

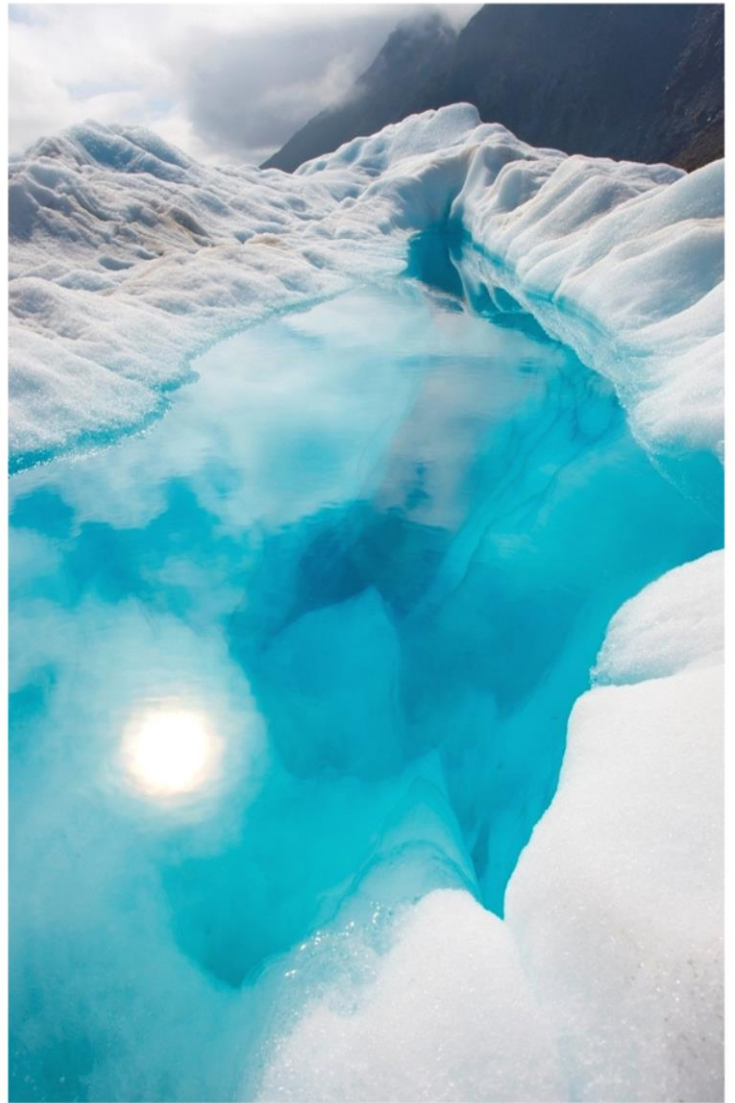
Day 2: Blueprint of E- Commerce Website

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Marketplace Type: General E-Commerce Web

Step 1: Define Frontend Requirements

KEY OBJECTIVES :

User-Friendly Interface:

- Showcase products, portfolios, and services professionally.
- Enable users (business owners, job seekers, bloggers, writers) to navigate easily.

Responsive Design:

Ensure the platform looks great and functions smoothly on both mobile and desktop.

Essential Pages to Design:

Home Page:

- Highlight your mission to help businesses and professionals.
- Include featured products, or services.

Products Listing Page:

- Display products and details.

Individual Product Page:

- Showcase details about a specific product.

Cart

- To show cart items.

Checkout

- To provide proper payment gateway.

Categories:

- To display whole categories of product.

FAQs:

- For providing users frequent answers of usual issue or queries.

About Us Page:

- Share goals (Day 1 objectives).

Contact Page:

- Provide a form for inquiries and professional collaboration.

Step 2: Backend Setup with Sanity CMS

Sanity CMS is a great choice for managing dynamic content like portfolios, products, resumes, and customer information.

1. *Install and Set Up Sanity CMS*

- Run the following commands to set up your project:

```
npm install -g @sanity/cli  
sanity init
```

- Choose a **Clean Project** during initialization.

