Day 4 (Dynamic Frontend Components for Marketplace) of E-commerce Marketplace Builder Hackathon

Project: Modern Haven Furniture Ecommerce Marketplace

Prepared by: Muhammad Ghufran (00121430)

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Introduction

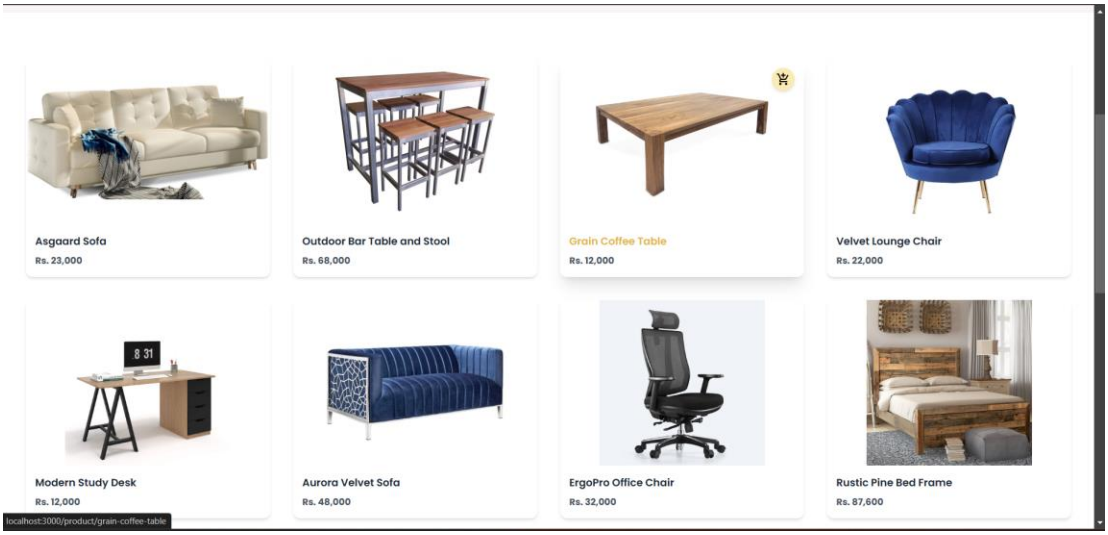
This document outlines the successful implementation of Day 4 tasks for the Modern Haven Furniture Marketplace hackathon project. The focus was on designing dynamic, modular frontend components to enhance user interaction and display marketplace data fetched from Sanity CMS. Each completed component ensures a responsive, scalable interface while maintaining high code reusability and performance.

Completed Tasks Overview

1. Product Listing Component

- Implemented a grid layout to dynamically display products fetched from Sanity CMS.
- Displayed product details, including:
    - Product Name
    - Price
    - Image
- Integrated sorting and filtering options to organize products by price, categories, and popularity.
- Ensured a responsive design for seamless display across devices.

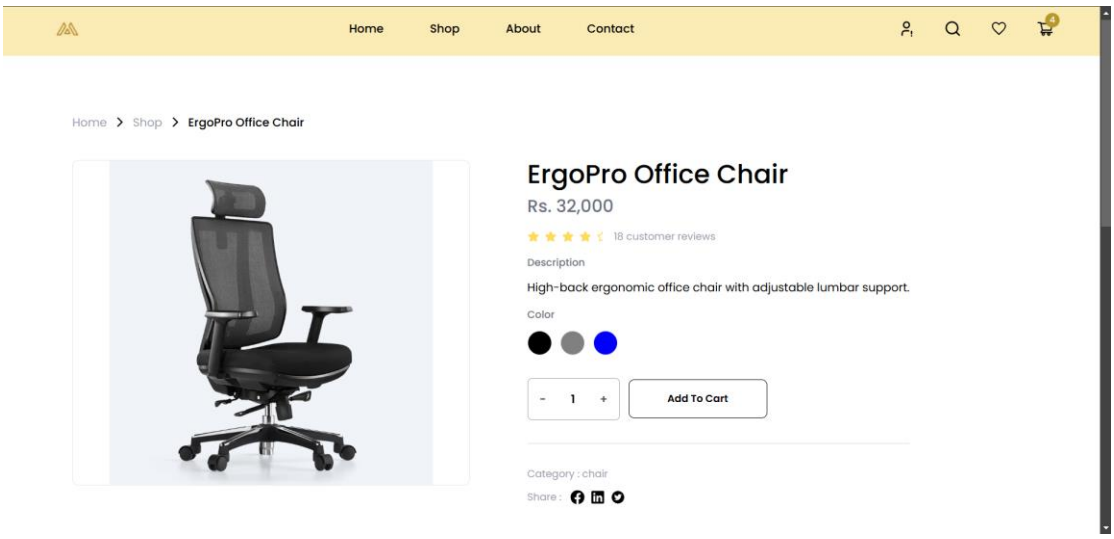
Screenshot: Product listing page showing a grid layout with dynamic data.



