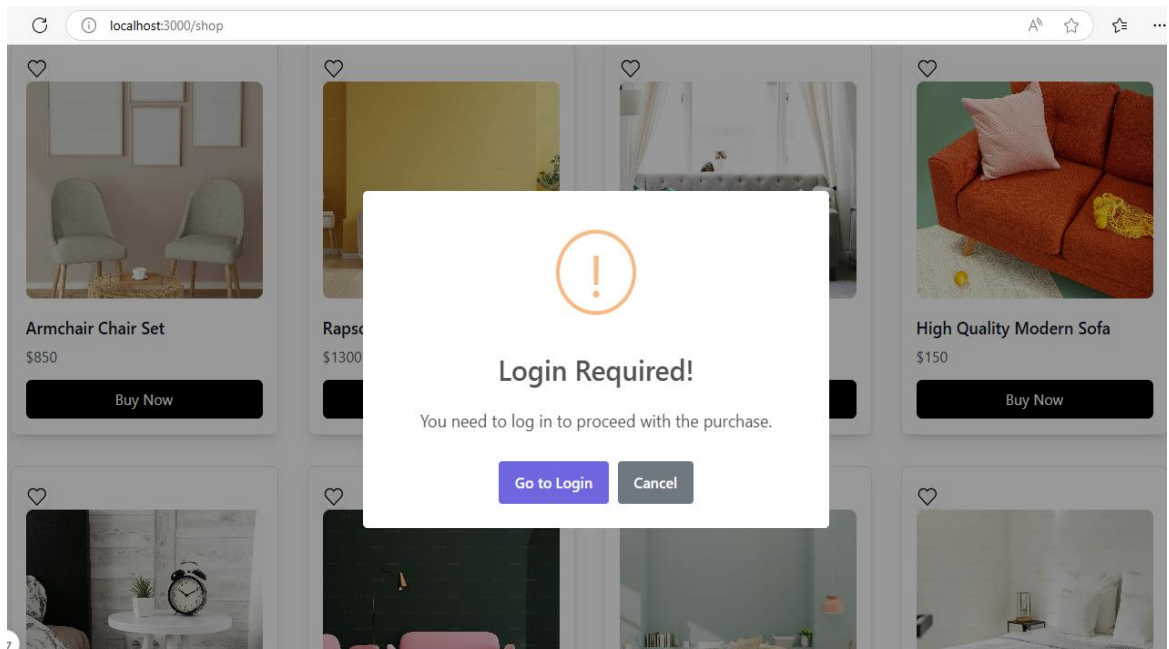
1. Functional Deliverables

Functional and Responsive Components

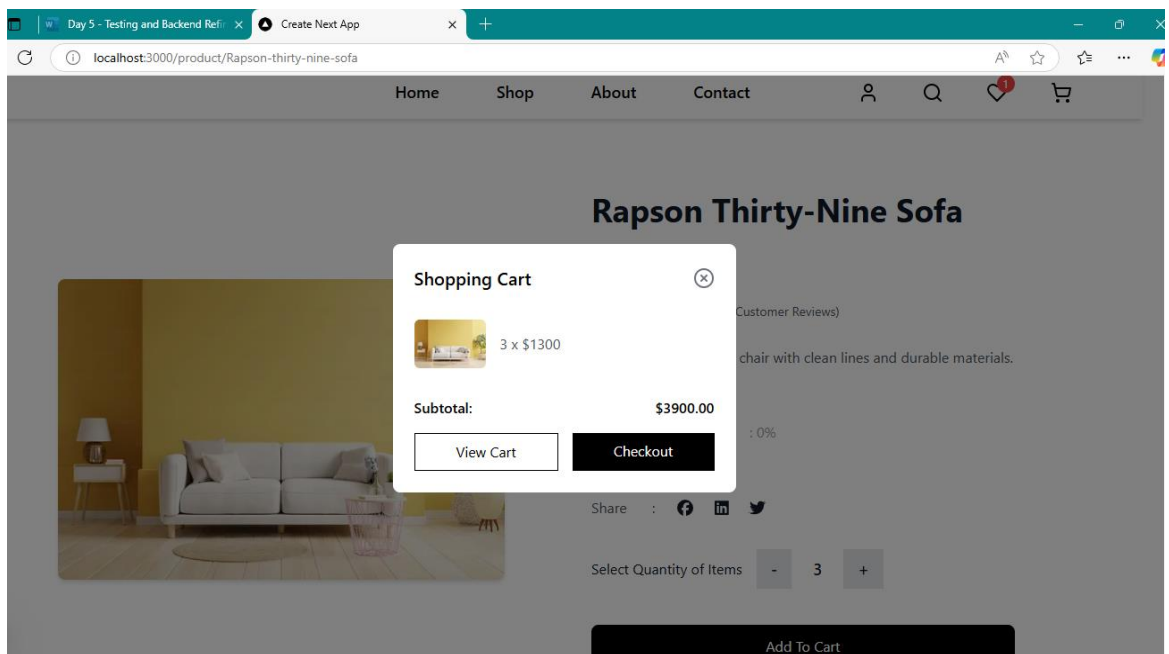
- I have tested the following components for functionality and responsiveness:
- Homepage UI responsiveness on various screen sizes

