Flowchart Diagram

```
  ┌─────────┐        ┌──────────────┐
  │  Start  │───────▶│   Frontend   │
  └─────────┘        │   (Next.js)  │
                     └──────┬───────┘
                            │
                            ▼
  ┌──────────────┐   ┌──────────────┐
  │  Sanity CMS  │◀──│   Product    │
  └──────┬───────┘   │   Data API   │
         │           └──────────────┘
         │
         ▼
  ┌──────────────┐        ┌──────────────┐
  │  Order API   │───────▶│   Payment    │
  └──────────────┘        │   Gateway    │
                          │   (Stripe)   │
                          └──────┬───────┘
                                 │
  ┌──────────────┐        ┌──────────────┐
  │  Shipment    │◀───────│   Payment    │
  │  Tracking    │        │ Confirmation │
  │ Third-Party  │        └──────────────┘
  │    API       │
  └──────┬───────┘
         │
         ▼
  ┌──────────────┐        ┌─────────┐
  │  Frontend    │───────▶│   End   │
  │ (User Views  │        └─────────┘
  │   Order)     │
  └──────────────┘
```
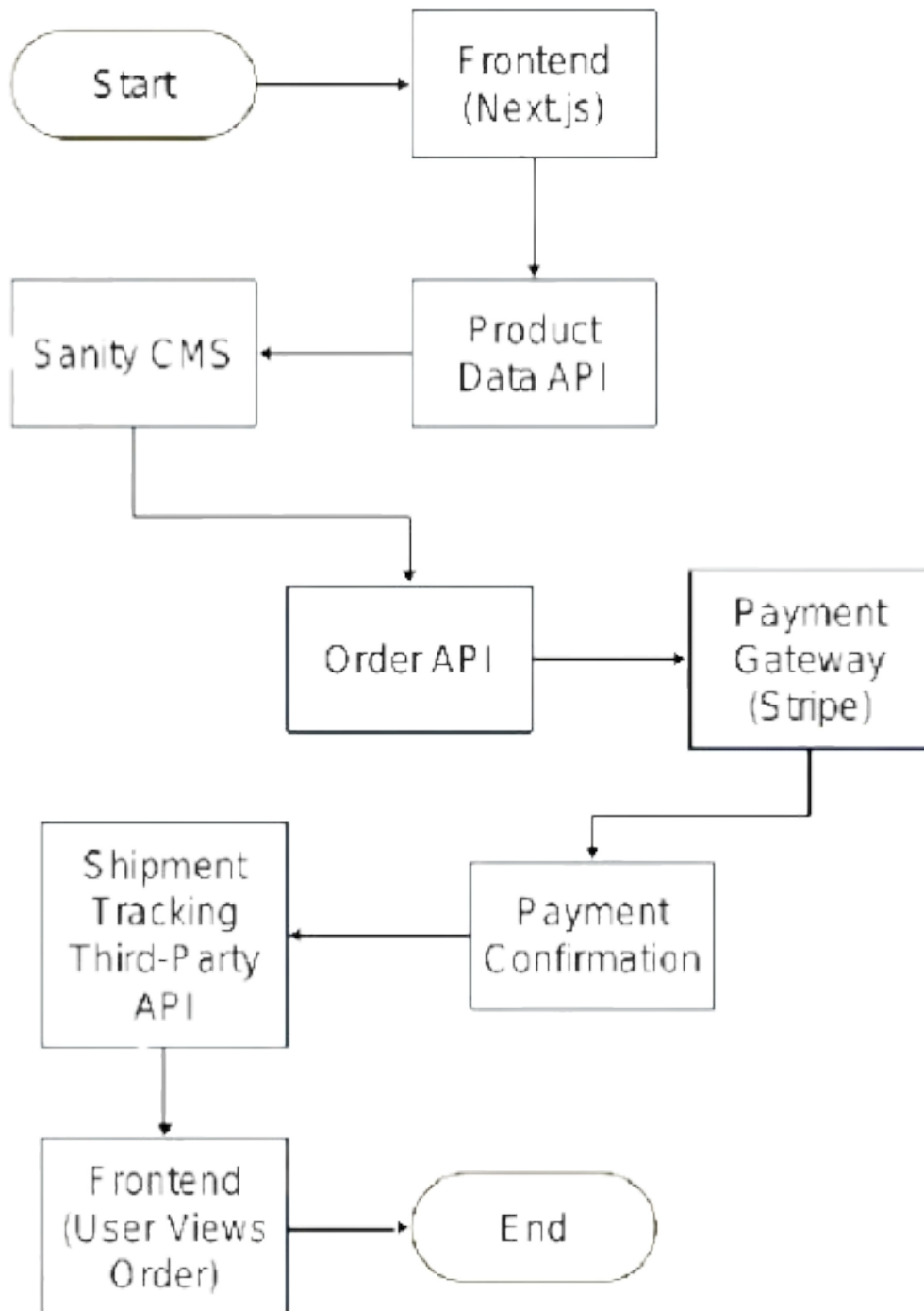
Explanation of Flowchart Diagram

Frontend (Next.js):

- Users browse products by interacting with the frontend. When the user requests to view product details, the frontend fetches product data from the Product Data API.

Product Data API:

- Fetches data related to available products (e.g., name, description, price) from Sanity CMS.

Sanity CMS:

- The Sanity CMS stores all content, such as products, user data, and orders. The frontend uses APIs to interact with the CMS.

Order API:

- When the user places an order, the order details are sent to the Order API, which records the order information in Sanity CMS.

Payment Gateway (Stripe/PayPal):

- After the user proceeds with the checkout, the Payment Gateway processes payment. It sends a confirmation of the transaction (success or failure).

Payment Confirmation:

- Once payment is successfully processed, the order status is updated in Sanity CMS to reflect the payment completion.

Shipment Tracking (Third-Party API):

- Once the order is shipped, the Shipment Tracking API provides real-time tracking information, allowing the frontend to display the current shipment status to the user.

Frontend (User Views Order Status):

- The frontend allows users to view their order status, including shipment tracking information.

ER Diagram

E-commerce Platform Data Model

products
id	string pk
name	string
description	string
price	float
image	string
color	string

users
id	string pk
name	string
email	string
address	string
phone	string
date_of_birth	date

orders
user_id	string fk
order_date	date
total_price	float
payment_status	string
delivery_status	string
id	string pk

payments
id	string pk
order_id	string fk
amount	float
method	string
payment_status	string

shipment_tracking
id	string pk
order_id	string fk
status	string
shipping_date	date

Explanation of ER Diagram

User:
Represents the user entity with attributes such as ID, name, email, address, phone number, and birthdate.

- One user can place multiple orders.

Product:
Represents products available for purchase with attributes such as product ID, name, description, price, image, and color.

- One product can be linked to multiple orders.

Order:
Represents an order placed by a user. Contains order details like order ID, user ID (foreign key), order date, total price, payment status, and delivery status.

- An order contains one or more products.

Payment:
Represents a payment transaction linked to an order. It includes payment ID, order ID (foreign key), amount, method, and payment status (success/failure).

- Each order can have one payment.

Shipment Tracking:
Represents the tracking information for each order. Includes shipment ID, order ID (foreign key), status, and shipping date.

- Each order can have one shipment tracking entry.