2. Product Detail Component

- Developed individual product detail pages using dynamic routes in Next.js.
- Displayed detailed product information such as:
    - Product Description
    - Price
    - Available Colors
    - Customer Reviews and Ratings

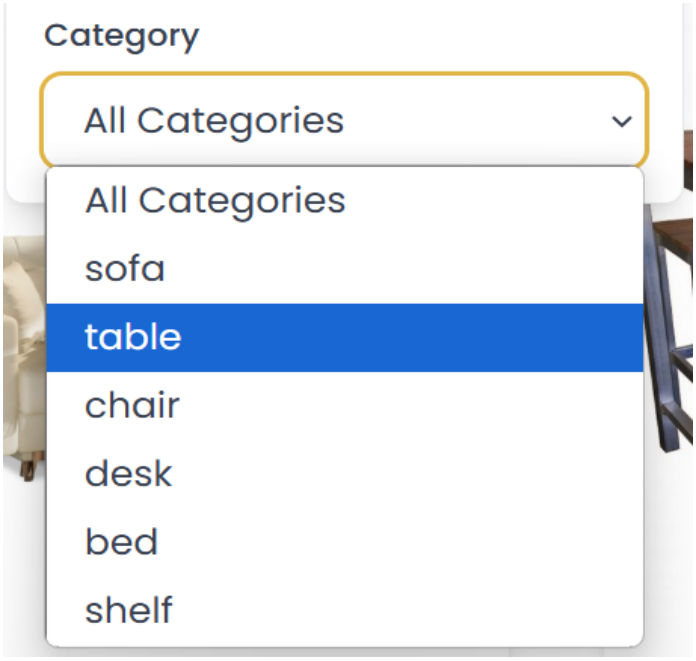
Screenshot: Product detail page with dynamic content.



3. Category Component

- Dynamically fetched and displayed product categories.
- Enabled users to filter products by their selected categories.
- Implemented a dropdown or sidebar for category selection.

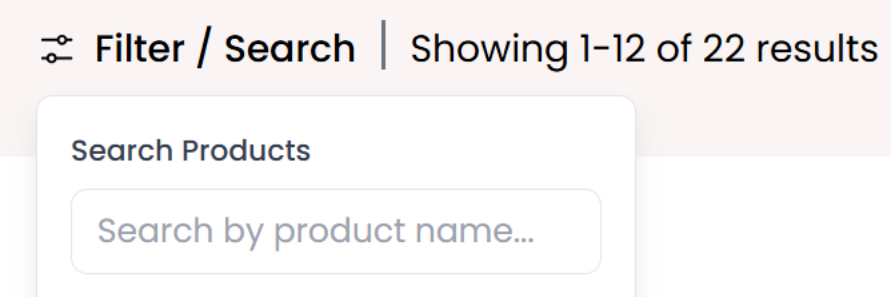
Screenshot: Category panel showcasing available product categories.



4. Search Bar Component

- Integrated search functionality to filter products in real-time.
- Allowed users to search products by name or tags.
- Implemented a debounce mechanism to optimize search performance.