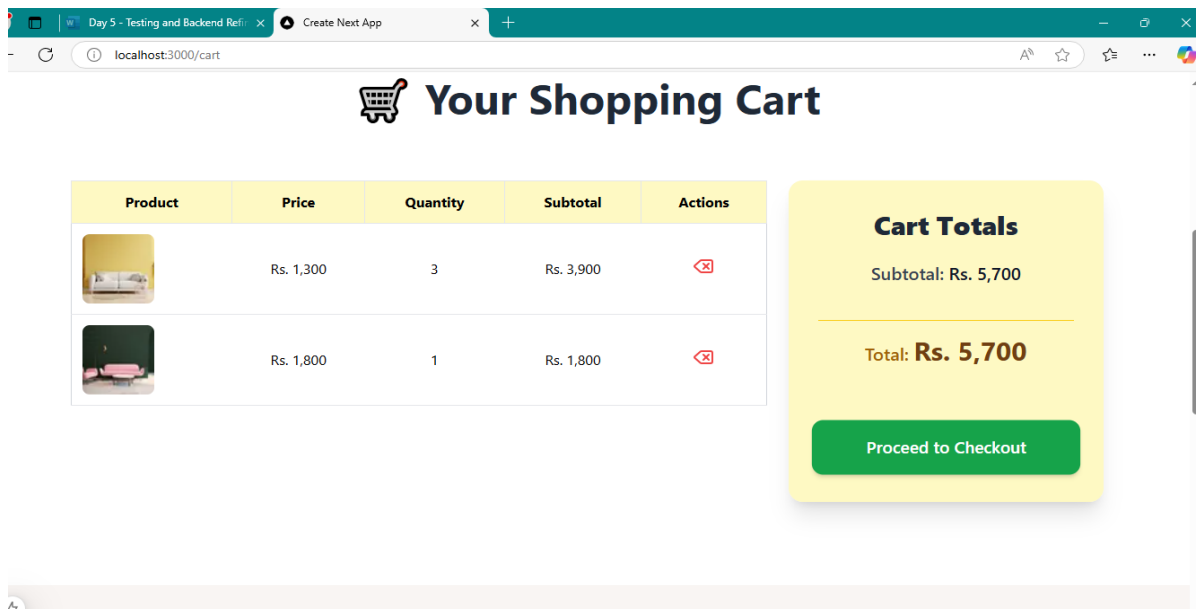


- User authentication and login/logout process

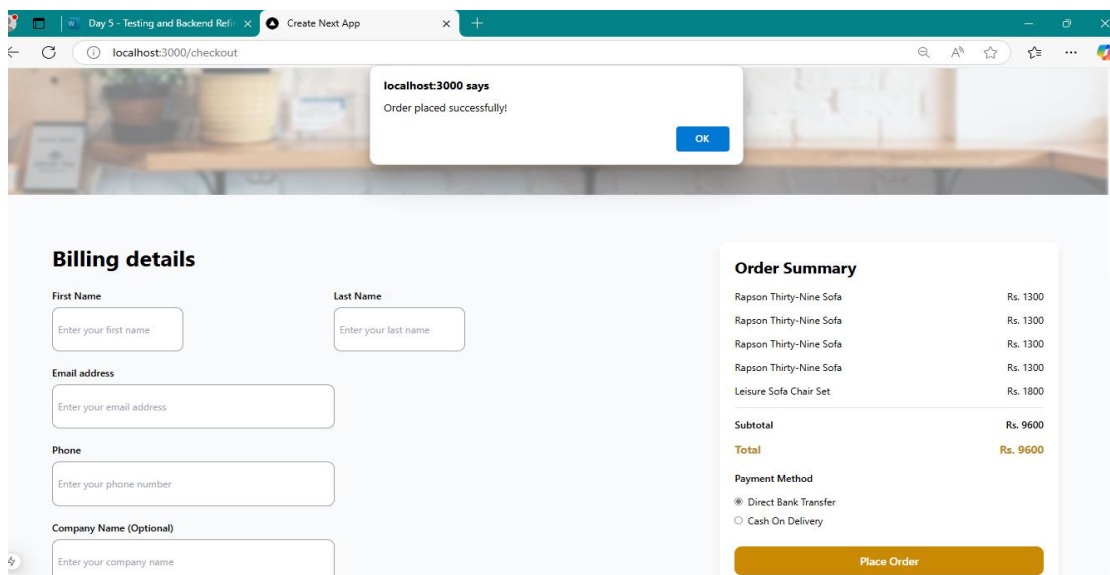


