

DAY 3 - API INTEGRATION AND DATA MIGRATION

The focus for Day 3 is integrating APIs and migrating data into Sanity CMS to build a functional marketplace backend. Students will learn how to utilize APIs for reference, migrate data into Sanity CMS, and ensure compatibility with their templates. This approach replicates real-world practices and prepares students to handle diverse client requirements, including integrating headless APIs or migrating existing data from popular eCommerce platforms.

Document Title: "Day 3 - API Integration Report - [HACKATHON Ecommerce]"

What to Submit:

A report documenting:

- API integration process.
- Adjustments made to schemas.
- Migration steps and tools used.



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Integrating Sanity In Our Project

```
microsoft Windows [Version 10.0.22631.4602]
(c) Microsoft Corporation. All rights reserved.

D:\hackathone-new-project>code .

D:\hackathone-new-project>code .

D:\hackathone-new-project>npm create sanity@latest

> hackathone-new-project@0.1.0 npx
> create-sanity

/ You are logged in as maryamsiddique860@gmail.com using Google
/ Fetching existing projects

? Create a new project or select an existing one Create new project
? Your project name: daythree
Your content will be stored in a dataset that can be public or private, depending on
whether you want to query your content with or without authentication.
The default dataset configuration has a public dataset named "production".
? Use the default dataset configuration? Yes
/ Creating dataset
? Would you like to add configuration files for a Sanity project in this Next.js folder? Yes
⚠️
⚠️ It looks like you are using Next.js 15 and React 19
⚠️ Please read our compatibility guide.
⚠️ https://www.sanity.io/help/react-19

? Do you want to use TypeScript? Yes
? Would you like an embedded Sanity Studio? Yes
? What route do you want to use for the Studio? (/studio) |
```

```
? Create a new project or select an existing one Create new project
? Your project name: daythree
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The default dataset configuration has a public dataset named "production".
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⚠️
⚠️ It looks like you are using Next.js 15 and React 19
⚠️ Please read our compatibility guide.
⚠️ https://www.sanity.io/help/react-19

? Do you want to use TypeScript? Yes
? Would you like an embedded Sanity Studio? Yes
? What route do you want to use for the Studio? /studio
? Select project template to use Clean project with no predefined schema types
? Would you like to add the project ID and dataset to your .env.local file? Yes
Added http://localhost:3000 to CORS origins
Running 'npm install --legacy-peer-deps --save @sanity/vision@3 sanity@3 @sanity/image-url@1 styled-components@0.1.0' with npm 8.1.0
|
```



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Successful Integrate Sanity

```
? Would you like to add configuration files for a Sanity project in this Next.js folder? Yes
⚠️ It looks like you are using Next.js 15 and React 19
⚠️ Please read our compatibility guide.
⚠️ https://www.sanity.io/help/react-19

⚠️ Do you want to use TypeScript? Yes
? Would you like an embedded Sanity Studio? Yes
? What route do you want to use for the Studio? /studio
? Select project template to use Clean project with no predefined schema types
? Would you like to add the project ID and dataset to your .env.local file? Yes
Added http://localhost:3000 to CORS origins
Running 'npm install --legacy-peer-deps --save @sanity/vision@3 sanity@3 @sanity/image-url@1 styled-components@6'
npm warn deprecated @sanity/block-tools@3.70.0: Renamed - use '@portabletext/block-tools' instead. '@sanity/block-tools' will no longer receive updates.

added 913 packages, and audited 1289 packages in 3m
246 packages are looking for funding
  run 'npm fund' for details
Found 0 vulnerabilities

added 16 packages, and audited 1305 packages in 16s
246 packages are looking for funding
  run 'npm fund' for details
Found 0 vulnerabilities

Success! Your Sanity configuration files has been added to this project
D:\hackathone-new-project>
```

The screenshot shows a web browser window with multiple tabs open. The active tab is for the Sanity Studio interface, specifically for a project named 'hackathon'. The URL in the address bar is `sanity.io/manage/personal/project/gjxyblue`. The page displays the following information:

- User Information:** Daniyal Ghouri
- Project Summary:** **hackathon**, PLAN: Growth Trial, STATUS: Active, PROJECT ID: gjxyblue
- Usage Metrics:**

Metric	Value	Unit
API CDN Requests	0	/ 1m
Assets	0 B	/ 100 GB
Datasets	1	/ 2
- Project members:** A section with a placeholder for team members, showing icons for five users. It includes a button to "Invite project members".



