18-jan-2025

DAY:☺3
API INTEGRATION AND DATA MIGRATION REPORT-
Elite Food-Tuck

API integration means connecting one application with another to share data or use specific functionalities. we build a functional marketplace backend & learn how to utilize APIs for reference, migrate data into Sanity CMS, and ensure compatibility with their templates

Understand how to integrate APIs into your Next.js project.

Learn to migrate data from APIs into Sanity CMS.

Explore how to use existing data from Q-Commerce platforms like Food panda, WordPress, Salesforce, Custom Backend, Sanity.

Develop skills to handle and validate schema with data sources

Q-commerce API Overview

MY API reference from Template 9 Elite Food Tuck. We Are integrating API and migrating data into Sanity CMS to build a functional marketplace backend In Next.js Project. We Use these Provided APIs to populate their Sanity CMS .

Template 09:

https://github.com/mubashirimtiaz/sanity-nextjs

External Data Sources

We integrate data from popular Q-Commerce platform and custom back end using their headless API & data export features

- Cms (Sanity)

Steps for Day 3:

Provide the API

We have identified the key endpoints:

- **Food Listings** (e.g., /food)
- **Chefs** (e.g., /categories)

Validate and Adjust Our Schema

our existing Sanity CMS schema Day 2 with the API data structure.

Adjust field names, types & category (example) API Field: foods-names, Chefs-details

Our schema to match or map fields during migration

Data Migration

Using the Provided API Type [Food, Chef]:

We are manually Import Our sanity's built-in import tools to upload the data & Include validation check & migrate scripts to handle errors gracefully.

Map fields to your Sanity schema API

API Integration in Next.js:

Test API Integration in thunder client & postman
We Render Data in Components & Utility Functions

Output:

1. Sanity CMS populated with imported data from Provided API
2. Functional API integration in Next.js displaying Our Food Categories & Chefs Details.

Screenshots of:

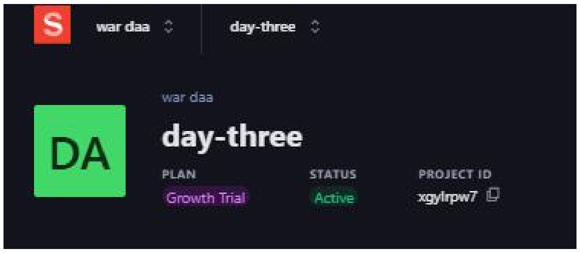
♣ API calls.

♣ Data successfully displayed in the frontend.

♣ Populated Sanity CMS fields.

API INTEGRATION & DATA MIGRATION (Backend)

- Create Sanity Project



S war daa | day-three

war daa

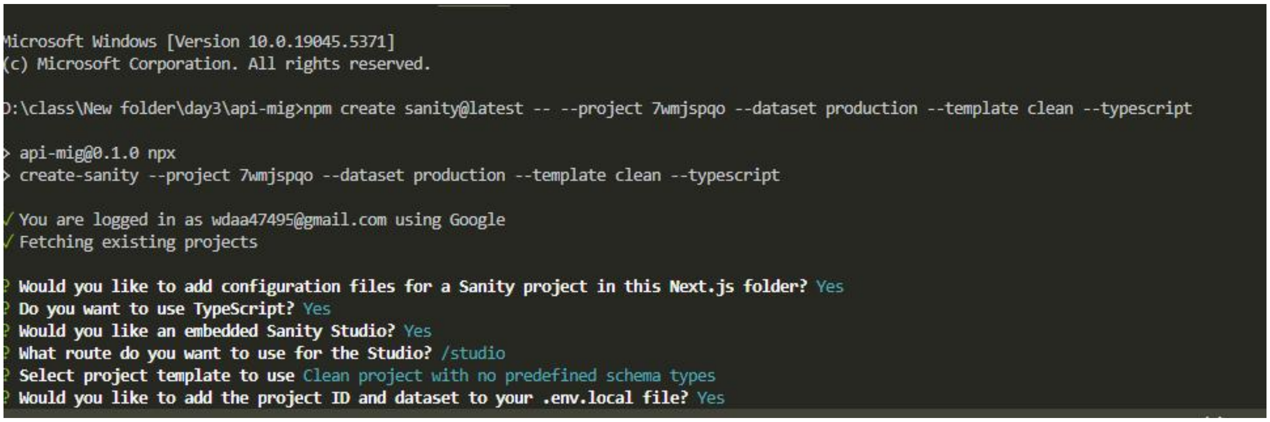
day-three

PLAN Growth Trial

STATUS Active

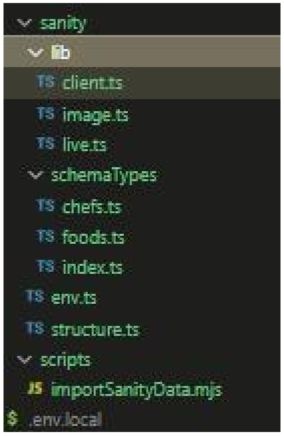
PROJECT ID xgylrpw7

- Install Sanity on my Terminal



```
Microsoft Windows [Version 10.0.19045.5371]
(c) Microsoft Corporation. All rights reserved.

D:\class\New folder\day3\api-mig>npm create sanity@latest -- --project 7wmjspqo --dataset production --template clean --typescript

> api-mig@0.1.0 npx
> create-sanity --project 7wmjspqo --dataset production --template clean --typescript

✓ You are logged in as wdaa47495@gmail.com using Google
✓ Fetching existing projects

? Would you like to add configuration files for a Sanity project in this Next.js folder? Yes
? 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
```

- Our Sanity Files



```
v sanity
  v lib
    TS client.ts
    TS image.ts
    TS live.ts
  v schemaTypes
    TS chefs.ts
    TS foods.ts
    TS index.ts
  TS env.ts
  TS structure.ts
v scripts
  JS importSanityData.mjs
$ .env.local
```

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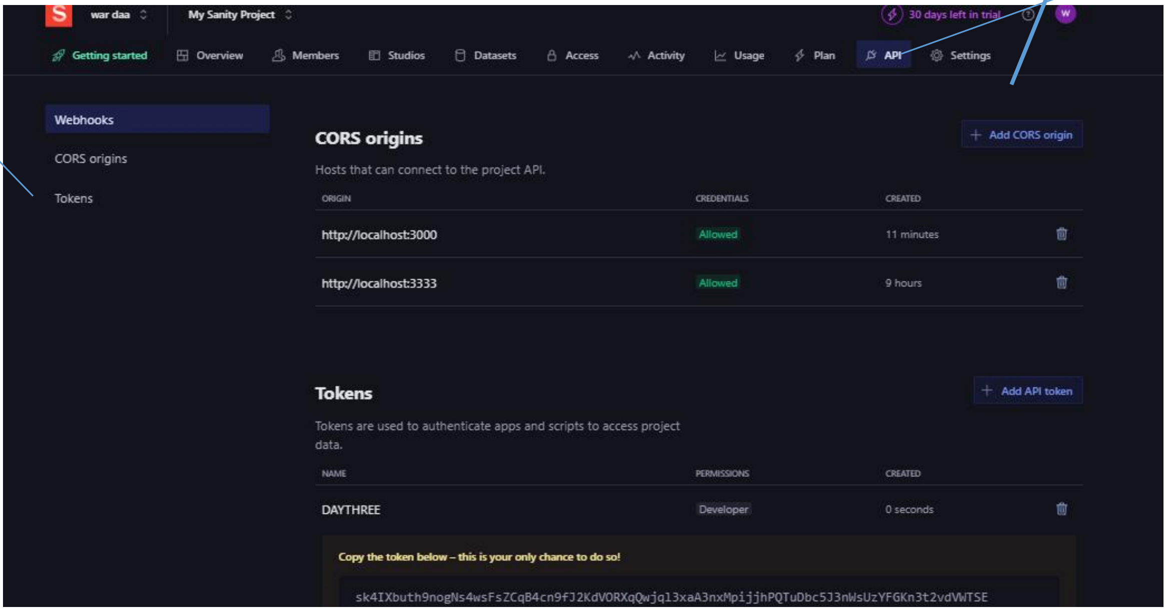
- ## API Token

Generate a Sanity API token & Copy the generated token Paste your .env.local file

Add CORS

API

Token



CORS origins

Hosts that can connect to the project API.

