

- **Hackathone-3 Day 2:**

Planning the Technical Foundation

1. Frontend(Next.js)

Objective:

Create a responsive and user-friendly interface for browsing furniture products.

Marketplace Feature:

- Product listing and search pages.
- Product detail pages.
- User authentication (login/register).
- Shopping cart and checkout flows.
- **Key Components:**
 - Navbar with category filters.
 - Product cards for listing.
 - Search bar and pagination.
 - User dashboard for orders and account management.

2. Backend: Sanity CMS

- **Schema Design for a Marketplace:**
 - **Products:** Name, description, price, images, category, stock availability.
 - **Categories:** Category name, associated products.
 - **Users:** User profiles, order history.
 - **Orders:** Products ordered, total price, user, order status.
- **Dynamic Content:**
 - Use Sanity's GROQ queries to fetch products and categories dynamically.
 - Manage product updates in real-time for stock and pricing changes.

3. Interaction Between Frontend and Backend

- **Flow:**
 - Fetch products and categories from Sanity CMS.
 - Display product details dynamically using product IDs.
 - Use server-side rendering for SEO-friendly product pages.
- Fetch Products and Categories from Sanity CMS:**

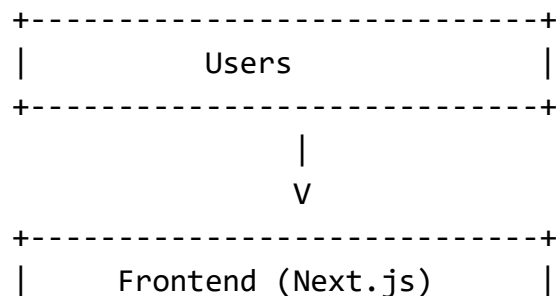
- Use GROQ queries to fetch product and category data efficiently.
- Example GROQ query for products:
 - ```
const query = `*[_type == "product"]{
 _id,
 name,
 description,
 price,
 "category": category->name,
 images
}`;
```
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## 4. API Requirements

- **Endpoints:**
  - **Products:**
    - GET /products: Fetch all products.
    - GET /products/:id: Fetch a single product.
  - **Categories:**
    - GET /categories: Fetch all categories.
    - GET /categories/:id/products: Fetch products by category.
  - **Users:**
    - POST /users/login: Authenticate user.
    - GET /users/:id/orders: Fetch user orders.
  - **Orders:**
    - POST /orders: Create a new order.

## 5. System Architecture

Below is a marketplace-specific architecture diagram:



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| - Product Pages |
| - Cart and Checkout |
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| APIs (Sanity CMS) |
| - Products & Categories |
| - User Data & Orders |
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| Sanity CMS Backend |
| - Content Management |
| - Schema for Marketplace |
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