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The screenshot shows the Sanity.io API management interface. At the top, there are several tabs open in the browser: WhatsApp, Templates/Template, (2) Giaic template, Module not found, Vision | Default, and hackathon - API. The main content area is titled "hackathon" and shows the "API" tab selected. On the left, there's a sidebar with "Getting started", "Overview", "Members", "Studios", "Datasets", "Access", "Activity", "Usage", "Plan", "API" (which is active), and "Settings".

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.

NAME	PERMISSIONS	CREATED
productist	Editor	yesterday

This screenshot is nearly identical to the one above, showing the same tabs and sidebar. The "API" tab is still active. The "Tokens" section is now the primary focus:

Tokens

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

NAME	PERMISSIONS	CREATED
productist	Editor	yesterday

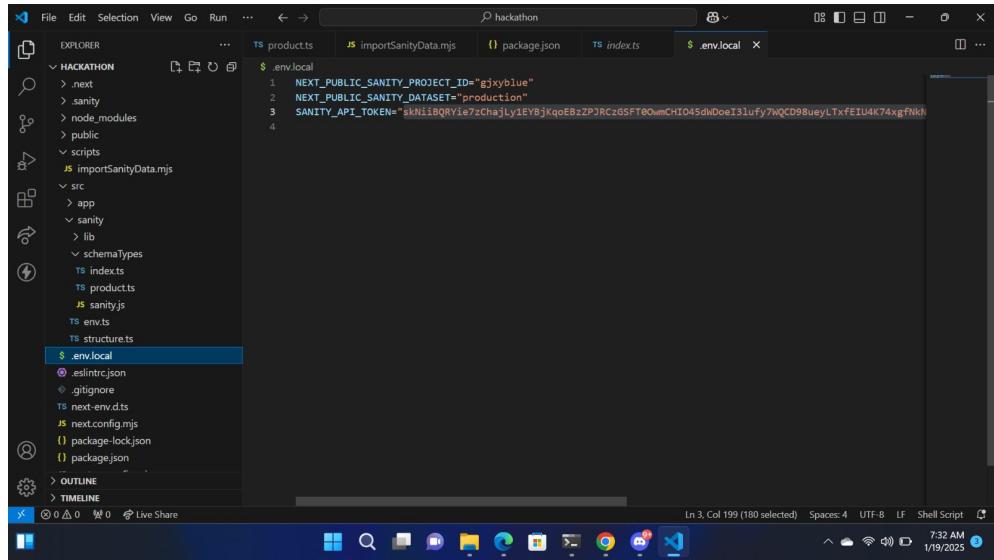
At the bottom of the screen, there's a footer bar with the Sanity logo and the text "ALL SYSTEMS OPERATIONAL". It also includes copyright information: "Copyright © 2025 Sanity AS. All rights reserved." The system tray at the very bottom shows the date and time as 7:31 AM 1/19/2025.



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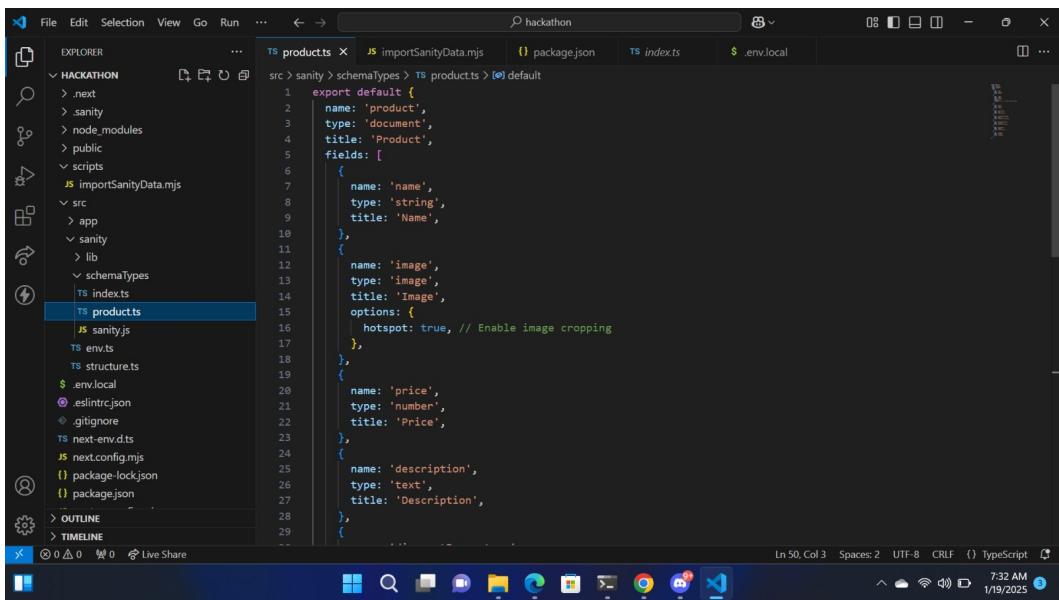
Env.local file

