Marketplace-Technical-Foundation

Overview

This document outlines the core technical framework for the marketpace platform ,detailing the key routes, API integrations, and the flow of order processing

Tech Stack

- **Frontend :** Built with Next.js, it supports server-side rendering and fast development of UIs .
- **Backend :** Powered by Sanity CMS, it stores and manages content like products, orders, customer data .
- **Third-Party APIs :** The marketplace integrates with external APIs to enhance functionality .

Operational Flow

- **Home Page (/)**

  - Fetch and present a list of available products from an external API.
  - Users can navigate to product-specific pages to see more information.

- **Product Detail Page (/products/{product_id})**

  - Fetch and show detailed product data such as description, price, and stock.
  - Provide an option for users to add the product to their shopping cart.

- **Shopping Cart (/cart)**

  - Display the current items added to the cart.
  - Allow users to modify the cart by adding, updating, or removing products.

Data is managed and stored within the Cart Schema of Sanity CMS.

- **Checkout Page (/checkout)**

  - Enable users to enter shipping details and review their cart before finalizing the purchase.

The total order price is displayed, and users can confirm their order.

- **Order Management**

  - A Shipping ID is generated once the order is confirmed.
  - The status of the order will be updated as follows:

1. Processing → Order is being prepared.

2. Shipped → The order has left the warehouse and a Tracking ID is issued.

3. Delivered → The order has been delivered to the customer.

- **Order Tracking (/order/{order_id})**

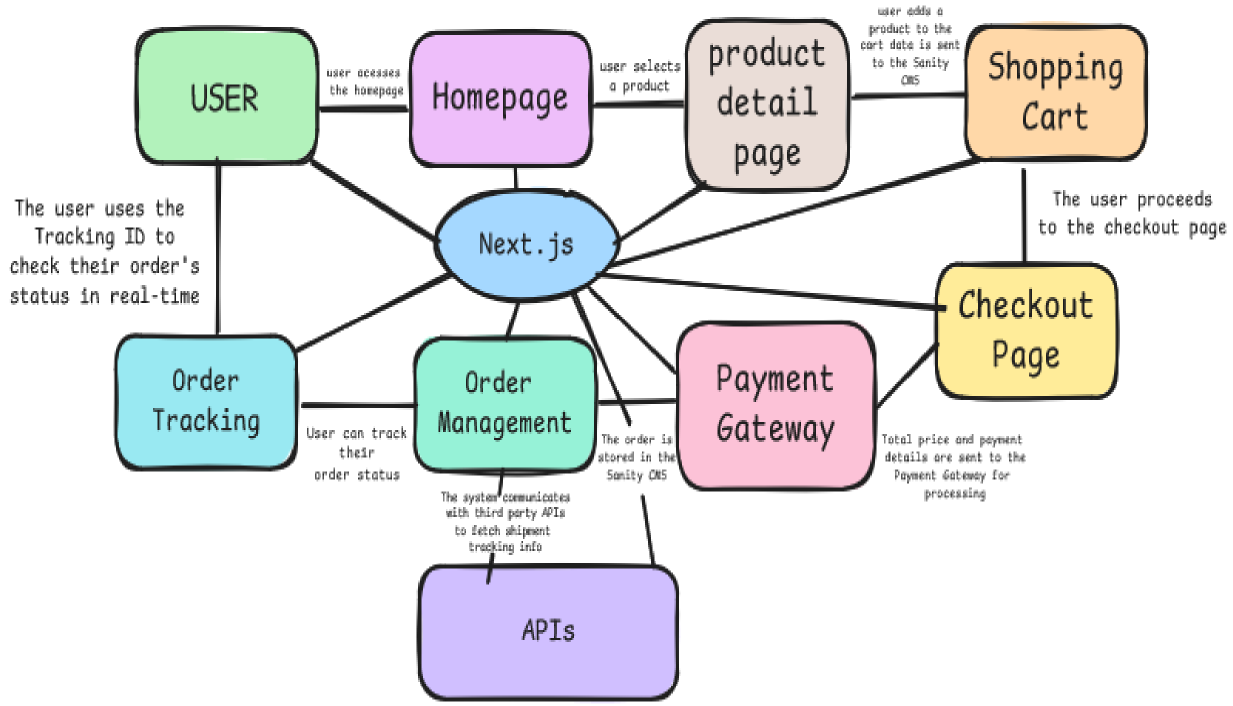
  - Users can track the status of their order using the Tracking ID.
  - Order details and current status are fetched from the Order Schema in Sanity.

API Endpoints

- **Products (GET):** Retrieve product data from Sanity.
- **Orders (POST):** Create a new order in the system.
- **Shipment (GET):** Track the status of an order using a third-party API.

Diagram

Below is a high-level flow diagram illustrating the route workflow :


USER
user acesses the homepage
Homepage
user selects a product
product detail page
user adds a product to the cart data is sent to the Sanity CMS
Shopping Cart
The user uses the Tracking ID to check their order's status in real-time
Next.js
The user proceeds to the checkout page
Checkout Page
Order Tracking
Order Management
Payment Gateway
User can track their order status
The order is stored in the Sanity CMS
Total price and payment details are sent to the Payment Gateway for processing
The system communicates with third party APIs to fetch shipment tracking info
APIs