

Day 2-Marketplace-Technical-Foundation

GENERAL E-Commerce:Niche (Furniture)

Furnisite

Technical Foundation Planning

Requirements

Essential Pages

Sanity (Content Management System)

Schemas

API Design

Workflow Analysis

Introduction

Furnisite is a modern and responsive e-commerce platform designed to deliver a premium shopping experience. Built on Next.js, Sanity CMS, and third-party APIs, it ensures efficient data flow, real-time updates, and intuitive navigation.

Developed during Hackathon 3, ShopCO emphasizes scalability and user-centric design.

Planning the Technical Foundation

The project integrates robust technologies and workflows to create a solid foundation for e-commerce applications, focusing on dynamic content delivery and smooth user interactions.

System Architecture

Tools and Technologies

Frontend: Next.js, Tailwind CSS

Backend: Sanity CMS, Clerk (authentication)

APIs: ShipEngine (shipping)

Deployment: Vercel

Testing: Postman

Version Control: GitHub

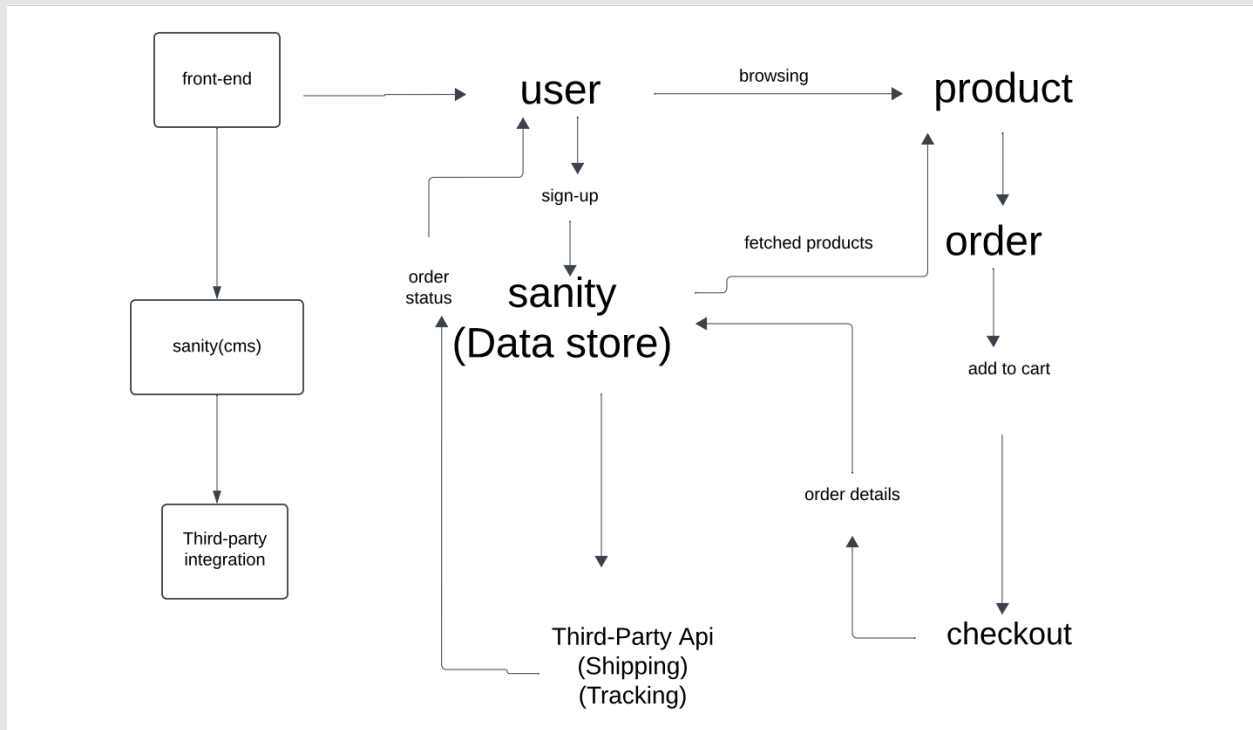
Requirements

Dynamic content management.

Real-time updates for product and order data.

Seamless integration with payment and shipping APIs.

Scalable and secure architecture.



Essential Pages

Home Page :Showcases featured products and categories.

Product Listing: Displays products with filtering and sorting options.

Product Details Page: Provides detailed product descriptions and reviews.

Categories Page: Organizes products into searchable categories.

Cart Page: Enables cart management with real-time updates.

User Info Form Page (Checkout): Secures and streamlines the checkout process.

