

DAY 2 PLANNING THE TECHNICAL FOUNDATION

SYSTEM ARCHITECTURE

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FRONTEND REQUIREMENT

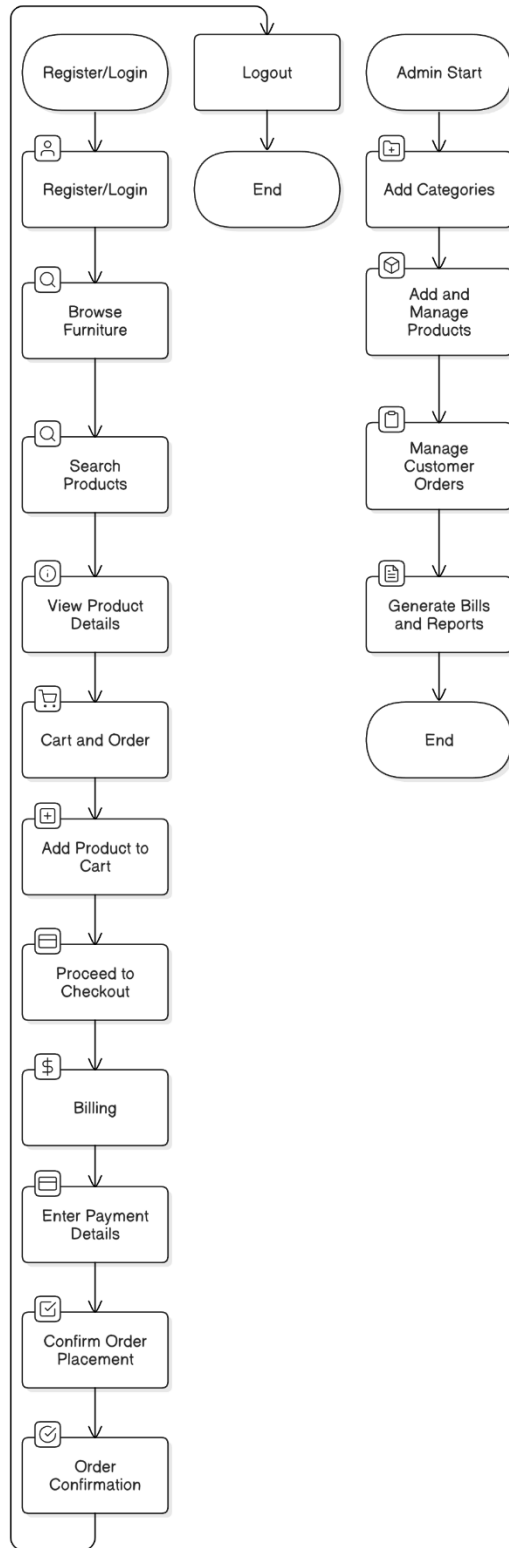
Frontend Flow:

1. Customer Workflow:

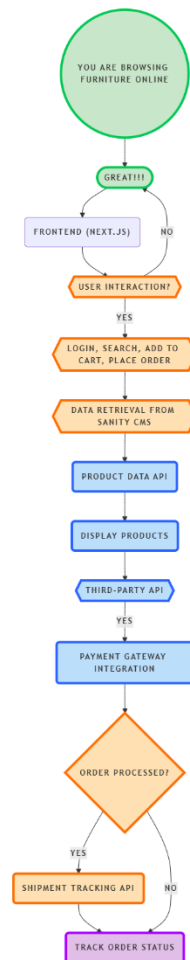
- **Register/Login:**
 - Customer register OR login
- **Browse Furniture:**
 - Search products (sofas, chairs).
 - View product details (dimensions, price, stock, etc.).
- **Cart and Order:**
 - Add product to cart.
 - Proceed to checkout.
- **Billing:**
 - Enter payment details.
 - Confirm order placement.
- **Order Confirmation:**
 - Show "Order Placed" screen.
- **Logout.**

2. Admin Workflow:

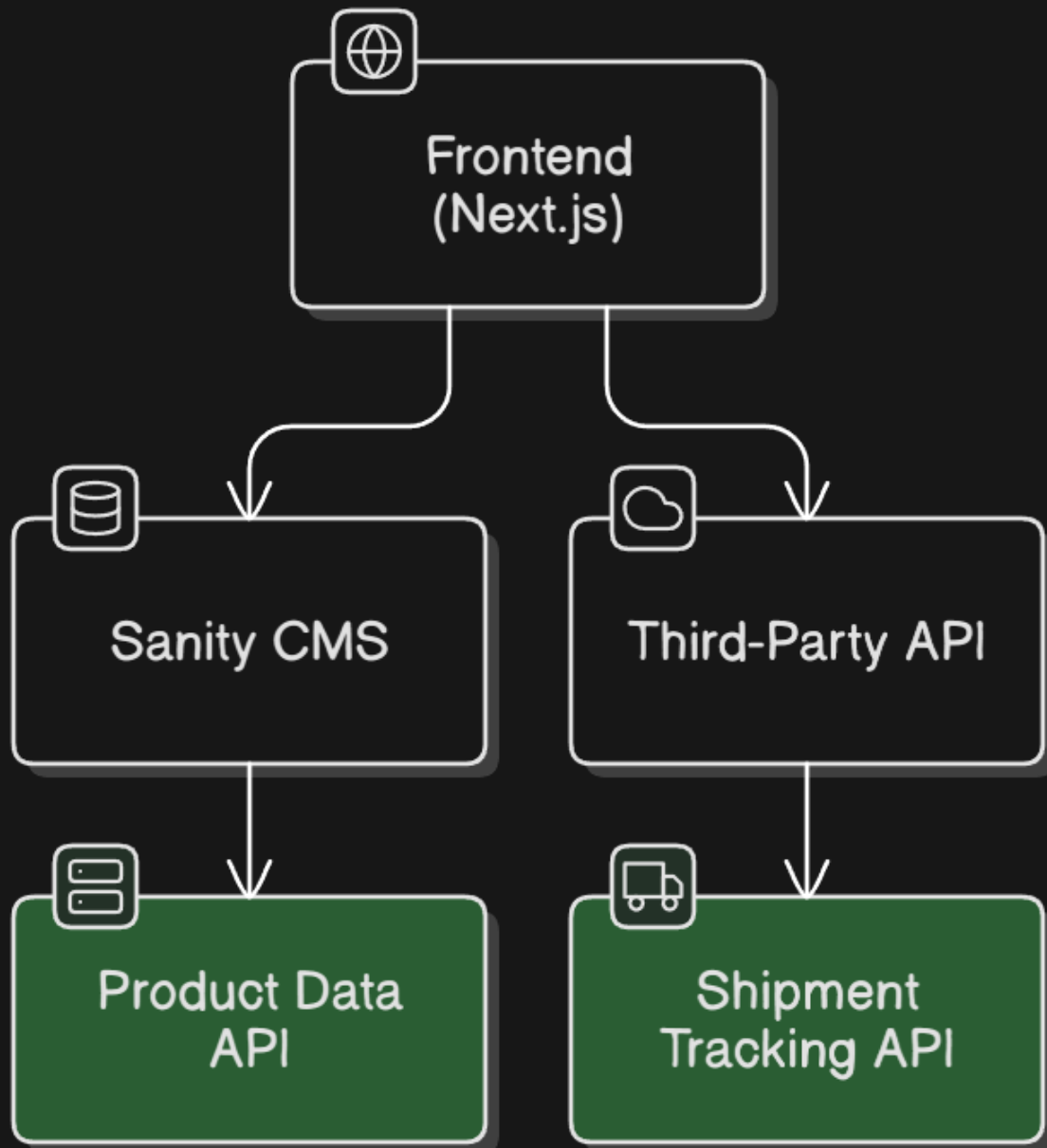
- Add categories (e.g., sofas, chairs).
- Add and manage products.
- Manage customer orders.
- Generate bills and reports.



PROJECT DIAGRAM



System Architecture Overview



Explanation:

1. Frontend (Next.js):

- This is the main user interface where customers browse furniture (sofas, chairs).
- All user interactions like login, product search, adding items to the cart, and placing orders occur here.

2. Sanity CMS:

- A Content Management System (CMS) used to manage furniture data, such as product categories, details, and updates.
- Primarily used by the admin to add or update furniture products.

3. Third-Party API:

- External APIs used to integrate additional features such as:
 - Payment gateways (e.g., Stripe, PayPal).
 - Real-time currency conversion or other external services.

4. Product Data API:

- A backend API responsible for fetching product data from Sanity CMS and delivering it to the frontend.
- Examples include product categories, stock availability, and detailed furniture descriptions.

5. Shipment Tracking API:

- Allows customers to track the shipping status of their orders.
- Integrates with third-party courier services.

Flow:

- **Frontend:** Retrieves data from the Sanity CMS and APIs to display products and handle user interactions.
- **Sanity CMS:** Manages product data and provides updates to the frontend via the Product Data API.
- **Third-Party API and Shipment Tracking API:** Handle payment processes and ensure smooth order delivery.