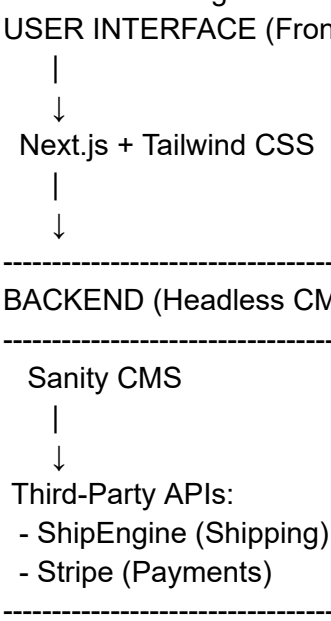
1. System Overview:

This architecture is designed to streamline backend and use Sanity CMS for content management.

- Frontend (Next.js + Tailwind CSS): Handles user interaction and UI/UX design.
- Sanity CMS (Headless CMS): Stores and manages data like products, categories, and other dynamic content.
- ShipEngine API: Manages shipping and logistics.
- Stripe API: Handles payment processing.

Architecture Diagram



Website Page List

Homepage

1. Products Listing Page
2. About Page
3. Contact Page
4. Admin Panel
5. Sign In Page
6. Sign Up Page
7. Category-Wise Product Pages
8. Add to Cart Page
9. Checkout Page
10. Payment with Stripe Page

11. Shipment with ShipEngine Page

2. Workflows

A. Product Addition Workflow (Admin-Side)

Admin logs in to Sanity CMS via its dashboard.

Admin creates a new product with details like name, price, category, and images.

Product data is saved in Sanity's backend (which acts as your database).

B. Customer Order Workflow (Frontend-Side)

User browses the marketplace using Next.js frontend.

User adds products to their cart.

User clicks "Checkout" → cart details are sent to the backend through API calls.

Backend:

Retrieves product data from Sanity CMS.

Uses Stripe API to process the payment.

Uses ShipEngine API to generate a shipping label and track the shipment.

If payment and shipping are successful:

Save order details (products, user info, payment ID, and shipping status) in Sanity CMS.

Trigger a confirmation email or SMS (optional).

3. API Requirements

Sanity CMS (Headless CMS)

Get Products API: Fetch products dynamically for the frontend.

Add Product API: Admin adds product details.

Get Orders API: Retrieve orders to display admin-side order history.

Save Orders API: Save order data, including product IDs, user info, and payment status.

Stripe API (Payments)

Create Payment Intent: Generate a payment request.

Capture Payment: Finalize the payment process.

ShipEngine API (Shipping)

Create Shipping Label: Generate labels for the customer’s order.

Track Shipment: Track the order's delivery status.

Frontend:

Next.js: Handles UI and server-side rendering.

Tailwind CSS: Makes design look modern and responsive without much effort .

Backend:

Sanity CMS: Handles content and acts as a headless CMS for products, orders, and other dynamic content.

APIs:

Stripe API: Secure payment processing.

ShipEngine API: Manage shipping and logistics.

By - Muhammad Shahroz