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# Marketplace Technical Foundation - Comforty

## Overview

Comforty is an ergonomic office furniture marketplace that provides users with a seamless platform to browse, purchase, and track orders. The marketplace leverages modern web technologies, headless CMS, and third-party integrations to deliver an intuitive and scalable shopping experience. This document outlines the technical foundation, including system architecture, workflows, API endpoints, CMS schemas, and a development roadmap.

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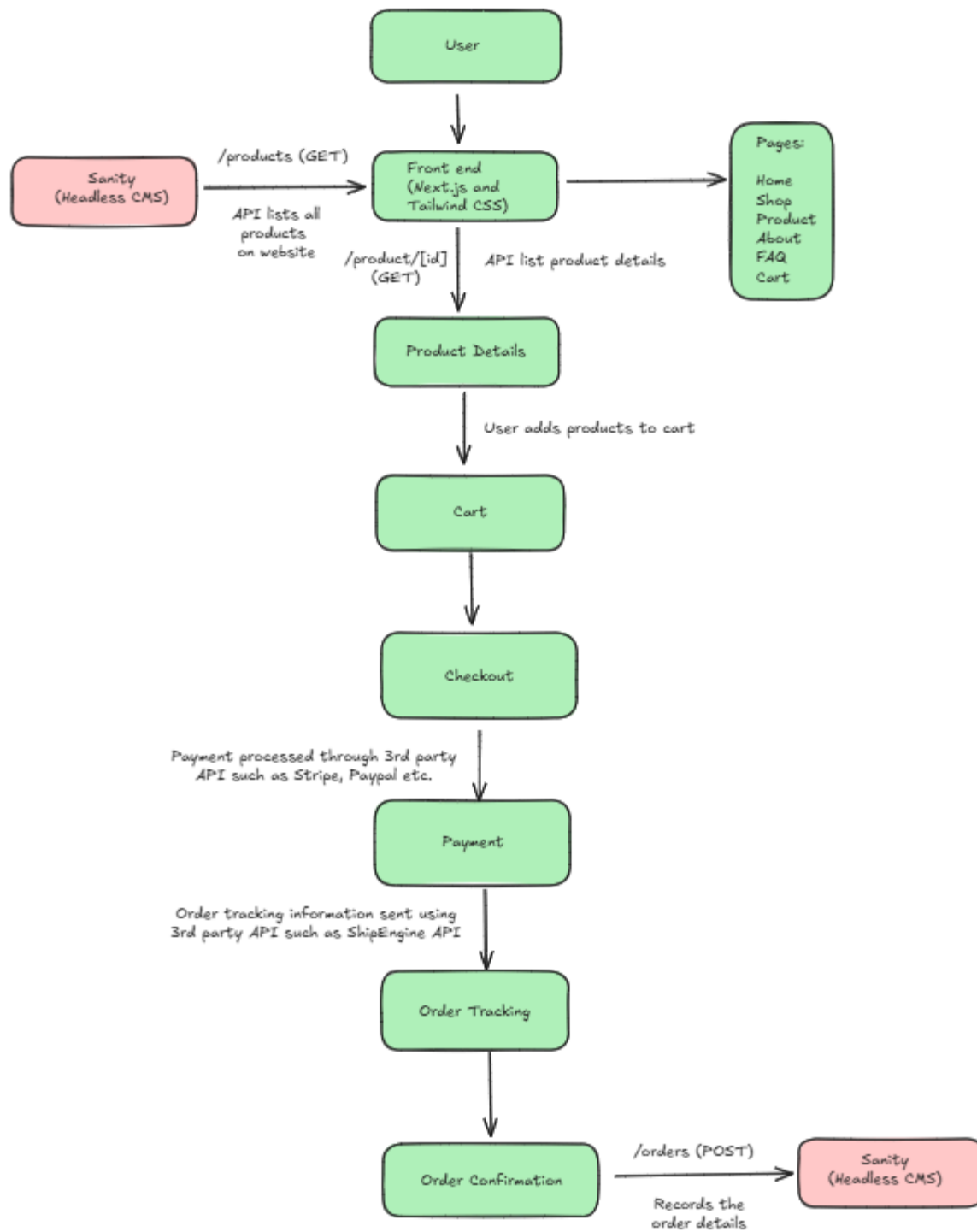
## 1. System Architecture Overview

### Components and Roles:

1. **Frontend (Next.js):**
  - Provides a user interface for browsing products, adding items to the cart, and checking out.
  - Styled using Tailwind CSS for a responsive and modern design.
2. **Sanity CMS:**
  - Serves as the backend for managing product, customer, and order data.
3. **Product Data API:**
  - Fetches product listings and details from Sanity CMS.
4. **Third-Party APIs:**
  - Handles shipment tracking and other integrations (e.g., ShipEngine API).
5. **Payment Gateway:**
  - Securely processes transactions using platforms like Stripe or PayPal.

### Architecture Flow:

- Users interact with the frontend.
- Product data is fetched via APIs connected to Sanity CMS.
- Orders and payment details are sent to Sanity CMS and processed using payment gateways.
- Shipment details are managed via third-party APIs.



## 2. Key Workflows

### Workflow 1: Product Browsing

1. User visits the homepage to explore available products.
2. The frontend fetches product data from the `/products` endpoint.
3. Products are dynamically displayed, allowing users to view product details via the `/product/[id]` endpoint.

### Workflow 2: Adding Products to Cart

1. User selects a product and adds it to their cart from the product details page.
2. Cart data is managed on the frontend, storing selected products and their quantities locally.

### Workflow 3: Checkout and Payment

1. User proceeds to the cart page to review selected items.
2. User completes the checkout by submitting order details to the `/checkout` endpoint.
3. Payment is securely processed through a third-party gateway (e.g., Stripe or PayPal).
4. Upon successful payment, order data is sent to the `/orders` endpoint and recorded in Sanity CMS.

### Workflow 4: Order Tracking

1. The order tracking information is retrieved from a third-party API, such as ShipEngine, using the `/shipment` endpoint.
2. Users can view real-time shipment status and tracking updates on their order confirmation page.

### Workflow 5: Order Confirmation

1. Upon successful order placement and tracking setup, the user is directed to the confirmation page.
2. Order details, including status and tracking information, are recorded in Sanity CMS.

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This document provides a professional blueprint for Comforty's marketplace development, focusing on a seamless and intuitive user experience for ergonomic office and home furniture.