- **Recap of Day 1: Business Goals for a Furniture Marketplace**

1. **Business Goals Defined**:
    - Problem: A lack of high-quality, customizable furniture options in an online marketplace.
    - Target Audience: Homeowners, interior designers, and office managers seeking reliable furniture with customization options.
    - Unique Value Proposition: Provide customizable furniture with real-time previews, high-quality materials, and competitive pricing.
2. **Preliminary Data Schema**:
    - Entities: **Products**, **Customers**, **Orders**, **Cart Items**, and **Reviews**.
    - Relationships:
        - Products → Categories (e.g., Chairs, Tables, Beds).
        - Customers → Orders (1:N relationship).
        - Orders → Cart Items (1:N relationship).
3. **Single Focus**:
    - Business requirements included:
        - Streamlined product browsing.
        - Easy order placement.
        - Customization tools.

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- **Day 2 Activities: Technical Planning for Furniture Marketplace**

**1. Define Technical Requirements**

- **Frontend Requirements:**

- **Pages**:
    - **Home**: Highlight featured furniture and promotions.
    - **Product Listing**: Filterable and sortable by categories (e.g., price, material, size).
    - **Product Details**: Include product specifications, reviews, and customization options.
    - **Cart**: Display selected items with options to adjust quantity.
    - **Checkout**: Collect shipping details and display order summary.
    - **Order Confirmation**: Show confirmation and tracking details.
- **Responsive Design**: Ensure compatibility with mobile, tablet, and desktop views.
- **Customization Tool**:
    - Let users modify dimensions, colors, and materials.
    - Show real-time previews.

- **Backend (Sanity CMS):**

- **Product Management**:
    - Store product details, categories, stock levels, and customization options.
- **Order Management**:
    - Track orders with details like customer info, payment status, and shipping updates.
- **Customer Management**:
    - Manage user profiles, including saved addresses and purchase history.

- **Third-Party APIs:**
- **Shipment Tracking**: Fetch real-time updates via a logistics API.
- **Payment Gateway**: Process secure payments via platforms like Stripe or PayPal.

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**2. Design System Architecture**

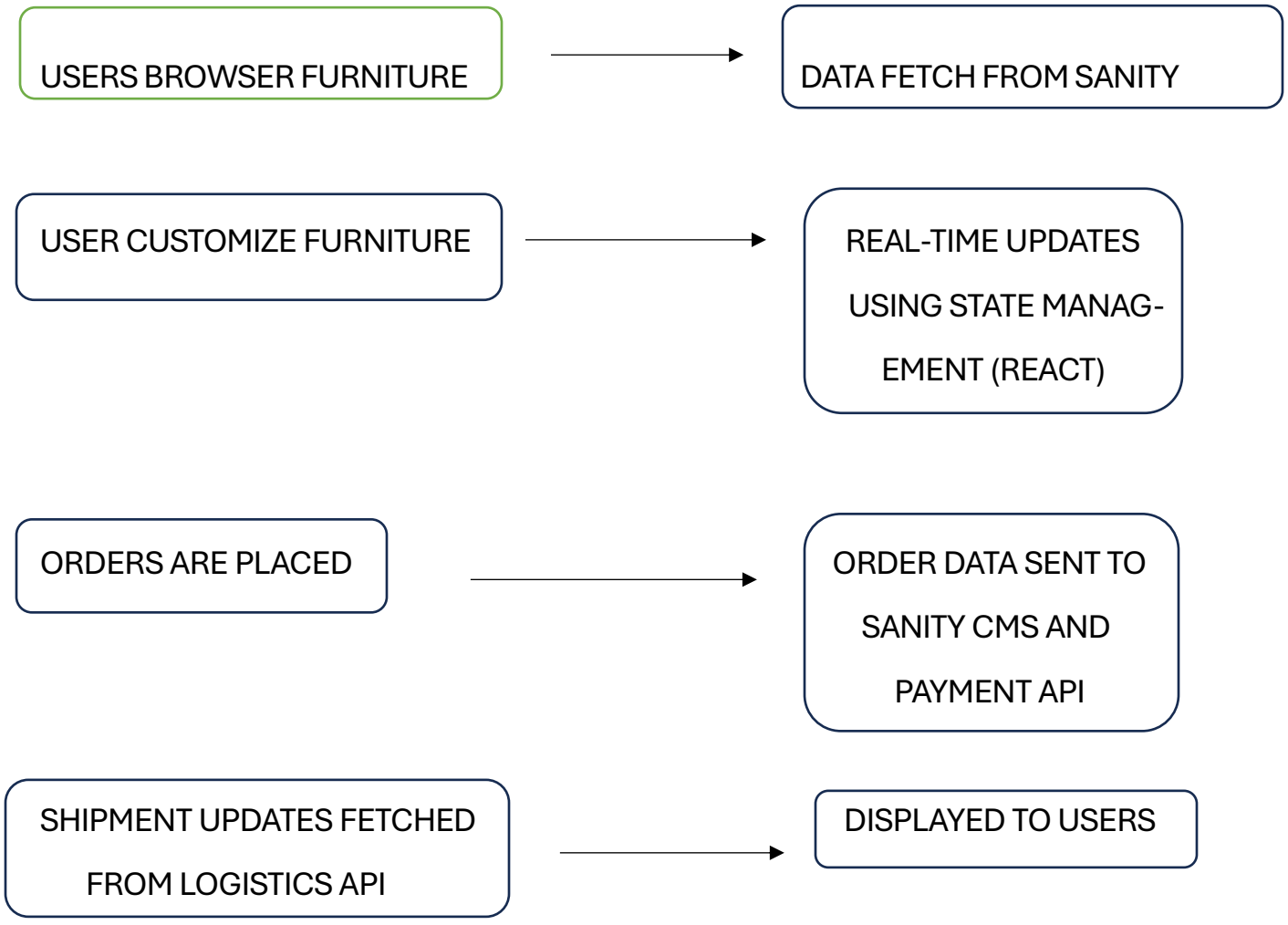
A high-level system architecture diagram for the furniture marketplace:

- **Components**:

1. **Frontend**: Built with **Next.js**, handling user interactions and rendering pages.
2. **Sanity CMS**: Manages content such as products, orders, and customer data.
3. **Third-Party APIs**:

- Shipment tracking.
- Payment processing.

- **Detailed Workflow**:




**3. Plan API Requirements**

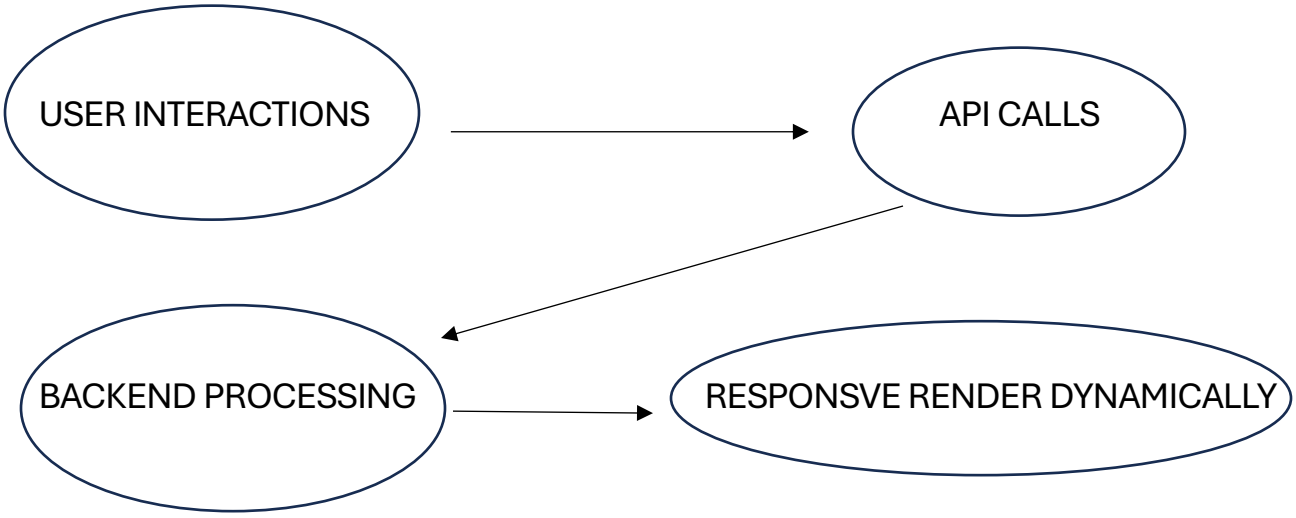
**Endpoints:**

| Endpoint | Method | Description | Payload / Response |
|---|---|---|---|
| /products | GET | Fetch all furniture products | { id, name, price, stock, image, category } |
| /product/{id} | GET | Fetch details of a specific item | { id, name, price, stock, customizationOptions } |
| /cart | POST | Add items to the cart | { productId, quantity } |
| **/orders** | POST | Create a new order | { customerInfo, cartItems, paymentStatus } |
| **/shipment/{id}** | GET | Fetch shipment tracking details | { orderId, status, ETA } |

