Hackathon Day 2: Planning the Technical Foundation

Goal

I will create a high-level technical plan, including system architecture, workflows, and API requirements, which will act as a blueprint for the implementation phase. This planning stage is directly connected to the business goals defined on Day 1, ensuring that your technical solutions align with the marketplace's purpose and provide a strong foundation for success.

Day 2 Activities: Transitioning to Technical Planning

1. Define Technical Requirements.

The first step is to translate your business goals into clear technical requirements. For each feature identified on Day 1, outline the following:

Frontend Requirements:

o User-friendly interface for browsing products.

o Responsive design for mobile and desktop users

o Essential pages: Home, Product Listing, Product Details, Cart, Checkout, and Order Confirmation.

Sanity CMS as Backend:

Use Sanity CMS to manage product data, customer details, and order records. Sanity acts as the database for your marketplace.

Third-Party APIs:

Integrate APIs for shipment tracking, payment gateways, and other required backend services. o Ensure APIs provide the necessary data for frontend functionality

2. Design System Architecture

[Frontend (Next.js)]
|
[Sanity CMS] ---------> [Product Data API]
|
[Third-Party API] -----> [Shipment Tracking API]
|
[Payment Gateway]

3. Plan API Requirements

General eCommerce Example:
o Endpoint Name: /products
o Method: GET o Description: Fetch all product details.
o Response Example: { "id": 1, "name": "Product A", "price": 100 }

Ensure API documentation aligns with marketplace-specific workflows to provide clarity for implementation. Based on your data schema, define the API endpoints needed

Endpoint Name: /products
o Method: GET
o Description: Fetch all available products from Sanity.
o Response: Product details (ID, name, price, stock, image)

Endpoint Name: /orders
o Method: POST
o Description: Create a new order in Sanity.
o Payload: Customer info, product details, payment status

Endpoint Name: /shipment
o Method: GET
o Description: Track order status via third-party API.
o Response: Shipment ID, order ID, status, expected delivery date.
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ERD (Entity Relationship Diagram)