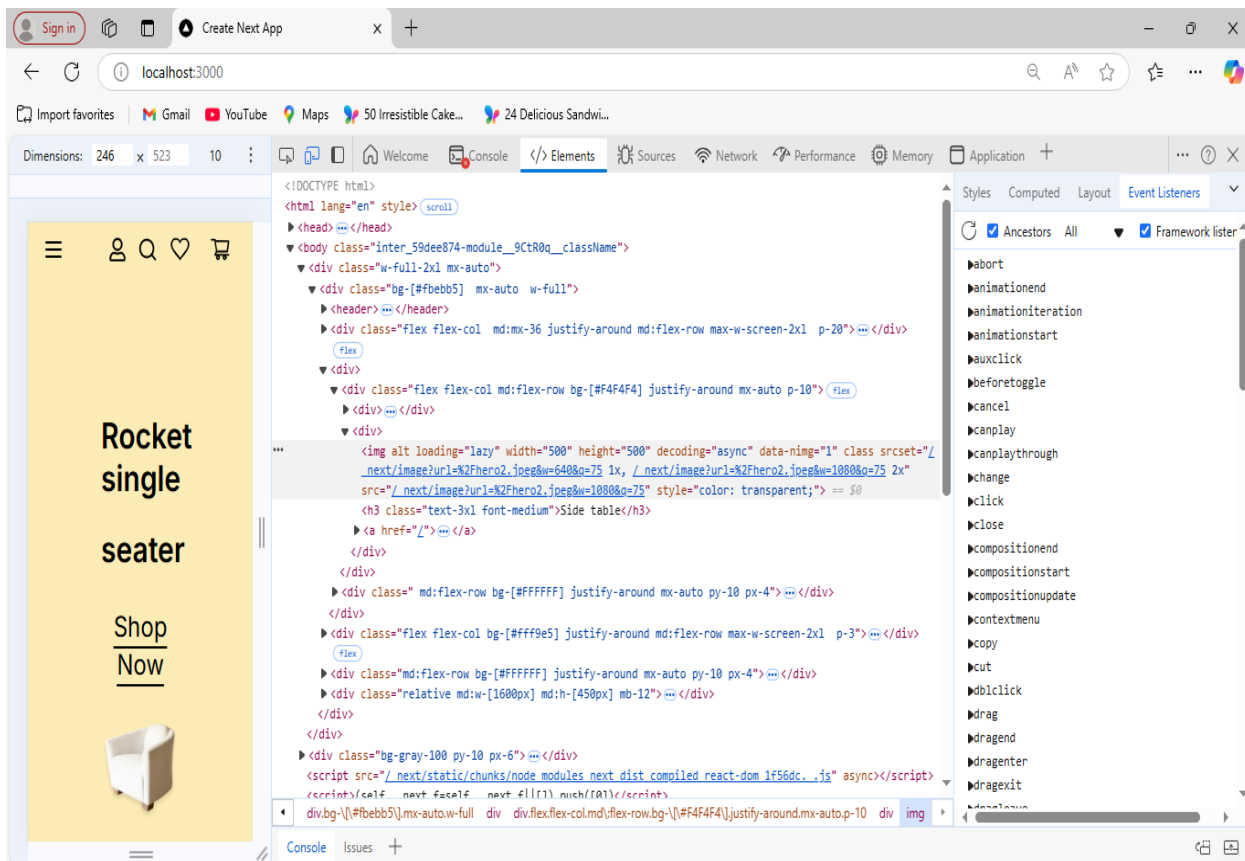## *TESTING, ERROR HANDLING, AND BACKEND INTEGRATION REFINEMENT*

STEP 1: Function Testing

The website's product cart, pagination components product listing, search, filters checkout related functionalities are operating seamlessly. Users can filter and search products according to the price and category type The entire process is intuitive, secure, and functions flawlessly without errors.