Enter token in env.local



```
NEXT_PUBLIC_SANITY_PROJECT_ID="gjxyblue"
NEXT_PUBLIC_SANITY_DATASET="production"
SANITY_API_TOKEN="skN1lBQRYie7zCha1Ly1EYBJKqpEBzZPjRCzGSFT00mCHI045dwDoeI3luFy7WQCD98ueyLTxfETU4K74xgfNkh
```

Create products schema

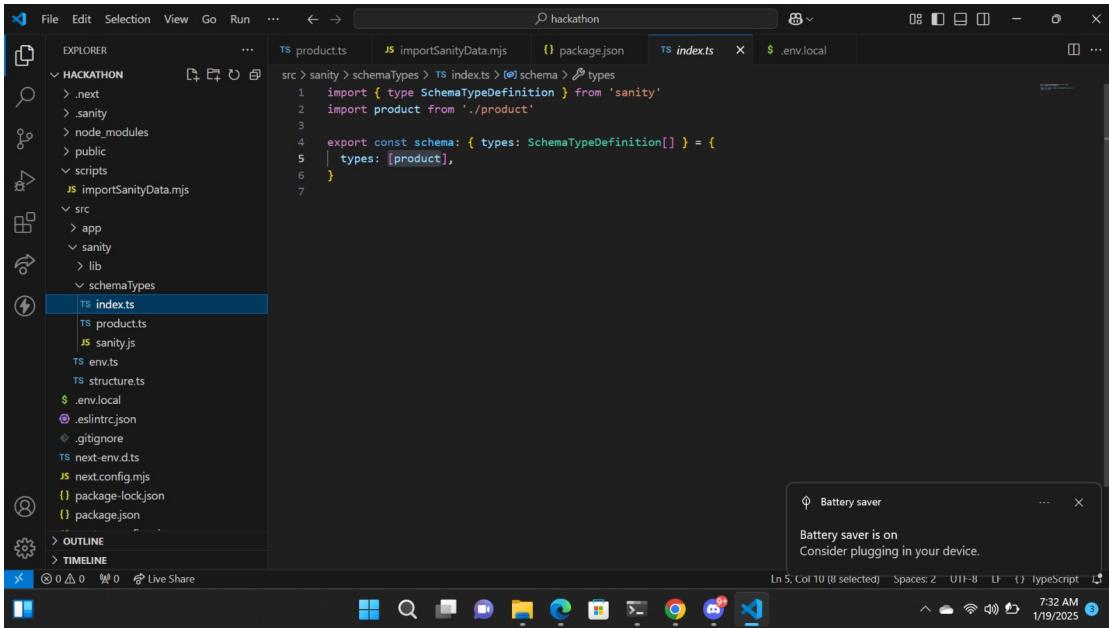


```
export default {
  name: 'product',
  type: 'document',
  title: 'Product',
  fields: [
    {
      name: 'name',
      type: 'string',
      title: 'Name',
    },
    {
      name: 'image',
      type: 'image',
      title: 'Image',
      options: {
        hotspot: true, // Enable image cropping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



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And call it in sanity/schematypes/index.ts



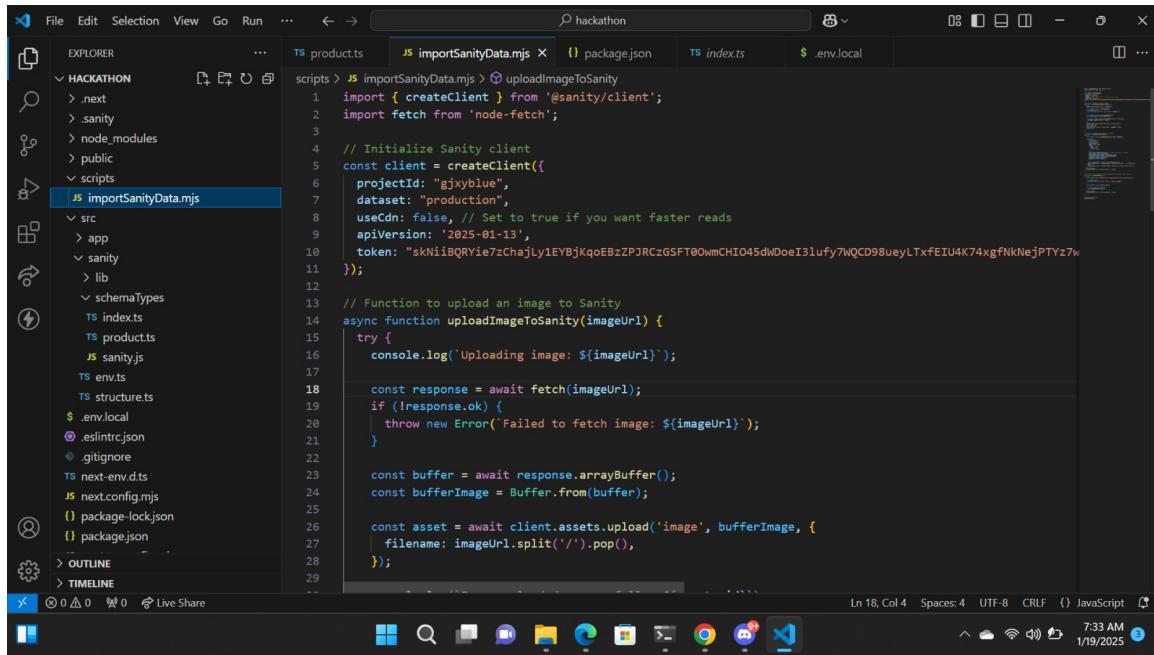
The screenshot shows the VS Code interface with the following details:

- File Explorer:** Shows the project structure under "HACKATHON".
- Code Editor:** Displays the file "index.ts" which imports "SchemaTypeDefinition" from "sanity" and defines a schema object.
- Status Bar:** Shows "Battery saver is on" and the date "1/19/2025".

