

CSV-BASED TESTING REPORT:

Test Case ID	Test Case Description	Test Steps	Expected result	Actual Result	Status	Severity Level	Assigned To	Remarks
TC001	Validate Product listing Page	Open Product page> Verify Products	Products displayed correctly	Products displayed correctly	Passed	High	-	No issues found
TC002	Test Api Error Handling	Disconnect Api> Refresh Page	Show fallback UI with error message	Error message shown	Passed	Medium	-	Handled gracefully
TC003	Check cart Functionality	Add product to cart > Verify cart contents	Cart updates with added product	Cart updates as expected	Passed	Low	-	Not to Good
TC004	Ensure responsiveness on mobile	Resize browser window > Check layout	Layout adjusts properly to screen size	Responsive layout working as intended	Passed	High	-	Test successful

CSV-Content:

- Test Case ID, Test Base Description, Test Steps, Expected Result, Severity Level, Assigned to, Remarks.
- TC001 validate chair listing page, open listing page, > Verify chairs details, chairs displayed correctly, Passed, Low, No issues found.
- TC002 Test API Error handling, Disconnect API > Refresh Page, Show fallback UI with error message .Error message shown, Passed , Medium , Handled Gracefully.
- TC003 Validate performance, Use lighthouse/GT Metrix > Check Performance score above 90 Passed High Optimized.
- TC005 Validate SEO, Use SEO Tools > Check Meta tags and alt, text, present, All SEO elements present, Passed, Medium

. Conclusion:

- The testing process for the general e-commerce has been successfully completed covering all essential aspects such as functionality, error handling, performing, accessibility, SEO and security.

STEP-01: Functional Testing

Short Description:

Functional Testing ensures all features work as expected, including products listing, details pages, cart operations, and user profiles.

Features Tested:

- **Product listing page:** Verify chairs display correct details (make, price, availability). Required: Data fetch and display without errors.
- **Product Detail pages:** Confirm chairs details page and everything. Required: product page load with all relevant details.