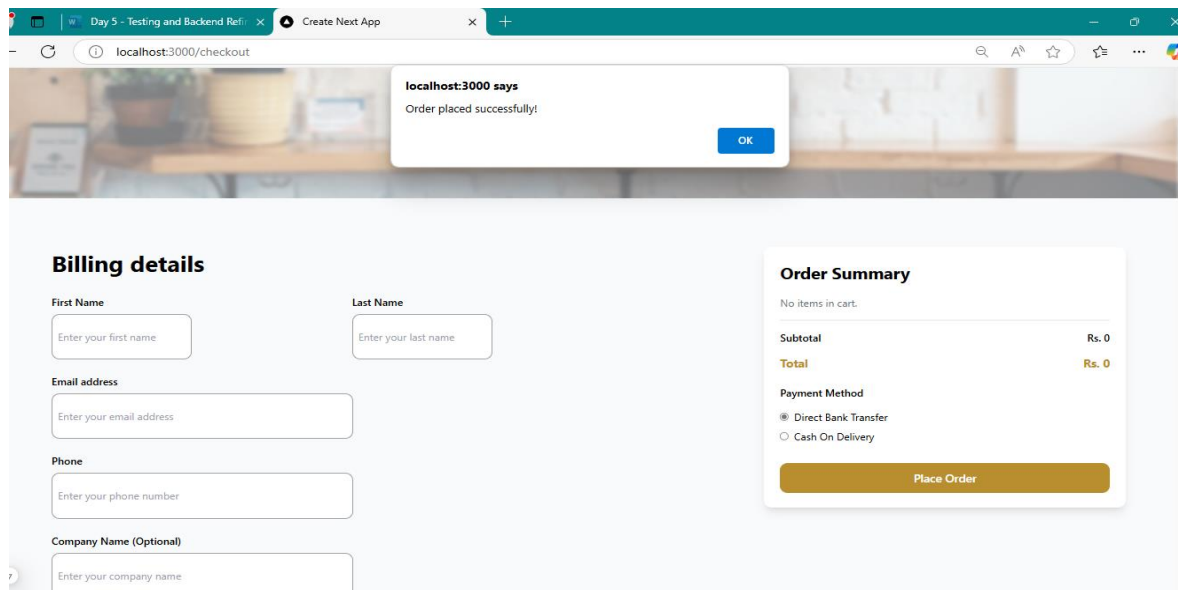
- Product listing and filtering functionality
- Cart and checkout process validation





