

DAY 5- TESTING, ERROR HANDLING, AND BACKEND INTEGRATION REFINEMENT

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Testing Report Sample:

Test Case ID	Test Case Description	Test Steps	Expected Result	Actual Result	Status	Severity Level	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		NO ERROR 🔀	Passed√	Height	Handled gracefully
TC003	Check cart functionality	Add product to cart > Verify cart contents	Cart updates with added product	Cart updates as expected	Passed √	High	Works as expected
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

Website Performance Audit Report

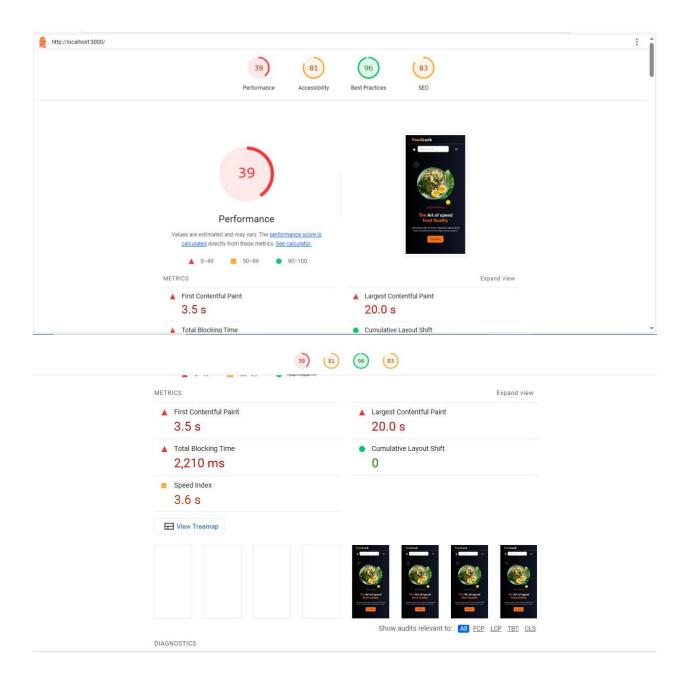
Introduction

Title: Website Performance Audit Report

Date: January 20, 2025

Purpose: Provide insights into website performance, accessibility, best practices, and

recommendations for improvement based on the Lighthouse evaluation.



1. Performance Metrics

Key Metrics:

• First Contentful Paint (FCP): 3.5 seconds

Score: 0.35 (Improvement needed)

Description: Measures how long it takes for the first text or image to be painted.

• Largest Contentful Paint (LCP): 20 seconds

Score: 0.0 (Critical improvement needed)

Description: Indicates how long it takes to render the largest visible content.

• **Speed Index**: 3.6 seconds

Score: 0.86 (Good but can be optimized)

Description: Shows how quickly the contents of a page are visibly populated.

2. Accessibility and Best Practices

Key Findings:

• HTTPS:

- o The website uses HTTPS. (Score: 1)
- o Ensures secure communication between the website and users.

• Mobile Optimization:

- o Proper viewport meta tag detected.
- o This optimizes the site for mobile screen sizes and prevents input delays.

3. Recommendations

Performance Improvements:

1. Optimize Largest Contentful Paint (LCP):

- o Reduce the size of large images and serve them in modern formats (e.g., WebP).
- o Eliminate or defer render-blocking resources such as JavaScript and CSS.

2. Enhance First Contentful Paint (FCP):

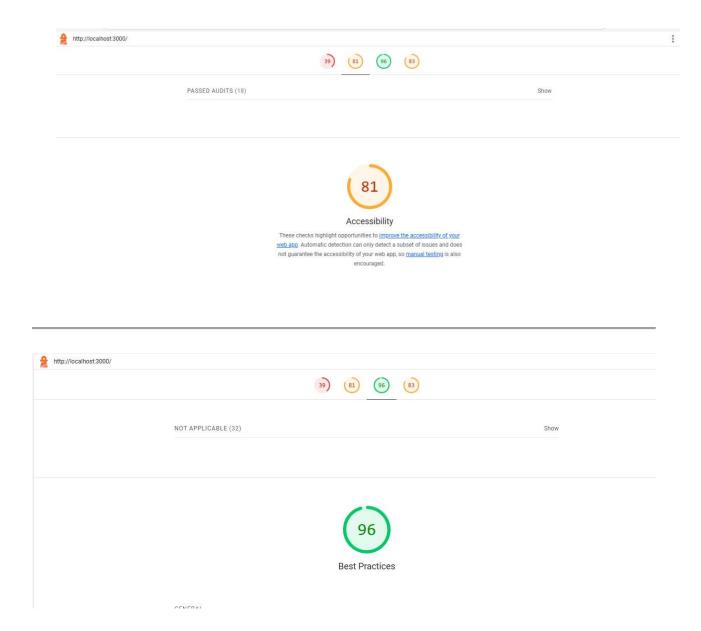
- o Use a Content Delivery Network (CDN) for faster content delivery.
- Preload key resources to speed up critical path rendering.