ORIGIN	CREDENTIALS	CREATED
http://localhost:3000	Allowed	11 minutes
http://localhost:3333	Allowed	9 hours

Tokens

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

NAME	PERMISSIONS	CREATED
DAYTHREE	Developer	0 seconds

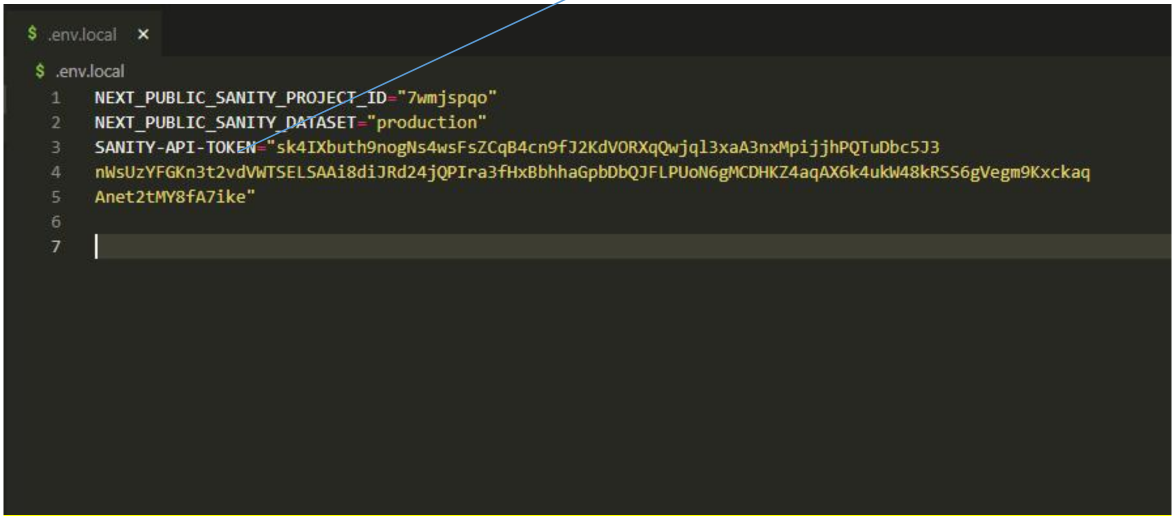
Copy the token below – this is your only chance to do so!

```
sk4IXbuth9nogNs4wsFsZCqB4cn9fJ2KdVORXqQwjql3xaA3nxMpijjhPQTuDbc5J3nWsUzYFGKn3t2vdVWTSE
```

API

Token

Add our Token in .env.local file



```
NEXT_PUBLIC_SANITY_PROJECT_ID="7wmjspqo"
NEXT_PUBLIC_SANITY_DATASET="production"
SANITY-API-TOKEN="sk4IXbuth9nogNs4wsFsZCqB4cn9fJ2KdVORXqQwjql3xaA3nxMpijjhPQTuDbc5J3
nWsUzYFGKn3t2vdVWTSELSAAi8diJRd24jQPIra3fHxBbhhaGpbDbQJFLPUoN6gMCDHKZ4aqAX6k4ukW48kRSS6gVegm9Kxckaq
Anet2tMY8fA7ike"


```

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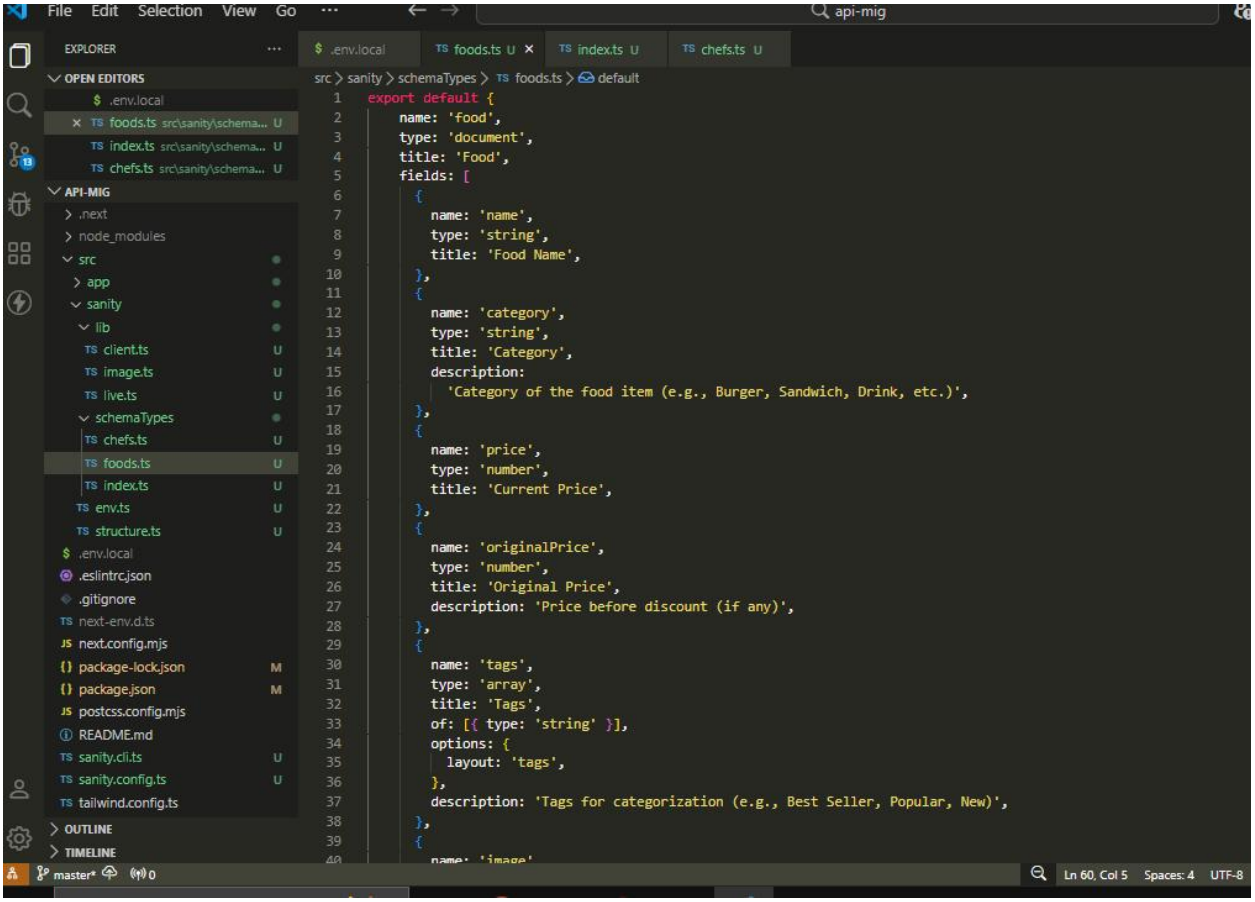
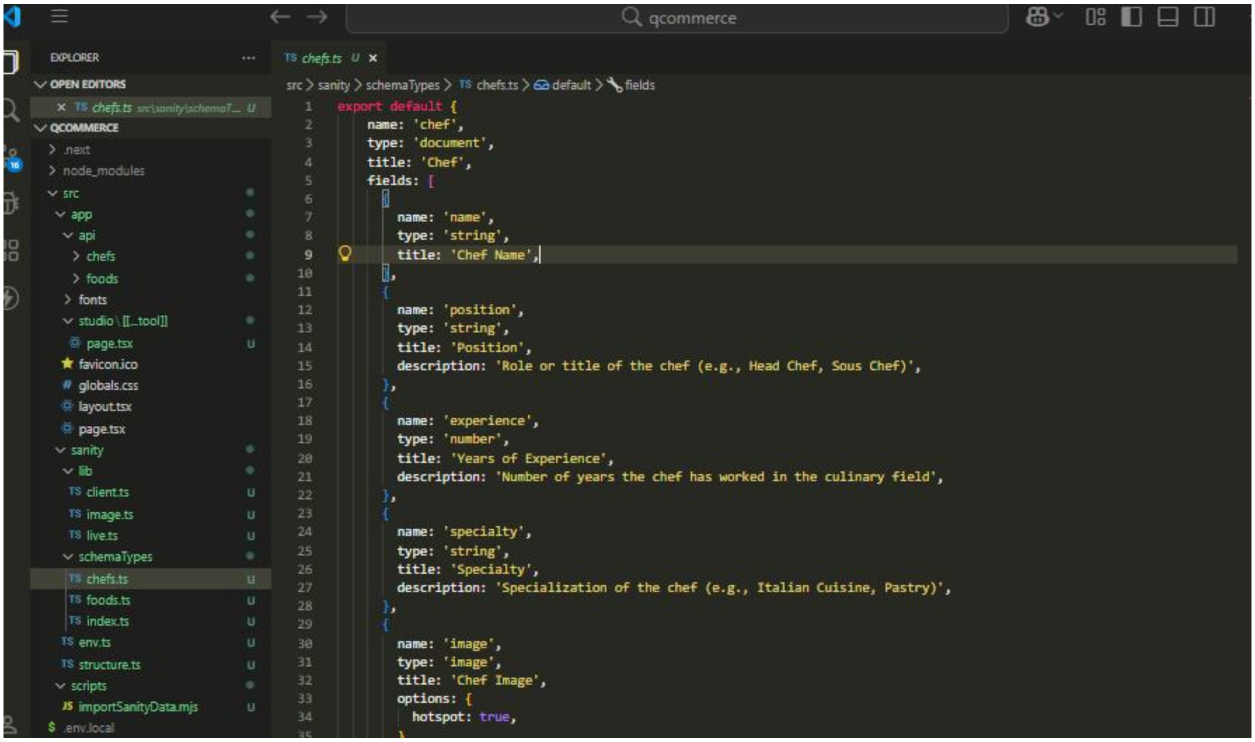
Create the sanity schema

