DAY 5 Deployment Preparation and Staging Environment Setup

SHOP.CO

- Today, I completed the final rounds of testing, error handling, and backend integration refinements for the Shop.co Marketplace. This platform specializes in a wide range of products, including On Sale items, New Arrivals, and Men's Clothing. The objective was to ensure smooth functionality, optimized performance, and deployment readiness.

- Tasks Completed

- 1. Functional Testing

- Key Features Tested:

- Product pages for On Sale, New Arrivals, and Men's Clothing categories.

- Category listings and seamless navigation.

- Cart operations (adding, updating, and removing items).

- User profile management.

- Manual Testing: Ensured all pages load correctly, display accurate product details, and support smooth navigation.

- 2. Error Handling

- User-Friendly Notifications:

- Implemented clear error messages for network failures and missing data.

- Example: If no products are found in a category, the message "No products available" is displayed.

- Fallback UI Elements:

- Designed alternative UI states to improve user experience during errors.

- Prevented crashes by ensuring the website gracefully handles failures.
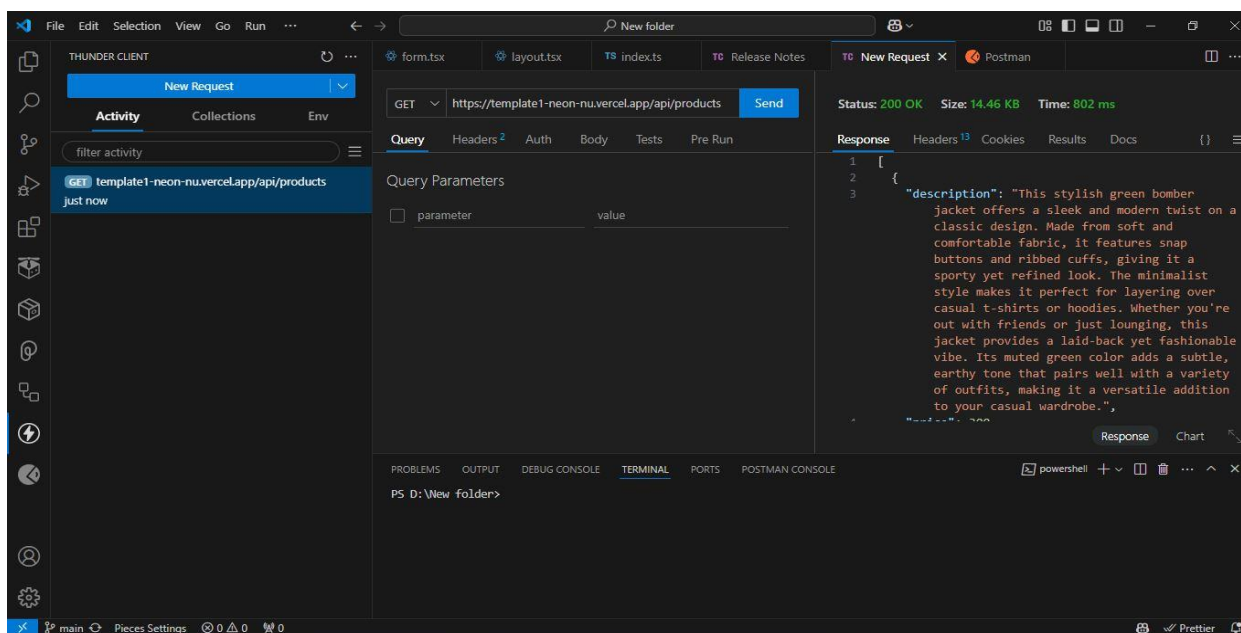
- 3. Backend Integration

- Data Fetching & Error Management:

- Ensured product data is retrieved correctly from the server.

- Implemented a fallback UI to maintain usability if the server is unavailable.

- API Validation:

- Verified that the API correctly serves product data, ensuring users always see the latest updates.