2. Design Schemas in Sanity CMS

Product Schema:

```
name: "products",
  title: "Products",
  type: "document",
  fields: [{name: "title", title: "Product Title", type: "string", validation: (Rule:
Rule) => Rule.required()},
{ name: "slug", title: "Slug", type: "slug", options: {source: "_id"}},
{ name: "price", title: "Price", type: "number", options: {currency: "USD"}, validation:
(Rule: Rule) => Rule.required()},
{title: "Price without Discount", name: "priceWithoutDiscount", type: "number"},
{name: "badge", title: "Badge", type: "string" },
{name: "image", title: "Product Image", type: "image", validation: (Rule: Rule) =>
Rule.required() },
{name: "category", title: "Category", type: "reference", to: [{ type: "categories" }],
validation: (Rule: Rule) => Rule.required()},
  { name: "description", title: "Product Description", type: "text"},
  {name: "inventory", title: "Inventory Management", type: "number",
    validation: (Rule: Rule) => Rule.required()},
  {name: "tags", title: "Tags", type: "array", of: [{ type: "string" }], options: {
list: [ { title: "Featured", value: "featured" },
        {title: "Follow products and discounts on Instagram", value: "Instagram"},
        { title: "Gallery", value: "gallery" },
      ],
    },
  },
],
},
},
],
},
}
```

User Schema: For managing customer profiles.

```
import { defineType } from "sanity";

export const userSchema = defineType({
  name: "user",
  title: "User",
  type: "document",
  fields: [
    {
      name: "name",
      title: "Name",
      type: "string",
      validation: Rule => Rule.required().min(1).max(50)
    },
    {
      name: "email",
      title: "Email",
      type: "string",
      validation: Rule => Rule.required().email()
    },
    {
      name: "password",
      title: "Password",
      type: "string",
      validation: Rule => Rule.required().min(8).max(50)
    },
    {
      name: "phone_no",
      title: "Phone no",
      type: "string",
      validation: Rule => Rule.required().regex(/^\d{10}$/, {
        name: 'phone number', // Error message is "Must be a valid phone number"
        invert: false, // Boolean to allow any value that doesn't match the regex
      })
    }
  ]
});
```

Order Schema:

```
import { defineType } from "sanity";

export const orderSchema = defineType({
  name: "order",
  title: "Order",
  type: "document",
  fields: [
    {
      name: "user",
      title: "User",
      type: "reference",
      to: [{ type: "user" }],
      validation: Rule => Rule.required()
    },
    {
      name: "products",
      title: "Products",
      type: "array",
      of: [{ type: "reference", to: [{ type: "products" }] }],
      validation: Rule => Rule.required()
    },
    {
      name: "total",
      title: "Total",
      type: "number",
      validation: Rule => Rule.required()
    },
    {
      name: "status",
      title: "Status",
      type: "string",
      options: {
        list: [
          { title: "Pending", value: "pending" },
          { title: "Processing", value: "processing" },
          { title: "Delivered", value: "delivered" },
          { title: "Cancelled", value: "cancelled" }
        ]
      },
      validation: Rule => Rule.required()
    },
    {
      name: "created_at",
      title: "Created At",
      type: "datetime",
      validation: Rule => Rule.required()
    }
  ]
});
```

3. Connect Sanity CMS to Frontend

Use the `@sanity/client` library to fetch data for your frontend.

Step 2: Integrate Third-Party APIs

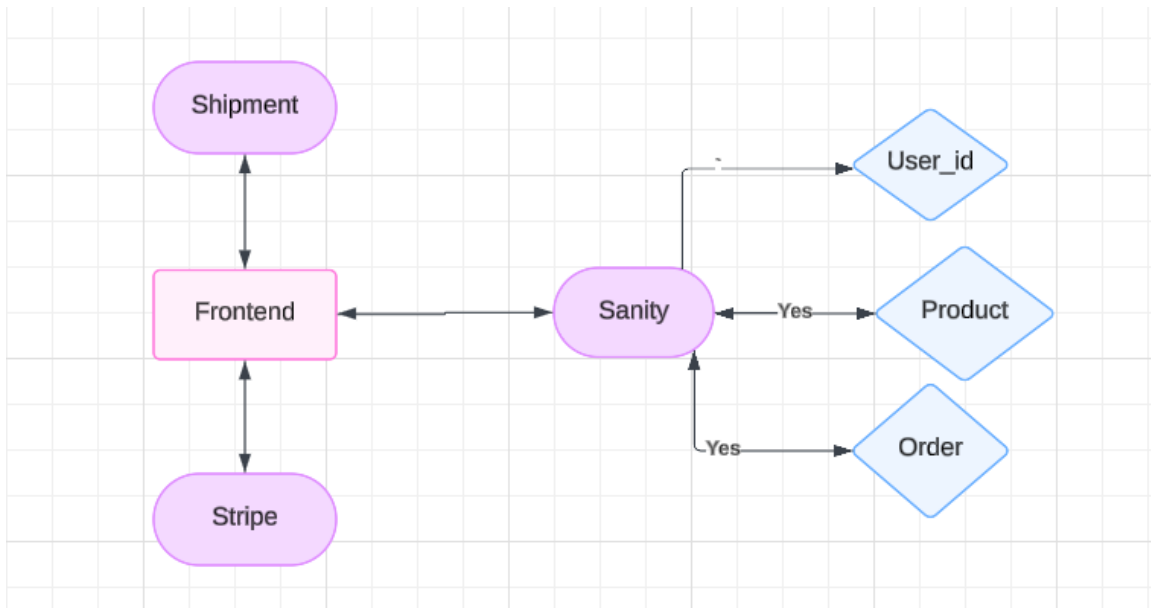
1. Payment Gateway Integration

Stripe or PayPal.

