

## Day 5 - Testing and Backend Refinement – MensApparel

### Objective

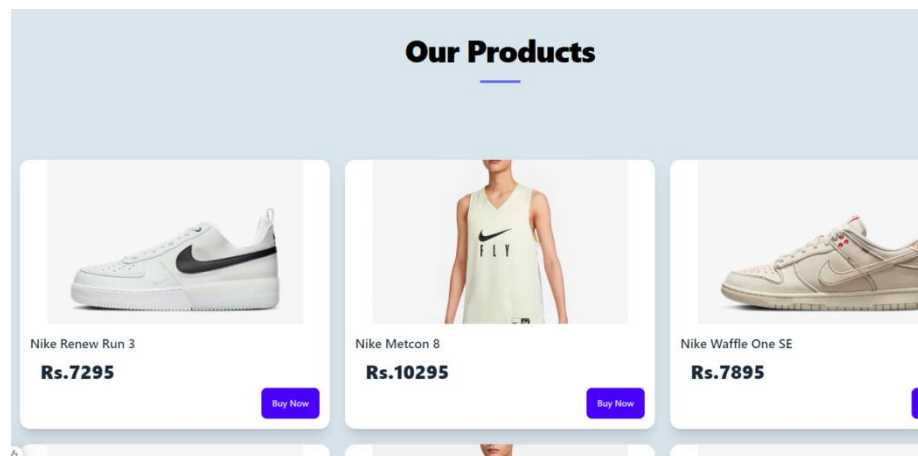
Day 5 focuses on preparing MensApparel for real-world use by thoroughly testing all backend components, optimizing performance, and ensuring the system is ready to handle user traffic. The key tasks include testing backend integrations, improving error handling, and refining processes to deliver a smooth and reliable user experience.

### Functional Deliverables of Mens Apparel:

All functionalities are properly working. I have checked and tested each component, including the product page, product detail page, shopping cart, and checkout, contact form, and other additional pages. These pages are fully responsive and functioning smoothly across both desktop and small screens.

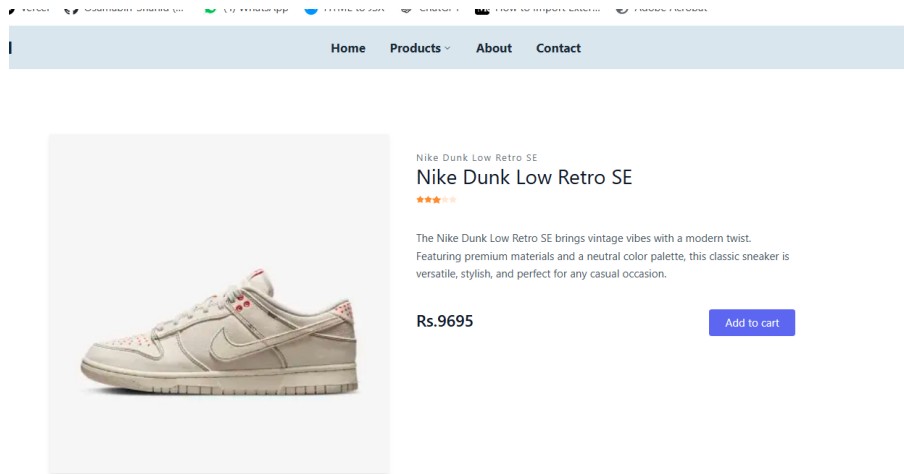
#### Product Listing Page:

- Displays a list of fetched products, including images, titles, prices, and brief descriptions.



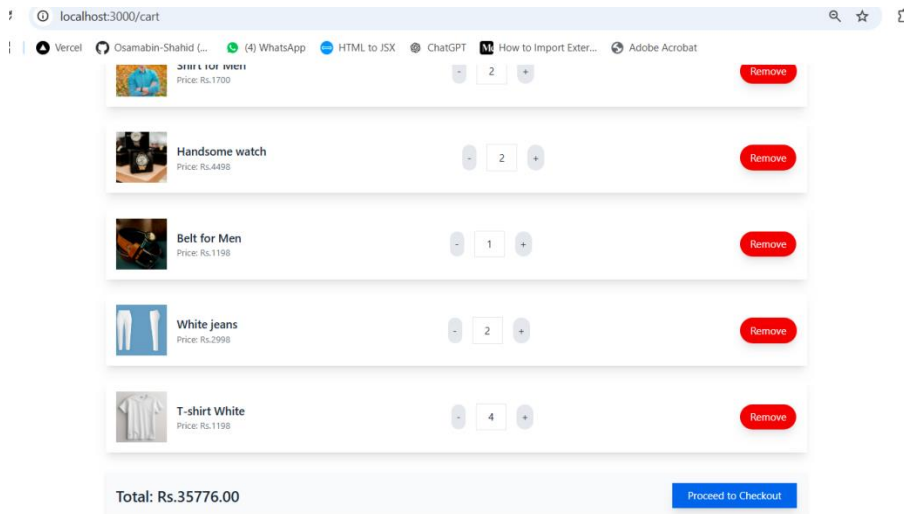
#### Product Detail Page:

- Displays detailed information about a specific product, including images, description, price, and options such as Add to Cart and a detailed description, Reviews & Additional Information of the furniture.