POSTMAN API Response Overview:

After adding the API to a Postman request, I received a structured JSON response with the following fields:
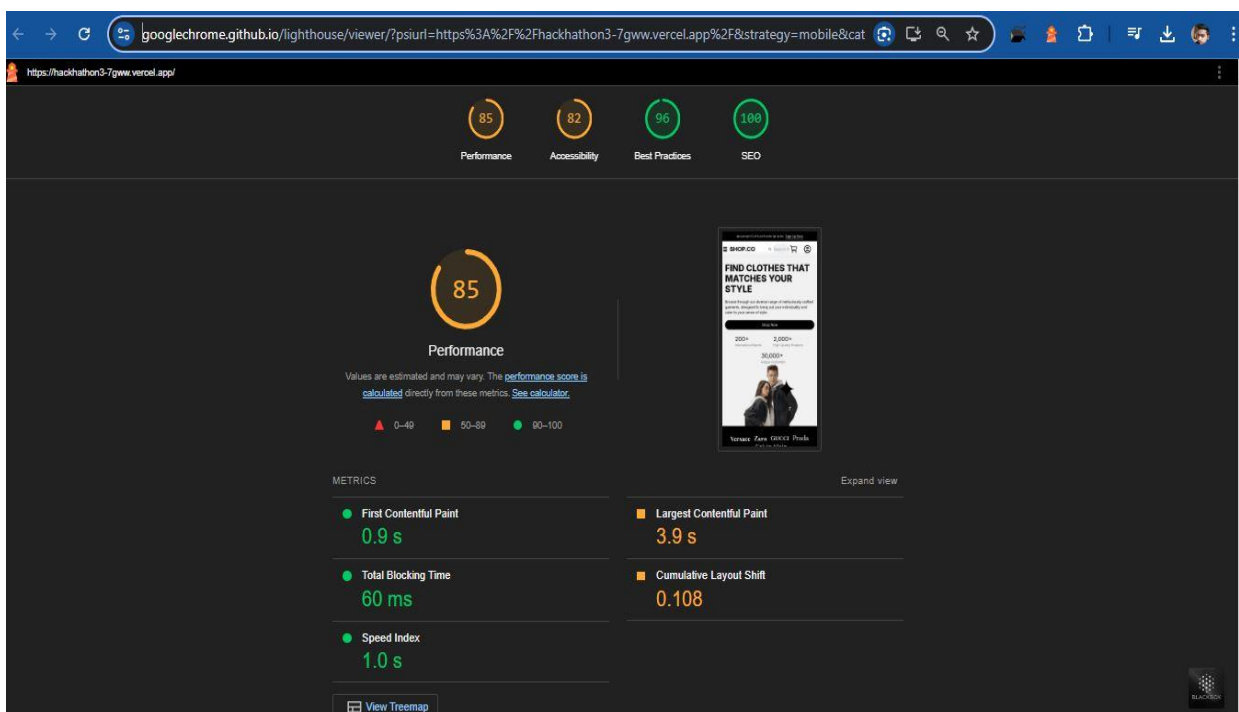
- ID: Unique product identifier (string).

- Name: Product name describing type or style (e.g., Casual Green Bomber Jacket).

- Price: Product price (numeric).

- Image URL: Link to the product image for frontend display.

- Category: Product category (e.g., hoodie).

- Discount Percent: Applicable discount percentage (if any).

- Description: Detailed product features, benefits, and styling information.