```
File Edit Selection View Go Run ... ← → hackathon
EXPLORER HACKATHON ...
src > sanity > schematypes > TS index.ts > schema > types
products.js importSanityData.mjs package.json TS index.ts $ .env.local
1 import { type SchemaTypeDefinition } from 'sanity'
2 import product from './product'
3
4 export const schema: { types: SchemaTypeDefinition[] } = {
5   types: [product],
6 }
7
```

Now create a folder scripts/importSanityData.mjs

And put fetch code here with projectId,dataset, and token



The screenshot shows the VS Code interface with the following details:

- File Explorer:** Shows the project structure under "HACKATHON".
- Code Editor:** Displays the file "importSanityData.mjs" which uses "@sanity/client" to create a client and upload an image to Sanity.
- Status Bar:** Shows "Battery saver is on" and the date "1/19/2025".

```
File Edit Selection View Go Run ... ← → hackathon
EXPLORER HACKATHON ...
scripts > JS importSanityData.mjs > uploadImageToSanity
products.js importSanityData.mjs package.json TS index.ts $ .env.local
1 import { createClient } from '@sanity/client';
2 import fetch from 'node-fetch';
3
4 // Initialize Sanity client
5 const client = createClient({
6   projectId: "gjxyblue",
7   dataset: "production",
8   useCDN: false, // Set to true if you want faster reads
9   apiVersion: '2025-01-13',
10   token: "skNiiBQRYie7zChajLy1eYBjkQqEBbzPJRcZGSFT00wmCHI045dMDoEi3luFy7WQCD98ueyLTxFEIU4K74xgfHkNejPTYz7w
11 });
12
13 // Function to upload an image to Sanity
14 async function uploadImageToSanity(imageUrl) {
15   try {
16     console.log(`Uploading image: ${imageUrl}`);
17
18     const response = await fetch(imageUrl);
19     if (!response.ok) {
20       throw new Error(`Failed to fetch image: ${imageUrl}`);
21     }
22
23     const buffer = await response.arrayBuffer();
24     const bufferImage = Buffer.from(buffer);
25
26     const asset = await client.assets.upload('image', bufferImage, {
27       filename: imageUrl.split('/').pop(),
28     });
29 }
```



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Now run "npm install @sanity/client axios dotenv"