## Shopping Cart

- When a user adds items to the cart, the selected items will be displayed with details like image, name, price, description and quantity.
- If no items are added, the cart will show a message: **"Your Cart is Empty"**.

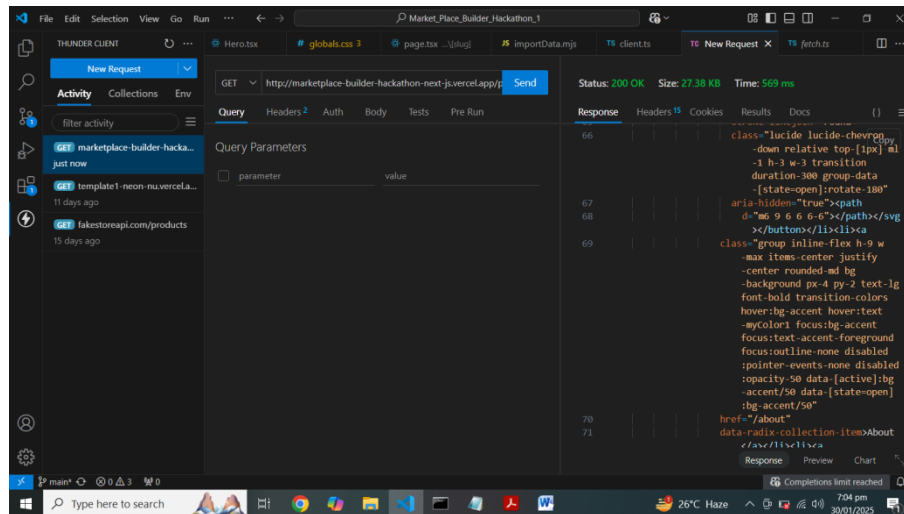


## Storing Sensitive Information Securely:

- For enhanced security, I store all sensitive information, such as API keys, in a separate .env file.

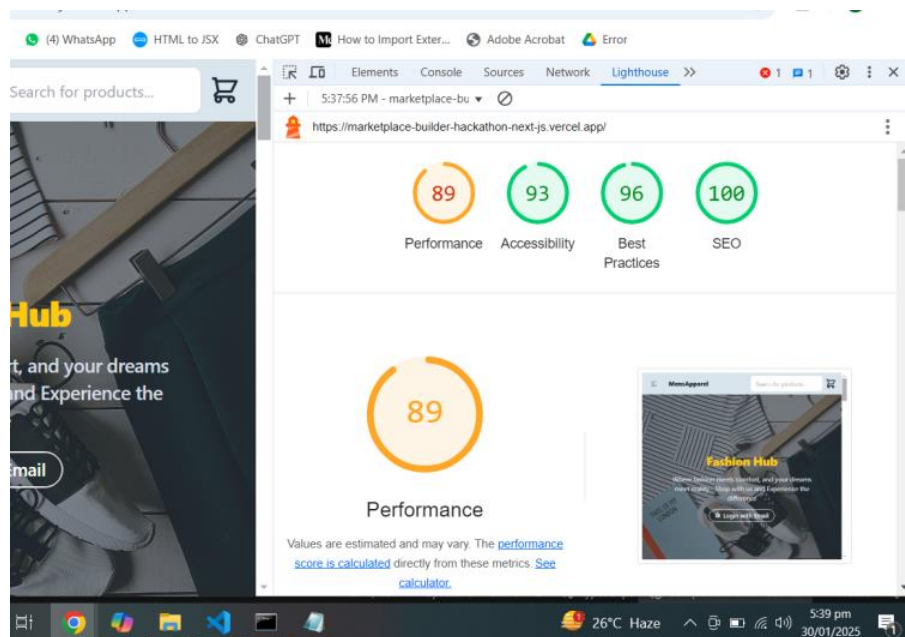
## API Response Testing:

- I tested the API endpoint in Thunder Client, and it worked without any issues, returning a successful response with status code 200.



## Lighthouse Report:

- I have checked my MensApparel website using Lighthouse, which provided detailed insights into performance, accessibility, and overall site quality.



## Lighthouse Metrics Summary:

Metric	Value	Remarks
Perfomance	86	Excellent performance; slight room for improvement in reducing JavaScript and image sizes.
Accessibility	93	Strong accessibility; contrast issues should be addressed.
Best Practices	96	Best Practices 96 Solid foundation with minor improvements in image aspect ratios.
SEO	100	Fully optimized for search engine visibility.
First Contentful Paint (FCP)	0.4s	Fast loading of initial content.
Largest contentful Paint LCP)	1.5s	Optimized but can preload large images for faster display.
Total blocking Time (TBT	240ms	Minimal blocking time, indicating efficient JavaScript execution.
Cumulative Layout Shift (CLS)	0	0.0 Minimal layout shifts for a smooth user experience.

## Conclusion:

Day 5 has successfully prepared the MensApparel marketplace for deployment with a focus on **performance, accessibility, and SEO optimization**. The website now offers a seamless user experience, robust security, and excellent search engine visibility.