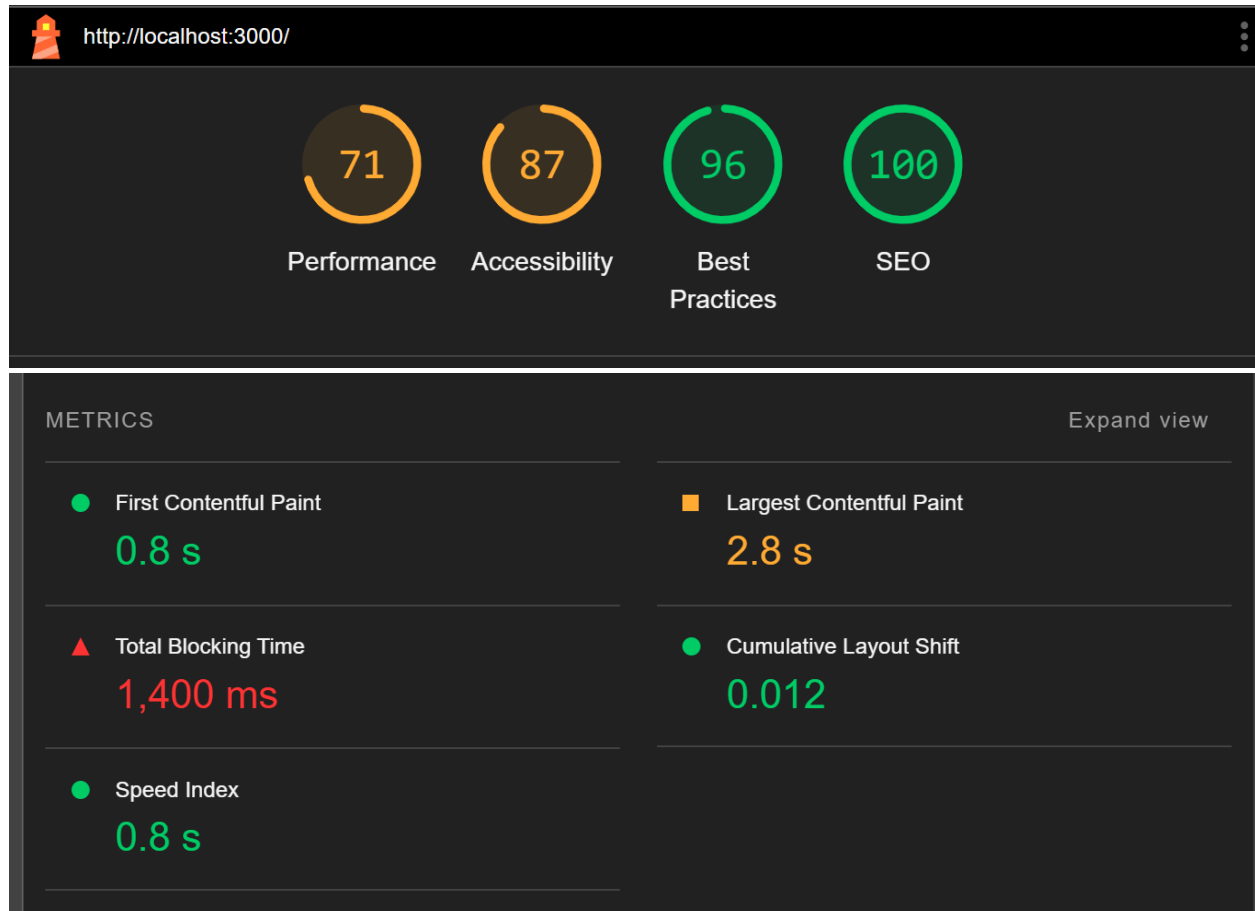


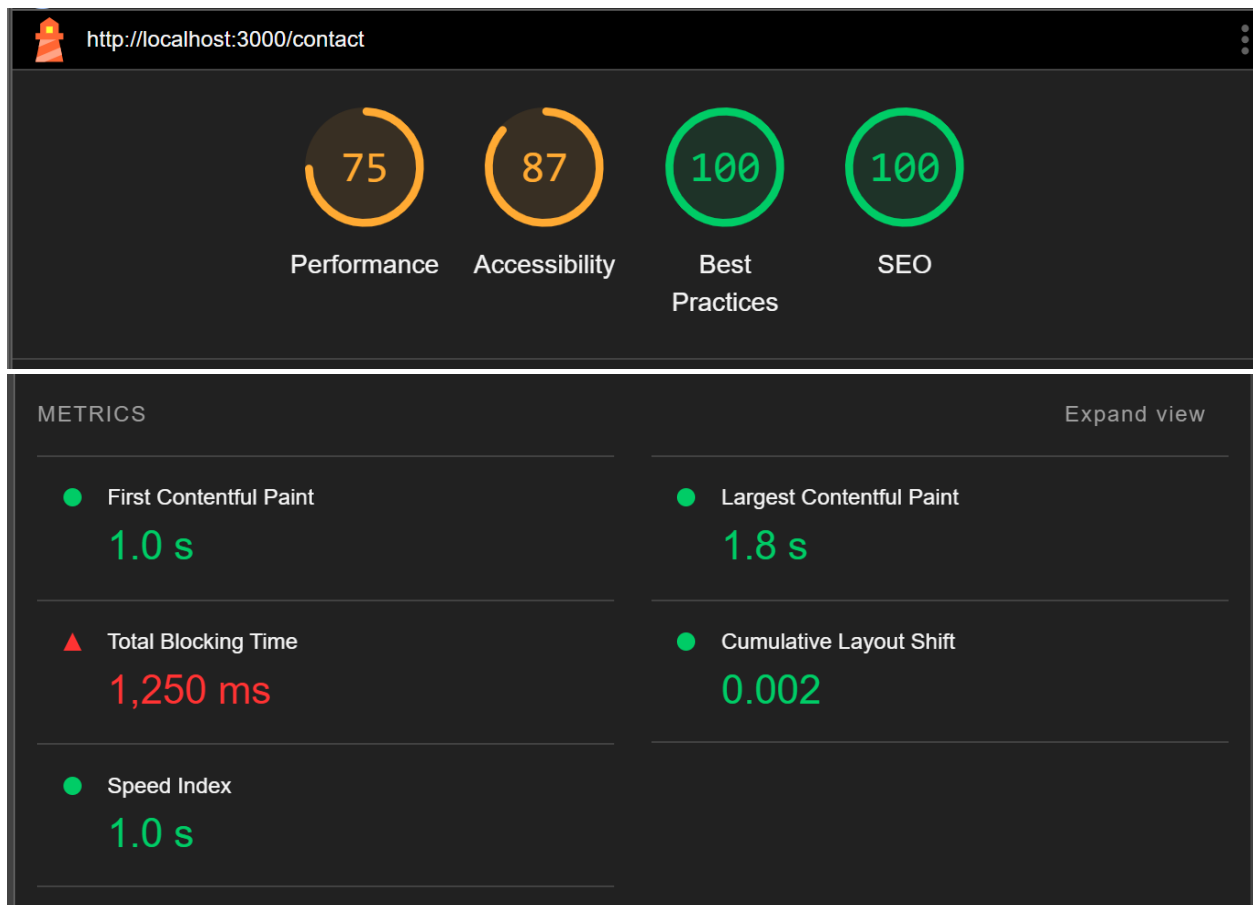
DAY 5 – HACKATHON

TESTING INDIVIDUAL PAGES NAVIGATION USING LIGHTHOUSE:

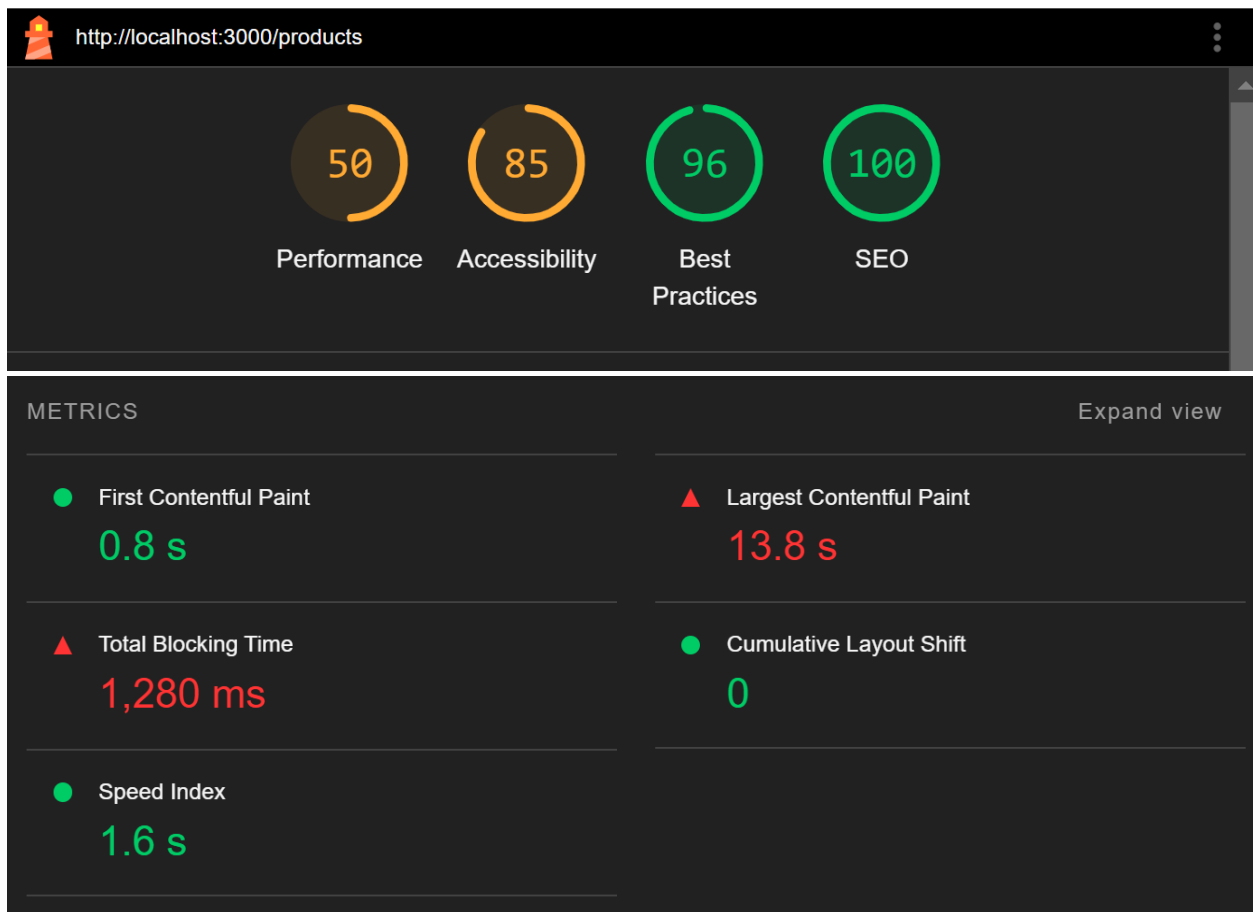
HOMEPAGE:



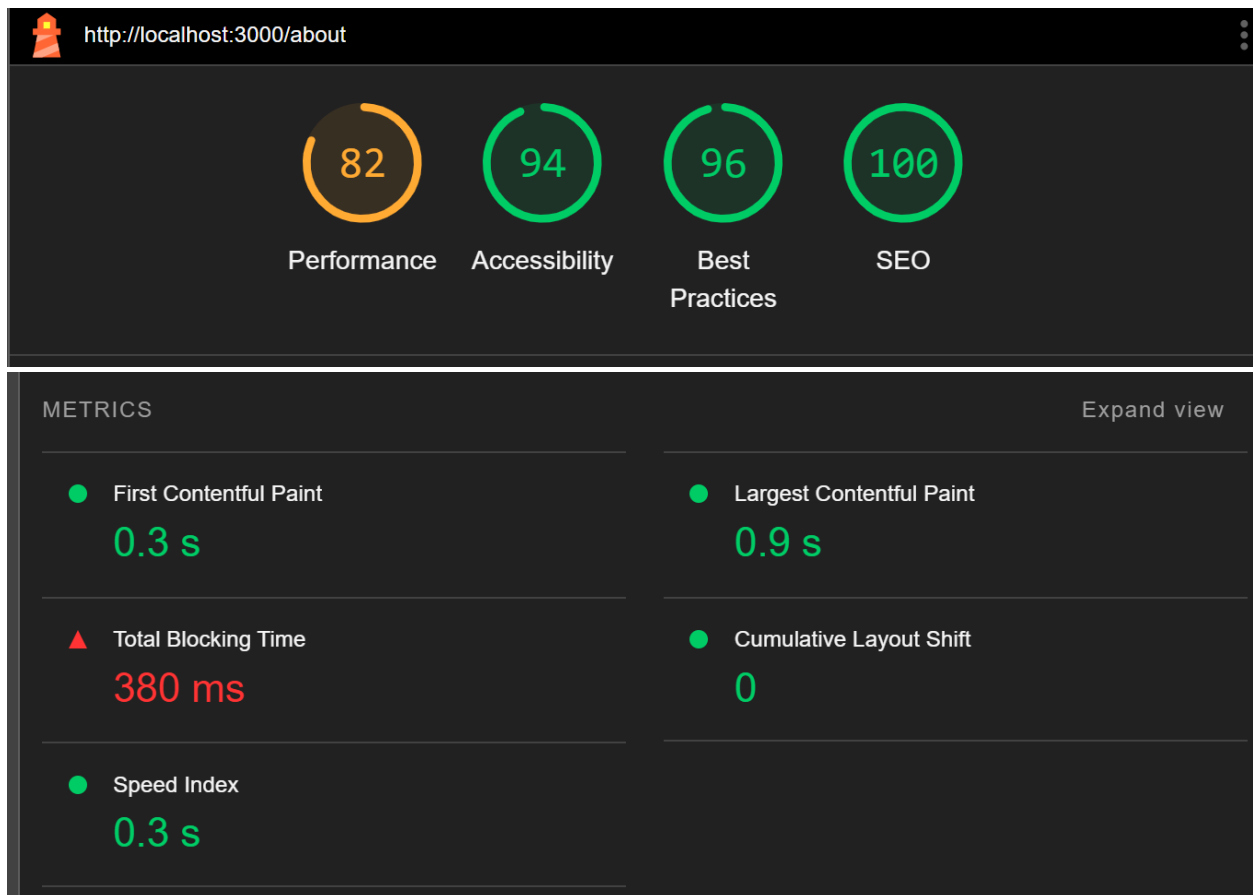
CONTACT:



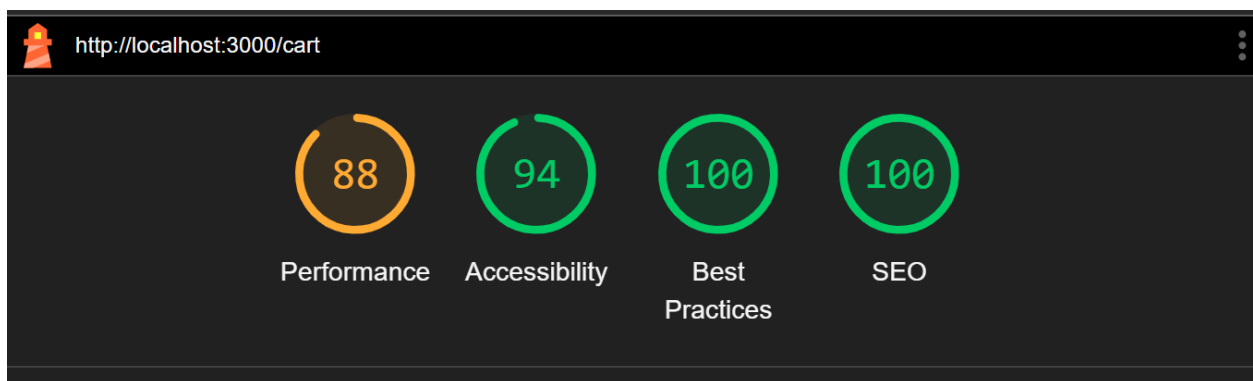
PRODUCTS:



ABOUT:




CART:



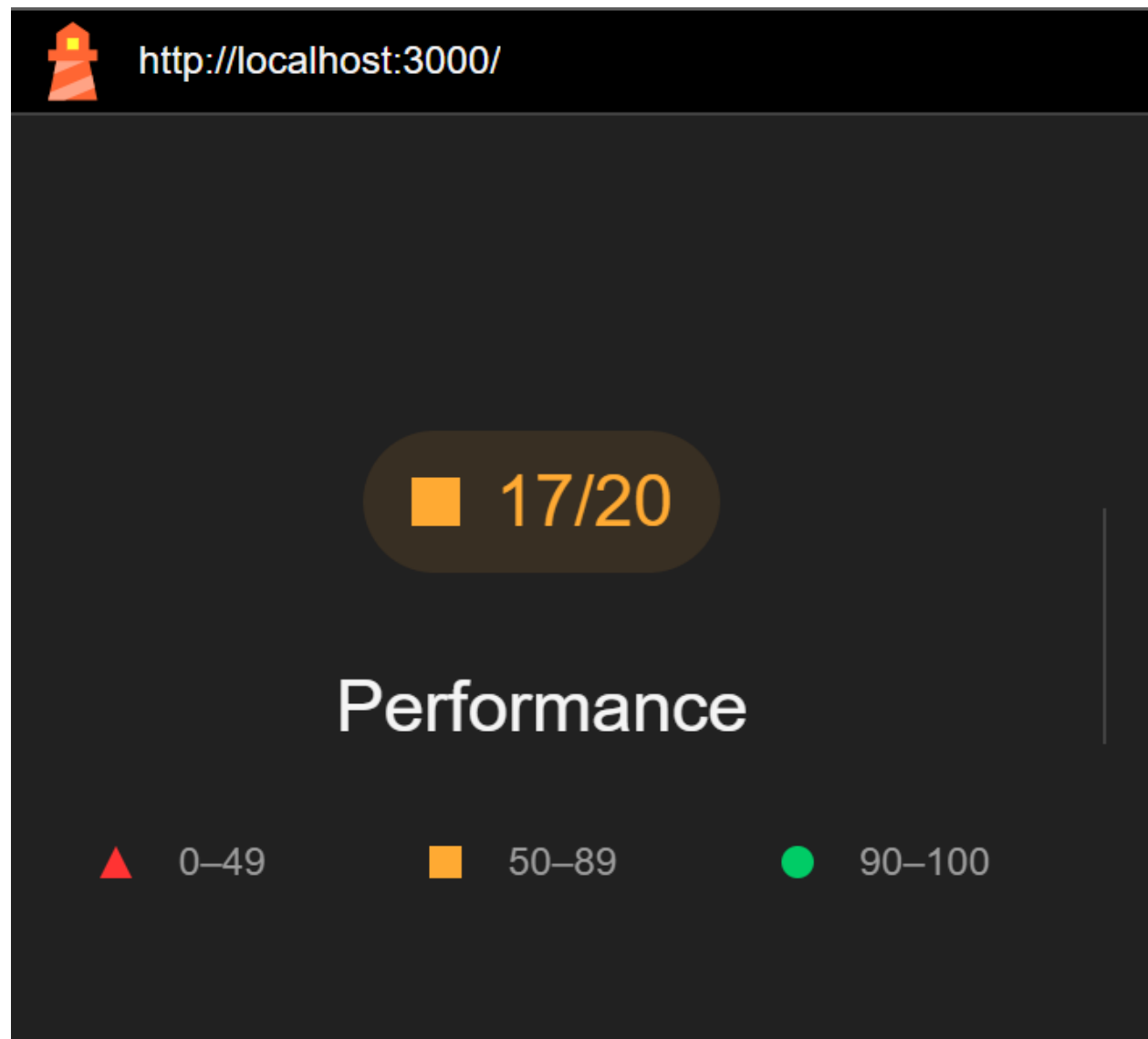
METRICS		Expand view
● First Contentful Paint	0.3 s	● Largest Contentful Paint
■ Total Blocking Time	290 ms	● Cumulative Layout Shift
● Speed Index	0.3 s	0

PRODUCT DETAIL (DYNAMIC):