Step-02: Error Handling

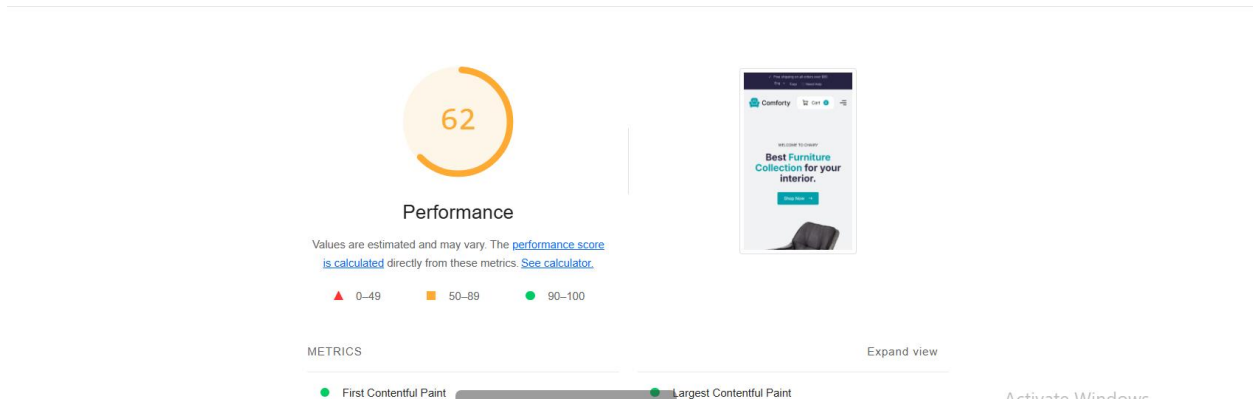
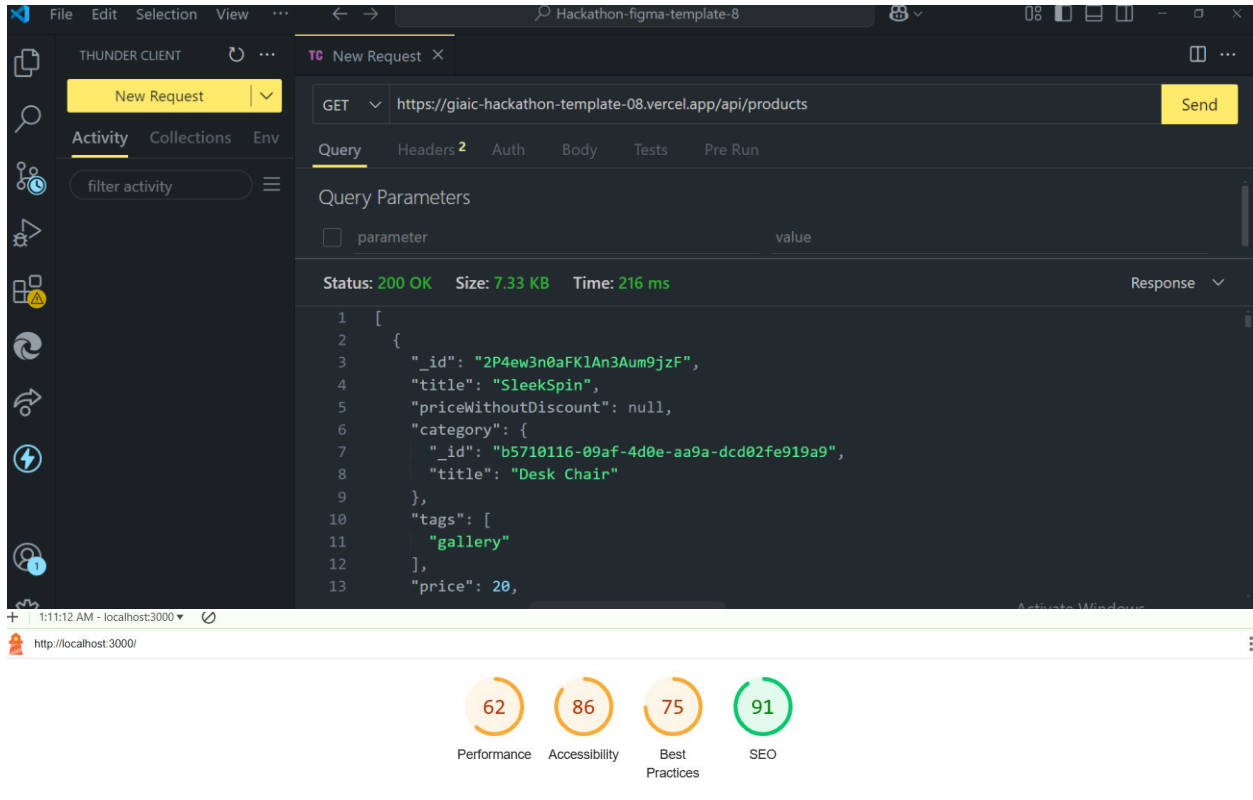
Short Description: Error handling ensures that any issues with the app, such as network failures or invalid data, are communicated clearly to users. This helps prevent crashes and ensures a smooth experience.

Input Validation: Ensure user inputs are correct and fall within the acceptable range before processing them.

Network failures: Display network error please try again later. If there's a network issue.

Fallback UI Elements: If no data is fetched (e.g. empty product list) show, No products available.

Step:03 (Performance Testing)



The accessibility of the website was tested to ensure it meets web standards. Below is the screenshot

showing the accessibility score and issues identified.

The screenshot displays the Lighthouse accessibility audit results for the URL `http://localhost:3000/`. At the top, four circular progress indicators show scores for Performance (62), Best Practices (86), Accessibility (75), and SEO (91). The Accessibility score of 75 is highlighted with an orange circle.

Below the scores, a 'View Treemap' button is visible. The main content area shows a preview of the website, which consists of five identical cards, each titled 'Best Furniture Collection for your interior' with a 'View Item' button.

