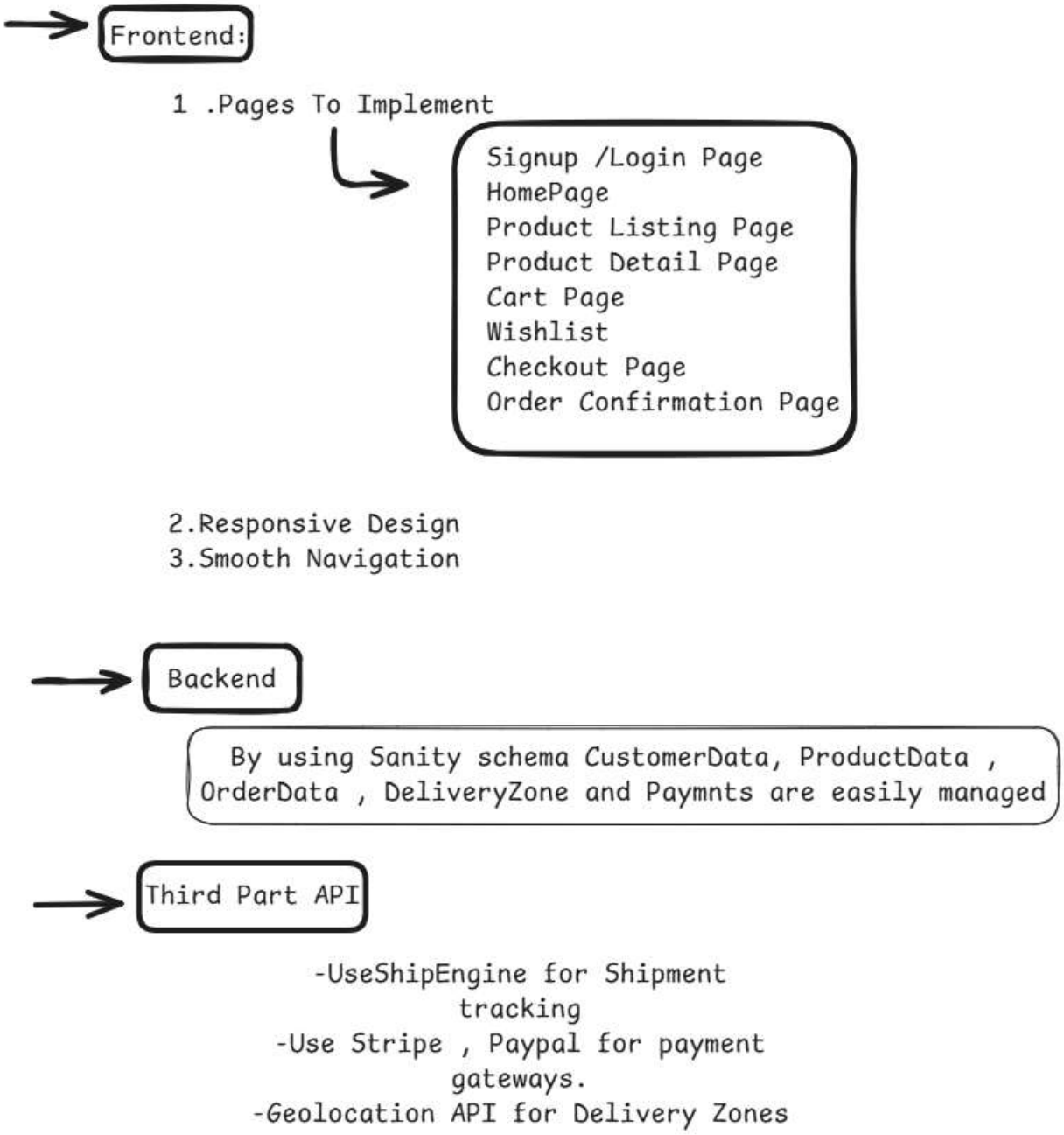
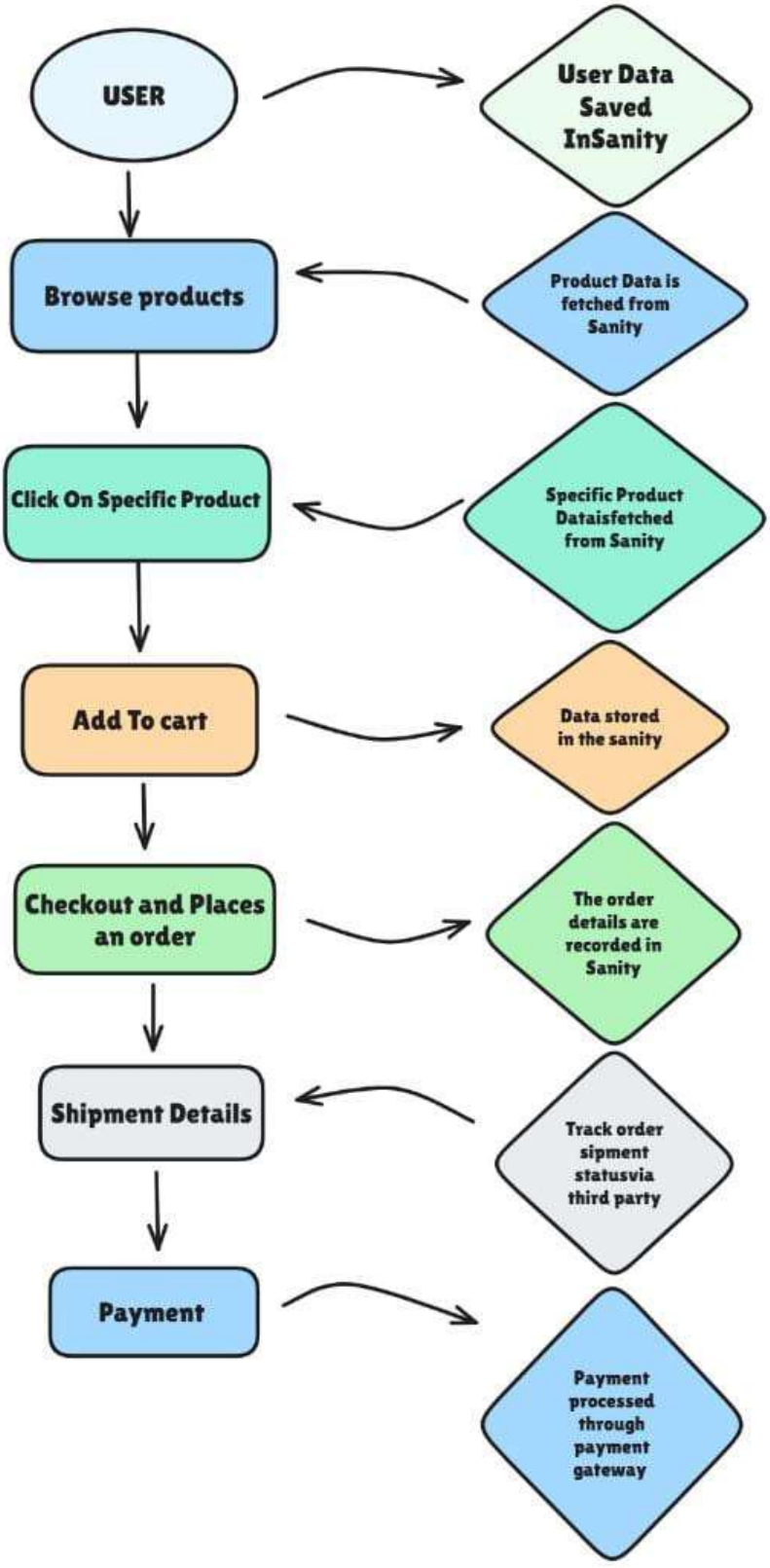
MARKETPLACE TECHNICAL FOUNDATION - FURNITURE E-COMMERCE PLATFORM

