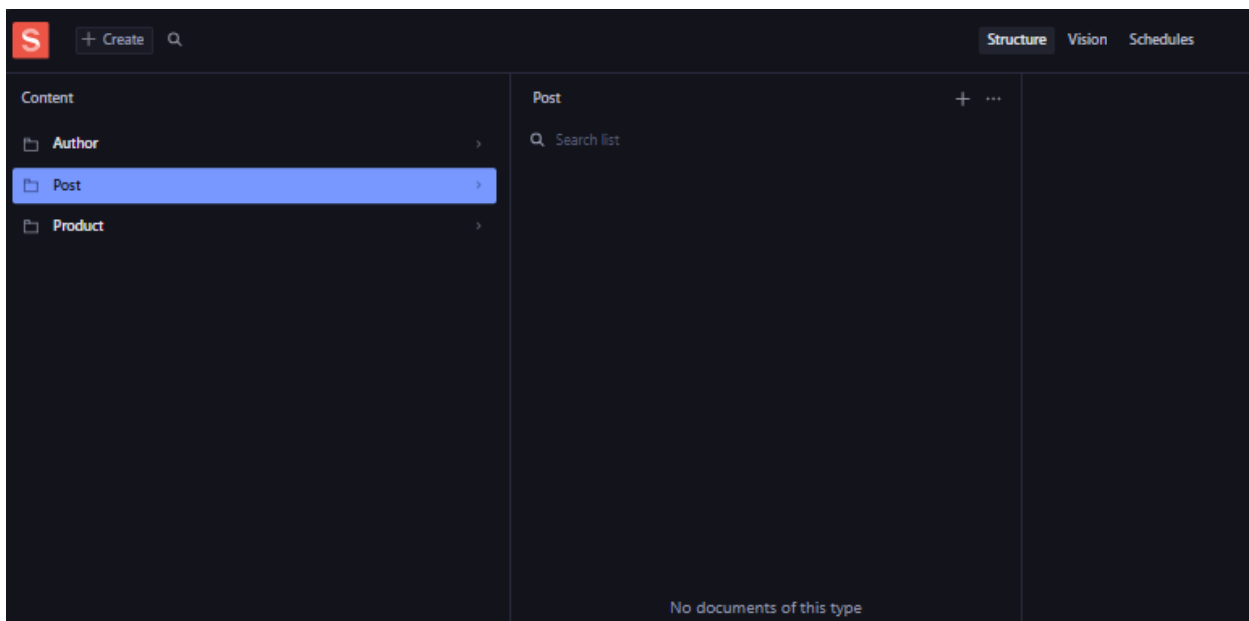


DAY 3 - API INTEGRATION AND DATA MIGRATION

Step 01

Sanity is a headless CMS (Content Management System) designed to manage structured content efficiently. It provides developers with a flexible backend to create, update, and manage content, which can be accessed through APIs for use in websites or applications. I have created a project in Sanity named "**Product**", where all the configurations and schemas will revolve around managing product-related data. This setup will allow me to define custom fields, such as title, description, price, and images, and organize the content for seamless integration with a frontend or e-commerce platform.



