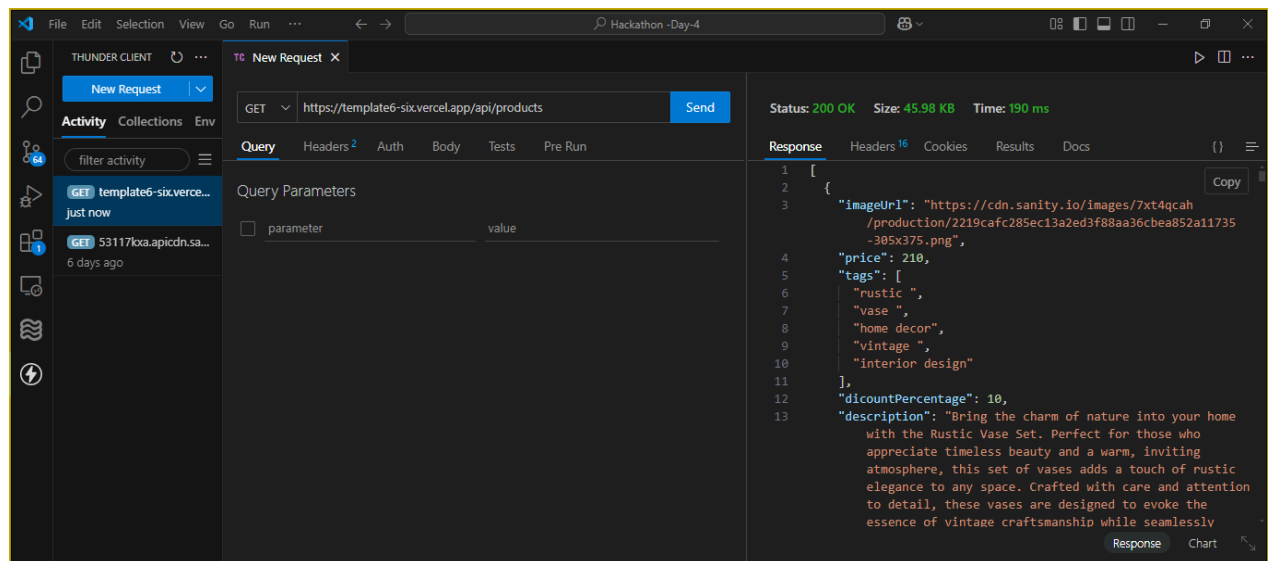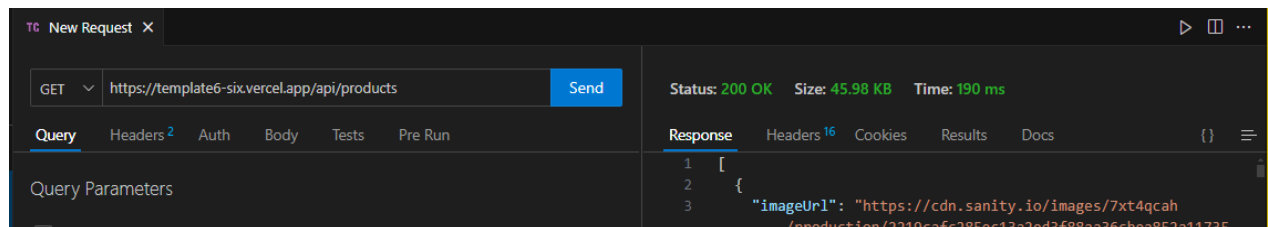# DAY-5 Testing And Backend Refinement [Nike E-Commerce]

