"Marketplace Technical Foundation - [Furniture Website]"

1: Frontend Requirements:

User-friendly Interface:

- Navigation: Clear and intuitive navigation for easy browsing.
- Search Functionality: Robust search bar with filter options (by category, price, etc.

Responsive Design:

- Ensure the website is fully responsive and optimized for both mobile and desktop users.

Essential Pages:

Home: Showcasing featured products,search bar, popular products and new arrivals.

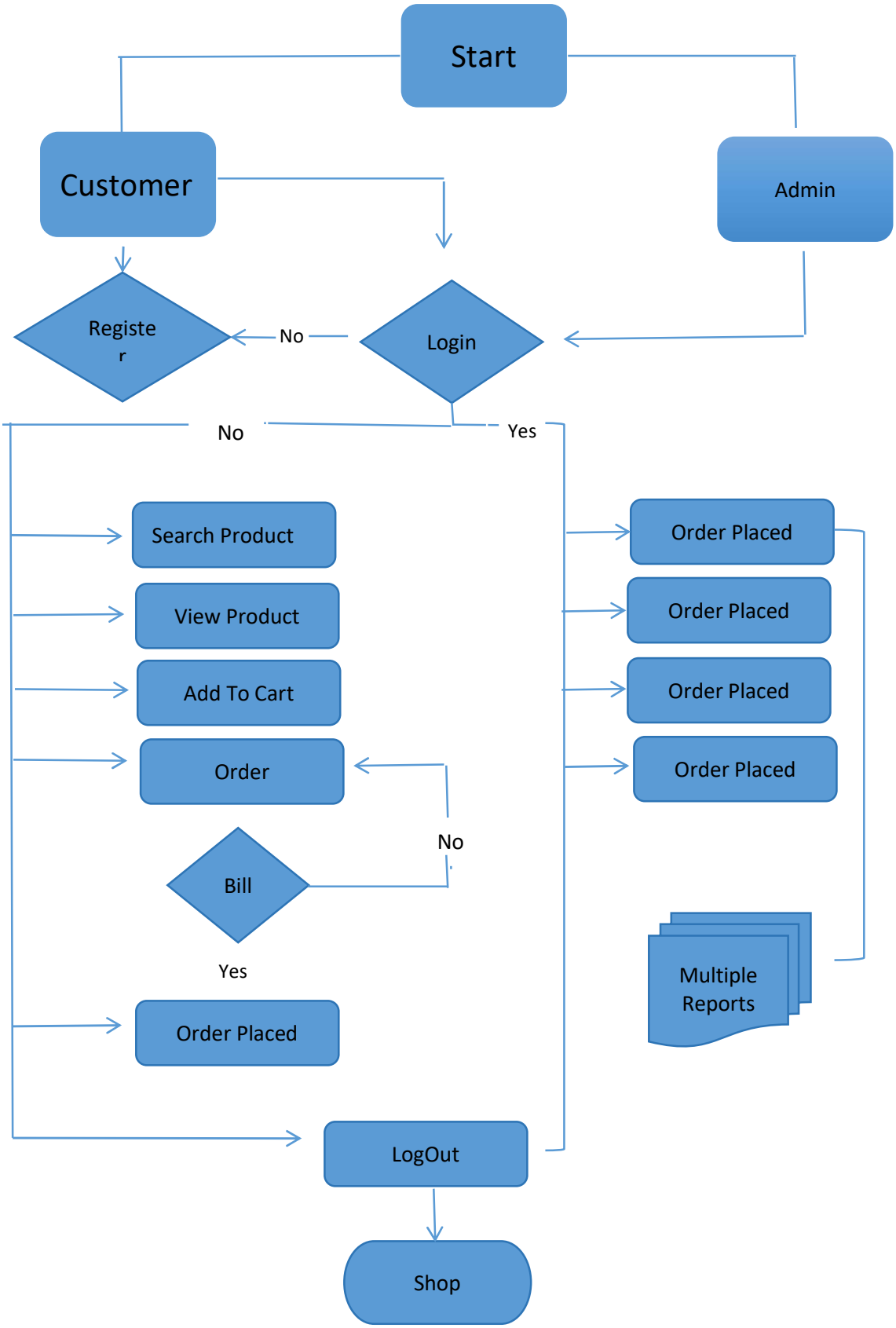
Product Listing:Products are view with sorting and filtering options by price, brand or rating.

Product Details: High-quality images, detailed descriptions, customer reviews, and related products.

Add to Cart: Overview of selected items with the option to update quantities or remove items.