Step 1. Create a file called Foods.ts In sanity/schematypes



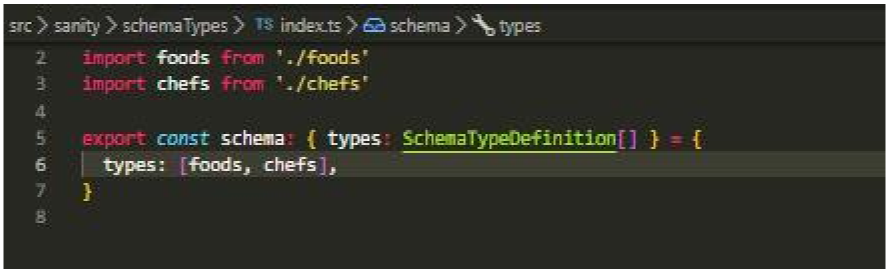
```
export default {
    name: 'food',
    type: 'document',
    title: 'Food',
    fields: [
      {
        name: 'name',
        type: 'string',
        title: 'Food Name',
      },
      {
        name: 'category',
        type: 'string',
        title: 'Category',
        description:
          'Category of the food item (e.g., Burger, Sandwich, Drink, etc.)',
      },
      {
        name: 'price',
        type: 'number',
        title: 'Current Price',
      },
      {
        name: 'originalPrice',
        type: 'number',
        title: 'Original Price',
        description: 'Price before discount (if any)',
      },
      {
        name: 'tags',
        type: 'array',
        title: 'Tags',
        of: [{ type: 'string' }],
        options: {
          layout: 'tags',
        },
        description: 'Tags for categorization (e.g., Best Seller, Popular, New)',
      },
      {
        name: 'image'
```

Step 2. Create a file called Chef.ts In sanity/schematypes



```
export default {
    name: 'chef',
    type: 'document',
    title: 'Chef',
    fields: [
      {
        name: 'name',
        type: 'string',
        title: 'Chef Name',
      },
      {
        name: 'position',
        type: 'string',
        title: 'Position',
        description: 'Role or title of the chef (e.g., Head Chef, Sous Chef)',
      },
      {
        name: 'experience',
        type: 'number',
        title: 'Years of Experience',
        description: 'Number of years the chef has worked in the culinary field',
      },
      {
        name: 'specialty',
        type: 'string',
        title: 'Specialty',
        description: 'Specialization of the chef (e.g., Italian Cuisine, Pastry)',
      },
      {
        name: 'image',
        type: 'image',
        title: 'Chef Image',
        options: {
          hotspot: true,
        }
```

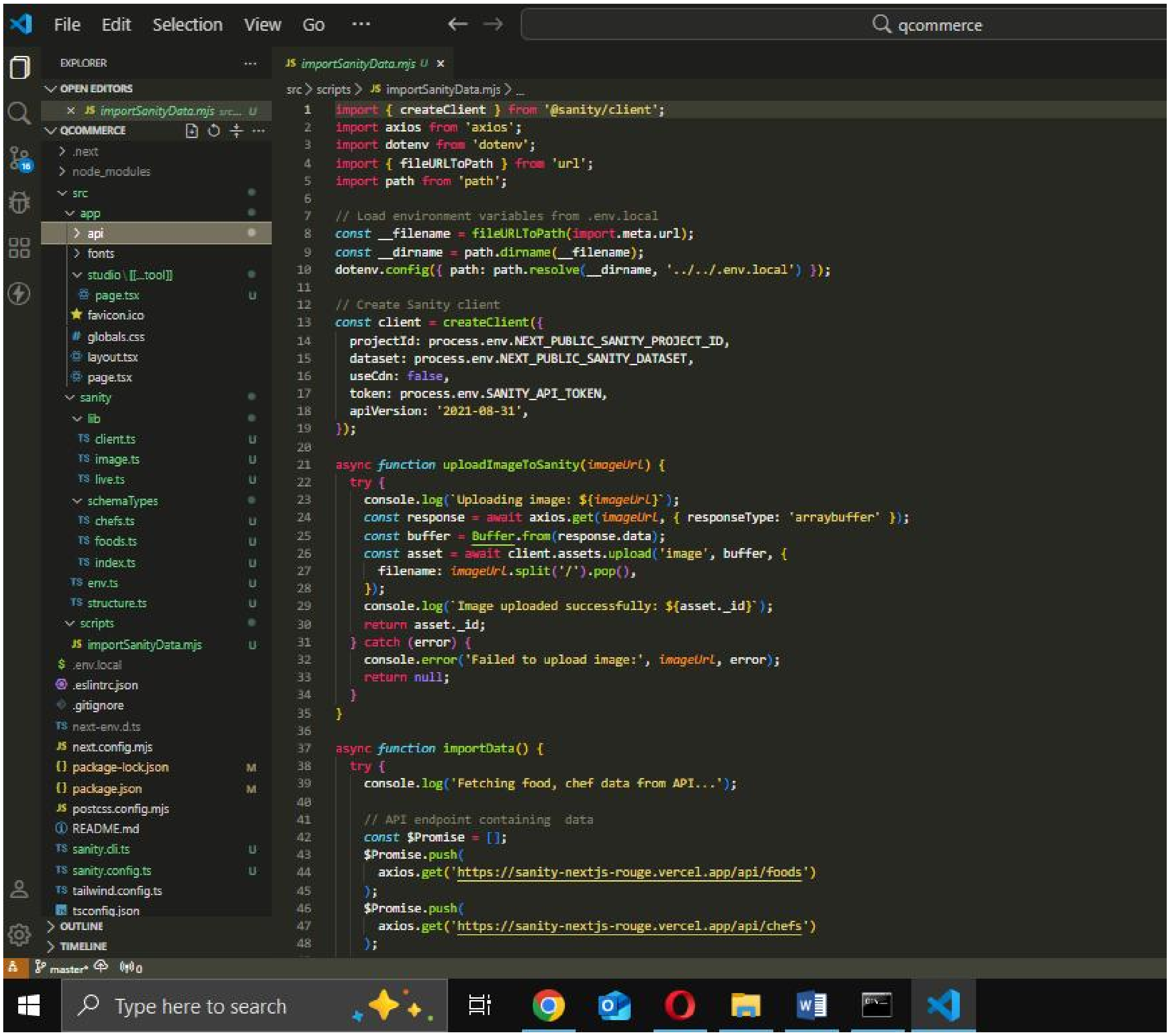
Step 3. Add types sanity/schematypes/index.ts



