E-Commerce Front-End Architecture Overview

Technological Foundation

Our e-commerce platform is based on two main technologies:

1. Next.js: This is a React framework that provides server-side rendering, optimized performance, and an excellent routing system.

2. Tailwind CSS: A utility-first CSS framework that ensures rapid UI development and consistent styling across the platform.

Structural Organization

Our project is organized into three key directories:

1. pages: Contains the core routing and page-specific logic.

2. components: Houses reusable UI elements, ensuring code reusability and design consistency.

3. public: Stores static assets, optimizing asset delivery and management.

Core User Interfaces

Our platform includes four primary user interfaces:

1. Home Page: The entry point where the product catalog is showcased.

2. Product Details: Provides detailed information about specific items, helping customers make informed decisions.

3. Cart: Allows users to review and modify their selected items.

4. Checkout: Manages the final transaction process.

User Journey and Conversion Funnel

Each stage is designed to maximize conversions:

1. Home Page
   - Objective: Product discovery and user engagement.
   - Flow: Display products -> Add to cart.

2. Product Details
   - Objective: Provide comprehensive information to assist in purchase decisions.
   - Flow: Show product details -> Add to cart.

3. Cart
   - Objective: Review and refine purchase decisions.
   - Flow: View cart items -> Update quantities -> Proceed to checkout.

4. Checkout
   - Objective: Complete the final transaction.
   - Flow: Enter details -> Place order.

Backend: Sanity CMS

Sanity CMS will serve as the backend, handling the following:

- Product Data Store: Stores product data including ID, name, price, description, and images.

- Order Management: Manages orders, storing order ID, product ID, and quantity.

- Customer Information Handling: Stores customer details such as customer ID, name, and email address.

Flow Chart

The flowchart is included as