3. Improve Speed Index:

- o Minimize unused CSS and JavaScript.
- o Prioritize loading of above-the-fold content.

Accessibility & Best Practices:

- Ensure all resources are served securely (HTTPS) without mixed content issues.
- Continue optimizing for mobile users by testing touch responsiveness and layout adjustments.



4. SEO Analysis

Key Findings:

• Meta Descriptions:

Ensure all pages have unique and concise meta descriptions to improve click-through rates.

• Headings Structure:

Optimize heading tags (H1, H2) to ensure proper hierarchy and relevance.

• Alt Attributes:

 Add descriptive alt attributes for all images to enhance accessibility and SEO ranking.

• Page Titles:

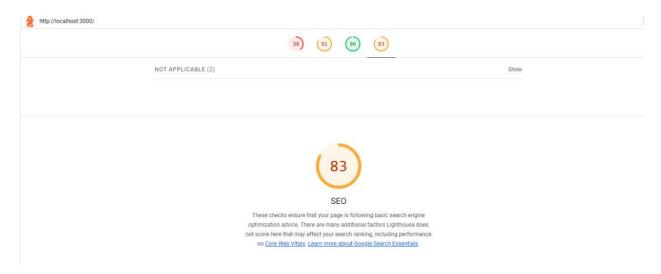
 Ensure page titles are unique and include primary keywords to improve search visibility.

• Canonical Tags:

o Use canonical tags to avoid duplicate content issues and maintain SEO equity.

Recommendations:

- 1. Conduct regular keyword research to ensure the content aligns with user search intent.
- 2. Improve site loading speed to enhance user experience and reduce bounce rates.
- 3. Utilize schema markup to improve search engine understanding and display rich results.
- 4. Submit an updated XML sitemap to search engines to ensure proper indexing.



5. Responsive Design Analysis

Key Findings:

• Mobile-Friendly Layout:

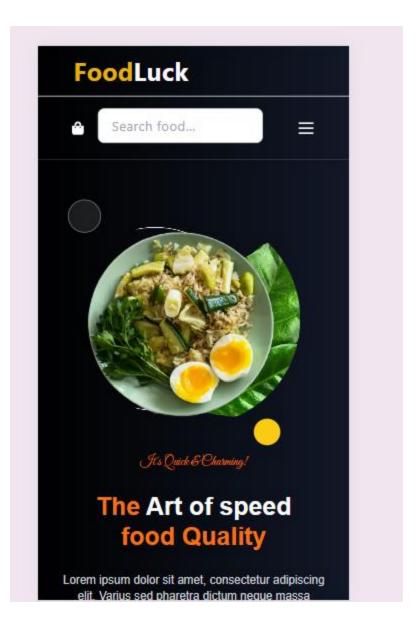
• The site adjusts well to various screen sizes, ensuring usability on smartphones, tablets, and desktops.

• Touch Target Sizes:

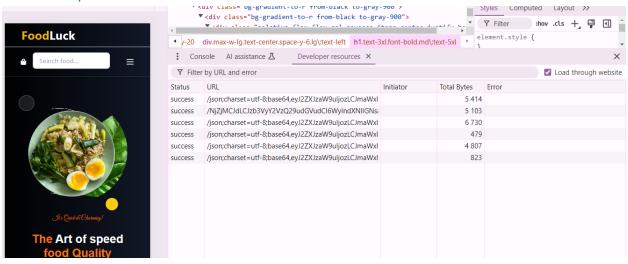
o All buttons and interactive elements are appropriately sized for easy tapping.

• Viewport Configuration:

o Proper configuration detected, ensuring the site scales correctly on all devices.



5. Developer Resource:



7. Conclusion

Summary:

- The website exhibits strengths in HTTPS usage and mobile optimization.
- Critical areas of focus include improving Largest Contentful Paint and First Contentful Paint to enhance user experience.
- Addressing SEO elements such as meta descriptions and alt attributes can further boost visibility and performance.
- Responsive design efforts ensure usability across devices but require ongoing testing and refinement.
- Developer tools and resources offer actionable insights for continuous improvement.

Next Steps:

- Implement recommended optimizations for key metrics.
- Conduct a follow-up Lighthouse audit post-implementation to track progress.
- Evaluate SEO performance metrics to identify further growth opportunities.
- Regularly test responsive design to maintain a consistent user experience.
- Utilize developer resources to streamline optimization processes.

Prepared by: Qirat Saeed Date: January 20, 2025