

Day 2 - Planning the Technical Documentations Foundation

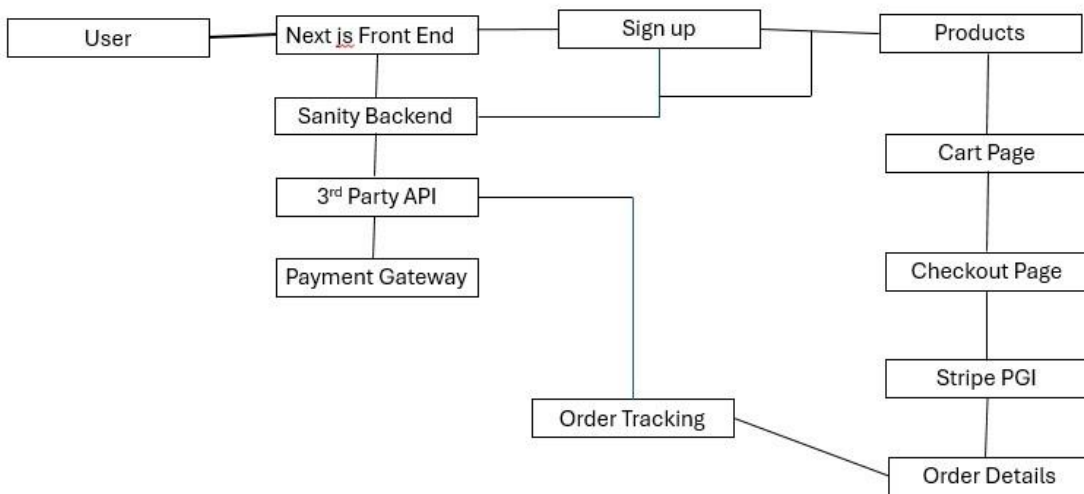
Define Technical Requirements

- **Frontend Requirements:**
 - **User-friendly interface for browsing products:**
 - ✦ Implement intuitive navigation and filtering options (e.g., by category, price range, seller, style).
 - ✦ High-quality product images and detailed descriptions.
 - ✦ Clear calls to action (e.g., "Add to Cart," "View Details").
 - **Responsive design for mobile and desktop users:**
 - ✦ Ensure the website adapts seamlessly to different screen sizes and resolutions.
 - ✦ Optimize for mobile devices to enhance user experience on smartphones and tablets.
 - **Essential pages:**
 - ✦ **Home Page:**
 - ✦ Showcase featured products, promotions, and user testimonials.
 - ✦ Provide easy access to key categories and search functionality.
 - ✦ **Product Listing Page:**
 - ✦ Display products in a visually appealing and organized manner.
 - ✦ Allow users to filter and sort products based on various criteria.
 - ✦ **Product Detail Page:**
 - ✦ Display high-resolution images, detailed descriptions, customer reviews, and seller information.
 - ✦ Include options for selecting variations (e.g., color, size).
 - ✦ **Cart Page:**
 - ✦ Allow users to review their selected items, modify quantities, and apply discounts.
 - ✦ **Checkout Page:**
 - ✦ Securely collect customer information (shipping address, billing address, payment details).

- ✦ Offer various payment options (e.g., credit card, debit card, online wallets).
 - ✦ Display shipping costs and estimated delivery times.
 - ✦ **Order Confirmation Page:**
 - ✦ Display order summary, order number, and tracking information.
 - ✦ Provide options for order history and tracking.
- **Sanity CMS as Backend:**
 - **Manage product data, customer details, and order records:**
 - ✦ Create Sanity schemas to structure and store all relevant data within the CMS.
 - **Focus on designing schemas in Sanity to align with the business goals from Day 1:**
 - ✦ **Products:**
 - ✦ Product ID, Name, Description, Price, Images, Dimensions, Material, Color, Seller ID, Category ID, Stock Availability, Reviews.
 - ✦ **Customers:**
 - ✦ Customer ID, Name, Email Address, Phone Number, Shipping Address, Billing Address, Order History.
 - ✦ **Orders:**
 - ✦ Order ID, Customer ID, Product IDs, Order Date, Order Status, Shipping Address, Billing Address, Payment Details, Tracking Information.
 - ✦ **Categories:**
 - ✦ Category ID, Name, Description.
 - ✦ **Sellers:**
 - ✦ Seller ID, Company Name, Contact Information, Store Information.
 - **Utilize Sanity's features:**
 - ✦ Leverage Sanity's content editing interface for easy content management.
 - ✦ Utilize Sanity's GraphQL API to fetch data for the frontend.
- **Third-Party APIs:**
 - **Integrate APIs for shipment tracking:**

- ✦ Integrate with shipping providers (e.g., FedEx, UPS, DHL) to provide realtime tracking information to customers.
- **Integrate APIs for payment gateways:**
 - ✦ Integrate with payment gateways (e.g., Stripe, PayPal, Razorpay) to facilitate secure online transactions.
- **Other required backend services:**
 - ✦ Consider APIs for:
 - ✦ **Email notifications:** Send order confirmations, shipping updates, and promotional emails.
 - ✦ **SMS notifications:** Send order updates and reminders.
 - ✦ **Image and video hosting:** Store and deliver high-quality product images and videos.
 - ✦ **Search and recommendation engines:** Enhance product discovery and improve user experience.

System Architecture:



- **Diagram:** ○ [Include a simple diagram here. Example using a tool like Lucidchart or draw.io:

✦ Frontend (Next.js)

- ✦ Connects to:
- ✦ **Sanity CMS** (for product data, customer data, order data) ✦

Third-Party APIs:

- ✦ **Shipment Tracking API** (e.g., Shippo)
- ✦ **Payment Gateway API** (e.g., Stripe)
- ✦ **Email/SMS API**

- **Component Roles:**

- **Frontend:** User interface for interaction.
- **Sanity CMS:** Content management system for data storage and retrieval.
- **Shipment Tracking API:** Handles shipping logistics and provides tracking updates.
- **Payment Gateway API:** Processes online payments securely.
- **Email/SMS API:** Facilitates communication with users (order confirmations, notifications).

2. Key Workflows

- **User Registration:**

- User enters details on the frontend.
- Frontend sends data to Sanity CMS.
- Sanity CMS creates a new customer record.
- Welcome email sent to user via Email/SMS API.

- **Product Browsing:**

- User navigates through product categories on the frontend.
- Frontend requests product data from Sanity CMS.
- Sanity CMS provides product information.
- Frontend displays products to the user.

- **Order Placement:**

- User selects products, adds them to the cart.
- Frontend sends order details (products, customer, shipping, payment) to Sanity CMS.
- Sanity CMS creates an order record.

- Order confirmation is sent to the user via Email/SMS API.
- **Order Fulfillment:**
 - Order information (shipping address) is sent from Sanity CMS to the Shipment Tracking API.
 - Shipment API generates a shipping label and tracking number.
 - Tracking number is updated in the order record within Sanity CMS.
- **Shipment Tracking:**
 - Frontend requests tracking information for an order from Sanity CMS. ○
Frontend sends the tracking number to the Shipment Tracking API. ○
Shipment API provides real-time tracking updates.
 - Frontend displays tracking updates to the user.

3. Category-Specific Instructions

- **General eCommerce:**
 - **Workflows:** Product browsing, cart management, order placement (as described above).
 - **API Endpoint:**
 - ✦ **/products** (GET): Fetch all product details (ID, name, price, image, description, etc.)