Step 02

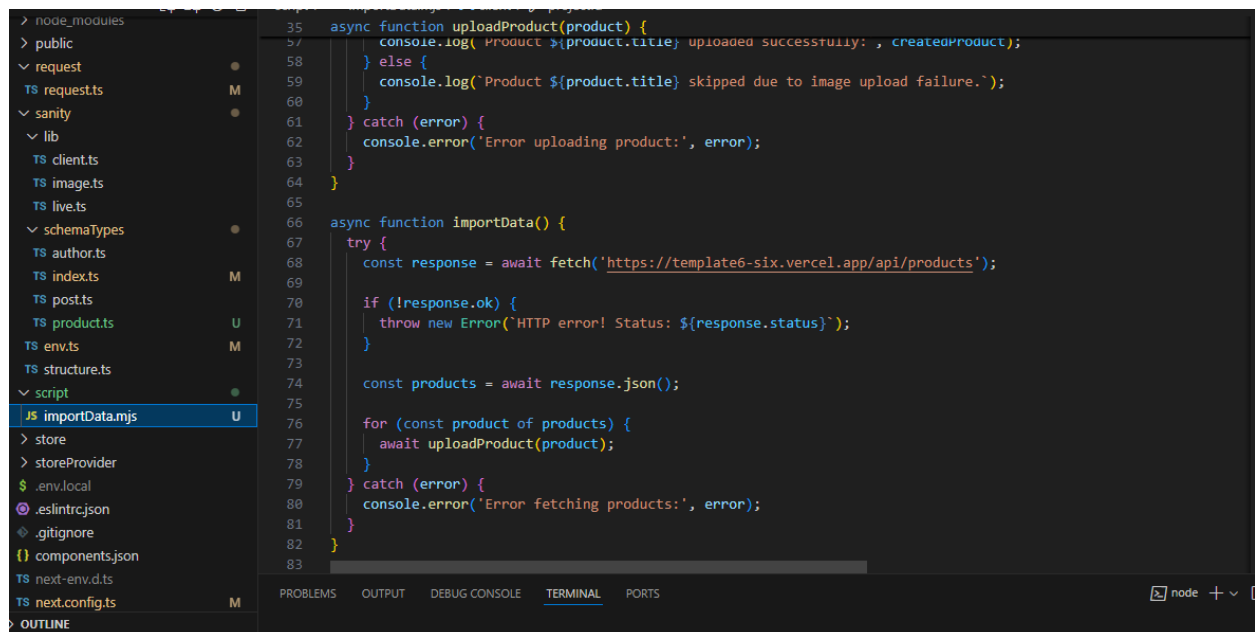
Next, I utilized an API URL provided by my instructor. This API serves as the data source for fetching product-related information. By integrating this API into my project, I can retrieve dynamic data such as product names, descriptions, prices, and other details, which can then be displayed or processed in the application. This step is crucial for connecting the backend content or external services with the frontend to create a seamless and functional user experience.

- We will follow Same as Template 6 API docs

Template 6 - Sir Fahad Khan and Sir Hamza Alvi

- API Url : <https://template6-six.vercel.app/api/products>
- Schema: <https://github.com/developer-hammad-rehman/template6/blob/main/src/sanity/schemaTypes/product.ts>

Step 03



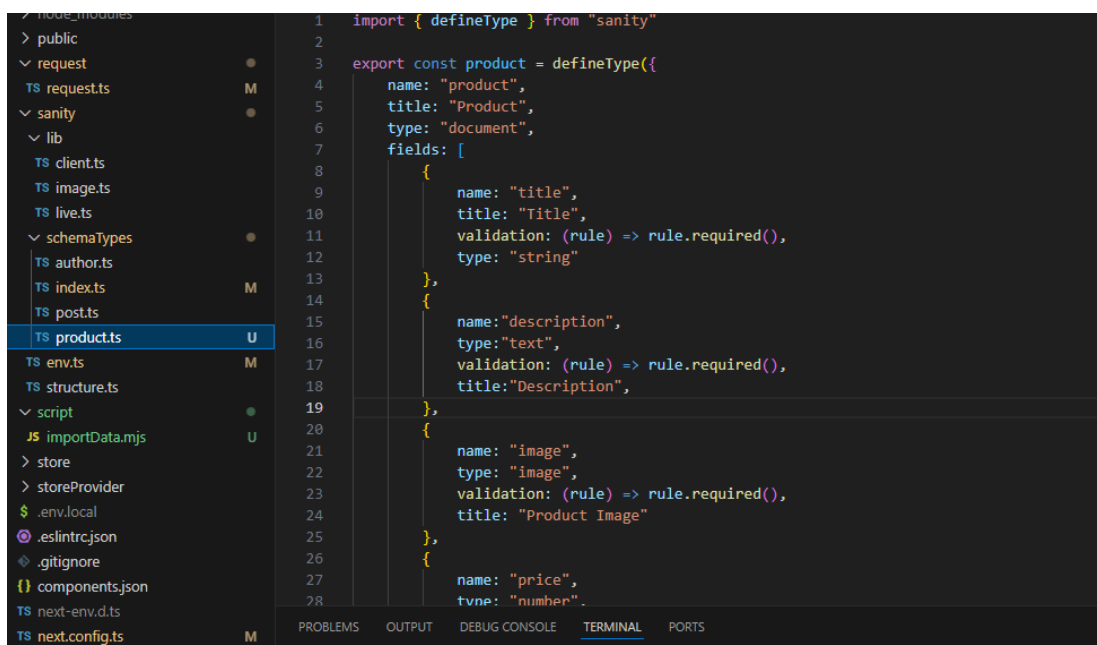
```
35 async function uploadProduct(product) {
36   console.log('Product >{product.title} uploaded successfully: ', createdProduct);
37 } else {
38   console.log('Product >{product.title} skipped due to image upload failure.');
```

```
60 }
61 } catch (error) {
62   console.error('Error uploading product:', error);
63 }
64 }
65
66 async function importData() {
67   try {
68     const response = await fetch('https://template6-six.vercel.app/api/products');
69
70     if (!response.ok) {
71       throw new Error('HTTP error! Status: ${response.status}');
```

```
72 }
73
74 const products = await response.json();
75
76 for (const product of products) {
77   await uploadProduct(product);
78 }
79 } catch (error) {
80   console.error('Error fetching products:', error);
81 }
82 }
83 }
```

