Hackathon Day 3

Project Documentation: Sanity Data Import, Fetching, and Migration

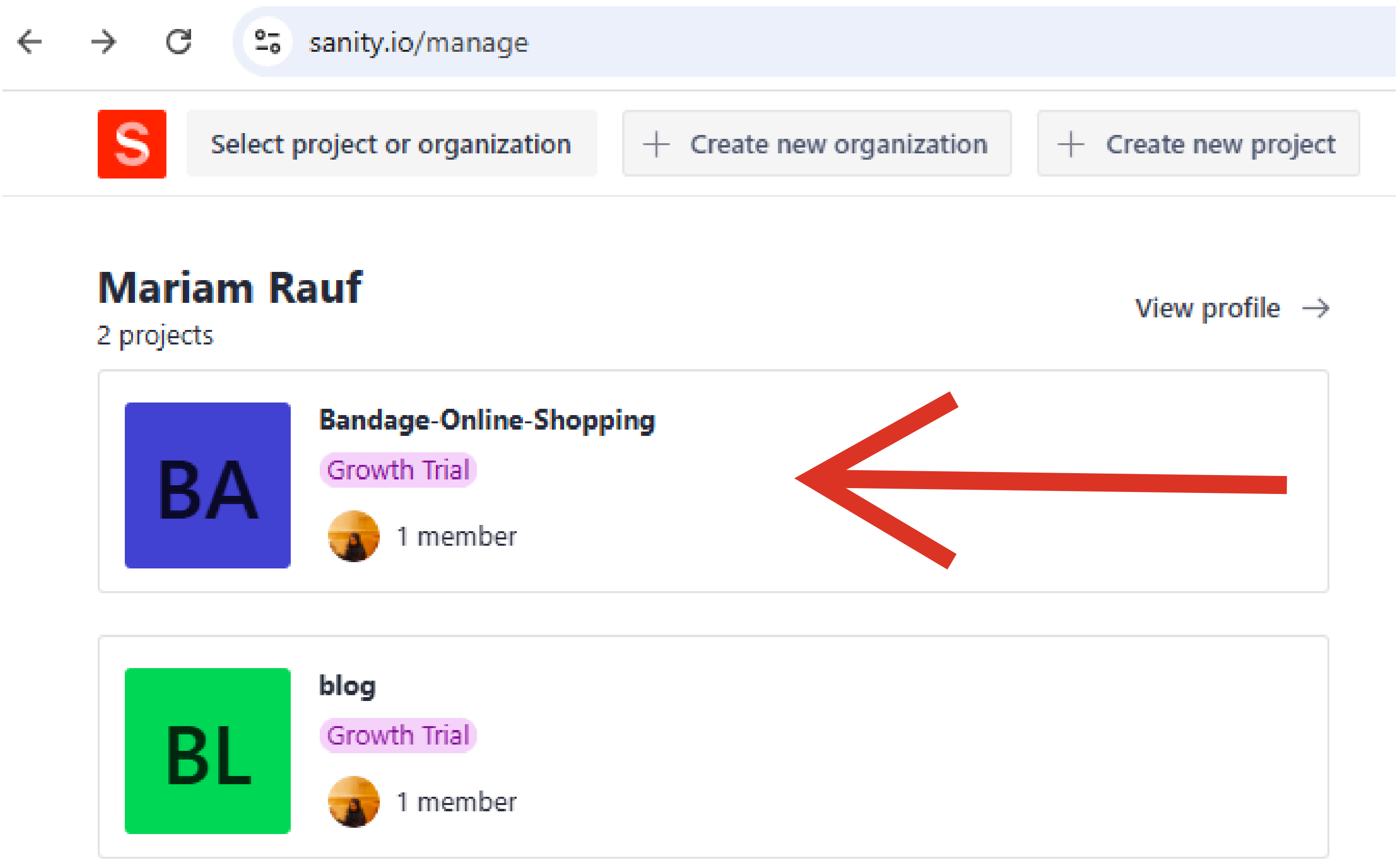
1. Introduction

This documentation provides an overview of how I integrated Sanity as the content management system (CMS) in my project, focusing on importing, fetching, and migrating data. The project uses Next.js and TypeScript to render the content dynamically on the front-end.

Tools Used:

- Sanity CMS
- Next.js (React framework)
- TypeScript

First, I created a project on Sanity.io named Bandage-Online-Shopping.


sanity.io/manage

Select project or organization

Create new organization

Create new project

Mariam Rauf

2 projects

View profile

Bandage-Online-Shopping

Growth Trial

1 member

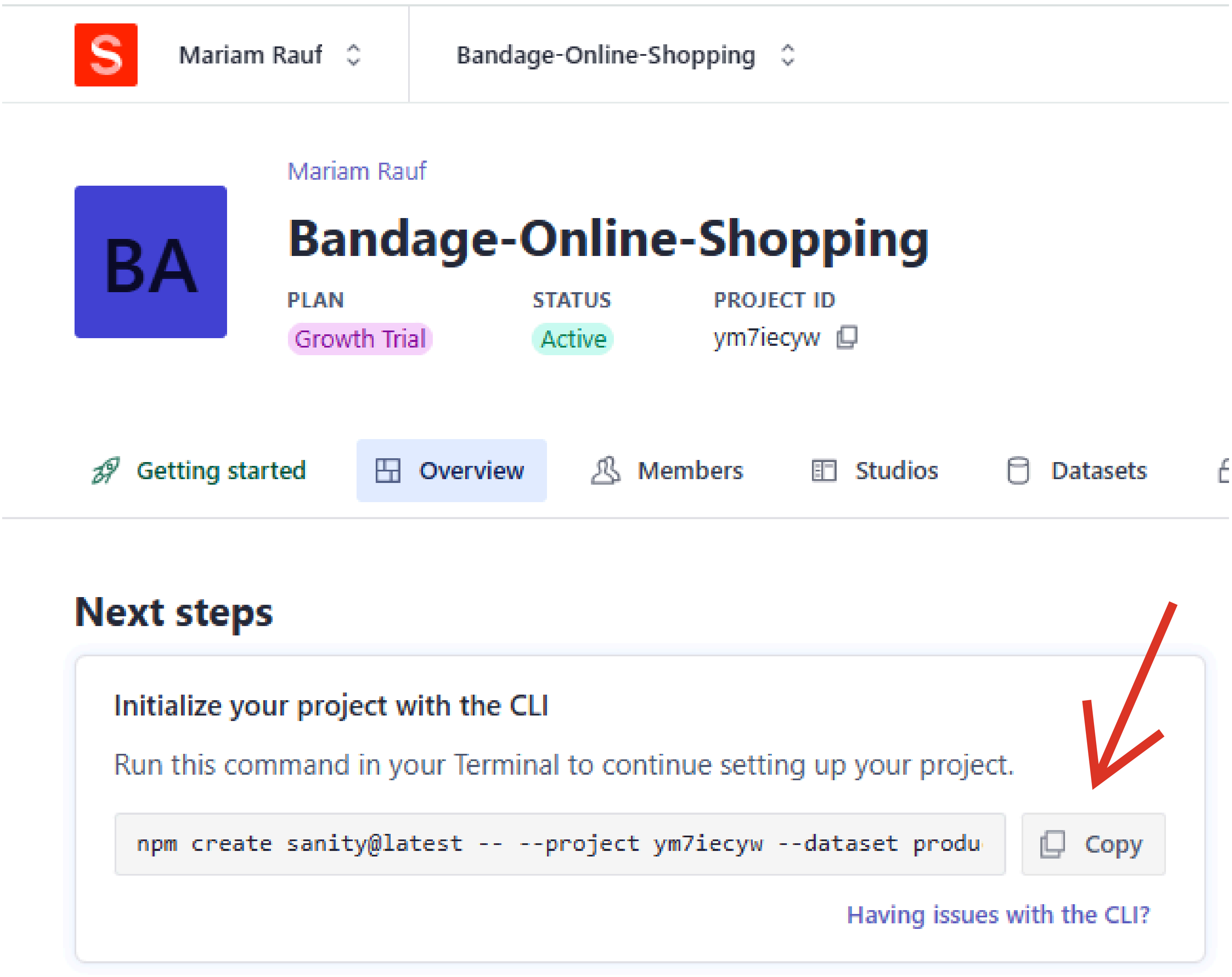
blog

Growth Trial

1 member

Then, I opened the project and ran the following command in the terminal to create a new Sanity project:

```
npm create sanity@latest -- --project ym7iecyw --dataset production --template clean
```



