DAY_3

API INTEGRATION AND DATA MIGRATION

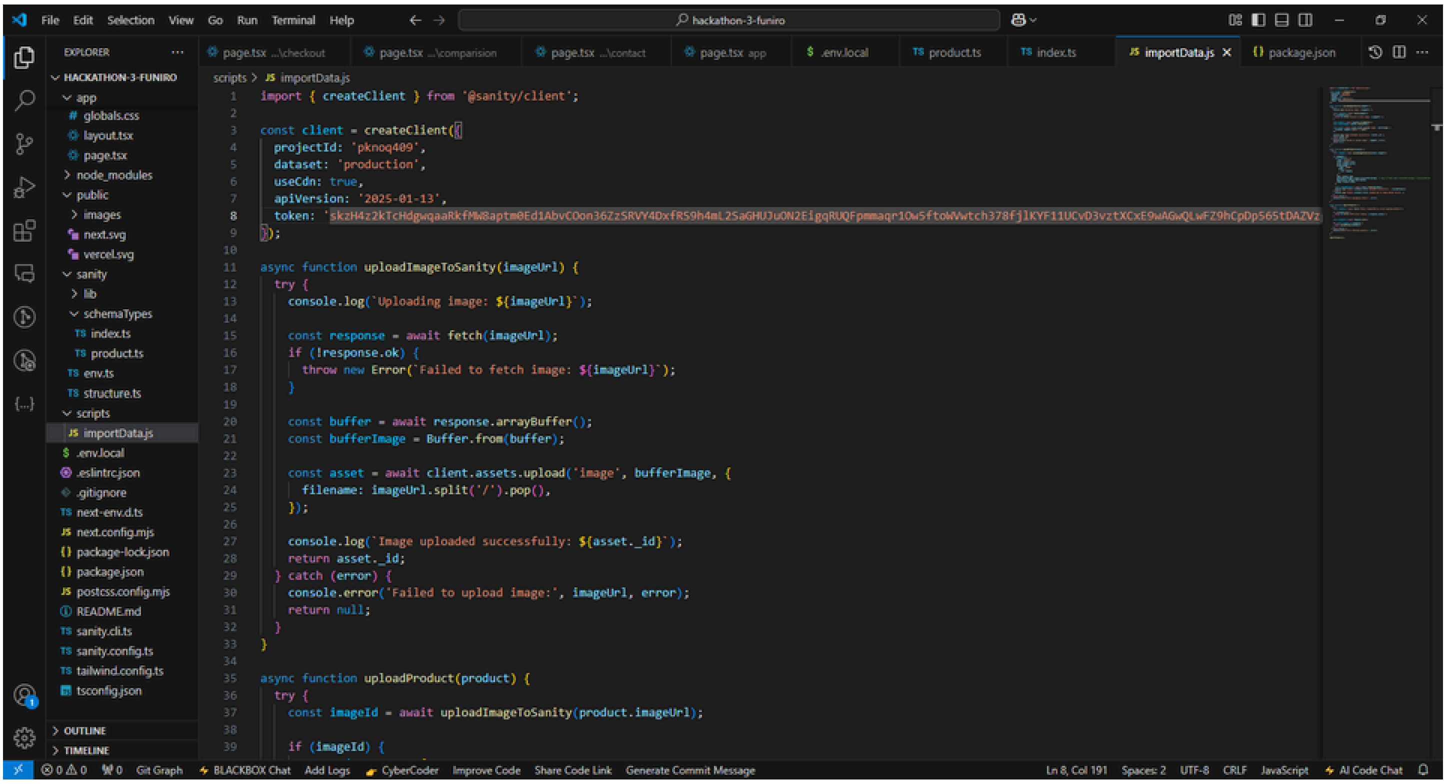
Objectives:

- Implement API integration within a Next.js application.
- Transfer data from external APIs into Sanity CMS.
- Ensure schemas are validated and synchronized with data sources.

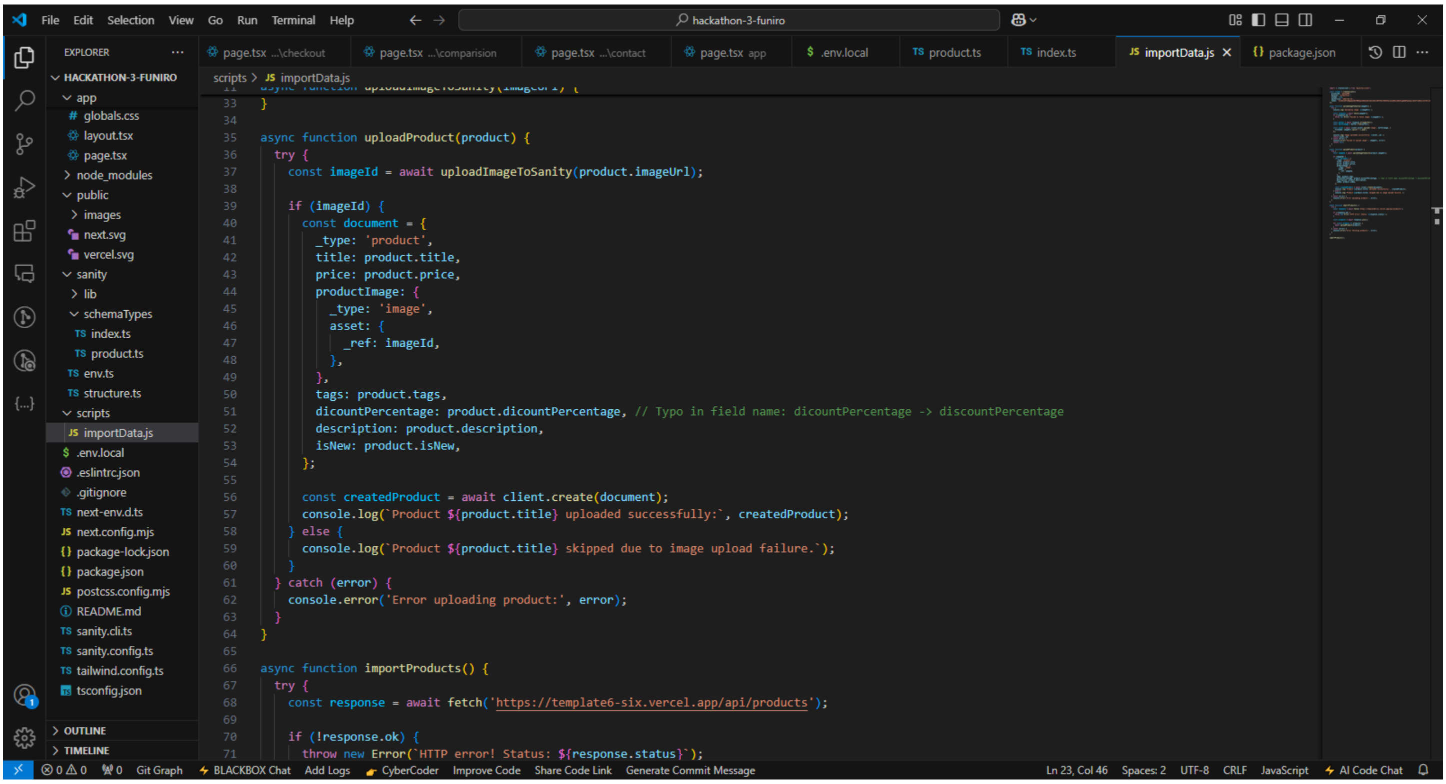
Key Takeaways:

- Grasp API integration strategies and their implementation.
- Learn the steps involved in migrating data from APIs to CMS.
- Customize and validate schemas in Sanity CMS for seamless data compatibility.

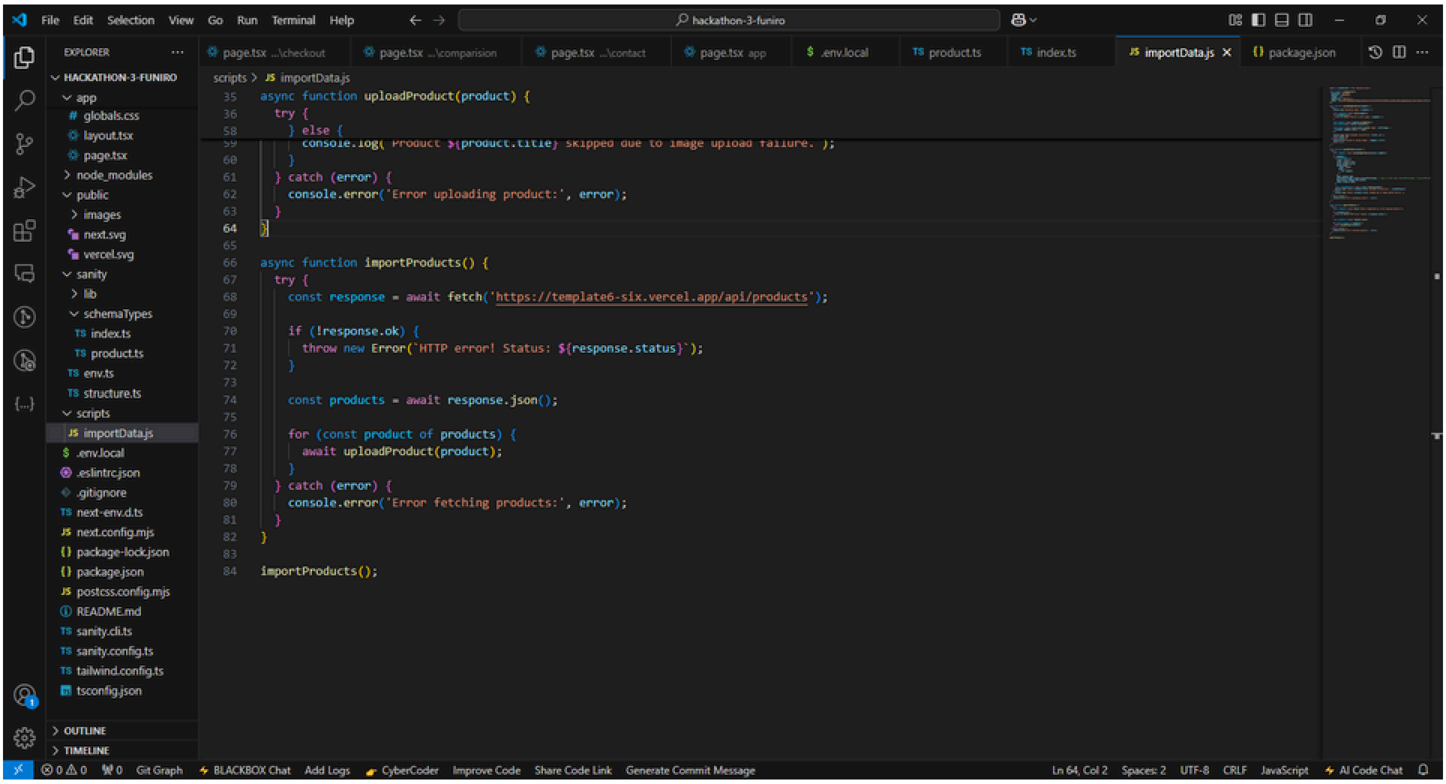
Migration Script:



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

const client = createClient({
  projectId: 'pknoq409',
  dataset: 'production',
  useCdn: true,
  apiVersion: '2025-01-13',
  token: 'skzH4z2kTcHdgwqaaRkfMW8aptm0Ed1AbvCOon36ZzSRVY4DxfRS9h4mL2SaGHUJuON2EigqRUQFpmmaqr1Ow5ftoWVwtch378fjlKYF11UCvD3vztXCxE9wAGwQLwFZ9hCpDp565tDAZVz
});

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;
  }
}

async function uploadProduct(product) {
  try {
    const imageId = await uploadImageToSanity(product.imageUrl);

    if (imageId) {
```



```javascript
async function uploadImageToSanity(imageUrl) {
}

async function uploadProduct(product) {
  try {
    const imageId = await uploadImageToSanity(product.imageUrl);

    if (imageId) {
      const document = {
        _type: 'product',
        title: product.title,
        price: product.price,
        productImage: {
          _type: 'image',
          asset: {
            _ref: imageId,
          },
        },
        tags: product.tags,
        dicountPercentage: product.dicountPercentage, // Typo in field name: dicountPercentage -> discountPercentage
        description: product.description,
        isNew: product.isNew,
      };