Next, I created a file named `importData.mjs` where I pasted the migration script. This script is responsible for transferring or importing data into the Sanity project. In this file, I included the API URL provided by my instructor to fetch the data from the external source. The migration script ensures that the product-related information, such as names, descriptions, prices, and images, is properly imported and synchronized into the Sanity project's dataset. This allows the data to be accessible and managed within the Sanity Studio for further usage in the application.

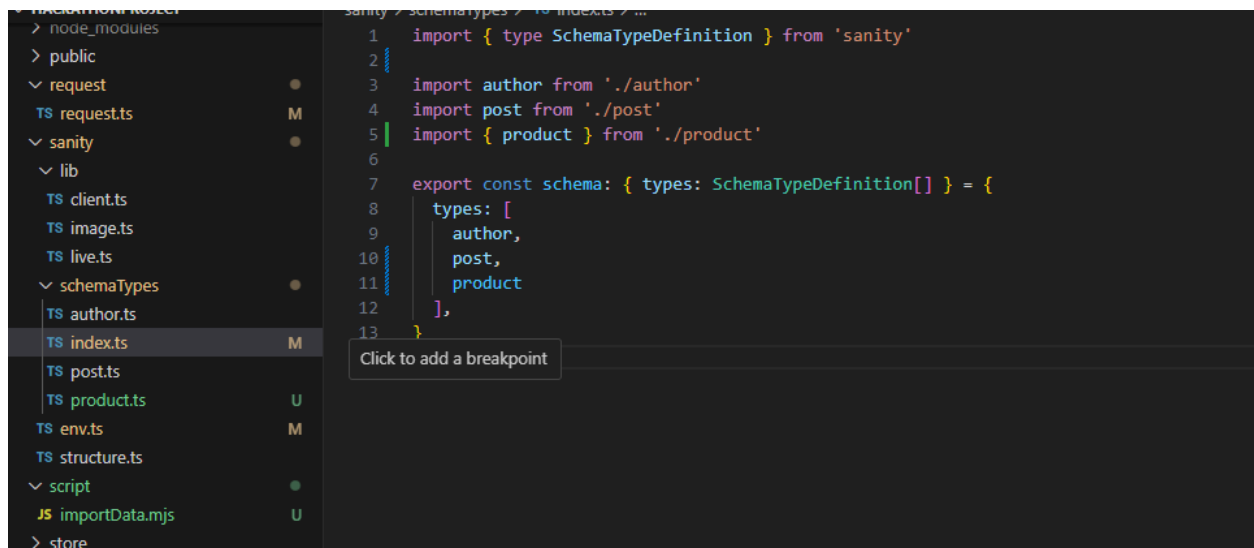
Step 04



```
1 import { defineType } from "sanity"
2
3 export const product = defineType({
4   name: "product",
5   title: "Product",
6   type: "document",
7   fields: [
8     {
9       name: "title",
10      title: "Title",
11      validation: (rule) => rule.required(),
12      type: "string"
13    },
14    {
15      name: "description",
16      type: "text",
17      validation: (rule) => rule.required(),
18      title: "Description",
19    },
20    {
21      name: "image",
22      type: "image",
23      validation: (rule) => rule.required(),
24      title: "Product Image"
25    },
26    {
27      name: "price",
28      type: "number",
```

