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DAY 2 : TECHNICAL FOUNDATION OF E-COMMERCE:

Frontend Requirements:

User-friendly interface for browsing products.

Responsive design (mobile & desktop).

Essential pages: Home, Product Listing, Product Details, Cart, Checkout, Order Confirmation.

Sanity CMS as Backend:

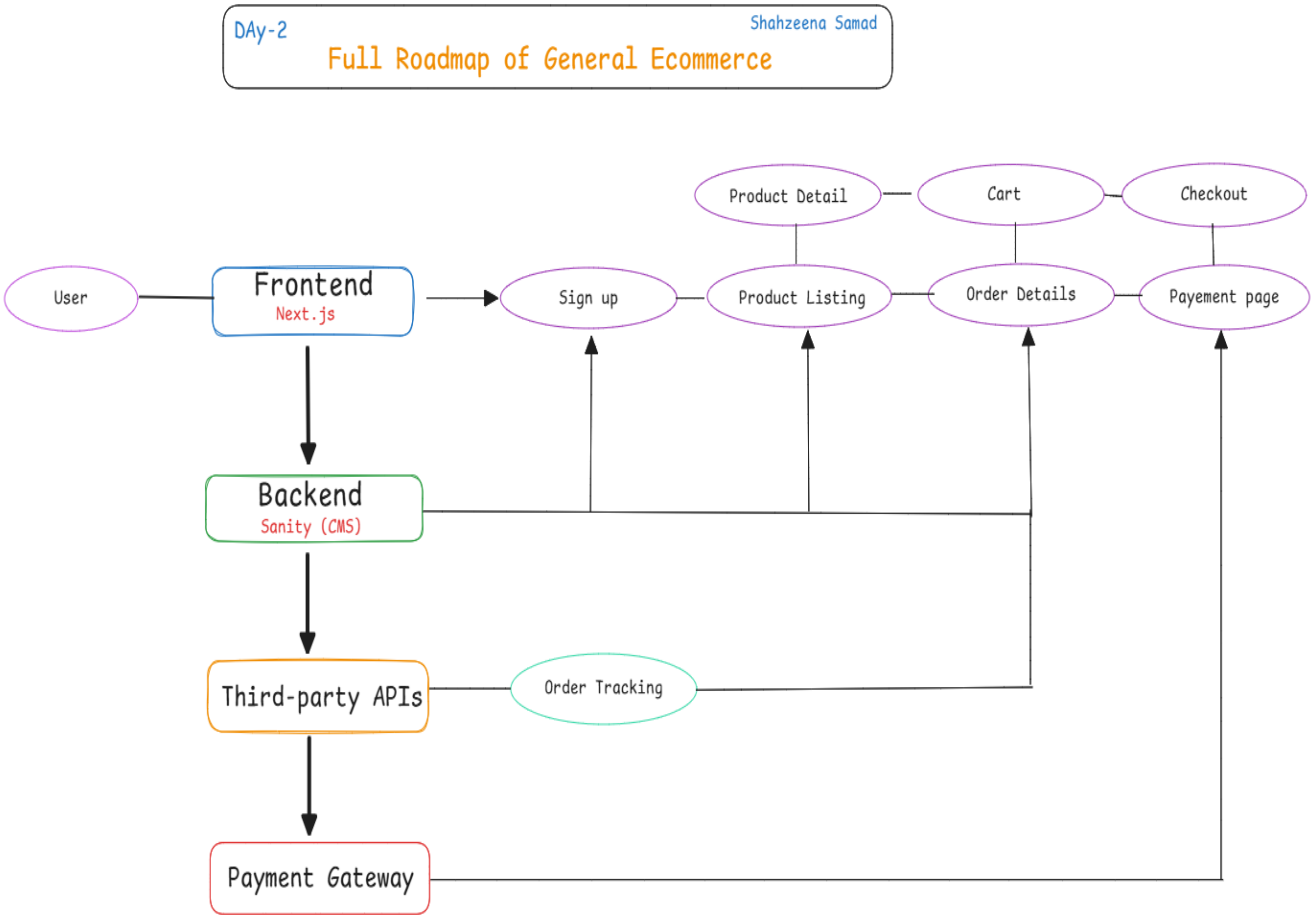
Use Sanity CMS to manage product data, customer details, and orders.

Design schemas in Sanity aligned with business goals.

Third-Party APIs:

Integrate APIs for shipment tracking, payment gateways, and other services.
Ensure APIs Provide data needed for frontend functionality.

System Architecture OverView :



. Plan API Requirements:

Endpoint Name	Method	Description	Payload/Response
`/products`	GET	Fetch all products	**Response:** `{ ID, name, price, stock, image }`
`/orders`	POST	Create a new order	**Payload:** `{ customerId, productIds[], totalAmount, shippingAddress, paymentStatus, orderDate }`
			Response: `{ orderId, status, customerId, productDetails[], totalAmount, shippingAddress }`
`/shipment`	GET	Track order shipment status	**Response:** `{ shipmentId, orderId, status, expectedDeliveryDate, trackingUrl }`

Sanity Schema :

Product Schema:

```
export default {
  name: 'product',
  title: 'Product',
  type: 'document',
  fields: [
    { name: 'productName', type: 'string' },
```

```
    { name: 'slug', type: 'slug', options: { source: 'productName' } },
    { name: 'price', type: 'number' },
    { name: 'category', type: 'string' },
    { name: 'stock', type: 'number' },
  ],
}
```

Customer Schema:

```
export default {
  name: 'customer',
  title: 'Customer',
  type: 'document',
  fields: [
    { name: 'firstName', type: 'string' },
    { name: 'lastName', type: 'string' },
    { name: 'email', type: 'string' },
    { name: 'phone', type: 'string' },
  ],
}
```

Order Schema:

```
export default {
  name: 'order',
  title: 'Order',
  type: 'document',
```

```
  fields: [
    { name: 'orderNumber', type: 'string' },
    { name: 'customer', type: 'reference', to: [{ type: 'customer' }] },
    { name: 'products', type: 'array', of: [{ type: 'reference', to: [{ type: 'product' }] }] },
    { name: 'totalAmount', type: 'number' },
    { name: 'status', type: 'string', options: { list: ['Pending', 'Shipped', 'Delivered', 'Cancelled'] } },
  ],
}
```

Conclusion:

To build an effective e-commerce platform, we focus on creating a user-friendly frontend with a responsive design that caters to both mobile and desktop users, ensuring smooth navigation through essential pages like product listing, cart, and checkout. The backend is managed through Sanity CMS, which allows us to easily organize and manage key data like products, customers, and orders through well-defined schemas. Additionally, integrating third-party APIs for shipment tracking, payment gateways, and other necessary services will enhance the functionality and user experience. This approach aligns business goals with technical execution, providing a solid foundation for a scalable and efficient e-commerce platform.