

DAY 2

PLANNING THE TECHNICAL FOUNDATION



Umm e Habiba

Technical Requirement:

1.fronend:

next js and tailwind css: Responsive modern for all device.

key pages: Home, categories Product detals, Dashboard, payment, cart order

confirmation

2.Backend (sanity CMS):

Schema Design: manage product details customer info and orders

Real Time Update: Dynamic pricing and availability

3.Third-Part APIs:

stripe payment: Safe and smooth payments in multiply currencies

Shipment Tracking: Real-time updates for deliver

2.Desing System Architecture

Software Architecture

[Frontend {N	lex	t.js	&	Tai	lwind	CSS}]
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[Sanity CMS] [Stripe API] [Shipment Tracking API



[Product Data API] [Order Management API]

```
User Visits Frontend
User Browses products
Fetch Product Data from sanity CMD
                             Flow Chart:
Display Product on Fronted
User Selects Product and Adds to Cart
User Proceeds to Checkout
Save Order in Sanity CMS
Process Payment via Stripe API
Payment Successful?-->Fetch Tracking Data
           Display Order Confirmation
 No
Display Payment Error
```

Product Prowsing:

Fetch product data from sanity CMS and disply dynamic listings

Payment processing:

Process payment via stripe API and update order status

Order Placement:

add product to cart proceed to checkout and save order in sanity CMS

Shipment Tracking:

Fatch and display tracking detals from the Tracking API

Algorithm:

3.Plan API Requirements

1.Fetch product Categories 2. Add order Details

3.Creat New Order 4.Track Shipment

1.Add Order Details

- . Endpoint /order-duration
- . Method POST
- . What it does saves order
- . Details for a specific product
- . Payload :('productld':456""deposit" 500
- . Response:("confirmationld":

789.'status': 'success')

2. Creat New Order

- . Endpoint: /orders
- . Method:POST
- . What it does Saves a new order in sanity CMS
- . Payload Customer info. product details. payment status

3.Track Shipment

- Endpoint /shipment
- . Method GET
- what it does Fetches real-time trackinginfo for Product delivery /pickup.
- . Response:shipment ID. order ID status
 Expected delivery date

Diagram:

2. KEY WORKFLOWS

User BroWwsing:

- . User visits the site.
- . Frontend fetches product data from sanity CMS
 - . Displays product with filters (type.price).

Order Placement:

- . User selects productand adds to cart.
- . Proceeds to checkout...
- Order details saved in sanity CMS.Order details saved in sanity CMS.

Payment & Tracking

- . Stripe processes payment.
- . Shipment tracking updates provided.

[Frontend] [Sanity CMS] [Stripe API]

[Shipment Tracking API]

API Endpoints

Endpoint	Method	purpose	Response Example			
/product	GET	Fetches all product details	{"id":1'name':'SUVX'."price":100}			
rental duration	POST	saves order details	{"confirmationld":789."satus":'Success'}			
/orders	POST	Creates a new order	{"order"123 'status':'Confirmed'			
/shipment	GET	Trscks car delivery	{"shipmentld":456."status"'in Transit"}			

Sanity schema Examples

export default { name: 'product', type: 'document', title: 'Product', fields: [{name: 'name', type: 'string', title: 'Name'}, {name: 'type', type: 'string', title: 'Type'}, {name: 'price', type: 'number', title: 'Price'}, {name: 'img', type: 'image', title: 'Image', options: {hotspot: true}}, {name: 'favorite', type: 'boolean', title: 'Favorite'}, {name: 'slug', type: 'slug', title: 'Slug', options: {source: 'name', maxLength: 200}}]}