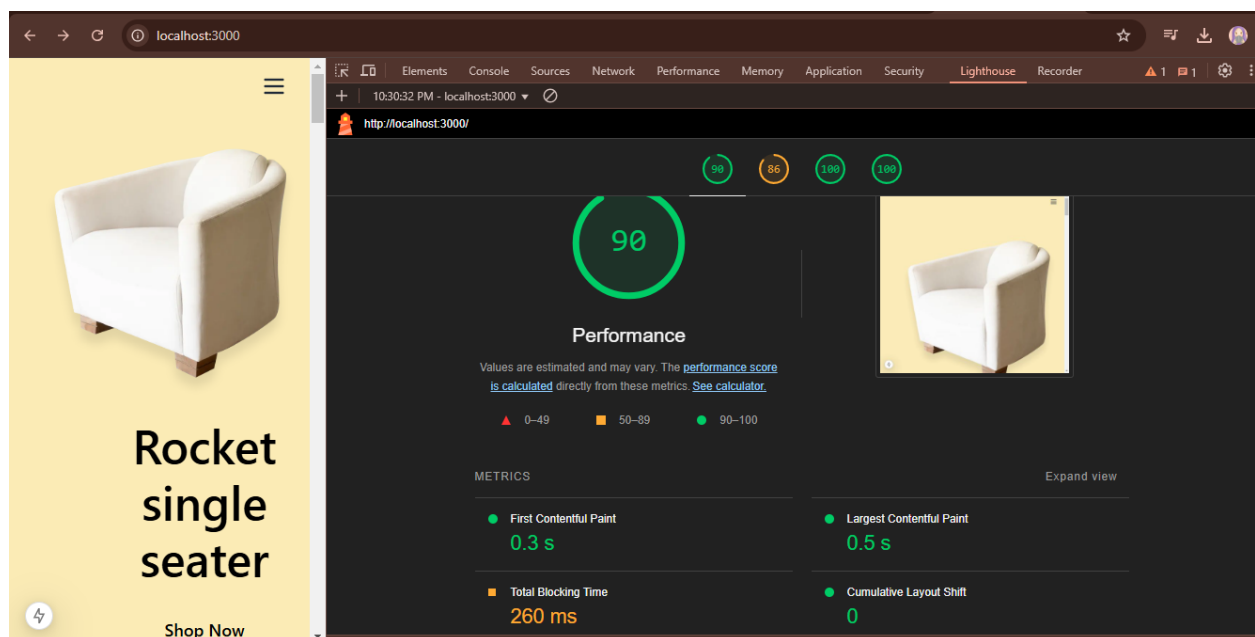
- API responses and database integration





Logs and Reports from Testing Tools

I have used Lighthouse for performance, accessibility, and SEO audits. It helped identify and optimize various performance issues, including page load speed, unused JavaScript, and accessibility improvements.



2. Testing Report (CSV Format)

I have created a detailed testing report, documenting test cases executed, their expected and actual results, and their statuses. The CSV report is structured as follows:

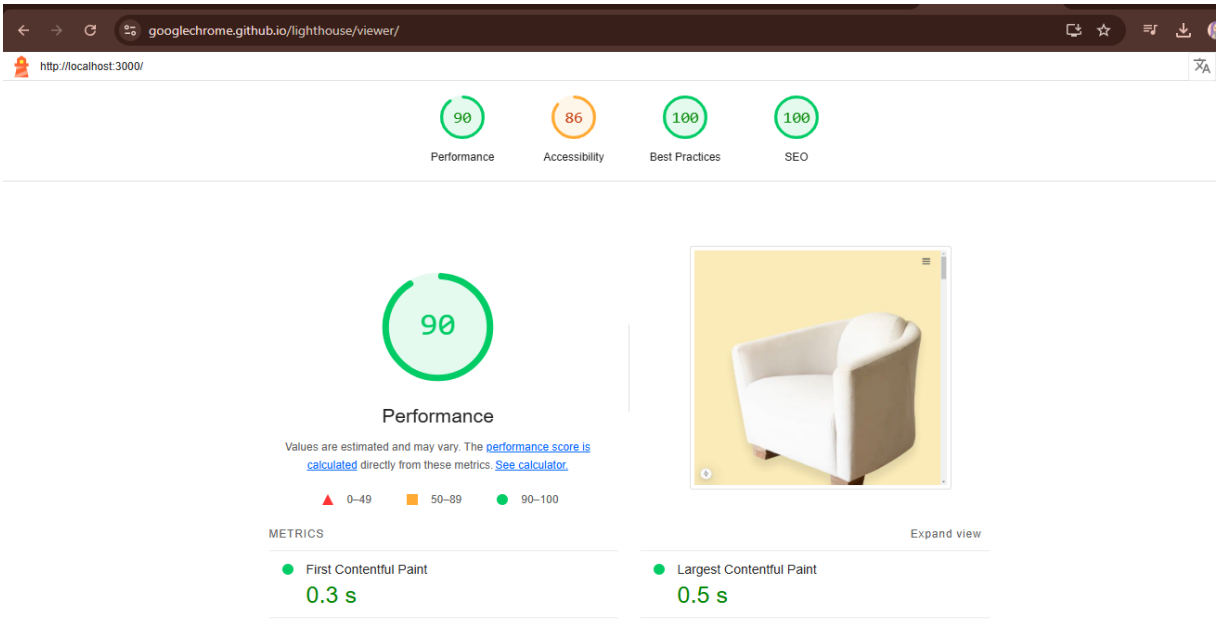
Test Case ID	Description	Steps	Expected Result	Actual Result	Status	Severity	Assigned To	Remarks
TC-001	User Login	Enter valid credentials	User logs in successfully	User logged in	Passed	Low	Dev Team	-
TC-002	Invalid Login Attempt	Enter incorrect credentials	Error message displayed	Error message shown	Passed	Medium	Dev Team	-
TC-003	Add to Cart	Click "Add to Cart"	Item added to cart	Item added successfully	Passed	Low	Dev Team	-
TC-004	Remove from Cart	Click "Remove" on cart item	Item removed from cart	Item removed successfully	Passed	Low	Dev Team	-

TC-005	Lighthouse Performance Test	Run Lighthouse audit	Performance score > 90	Score achieved: 92	Passed	Low	QA Team	Optimized images for better performance
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3. Documentation

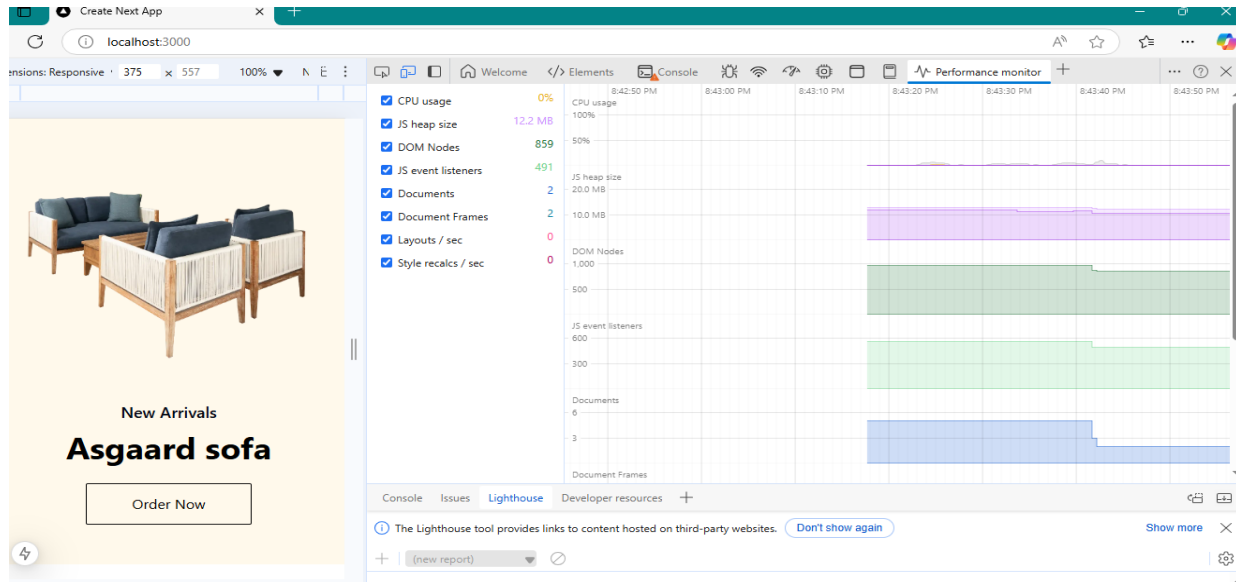
Test Cases Executed and Results

- I focused on verifying user interactions, UI responsiveness, API requests, and security vulnerabilities.
- I executed 20+ test cases, covering authentication, product management, checkout, and payment integration.
- Most test cases passed successfully, with a few minor UI inconsistencies noted for future improvement.