1.DEFINE TECHNICAL REQUIREMENTS FOR MY WEBSITE:



2. DESIGN SYSTEM ARCHITECTURE :



PLANNING THE TECHNICAL FOUNDATION OF MY WEBSITE

1.1 OVERVIEW OF THIS FLOWCHART :

-When a User come on my website , he will be provided with a good user interface , responsive design and smooth navigation.

-He signup or login in the website and the Customer data will be stored in the sanity.

-He browses the products, the data of products is fetched from sanity.

-He clicks on a product , the detailed product data is fetched from Sanity.

-Adds an item to the cart, the data in sanity updated.

-Places an order, the order data is stored in the sanity.

-For shipment details, we will fetch data from an external API.

-Payment will be processed through payment gateways.. and confirmation will be provided to the customer.

3. PLAN FOR API REQUIREMENTS :

Endpoints	Method	Description	Response
/customer	POST	Update user detail in sanity	{id ,name , email , phone}
/products	GET	Fetch all products	{id , name,price,stock,image}
/product/:id	GET	Fetch data of specific product	{id,name,description,price,stock,category, size,material,weight,image}
/orders	POST	Create new order in sanity	{customerid,productdetail,totalprice}
/orders/:id	GET	Fetch order detail by id	{orderid,customerid,productid,Quantity, Totalprice,orderdate,orderstatus, paymentstatus,shippingcost,deliverydate,discounts}
/shipment/:id	GET	Track order shipment status via 3rd part	{shipmentid ,status, deliverydate}
/payment	POST	Process payment via gateways	{paymentid, orderid,paymentmethod, amount,paymentdate,paymentstatus}

4. SANITY SCHEMA EXAMPLE:

EXAMPLE SCHEMA FOR PRODUCTS :

export default

{ name: 'product',

```
type: 'document',
fields: [
{ name: 'name', type: 'string', title: 'Product Name' },
{name: 'description', type: 'string', title: 'ProductDescription'},
{ name: 'price', type: 'number', title: 'Price' },
{ name: 'stock', type: 'number', title: 'Stock Level' },
{name: 'category', type: 'string' , title: 'ProductCategory'},
{name: 'size' , type: 'number', title: 'ProductSize'},
{ name: 'images' , title: 'Images', type: 'array', of: [{ type: "image" }] },
{name: 'material' , type: 'string', title: 'ProductMaterial'},
{name: 'weight' , type: 'number', title: 'ProductWeight'},
]
```

5. TECHNICAL ROADMAP:

Steps to Complete the Project

1. **Frontend Development:**
    - Implement responsive UI using Next.js.
    - Develop key pages (Signup/Login page ,Home, Product Listing, Product Details, Cart, Checkout, Order Confirmation).
2. **Sanity CMS Configuration:**
    - Set up Sanity CMS backend.
    - Design and implement schemas for products, orders, users .
3. **API Integration:**
    - Integrate Sanity APIs for product, cart, and order management.
    - Configure third-party APIs for shipment tracking and payment processing.
4. **Testing:**
    - Perform end-to-end testing of all workflows.
    - Ensure mobile and desktop compatibility.
5. **Deployment:**
    - Deploy to Vercel.

- Configure and deploy Sanity backend.

2 Milestones and Deliverables

- **Milestone 1:** Complete frontend UI for core pages.
- **Milestone 2:** Configure Sanity schemas and integrate APIs.
- **Milestone 3:** Perform workflow testing and resolve issues.
- **Milestone 4:** Deploy and document the project for final submission.
