Planning the Technical Foundation - [Avion]

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Overview:

**Avion** is a cutting-edge, responsive e-commerce platform designed specifically for the furniture and decor item marketplace. Whether you're furnishing a home, office, or restaurant, Avion a diverse range of premium furniture designed to meet all your needs.

Our platform connects you to high-quality furniture products, simplifying the online shopping experience with:

* **Convenience**: Browse, choose, and purchase furniture and decor item from the comfort of your home or office.
* **Quick Delivery**: Enjoy prompt and reliable delivery services.
* **Easy Customization**: Personalize your furniture with color, size, and other customization options.
* **Clear Pricing**: Transparent pricing with no hidden fees.

Built using **Next.js** for the frontend and **Sanity CMS** for backend management, SITSTYLE ensures that your shopping journey is efficient and smooth. It offers:

* **Real-Time Inventory Updates**: Always stay up-to-date with stock availability.
* **Order Tracking**: Know exactly when your items will arrive.
* **Dynamic Product Details**: Get detailed descriptions, images, and specifications for each product.

With fast load times and a mobile-first design, Avion provides a seamless user experience, ensuring that shopping for furniture has never been easier or more enjoyable.

Technologies Used

* **Next.js - Frontend Framework**
  + Enables dynamic routing and server-side rendering for fast, SEO-friendly pages.
  + Manages product pages, cart, checkout, and order confirmations.
* **Sanity CMS - Backend & Content Management**
  + Stores product data, customer details, and orders with customizable schemas.
  + Supports real-time updates and seamless data fetching.
* **Tailwind CSS - Styling**
  + Simplifies building responsive, mobile-friendly designs.
* **Sanity CMS as Backend**
  + Centralized database for managing products, orders, and customer data.
  + Real-time updates with structured schemas for consistency and scalability.
* **Shipment Tracking API**
  + Tracks order status and provides real-time delivery updates via phone number or order ID.
* **Payment Gateway API**
  + Secures payments and supports multiple methods like cards and digital wallets.

Components Workflow

### 1.Home page:

Display featured and categories and popular furniture product and decor item

Prominently placed in the center or right, offering suggestions as user type.

## 2.About page:

A well-crafted **About** page builds a personal connection with your audience, instills trust, and encourages visitors to take action. It’s a great opportunity to communicate what your brand stands for, why it exists, and how it adds value to your customers' lives.

## 3.Product browser:

Users can easily Explore product by categories or search results.

Products are displayed with options to filter by price and new arrival.

## 4.Product detail:

User click on a product its view on details.

Detail page includes product, description, price, availability and user review.

## 5.Add to cart:

User adds the product to the cart.

Cart updates dynamically, reflecting the select items.

## 6.Checkout:

User review the cart item.

Enter shipping address and select the delivery option.

## 7.Payment:

User enter payment detail i.e. COD and Online.

Secure payment getaway integration

## 8.Order confirmation:

Displays order summary and confirmation number.

Sends confirmation email and message to the user.

## 9.Delivery

Product is delivered to the user’s address.

Workflow Explanation

**Frontend (Next.js):** Users interact with the website to browse products, view categories, add items to their cart, and proceed through checkout. The frontend sends API requests for product details, orders, and payments.

**Product Data API:** Retrieves product listings and details from the CMS, supporting filters like category and price for a seamless user experience.

**Order Data API:** Handles order creation, updates inventory, communicates with the CMS, sends order confirmations, and manages order status.

**Sanity CMS:** Acts as the centralized database for product details, inventory, and order data.

**Third-Party Payment Gateway:** Processes payments, verifies transactions, and updates payment status securely.

**Third-Party Shipment Tracking API:** Fetches shipping details, updates delivery status, and integrates external tracking for customer convenience.

**Customer Data API:** Manages customer information, secure authentication, order history, and personalized data.

**Notification System:** Sends confirmations, shipping updates, and payment status notifications to customers.

Api requirement

# • Endpoint Name: /products

o Method: GET

o Description: Fetch all available products from Sanity.

o Response: [{

“id”:”21”,

“name”: “sofa”,

“description”: “A comfortable sofa”,

“price”:”10000”,

“categories”: ”furniture”,

“Image”: “URL image”.

}]

# • Endpoint Name: /orders

o Method: POST

o Description: Create a new order in Sanity.

o Payload:

{“customer ID”:”33”,

“Product”:[

{“product id”:”21”, “quantity”:”1”}

],

“Total price”:”10000”,

“Delivery address”:” Sadar town”,

“Delivery date”:”1-03-2025”,

}

.

# • Endpoint Name: /payment

o Method: GET

o Description: Process payment for an order.

o payload:

{

“order”: {

“\_id”:”app\_22”,

“totalamount”:”10000”

},

“Payment method” : ”credit card”,

“status”: ” successful”,

“transaction ID”: ” nxa\_155”,

“amount”:”10000”,

“PaymentDate”:”1-03-2025”

}

# • Endpoint Name: /shipment

o Method: GET

o Description: Track order status via third-party API.

o Response:

{

“order id”: ”app\_22”,

“status”:” In Transit”,

“Delivery Date”:”1-03-2025”

}

Sanity CMS schemas:

# [product]:

Product id,

Name,

Description,

Image,

Price,

Categories,

Stock,

Colors,

# [Order]:

Order id,

Product ID,

Quantity,

Total amount,

Order date,

# [customer]:

Customer id,

Name,

Email,

Phone,

Address,

# [Payment]:

Payment id,

Order,

Payment method,

Status,

Transaction ID,

Amount,

Payment date,

# [shipment]:

Shipment id,

Order,

Tracking number,

Status,

Estimate delivery,

# [Delivery Zone]:

Zone id,

Zone name,

Coverage area,

Shipping cost,

carrier