Checkout: Secure checkout process with multiple payment options.

Order Confirmation: Order detailed are displayed and send via email, order status is updated in the back-end.


Start
Customer
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No
Yes
Search Product
View Product
Add To Cart
Order
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No
Yes
Order Placed
Order Placed
Order Placed
Order Placed
Order Placed
Multiple
Reports
LogOut
Shop

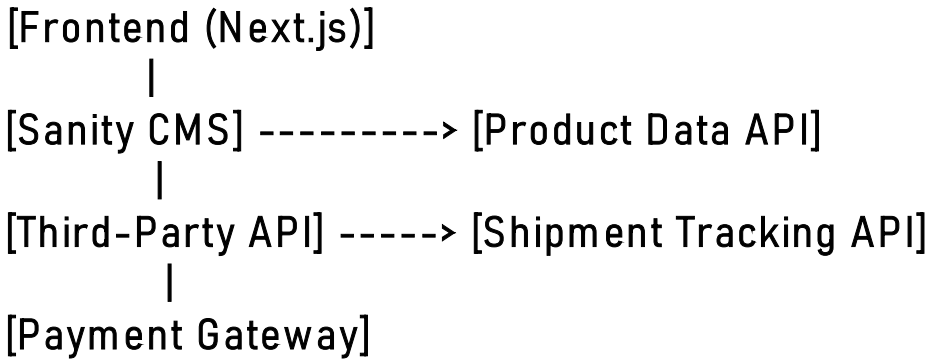
Sanity CMS as Backend:

- **Manage Product Data:** Create a schema for product details (name, description, price, dimensions, materials, images, stock).
- **Customer Details:** Design a schema for customer info (names, contacts, addresses, purchase history).
- **Order Records:** Set up a schema for orders (order ID, customer ID, product IDs, status, payment, shipping).
- **Integration:** Use Sanity's APIs to connect with your frontend, keeping your website dynamic.
- **Security:** Include validation and permissions to protect data; manage user roles and access control.

Third-Party APIs:

- **Shipment Tracking APIs:** Integrate APIs from shipping providers to allow customers to track their orders directly on your site.
- **Payment Gateways:** Use payment gateway APIs (e.g., PayPal, Stripe) for secure and reliable transactions.
- **Other Backend Services:** Integrate necessary APIs for features like tax calculations, inventory management, and customer support.
- **Ensure Frontend Functionality:** Make sure the APIs provide all required data for a smooth user experience on the frontend, such as order statuses and payment confirmations.

2. Design System Architecture



Component Roles:

Frontend (Next.js): Handles user interactions and requests data.

Sanity CMS: Manages content, products, customer details, and orders.

Product Data API: Provides product information to the Frontend.

Shipment Tracking API: Manages shipment tracking.

Payment Gateway: Processes secure payments.

3.Plan API Requirements:

" General eCommerce"

API Endpoints:

1. Endpoint Name :Product:

.Method: GET

.Description: Fetch all available product from sanity.

. Response Example :

```
{
 "id": 1,
 "name": "Product A",
 "price": 100,
 "stock": 50,
 "image": "image_url"
}
```

2. Endpoint Name ::Orders

.Method: Post

.Description:Create a new order in Sanity.

. Payload Example :

```
{
 "customerInfo": {
  "name": "John Doe",
  "email": "john@example.com",
  "address": "123 Main St, Anytown, USA"
 },
 "product Details": [
  {
   "productId": 1,
   "quantity": 2
  }
 ],
```

"paymentStatus": "Paid"
}

3. Endpoint Name :Product:

.Method: Shipment

.Description: Track order status via third-party API.

. Response Example :

{
"shipmentId": "SHIP123",
"orderId": 1,
"status": "In Transit",
"expectedDeliveryDate": "2025-01-20"
}

4. API Endpoints:

EndpointResponse	Method	Purpose	Response Example
/products	GET	Fetches all product details	{ "customerInfo": {..}, "product Details": [..]}
/orders	POST	Create a new order in Sanity	{ "customerInfo": {..}, "productDetails": [..]}
/shipment	GET	Track order status via third-party	{ "shipmentId": "SHIP123", "status": "In Transit"}

5. Sanity Schema Example:

```
export default {
  name: 'product',
  type: 'document',
  fields: [
    { name: 'name', type: 'string', title: 'Product Name' },
    { name: 'price', type: 'number', title: 'Price' },
    { name: 'stock', type: 'number', title: 'Stock Level' }
  ]
};
```