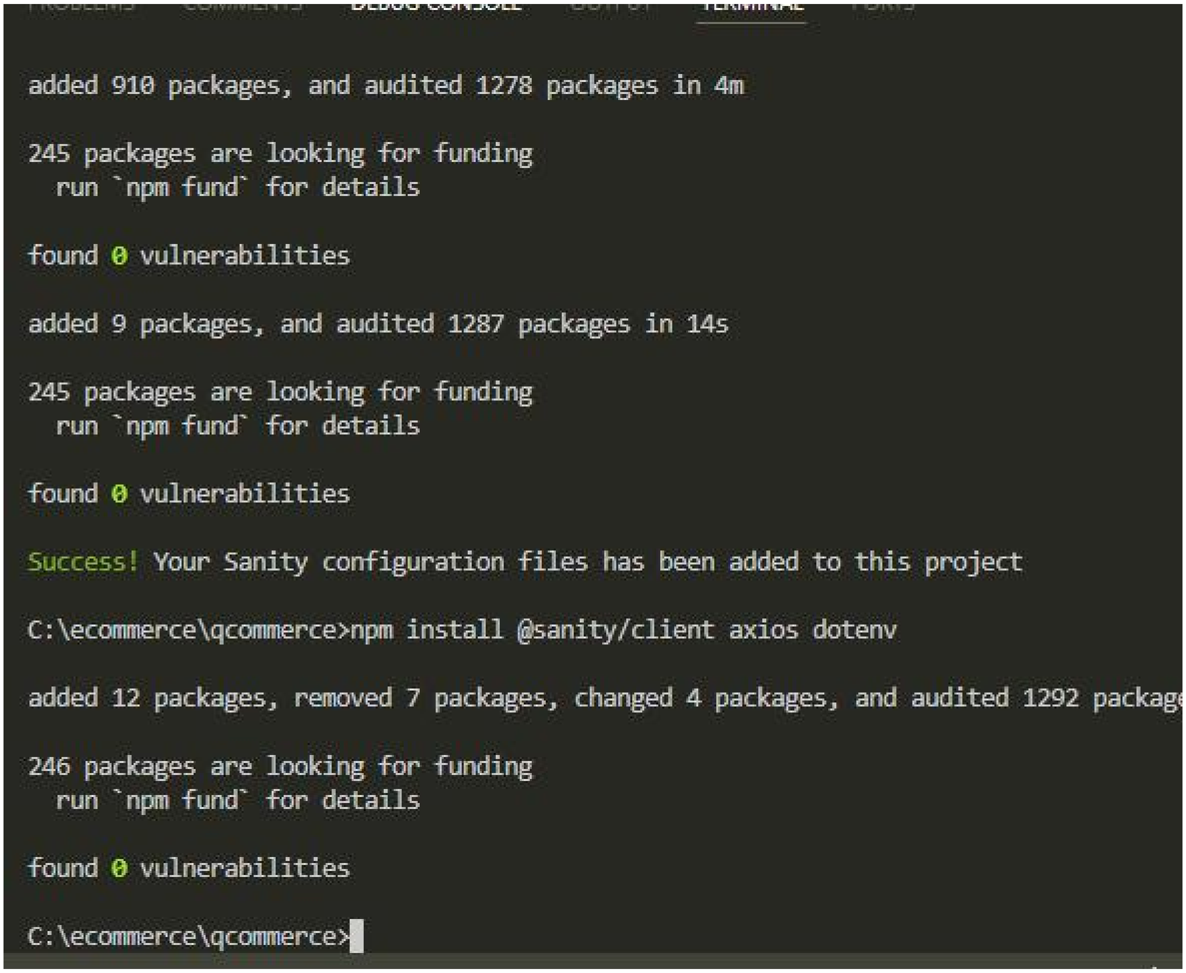
```
import foods from './foods'
import chefs from './chefs'

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

Step 4. Set up the Data import Script & install sanity/client axios

```
npm install @sanity/client axios dotenv
```

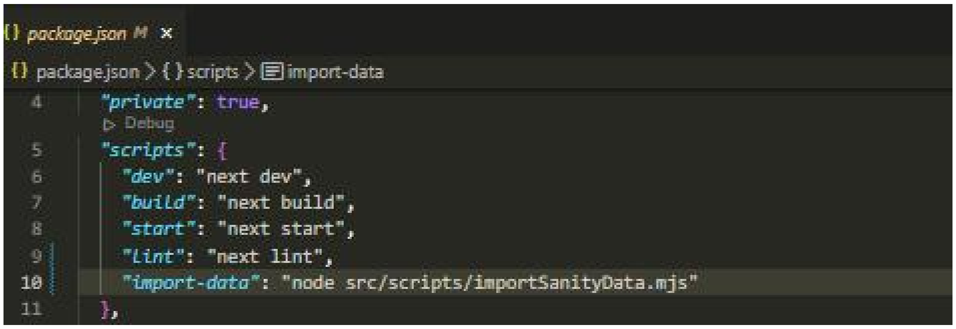


```js
import { createClient } from '@sanity/client';
import axios from 'axios';
import dotenv from 'dotenv';
import { fileURLToPath } from 'url';
import path from 'path';

// Load environment variables from .env.local
const __filename = fileURLToPath(import.meta.url);
const __dirname = path.dirname(__filename);
dotenv.config({ path: path.resolve(__dirname, '../../.env.local') });

// Create Sanity client
const client = createClient({
  projectId: process.env.NEXT_PUBLIC_SANITY_PROJECT_ID,
  dataset: process.env.NEXT_PUBLIC_SANITY_DATASET,
  useCdn: false,
  token: process.env.SANITY_API_TOKEN,
  apiVersion: '2021-08-31',
});

async function uploadImageToSanity(imageUrl) {
  try {
    console.log(`Uploading image: ${imageUrl}`);
    const response = await axios.get(imageUrl, { responseType: 'arraybuffer' });
    const buffer = Buffer.from(response.data);
    const asset = await client.assets.upload('image', buffer, {
      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 importData() {
  try {
    console.log('Fetching food, chef data from API...');

