

The background is a textured watercolor-style illustration. It features soft, blended washes of pink in the upper right and purple in the lower left. Delicate, swirling gold lines are scattered across the composition, some forming loops and others as straight, flowing paths. There are also some gold-colored circular patterns and speckles, particularly in the lower right area. The overall aesthetic is artistic and modern.

API INTEGRATION AND MIGRATION REPORT

Prepared By Aamna Ansari

Day 3 Goal Update: API Integration with Sanity CMS for the Bandage Project

The objective for Day 3 was to seamlessly integrate API data into Sanity CMS, streamlining dynamic content updates for the marketplace. This integration replaced manual data entry with a more efficient and scalable solution, ensuring the marketplace remains up-to-date with minimal effort.

Sanity CMS Schema Design: Structuring Product Data for the Bandage Project

To efficiently manage product data in Sanity CMS, I created a dedicated schema named "product". This schema is designed to handle all essential product details seamlessly, ensuring an organized and scalable approach for the marketplace. The schema includes the following key fields:

Main Fields:

title: Represents the product title (type: string).

description: A comprehensive description of the product (type: text).

productImage: The primary image of the product (type: image).

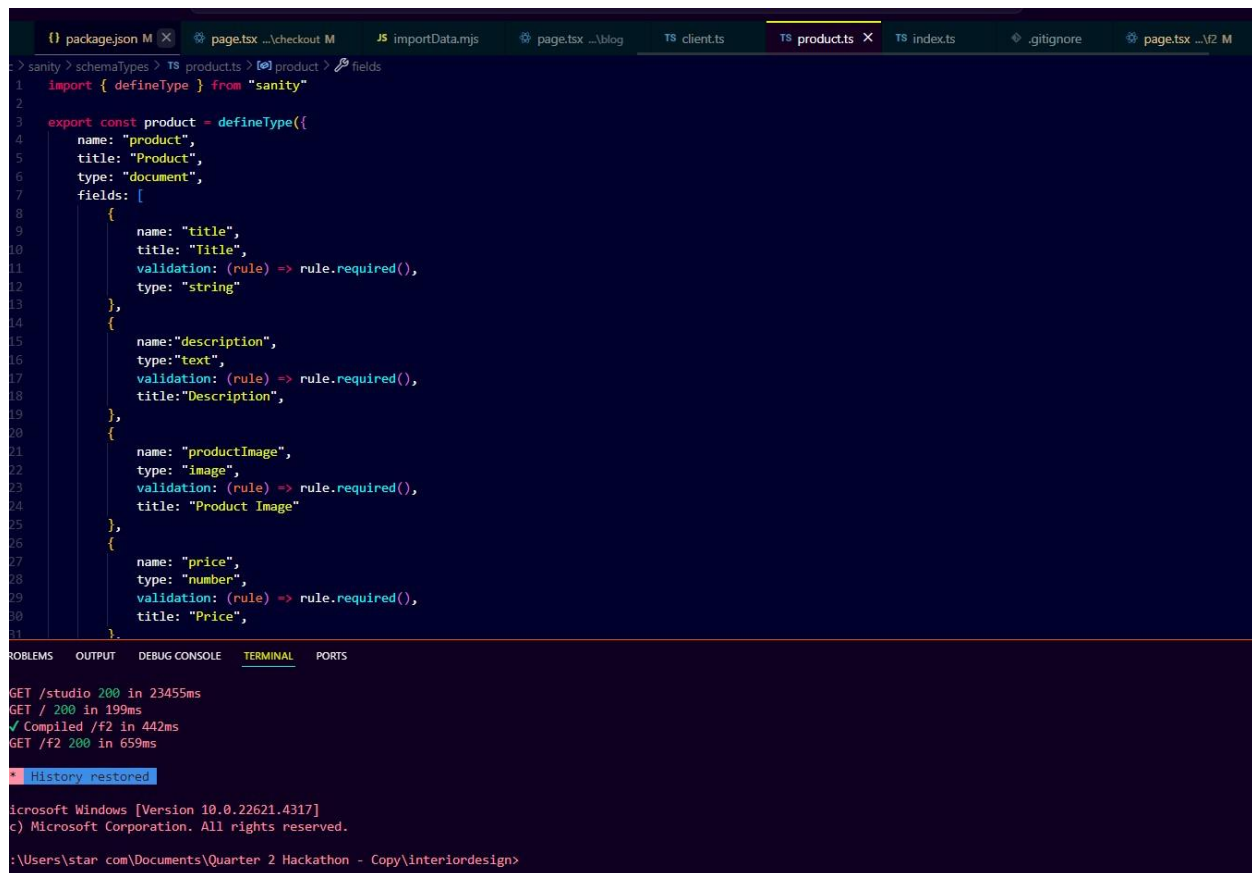
price: The product's price (type: number).

