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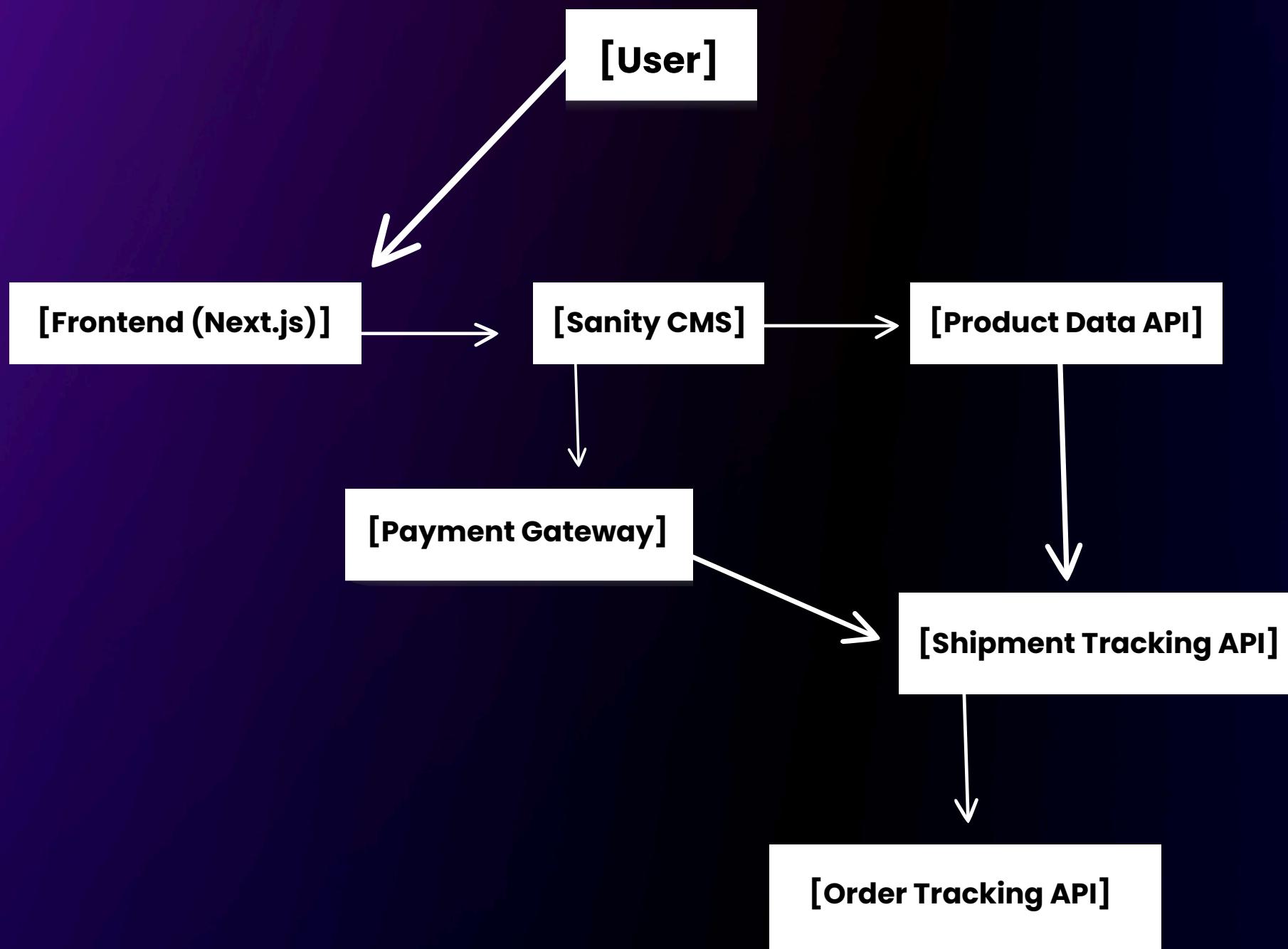
HACKATHON 03 DAY 02

Technical Planning for Your E-commerce Website





Architecture Diagram





Overview of the Architecture

This system architecture focuses on building a robust and scalable solution using Sanity as the content backend. It integrates multiple components to ensure seamless operation and user experience for a platform involving order management, shipment, and delivery processes.

Key Components

Sanity as Backend :

- Role: Acts as the central content management system (CMS) and backend platform.
- Functionality: Manages and stores data like order details, user information, and other dynamic content.

Frontend (Next.js) :

- Role: Serves as the user interface for the application.
- Functionality: Users can interact with the platform, view order details, track shipments, and make payments.
- Integration with Sanity: Fetches dynamic content and data via APIs from Sanity.



Users :

- Role: End-users accessing the platform.
- **Types:**
- Individual users managing their orders and tracking shipments.
- Admins or managers handling backend operations and content updates.

Order Data :

- Role: Represents the core transactional data, such as order placement and details.
- Source: Stored and managed within Sanity.

APIs :

- Role: Middleware layer for communication between different services.
- **Functionality:**
- Fetches data from Sanity for the frontend.
- Sends and retrieves information related to shipment tracking, delivery, and payments.



Shipment and Tracking:

- Role: Monitors and tracks the shipment process.
- Integration: APIs provide real-time updates on shipment locations and statuses.

Delivery:

- Role: Final stage in the order lifecycle where the product reaches the customer.
- Integration: Delivery updates are fetched via APIs and displayed to the user through the frontend.

Payment Methods:

- Role: Manages and processes online transactions.
- Integration:
- APIs connect to payment gateways to handle secure transactions.
- Data is updated in Sanity for order status.



Workflow Summary

- **User Interaction:**

- Users access the frontend (Next.js) to place orders, track shipments, or make payments.

- **Data Management:**

- Sanity serves as the backend, managing all content and dynamic data.

- API Communication:

- APIs facilitate data exchange between the frontend, Sanity, and third-party services (e.g., shipment tracking and payment processing).

- **Order Lifecycle:**

- Orders are created and managed in Sanity.
- Shipment and delivery details are fetched and updated using APIs.
- Payment status is integrated into the system for a seamless user experience.