```
  Compiled [REDACTED] in 102 ms (266 modules)
  GET /favicon.ico 200 in 1451ms
Terminate batch job (Y/N)?
y

E:\Quarter-2\hackathon\hackathon>npm install @sanity/client axios dotenv

removed 1 package, and audited 1288 packages in 13s

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

3 vulnerabilities (1 moderate, 2 high)

To address all issues possible, run:
  npm audit fix --force

Some issues need review, and may require choosing
a different dependency.
```

Now, "add import-data": "node scripts/importSanityData.mjs"

```
package.json > {} scripts > import-data
{
  "name": "hackathon",
  "version": "0.1.0",
  "private": true,
  ▷ Debug
  "scripts": {
    "dev": "next dev",
    "build": "next build",
    "start": "next start",
    "lint": "next lint",
    "import-data": "node scripts/importSanityData.mjs"
  },
  "dependencies": {
    "@sanity/client": "^6.25.0",
    "@sanity/image-url": "^1.1.0",
    "@sanity/vision": "^3.70.0",
    "next": "13.0.1"
  }
}
```



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Now run, "npm Install node-fetch"

```
⠇ > Node.js v20.18.0
⠄ >
⠄ ⌄ E:\Quarter-2\hackathon\hackathon>npm i node-fetch
⠄ ⌄ added 6 packages, and audited 1294 packages in 12s
⠄ ⌄
⠄ ⌄ 244 packages are looking for funding
⠄ ⌄   run `npm fund` for details
⠄ ⌄
⠄ ⌄ 3 vulnerabilities (1 moderate, 2 high)
⠄ ⌄
⠄ ⌄ To address all issues possible, run:
⠄ ⌄   npm audit fix --force
⠄ ⌄
⠄ ⌄ Some issues need review, and may require choosing
⠄ ⌄   a different dependency.
```

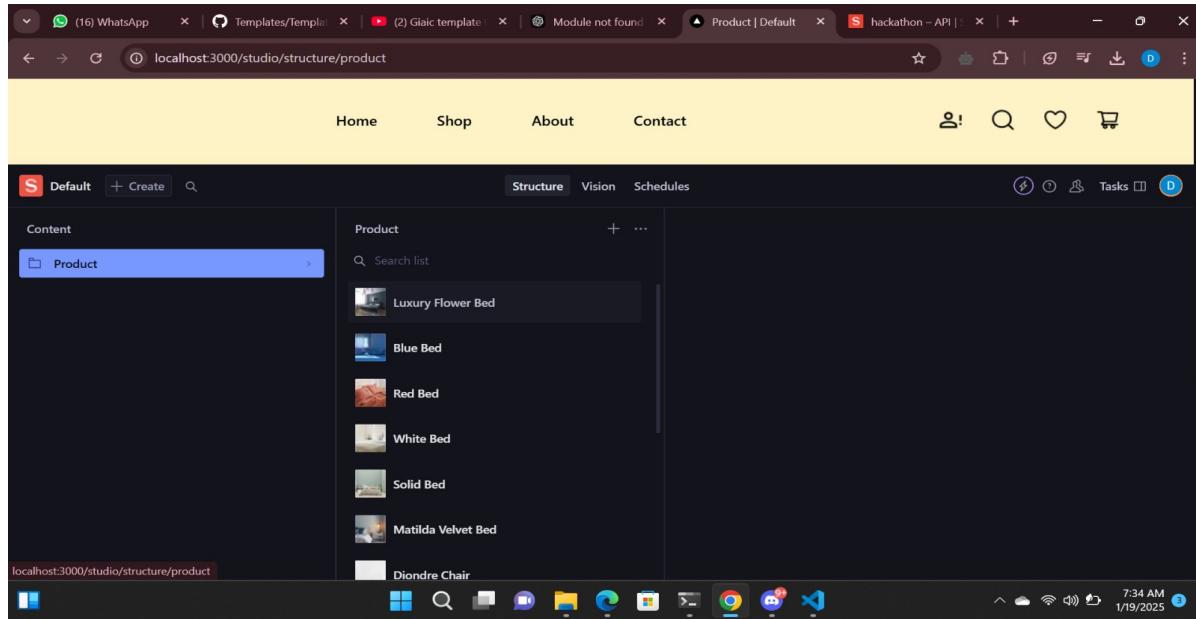
Data importing start