      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}`);
```



```javascript
async function uploadProduct(product) {
  try {
    } 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();
```

1. Sanity API Configuration:

a. Connects to Sanity's API using a predefined dataset and project ID, authenticated via an API token.

b. Environment variables securely store sensitive data like project ID and dataset.

2. Data Retrieval from Sanity:

a. GROQ queries fetch structured content from Sanity CMS.

b. Retrieves product details such as categories, descriptions, and pricing.

3. Data Mapping and Adjustment:

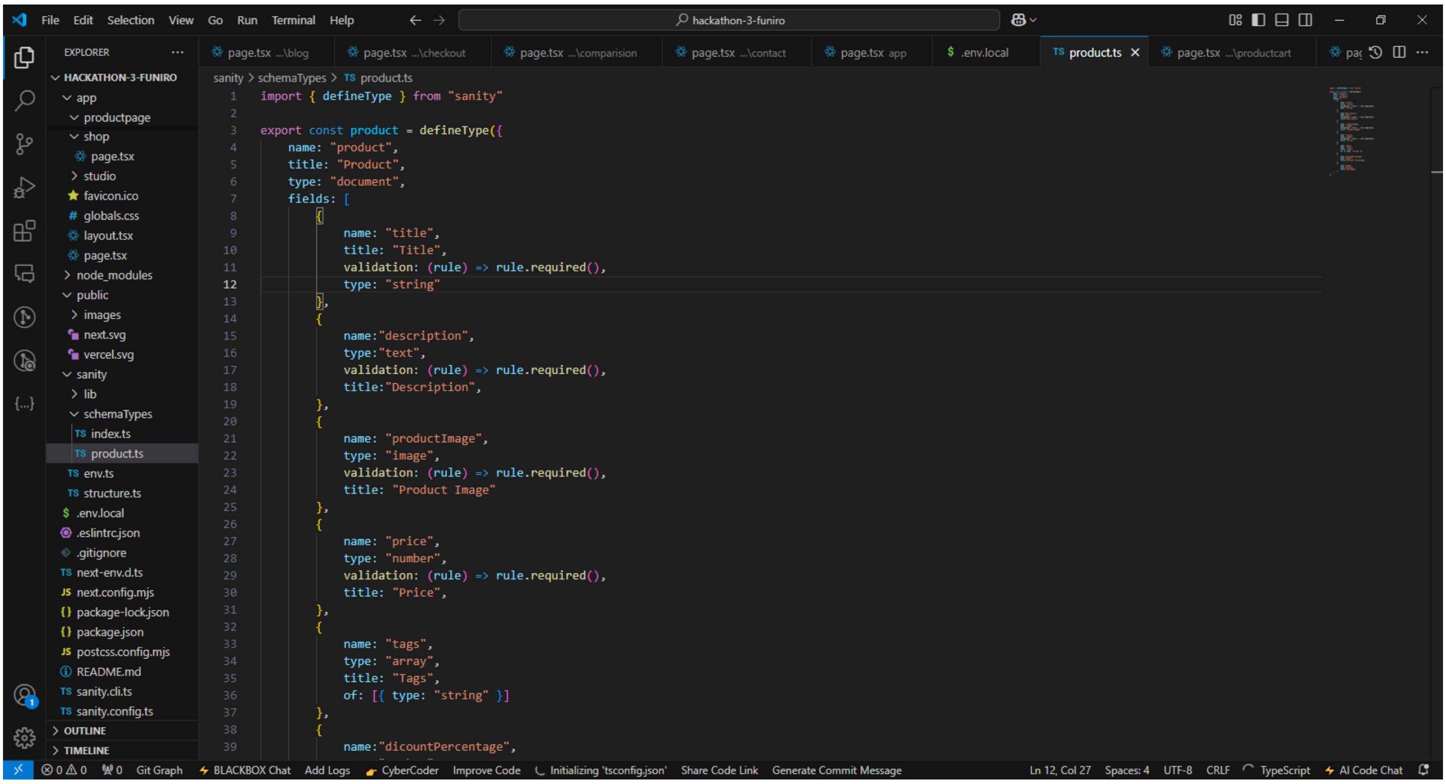
a. Restructures the fetched data to match the application’s schema for compatibility.

4. Database Insertion:

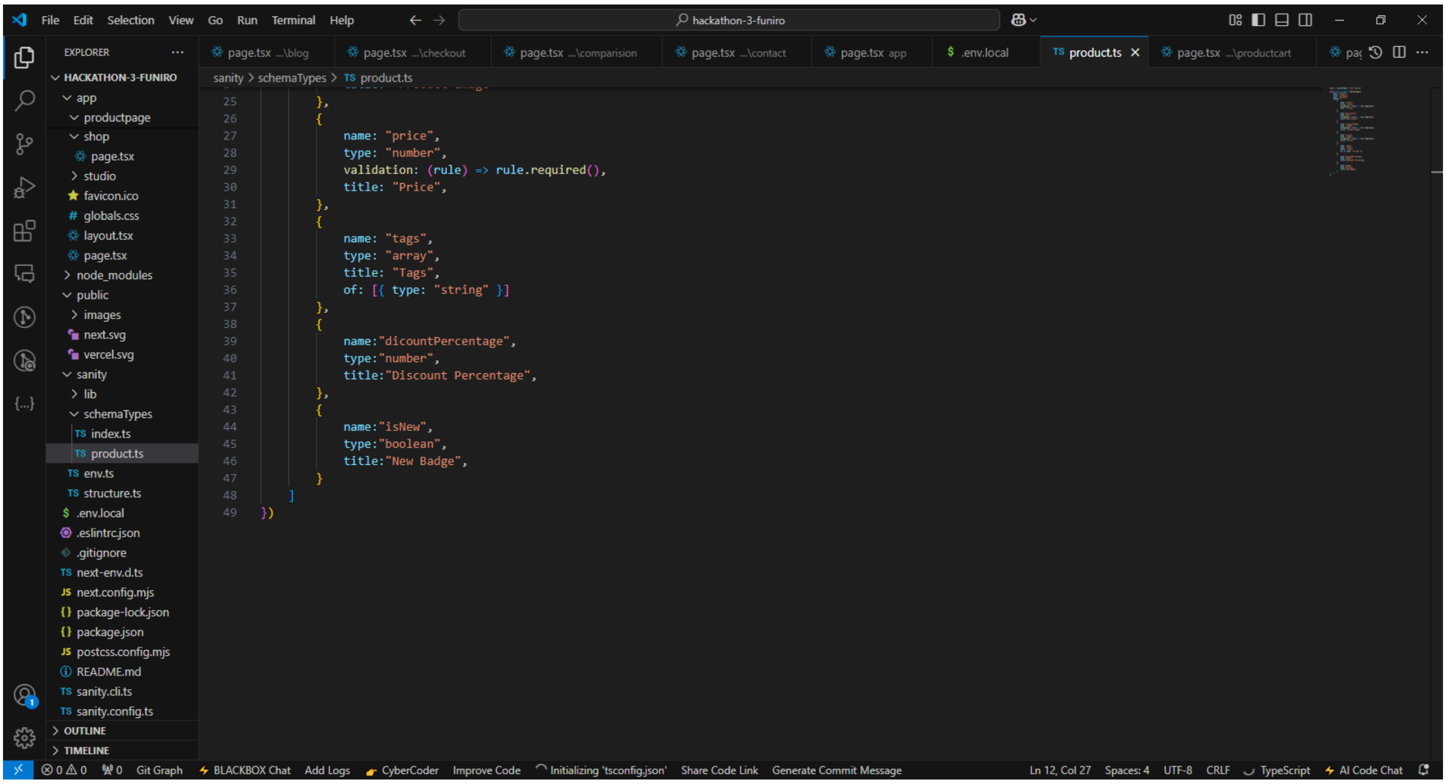
a. Inserts data into the database via REST API or direct commands.

b. Error handling ensures smooth migration without interruptions.

Schema Page Code:



```
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: "price",
            type: "number",
            validation: (rule) => rule.required(),
            title: "Price",
        },
        {
            name: "tags",
            type: "array",
            title: "Tags",
            of: [{ type: "string" }]
        },
        {
            name:"dicountPercentage",
```


File Edit Selection View Go Run Terminal Help
hackathon-3-funiro
EXPLORER
HACKATHON-3-FUNIRO
product.ts
sanity > schemaTypes > product.ts
Ln 12, Col 27 Spaces: 4 UTF-8 CRLF TypeScript AI Code Chat

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

Title: name of the product.

Description: detail of the products.

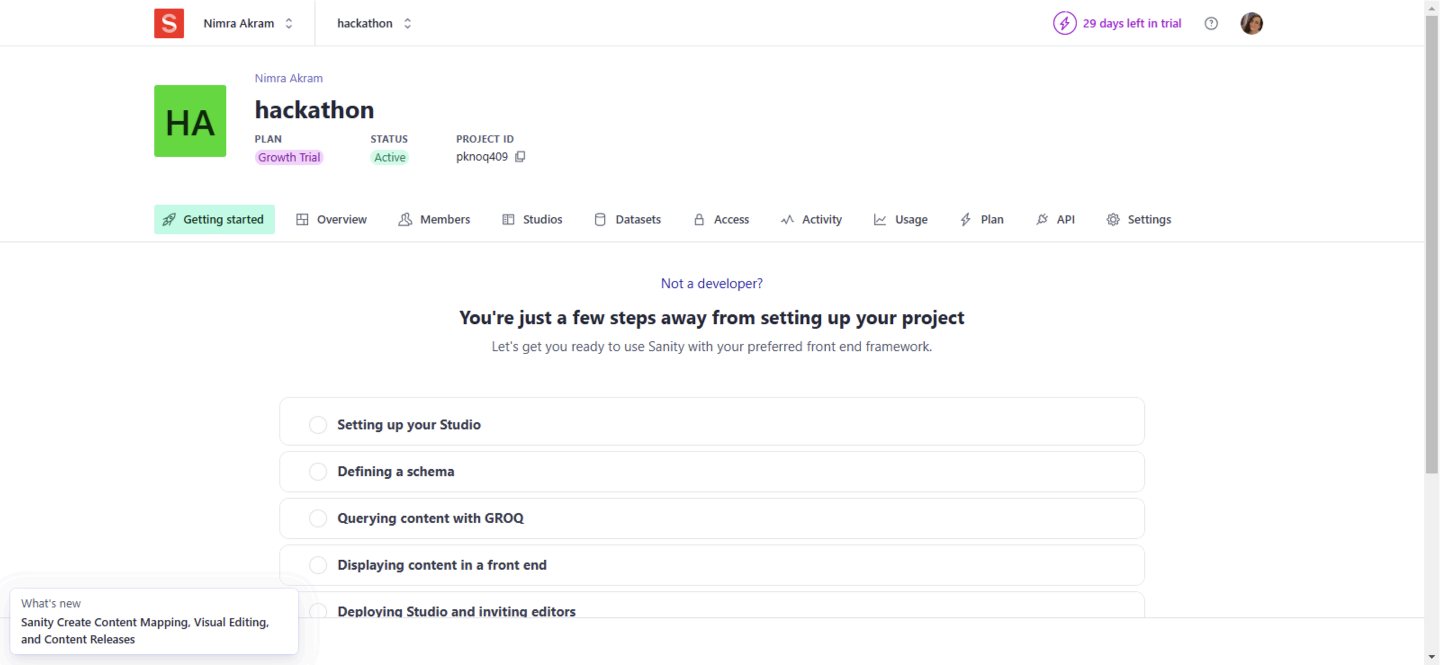
Product Image: field to save image of the products.

Price: field for the product cost.

Tags: unique name for the products help in product searching and filtration.

Discount Percentage: holds the value of the discount as a percentage.

Sanity Output:



Nimra Akram

hackathon

PLAN	STATUS	PROJECT ID