2. Tracking / Shipment:

Shippo

System Architecture:



API Endpoints for "Comforty"

1. Fetch All Products

- **Endpoint Name:** /products
- **Method:** GET
- **Description:** Retrieve all available furniture products (sofas, chairs, tables, etc.) from Sanity.
- **Response Example:**
 - [
 - {
 - "id": "prod001",
 - "title": "Comfortable Sofa",
 - "price": 500,
 - "inventory": 10,
 - "image":
"https://cdn.sanity.io/images/projectId/dataset/sofa.jpg",
 - "description": "A premium-quality, ergonomic sofa for your living room.",
 - "category": "Sofas",
 - "tags": ["featured", "sale"]
 - },
 - {
 - "id": "prod002",
 - "title": "Elegant Dining Chair",
 - "price": 120,
 - "inventory": 25,
 - "image":
"https://cdn.sanity.io/images/projectId/dataset/chair.jpg",
 - "description": "A stylish chair designed for dining areas.",
 - "category": "Chairs",
 - "tags": ["sale"]
 - }
 -]

2. Fetch Product Details

- **Endpoint Name:** /products/:id
- **Method:** GET
- **Description:** Fetch detailed information about a specific furniture product by its ID.
- **Response Example:**
 - {
 - "id": "prod001",
 - "title": "Comfortable Sofa",

- "price": 500,
 - "inventory": 10,
 - "image":
"https://cdn.sanity.io/images/projectId/dataset/sofa.jpg",
 - "description": "A premium-quality, ergonomic sofa for your living room.",
 - "category": "Sofas",
 - "tags": ["featured", "sale"]
 - }
-

3. Create a New Order

- **Endpoint Name:** /orders
 - **Method:** POST
 - **Description:** Place a new order for furniture items.
 - **Payload:**
 - {
 - "userId": "user001",
 - "products": [
 - { "id": "prod001", "quantity": 1 },
 - { "id": "prod002", "quantity": 4 }
 -],
 - "total": 980,
 - "status": "pending",
 - "created_at": "2025-01-15T12:00:00Z"
 - }
 - **Response Example:**
 - {
 - "orderId": "ord123",
 - "status": "Success",
 - "message": "Your order has been placed successfully."
 - }
-

4. Track Order Delivery

- **Endpoint Name:** /shipment/:orderId
- **Method:** GET
- **Description:** Track the delivery status of a furniture order using a third-party API (e.g., Shippo).
- **Response Example:**
 - {
 - "shipmentId": "SHIP001",
 - "orderId": "ord123",
 - "status": "In Transit",

- "expectedDelivery": "2025-01-20",
 - "deliveryPartner": "DHL"
 - }
-

5. Fetch All Categories

- **Endpoint Name:** /categories
 - **Method:** GET
 - **Description:** Retrieve all product categories, such as sofas, chairs, tables, and decor.
 - **Response Example:**
 - [
 - { "id": "cat001", "name": "Sofas" },
 - { "id": "cat002", "name": "Chairs" },
 - { "id": "cat003", "name": "Tables" },
 - { "id": "cat004", "name": "Decor" }
 -]
-

6. User Login

- **Endpoint Name:** /login
 - **Method:** POST
 - **Description:** Allow users to log in to their Comforty account.
 - **Payload:**
 - {
 - "email": "customer@example.com",
 - "password": "securepassword"
 - }
 - **Response Example:**
 - {
 - "userId": "user001",
 - "name": "John Doe",
 - "token": "eyJhbGciOiJIUzI1NiIsInR5cC..."
 - }
-

7. User Registration

- **Endpoint Name:** /register
- **Method:** POST
- **Description:** Allow customers to create an account to shop at Comforty.
- **Payload:**

- {
- "name": "John Doe",
- "email": "customer@example.com",
- "password": "securepassword",
- "phone_no": "1234567890"
- }

- **Response Example:**

- {
- "userId": "user001",
- "status": "Success",
- "message": "Your account has been created successfully."
- }
