Marketplace Technical Foundation - Day 2

Introduction

Day 2 focuses on defining the technical foundation for our e-commerce website. This includes designing the system architecture, defining workflows, setting up Sanity CMS schemas, and planning API endpoints.

System Architecture

Diagram

(Draw a simple diagram showing the interaction between User, Frontend, Sanity CMS, and APIs.)

Description

- **Frontend:** Handles user interactions and sends requests to the backend.
- **Sanity CMS:** Centralized content management system for storing product and order data.
- **APIs:** Facilitate payment processing and shipment tracking.

Key Workflows

1. User Login Workflow

1. User enters login credentials.
2. Frontend sends data to the Login API.
3. API validates the data with Sanity CMS.
4. A token is generated and sent back.

2. Product Browsing Workflow

1. User accesses the product page.
2. Frontend requests product data via the Products API.
3. Sanity CMS provides product details.

4. Products are displayed to the user.

3. Order Placement Workflow

1. User adds items to the cart and checks out.
2. Order details are sent to the Orders API.
3. Sanity CMS stores the order.
4. Payment API processes the transaction.

API Endpoints

Endpoint	Method	Purpose	Response
/login	POST	User authentication	{ token: "abc123" }
/products	GET	Fetch product details	{ id, name, price }
/orders	POST	Save order details	{ orderId, status }
/shipment	GET	Track shipment	{ status: "In Transit" }

Sanity CMS Schemas

Product Schema

```
{
 name: 'product',
 fields: [
  { name: 'name', type: 'string' },
  { name: 'price', type: 'number' },
  { name: 'stock', type: 'number' },
  { name: 'image', type: 'image' },
  { name: 'category', type: 'string' }
 ]
}
```

Order Schema

```
{
  name: 'order',
  fields: [
    { name: 'userId', type: 'reference', to: { type: 'user' } },
    { name: 'products', type: 'array', of: [{ type: 'reference', to: { type: 'product' } }] },
    { name: 'status', type: 'string' },
    { name: 'paymentStatus', type: 'string' }
  ]
}
```

Conclusion

Day 2 has established the technical foundation for the e-commerce website. This includes system architecture, workflows, API endpoints, and Sanity CMS schemas to ensure efficient data management and a seamless user experience.