tags: An array of tags for categorizing the product (type: array of strings).

discountPercentage: The discount percentage applied to the product (type: number).

isNew: A boolean flag indicating whether the product is newly added (type: boolean).

This schema ensures a well-structured foundation for product data, allowing for smooth API integration and efficient content management.



```
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: "productImage",
22      type: "image",
23      validation: (rule) => rule.required(),
24      title: "Product Image"
25    },
26    {
27      name: "price",
28      type: "number",
29      validation: (rule) => rule.required(),
30      title: "Price",
31    }
32  ]
33 })
```

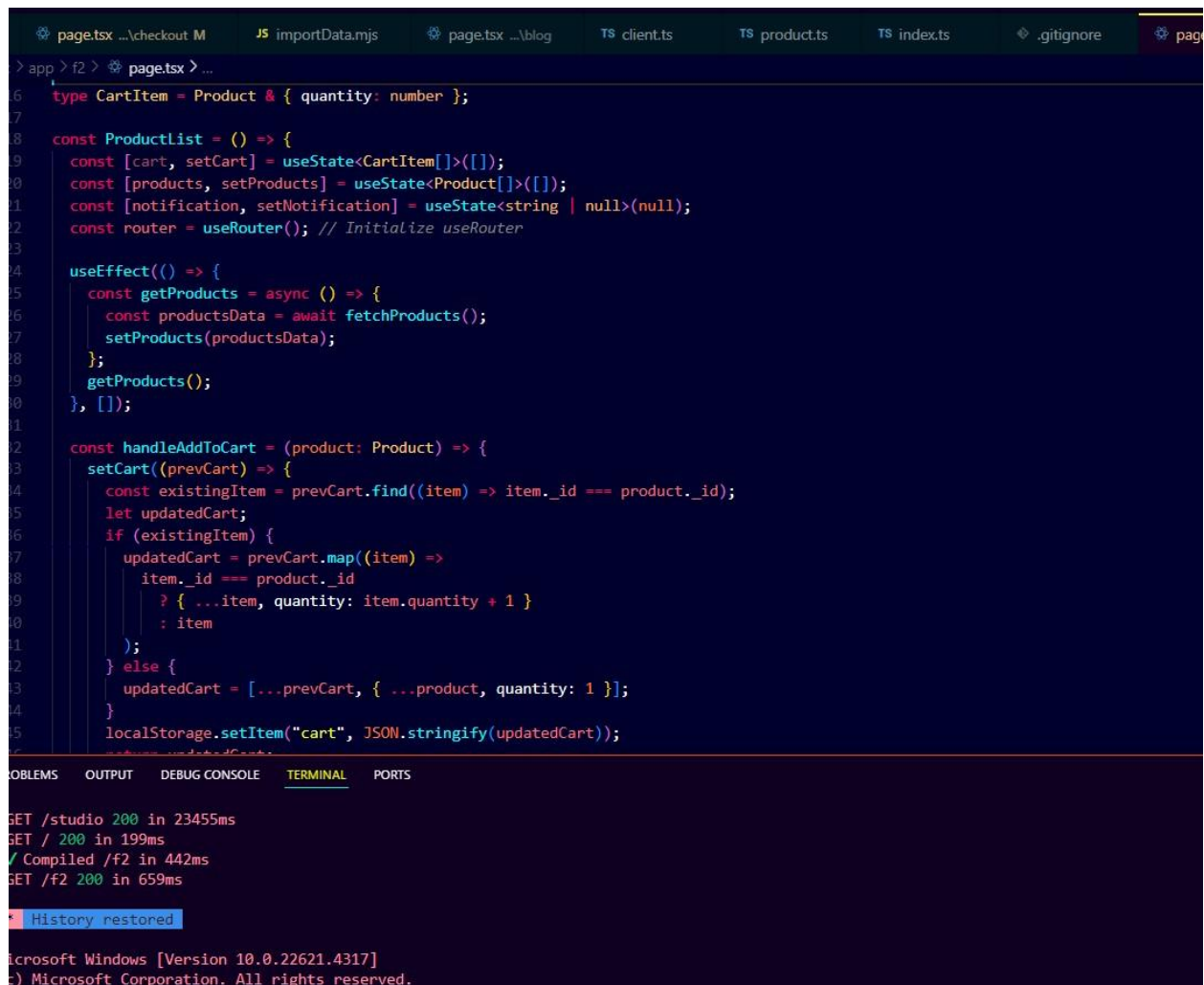
```
GET /studio 200 in 23455ms
GET / 200 in 199ms
✓ Compiled /f2 in 442ms
GET /f2 200 in 659ms
* History restored

Microsoft Windows [Version 10.0.22621.4317]
(c) Microsoft Corporation. All rights reserved.

:\Users\star com\Documents\Quarter 2 Hackathon - Copy\interiordesign>
```