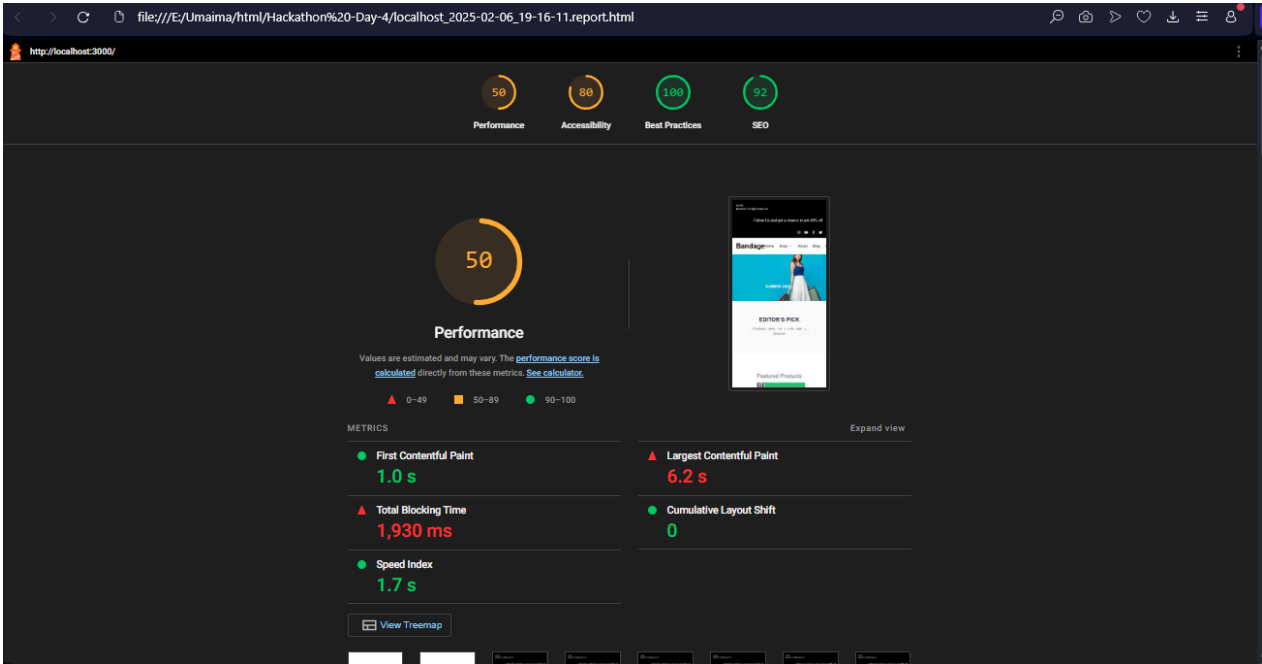## Steps:

- API Testing
- Error Handling
- Performance Optimization
- Cross-Browser and Device Testing

API Testing:

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	Handled gracefully
TC002	Test API error handling	Disconnect API > Refresh page	Show fallback UI with error message	Error message shown	Passed	High	Handled gracefully
TC003	Check cart functionality	Add product to cart > Verify cart contents	Cart updates with added product	Cart updates as expected	Passed	High	Handled gracefully
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

Performance Optimization:

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DIAGNOSTICS

⚠ **Serve images in next-gen formats** — Potential savings of 2,738 KiB

⚠ **Reduce JavaScript execution time** — 3.7 s

⚠ **Minimize main-thread work** — 4.8 s

⚠ **Largest Contentful Paint element** — 6,250 ms

⚠ **Properly size images** — Potential savings of 1,684 KiB

⚠ **Efficiently encode images** — Potential savings of 187 KiB

⚠ **Reduce unused JavaScript** — Potential savings of 43 KiB

⚠ **Page prevented back/forward cache restoration** — 4 failure reasons

▪ **Image elements do not have explicit** `width` **and** `height`

▪ **Minify JavaScript** — Potential savings of 5 KiB

▪ **Avoid serving legacy JavaScript to modern browsers** — Potential savings of 0 KiB

▪ **Avoid enormous network payloads** — Total size was 6,577 KiB

○ **Avoid long main-thread tasks** — 7 long tasks found

○ **Initial server response time was short** — Root document took 600 ms

○ **Avoids an excessive DOM size** — 292 elements

○ **Minimize third-party usage** — Third-party code blocked the main thread for 0 ms

More information about the performance of your application. These numbers don't directly affect the Performance score.

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80

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.

NAMES AND LABELS

⚠ **Buttons do not have an accessible name**

⚠ **Links do not have a discernible name**

These are opportunities to improve the semantics of the controls in your application. This may enhance the experience for users of assistive technology, like a screen reader.

CONTRAST

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

These are opportunities to improve the legibility of your content.

BEST PRACTICES

⚠ **Touch targets do not have sufficient size or spacing.**

These items highlight common accessibility best practices.