Step 2: Error Handling

Responsiveness Check

Step 3:Thunder Client For API Checking

THUNDER CLIE... ↻ ···   TC New Request ✕   importSanityData.mjs

New Request ⌄

Activity Collections Env

filter activity

GET template-0-beta....
just now

GET thunderclient.co...
1 month ago

GET ⌄ https://template-0-beta.vercel.app/api/product   Send

Query Headers ² Auth Body Tests Pre Run

Query Parameters

☐ parameter   value

Status: 200 OK Size: 8.07 KB Time: 434 ms

Response Headers ¹³ Cookies Results Docs   {} ☰

184   "discountPercentage": 25,
185   "isFeaturedProduct": false,
186   "stockLevel": 100,
187   "category": "Bed"
188   },
189   {
190   "id": "18",
191   "name": "White Bed",
192   "imagePath": "https://plus.unsplash.com/premium_photo
                -1661595077028-9ff236368cb5?q=80&w=2069&auto=format&fit
                =crop&ixlib=rb-4.0.3&ixid
                =M3wxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8fA%3D%3D",
193   "price": "120",
194   "description": "A foldable wooden bed with a padded seat
                for extra comfort.",
195   "discountPercentage": 12,
196   "isFeaturedProduct": false,
197   "stockLevel": 30,
198   "category": "Bed"
199   },
200   {
201   "id": "19",

Response Chart

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS   cmd + ⌄ □ 🗑 ··· ^ ✕

E:\hackhathon-main - Copy>

⊗ 0 ⚠ 0 ⚡ 0   Go Live

| ID	Steps	Expected Result	Actual Result	Status	Severity Level	Assigned	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	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	Medium	Test successful

Step 4: Performance Optimization Checking

Follow Following commands:
(1) npm install -g lighthouse
(2) lighthouse http://localhost:3000 –view

68
Performance

95
Accessibility

100
Best Practices

100
SEO

SI FCP

CLS

68

LCP

TBT
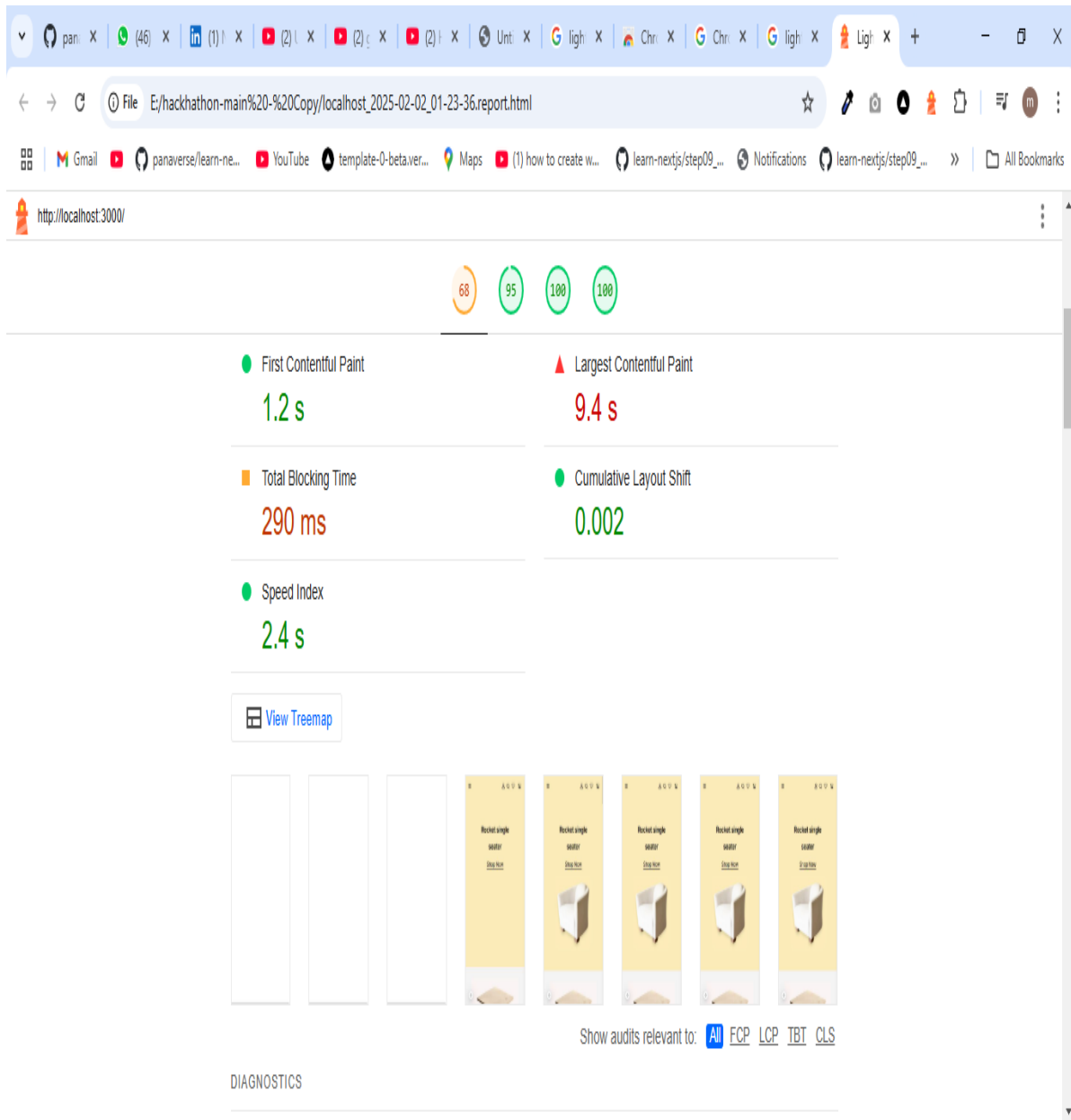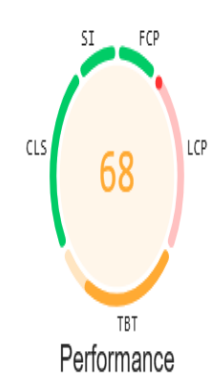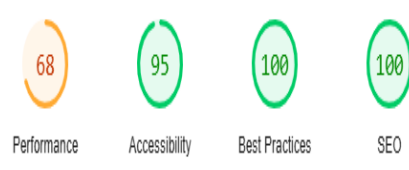
Performance

Values are estimated and may vary. The performance score is calculated directly from these metrics. See calculator.

▲ 0–49   ■ 50–89   ● 90–100

Rocket single seater

Shop Now

METRICS   Expand view

● First Contentful Paint   ▲ Largest Contentful Paint

1.2 s   9.4 s

68   95   100   100

DIAGNOSTICS

▲ Largest Contentful Paint element — 9,450 ms ⌄

▲ Reduce unused JavaScript — Potential savings of 961 KiB ⌄

▲ Minimize main-thread work — 2.4 s ⌄

▲ Minify JavaScript — Potential savings of 317 KiB ⌄

▲ Largest Contentful Paint image was lazily loaded ⌄

▲ Page prevented back/forward cache restoration — 3 failure reasons ⌄

■ Eliminate render-blocking resources — Potential savings of 0 ms ⌄

■ Avoid serving legacy JavaScript to modern browsers — Potential savings of 0 KiB ⌄

○ JavaScript execution time — 1.0 s ⌄

○ Avoid long main-thread tasks — 9 long tasks found ⌄

○ Avoid large layout shifts — 1 layout shift found ⌄

○ Initial server response time was short — Root document took 130 ms ⌄

http://localhost:3000/

68 95 100 100

PASSED AUDITS (23)   Show

95

Accessibility

These checks highlight opportunities to improve the accessibility of your web app. Automatic detection can only detect a subset of issues and does not guarantee the accessibility of your web app, so manual testing is also encouraged.

CONTRAST

⚠ Background and foreground colors do not have a sufficient contrast ratio.   ⌄

68   95   100   100

100

Best Practices

TRUST AND SAFETY

○ Ensure CSP is effective against XSS attacks   ⌄

○ Use a strong HSTS policy   ⌄

○ Ensure proper origin isolation with COOP   ⌄

68   95   100   100

⚠ Missing source maps for large first-party JavaScript   ⌄

PASSED AUDITS (14)   Show

NOT APPLICABLE (2)   Show

100

SEO

These checks ensure that your page is following basic search engine
optimization advice. There are many additional factors Lighthouse does not

Developer Resources

Performance Monitor

Issues

Security Overview