API Data Integration: Fetching and Utilizing Provided Data:

To ensure dynamic content updates, I successfully fetched data from the provided API. This data is seamlessly integrated into the project, eliminating the need for manual entry and enabling real-time updates for the marketplace. By utilizing API fetching techniques, the system now handles product information more efficiently, ensuring accuracy and scalability.



```
16 type CartItem = Product & { quantity: number };
17
18 const ProductList = () => {
19   const [cart, setCart] = useState<CartItem[]>([]);
20   const [products, setProducts] = useState<Product[]>([]);
21   const [notification, setNotification] = useState<string | null>(null);
22   const router = useRouter(); // Initialize useRouter
23
24   useEffect(() => {
25     const getProducts = async () => {
26       const productsData = await fetchProducts();
27       setProducts(productsData);
28     };
29     getProducts();
30   }, []);
31
32   const handleAddToCart = (product: Product) => {
33     setCart((prevCart) => {
34       const existingItem = prevCart.find((item) => item._id === product._id);
35       let updatedCart;
36       if (existingItem) {
37         updatedCart = prevCart.map((item) =>
38           item._id === product._id
39             ? { ...item, quantity: item.quantity + 1 }
40             : item
41         );
42       } else {
43         updatedCart = [...prevCart, { ...product, quantity: 1 }];
44       }
45       localStorage.setItem("cart", JSON.stringify(updatedCart));
46     });
47   };
48 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
GET /studio 200 in 23455ms
GET / 200 in 199ms
✓ Compiled /f2 in 442ms
GET /f2 200 in 659ms
```

History restored

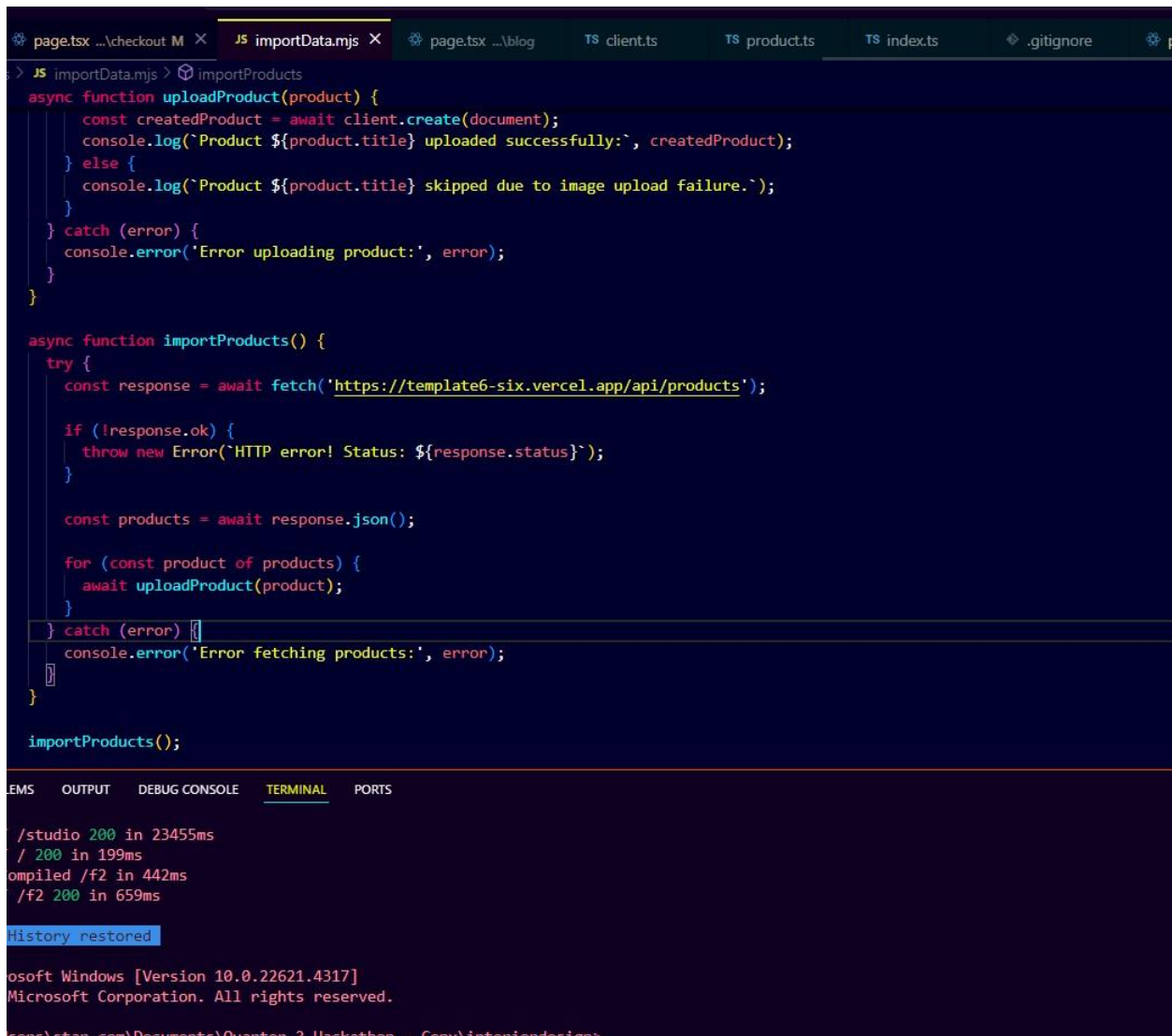
Microsoft Windows [Version 10.0.22621.4317]
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Data Population in Sanity CMS:

After fetching the API data, I populated the product fields in Sanity CMS dynamically. This allowed for the automated population of product information, ensuring consistency and accuracy across the platform.