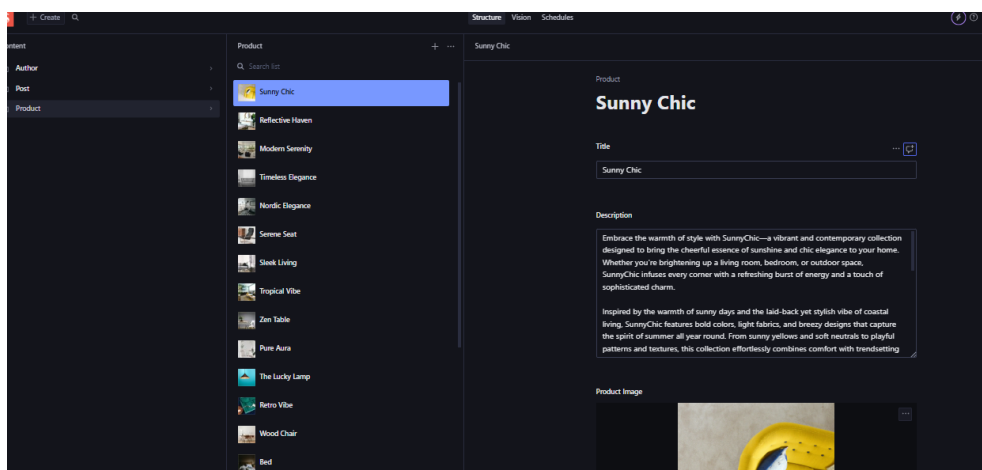
Next, I navigated to the Sanity project folder and within the `schemas` folder, I created a file named `product.ts`. In this file, I defined the schema for the product document. The schema outlines the structure of the product data, specifying fields such as title, description, price, and image. This schema ensures that the content for each product is properly structured and validated within the Sanity CMS. By defining this schema, I set up a template for how product information will be managed and stored in the database, making it easier to retrieve and display within the application.

Step 05



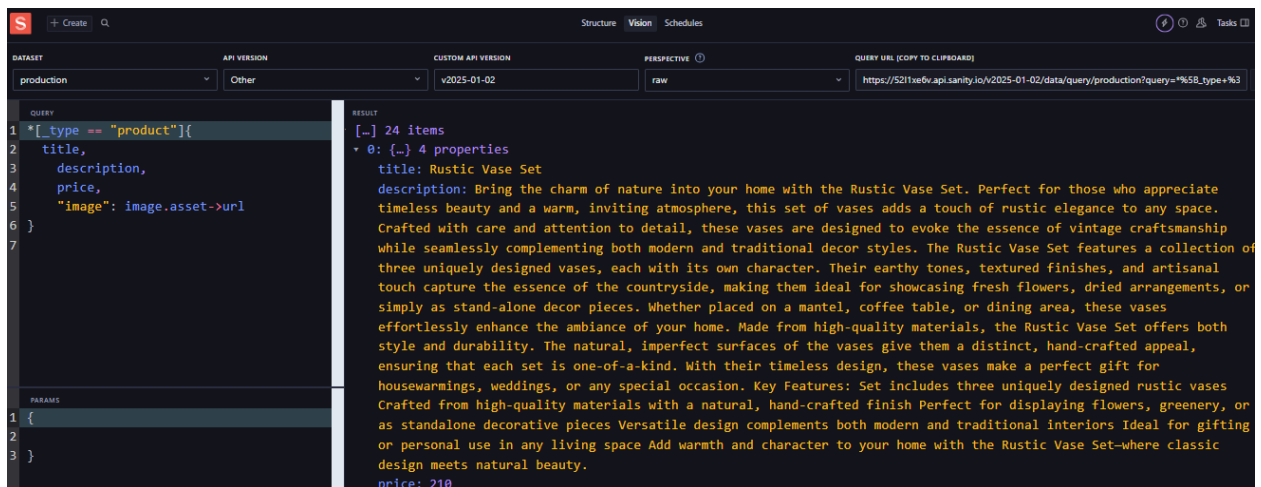
Next, I added the **product schema** to the `index.ts` file in the Sanity schema folder. This step involves importing the product schema into the `index.ts` file and then including it in the array of schemas that Sanity uses to manage and display content. By doing this, I ensure that the product schema is registered within the Sanity project, allowing it to be available in the Sanity Studio for content creation and management. This integration makes it possible to use the defined product schema throughout the project for managing product data efficiently.