Mariam Rauf

Bandage-Online-Shopping

Mariam Rauf

Bandage-Online-Shopping

PLAN: Growth Trial

STATUS: Active

PROJECT ID: ym7iecyw

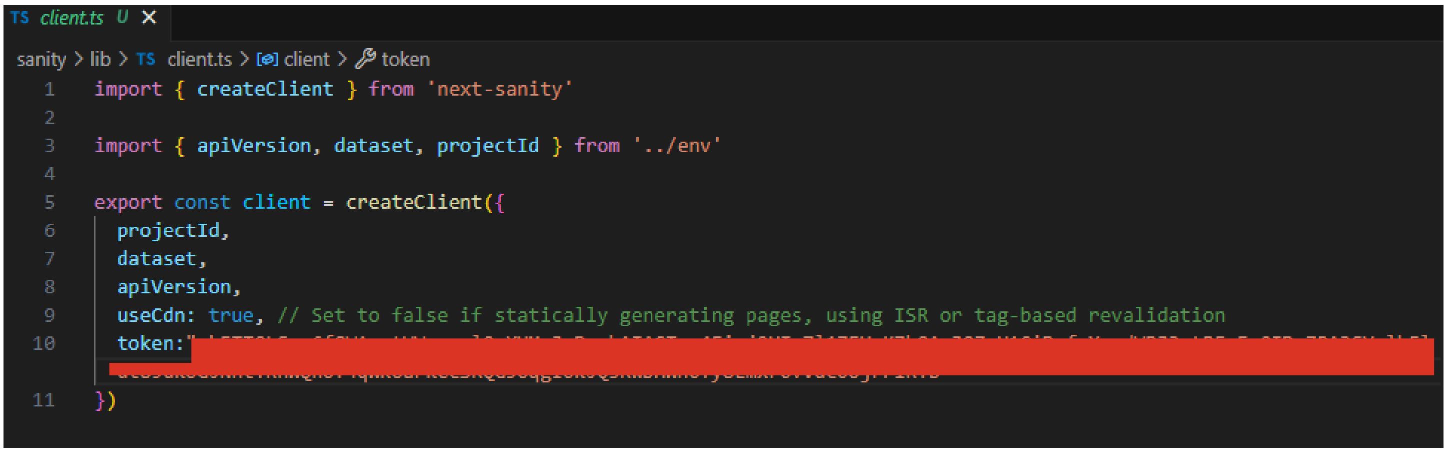
Next steps

Initialize your project with the CLI

Run this command in your Terminal to continue setting up your project.

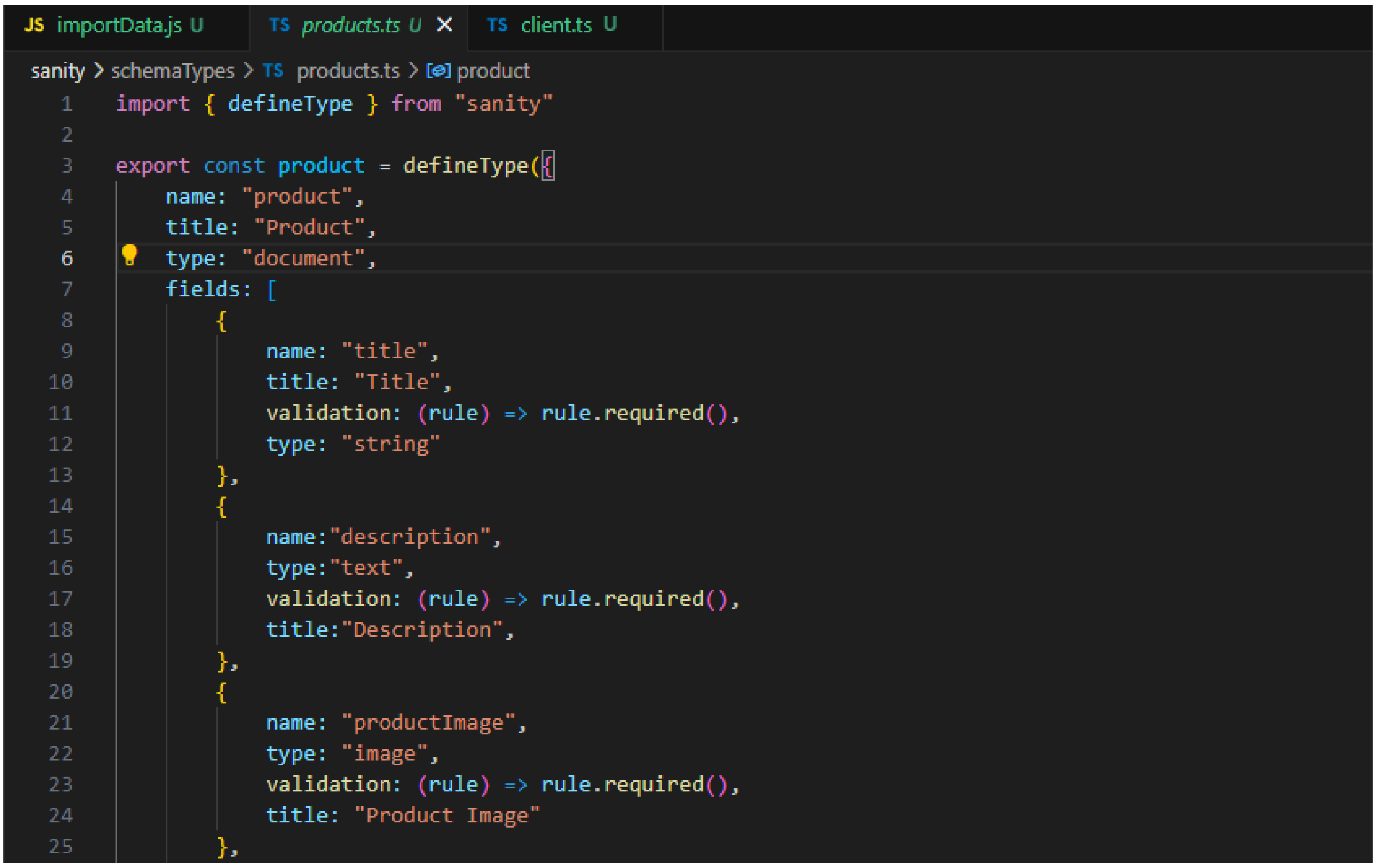
```
npm create sanity@latest -- --project ym7iecyw --dataset produ
```

After completing the initialization process, I set up my client.ts file by adding my **project ID** and the **API token**, which I generated from **Sanity**.