**4. Write Technical Documentation**

**System Architecture Document**:

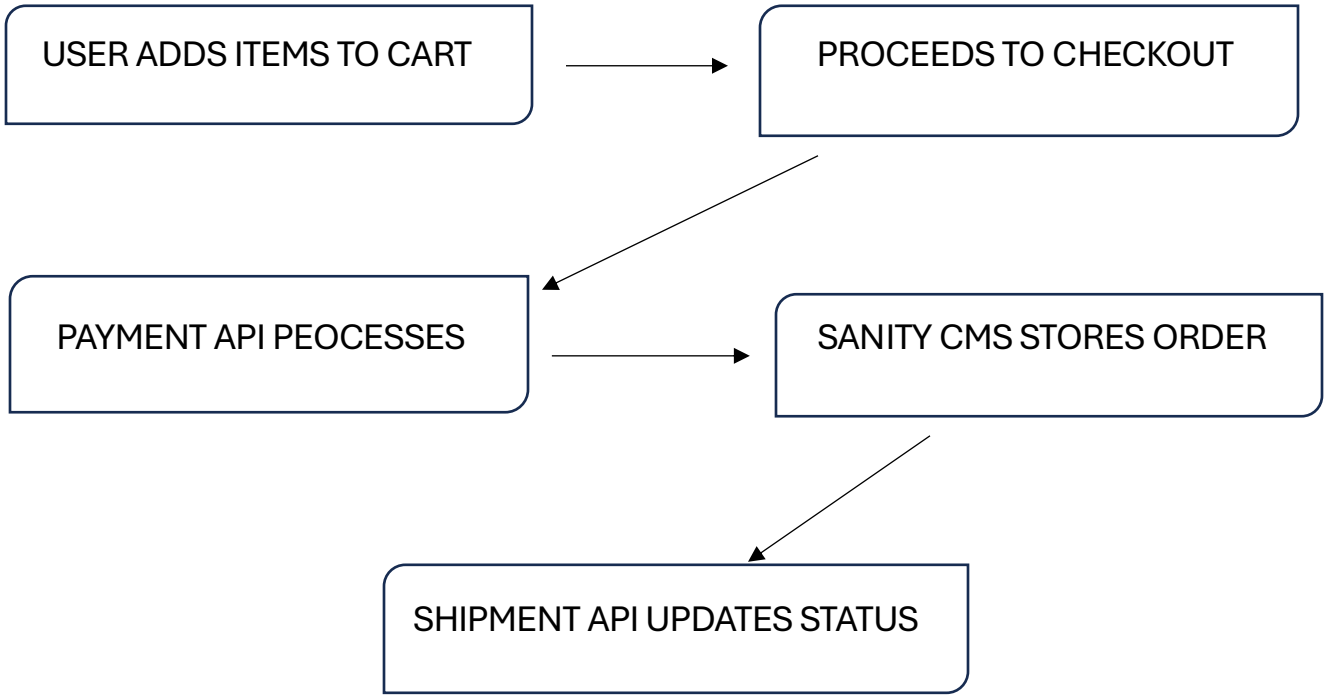
- **Components**:
  - Frontend: User interface built with **Next.js**.
  - Backend: Content and order management using **Sanity CMS**.
  - APIs: Payment gateway (e.g., Stripe) and shipment tracking.
- **Data Flow**:



**API Specification Document**:

- Provide endpoint details, payloads, and sample responses for all API integrations.

**Workflow Diagram**:




**Data Schema**:

- Product:

```
export default {
  name: 'product',
  type: 'document',
  fields: [
    { name: 'name', type: 'string', title: 'Product Name' },
    { name: 'price', type: 'number', title: 'Price' },
    { name: 'category', type: 'string', title: 'Category' },
```

```
  { name: 'stock', type: 'number', title: 'Stock Level' },
  { name: 'customizationOptions', type: 'array', of: [{ type: 'string' }], title: 'Customization Options' }
 ]
};
```

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