Assignment: Furniture Marketplace Project

1. USER JOURNEY

1. Home Page:

When the user visits the website, they land on the Home Page, which showcases the latest furniture items like sofas and chairs.
The page is responsive and optimized for all devices (desktop, tablet, mobile).

2. Explore Products:

The user navigates to the Shop Page (/shop) where all products are displayed.
Products are fetched dynamically from Sanity CMS using GROQ queries and displayed with details like name, price, and image.

3. View Product Details:

Clicking on a product redirects the user to the Product Details Page (e.g., /products/luxury-sofa).
This page is dynamically routed using slugs for SEO optimization.
The page includes:
Product name, price, and description.
Available sizes and colors (if applicable).
Add to Cart button.

4. Add to Cart and Checkout:

The user can add products to the cart and proceed to the Checkout Page.
User information and order details are collected and saved in Sanity CMS via the /orders API endpoint.

5. Order Tracking:

After placing an order, the user can track their shipment using the /shipment endpoint integrated with a third-party API.

2. BACKEND SETUP: SANITY CMS

Sanity CMS is used to manage dynamic content for:
Products: Furniture details (name, price, description, images).
Users: User information (name, email, phone).
Orders: Order details (order ID, products, customer info).
Example Data Schemas:

1. Product Schema:

```
{
  Product_Id: "123",
  name: "Luxury Sofa",
  description: "A modern, comfortable sofa.",
  price: 50000,
  quantity: 10,
  colors: ["Red", "Blue"],
  sizes: ["Small", "Large"],
  image: "luxury-sofa.jpg"
}
```

2. Order Schema:

```
{
  orderId: "001",
  customerName: "John Doe",
  phone: "+92 300 1234567",
  products: [
    { productId: "123", quantity: 2 },
    { productId: "456", quantity: 1 }
  ],
  totalPrice: 100000,
```

```
  status: "Processing"
}
```

3. API ENDPOINTS

1. Fetch All Products:

Endpoint: /products
Method: GET
Description: Retrieves all products from Sanity CMS.
Example Response:

```
[
  {
    "id": "123",
    "name": "Luxury Sofa",
    "price": 50000,
    "description": "A modern, comfortable sofa."
  }
]
```

2. Create Order:

Endpoint: /orders
Method: POST
Description: Saves user order details in Sanity CMS.
Request Body Example:

```
{
  "customerName": "John Doe",
  "phone": "+92 300 1234567",
  "products": [
    { "productId": "123", "quantity": 2 }
  ],
  "totalPrice": 100000
}
```

3. Track Shipment:

Endpoint: /shipment
Method: GET
Description: Fetches shipment status from a third-party API.
Example Response:

```
{
  "shipmentId": "789",
  "orderId": "001",
  "status": "Out for Delivery",
  "expectedDelivery": "2025-01-20"
}
```

4. Dynamic Routing

Dynamic Slugs:
Each product has a unique slug (e.g., /products/luxury-sofa) for better SEO and user-friendly URLs.
Benefits:
Improves website ranking on search engines.
Helps users easily share product links.

5. Payment Integration

Global Payments: Stripe, PayPal.
Local Payments (Pakistan): JazzCash, EasyPaisa, HBLPay.

SUMMARY

Users can browse, view, and purchase furniture products seamlessly.

Sanity CMS handles all backend data dynamically.

API endpoints ensure efficient data management and integrations.

Dynamic routing and payment methods improve the overall experience.

This assignment helped me understand the end-to-end development of an eCommerce platform, from frontend design to backend functionality.