Dataset Migration and Testing with Sanity CLI:

Using the Sanity CLI, I exported the dataset from Sanity CMS to create a reliable backup. Later, I re-imported the dataset for testing purposes, ensuring seamless migration. This process validated that all data remained well-structured and accurately displayed on the frontend, maintaining consistency and reliability throughout the project.



```
page.tsx ...\checkout M X JS importData.mjs X page.tsx ...\blog TS client.ts TS product.ts TS index.ts .gitignore p
> JS importData.mjs > importProducts
async function uploadProduct(product) {
  const createdProduct = await client.create(document);
  console.log(`Product ${product.title} uploaded successfully:`, createdProduct);
} else {
  console.log(`Product ${product.title} skipped due to image upload failure.`);
}
} catch (error) {
  console.error('Error uploading product:', error);
}
}

async function importProducts() {
  try {
    const response = await fetch('https://template6-six.vercel.app/api/products');

    if (!response.ok) {
      throw new Error(`HTTP error! Status: ${response.status}`);
    }

    const products = await response.json();

    for (const product of products) {
      await uploadProduct(product);
    }
  } catch (error) {
    console.error('Error fetching products:', error);
  }
}

importProducts();
```

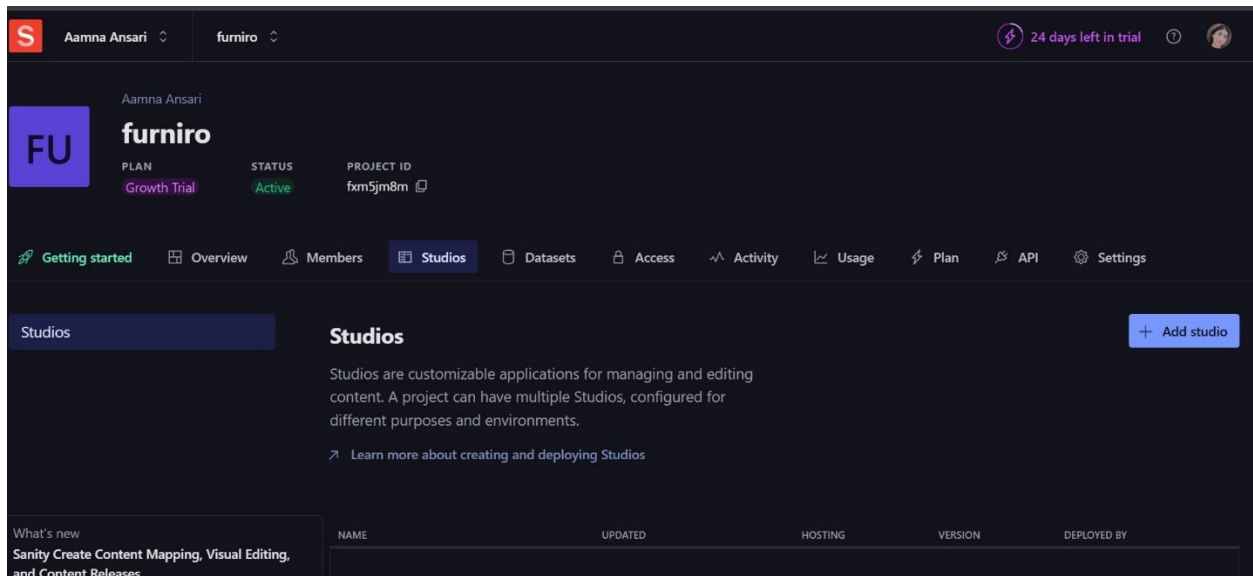
LEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
/studio 200 in 23455ms
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/f2 200 in 659ms
History restored
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Microsoft Corporation. All rights reserved.
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```

