

Comforty Online Shopping Platform

Author: Mahnoor Tahir

Role: Developer, Comforty Online Shopping

Overview

This document outlines the technical structure and workflows for the Comforty Online Shopping Platform, covering architecture, workflows, key APIs, and a development roadmap.

System Architecture

Frontend (Next.js): User-friendly, responsive interface for browsing and cart management.

Sanity CMS: Central hub for managing product data, orders, and inventory.

Third-Party APIs:

- ShipEngine: Real-time shipment tracking.
- Stripe: Secure payment processing.
- Authentication: User registration/login via NextAuth.

Key Workflows

1. User Authentication: NextAuth handles registration, login, and session management.
2. Product Browsing: Fetches dynamic product data via Sanity CMS APIs.
3. Cart Management: Syncs cart items locally and with the backend.
4. Order Placement: Processes payments via Stripe and updates orders in Sanity CMS.
5. Shipment Tracking: Displays real-time updates using ShipEngine.
6. Inventory Management: Manages stock levels dynamically in Sanity CMS.

Comforty Online Shopping Platform

API Endpoints

Endpoint	Method	Purpose
/products	GET	Fetch product details
/cart	POST	Add product to cart
/order	POST	Submit order details
/shipment-tracking	GET	Fetch tracking details
/inventory	GET	Fetch inventory details

Example Sanity Schema

```
javascript
import { defineType, defineField } from "sanity";

export const productSchema = defineType({
  name: "product",
  title: "Products",
  type: "document",
  fields: [
    defineField({
      name: "name",
      title: "Product Name",
      type: "string",
      validation: (Rule) => Rule.required()
    }),
    defineField({
      name: "slug",
```

Comforty Online Shopping Platform

```
title: "Slug",

type: "slug",

options: { source: "name", maxLength: 96 },

validation: (Rule) => Rule.required()

}),

defineField({

  name: "image",

  title: "Product Image",

  type: "image",

  options: { hotspot: true },

  validation: (Rule) => Rule.required()

}),

defineField({

  name: "price",

  title: "Price",

  type: "number",

  validation: (Rule) => Rule.required().min(0)

}),

defineField({

  name: "stock",

  title: "Stock Quantity",

  type: "number",

  validation: (Rule) => Rule.required().min(0)

}),

defineField({
```

Comforty Online Shopping Platform

```
name: "description",  
  
title: "Description",  
  
type: "text"  
  
  }},  
  
],  
  
});
```

Roadmap

1. Authentication: Integrate NextAuth and Sanity CMS.
2. Product Management: Build Sanity schemas and dynamic APIs.
3. Cart & Wishlist: Sync data locally and with the backend.
4. Payments: Implement Stripe with secure flow.
5. Shipment Tracking: Integrate ShipEngine for tracking.
6. Inventory Management: Ensure accurate stock updates.
7. Deployment: Launch on Vercel with performance monitoring.

Conclusion

The Comforty Online Shopping Platform combines modern frameworks and APIs to deliver a seamless furniture shopping experience with secure payments, dynamic inventory management, and real-time tracking.