    // API endpoint containing  data
    const $Promise = [];
    $Promise.push(
      axios.get('https://sanity-nextjs-rouge.vercel.app/api/foods')
    );
    $Promise.push(
      axios.get('https://sanity-nextjs-rouge.vercel.app/api/chefs')
    );
```



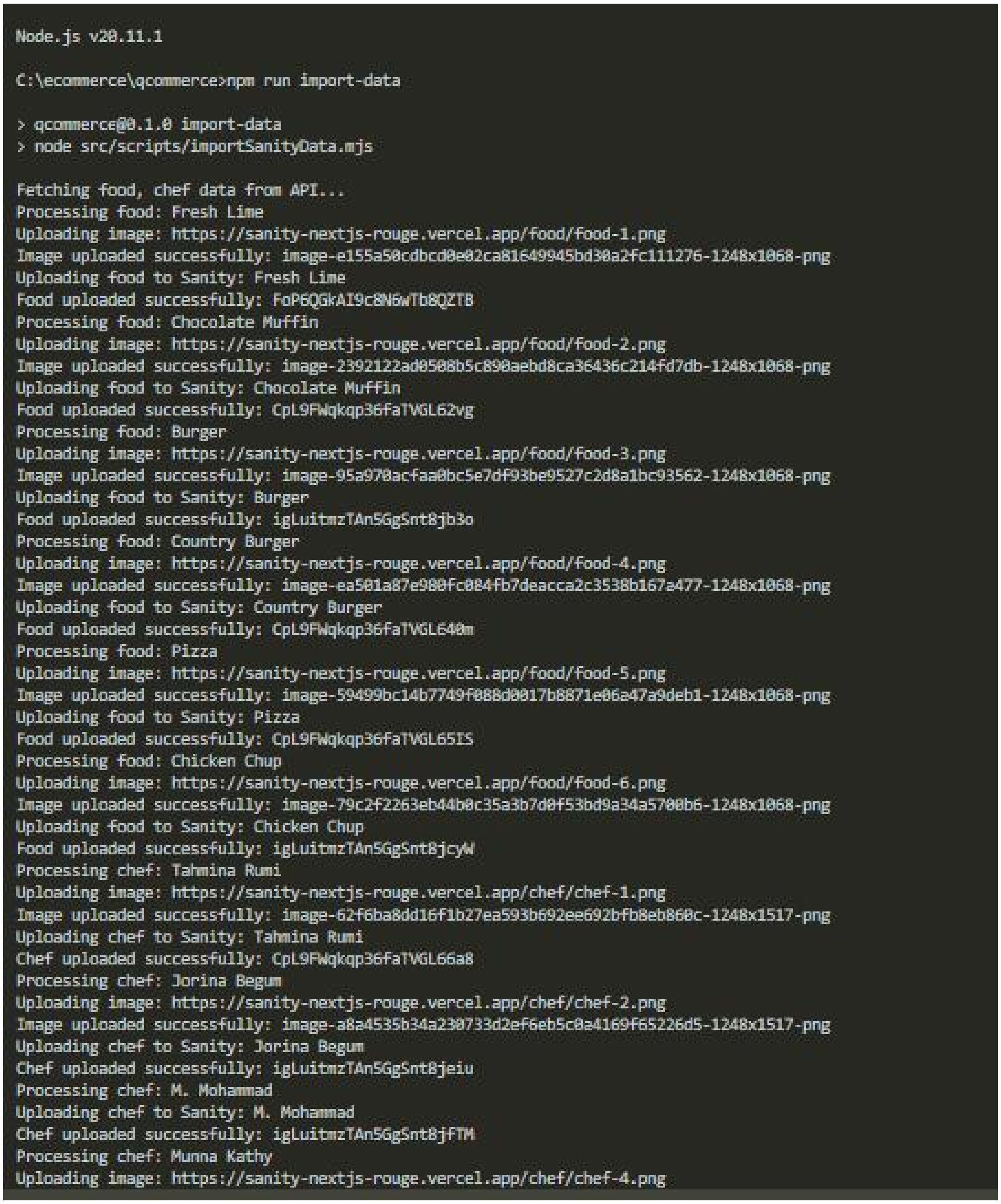
```
added 910 packages, and audited 1278 packages in 4m

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

found 0 vulnerabilities

added 9 packages, and audited 1287 packages in 14s

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

found 0 vulnerabilities

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

C:\ecommerce\qcommerce>npm install @sanity/client axios dotenv

added 12 packages, removed 7 packages, changed 4 packages, and audited 1292 package

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

found 0 vulnerabilities

C:\ecommerce\qcommerce>
```

Step 5. Add a new Import-data script



```
  "private": true,
  "scripts": {
    "dev": "next dev",
    "build": "next build",
    "start": "next start",
    "lint": "next lint",
    "import-data": "node src/scripts/importSanityData.mjs"
  },
```

Step 5. Run Project in terminal