Step 06



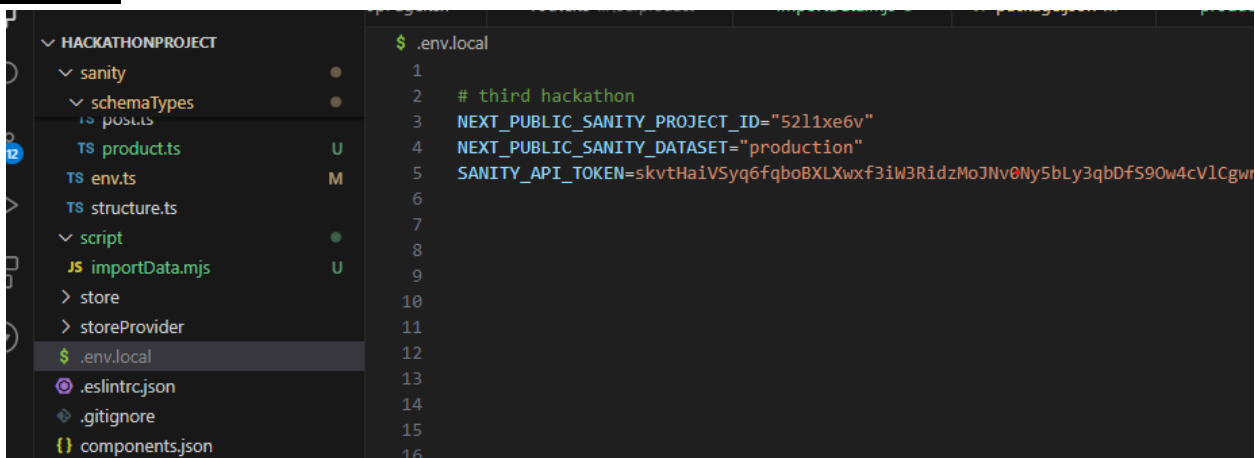
Finally, I navigated to `localhost:3000/studio`, which is the local development server for the Sanity Studio. Once there, I was able to see that all the data had been successfully fetched and imported into Sanity. The migration script had properly transferred the product information, and now it was available in the Sanity Studio for management. The products, along with their details (such as title, description, price, and image), were visible and ready to be edited or used within the application. This confirms that the integration between the API, migration script, and Sanity CMS was successful.

Step 07



Next, I navigated to the **Vision** section within the Sanity Studio. Vision is a powerful tool in Sanity that allows you to query and view the data in real-time. In the **Vision** interface, I defined a query for the **fields** of the product schema. This query allows me to view and filter the product data based on specific fields like title, description, price, and image. It provides a way to inspect the data structure and ensure that all fields are properly populated and accessible. By using Vision, I was able to verify that the product data was correctly fetched and organized as expected within the Sanity Studio.