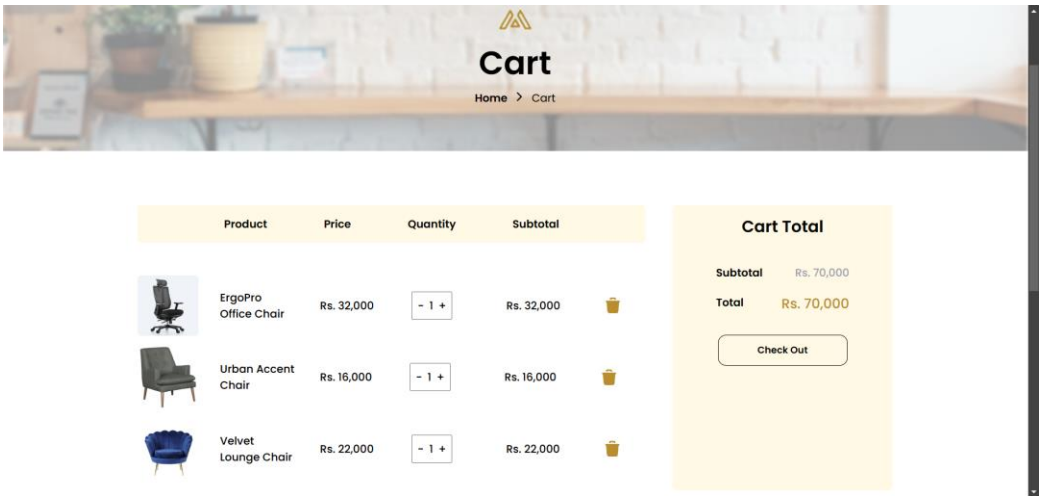
Screenshot: Search bar in action, displaying filtered results.



5. Cart Component

- Designed a comprehensive cart system to manage user-selected items.
- Features include:
    - Adding products to the cart from the product page.
    - Updating quantities directly within the cart.
    - Removing items from the cart.
    - Displaying a detailed summary of subtotal, taxes, and total price.
- Persistent cart state using local storage.

Screenshot: Cart component displaying selected items with quantities and prices.



6. Pagination Component

- Implemented pagination for large datasets on the product listing page.
- Designed buttons for navigating between pages.
- Ensured smooth performance and compatibility with filtering and sorting features.

Screenshot: Pagination interface on the product listing page.

7. Filter Panel Component

- Built an filter panel for refining search results.

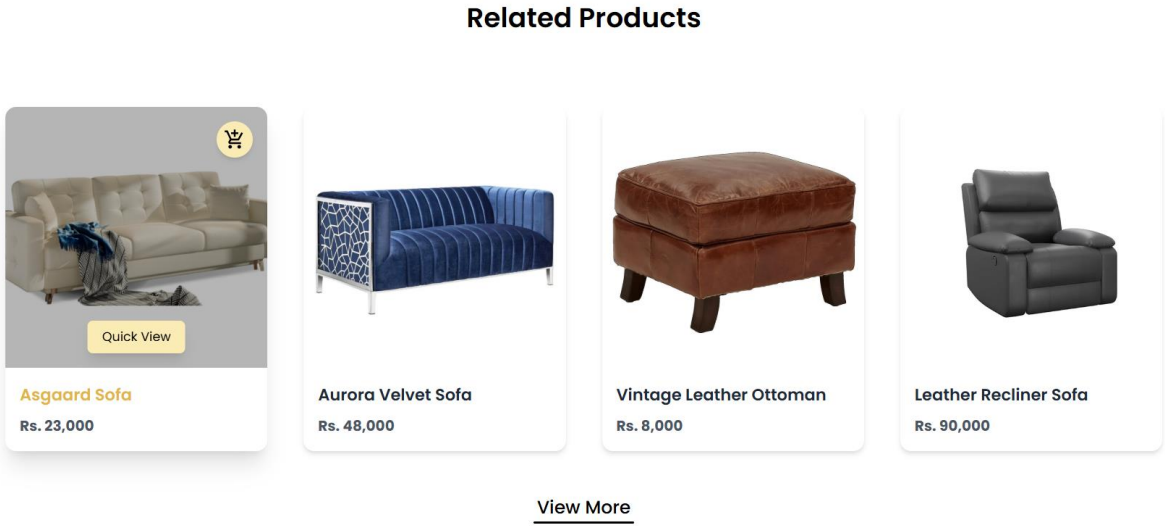
- Included options such as:
    - Price range (high to low and low to high)
    - Showing Products Per Page
- Updated results dynamically based on user selections.