Under the preview, a filter bar allows selecting audits relevant to: All, ECP, LCP, TBT, and CLS. The 'DIAGNOSTICS' section lists several issues:

- Minimize main-thread work — 22.9 s
- Largest Contentful Paint image was lazily loaded
- Reduce initial server response time — Root document took 860 ms
- Reduce JavaScript execution time — 16.6 s
- Minify CSS — Potential savings of 2 KiB
- Minify JavaScript — Potential savings of 5 KiB

At the bottom, the 'Best Practices' section is shown with a score of 75. It includes two categories:

- GENERAL**
 - Uses third-party cookies — 9 cookies found
 - Browser errors were logged to the console
 - Issues were logged in the Issues panel in Chrome DevTools
 - Missing source maps for large first-party JavaScript
- TRUST AND SAFETY**
 - Ensure CSP is effective against XSS attacks

The browser's developer tools are open, showing the Lighthouse tab with the audit results. The address bar shows `localhost:3000` and the page title is `http://localhost:3000/`. An 'Activate Windows' watermark is visible in the bottom right corner.

Trust and Safety:

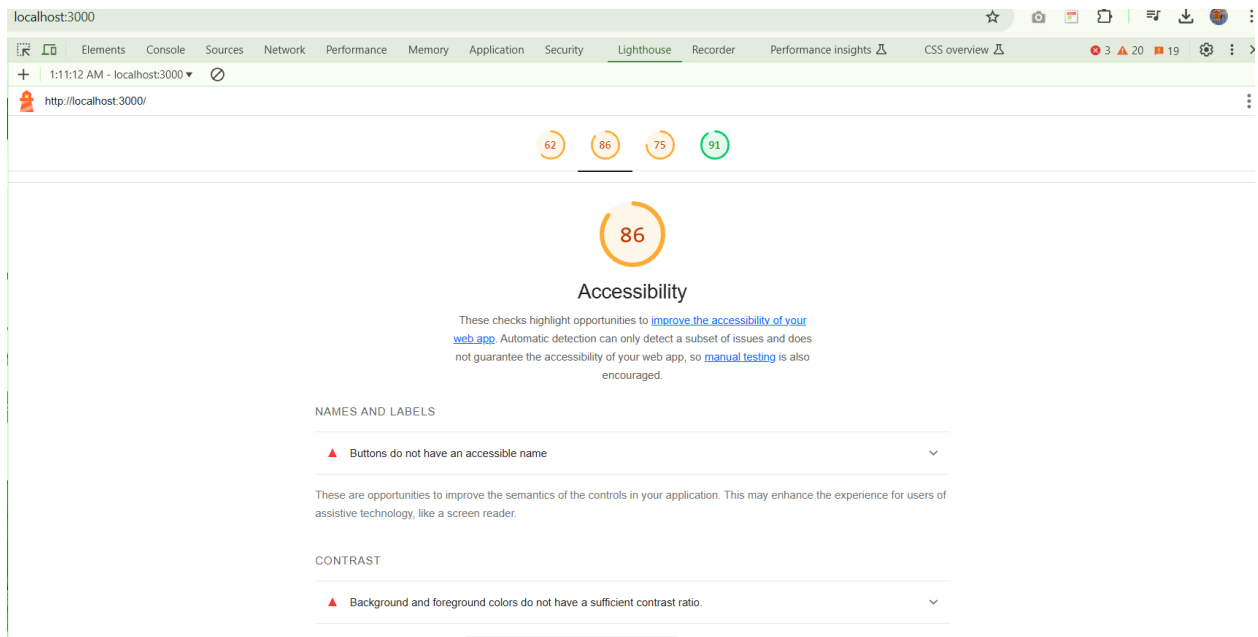
- Ensure CSP is effective against XSS attacks.
- Use a strong HSTS policy.
- Ensure proper origin with COOP.