```
next-server (v14.2.20) × + ▾
E:\Quarter-2\hackathon\hackathon> npm run import-data
> hackathon@0.1.0 import-data
> node scripts/importSanityData.mjs
Uploading image: https://plus.unsplash.com/premium_photo-1668073439372-2ceafa1222b7?q=80&w=1887&auto=format&fit=crop&ixlib=rb-4.0.3&i
xid=M3wxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8fA%3D%3D
Image uploaded successfully: image-8e3afa71668987a0516404c4a818d9538a8da023-1887x2831-jpg
Product "Chair Wibe" uploaded successfully:
  - createdAt: '2025-01-19T14:48:23Z',
  - id: 'wsljz10LCzachwUMK78gAe',
  - rev: 'wsljz10LCzachwUMK78g9Q',
  - type: 'product',
  - updatedAt: '2025-01-19T14:48:23Z',
  category: 'Chair',
  description: 'A sleek outdoor chair with natural wooden elements and a modern look.',
  discountPercentage: 10,
  id: '1',
  image: {
    _type: 'image',
    asset: {
      _ref: 'image-8e3afa71668987a0516404c4a818d9538a8da023-1887x2831-jpg'
    }
  },
  isFeaturedProduct: true,
  name: 'Chair Wibe',
  price: 1200,
  stockLevel: 25
}
