DAY 2

PLANNING THE TECHNICAL FOUNDATION

1. Define Technical Requirements

Frontend Requirements

- **User-Friendly Interface**: Browse furniture, customizable options, and decor products.
- **Responsive Design**: Seamless experience for mobile and desktop users.
- **Essential Pages**: Home, Product Listing, Product Details, Cart, Checkout, and Order Confirmation.
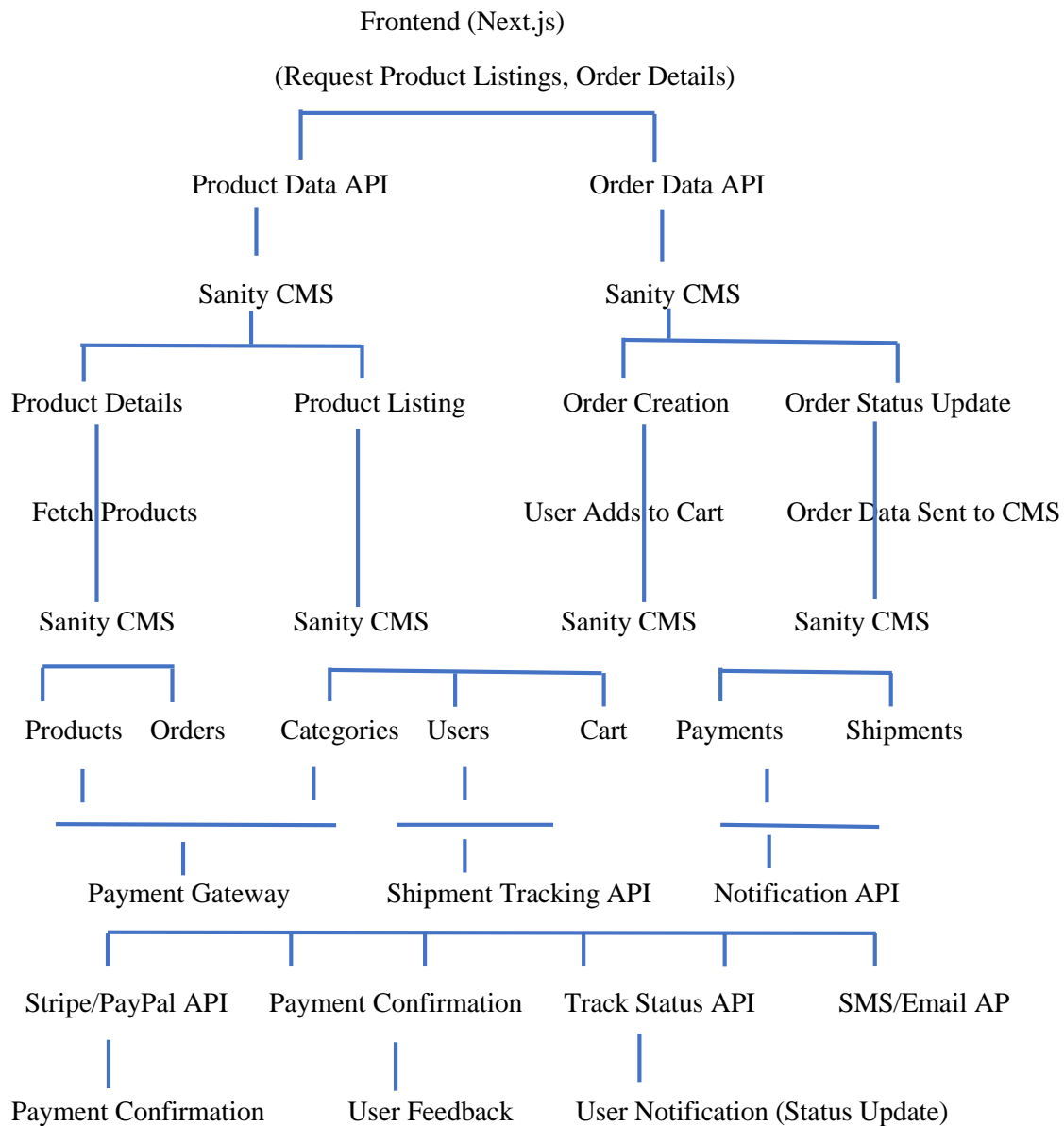
Backend with Sanity CMS

- Manage data for:
    - Products (e.g., customizable furniture, decor).
    - Customers (e.g., profiles, contact info).
    - Orders (e.g., order records, shipment statuses).
- Design schemas aligning with:
    - Diverse categories (sofas, chairs, decor items).
    - User needs for furniture customization and affordability.

Third-Party APIs

- **Shipment Tracking**: Real-time updates.
- **Payment Gateways**: Secure, flexible payment options (credit card support included).
- **Other Backend Services**: Support delivery zones, inventory sync, and custom requests.

2. Design System Architecture

Frontend (Next.js)

(Request Product Listings, Order Details)

Product Data API   Order Data API

Sanity CMS   Sanity CMS

Product Details   Product Listing   Order Creation   Order Status Update

Fetch Products   User Adds to Cart   Order Data Sent to CMS

Sanity CMS   Sanity CMS   Sanity CMS   Sanity CMS

Products   Orders   Categories   Users   Cart   Payments   Shipments

Payment Gateway   Shipment Tracking API   Notification API

Stripe/PayPal API   Payment Confirmation   Track Status API   SMS/Email AP

Payment Confirmation   User Feedback   User Notification (Status Update)

Frontend (Next.js):

- **User Actions:** Browsing products, adding to cart, purchasing.
- **API Requests:** Fetches product, order, and user data from Sanity CMS.
- **User Feedback:** UI updates based on actions (viewing, ordering).

Sanity CMS (Product Data API):

- **Product Data:** Retrieves product details (images, pricing).
- **Order Data:** Saves order details (user, cart items, payment status).
- **Categories, Users, Cart:** Stores product categories, user accounts, and cart data.

Order Management (Order Data API):

- **Order Creation:** Sends order data for checkout and processing.
- **Order Status:** Fetches and updates order status.

Payment Gateway (Stripe/PayPal API):

- **Payment Info:** Sends payment details to the gateway.
- **Payment Confirmation:** Displays success/failure.

Shipment Tracking API:

- **Shipping Info:** Tracks shipment status and updates.
- **User Notification:** Notifies users via SMS/email about shipment.

Notifications (SMS/Email API):

- **Order Confirmation:** Sends confirmation after successful payment.
- **Shipment Updates:** Sends real-time shipping updates.