HACKATHON: 3
DAY 2

THE TECHNICAL FOUNDATION PLANNING

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OUTLINE

MY MARKETPLACE FURNITURE WEBSITE

- FRONTEND REQUIREMENTS
- BACKEND (SANITY CMS)
- THIRD - PARTY APIs
- API REQUIREMENT
- SANITY SCHEMA EXAMPLES
- SYSTEM ARCHITECTURE
- KEY WORKFLOWS
- CONCLUSION

Frontend Requirements

- User-friendly interface for browsing furniture items.
- Responsive design for both mobile and desktop users.
- Key pages:
- Home: Showcase featured furniture.
- Product Listing: Display furniture categories and products.
- Product Details: Detailed view of individual furniture items.
- Cart: User’s selected items for purchase.
- Checkout: Enter shipping and payment details.
- Order Confirmation: Summary of order details.

Backend (Sanity CMS):

- Manage product data, categories, customer details, and orders.
- Design schemas for products, orders, and customers in Sanity CMS.

Third-Party APIs

- Payment Gateway: Secure payment processing.
- Shipment Tracking: Real-time updates on order delivery status.

API Requirements

Endpoint	Method	Purpose	Response Example
`/products`	GET	Fetch all furniture products.	`{ "id": 1, "name": "Sofa Set", "price": 5000, "stock": 10 }`
`/orders`	POST	Save new order details.	`{ "orderId": 123, "status": "confirmed" }`
`/shipment`	GET	Track shipment status.	`{ "orderId": 123, "status": "in-transit", "deliveryDate": "2025-01-15" }`

System Architecture

Overview:

The system architecture demonstrates how the frontend, backend (Sanity CMS), and third-party APIs interact to create a seamless user experience for a furniture e-commerce website. Each component is linked to ensure data flow and functionality are clear.


[Frontend (Next.js)]
Fetch/Send Data
[Sanity CMS]
[Product Data API]
Serve Product Info
Send Order Info
Fetch Shipment Updates
[Third-Party APIs]
[Shipment Tracking API]
Process Payment
Provide Shipment Status
[Payment Gateway]

Product Browsing:

- The frontend sends a request to the Sanity CMS API to fetch product data.
- Sanity CMS responds with product details, which are displayed to the user.

Order Placement:

- User adds items to the cart and confirms the order.
- The order details are sent to Sanity CMS for storage.
- Payment is processed via the payment gateway, and the result is sent back to the user and stored in Sanity.

Shipment Tracking:

- The shipment tracking API fetches the delivery status based on the order ID.
- The status is displayed to the user on the frontend in real-time.

CONCLUSION:

This architecture ensures smooth integration between the frontend, backend, and APIs, providing a streamlined shopping experience for users. The connections between components reflect their dependencies and workflows clearly.


The End