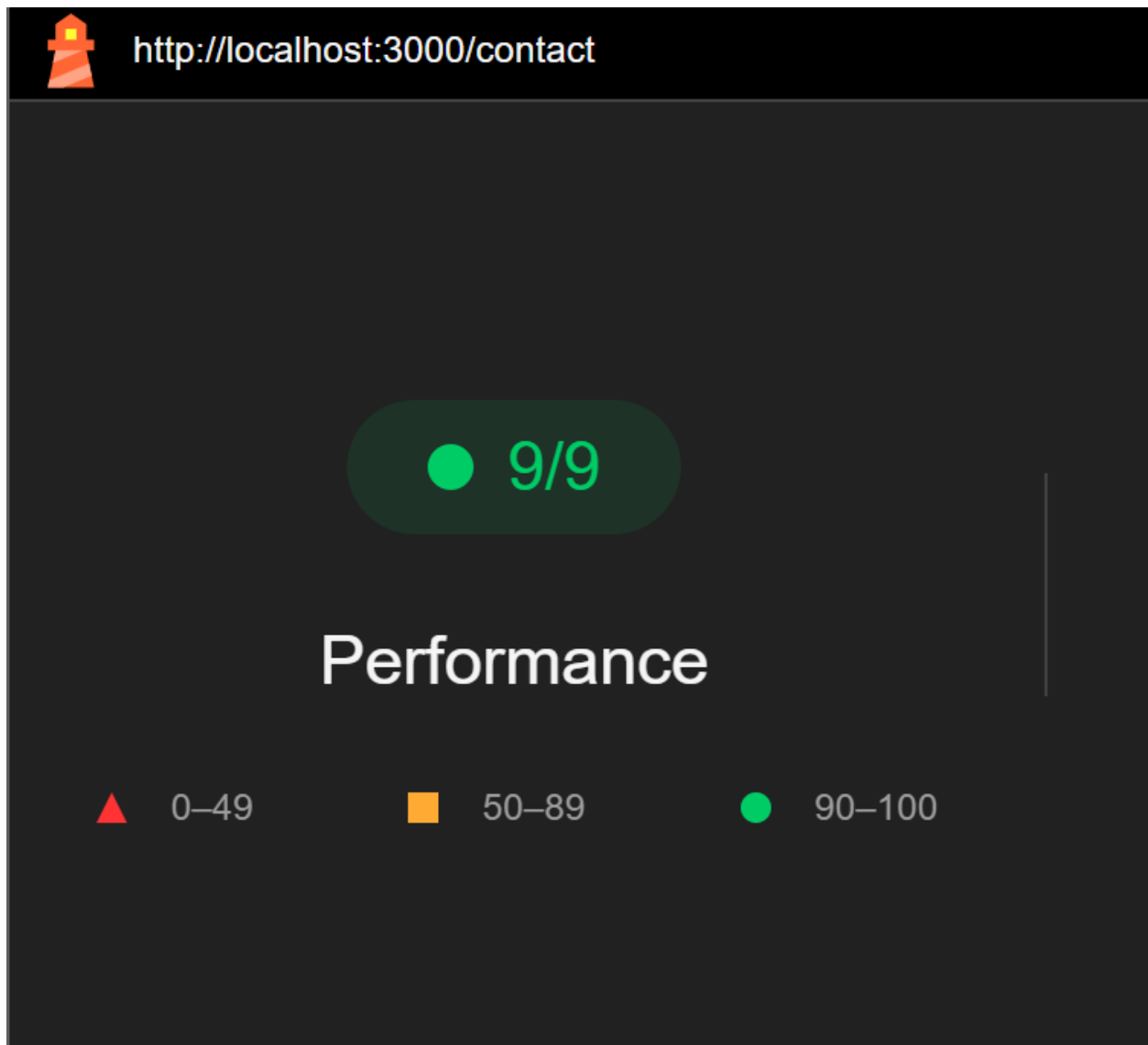
 http://localhost:3000/products/2			
62	96	96	100
Performance	Accessibility	Best Practices	SEO

METRICS		Expand view
● First Contentful Paint	0.3 s	▲ Largest Contentful Paint
▲ Total Blocking Time	520 ms	● Cumulative Layout Shift
● Speed Index	1.1 s	0.055

TESTING INDIVIDUAL PAGES TIMESPAN USING LIGHTHOUSE:



CONTACT:



PRODUCT:



http://localhost:3000/products

● 9/9

Performance



0–49



50–89



90–100

ABOUT:



http://localhost:3000/about

● 18/19

Performance



0–49



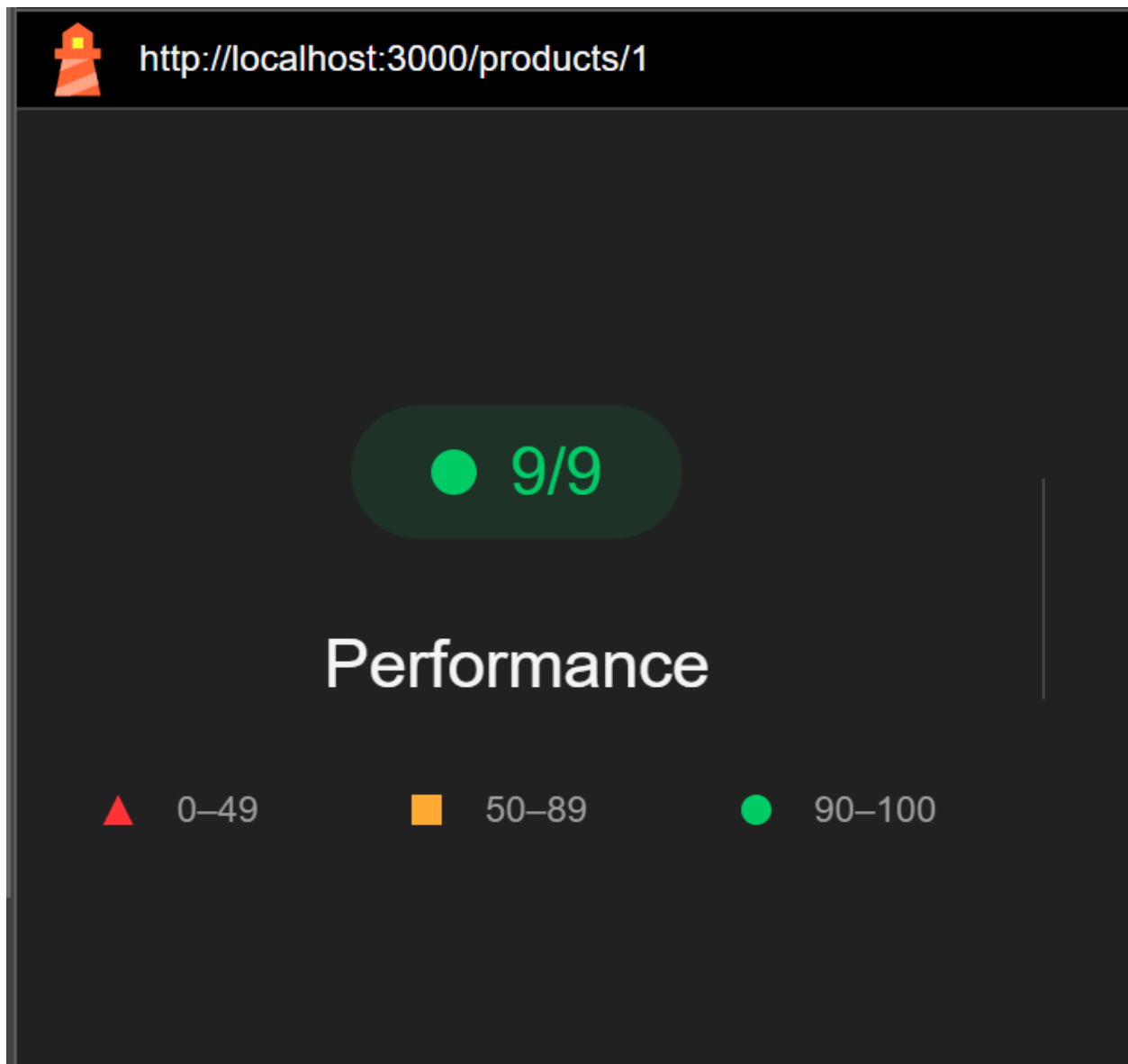
50–89



90–100

FUNCTIONAL AND RESPONSIVE COMPONENTS

PRODUCT DETAIL (DYNAMIC):



Test Execution Summary

I tested multiple pages of the website using Lighthouse to evaluate performance, SEO, accessibility, and best practices.

- Passed: About Page, Contact Page, Product Detail Page, Cart Page, Mobile Responsiveness, and Page Load Speed.
- Failed: Home Page and Products Page due to low performance scores and slow load times.

Performance Optimization Steps Taken:

- Reduced Image Sizes to improve loading speed.
- Minified CSS & JavaScript to remove unnecessary code.
- Enabled Browser Caching so pages load faster on repeat visits.
- Removed Unused Plugins to reduce page weight.

Security Measures Implemented:

- Input Validation added to prevent security attacks (like XSS & SQL Injection).
- HTTPS Enabled to secure data transfers.
- Updated Meta Tags to improve SEO and prevent fake content indexing.

Challenges Faced & Resolutions Applied:

- Slow Page Load (Home & Products Page): I found large images and unused scripts.
Solution: Optimized images & removed extra scripts.
- Navigation Delay: Page switching was slow.
Solution: Enabled caching & lazy loading for images.
- Form Security Risks: Some fields accepted harmful code.
Solution: Added input validation & security checks.