PLANING THE TECHNICAL Q-Commerce Website Foundation

Day :02

Shift :Tuesday 2 to 5

Transitioning to Technical Planning

- Technical requirements for a food website may include hardware and software requirements, user interface design, and security considerations.

- The main objective of Online Food Ordering System is to manage the details of the item category, food delivery, add to cart, address. It manages all the information about the item category, customer, shopping cart. This Case study looks at the problem of setting up a fast food restaurant.

Transitioning to Technical Planning

Fronted Requirements Which we implemented

- Next.js Server-side Rendering
- User-friendly interface
- Responsive Design
- Fast Loading Speed
- Secure Payments Gateways
- Search & Filtering Functionality

Sanity CMS as Backhand

- Collection Structure
- Schema definition
- Content Model

Third-Party API`s

- Payment Gateway
- Shipment Tracking
- Notification API`s
- Food Reviews
- Search Functionality

Systems Architecture

- Our Q-commerce platform leverages Next.js, Sanity CMS, and third-party integrations for seamless functionality:

- - Payment gateways via Stripe and PayPal

- - Shipping tracking through ShipStation and TrackingMore

- - Product info syncing with ERP systems via Cin7 and TradeGecko

- - Sanity CMS manages content, while Next.js delivers fast user experiences.

Design System Architecture

Fronted Next.js → Sanity CMS → Product Data API

Third-Part API`s → Shipment Tracking API

Payments Gateway
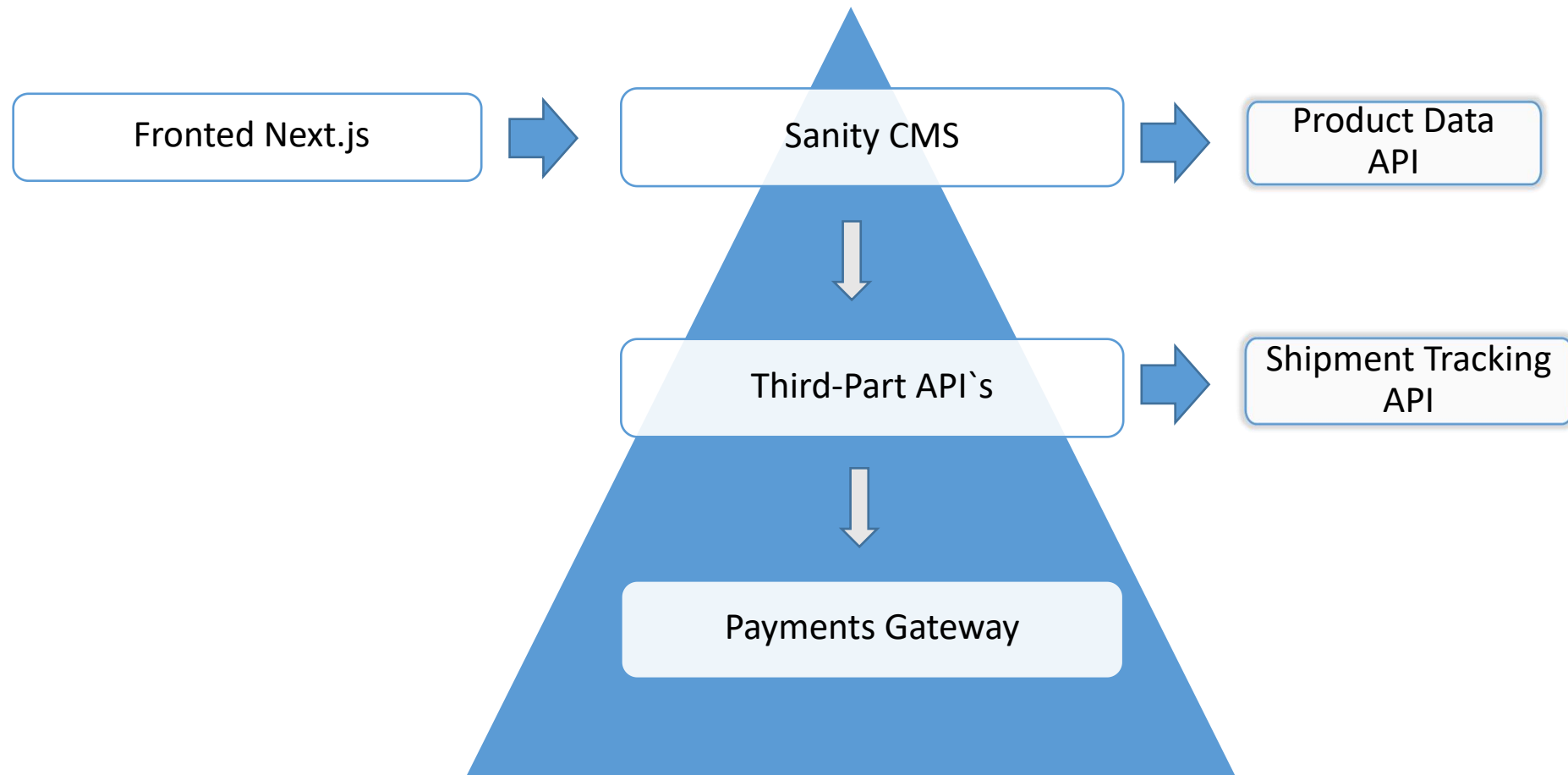
API`s Requirements

- User Management
- Product Management
- Inventory Management
- Cart Management
- Payment Integration
- Shipment/Delivery Management
- Reviews and Ratings
- Admin Dashboard APIs
- Miscellaneous

API`s Requirements

User Management
This module manages all user-related activities.
Key Features:
Authentication & Authorization: Users can sign up, log in, and log out securely via email, social accounts, or OTP.
User Profiles: Users can update personal information, addresses, and preferences.
Roles & Permissions: Supports multiple roles like customers, delivery personnel, and administrators.

Product Management
This section handles the food products available for users to browse and purchase.
Key Features:
CRUD Operations: Admins can create, read, update, and delete food products.
Categories: Products are organized into categories like appetizers, desserts, or beverages.