```
Node.js v20.11.1

C:\ecommerce\qcommerce>npm run import-data

> qcommerce@0.1.0 import-data
> node src/scripts/importSanityData.mjs

Fetching food, chef data from API...
Processing food: Fresh Lime
Uploading image: https://sanity-nextjs-rouge.vercel.app/food/food-1.png
Image uploaded successfully: image-e155a50cdbcd0e02ca81649945bd30a2fc111276-1248x1068-png
Uploading food to Sanity: Fresh Lime
Food uploaded successfully: FoP6QGkAI9c8N6wTb8QZTB
Processing food: Chocolate Muffin
Uploading image: https://sanity-nextjs-rouge.vercel.app/food/food-2.png
Image uploaded successfully: image-2392122ad0508b5c890aebd8ca36436c214fd7db-1248x1068-png
Uploading food to Sanity: Chocolate Muffin
Food uploaded successfully: CpL9FWqkqp36faTVGL62vg
Processing food: Burger
Uploading image: https://sanity-nextjs-rouge.vercel.app/food/food-3.png
Image uploaded successfully: image-95a970acfaa0bc5e7df93be9527c2d8a1bc93562-1248x1068-png
Uploading food to Sanity: Burger
Food uploaded successfully: igLuitmzTAn5GgSnt8jb3o
Processing food: Country Burger
Uploading image: https://sanity-nextjs-rouge.vercel.app/food/food-4.png
Image uploaded successfully: image-ea501a87e980fc084fb7deacca2c3538b167a477-1248x1068-png
Uploading food to Sanity: Country Burger
Food uploaded successfully: CpL9FWqkqp36faTVGL640m
Processing food: Pizza
Uploading image: https://sanity-nextjs-rouge.vercel.app/food/food-5.png
Image uploaded successfully: image-59499bc14b7749f088d0017b8871e06a47a9deb1-1248x1068-png
Uploading food to Sanity: Pizza
Food uploaded successfully: CpL9FWqkqp36faTVGL65IS
Processing food: Chicken Chup
Uploading image: https://sanity-nextjs-rouge.vercel.app/food/food-6.png
Image uploaded successfully: image-79c2f2263eb44b0c35a3b7d0f53bd9a34a5700b6-1248x1068-png
Uploading food to Sanity: Chicken Chup
Food uploaded successfully: igLuitmzTAn5GgSnt8jcyW
Processing chef: Tahmina Rumi
Uploading image: https://sanity-nextjs-rouge.vercel.app/chef/chef-1.png
Image uploaded successfully: image-62f6ba8dd16f1b27ea593b692ee692bfb8eb860c-1248x1517-png
Uploading chef to Sanity: Tahmina Rumi
Chef uploaded successfully: CpL9FWqkqp36faTVGL66a8
Processing chef: Jorina Begum
Uploading image: https://sanity-nextjs-rouge.vercel.app/chef/chef-2.png
Image uploaded successfully: image-a8a4535b34a230733d2ef6eb5c0a4169f65226d5-1248x1517-png
Uploading chef to Sanity: Jorina Begum
Chef uploaded successfully: igLuitmzTAn5GgSnt8jeiu
Processing chef: M. Mohammad
Uploading chef to Sanity: M. Mohammad
Chef uploaded successfully: igLuitmzTAn5GgSnt8jfTM
Processing chef: Munna Kathy
Uploading image: https://sanity-nextjs-rouge.vercel.app/chef/chef-4.png
```

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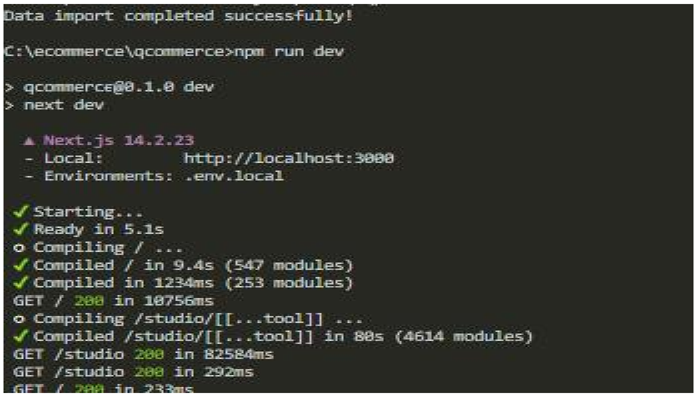


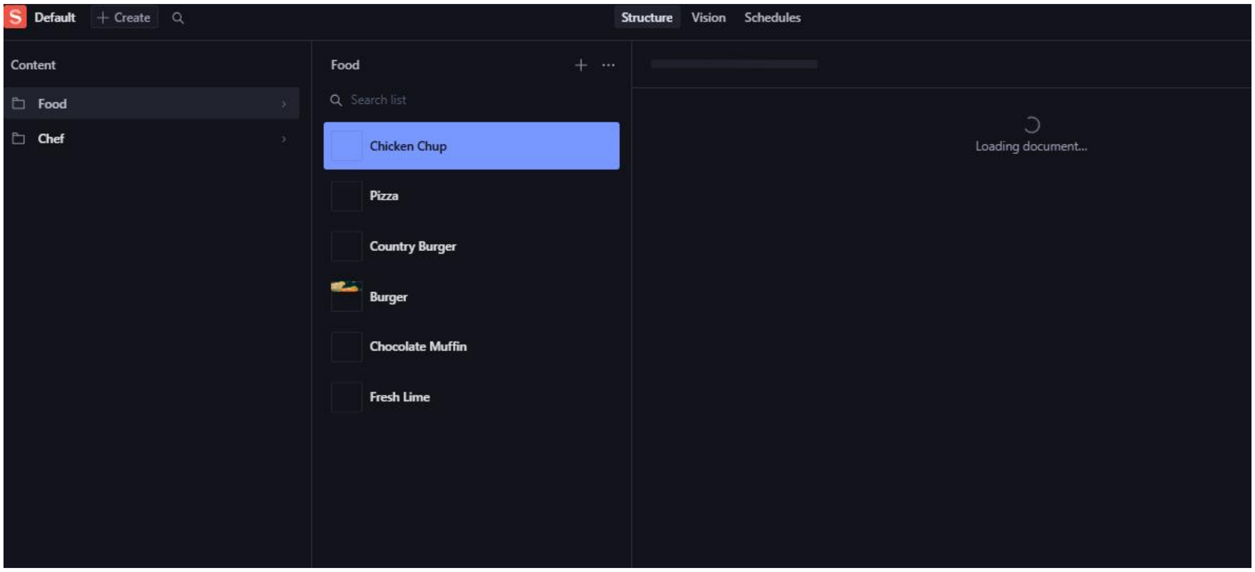
```
Data import completed successfully!

C:\ecommerce\qcommerce>npm run dev

> qcommerce@0.1.0 dev
> next dev

  ▲ Next.js 14.2.23
  - Local:        http://localhost:3000
  - Environments: .env.local

 ✓ Starting...
 ✓ Ready in 5.1s
 ○ Compiling / ...
 ✓ Compiled / in 9.4s (547 modules)
 ✓ Compiled in 1234ms (253 modules)
 GET / 200 in 10756ms
 ○ Compiling /studio/[[...tool]] ...
 ✓ Compiled /studio/[[...tool]] in 80s (4614 modules)
 GET /studio 200 in 82584ms
 GET /studio 200 in 292ms
 GET / 200 in 233ms
```



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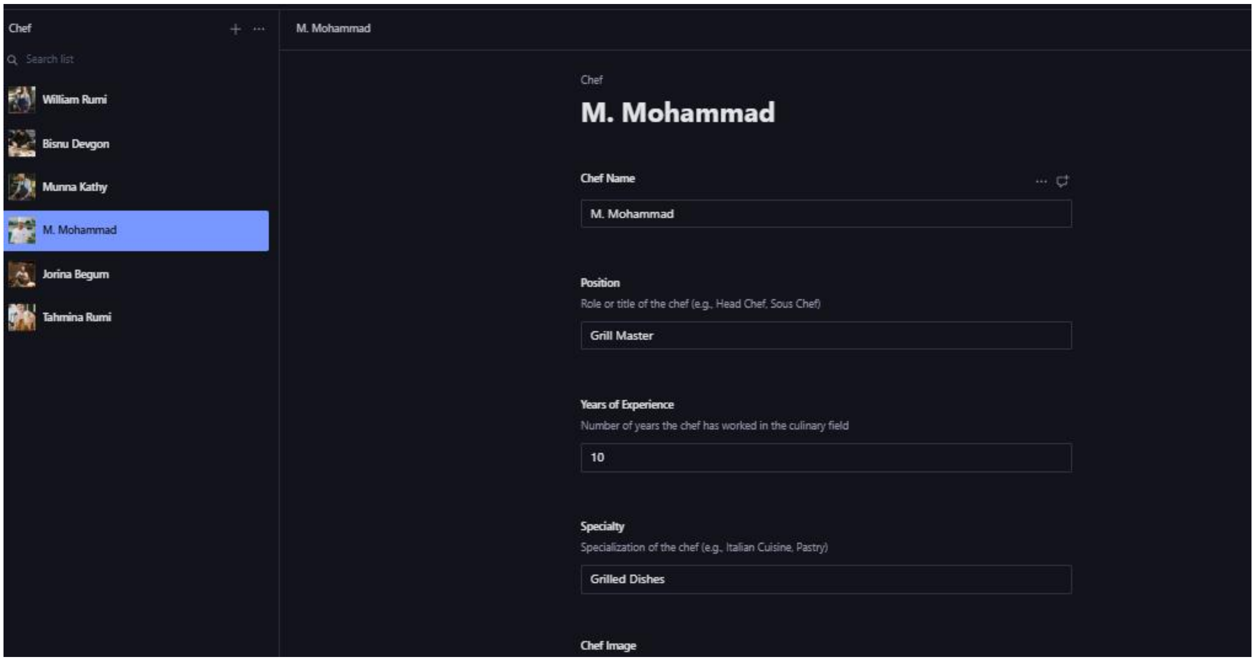


Chef

M. Mohammad

Chef Name

M. Mohammad

Position

Role or title of the chef (e.g., Head Chef, Sous Chef)

Grill Master

Years of Experience

Number of years the chef has worked in the culinary field

10

Specialty

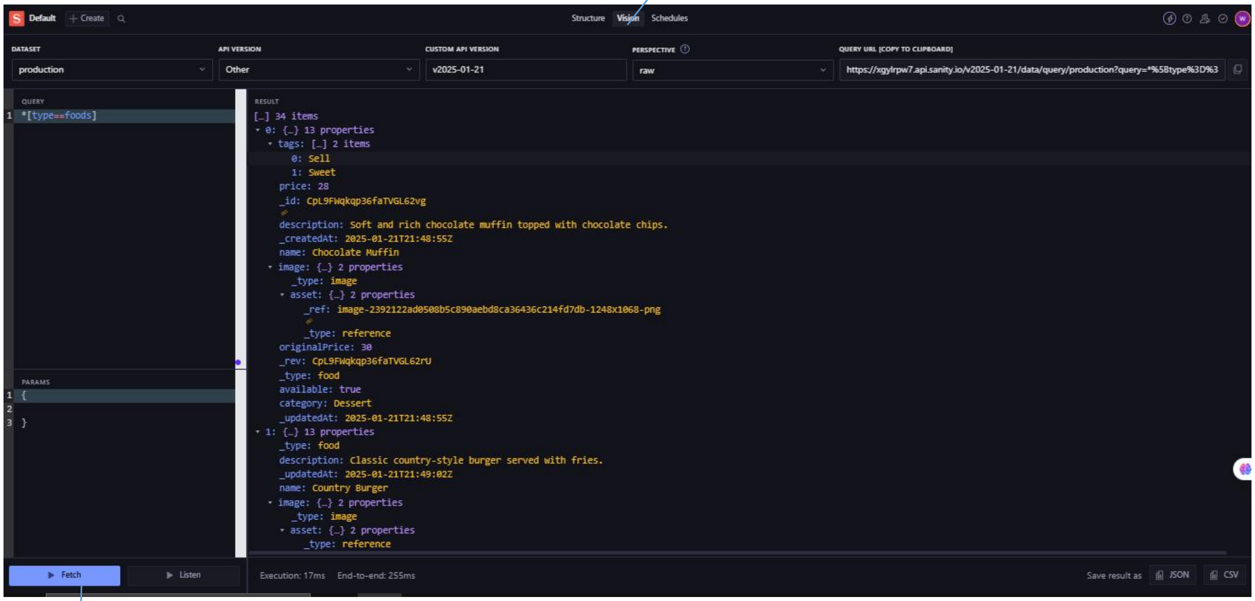
Specialization of the chef (e.g., Italian Cuisine, Pastry)

Grilled Dishes

Chef Image

Fetch our data On Vession

vession



DATASET: production

API VERSION: Other

CUSTOM API VERSION: v2025-01-21

PERSPECTIVE: raw

QUERY URL [COPY TO CLIPBOARD]: https://xgylrpw7.api.sanity.io/v2025-01-21/data/query/production?query=*%5Btype%3D%3

QUERY

