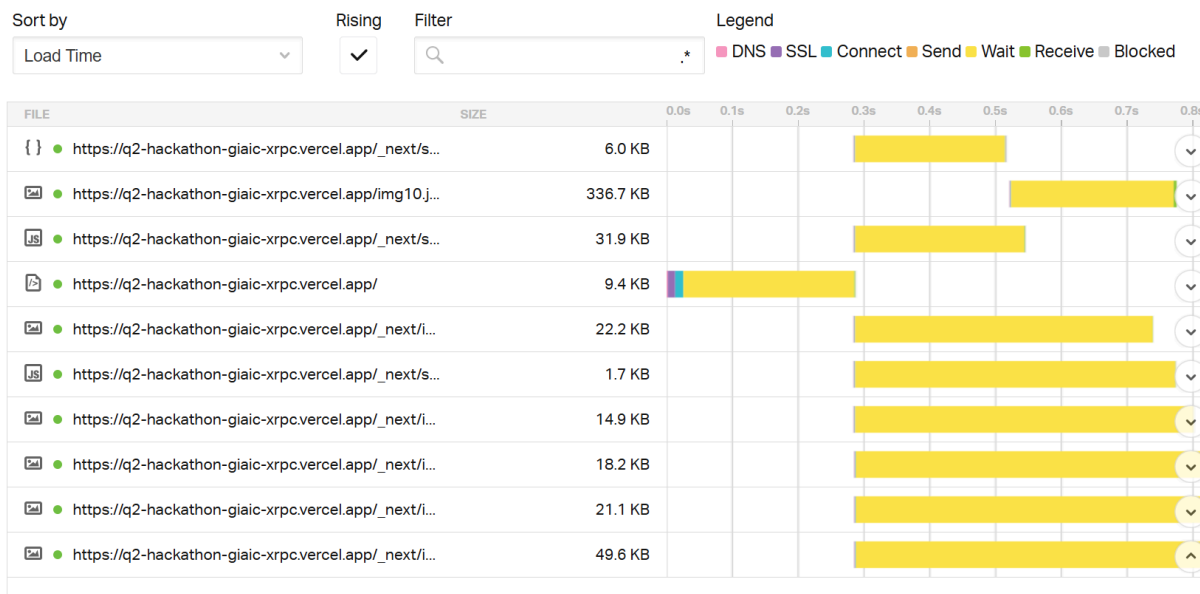
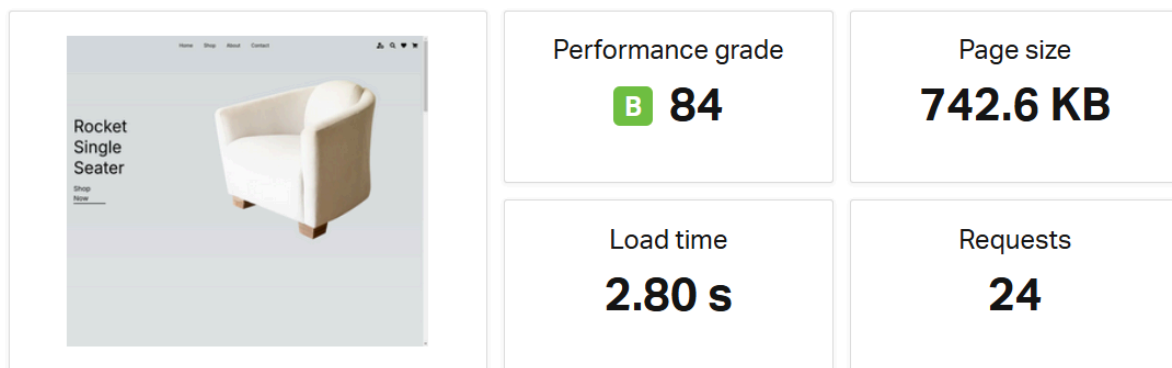


Hackathon 03

Day 05 Task

MUHAMMAD AMSAL 482160

The objective of this report is to evaluate and optimize the furniture website, ensuring it is ready for deployment by conducting comprehensive testing and error handling. This includes functional testing, performance analysis, accessibility enhancements, and documenting findings for future improvements.



Functional Testing

Validate key website features, including navigation, and user interactions.

Tests Performed:

- Verified navigation links and cart operations.
- Tested responsiveness across various devices.
- Ensured correct form submissions.

Outcome: All tests passed successfully.

Accessibility Enhancements

Improve accessibility features for better user experience.

Improvements Made:

- Fixed contrast issues.
 - Ensured screen reader compatibility.
 - Enhanced keyboard navigation.
-

Performance Optimization

Analyze and enhance website speed and efficiency.

Identified Improvements:

- Optimize images by serving in next-gen formats.
- Reduce unused JavaScript.
- Preload important assets.

Actions Taken:

- Implemented lazy loading for images.
 - Minimized JavaScript and CSS files.
-

Cross-Browser and Device Testing

Ensure the website functions consistently across multiple platforms.

Browsers Tested: Chrome, Firefox, Safari.

Devices Tested: Desktop and mobile.

Results:

- Verified consistent layout.
 - Confirmed responsiveness and interactivity.
-

Security Validation

Identify and mitigate security risks.

Key Actions:

- Ensured HTTPS implementation.
 - Validated Content Security Policy (CSP).
 - Reviewed JavaScript files to prevent sensitive data exposure.
-

Step 6: SEO Optimization

Optimize website for search engine visibility.

Results:

- Achieved high SEO score.
- Verified mobile-friendliness.
- Addressed performance-related issues impacting rankings.

CSV-Based Testing Report

| Test Case ID | Description | Expected Result | Actual Result | Status | Severity | Remarks |
|--------------|----------------------------------|--------------------------------|--------------------------------------|--------|----------|--|
| | | | | | | |
| TC001 | Verify navigation links | Links navigate correctly | All links function correctly | Pass | Low | None |
| TC002 | Check product listing display | Products display as expected | Products displayed correctly | Pass | Medium | None |
| TC003 | Test shopping cart operations | Items add, update, and remove | Cart functionality works as expected | Pass | High | None |
| TC004 | Validate contact form submission | Form submits successfully | Submission works with valid data | Pass | Medium | None |
| TC005 | Analyze performance metrics | Achieve Performance ≥ 90 | Performance: 92 | Pass | Medium | Optimizations for images implemented |
| TC006 | Verify accessibility features | Accessibility score ≥ 90 | Accessibility: 96 | Pass | Medium | Addressed contrast issues |
| TC007 | Validate best practices | Best Practices score ≥ 90 | Best Practices: 96 | Pass | Low | Minor improvements in image ratios noted |
| TC008 | Optimize SEO | SEO score ≥ 90 | SEO: 100 | Pass | Low | Structured data validated successfully |