

DAY 4 - BUILDING DYNAMIC FRONTEND COMPONENTS

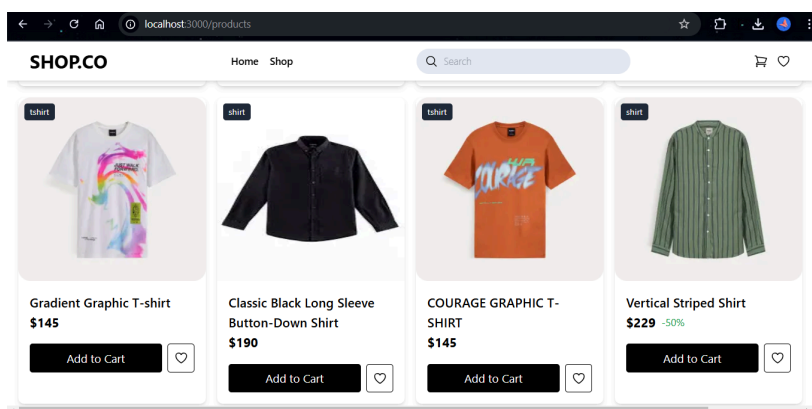
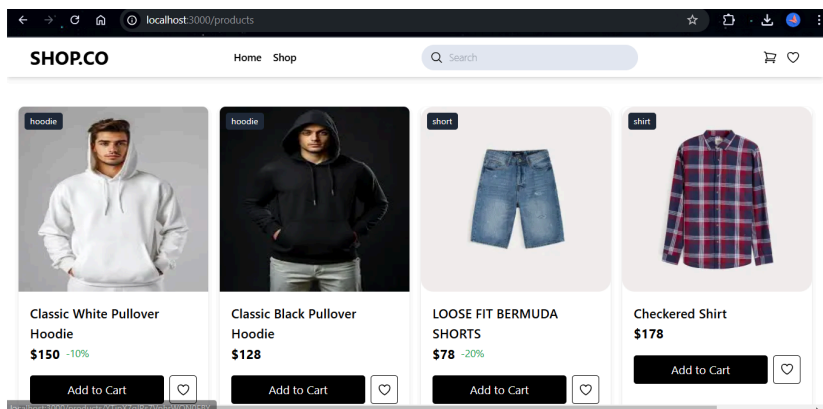
Objective

The objective of this report is to document the integration of core functional features and components for the e-commerce marketplace. This includes the development of product listing pages, individual product detail pages, and dynamic features such as category filters, search functionality, pagination, and related product displays.

Functional Deliverables

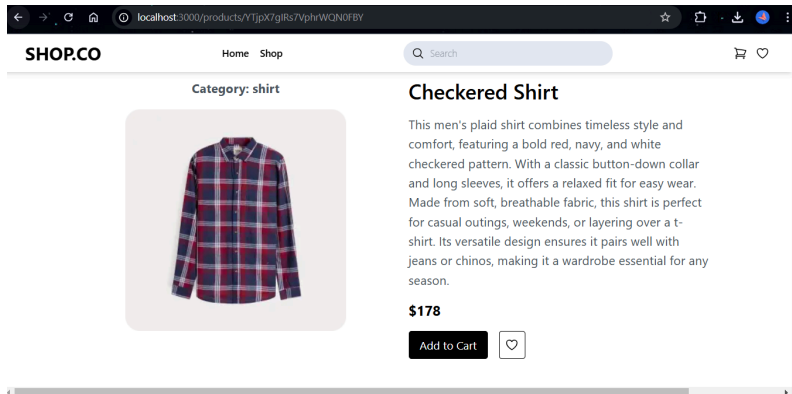
1. Product Listing Page

- **Description:** The product listing page displays dynamically fetched products, including their images, categories, and pricing.



