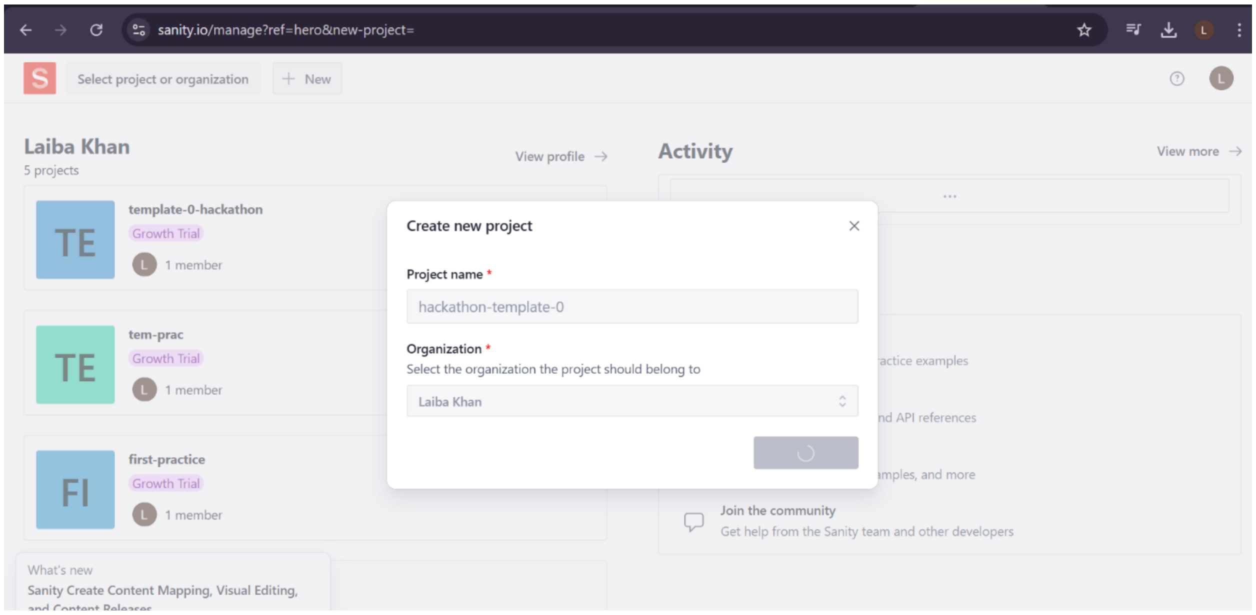
DAY 3 - API INTEGRATION AND DATA MIGRATION

On this day, we learned how to integrate APIs for smooth communication between different systems. We also explored data migration techniques to ensure accurate and efficient data transfer while maintaining consistency.

I have attached a screenshot showing that a new project has been created on Sanity.


sanity.io/manage?ref=hero&new-project=
Select project or organization
New
Laiba Khan
5 projects
View profile
Activity
View more
template-0-hackathon
Growth Trial
1 member
tem-prac
Growth Trial
1 member
first-practice
Growth Trial
1 member
Join the community
Get help from the Sanity team and other developers
What's new
Sanity Create Content Mapping, Visual Editing, and Content Releases

Create new project

Project name *

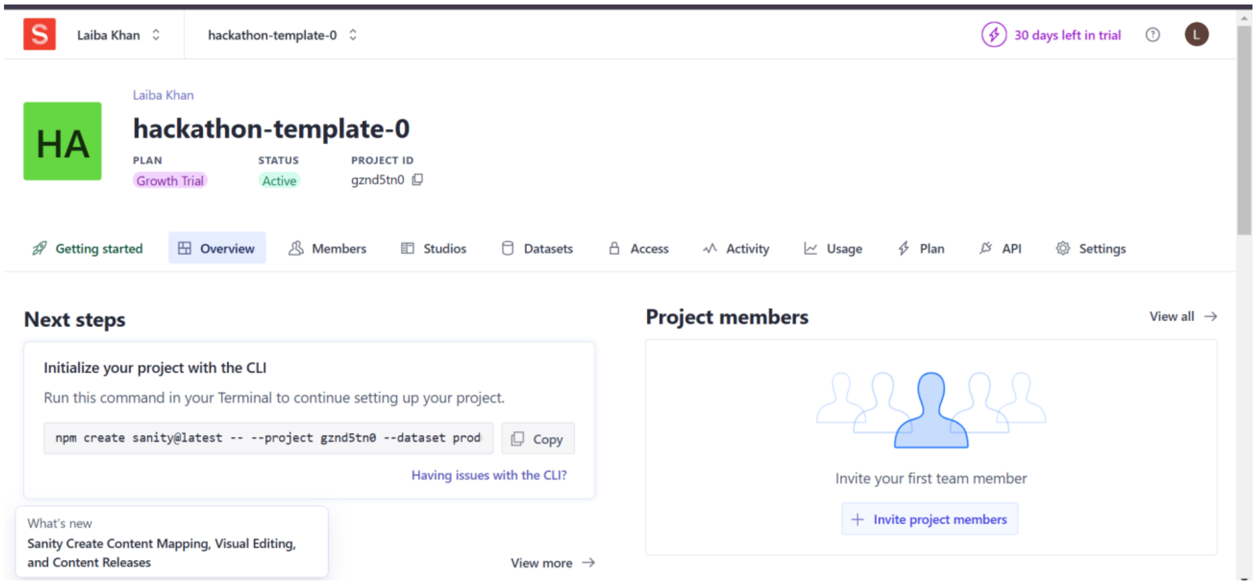
hackathon-template-0

Organization *

Select the organization the project should belong to

Laiba Khan

Create project,



hackathon-template-0

PLAN Growth Trial
STATUS Active
PROJECT ID gznd5tn0

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 gznd5tn0 --dataset prod
```

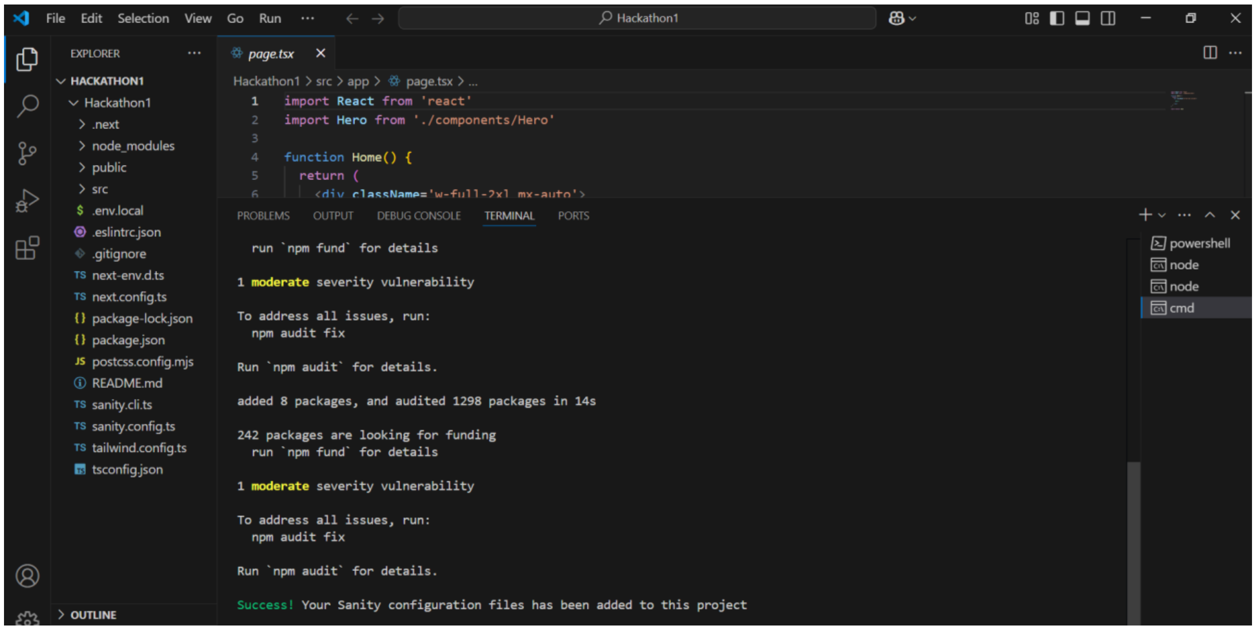
What's new
Sanity Create Content Mapping, Visual Editing, and Content Releases

Here’s how you can describe it:

"I have set up Sanity in my Next.js 15 and React 19 project. Sanity is a headless CMS that I used for content management. Here’s what I did:

1. Logged into Sanity and created a new project.
2. Chose TypeScript and embedded Sanity Studio at the `/studio` route.
3. Selected a clean project template without predefined schema types.
4. Added the project ID and dataset to my `.env.local` file.
5. Installed dependencies such as `@sanity/vision@3`, `sanity@3`, `@sanity/image-url@1`, and `styled-components@6`.
6. Configured CORS for local development.
7. A compatibility warning appeared for Next.js 15 and React 19, with a link for more details.

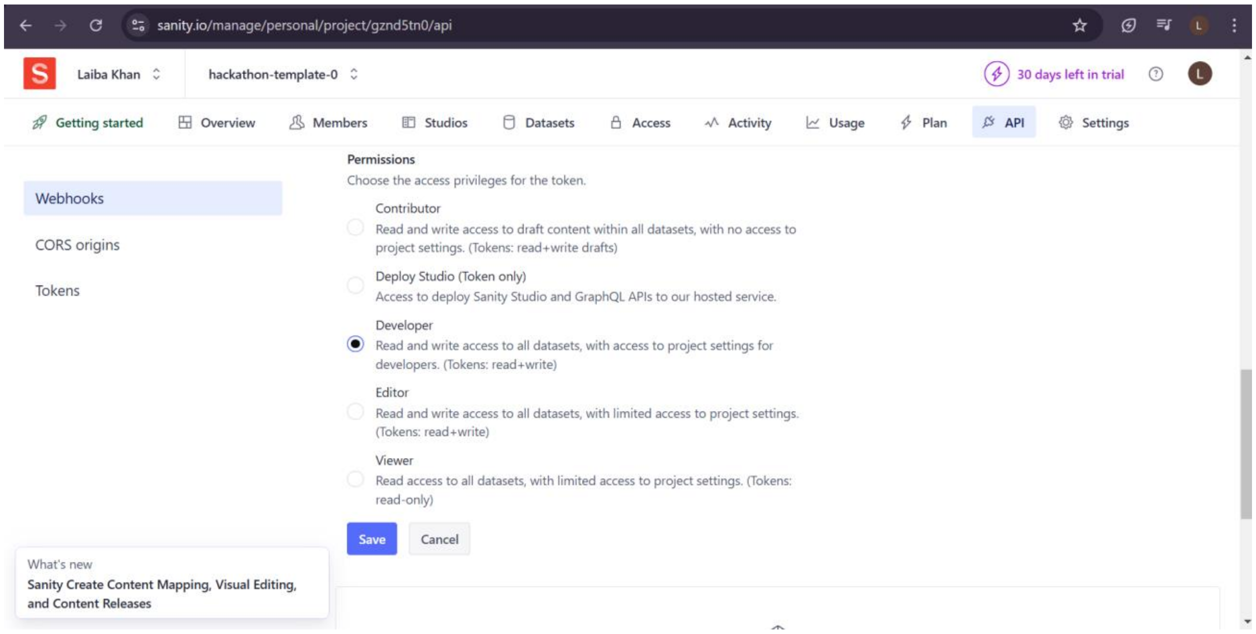
(Screenshot attached showing the setup process.)"



```
import React from 'react'
import Hero from './components/Hero'

function Home() {
  return (
    <div className='w-full-2xl mx-auto'>
```

```
  run `npm fund` for details

1 moderate severity vulnerability

To address all issues, run:
  npm audit fix

Run `npm audit` for details.

added 8 packages, and audited 1298 packages in 14s

242 packages are looking for funding
  run `npm fund` for details

1 moderate severity vulnerability

To address all issues, run:
  npm audit fix

Run `npm audit` for details.

Success! Your Sanity configuration files has been added to this project
```

To generate a token in Sanity,



Permissions

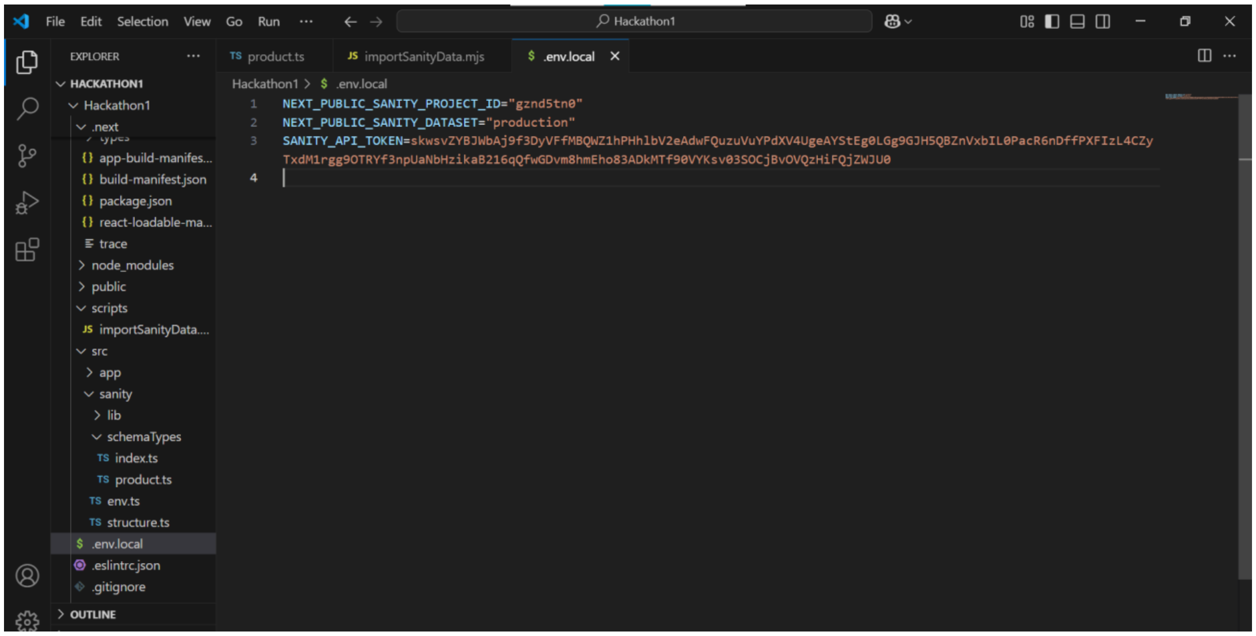
Choose the access privileges for the token.

- 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)

What's new

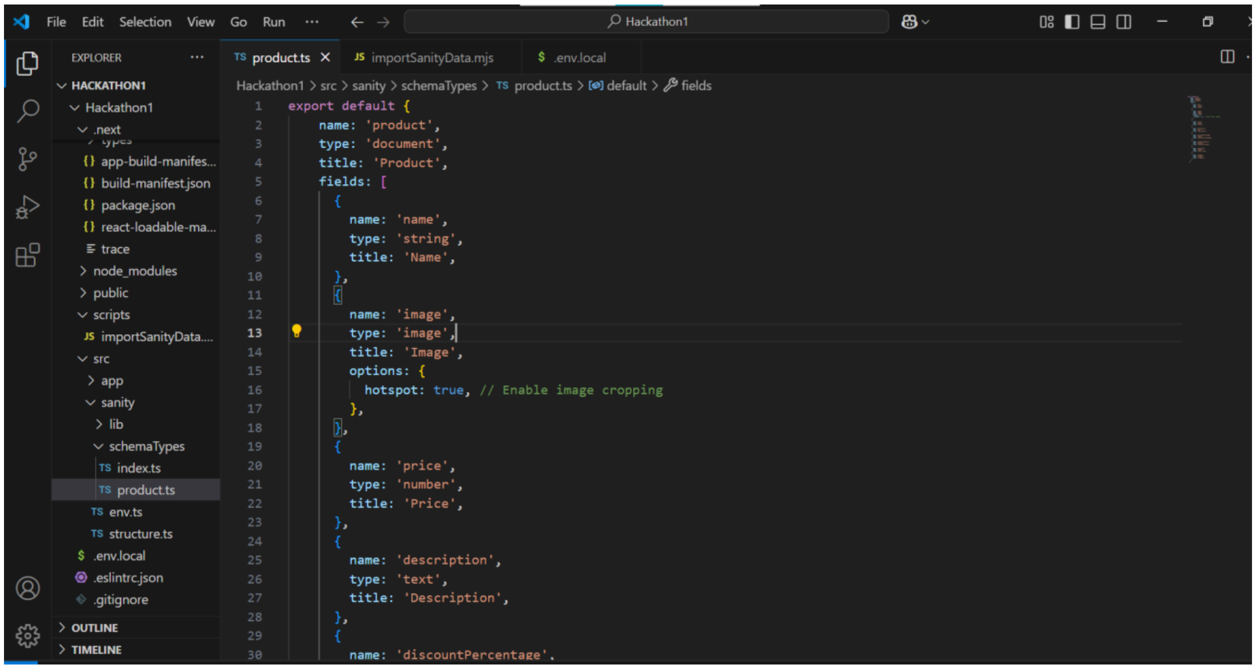
Sanity Create Content Mapping, Visual Editing, and Content Releases

The token has been added to the `.env.local` file as an environment variable, allowing secure access to the Sanity API. The format is:



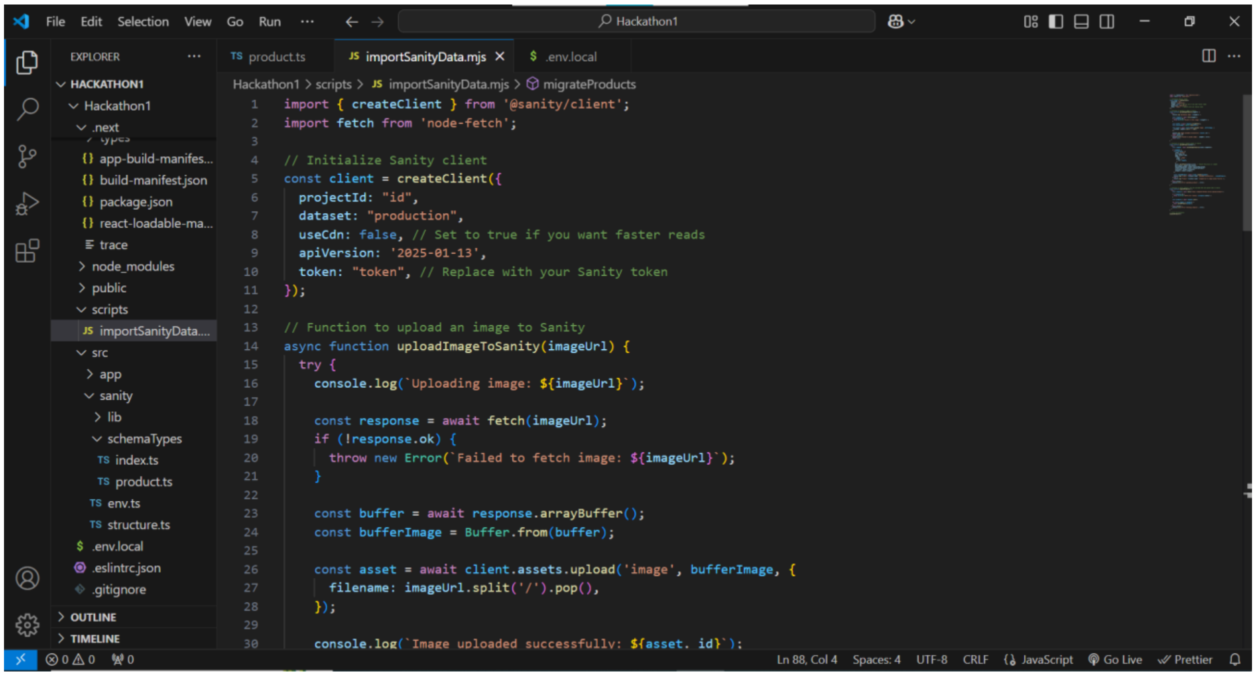
```
NEXT_PUBLIC_SANITY_PROJECT_ID="gznd5tn0"
NEXT_PUBLIC_SANITY_DATASET="production"
SANITY_API_TOKEN=skwsvZYBJWbAj9f3DyVFfMBQWZ1hPHhlbV2eAdwFQuzuVuYPdXV4UgeAYStEg0LGg9GJH5QBZnVxbIL0PacR6nDffPXFIzL4CZyTxdM1rgg9OTRYf3npUaNbHzikaB216qQfwGDvm8hmEho83ADkMTf90VYKsv03SOCjBvOVQzHiFQjZWJU0
```

I have created a "product.js" file in the `schemaTypes` folder. This file defines the structure and fields for product data in Sanity, and I have pasted the provided data into the product file.



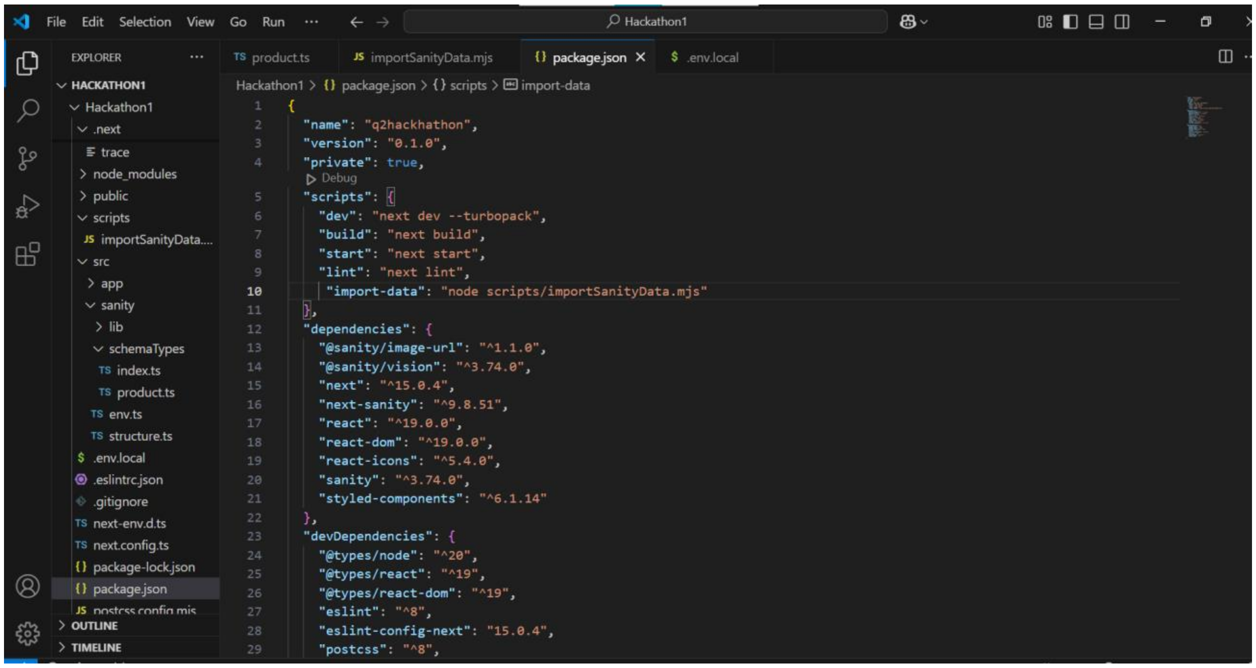
```
export default {
    name: 'product',
    type: 'document',
    title: 'Product',
    fields: [
      {
        name: 'name',
        type: 'string',
        title: 'Name',
      },
      {
        name: 'image',
        type: 'image',
        title: 'Image',
        options: {
          hotspot: true, // Enable image cropping
        },
      },
      {
        name: 'price',
        type: 'number',
        title: 'Price',
      },
      {
        name: 'description',
        type: 'text',
        title: 'Description',
      },
      {
        name: 'discountPercentage',
```

I have created a `scripts` folder and an `importSanityData.mjs` file within it. This file contains the code to upload products from an external API to Sanity, including image uploads. The script utilizes the `@sanity/client` and `node-fetch` to interact with the Sanity API and handle the data migration.



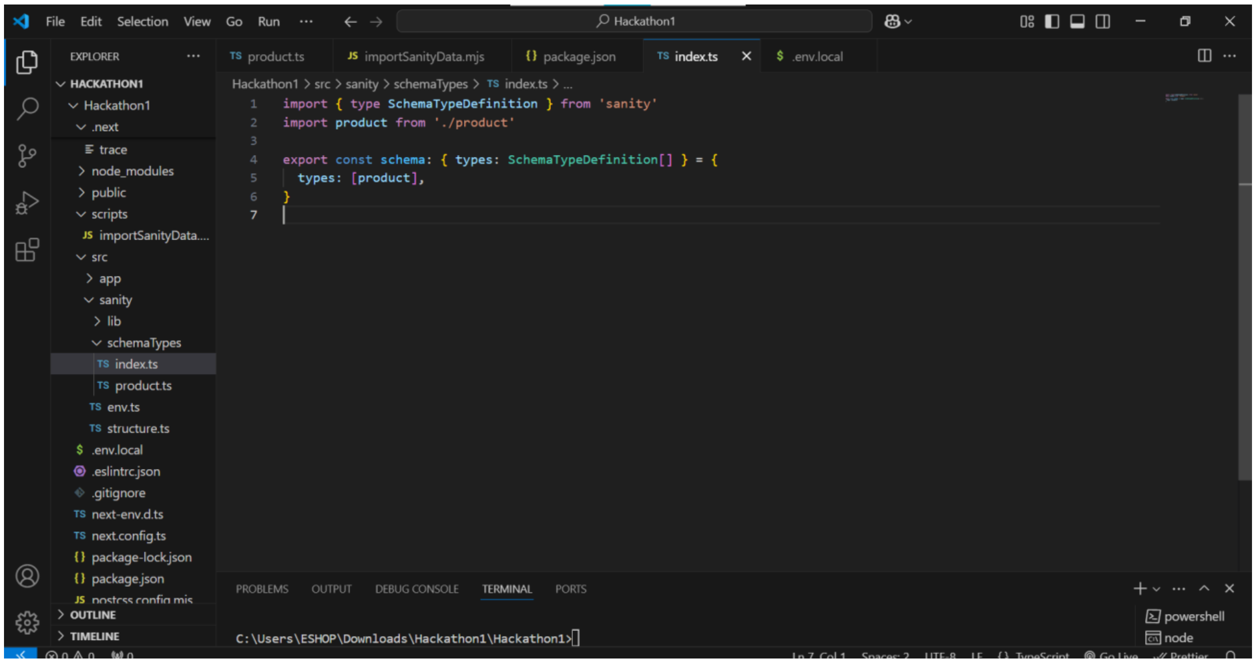
```javascript
import { createClient } from '@sanity/client';
import fetch from 'node-fetch';

// Initialize Sanity client
const client = createClient({
  projectId: "id",
  dataset: "production",
  useCdn: false, // Set to true if you want faster reads
  apiVersion: '2025-01-13',
  token: "token", // Replace with your Sanity token
});

// Function to upload an image to Sanity
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}`);
```

The `"import-data"` script is added to the `scripts` section of your `package.json` file. It runs the `importSanityData.mjs` file located in the `scripts` folder using Node.js. This script is responsible for importing product data into your Sanity project.



```json
{
  "name": "q2hackathon",
  "version": "0.1.0",
  "private": true,
  "scripts": {
    "dev": "next dev --turbopack",
    "build": "next build",
    "start": "next start",
    "lint": "next lint",
     "import-data": "node scripts/importSanityData.mjs"
  },
  "dependencies": {
    "@sanity/image-url": "^1.1.0",
    "@sanity/vision": "^3.74.0",
    "next": "^15.0.4",
    "next-sanity": "^9.8.51",
    "react": "^19.0.0",
    "react-dom": "^19.0.0",
    "react-icons": "^5.4.0",
    "sanity": "^3.74.0",
    "styled-components": "^6.1.14"
  },
  "devDependencies": {
    "@types/node": "^20",
    "@types/react": "^19",
    "@types/react-dom": "^19",
    "eslint": "^8",
    "eslint-config-next": "15.0.4",
    "postcss": "^8",
```

You have imported the `product` data type into your `index.js` file, allowing you to work with and manage product data in your Sanity project.

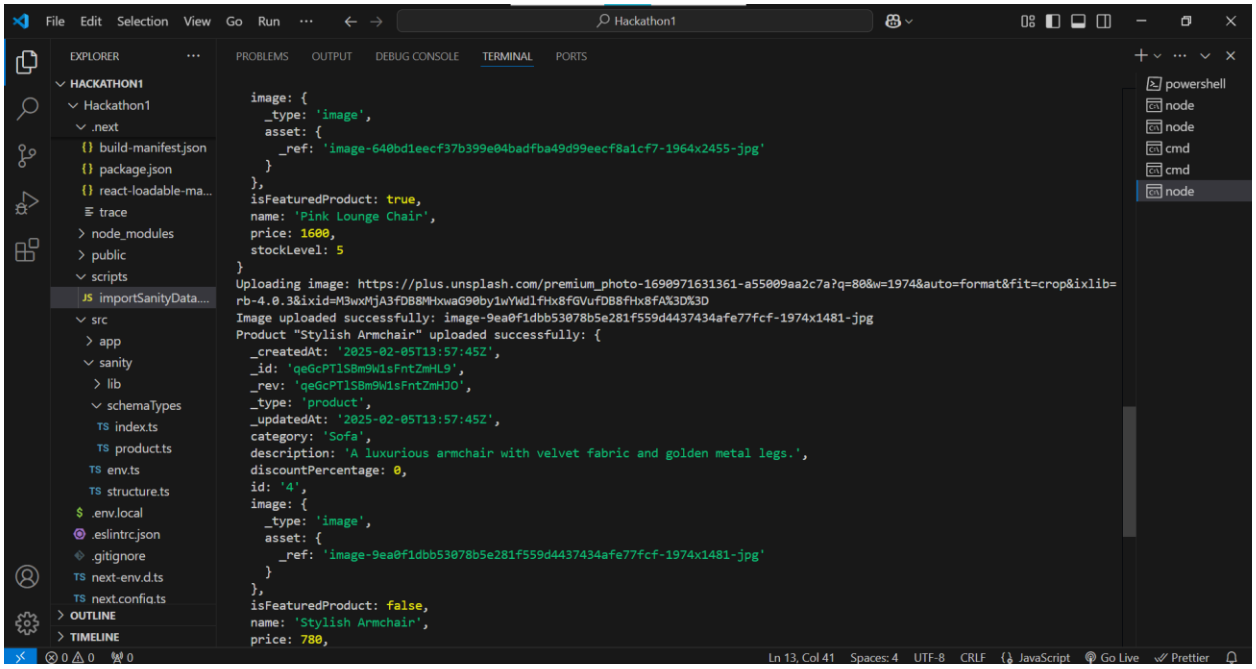


```ts
import { type SchemaTypeDefinition } from 'sanity'
import product from './product'

export const schema: { types: SchemaTypeDefinition[] } = {
  types: [product],
}
```

```
C:\Users\ESHOP\Downloads\Hackathon1\Hackathon1>
```

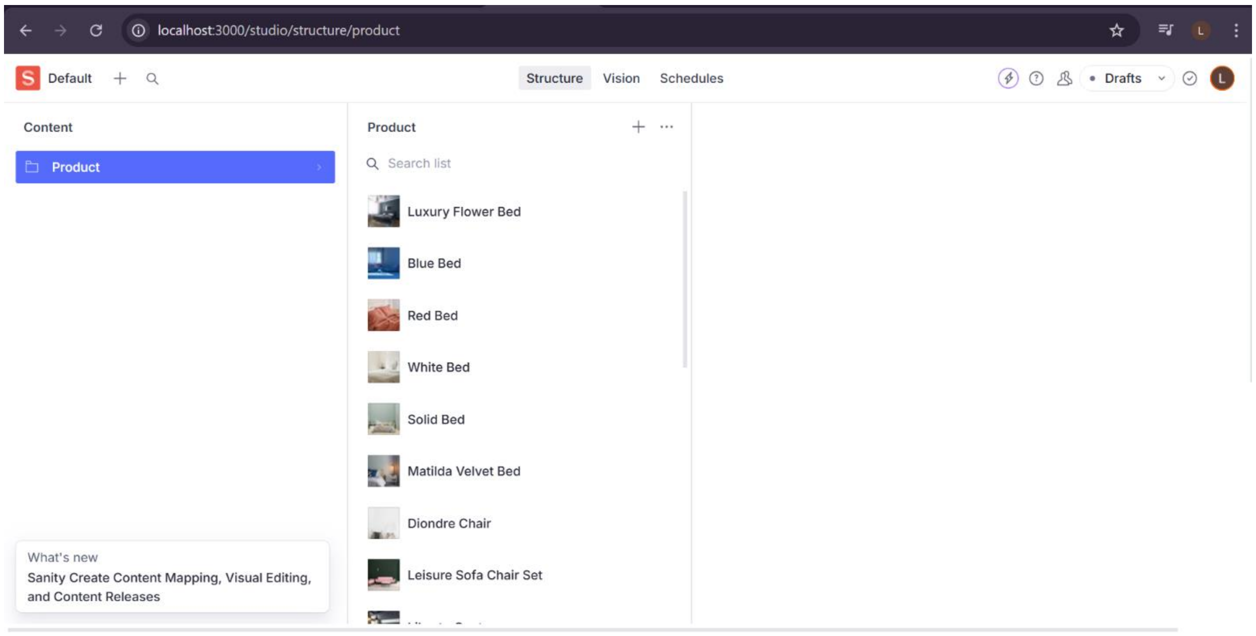
Run Command,

npm run import-data



```
  image: {
    _type: 'image',
    asset: {
      _ref: 'image-640bd1eecf37b399e04badfba49d99eecf8a1cf7-1964x2455-jpg'
    }
  },
  isFeaturedProduct: true,
  name: 'Pink Lounge Chair',
  price: 1600,
  stockLevel: 5
}
Uploading image: https://plus.unsplash.com/premium_photo-1690971631361-a55009aa2c7a?q=80&w=1974&auto=format&fit=crop&ixlib=
rb-4.0.3&ixid=M3wxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8fA%3D%3D
Image uploaded successfully: image-9ea0f1dbb53078b5e281f559d4437434afe77fcf-1974x1481-jpg
Product "Stylish Armchair" uploaded successfully: {
  _createdAt: '2025-02-05T13:57:45Z',
  _id: 'qeGcPTlSBm9W1sFntZmHL9',
  _rev: 'qeGcPTlSBm9W1sFntZmHJO',
  _type: 'product',
  _updatedAt: '2025-02-05T13:57:45Z',
  category: 'Sofa',
  description: 'A luxurious armchair with velvet fabric and golden metal legs.',
  discountPercentage: 0,
  id: '4',
  image: {
    _type: 'image',
    asset: {
      _ref: 'image-9ea0f1dbb53078b5e281f559d4437434afe77fcf-1974x1481-jpg'
    }
  },
  isFeaturedProduct: false,
  name: 'Stylish Armchair',
  price: 780,
```

The product data has successfully appeared in Sanity after running the local studio. This means the data was correctly uploaded and is now available in your Sanity Studio for further management and editing.



Successfully Completed Day 3