NAVIGATION

⚠ **Heading elements are not in a sequentially-descending order**

These are opportunities to improve keyboard navigation in your application.
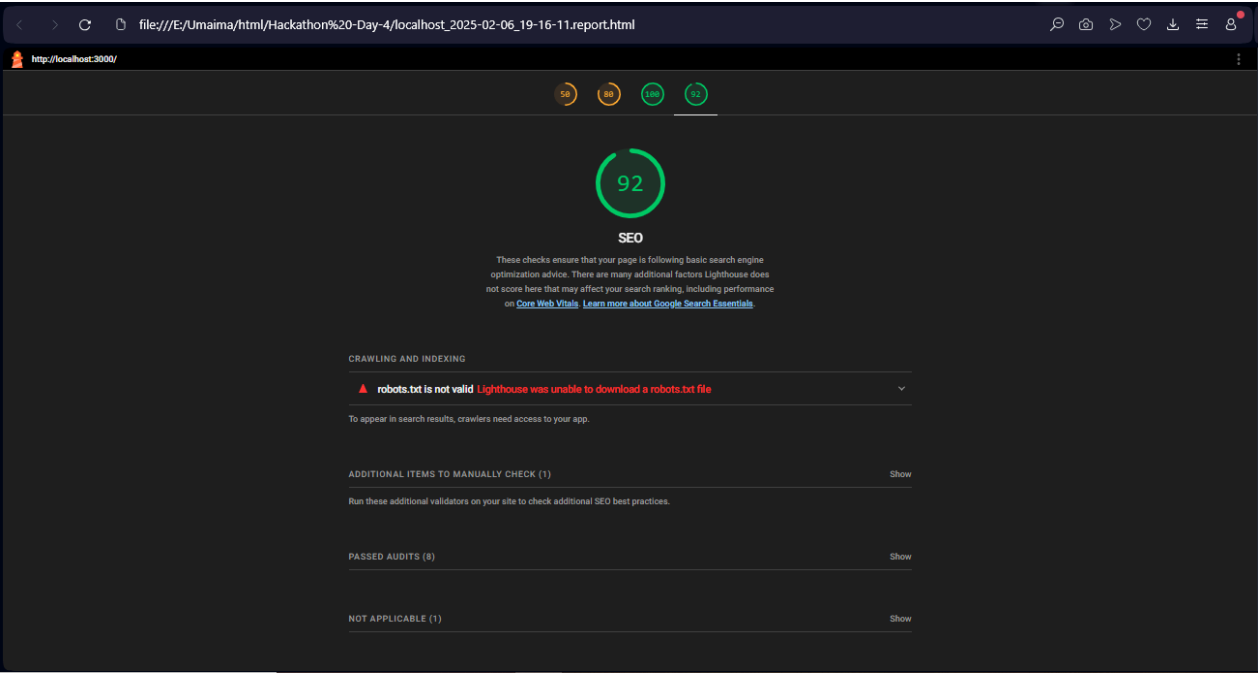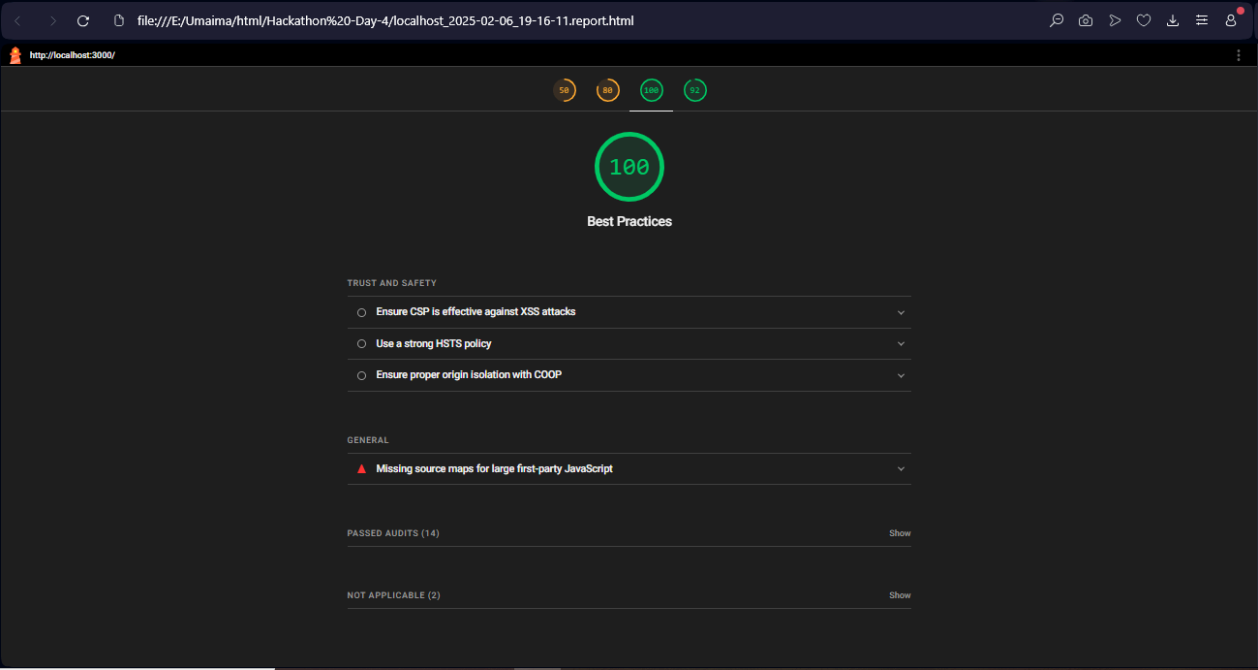
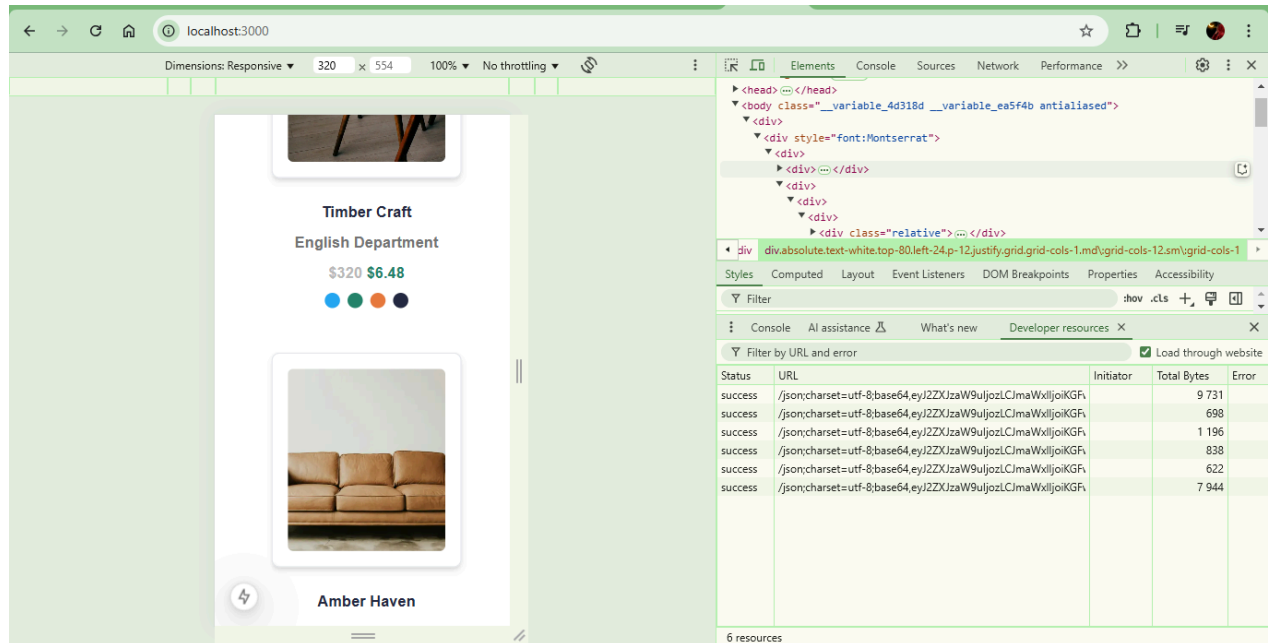#### ADDITIONAL ITEMS TO MANUALLY CHECK (10)   Show