Product Details: Includes price, description, ingredients, availability, and images.

Inventory Management
Tracks product availability and stock levels to ensure smooth operations.
Key Features:
Stock Updates: Automatically adjusts inventory after purchases.
Low Stock Alerts: Notifies admins when a product is about to go out of stock.
Supplier Integration: Helps with restocking directly from suppliers.

Cart Management
Manages the items selected by users before they proceed to checkout.
Key Features:
Add/Remove Items: Users can add or remove items from their cart.
Dynamic Pricing: Automatically calculates the total price based on items and quantities.
Save for Later: Allows users to save items for future purchases.

Payment Integration
Facilitates secure and smooth payment processing.
Key Features:
Multiple Payment Methods: Supports credit/debit cards, UPI, wallets, and cash on delivery.
Payment Gateways: Integrates with popular platforms like Stripe, PayPal.
Refunds and Discounts: Manages promo codes, discounts, and refund processes.

Shipment/Delivery Management
Handles the delivery process for purchased products.
Key Features:
Order Tracking: Users can track the status of their orders in real-time.
Delivery Partner Integration: Works with APIs like EasyPost, Shippo, or AliExpress for delivery assignments.
ETA (Estimated Time of Arrival): Displays delivery time for user convenience.

Reviews and Ratings
Allows users to share feedback about their experiences.
Key Features:
Product Reviews: Users can rate and review specific food items.
Service Feedback: Collects feedback on delivery and customer support.
Review Moderation: Admins can moderate reviews to maintain quality and appropriateness.

Admin Dashboard APIs
APIs that allow admins to manage the platform efficiently.
Key Features:
Order Management: View, edit, or cancel orders.
User Analytics: Provides insights into user behavior and preferences.
Reports: Generates reports on sales, inventory, and platform performance.

Miscellaneous
Additional functionalities to improve user experience.
Key Features:
Notifications: Push or email notifications for order updates and promotions.
Search & Filters: Advanced product search and filter options.
Promotions: Dynamic display of seasonal discounts and offers.

CMS (Backhand)

Orders

Delivery

User

Fronted (Next.js)

API

Tracking

Payment Gateway