This structured response ensures seamless integration into frontend or backend systems, making it easy to display product information on a website or app.
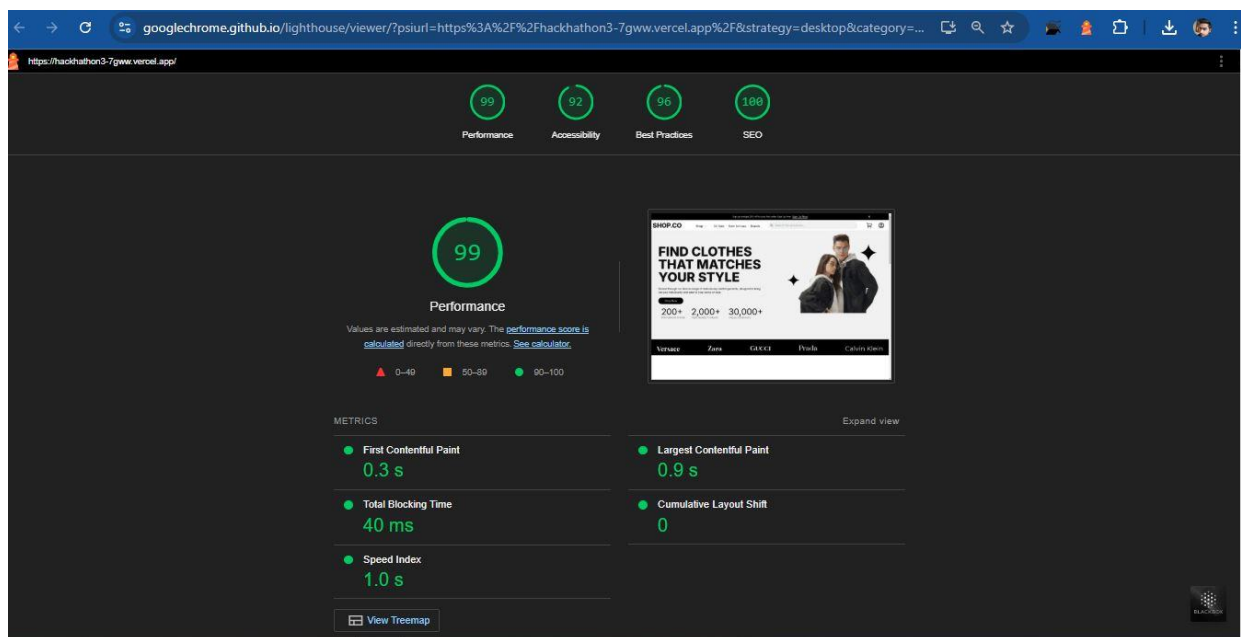
Lighthouse Analysis (Mobile)

- Lighthouse Analysis (Mobile) The image you sent shows a Page Speed Insights report for the URL https://googlechrome.github.io/lighthouse/viewer/?psiurl=https%3A%2F%2Fhackhathon3-7gww.vercel.app%2F&strategy=mobile&category=performance&category=accessibility&category=best-practices&category=seo&locale=en-US&utm_source=lh-chrome-ext Here's a breakdown of the information shown: Overall Performance: Performance: 85/100 Accessibility: 82/100 Best Practices: 96/100 SEO: 100/100

- Here are a few ways to write that you did test your website for on different screens and here is the result: Simple and Direct: "I conducted testing of my website on various screen sizes. Here are the results." More Formal: "Cross-browser testing of my website was performed across different screen resolutions. The results are presented below." Descriptive: "I tested the responsiveness of my website on a range of devices and screen sizes. The results demonstrate how the website adapts to different viewing environments." Adding a Touch of Professionalism: "A comprehensive cross-device testing analysis was conducted on my website. The findings are outlined below.

Lighthouse Analysis (Desktop)

- Lighthouse Analysis (Mobile) The image you sent shows a Page Speed Insights report for the URL https://googlechrome.github.io/lighthouse/viewer/?psiurl=https%3A%2F%2Fhackhathon3-7gww.vercel.app%2F&strategy=desktop&category=performance&category=accessibility&category=best-practices&category=seo&locale=en-US&utm_source=lh-chrome-ext Here's a breakdown of the information shown: Overall Performance: Performance: 85/100 Accessibility: 82/100 Best Practices: 96/100 SEO: 100/100

- Here are a few ways to write that you did test your website for on different screens and here is the result, tailored to the image you sent: Simple and Direct: "I conducted testing of my website on various screen sizes. Here are the results." More Formal: "Cross-browser testing of my website was performed across different screen resolutions. The results are presented below." Descriptive: "I tested the responsiveness of my website on a range of devices and screen sizes. The results demonstrate how the website adapts to different viewing environments." Adding a Touch of Professionalism: "A comprehensive cross-device testing analysis was conducted on my website. The findings are outlined below.