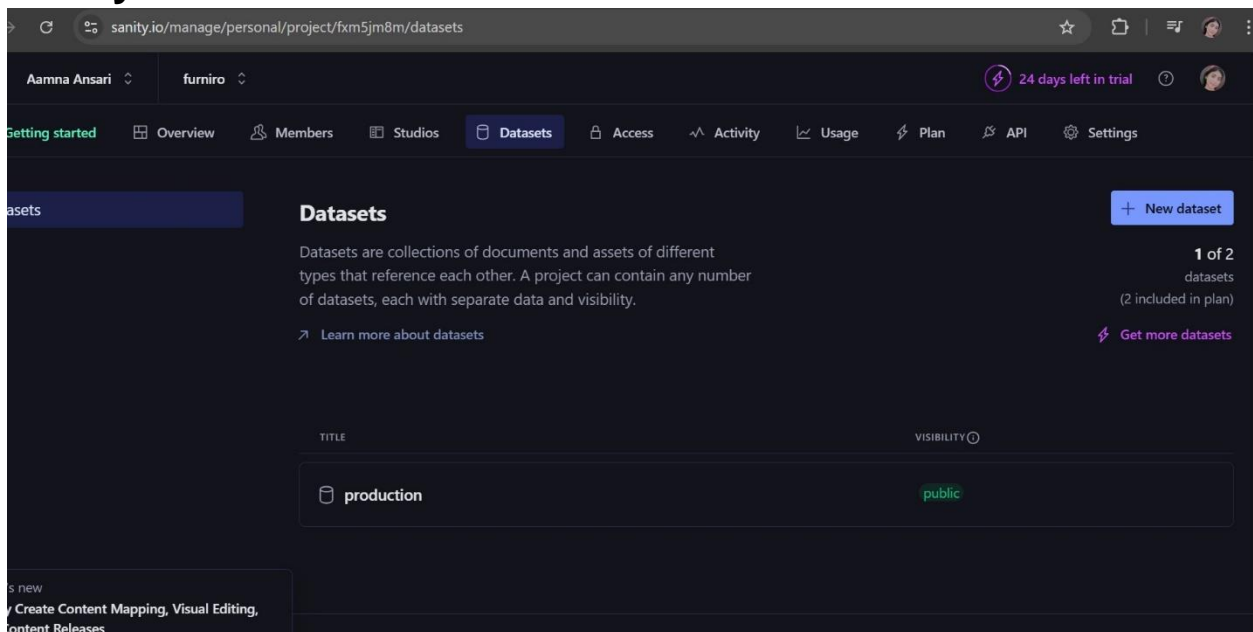
Tools Used:

Sanity Studio: Streamlining Content Management and Product Display:

Sanity Studio served as the primary tool for creating schemas, managing content, and showcasing product data. Its intuitive interface facilitated seamless schema design and efficient content updates, ensuring a smooth workflow and accurate data representation.




Sanity Database:



Sanity Vision:





← → ↺ 📍 localhost:3000/studio/vision 🔍 ☆ 📄 | 📋 ⬇️ 👤 ⋮

 **Furniro**

Home Shop Blog Featured Contact

S Default + Create 🔍

Structure Vision Schedules

   Tasks 

DATASET

API VERSION

CUSTOM API VERSION

PERSPECTIVE ⓘ

QUERY URL [COPY TO CLIPBOARD]

production ▾

Other ▾

v2025-01-19

raw ▾

https://fxm5jm8m.api.sanity.io/v2025-01-19/data/query/production? 📄

QUERY

PARAMS

```
1 *[_type == "product"]{
2   _id,
3   title,
4   description,
5   "imageUrl": productImage.asset->url,
6   price,
7   tags,
8   dicountPercentage,
9 }
1 {
2 }
3 }
```

RESULT

```
[...] 48 items
+ 0: {...} 8 properties
  imageUrl: https://cdn.sanity.io/images/fxm5jm8m/production/2219caf285ec13a2ed3f88aa36cbea852a11735-305x375.png
  price: 210
+ tags: [...] 5 items
  0: rustic
  1: vase
  2: home decor
  3: vintage
  4: interior design
  dicountPercentage: 10
  isNew: false
  _id: D24vb8qimRXTY37Eyq9vMs
  title: Rustic Vase Set
  description: 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: The set includes three uniquely designed rustic vases crafted from high-quality materials with a natural 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.
  isNew: false
  _id: "00ece333-76dc-4815-9229-93aaddbd727f",
  title: "Rustic Vase Set"
```

What's new

Sanity Create Content Mapping, Visual Editing, and Content Releases

API:

← → ↺ 📍 template6-six.vercel.app/api/products 🔍 ☆ 📄 | 📋 ⬇️ 👤 ⋮

ty print

```
"imageUrl": "https://cdn.sanity.io/images/7xt4qcah/production/2219caf285ec13a2ed3f88aa36cbea852a11735-305x375.png",
"price": 210,
"tags": [
  "rustic ",
  "vase ",
  "home decor",
  "vintage ",
  "interior design"
],
"dicountPercentage": 10,
"description": "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: The set includes three uniquely designed rustic vases crafted from high-quality materials with a natural 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.",
"isNew": false,
_id: "00ece333-76dc-4815-9229-93aaddbd727f",
title: "Rustic Vase Set"

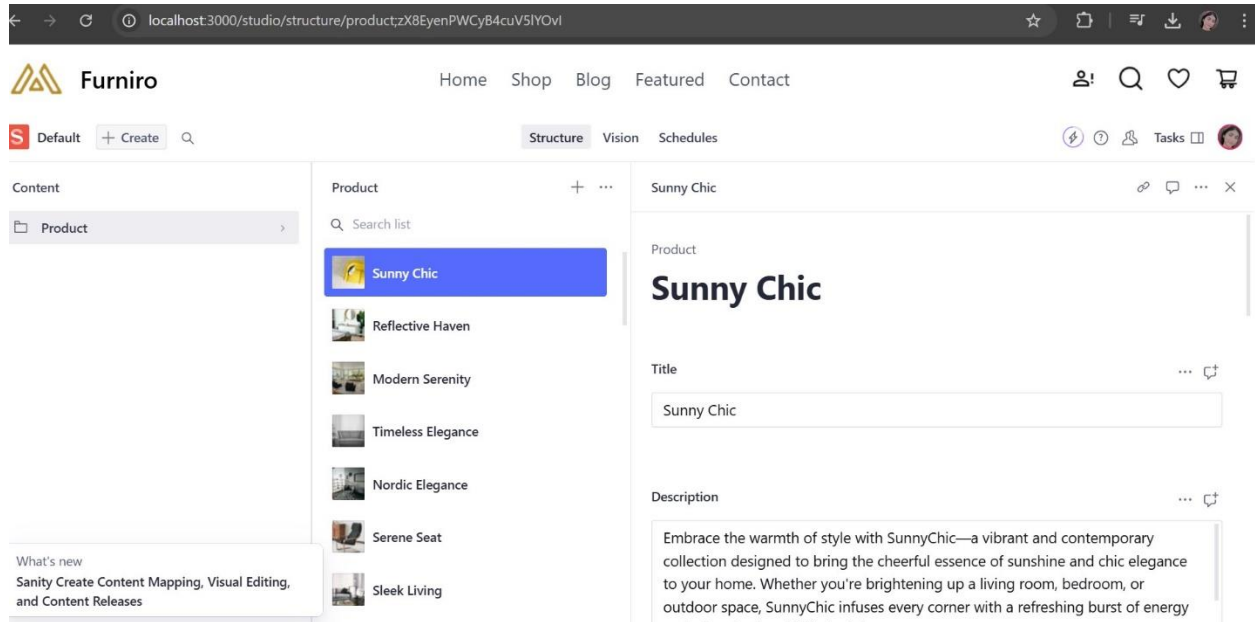
"title": "Timber Craft",
"imageUrl": "https://cdn.sanity.io/images/7xt4qcah/production/cbfd4d2e1e3a58e25763a1d84efe10a8c25eed7-326x4928.jpg",
"price": 320,
"tags": [
  "wooden ",
  "craftsmanship ",
  "furniture ",
  "modern ",
  "nature inspired"
],
"dicountPercentage": 30,
"description": "Introducing 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 to create 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, natural 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 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 wood 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 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."