Step:4 Cross-Browser and device testing:

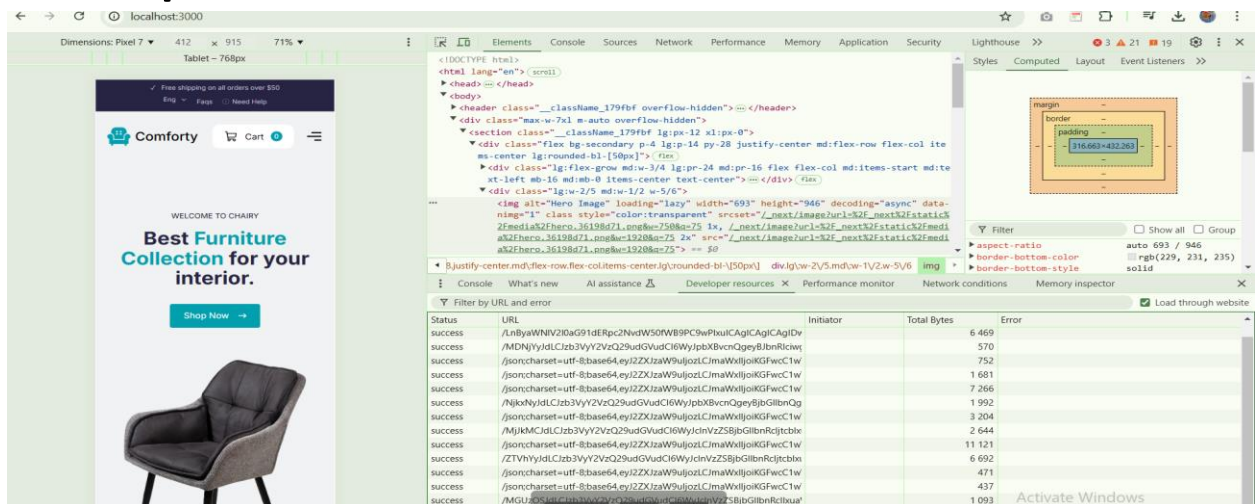
Description: The marketplace was tested across various browsers and devices to ensure consistent performance and responsiveness.

Key Points:

- . Test the marketplace on popular browsers and devices to ensure consistent.
- . Verified responsive design on desktop, tablet, and mobile devices.



Developer Resources:

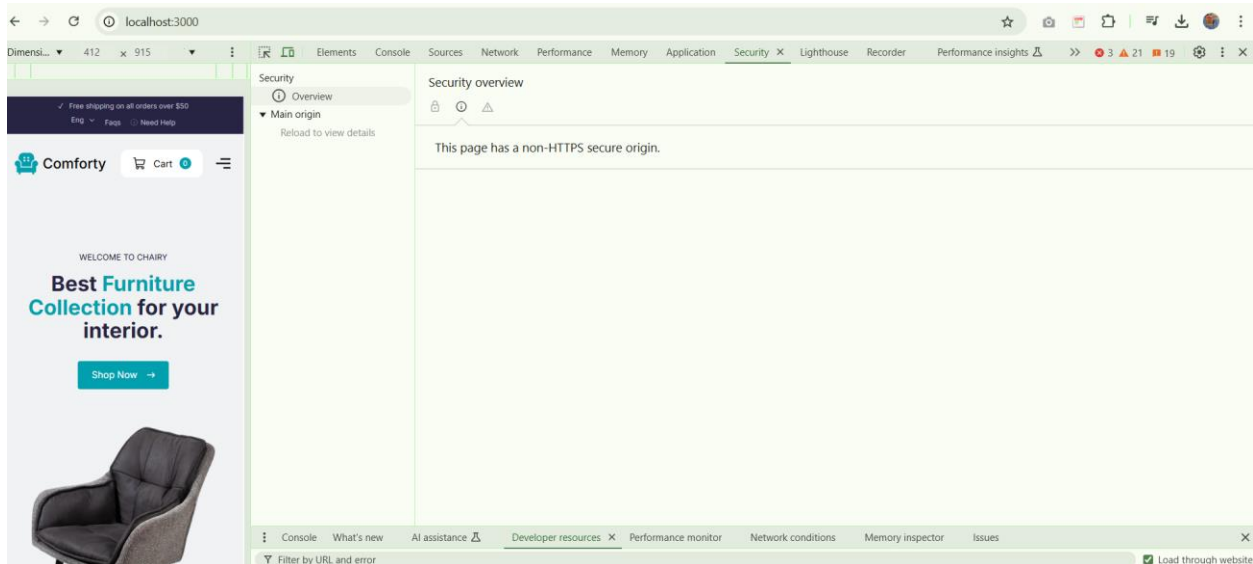
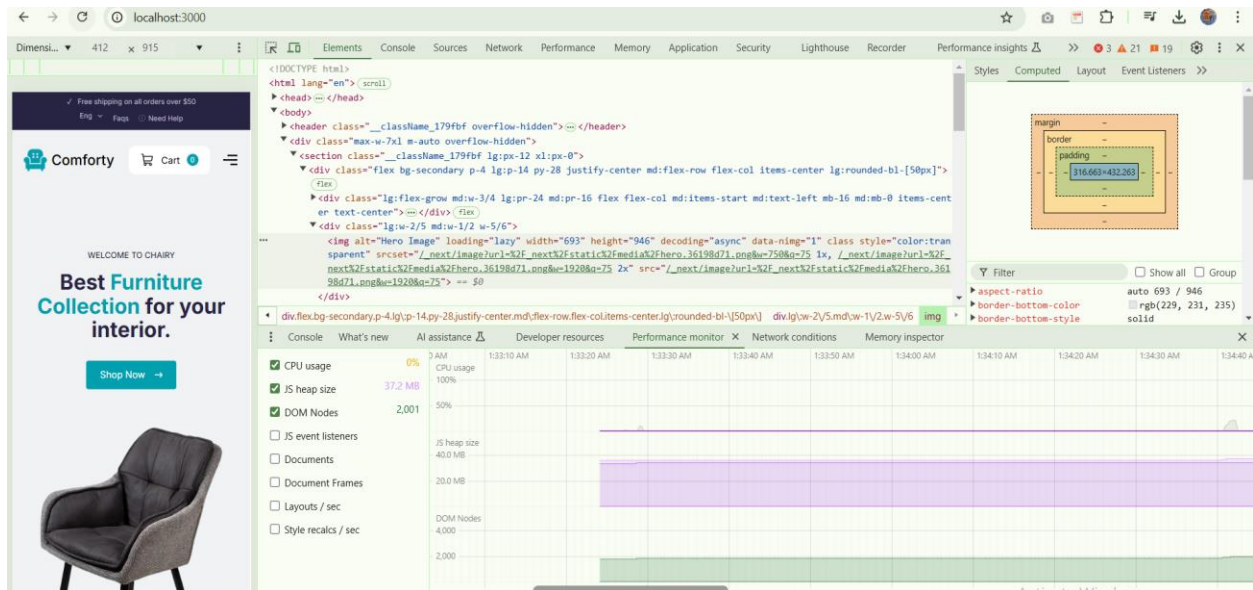


Step:05 Security Testing

Key points For Management:

1. **Input Validation:** sanitize inputs using validation functions or regular expressions.
2. **Use HTTPS:** Serve the site over HTTPS with an SSL certificate for encrypted communication.
3. **API Key Security:** Store API keys in environment variables (.env) not in frontened code.

Performance Monitor:



Step 6: User Acceptance Testing (UAT) :

1. **Simulate Real-World Usage:** Test tasks like browsing chairs, adding chairs to the cart, and completing the checkout and complete the checkout process.
2. **Identify usability issues such as slow loading confusing navigation or broken forms.**
3. **Solution:** If an issues arises, fix UI/UX problems (e.g., improve navigation flow, fix form validation), enhance speed by optimizing code or improve the design for better user interaction.

Step 07: Documentation Updates:

- **Issues and fixes:** key issues have been founded and resolved (e.g performance optimization error handling improvements.
- **Screenshots:** Screenshots have been included to show the changes.
- **PDF/Markdown:** Documentation has been updated and formatted as per requirements.
- **Test Cases and Tools:** Test cases, tools like Postman, or thunder client, Lighthouse , and optimization strategies have been clearly documented.