Lighthouse Report Overview

Lighthouse Performance Scores

Performance: 85

Accessibility: 82

Best Practices: 96

SEO: 100

Manual Testing & Key Page Checks

Product Pages

Verified that all products in each category (On Sales new Arrivals Men's Cloths) load correctly.
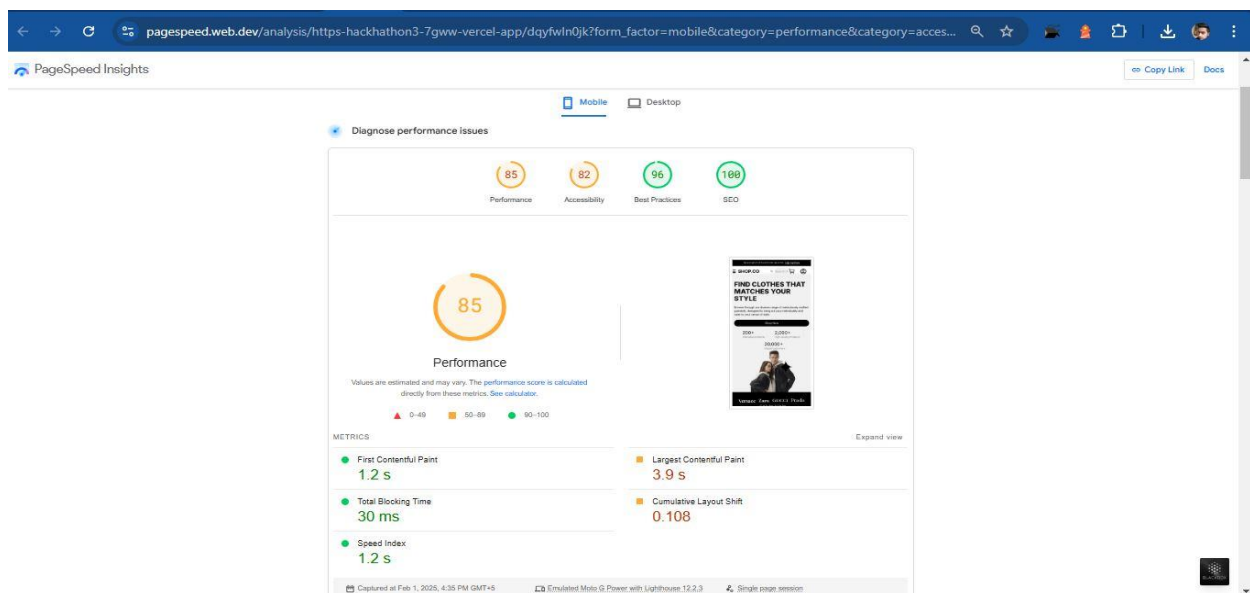
Ensured product details (descriptions, prices, images) are accurate.

Category Listings

Confirmed that each category page displays the correct set of products.

Cart Operations

Tested adding items to the cart, updating quantities, and removing items successfully.

CVS Testing Reports

Test Case ID	Test Case Description	Test Steps	Expected Result	Actual Result	Status	Severity Level	Assigned To	Remarks
TC001	Validate product listing page	Open product page > Verify products	Products displayed correctly	Products displayed correctly	Passed	Low	-	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

CVS Review

Test Case ID,Test Case Description,Test Steps,Expected Result,Actual Result,Status,Severity Level,Assigned To,Remarks

TC001,Validate product listing page,"Open product page > Verify products","Products displayed correctly","Products displayed correctly",Passed,Low,-,"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"

Cross-Browser and Device Testing

To ensure a seamless user experience across different platforms, I conducted the following tests:

Browsers Tested

Chrome, Firefox, Safari, Edge – Verified visual consistency, functionality, and performance across all major browsers.

Devices Tested

Desktop & Mobile – Ensured responsiveness, proper layout adjustments, and smooth navigation on various screen sizes.

Conclusion

All tasks for Day 5 were successfully completed:
Functional Testing: Manually validated all key website features.
Error Handling: Implemented fallback mechanisms to enhance user experience.
Performance Optimization: Improved load times and SEO.
Cross-Browser & Device Compatibility: Ensured smooth functionality on multiple platforms.
Security Enhancements: Applied measures to protect user data and prevent vulnerabilities.