Screenshot: Filter panel showcasing various filtering options.

8. Related Products Component

- Added a related products section on the product detail page.
- Dynamically fetched data based on similar tags, categories, or customer behaviors.
- Displayed complementary products to encourage additional purchases.

Screenshot: Related products displayed below the product details.

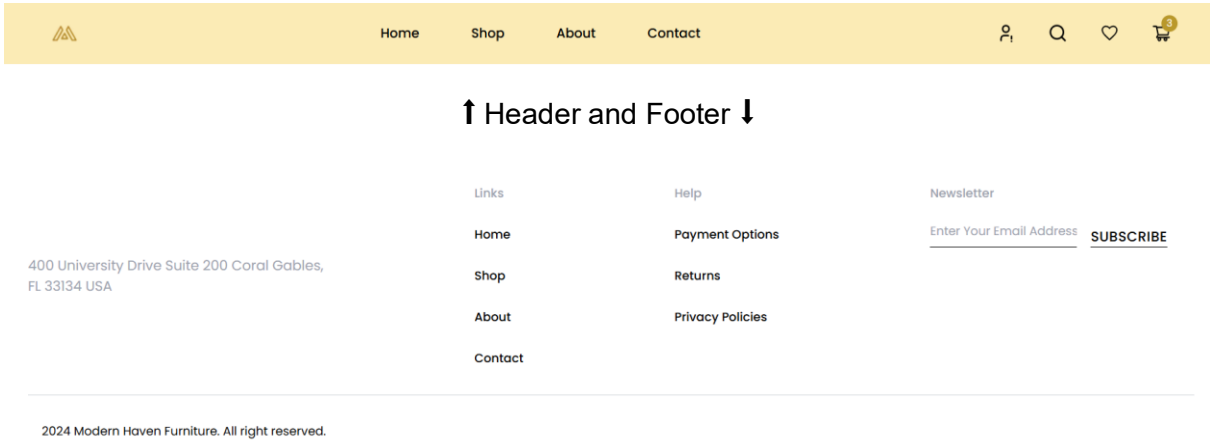


9. Header and Footer Components

- Designed consistent header and footer components.

- Header included a logo, navigation links, and wish list, cart icons.
- Footer featured links to key pages (e.g., Home, About, Contact) and social media icons.
- Ensured responsiveness and user-friendly design.

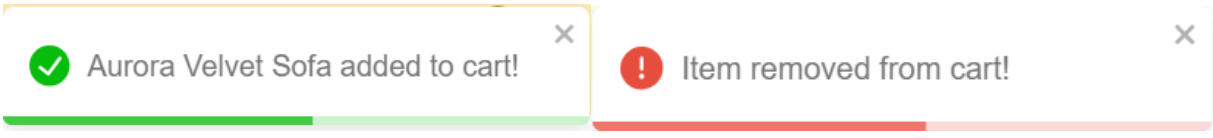
Screenshot: Header and footer layout across the application.



10. Notification Component

- Implemented a notification system for user actions such as:
  - Adding or removing products to the cart
  - Successful purchases
  - Errors or warnings
- Displayed notifications as toast messages or modals.
- Ensured notifications were non-intrusive and automatically disappeared after a few seconds.

Screenshot: Notification popup indicating a successful action.



Best Practices Followed

- **Reusability:** Modular components designed for reuse across multiple pages.
- **Responsive Design:** Ensured seamless usability on desktops, tablets, and mobile devices.

- **State Management:** Used React Context API for managing state across components like the cart and filters.
- **Performance Optimization:** Implemented techniques like lazy loading for images and debounced searches.
- **Error Handling:** Provided user-friendly messages and fallback UI for failed API calls.

Conclusion

The completion of Day 4 tasks has significantly enhanced the frontend of the Modern Haven Furniture Marketplace. With the implementation of dynamic components such as product listings, product details, cart management, and notifications, the platform now delivers a polish and professional user experience.