Growth Trial	Active	pknoq409

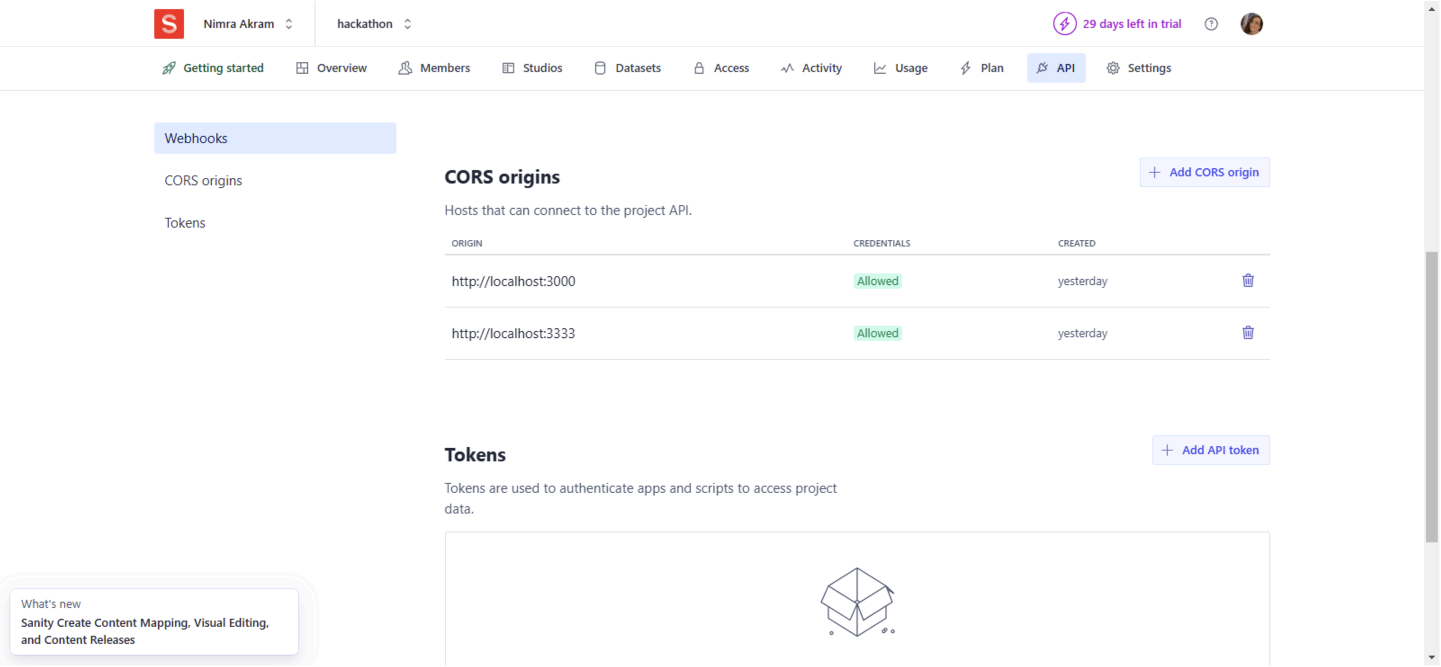
Not a developer?

You're just a few steps away from setting up your project

Let's get you ready to use Sanity with your preferred front end framework.

- ○ Setting up your Studio
- ○ Defining a schema
- ○ Querying content with GROQ
- ○ Displaying content in a front end
- ○ Deploying Studio and inviting editors

What's new
Sanity Create Content Mapping, Visual Editing, and Content Releases



CORS origins

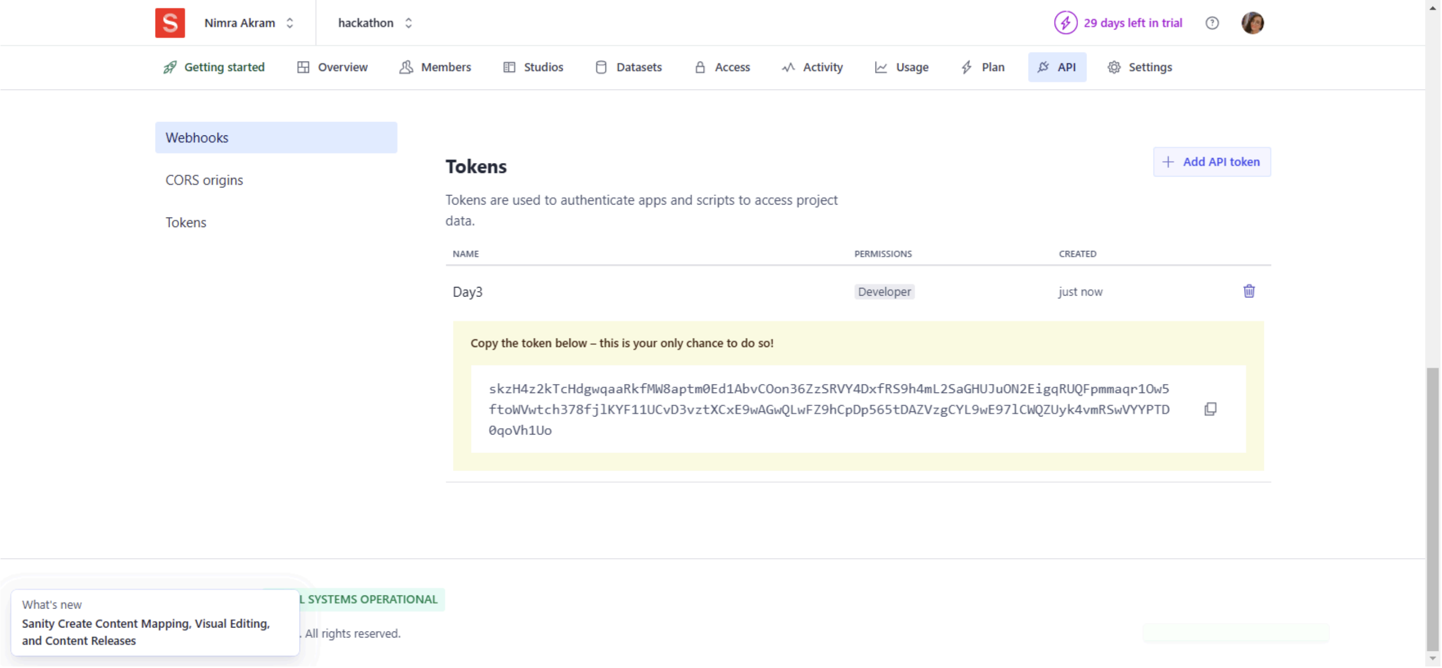
Hosts that can connect to the project API.

ORIGIN	CREDENTIALS	CREATED
http://localhost:3000	Allowed	yesterday
http://localhost:3333	Allowed	yesterday

Tokens

Tokens are used to authenticate apps and scripts to access project data.

What's new
Sanity Create Content Mapping, Visual Editing, and Content Releases



Tokens

Tokens are used to authenticate apps and scripts to access project data.

NAME	PERMISSIONS	CREATED
Day3	Developer	just now

Copy the token below – this is your only chance to do so!

```
skzH4z2kTcHdgwqaaRkfMW8aptm0Ed1AbvCOon36ZzSRVY4DxfRS9h4mL2SaGHUJuON2EigqRUQFpmmaqr1Ow5
ftoWVwtch378fjlKYF11UCvD3vztXCxE9wAGwQLwFZ9hCpDp565tDAZVzgCYL9wE97lCWQZUyk4vmRSwVYYPTD
0qoVh1Uo
```

What's new
Sanity Create Content Mapping, Visual Editing, and Content Releases
L SYSTEMS OPERATIONAL
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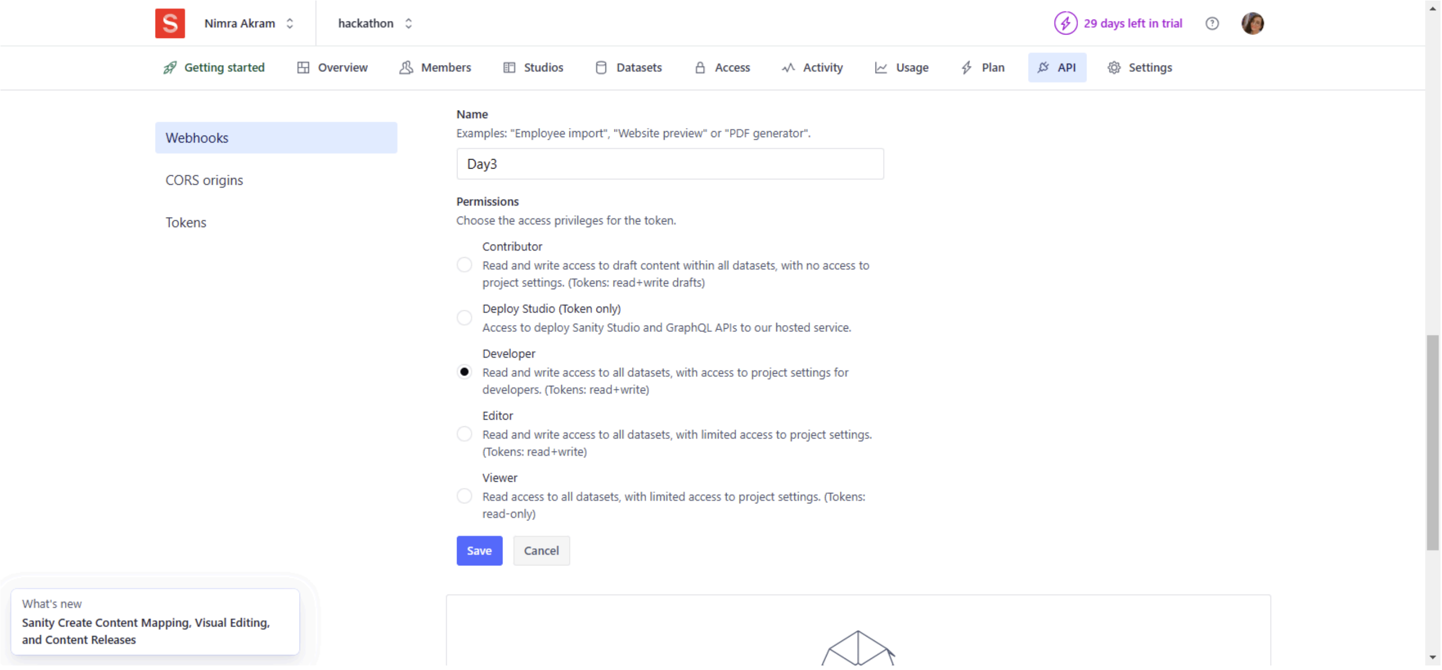


Name

Examples: "Employee import", "Website preview" or "PDF generator".

Day3

Permissions

Choose the access privileges for the token.

○ Contributor
Read and write access to draft content within all datasets, with no access to project settings. (Tokens: read+write drafts)

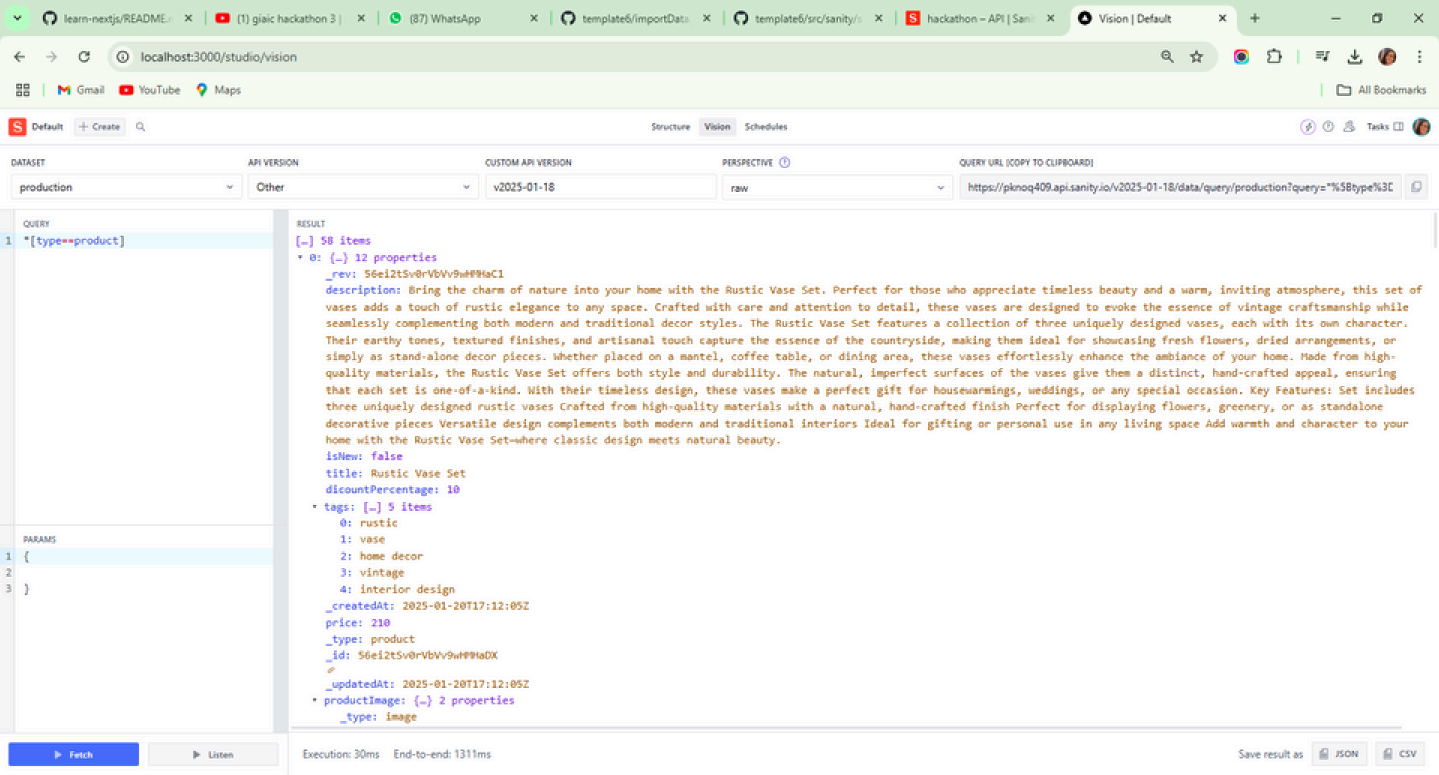
○ Deploy Studio (Token only)
Access to deploy Sanity Studio and GraphQL APIs to our hosted service.

● Developer
Read and write access to all datasets, with access to project settings for developers. (Tokens: read+write)

○ Editor
Read and write access to all datasets, with limited access to project settings. (Tokens: read+write)

○ Viewer
Read access to all datasets, with limited access to project settings. (Tokens: read-only)

Save
Cancel
What's new
Sanity Create Content Mapping, Visual Editing, and Content Releases



localhost:3000/studio/vision

DATASET: production

API VERSION: Other

CUSTOM API VERSION: v2025-01-18

PERSPECTIVE: raw

QUERY URL (COPY TO CLIPBOARD): https://pknoq409.api.sanity.io/v2025-01-18/data/query/production?query=*%5Btype%3D

QUERY

```
*[type==product]
```

PARAMS

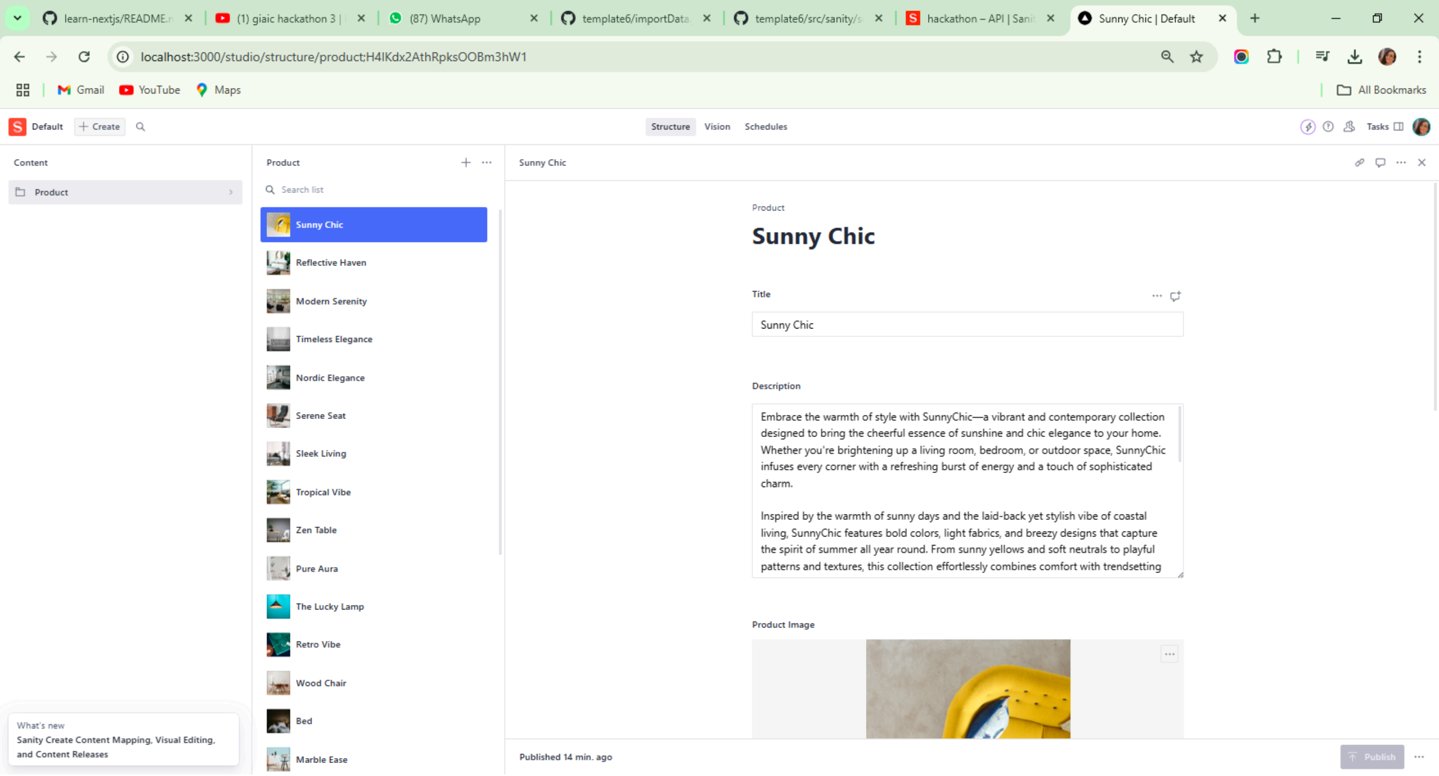
```
{

}
```

RESULT

```
[…] 58 items
▾ 0: {…} 12 properties
    _rev: 56ei2tSv0rVbVv9wHMHaC1
    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: 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.
    isNew: false
    title: Rustic Vase Set
    dicountPercentage: 10
  ▾ tags: […] 5 items
      0: rustic
      1: vase
      2: home decor
      3: vintage
      4: interior design
    _createdAt: 2025-01-20T17:12:05Z
    price: 210
    _type: product
    _id: 56ei2tSv0rVbVv9wHMHaDX
    _updatedAt: 2025-01-20T17:12:05Z
  ▾ productImage: {…} 2 properties
      _type: image
```

Execution: 30ms   End-to-end: 1311ms



localhost:3000/studio/structure/product;H4IKdx2AthRpksOOBm3hW1

Product

Sunny Chic
Reflective Haven
Modern Serenity
Timeless Elegance
Nordic Elegance
Serene Seat
Sleek Living
Tropical Vibe
Zen Table
Pure Aura
The Lucky Lamp
Retro Vibe
Wood Chair
Bed
Marble Ease

Sunny Chic

Product

Sunny Chic

Title: Sunny Chic

Description:

Embrace the warmth of style with SunnyChic—a vibrant and contemporary collection designed to bring the cheerful essence of sunshine and chic elegance to your home. Whether you're brightening up a living room, bedroom, or outdoor space, SunnyChic infuses every corner with a refreshing burst of energy and a touch of sophisticated charm.

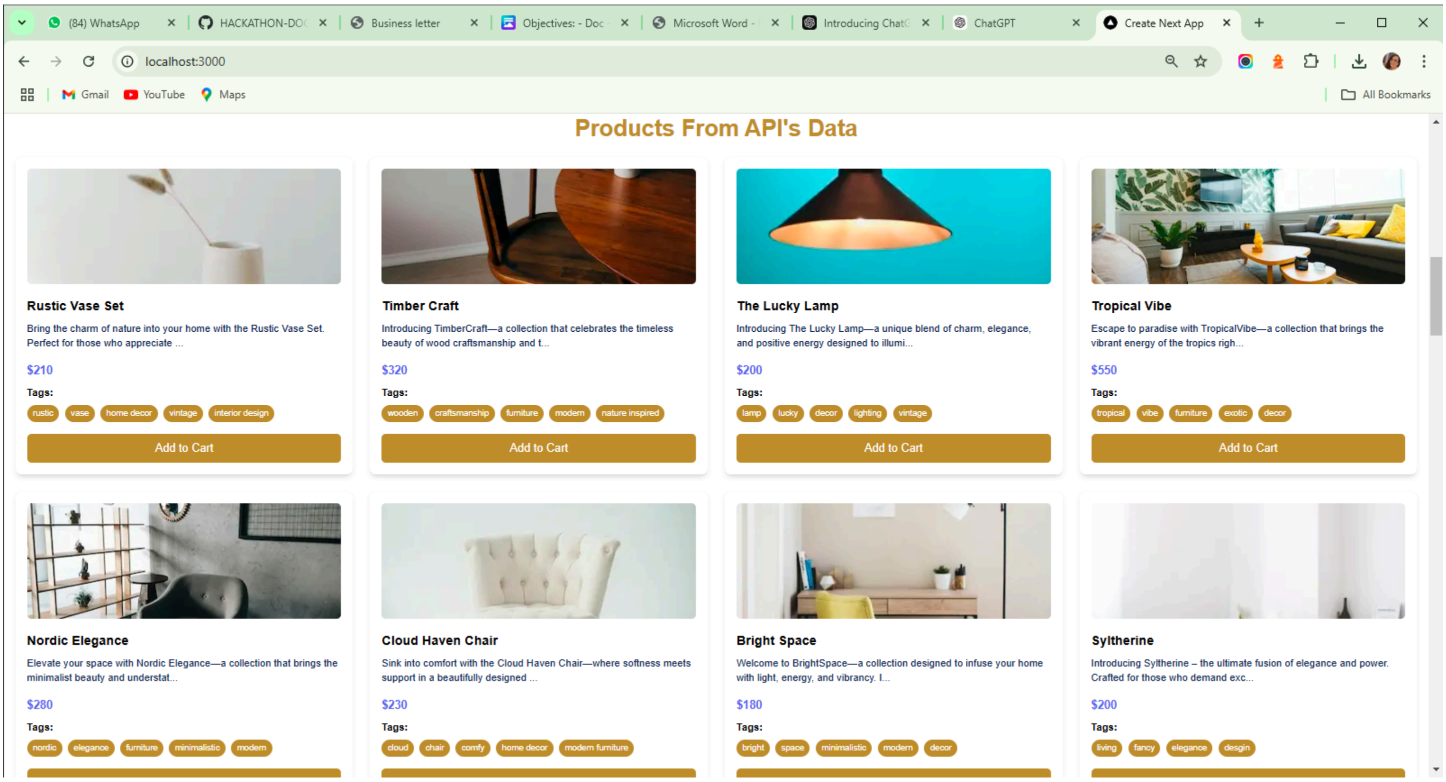
Inspired by the warmth of sunny days and the laid-back yet stylish vibe of coastal living, SunnyChic features bold colors, light fabrics, and breezy designs that capture the spirit of summer all year round. From sunny yellows and soft neutrals to playful patterns and textures, this collection effortlessly combines comfort with trendsetting

Product Image

What's new
Sanity Create Content Mapping, Visual Editing, and Content Releases

Published 14 min. ago

Fetch Products on UI:



Products From API's Data

Rustic Vase Set

Bring the charm of nature into your home with the Rustic Vase Set. Perfect for those who appreciate ...

$210

Tags:

rustic vase home decor vintage interior design

Add to Cart

Timber Craft

Introducing TimberCraft—a collection that celebrates the timeless beauty of wood craftsmanship and t...

$320

Tags:

wooden craftsmanship furniture modern nature inspired

Add to Cart

The Lucky Lamp

Introducing The Lucky Lamp—a unique blend of charm, elegance, and positive energy designed to illumi...

$200

Tags:

lamp lucky decor lighting vintage

Add to Cart

Tropical Vibe

Escape to paradise with TropicalVibe—a collection that brings the vibrant energy of the tropics righ...

$550

Tags:

tropical vibe furniture exotic decor

Add to Cart

Nordic Elegance

Elevate your space with Nordic Elegance—a collection that brings the minimalist beauty and understat...

$280

Tags:

nordic elegance furniture minimalistic modern

Cloud Haven Chair

Sink into comfort with the Cloud Haven Chair—where softness meets support in a beautifully designed ...

$230

Tags:

cloud chair comfy home decor modern furniture

Bright Space

Welcome to BrightSpace—a collection designed to infuse your home with light, energy, and vibrancy. I...

$180

Tags:

bright space minimalistic modern decor

Syltherine

Introducing Syltherine – the ultimate fusion of elegance and power. Crafted for those who demand exc...

$200

Tags:

living fancy elegance desgin

Day 3 Completed Successfully: The API integration and data migration process was successfully completed, including schema setup, data fetching from Sanity, and dynamic routing implementation for the marketplace