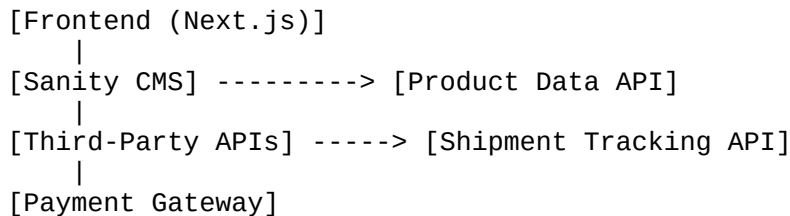


Marketplace Technical Foundation - General E-Commerce

1. System Architecture

This system architecture illustrates how components interact to support the General E-Commerce Marketplace.

Diagram:



Workflow:

1. User Interaction:
 - Users browse the marketplace and view product listings via the frontend.
2. Data Management:
 - The frontend requests product data from Sanity CMS via API calls.
 - Orders are created and stored in Sanity CMS when users checkout.
3. Payment:
 - Payments are processed securely through the Payment Gateway.
4. Shipment Tracking:
 - Real-time shipment updates are fetched via third-party APIs and displayed to users.

2. API Specifications

Endpoint	Method	Description	Payload/Response Example
/products	GET	Retrieve all product details.	Response: { "id": 1, "name": "Laptop", "price": 1000 }
/product/:id	GET	Retrieve details of a single item.	Response: { "id": 1, "name": "Laptop", "price": 1000 }
/orders	POST	Create a new order.	Payload: { "customer": { "name": "John" }, "products": [1, 2], "total": 1500 } Response: { "orderId": 101, "status": "Confirmed" }
/shipment/:id	GET	Fetch shipment status.	Response: { "shipmentId": 202, "status": "In Transit", "ETA": "2 days" }

3. Sanity CMS Schema

- Product Schema:

```
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' },
    { name: 'category', type: 'string', title: 'Category' },
    { name: 'description', type: 'text', title: 'Description' },
    { name: 'image', type: 'image', title: 'Product Image' },
  ],
};
```

- Order Schema:

```
export default {
  name: 'order',
  type: 'document',
  fields: [
    { name: 'customer', type: 'reference', to: [{ type: 'customer' }], title:
'Customer' },
    { name: 'products', type: 'array', of: [{ type: 'reference', to: [{ type:
'product' }] }], title: 'Products' },
    { name: 'total', type: 'number', title: 'Total Price' },
    { name: 'status', type: 'string', title: 'Order Status' },
    { name: 'date', type: 'datetime', title: 'Order Date' },
  ],
};
```

- Customer Schema:

```
export default {
  name: 'customer',
  type: 'document',
  fields: [
    { name: 'name', type: 'string', title: 'Customer Name' },
    { name: 'email', type: 'string', title: 'Email Address' },
    { name: 'phone', type: 'string', title: 'Phone Number' },
    { name: 'address', type: 'text', title: 'Address' },
  ],
};
```

4. Key Workflows

1. User Registration:

- User signs up via the frontend.
- ta is stored in Sanity CMS.
- firmation is sent via email.

2. Product Browsing:

- User views product categories on the homepage.
- Sanity CMS API fetches product details and displays them dynamically.

3. Order Placement:

- User adds products to the cart and proceeds to checkout.
- Order details are sent to Sanity CMS via API.
- Payment Gateway processes the transaction and confirms the payment.

4. Shipment Tracking:

- Shipment status is retrieved from a third-party API.
- Updates are displayed to the user in real-time.