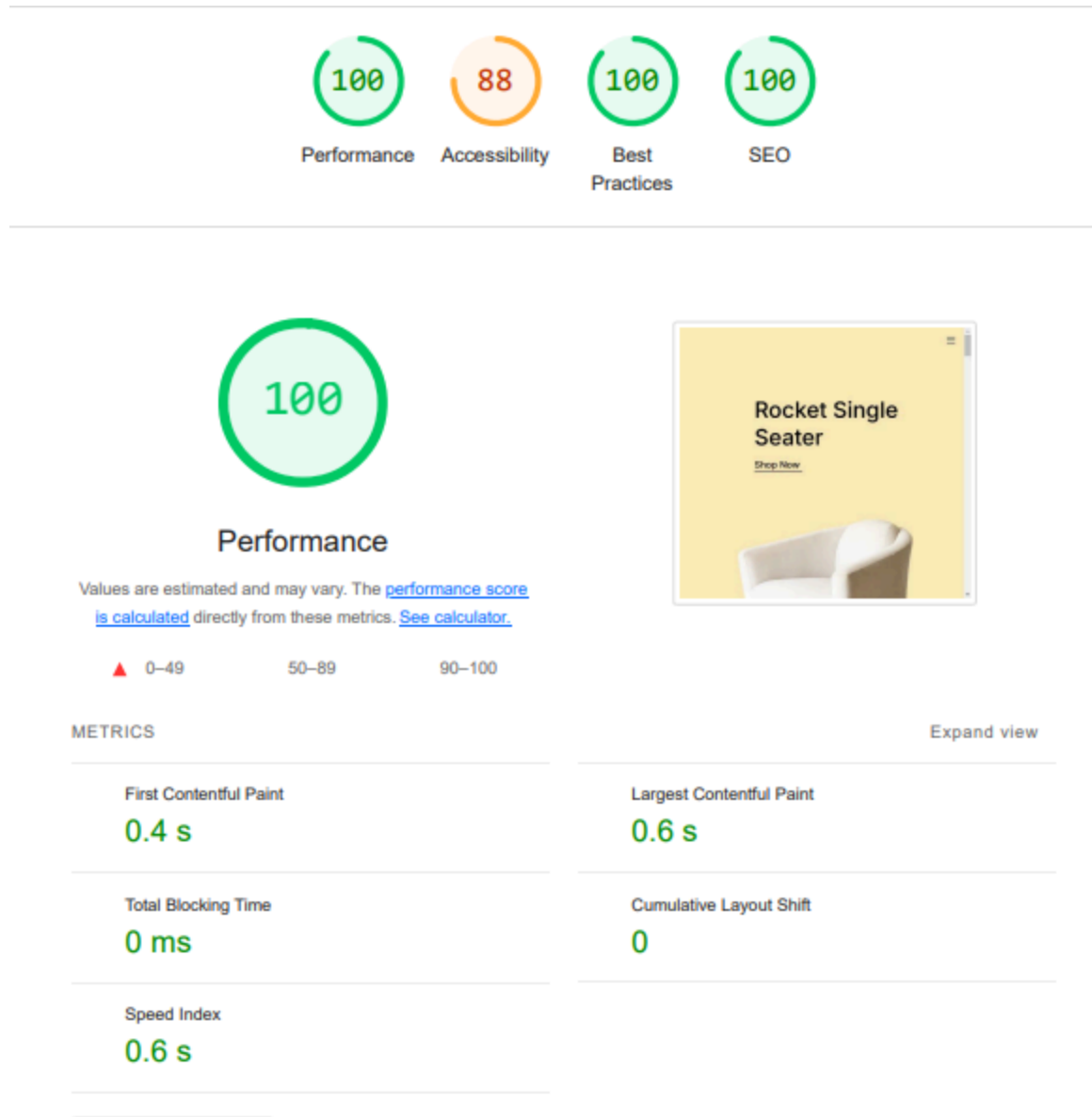


# **Hackathon 03**

## **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.

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## Accessibility Enhancements

Improve accessibility features for better user experience.

### Improvements Made:

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

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## 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.

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## 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.
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## 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.
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## 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
				Pass		
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 $\geq 90$	Performance: 92	Pass	Medium	Optimizations for images implemented
TC006	Verify accessibility features	Accessibility score $\geq 90$	Accessibility: 96	Pass	Medium	Addressed contrast issues
TC007	Validate best practices	Best Practices score $\geq 90$	Best Practices: 96	Pass	Low	Minor improvements in image ratios noted
TC008	Optimize SEO	SEO score $\geq 90$	SEO: 100	Pass	Low	Structured data validated successfully