Day 2

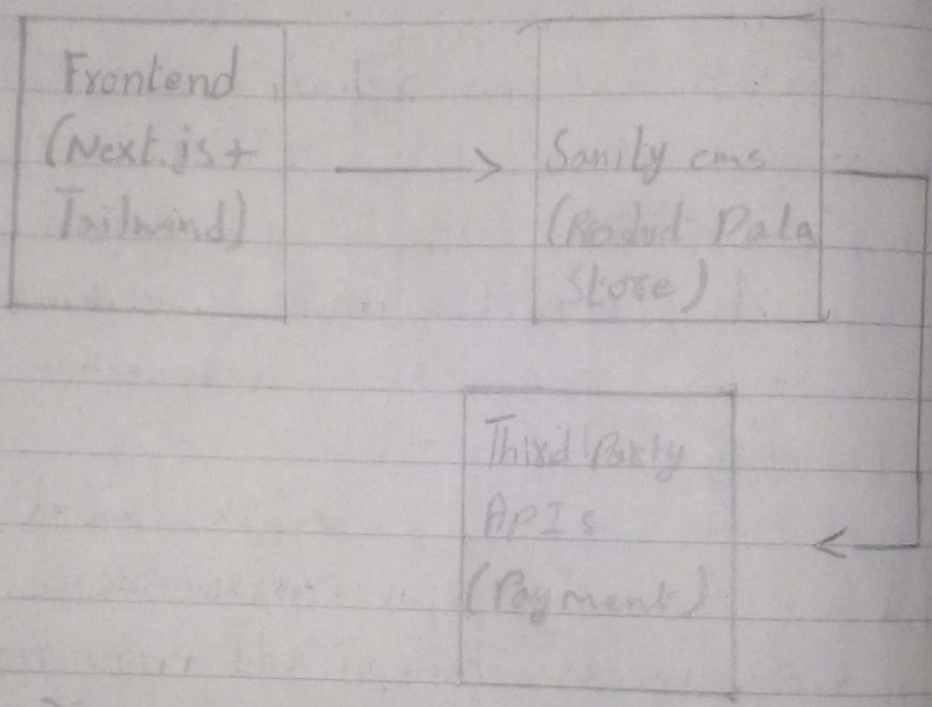
Date: 16/02/2025 Hackathon : 3

Name: Touseef

Roll No

Sol1:

① System Architecture Overview



② Briefly Describe each component:

1. Frontend:

Technology: Built with Next.js and Styled using Tailwind CSS.

Role:

Provides the user interface where customers browse furniture, view product details, add them to the cart, and complete their orders. Make Api calls to fetch and display product data. Manage cart updates, and process user

Handles user interactions, such as selecting product variants (e.g. material or size) or scheduling delivery.

2. Sanity CMS

Technology:

Used as the backend cms to store and manage data.

Role:

Houses all the Product data, including Product name, Price, stock, description, dimensions and materials.

Categories like "Sofas," "Tables" or "Chairs".