```

Screenshots and Frontend Display:

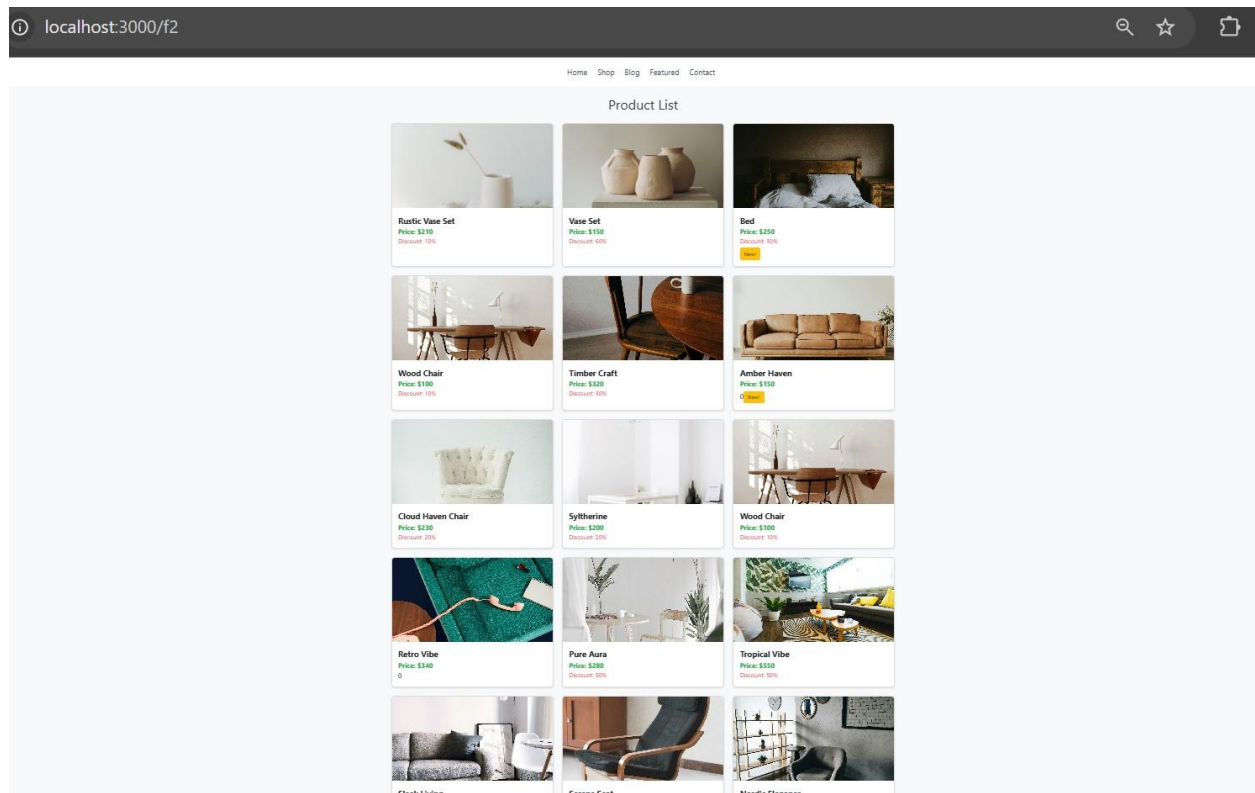
Sanity CMS Fields:

A screenshot showcasing the populated fields within Sanity Studio, highlighting product details such as images, descriptions, prices, and other key attributes. This visual representation demonstrates the effective integration and organization of product data in the CMS.



Frontend Display:

Screenshot demonstrating how the product data is displayed dynamically on the frontend of the marketplace.



Conclusion:

The successful completion of API integration and data migration significantly enhanced the efficiency and scalability of the Bandage project. By streamlining the process of adding and updating product data in the marketplace, the integration eliminated manual efforts, ensuring real-time updates. Additionally, the data migration steps maintained consistency and accuracy throughout the system. With this robust setup, the Bandage project is now more dynamic, reliable, and easier to maintain.



Checklist

- ☐ **API Understanding**
- ☐ **Schema Validation**
- ☐ **Data Migration**
- ☐ **API Integration in Next JS**
- ☐ **Submission Preparation**