Uploading image: https://plus.unsplash.com/premium_photo-1681022527718-81786d7873bd?q=80&w=1915&auto=format&fit=crop&ixlib=rb-4.0.3&i
xid=M3wxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8fA%3D%3D
Image uploaded successfully: image-5dc77b01d1b7563cfcd81e4f2f051b249567753f-1915x2681-jpg
```

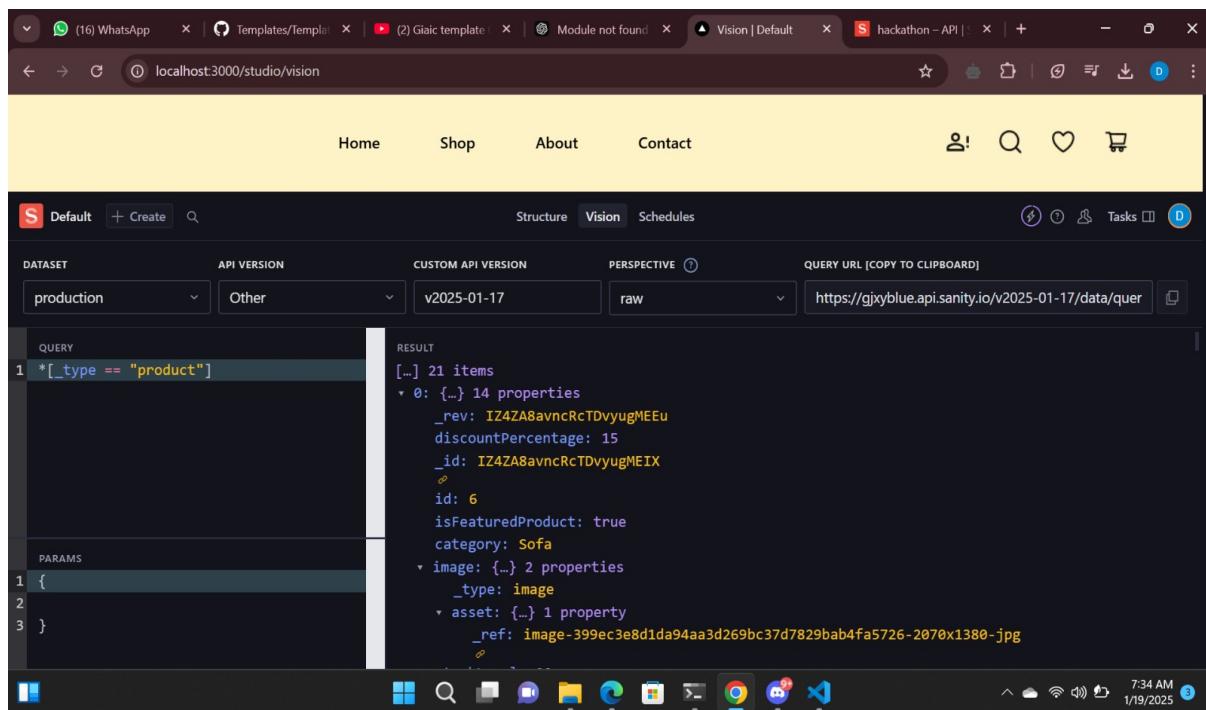


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Finally, data imported successfully

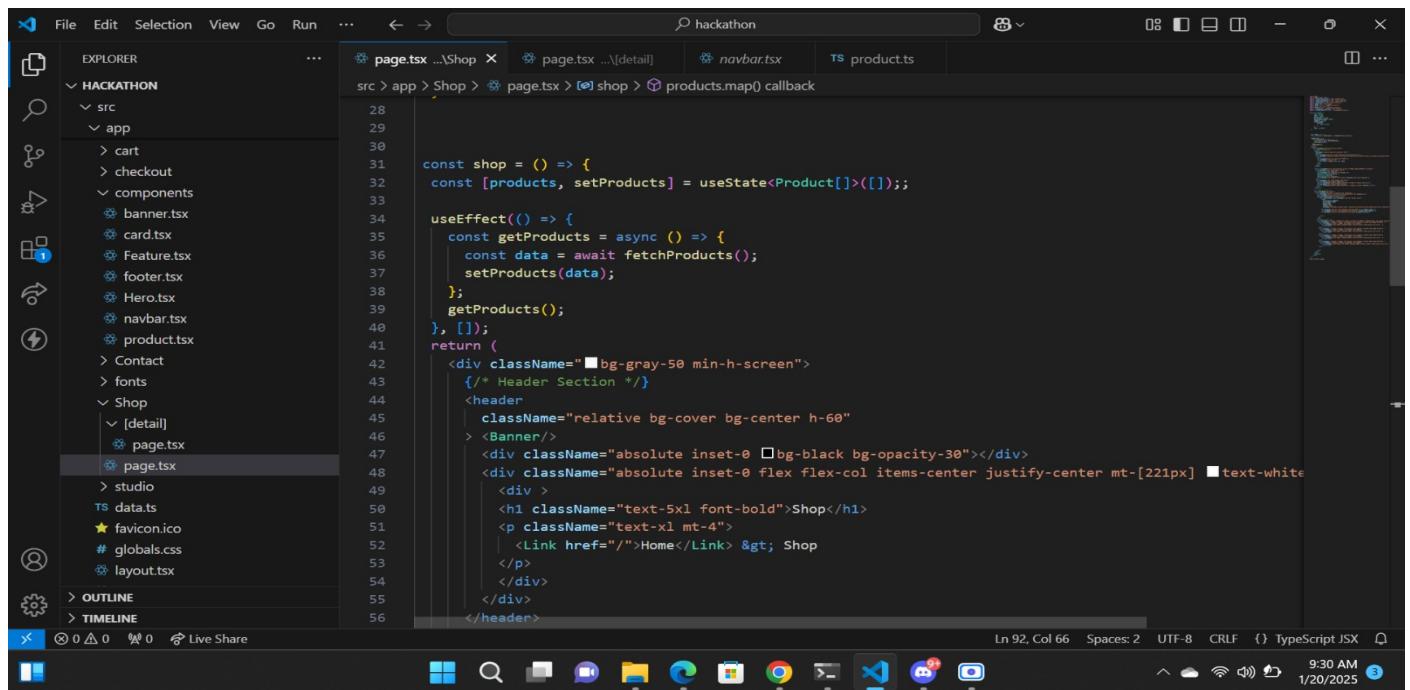


Fetching data by groq query successful



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Code for Rendering data on shop/page.tsx

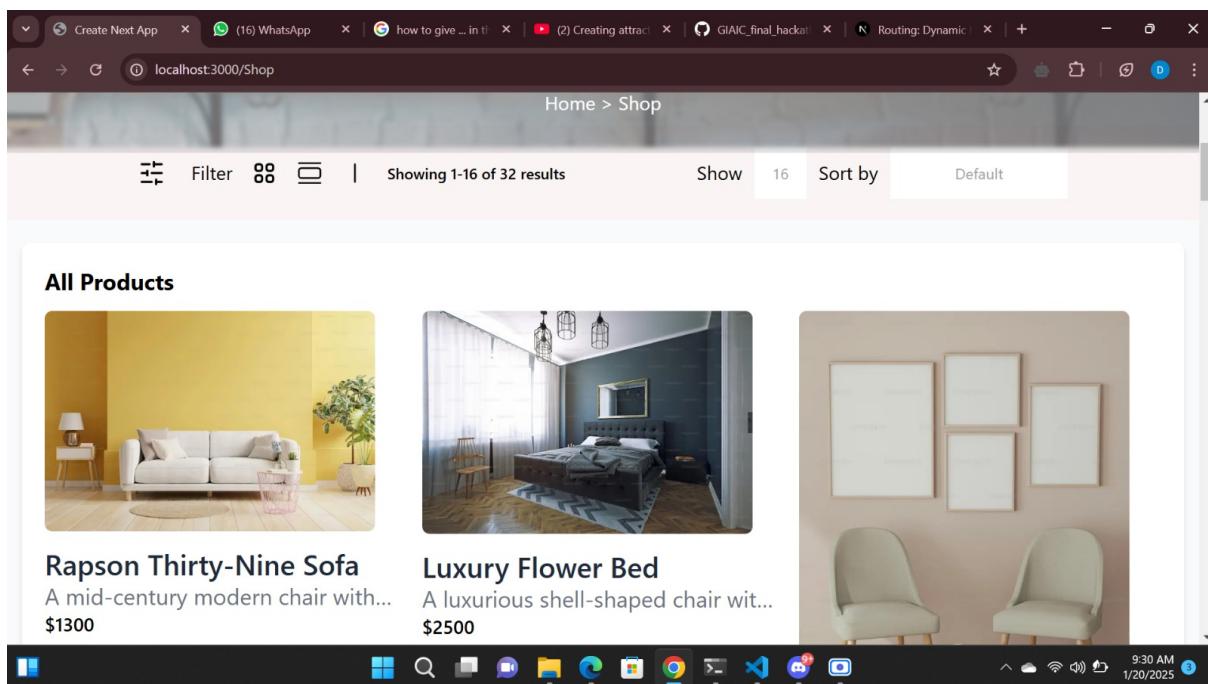


A screenshot of the Visual Studio Code interface. The left sidebar shows a file tree with a project structure under 'HACKATHON'. The current file is 'page.tsx' located in the 'Shop/[detail]' folder. The main editor area displays the code for this file, which includes importing 'useEffect' and 'useState' from 'react', defining a function 'shop' that fetches products using an asynchronous function 'getProducts', and rendering a header with a banner and a list of products. The status bar at the bottom right shows the file is 100% complete, has 2 spaces, is in UTF-8 encoding, and is a TypeScript file.

```
const shop = () => {
  const [products, setProducts] = useState<Product[]>([]);

  useEffect(() => {
    const getProducts = async () => {
      const data = await fetchProducts();
      setProducts(data);
    };
    getProducts();
  }, []);
  return (
    <div className="bg-gray-50 min-h-screen">
      {/* Header Section */}
      <header>
        <div className="relative bg-cover bg-center h-60">
          <Banner/>
          <div className="absolute inset-0 bg-black bg-opacity-30"></div>
          <div className="absolute inset-0 flex flex-col items-center justify-center mt-[221px] text-white">
            <div>
              <h1 className="text-5xl font-bold">Shop</h1>
              <p className="text-xl mt-4"><a href="/">Home</a> &gt; Shop</p>
            </div>
          </div>
        </header>
    
```

Successfully rendering data on shop/page.tsx



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