These items address areas which an automated testing tool cannot cover. Learn more in our guide on conducting an accessibility review.
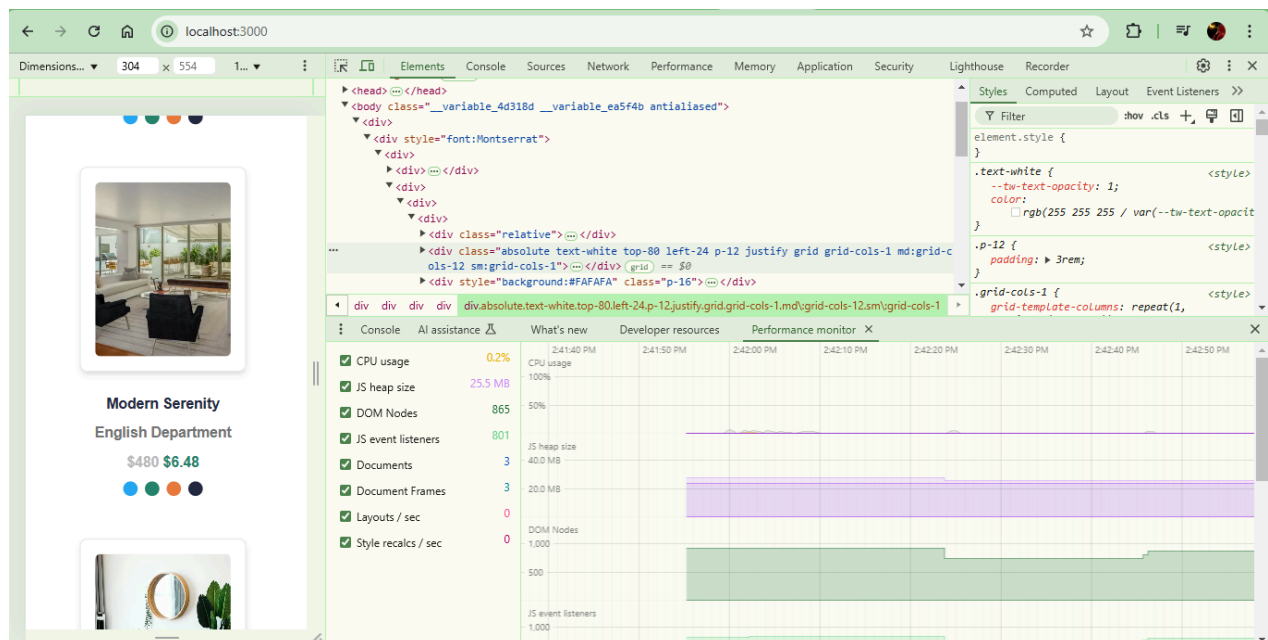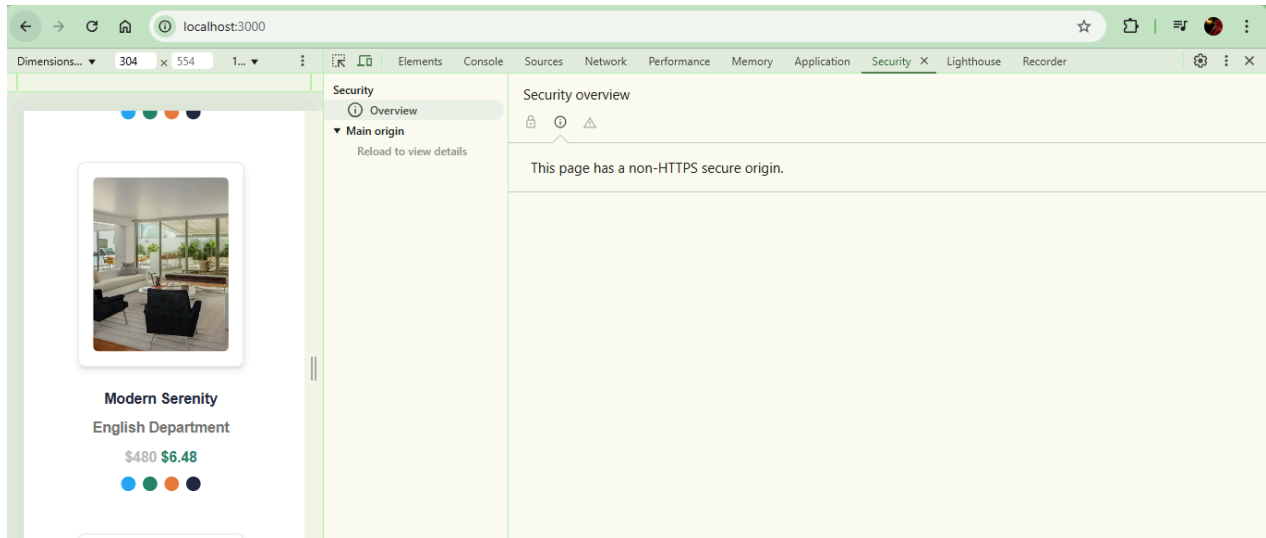
PASSED AUDITS (19)   Show

50 80 100 92

100

Best Practices

TRUST AND SAFETY

○ Ensure CSP is effective against XSS attacks

○ Use a strong HSTS policy

○ Ensure proper origin isolation with COOP

GENERAL

▲ Missing source maps for large first-party JavaScript

PASSED AUDITS (14)   Show

NOT APPLICABLE (2)   Show

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92

SEO

These checks ensure that your page is following basic search engine
optimization advice. There are many additional factors Lighthouse does
not score here that may affect your search ranking, including performance
on Core Web Vitals. Learn more about Google Search Essentials.

CRAWLING AND INDEXING

▲ robots.txt is not valid Lighthouse was unable to download a robots.txt file

To appear in search results, crawlers need access to your app.

ADDITIONAL ITEMS TO MANUALLY CHECK (1)   Show

Run these additional validators on your site to check additional SEO best practices.

PASSED AUDITS (8)   Show

NOT APPLICABLE (1)   Show

Developer Resources:

Performance Monitor:

Security:

Issues: