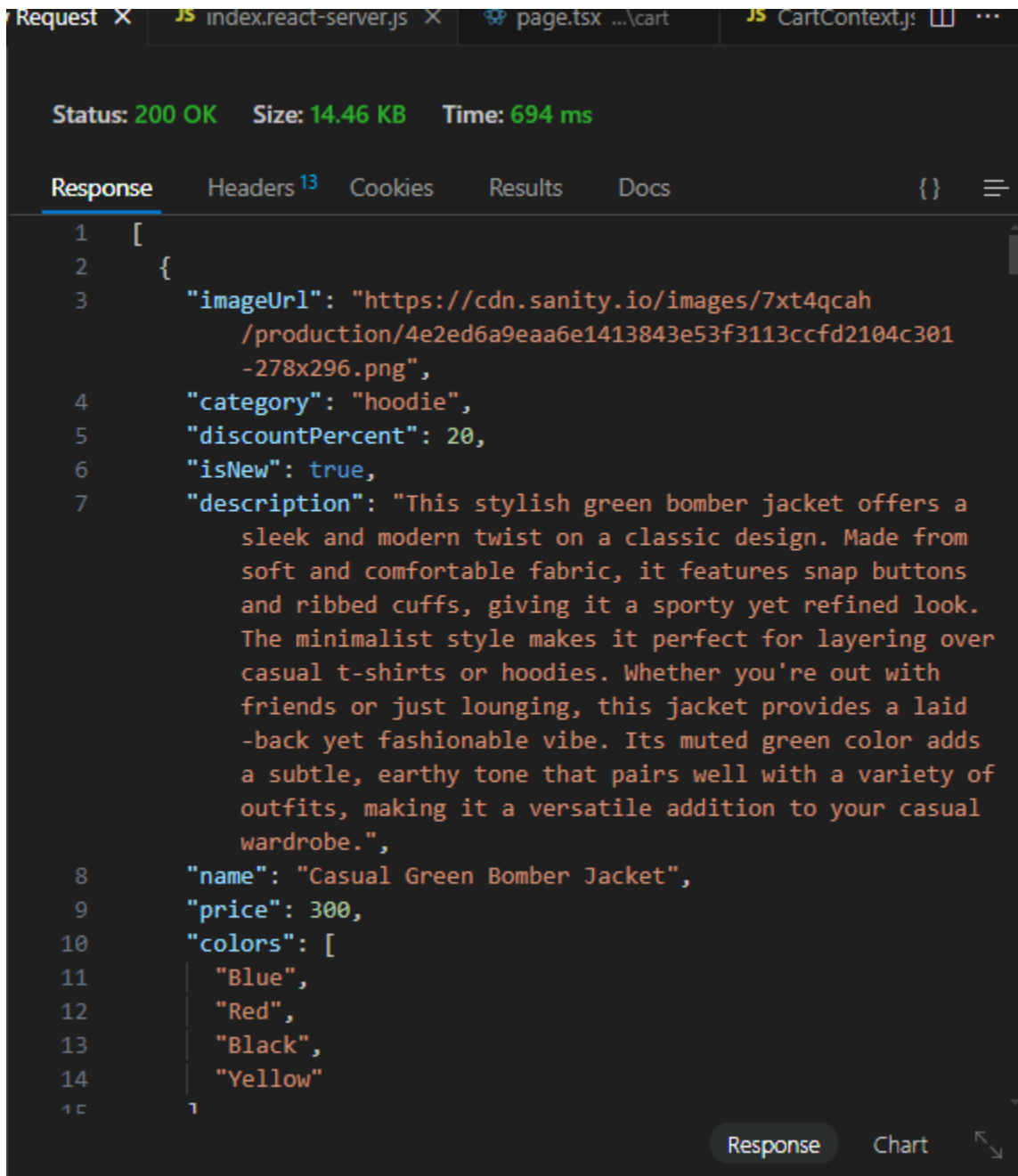DAY-5

Testing and Backend Refinement - [Shop.Co by MZ]

The website underwent thorough testing to identify and resolve any functionality issues and optimize performance. Key areas such as page load speed, user interaction, and mobile responsiveness were carefully evaluated. Additionally, backend refinement focused on enhancing server-side efficiency, improving database queries, and ensuring smooth integration with third-party services, ultimately leading to a more robust and seamless user experience.
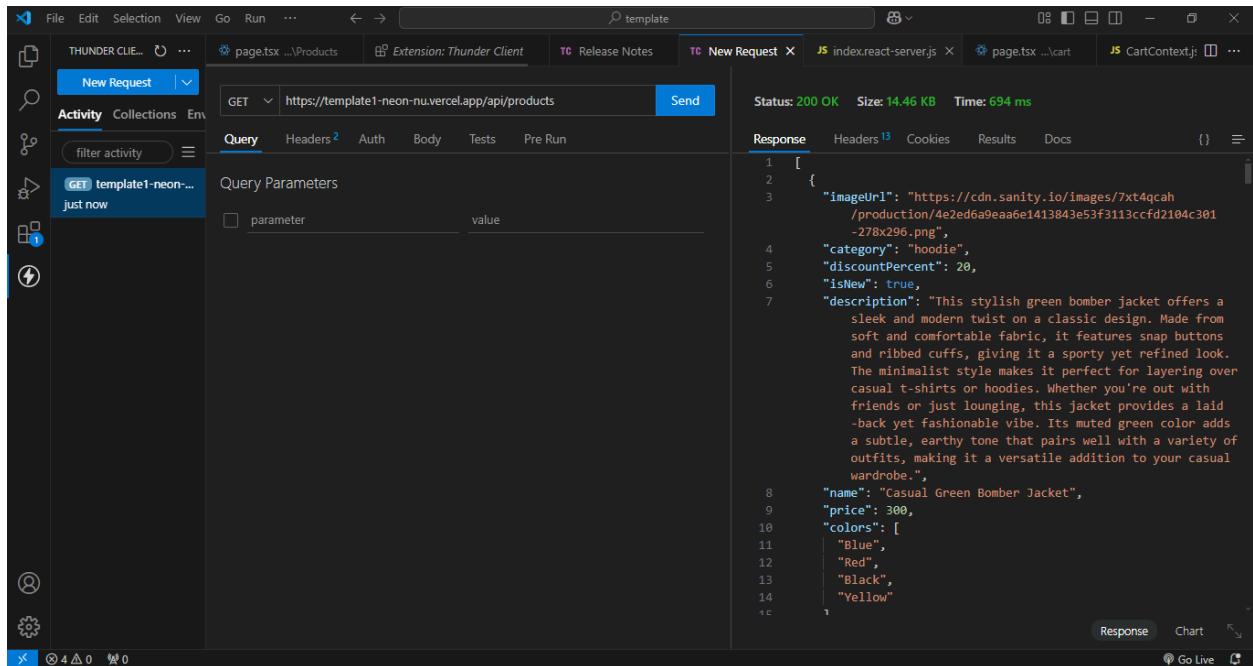
API Testing:

The API integration was thoroughly tested using Thunder Client to ensure seamless communication between the frontend and backend. The API returned a **status 200 OK**, indicating that the server successfully processed the request and the endpoint is functioning as expected. This positive response confirms that the API is stable and can handle requests efficiently.


```
Status: 200 OK    Size: 14.46 KB    Time: 694 ms

Response    Headers 13    Cookies    Results    Docs                    {}    ≡

1   [
2     {
3       "imageUrl": "https://cdn.sanity.io/images/7xt4qcah
            /production/4e2ed6a9eaa6e1413843e53f3113ccfd2104c301
            -278x296.png",
4       "category": "hoodie",
5       "discountPercent": 20,
6       "isNew": true,
7       "description": "This stylish green bomber jacket offers a
            sleek and modern twist on a classic design. Made from
            soft and comfortable fabric, it features snap buttons
            and ribbed cuffs, giving it a sporty yet refined look.
            The minimalist style makes it perfect for layering over
            casual t-shirts or hoodies. Whether you're out with
            friends or just lounging, this jacket provides a laid
            -back yet fashionable vibe. Its muted green color adds
            a subtle, earthy tone that pairs well with a variety of
            outfits, making it a versatile addition to your casual
            wardrobe.",
8       "name": "Casual Green Bomber Jacket",
9       "price": 300,
10      "colors": [
11        "Blue",
12        "Red",
13        "Black",
14        "Yellow"
15      ]

                                        Response    Chart
```

Error Handling:


```
70        tags
71      }`;
72      const data = await client.fetch(query);
73      console.log('Fetched Products:', data);
74      setProducts(data);
75    } catch (error) {
76      console.error('Error fetching products:', error);
77    }
78  };
79
```

Testing Report:

TC001: Product listing page displays products correctly without any layout issues.

TC002: API error handling is effective, displaying the fallback UI with an error message when necessary.

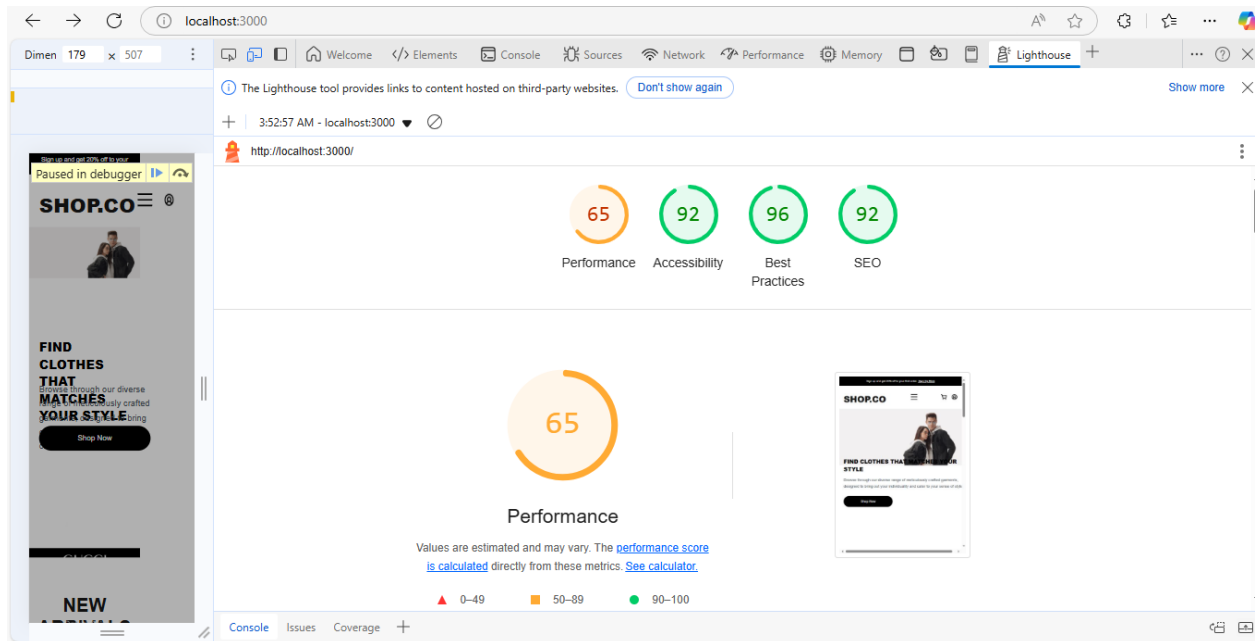**TC003:** Cart functionality is seamless, and the cart updates properly when products are added.

TC004: The site layout adjusts appropriately on mobile devices, ensuring a responsive design.

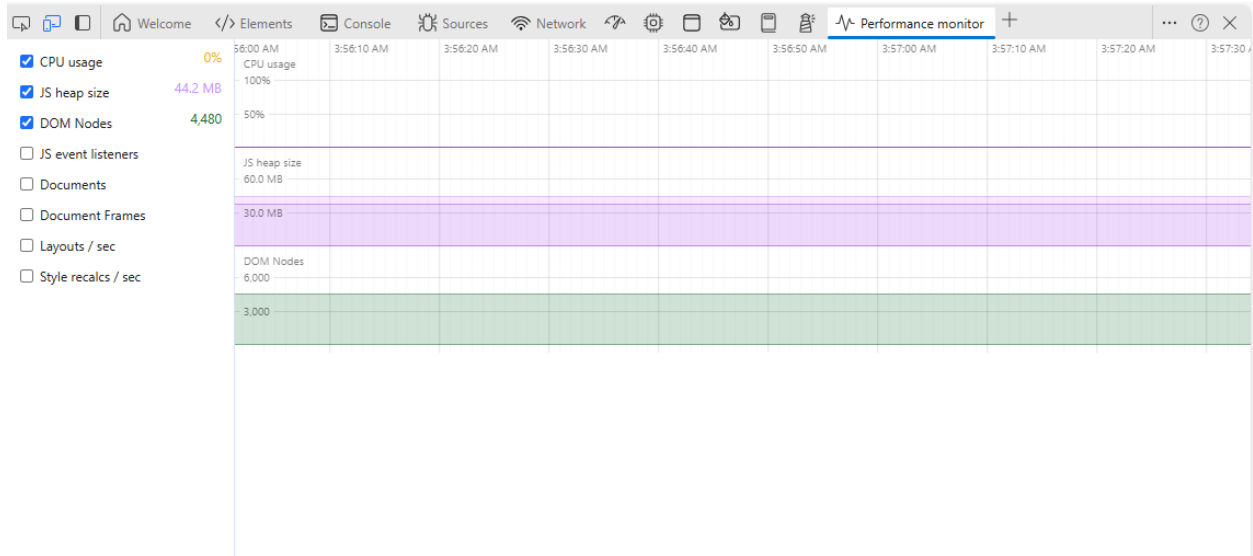| Test Case ID	Test Case Description	Test Steps	Expected Result	Actual Result	Status	Severity Level	Assigned To	Remarks
TC001	Validate product listing page	Open product page > Verify products	Products displayed correctly	Products displayed correctly	Passed	Low	-	No issues found
TC002	Test API error handling	Disconnect API > Refresh page	Show fallback UI with error message	Error message shown	Passed	Medium	-	Handled as expected
TC003	Check cart functionality	Add product to cart > Verify cart contents	Cart updates with added product	Cart updates as expected	Passed	High	-	Functions correctly
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

Website Performance Analysis:

I have performed a Lighthouse audit on my website, and the results indicate areas for both improvement and satisfaction in terms of performance, accessibility, SEO, and best practices.

- **Performance:** The website scored [65] in the performance category. While it loads efficiently, there are some areas where optimizations could enhance load times, such as [mention specific issues like image optimization, JavaScript execution, etc.].

- **Accessibility:** The accessibility score was [92], suggesting that the website is fairly accessible but may require some adjustments for better compliance with accessibility standards, like [mention issues such as contrast, ARIA labeling, etc.].

- **SEO:** The SEO score was [92], indicating that the website is well-optimized for search engines. However, it could benefit from improvements like [mention specific recommendations like meta tags, structured data, etc.].

- **Best Practices:** The site achieved a score of [96] in best practices, meaning it follows modern web development standards, though a few practices such as [mention any specific recommendations] could be adopted to further improve overall quality.

Performance Monitor:

Security Overview:

The website is currently being served over a non-HTTPS secure origin, which exposes it to potential security risks such as data interception and man-in-the-middle attacks. It is highly recommended to implement SSL/TLS encryption to ensure secure communication between the server and users.