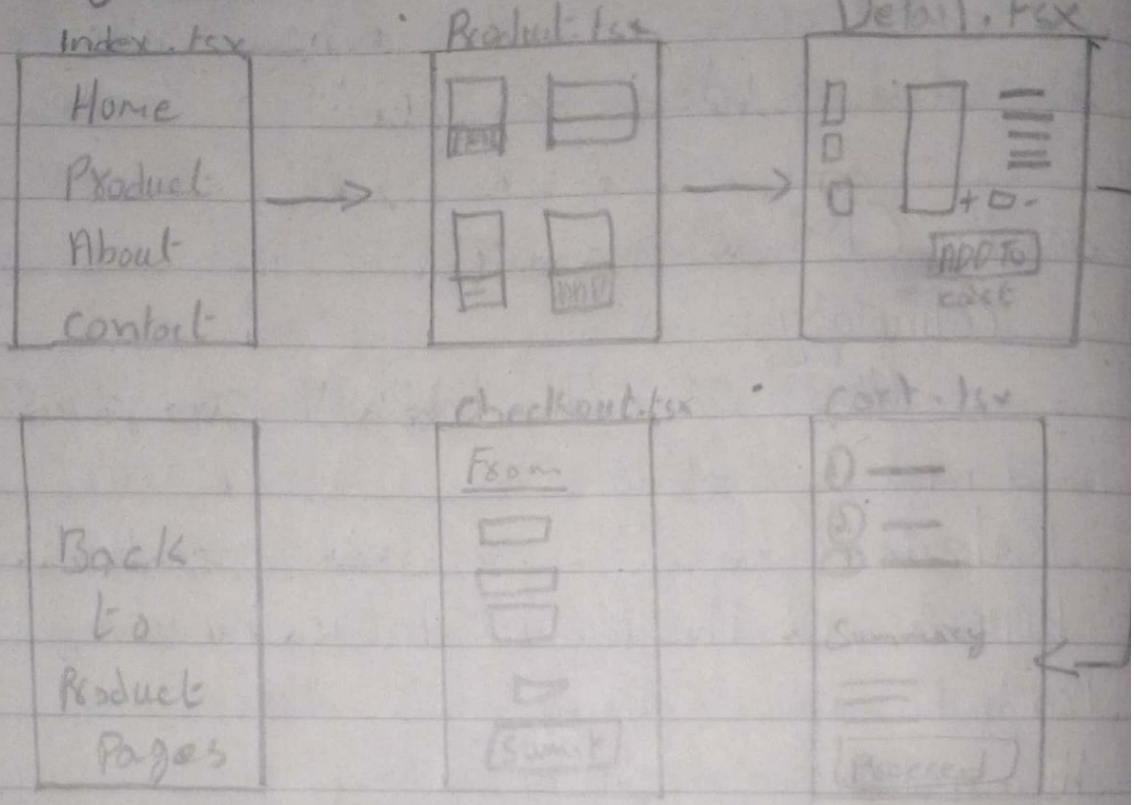
Provides an easy-to-use interface for administrators to update furniture details or add new products.

Serves the content to the frontend through APIs.

③ Third-Party APIs:

Handles the payment process when users Pay for their orders. Like. Paypal, Flutterwave, Jazzcash and other banking method.

Key work Flows:-



3. Workflows Details:

1. User Adds furniture to cart:

A user browses furniture categories and selects a product (e.g. a sofa). The product is added to the cart with option (e.g. size, color).

The backend fetches product details (price, stock, dimensions) from Sanity CMS.

The cart updates with the selected furniture and option.

The cart page shows the selected furniture with details like prices, quantity, and total.

2. User Places an Order:

The user enters delivery preferences (e.g., Scheduled delivery data).
Payment information is submitted.
The backend processes the payment through a payment API.
The order and delivery details are stored in Sanity CMS.

The user receives an order confirmation with the scheduled delivery date.

4 API Endpoints

Method :- Get
Endpoint :- /Products
Purpose :- Get all furniture details
Response Example {"id": 1, "name": "Sofa A", "price": 500, "stock": 5}

Method :- Get
Endpoint :- /Product/{id}
Purpose :- Get details for a specific furniture item
Response Example :- {"id": 1, "name": "Sofa A", "material": "Leather", "price": 500}

Method :- POST
Endpoint :- /cart
Purpose :- Add items to the cart
Response Example :- { "cart Id" : "xyz 789", item : [{ "product Id" : 1, "quantity" : 2 }] }

Method :- POST
Endpoint :- /checkout
Purpose :- Complete the checkout Process
Response Example :- { "order Id" : 2, "status" : "Pending", Payment status" : "pending" }

Method :- POST
Endpoint :- /Payment
Purpose :- Process the Payment
Response Example :- { "Payment Status" : "Successful", "transaction Id" : "txn 456" }

Method :- GET
Endpoint :- /delivery Schedule
Purpose :- Get available delivery slots
Response Example :- { "slots" : ["2025-01-20", "2025-01-21

5. Sanity Schema Example:

```
Export default{
name: 'Furniture',
type: 'document',
fields: [
  {name: 'name', type: 'string', title: 'Furniture
Name'}
{name: 'Price', type: 'number', title: 'price'},
{name: 'description', type: 'text', title:
Description'},
{name: 'stock', type: 'number', tittle: 'stock Level
{name: 'material', type: 'string', title: 'material'},
{name: 'dimensions', type: 'string title: Dimensions'},
{name: 'categoxy', type: 'string', title: 'categoxy',
type: 'string', title: 'categoxy'},
{name: 'image', type: 'image', title: 'Product
Image'}
]
};
```