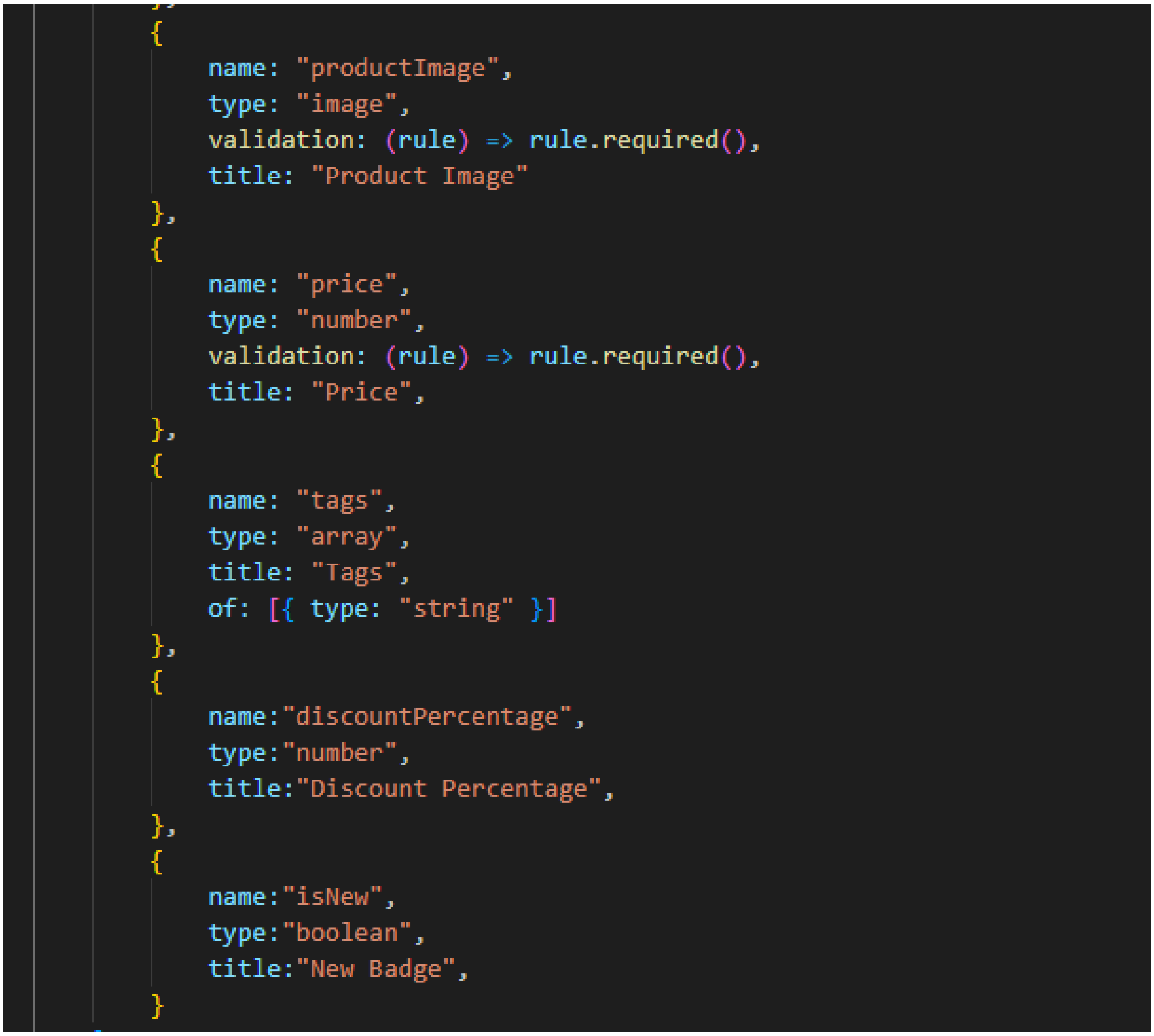


```ts
import { createClient } from 'next-sanity'

import { apiVersion, dataset, projectId } from '../env'

export const client = createClient({
  projectId,
  dataset,
  apiVersion,
  useCdn: true, // Set to false if statically generating pages, using ISR or tag-based revalidation
  token:[redacted]
})
```

Next, I created a products.ts file inside the **sanity/schemaTypes** folder and defined the schema for my products.

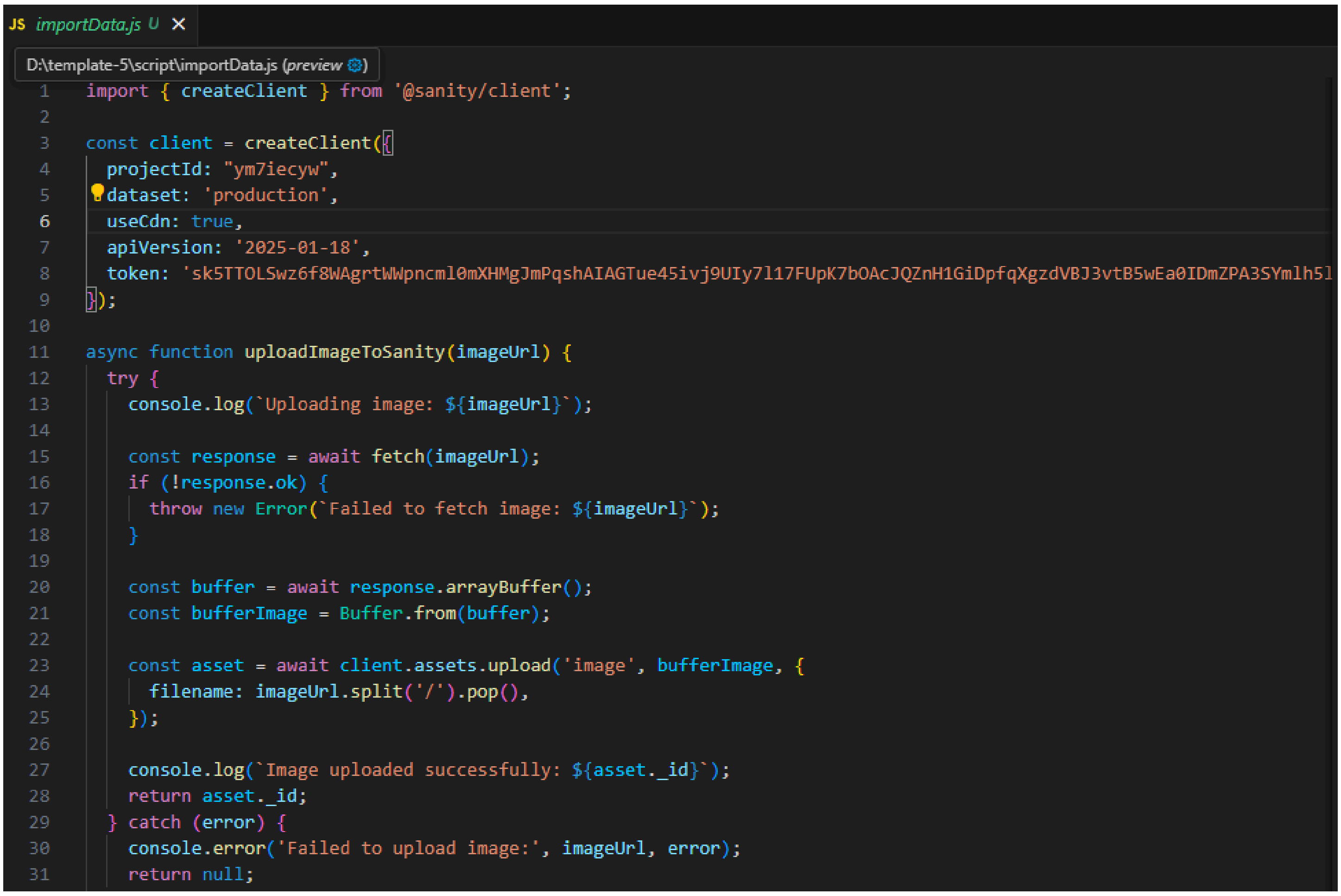


```
import { defineType } from "sanity"

export const product = defineType({
    name: "product",
    title: "Product",
    type: "document",
    fields: [
        {
            name: "title",
            title: "Title",
            validation: (rule) => rule.required(),
            type: "string"
        },
        {
            name:"description",
            type:"text",
            validation: (rule) => rule.required(),
            title:"Description",
        },
        {
            name: "productImage",
            type: "image",
            validation: (rule) => rule.required(),
            title: "Product Image"
        },
```



```
        {
            name: "productImage",
            type: "image",
            validation: (rule) => rule.required(),
            title: "Product Image"
        },
        {
            name: "price",
            type: "number",
            validation: (rule) => rule.required(),
            title: "Price",
        },
        {
            name: "tags",
            type: "array",
            title: "Tags",
            of: [{ type: "string" }]
        },
        {
            name:"discountPercentage",
            type:"number",
            title:"Discount Percentage",
        },
        {
            name:"isNew",
            type:"boolean",
            title:"New Badge",
        }
```