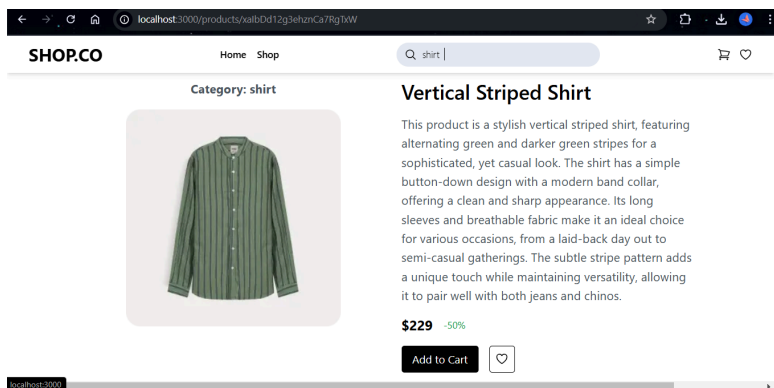
2. Product Detail Pages

- **Description:** Individual product pages are accessible through dynamic routing, showing detailed information about each product.



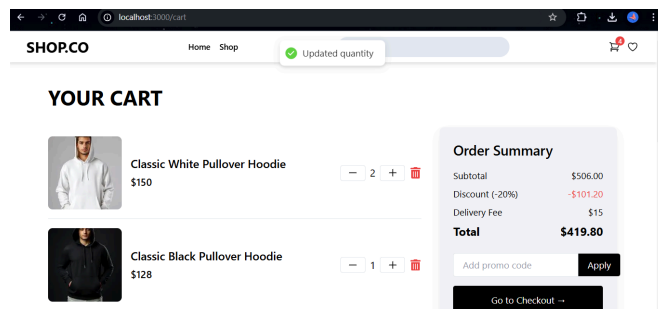
3. Category Filters, Search Bar, and Pagination

- **Description:** Implemented category filters, and a search bar for querying products for seamless navigation.



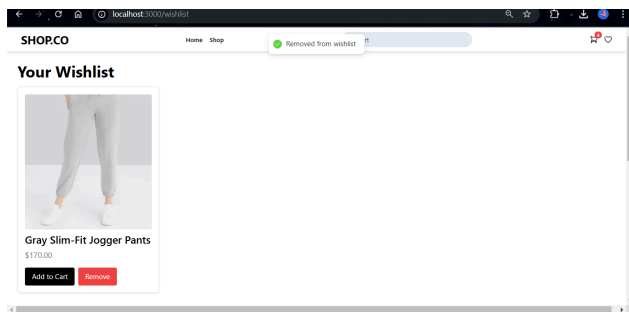
4. Cart Functionality

- **Description:** A cart component was developed to manage product selections, including adding and removing items and updating quantities.



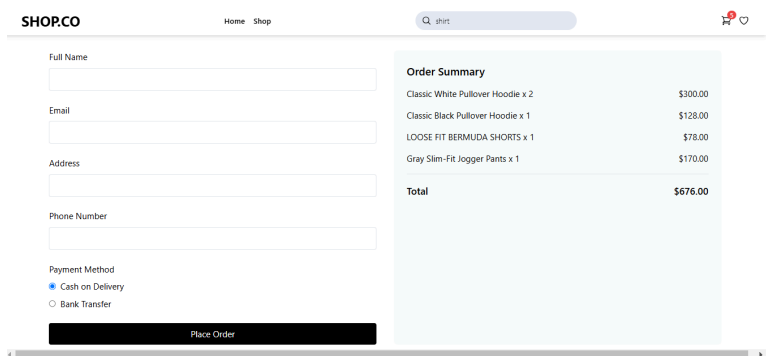
5. Wishlist Functionality

- **Description:** Users can add items to their wishlist for future purchases.



6. Checkout Process

- **Description:** A simple and secure checkout process was implemented, including collecting shipping information, payment methods, and order confirmation.



1. Steps Taken

- Developed the product listing page with dynamic data fetched via API.
- Implemented dynamic routing for individual product detail pages.
- Integrated category filters, and search functionality to enhance navigation.

2. Challenges and Solutions

- **Challenge:** Implementing dynamic routing for product detail pages.
 - **Solution:** Used Next.js dynamic routing and page generation to handle individual product detail pages based on their ID.

3. Best Practices

- Emphasized code modularity by creating reusable components
 - Implemented error handling and loading states during API data fetching to ensure a smooth user experience.
 - Followed React best practices, ensuring clean, maintainable code.
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