

Day#2

17-01-2025

Hackathon

Plan for General E-Commerce Website

Day 2: Transitioning to Technical Planning

Primary Goal: Build an e-commerce platform for furniture where users can browse, customize, and order furniture.

Key Features:

Browse furniture categories (Chairs, Tables, Sofas, etc.).

Customize furniture (material, color, size).

View product details (price, materials, dimensions).

Place orders and track shipments.

Admin dashboard to manage products, orders, and inventory.

Data Schemas:

1: Products Schema

```
export default {
  name: 'product',
  type: 'document',
  title: 'Product',
  fields: [
    {
      name: 'name',
      type: 'string', //kishor kumar
      title: 'Product Name',
    },
    {
      name: 'description',
      type: 'string',
      title: 'Description'
    },
    {
      name: 'price',
      type: 'number',
      title: 'Product Price',
    },
    {
      name: 'rating',
      type: 'number',
      title: 'Rating',
      description: 'Rating of the product'
    },
    {
      name: 'image',
      type: 'image',
      title: 'Product Image',
      options: {
        hotspot: true // Enables cropping and focal point selection
      }
    }
  ]
};
```

2: Order Schema

```
export default {
  name: 'order',
  type: 'document',
  title: 'Order',
  fields: [
    {
      name: 'customerId',
      type: 'number',
      title: 'Customer Id',
    },
    {
      name: 'productId',
      type: 'string',
      title: 'Product Id'
    },
    {
      name: 'totalAmount',
      type: 'number',
      title: 'Total Amount',
    },
    {
      name: 'orderDate',
      type: 'number',
      title: 'Order Date',
    },
    {
      name: 'status',
      type: 'string',
      title: 'Status',
    }
  ]
};
```

2: Customer Schema

```
export default {
  name: 'customer',
  type: 'document',
  title: 'Customer',
  fields: [
    {
      name: 'customerId',
      type: 'number',
      title: 'Customer Id',
    },
    {
      name: 'name',
      type: 'string',
      title: 'Name'
    },
    {
      name: 'email',
      type: 'string',
      title: 'Email',
    },
    {
      name: 'phone',
      type: 'number',
      title: 'Phone',
    },
    {
      name: 'address',
      type: 'string',
      title: 'Address',
    },
    {
      name: 'order',
      type: 'string',
      title: 'Order',
    }
  ]
};
```

1. Technical Requirements

* **Frontend Requirements:**

- Totally friendly user interface Simple and modern name of product , pricing, and high quality images
- There are some pages like all products, contact, home, checkouts, sign In & sign Up pages .
- user select product then its quantity and proceed order

* **Sanity CMS as Backend:**

- We will manage our data like (Images, Pricing, Descriptions, Names , Id, and other fields) with the help of sanity CMS

* **Third-Party APIs:**

- We will import data from third party APIs into sanity and use it on our project by fetching data from sanity.
- APIs data will shown on web page . So that we can easily update our data like (price, images, descriptions xyz).
- Sanity do work as a our database.

2.Design System Architecture

[Frontend (Next.js)]

|

[Sanity CMS] ----> [Products API]

|

[3rd-Party API] --> [Payment Gateway]

|

--> [Shipment Tracking API]

Workflow Example:

- **User visits the website and browses products.**
- **User customizes furniture (e.g., material, size).**
- **Order is placed → Stored in Sanity CMS.**
- **Payment processed → Confirmed via payment gateway.**
- **Order status updated in Sanity CMS and tracked via shipment API.**

3. API Endpoints

Fetch Products

Endpoint: /products

Method: GET

```
[  
  { "id": "1",  
    "name": "Modern Chair",  
    "price": 150,  
    "images": ["url"],  
    "description": "string",  
    "dimensions": { "length": 30, "width": 30, "height":  
40 },  
    "material": "Wood",  
    "stock": 10 }  
]
```

order

Endpoint: /orders

Method: POST

```
[
  {
    "customerId": "1",
    "productId": "1834",
    "totalAmout": 12150,
    "images": ["url"],
    "orderDate": "17-jun-2025",
    "status": "procceed"
  }
]
```


Track Shipment

Endpoint: /shipment-status

Method: GET

```
{  
  "orderId": "789",  
  "status": "In Transit",  
  "ETA": "3 days"  
}
```

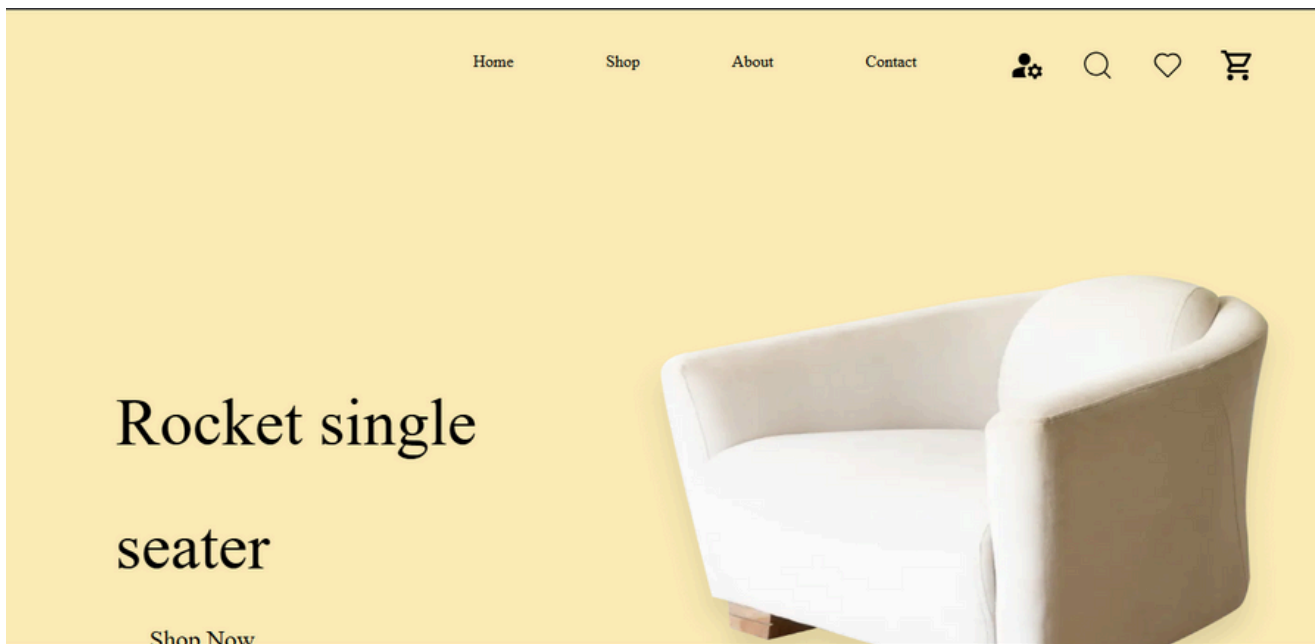
4: Design Wireframe

- Create a simple wireframe for:
- Home Page: Categories + Featured Furniture.
- Product Page: Product details + Customization options.
- Cart Page: Products added to the cart + Checkout.
- Admin Dashboard: Add/manage products, view orders.

5: Tools & Resources

Frontend: Next.js, Tailwind CSS, Icons.

Backend: Sanity CMS, Third-party APIs.



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