```
*[type==foods]
```

PARAMS

```
{

}
```

RESULT

```
[…] 34 items
▾ 0: {…} 13 properties
  ▾ tags: […] 2 items
      0: Sell
      1: Sweet
    price: 28
    _id: CpL9FWqkqp36faTVGL62vg
    description: Soft and rich chocolate muffin topped with chocolate chips.
    _createdAt: 2025-01-21T21:48:55Z
    name: Chocolate Muffin
  ▾ image: {…} 2 properties
      _type: image
    ▾ asset: {…} 2 properties
        _ref: image-2392122ad0508b5c890aebd8ca36436c214fd7db-1248x1068-png
        _type: reference
    originalPrice: 30
    _rev: CpL9FWqkqp36faTVGL62rU
    _type: food
    available: true
    category: Dessert
    _updatedAt: 2025-01-21T21:48:55Z
▾ 1: {…} 13 properties
    _type: food
    description: Classic country-style burger served with fries.
    _updatedAt: 2025-01-21T21:49:02Z
    name: Country Burger
  ▾ image: {…} 2 properties
      _type: image
    ▾ asset: {…} 2 properties
        _type: reference
```

Execution: 17ms End-to-end: 255ms

Data Fetch

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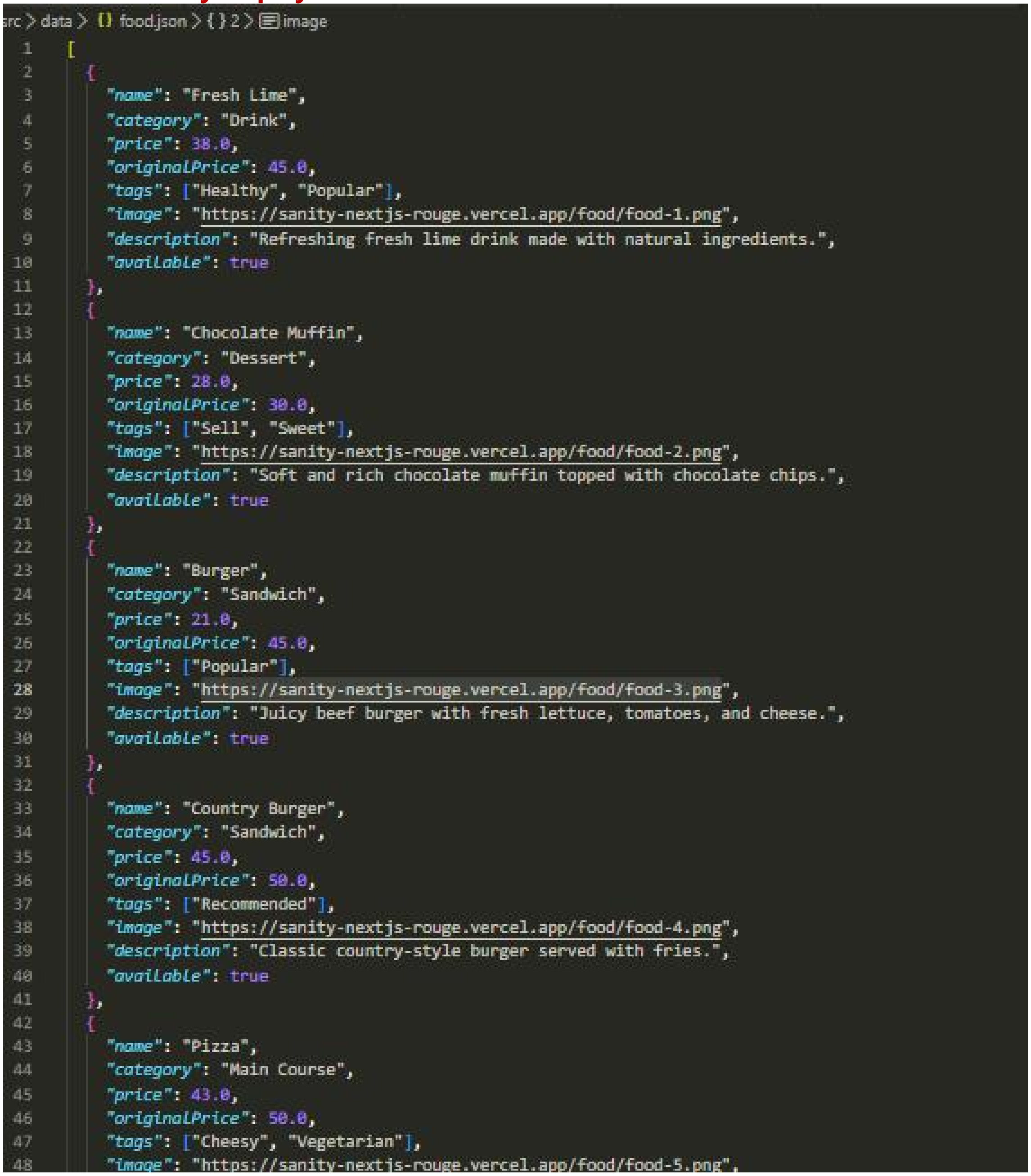
Data successfully displayed in the frontend.