Order Confirmation Page: Summarizes order details post-purchase.

Thank You Pop-Up: Expresses gratitude post-order placement.

Sanity (Content Management System)

Sanity CMS stores and manages data through structured schemas, enabling dynamic content management. It powers:

Product catalogs. Customer details. Orders and their status.

Categories and shipments. Schemas

Products

Stores product details (name, price, stock, etc.).

Customers

Captures user information (name, contact, address).

Orders

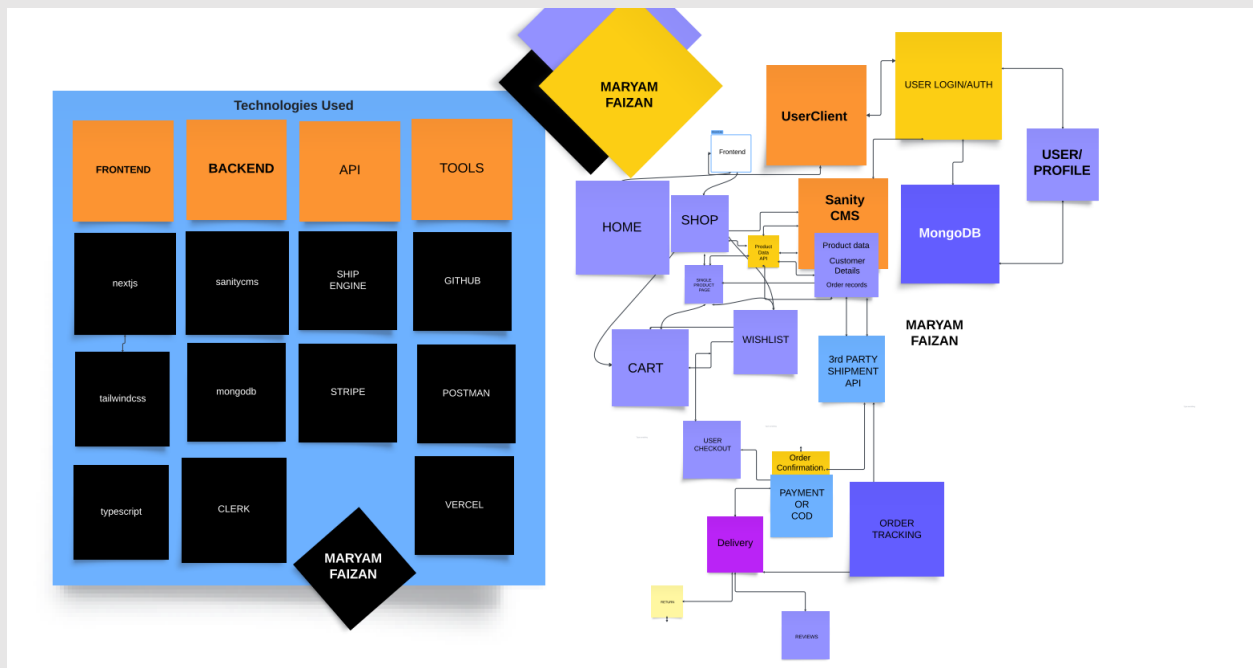
Manages order data (items, status, total).

Categories

Defines product groupings.

Shipments

Tracks logistics details (carrier, tracking).



API EndPoints

/api/create-order: Creates a new order.

/api/orders: Fetches all orders (admin).

/api/shipengine/create-label: Generates shipping labels.

/api/shipengine/get-rates: Retrieves shipping rates.

/api/shipengine/track-shipment: Tracks shipments.

/api/track-orders: Displays user order history.

/api/send/confirmation-email: Sends order confirmation emails.

/api/reviews/[productId]: Submits or retrieves product reviews.

Workflow Analysis

Front-End Interaction

Users browse products, add them to a cart, and complete checkout.

Authentication ensures personalized experiences.

Sanity CMS

Central data store for products, orders, and customers.

Provides content to the front-end via GROQ queries.

Order Management

Orders are stored and tracked in Sanity. Status updates reflect order progress dynamically.

Third-Party Integration

Shipping APIs: Manage logistics and tracking.

Payment APIs: Secure payment processing.

Data Flow

Data fetched from Sanity powers the front-end.

Order and customer data are sent back to Sanity.

APIs handle shipping and payment functions.

Key Takeaways

Furnisite integrates a headless CMS with APIs for advanced functionalities.

The platform's architecture ensures scalability, real-time updates, and an optimized user experience.

By combining modern technologies, Furnisite provides a robust foundation for any e-commerce business.