Step 08

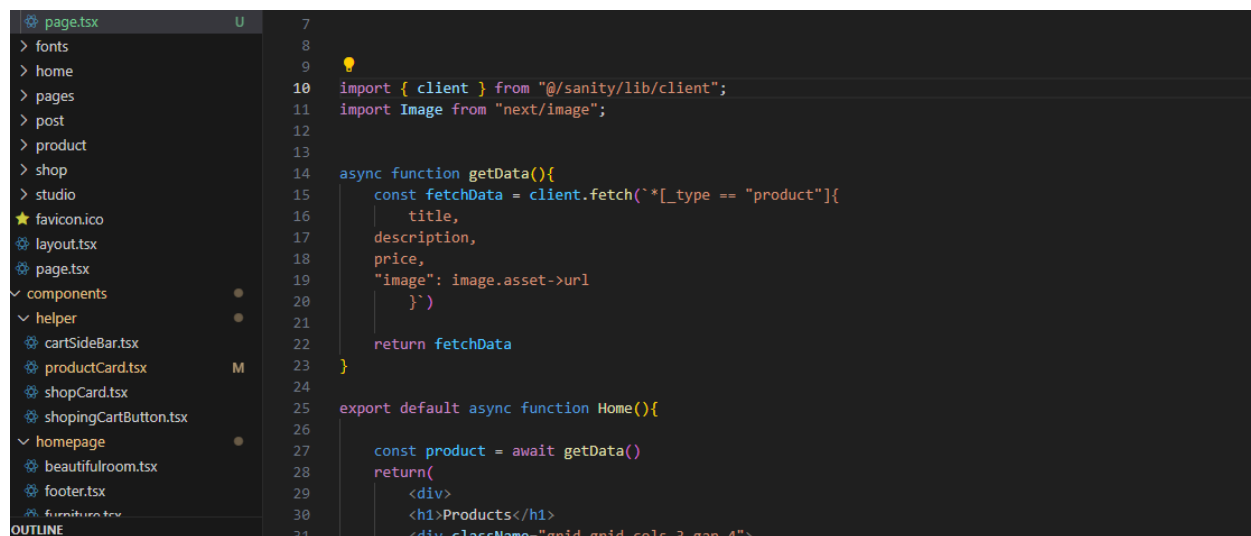


Next, I navigated to the `.env.local` file and defined the necessary environment variables for the Sanity project. In this file, I added the following key details:

- **SANITY_PROJECT_ID**: The unique project ID for the Sanity project, which links the application to the correct dataset.
- **SANITY_DATASET**: The dataset name, usually "production," which specifies where the data is stored.
- **SANITY_TOKEN**: The authentication token, which provides secure access to the Sanity API for reading and writing data.

By defining these values in the `.env.local` file, I ensured that the application could connect to the Sanity backend securely and fetch or manipulate the product data as needed. This step is essential for maintaining the project's configuration and establishing the connection to the Sanity CMS.

Step 09



```
7
8
9
10 import { client } from "@sanity/lib/client";
11 import Image from "next/image";
12
13
14 async function getData(){
15   const fetchData = client.fetch(`*[_type == "product"]{
16     title,
17     description,
18     price,
19     "image": image.asset->url
20   }`);
21
22   return fetchData
23 }
24
25 export default async function Home(){
26
27   const product = await getData()
28   return(
29     <div>
30       <h1>Products</h1>
31       <div className="grid grid-cols-3 gap-4">
```

Next, I created a page where I needed to fetch the data from the API. To do this, I used the `fetch` function to make a request to the API and retrieve the necessary product data. By using `fetch`, I was able to send a request to the API endpoint that I had previously defined in the `.env.local` file and get the response containing the product information. This function allowed me to asynchronously fetch data and then display or process it on the page. It ensures that the product details, such as titles, descriptions, and images, are dynamically loaded and rendered from the backend into the frontend of the application.