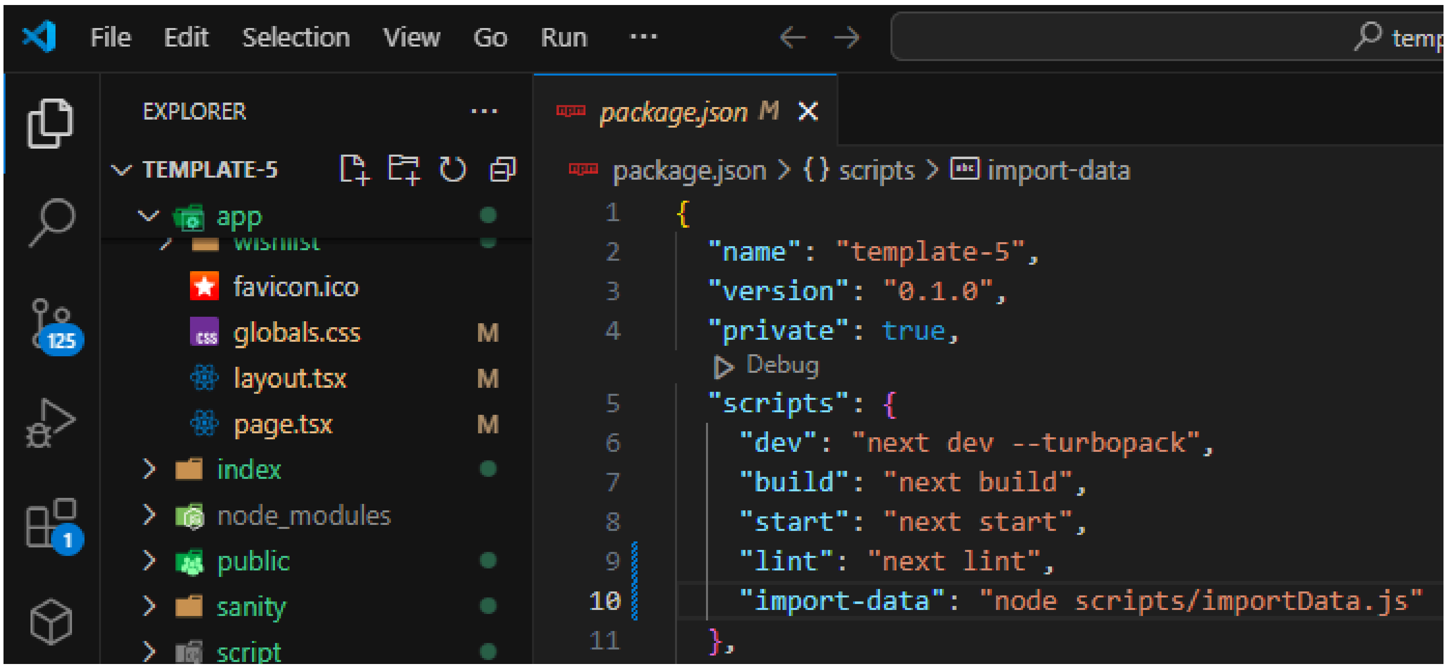
Then, I created a folder named script and, within that folder, created a file called **“importData.js”.**



```javascript
import { createClient } from '@sanity/client';

const client = createClient({
  projectId: "ym7iecyw",
  dataset: 'production',
  useCdn: true,
  apiVersion: '2025-01-18',
  token: 'sk5TTOLSwz6f8WAgrtWWpncml0mXHMgJmPqshAIAGTue45ivj9UIy7l17FUpK7bOAcJQZnH1GiDpfqXgzdVBJ3vtB5wEa0IDmZPA3SYmlh5l
});

async function uploadImageToSanity(imageUrl) {
  try {
    console.log(`Uploading image: ${imageUrl}`);

    const response = await fetch(imageUrl);
    if (!response.ok) {
      throw new Error(`Failed to fetch image: ${imageUrl}`);
    }

    const buffer = await response.arrayBuffer();
    const bufferImage = Buffer.from(buffer);

    const asset = await client.assets.upload('image', bufferImage, {
      filename: imageUrl.split('/').pop(),
    });

    console.log(`Image uploaded successfully: ${asset._id}`);
    return asset._id;
  } catch (error) {
    console.error('Failed to upload image:', imageUrl, error);
    return null;
```

I added the following line to the scripts section of the **package.json** file:

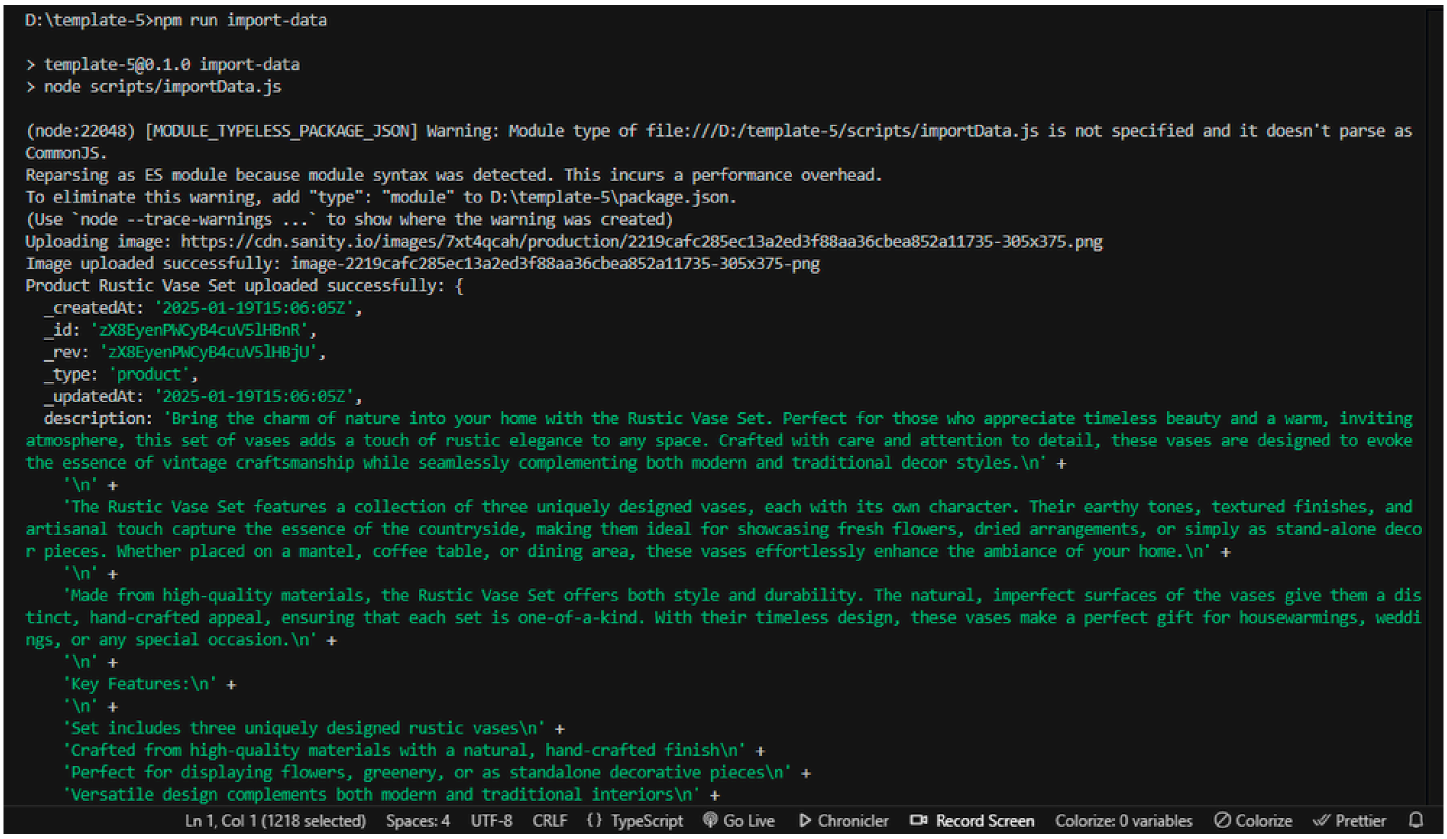
"import-data": "node script/importData.js"



```json
{
  "name": "template-5",
  "version": "0.1.0",
  "private": true,
  "scripts": {
    "dev": "next dev --turbopack",
    "build": "next build",
    "start": "next start",
    "lint": "next lint",
    "import-data": "node scripts/importData.js"
  },
```

After that, I imported the data into Sanity by running the following command in the terminal:

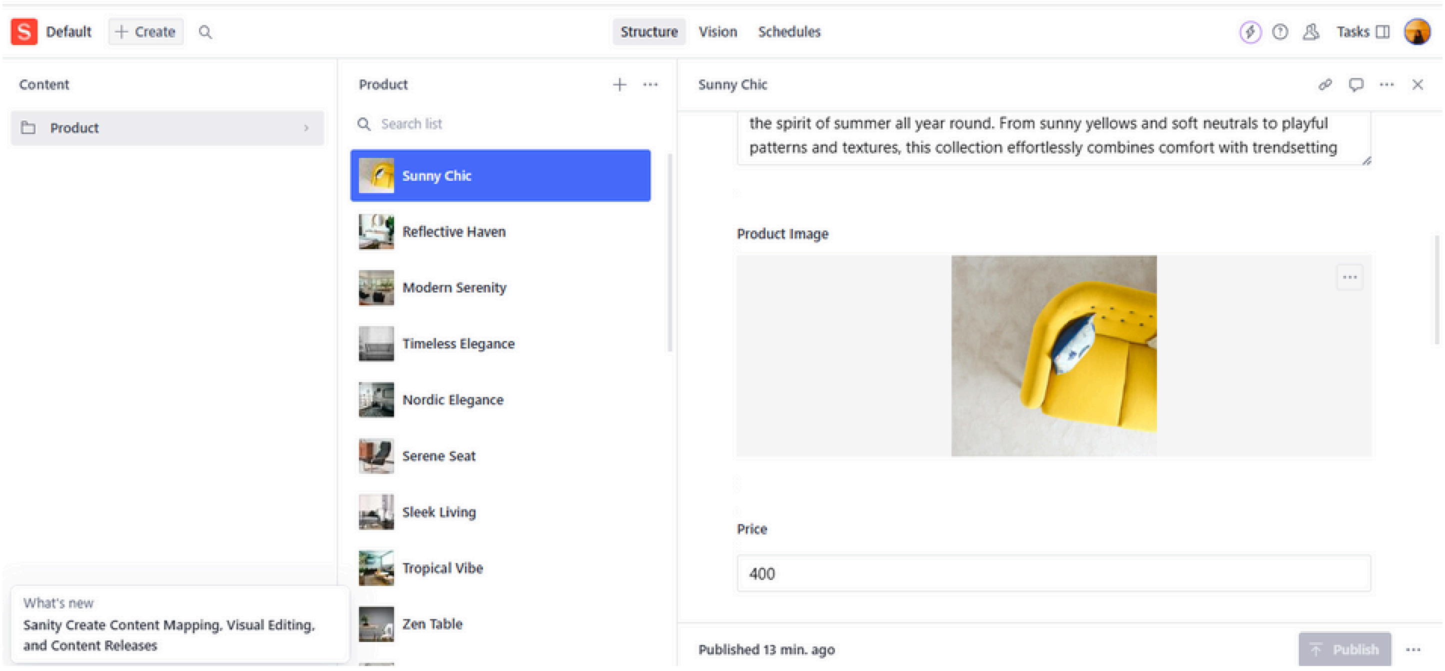
npm run import-data



```
D:\template-5>npm run import-data

> template-5@0.1.0 import-data
> node scripts/importData.js

(node:22048) [MODULE_TYPELESS_PACKAGE_JSON] Warning: Module type of file:///D:/template-5/scripts/importData.js is not specified and it doesn't parse as
CommonJS.
Reparsing as ES module because module syntax was detected. This incurs a performance overhead.
To eliminate this warning, add "type": "module" to D:\template-5\package.json.
(Use `node --trace-warnings ...` to show where the warning was created)
Uploading image: https://cdn.sanity.io/images/7xt4qcah/production/2219cafc285ec13a2ed3f88aa36cbea852a11735-305x375.png
Image uploaded successfully: image-2219cafc285ec13a2ed3f88aa36cbea852a11735-305x375-png
Product Rustic Vase Set uploaded successfully: {
  _createdAt: '2025-01-19T15:06:05Z',
  _id: 'zX8EyenPWCyB4cuV5lHBnR',
  _rev: 'zX8EyenPWCyB4cuV5lHBjU',
  _type: 'product',
  _updatedAt: '2025-01-19T15:06:05Z',
  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.\n' +
    '\n' +
    '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 deco
r pieces. Whether placed on a mantel, coffee table, or dining area, these vases effortlessly enhance the ambiance of your home.\n' +
    '\n' +
    'Made from high-quality materials, the Rustic Vase Set offers both style and durability. The natural, imperfect surfaces of the vases give them a dis
tinct, hand-crafted appeal, ensuring that each set is one-of-a-kind. With their timeless design, these vases make a perfect gift for housewarmings, weddi
ngs, or any special occasion.\n' +
    '\n' +
    'Key Features:\n' +
    '\n' +
    'Set includes three uniquely designed rustic vases\n' +
    'Crafted from high-quality materials with a natural, hand-crafted finish\n' +
    'Perfect for displaying flowers, greenery, or as standalone decorative pieces\n' +
    'Versatile design complements both modern and traditional interiors\n' +
```

After completing the setup, the data began importing into Sanity seamlessly.