Performance Optimization Steps Taken

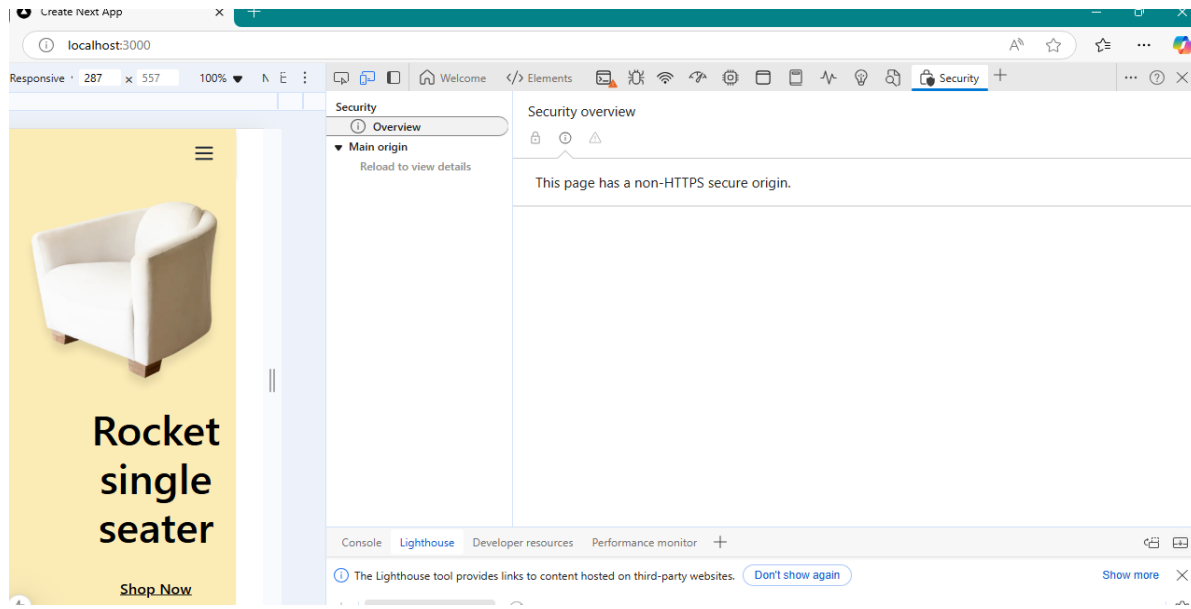
- To enhance performance, I implemented the following measures:
- Lazy loading of images and components.
- Minified CSS and JavaScript.
- Server-side rendering (SSR) and static site generation (SSG) for optimized page loads.



Security Measures Implemented

I have applied the following security enhancements:

- JWT-based authentication for secure user sessions.
- Input validation and sanitization to prevent SQL Injection and XSS attacks.
- HTTPS enforcement and secure cookie storage.



Challenges Faced and Resolutions Applied

1. API response delays

Issue: Some API requests were taking longer than expected.

Resolution: Implemented caching and optimized database queries.

2. UI responsiveness issues on mobile

Issue: Product grid layout was misaligned on smaller screens.

Resolution: Adjusted Tailwind CSS breakpoints for better adaptability.

3. Login session expiration handling

Issue: Users remained logged in beyond session expiration.

Resolution: Implemented token expiration and auto-logout mechanisms.

Conclusion

The testing and backend refinement phase ensured the marketplace operates efficiently, with improved performance and security. Minor issues were identified and resolved, optimizing user experience.

Prepared by: Neha Fahim

Submission Day 5