Step 10

←↻🌐localhost:3000/product

Furniro

HomeShopBlogContact


Products



Rustic Vase Set


Bring the charm of nature into your home with the Rustic Vase Set. Perfect for those who appreciate timeless beauty and a warm, inviting atmosphere, this set of vases adds a touch of rustic elegance to any space. Crafted with care and attention to detail, these vases are designed to evoke the essence of vintage craftsmanship while seamlessly complementing both modern and traditional decor styles. The Rustic Vase Set features a collection of three uniquely designed vases, each with its own character. Their earthy tones, textured finishes, and artisanal touch capture the essence of the countryside, making them ideal for showcasing fresh flowers, dried arrangements, or simply as stand-alone decor pieces. Whether placed on a mantel, coffee table, or dining area, these vases effortlessly enhance the ambiance of your home. Made from high-quality materials, the Rustic Vase Set offers both style and durability. The natural, imperfect surfaces of the vases give them a distinct, hand-crafted appeal, ensuring that each set is one-of-a-kind. With their timeless design, these vases make a perfect gift for housewarmings, weddings, or any special occasion. Key Features: Set includes three uniquely designed rustic vases Crafted from high-quality materials with a natural, hand-crafted finish Perfect for displaying flowers, greenery, or as standalone decorative pieces Versatile design complements both modern and traditional interiors Ideal for gifting or personal use in any living space Add warmth and character to your home with the Rustic Vase Set—where classic design meets natural beauty.

210



Timber Craft

Introducing TimberCraft—a collection that celebrates the timeless beauty of wood craftsmanship and the art of nature's finest materials. Inspired by the rustic charm and durability of natural wood, TimberCraft brings warmth, character, and a touch of handcrafted elegance to any space. Perfect for those who value authenticity and sustainability, this collection combines the strength of timber with refined design, making it the ideal choice for modern and traditional homes alike. Each piece in the TimberCraft collection is meticulously crafted to highlight the unique grains and textures of the wood, bringing an organic, earthy feel to your space. Whether you're looking for furniture, decor, or accents, TimberCraft offers a variety of beautifully designed pieces that blend rustic appeal with contemporary sophistication. The collection is designed to stand the test of time, with materials chosen for their durability and lasting beauty. TimberCraft is perfect for those who appreciate quality, craftsmanship, and the enduring beauty of wood. From striking tables and chairs to decorative accessories, this collection adds a natural elegance to any room, transforming your living area into a warm and welcoming retreat. Key Features: Made from high-quality, sustainable timber for durability and lasting appeal Rustic yet refined design that complements both modern and traditional interiors Unique wood grains and textures that bring natural beauty to your space Expert craftsmanship that highlights the authenticity of each piece Perfect for creating a cozy, earthy atmosphere in any room Bring the timeless charm of nature into your home with TimberCraft—where the beauty of wood meets masterful craftsmanship, creating lasting pieces that



Amber Haven

Step into a world of warmth and tranquility with Amber Haven—a collection inspired by the golden glow and timeless beauty of amber. This sophisticated line combines the soothing hues of amber with elegant, contemporary design to create a space that feels both welcoming and luxurious. Ideal for those seeking a serene escape, Amber Haven infuses your home with a sense of calm, warmth, and understated elegance. Crafted with high-quality materials and a keen eye for detail, each piece in the Amber Haven collection is designed to evoke feelings of comfort and relaxation. The soft, amber-toned accents, paired with sleek lines and refined craftsmanship, bring a touch of nature's beauty into your home. Whether you're furnishing your living room, bedroom, or dining space, Amber Haven creates an inviting atmosphere that radiates peace and sophistication. The collection's warmth and versatility allow it to seamlessly integrate into various décor styles, from modern to traditional, making it a perfect choice for those who love both timeless elegance and contemporary flair. Amber Haven offers a sanctuary of comfort and luxury, where every piece is designed to enhance your home and your well-being. Key Features: Warm amber tones and elegant design create a cozy, inviting ambiance High-quality craftsmanship and materials ensure durability and long-lasting appeal Versatile style complements a variety of interior designs, from modern to traditional Perfect for creating a serene and luxurious space in any room Ideal for those seeking a combination of beauty, comfort, and sophistication Bring the golden glow of Amber Haven into your home—where warmth, luxury, and timeless design come together to create a peaceful and elegant retreat.