And, data successfully imported to sanity’s studio **(sanity/studio)**.



the spirit of summer all year round. From sunny yellows and soft neutrals to playful patterns and textures, this collection effortlessly combines comfort with trendsetting

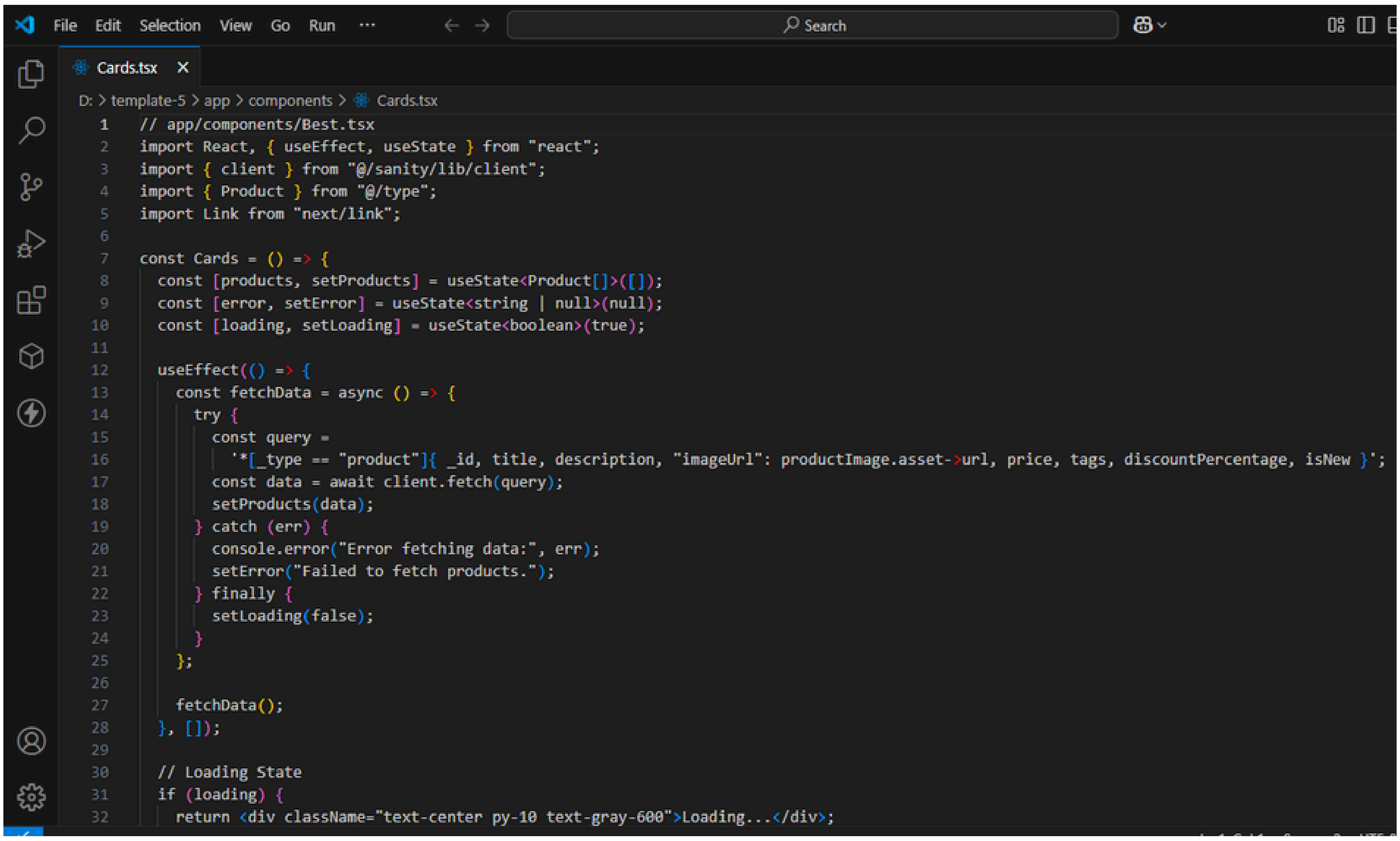
Product Image

Price

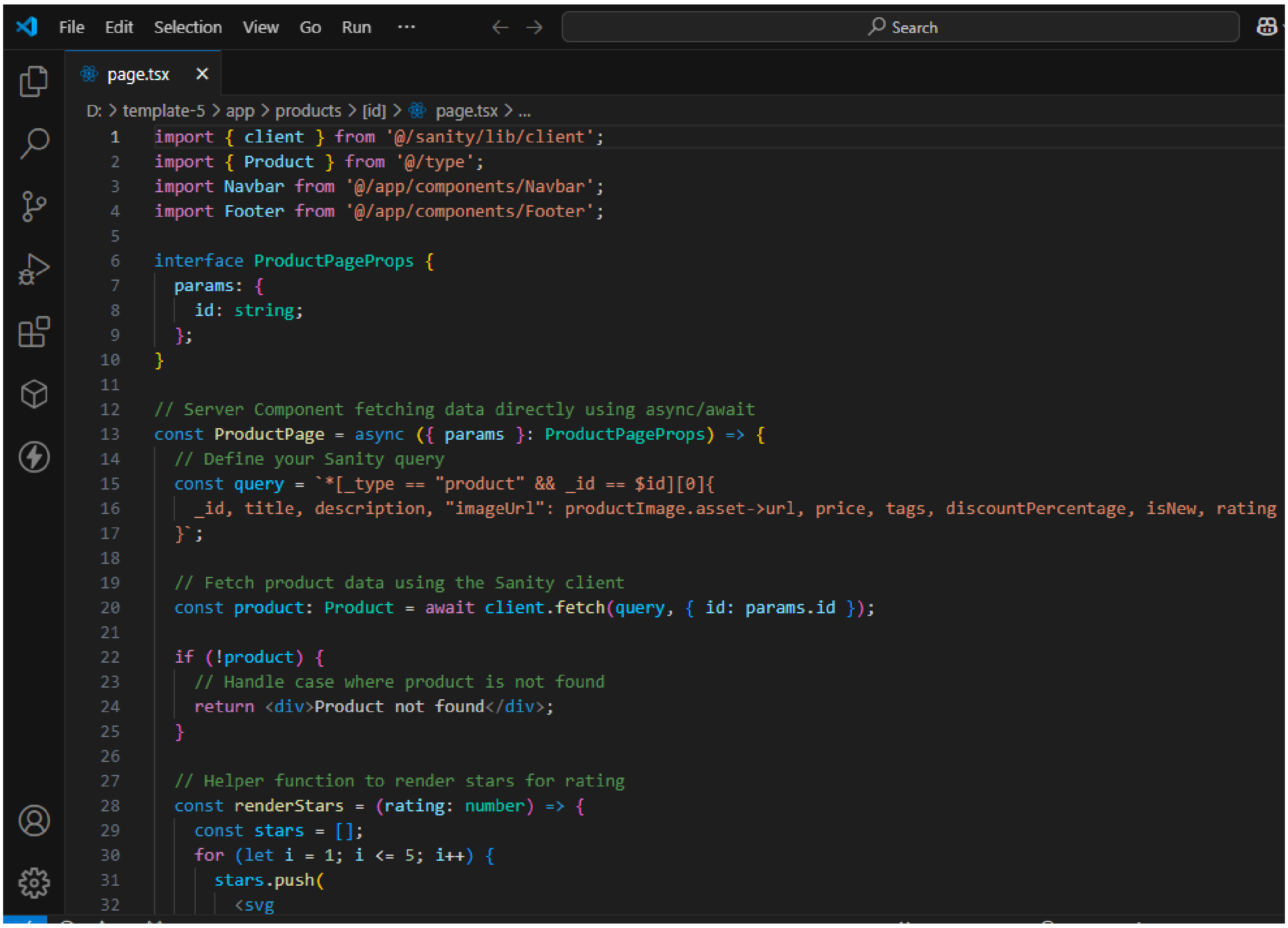
400

Published 13 min. ago

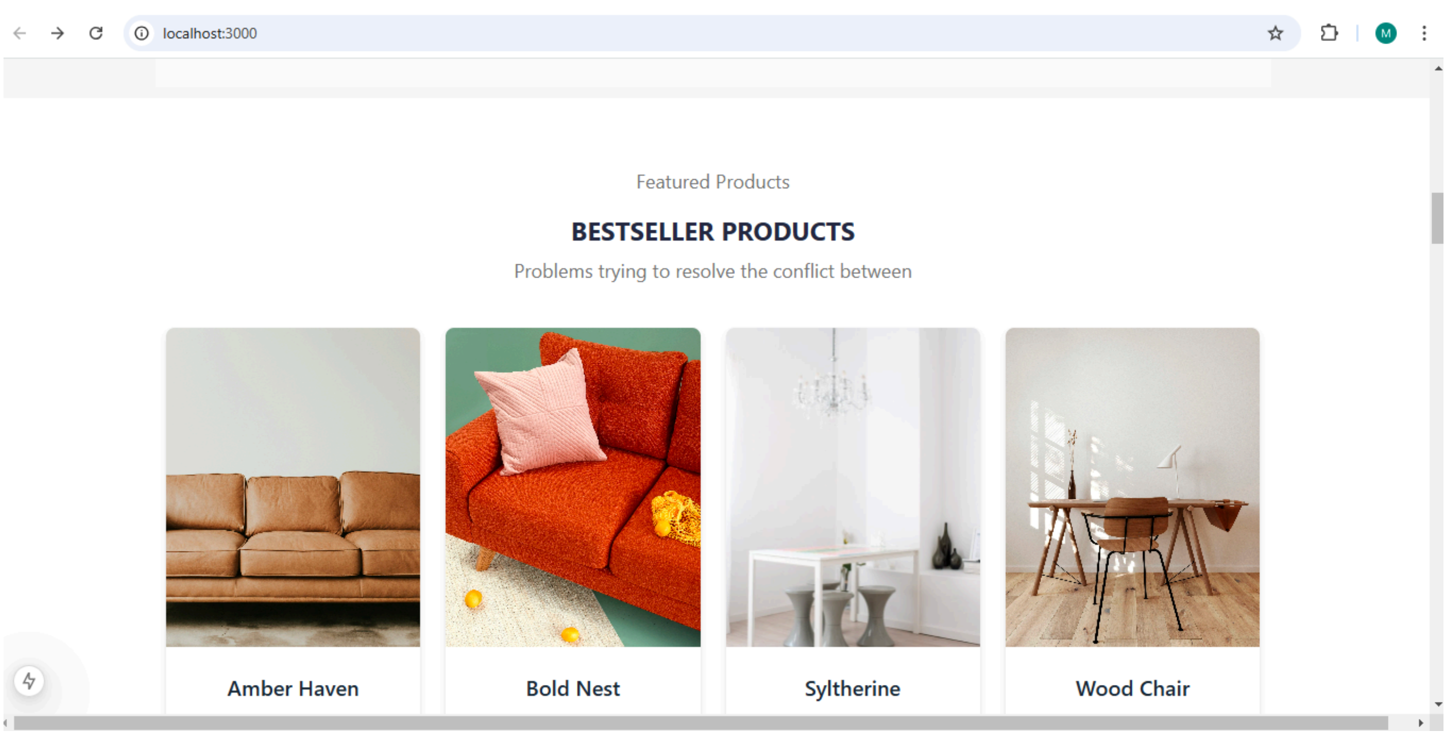
Then, I dynamically fetched the same data to my project's frontend.



```tsx
// app/components/Best.tsx
import React, { useEffect, useState } from "react";
import { client } from "@/sanity/lib/client";
import { Product } from "@/type";
import Link from "next/link";

const Cards = () => {
  const [products, setProducts] = useState<Product[]>([]);
  const [error, setError] = useState<string | null>(null);
  const [loading, setLoading] = useState<boolean>(true);

  useEffect(() => {
    const fetchData = async () => {
      try {
        const query =
          '*[_type == "product"]{ _id, title, description, "imageUrl": productImage.asset->url, price, tags, discountPercentage, isNew }';
        const data = await client.fetch(query);
        setProducts(data);
      } catch (err) {
        console.error("Error fetching data:", err);
        setError("Failed to fetch products.");
      } finally {
        setLoading(false);
      }
    };

    fetchData();
  }, []);

  // Loading State
  if (loading) {
    return <div className="text-center py-10 text-gray-600">Loading...</div>;
```



```tsx
import { client } from '@/sanity/lib/client';
import { Product } from '@/type';
import Navbar from '@/app/components/Navbar';
import Footer from '@/app/components/Footer';

interface ProductPageProps {
  params: {
    id: string;
  };
}

// Server Component fetching data directly using async/await
const ProductPage = async ({ params }: ProductPageProps) => {
  // Define your Sanity query
  const query = `*[_type == "product" && _id == $id][0]{
    _id, title, description, "imageUrl": productImage.asset->url, price, tags, discountPercentage, isNew, rating
  }`;

  // Fetch product data using the Sanity client
  const product: Product = await client.fetch(query, { id: params.id });

  if (!product) {
    // Handle case where product is not found
    return <div>Product not found</div>;
  }

  // Helper function to render stars for rating
  const renderStars = (rating: number) => {
    const stars = [];
    for (let i = 1; i <= 5; i++) {
      stars.push(
        <svg
```



