# Day 2 PLANING THE TECHNICAL FOUNDATION

### FRONT-END (UI)

#### Overview:

Our e-commerce platform harnesses the power of Next.js, a state-of-the-art front-end framework renowned for its unparalleled speed and performance. By integrating advanced libraries such as Tailwind CSS, , and implementing industry-leading responsive design techniques, we deliver a sophisticated, high-performing user interface that sets a new standard for seamless and engaging online experiences.

# KEY FEATURES OF THE USER INTERFACE

1

Intuitive and userfriendly browsing experience for all product categories.

2

Fully responsive layouts optimized for both mobile and desktop devices.

3

Clean and aesthetically pleasing design tailored to showcase furniture collections.

#### ESSENTIAL PAGES

- 1. Homepage: Highlight featured furniture collections and trending designs.
- 2. Product Listing: Easy navigation with filtering and sorting options.
- 3. Product Details: Detailed product descriptions, images, and specifications.
- 4. Shopping Cart: Simple and efficient cart management.
  Order Confirmation: Confirmation and tracking information for completed purchases.

## SANITY CMS: THE BACKBONE OF OUR DYNAMIC E-COMMERCE PLATFORM

Sanity CMS offers a powerful, real-time content management system designed for modern ecommerce needs. It streamlines product data, customer records, and order management while serving as the store's primary database. Key features include real-time stock updates, seamless order processing, and instant content synchronization. With customizable schemas, Sanity adapts perfectly to unique business requirements, ensuring flexibility and efficiency.

#### ENHANCED API INTEGRATIONS

#### Shipping Management

Optimize shipment tracking with real-time updates, enabling precise monitoring across diverse zones to ensure timely deliveries.

#### Secure Payment Solutions

Facilitate seamless and secure transactions with comprehensive support for multiple payment methods, including digital wallets (Stripe, EasyPaisa, JazzCash) and Cash on Delivery.

#### Smart Notification Systems

Leverage cutting-edge APIs like Twilio and Firebase to provide instant SMS and email updates, keeping customers informed at every stage of their order journey.

#### KEY API SPECIFICATIONS

#### Product Management API

Endpoint: /products

Method: GET

Purpose: Retrieve a list of all available

products in the Sanity CMS database.

#### Example:

```
[{"productId": 101,"productName": "Laptop","productPrice": 1200}, {"productId": 102,"productName": "Smartphone","productPrice": 800}]
```

#### Order Management API

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Method: GET

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#### Example:

```
[{"productId": 101,"productName": "Laptop","productPrice": 1200}, {"productId": 102,"productName": "Smartphone","productPrice": 800}]
```

#### ADVANCED SHIPMENT TRACKING API

Endpoint: /shipment

HTTP Method: GET

Purpose: Efficiently monitor the real-time status of orders via a cutting-edge third-party shipment tracking system, delivering precise updates to enhance customer satisfaction and logistics management.

#### Example:

{"shipment\_id": 832,"order\_id": 725,"status": "In Transit","expected\_delivery\_date": "17-01-2025"}

#### SCHEMAS

```
import { createClient } from '@sanity/client';
                       // Sanity Client Configuration
                        const client = createClient({
               projectId: process.env.FURNITURE_PROJECT_ID,
               dataset: process.env.FURNITURE_DATASET,
                               useCdn: true,
                          apiVersion: '2023-01-01',
                                     });
                            // Product Schema
                         const productSchema = {
                              name: 'product',
                              type: 'document',
                                  fields: [
 { name: 'name', type: 'string', title: 'Product Name' }, // Example: Sofa, Table
       { name: 'price', type: 'number', title: 'Price' }, // Example: 299.99
{ name: 'category', type: 'string', title: 'Category' }, // Example: Furniture, Decor
                             // Export Schemas
                 export const schemas = [productSchema];
                        // Fetch Function Example
                  export async function fetchProducts() {
                                     try {
         const products = await client.fetch('*[_type == "product"]');
                 console.log('Fetched products:', products);
                              return products;
                              } catch (error) {
               console.error('Error fetching products:', error);
```