Featured Products

BESTSELLER PRODUCTS

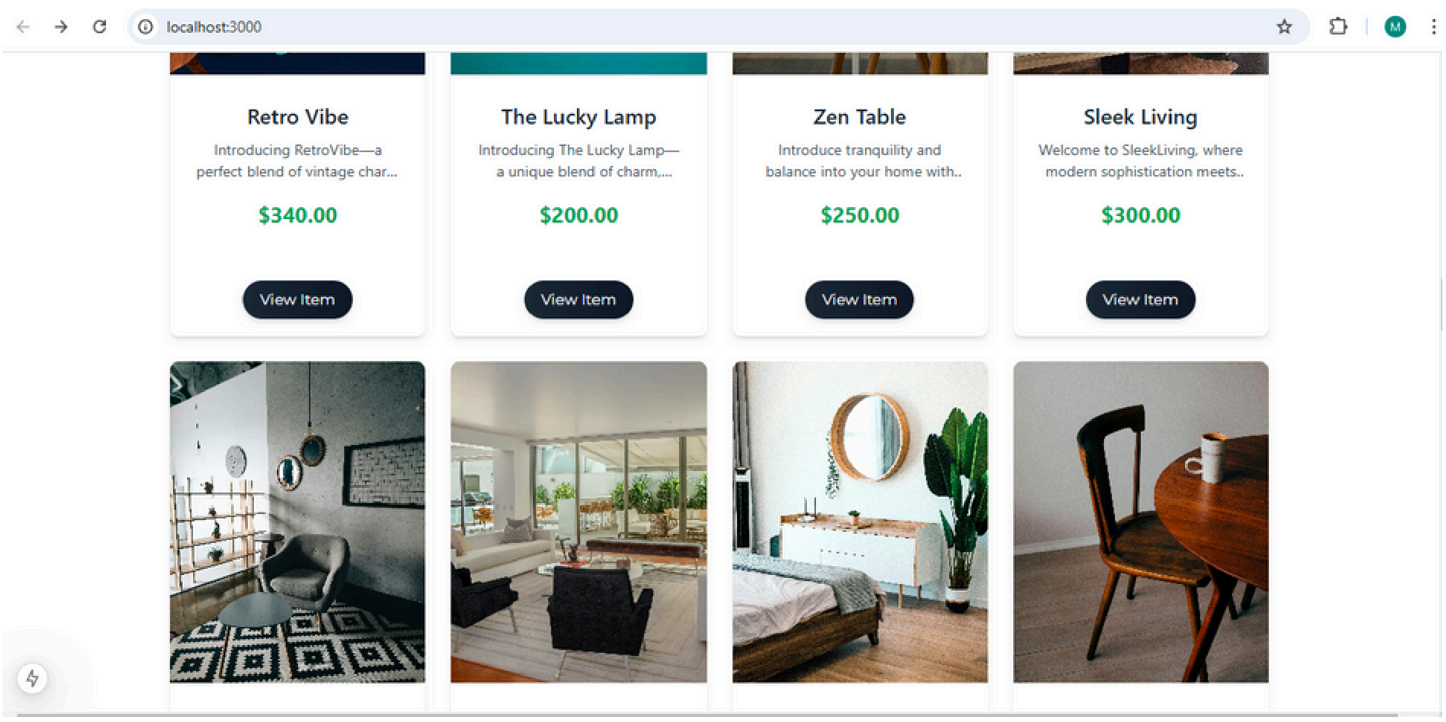
Problems trying to resolve the conflict between

Amber Haven

Bold Nest

Syltherine

Wood Chair



localhost:3000

Retro Vibe

Introducing RetroVibe—a perfect blend of vintage char...

$340.00

View Item

The Lucky Lamp

Introducing The Lucky Lamp—a unique blend of charm,...

$200.00

View Item

Zen Table

Introduce tranquility and balance into your home with..

$250.00

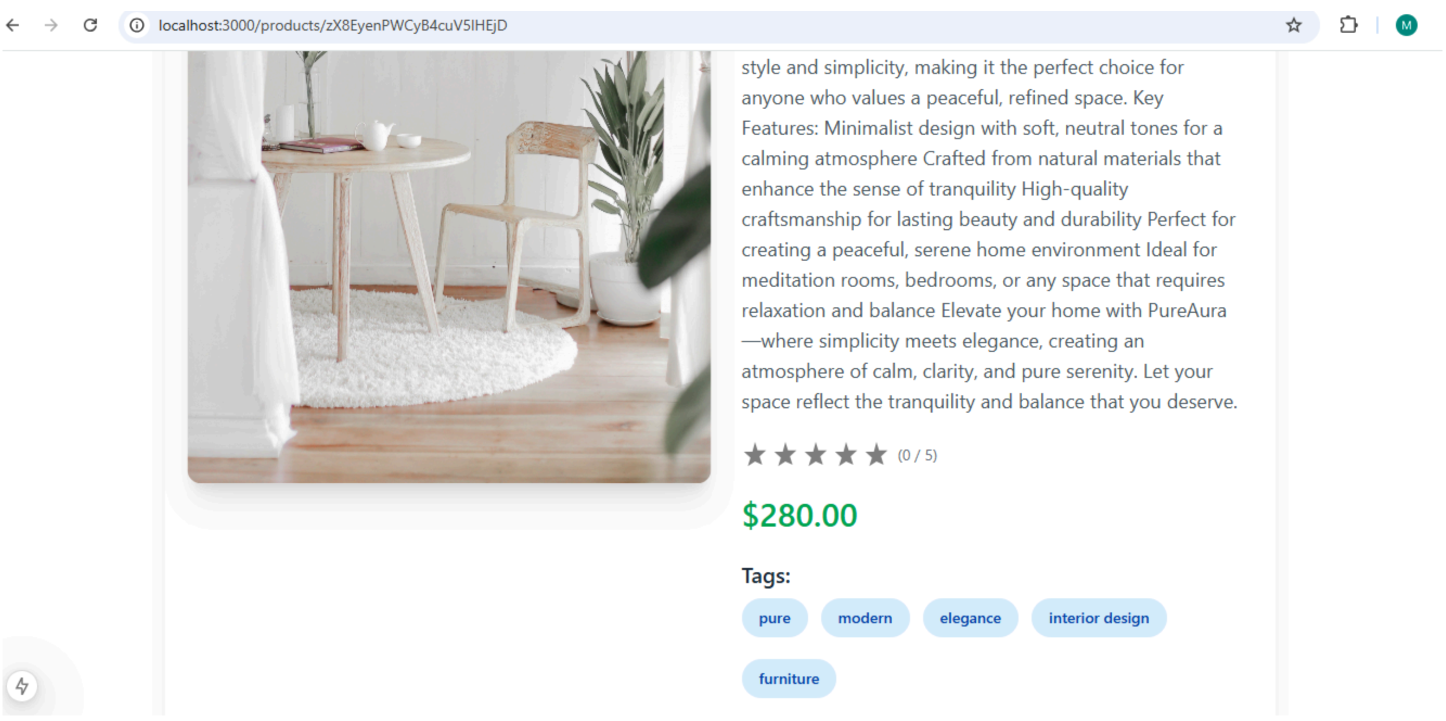
View Item

Sleek Living

Welcome to SleekLiving, where modern sophistication meets..

$300.00

View Item



localhost:3000/products/zX8EyenPWCyB4cuV5IHEjD

style and simplicity, making it the perfect choice for anyone who values a peaceful, refined space. Key Features: Minimalist design with soft, neutral tones for a calming atmosphere Crafted from natural materials that enhance the sense of tranquility High-quality craftsmanship for lasting beauty and durability Perfect for creating a peaceful, serene home environment Ideal for meditation rooms, bedrooms, or any space that requires relaxation and balance Elevate your home with PureAura —where simplicity meets elegance, creating an atmosphere of calm, clarity, and pure serenity. Let your space reflect the tranquility and balance that you deserve.

★★★★★ (0 / 5)

$280.00

Tags:

pure modern elegance interior design furniture

Prepared by: Mariam Rauf