```
[
  {
    "name": "Fresh Lime",
    "category": "Drink",
    "price": 38.0,
    "originalPrice": 45.0,
    "tags": ["Healthy", "Popular"],
    "image": "https://sanity-nextjs-rouge.vercel.app/food/food-1.png",
    "description": "Refreshing fresh lime drink made with natural ingredients.",
    "available": true
  },
  {
    "name": "Chocolate Muffin",
    "category": "Dessert",
    "price": 28.0,
    "originalPrice": 30.0,
    "tags": ["Sell", "Sweet"],
    "image": "https://sanity-nextjs-rouge.vercel.app/food/food-2.png",
    "description": "Soft and rich chocolate muffin topped with chocolate chips.",
    "available": true
  },
  {
    "name": "Burger",
    "category": "Sandwich",
    "price": 21.0,
    "originalPrice": 45.0,
    "tags": ["Popular"],
    "image": "https://sanity-nextjs-rouge.vercel.app/food/food-3.png",
    "description": "Juicy beef burger with fresh lettuce, tomatoes, and cheese.",
    "available": true
  },
  {
    "name": "Country Burger",
    "category": "Sandwich",
    "price": 45.0,
    "originalPrice": 50.0,
    "tags": ["Recommended"],
    "image": "https://sanity-nextjs-rouge.vercel.app/food/food-4.png",
    "description": "Classic country-style burger served with fries.",
    "available": true
  },
  {
    "name": "Pizza",
    "category": "Main Course",
    "price": 43.0,
    "originalPrice": 50.0,
    "tags": ["Cheesy", "Vegetarian"],
    "image": "https://sanity-nextjs-rouge.vercel.app/food/food-5.png",
```

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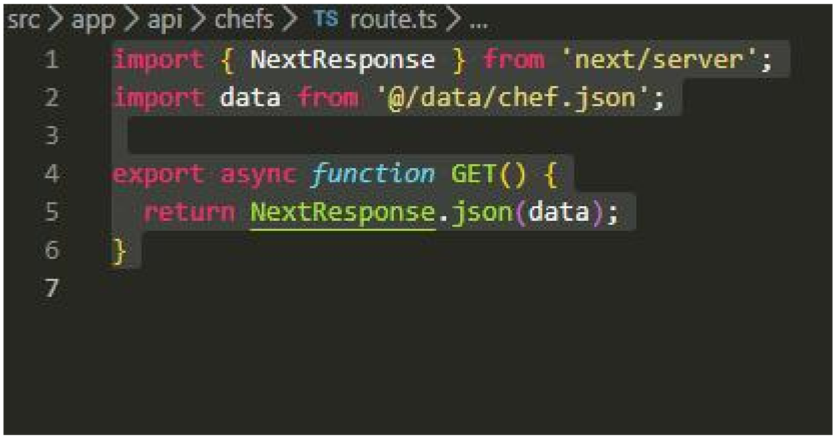
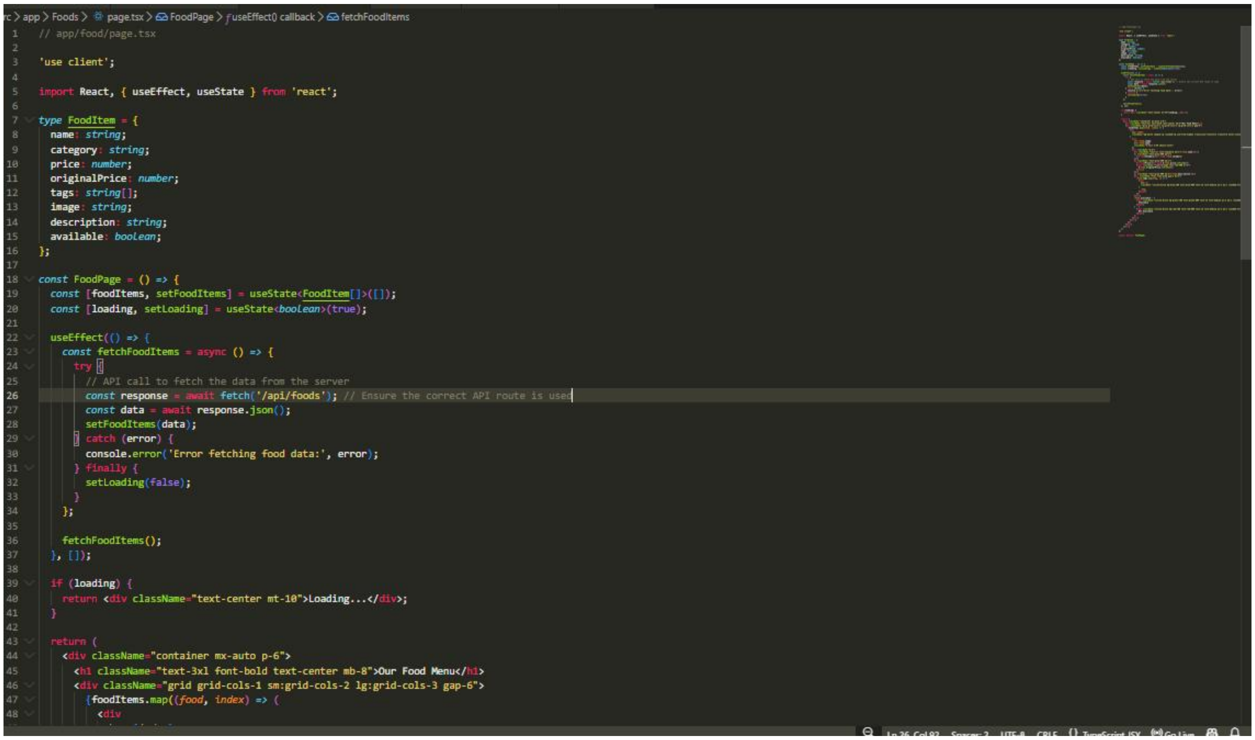


```ts
import { NextResponse } from 'next/server';
import data from '@/data/chef.json';

export async function GET() {
  return NextResponse.json(data);
}
```


rc > app > Foods > page.tsx > FoodPage > useEffect() callback > fetchFoodItems

```tsx
// app/food/page.tsx

'use client';

import React, { useEffect, useState } from 'react';

type FoodItem = {
  name: string;
  category: string;
  price: number;
  originalPrice: number;
  tags: string[];
  image: string;
  description: string;
  available: boolean;
};

const FoodPage = () => {
  const [foodItems, setFoodItems] = useState<FoodItem[]>([]);
  const [loading, setLoading] = useState<boolean>(true);

  useEffect(() => {
    const fetchFoodItems = async () => {
      try {
        // API call to fetch the data from the server
        const response = await fetch('/api/foods'); // Ensure the correct API route is used
        const data = await response.json();
        setFoodItems(data);
      } catch (error) {
        console.error('Error fetching food data:', error);
      } finally {
        setLoading(false);
      }
    };

    fetchFoodItems();
  }, []);

  if (loading) {
    return <div className="text-center mt-10">Loading...</div>;
  }

  return (
    <div className="container mx-auto p-6">
      <h1 className="text-3xl font-bold text-center mb-8">Our Food Menu</h1>
      <div className="grid grid-cols-1 sm:grid-cols-2 lg:grid-cols-3 gap-6">
        {foodItems.map((food, index) => (
          <div
```

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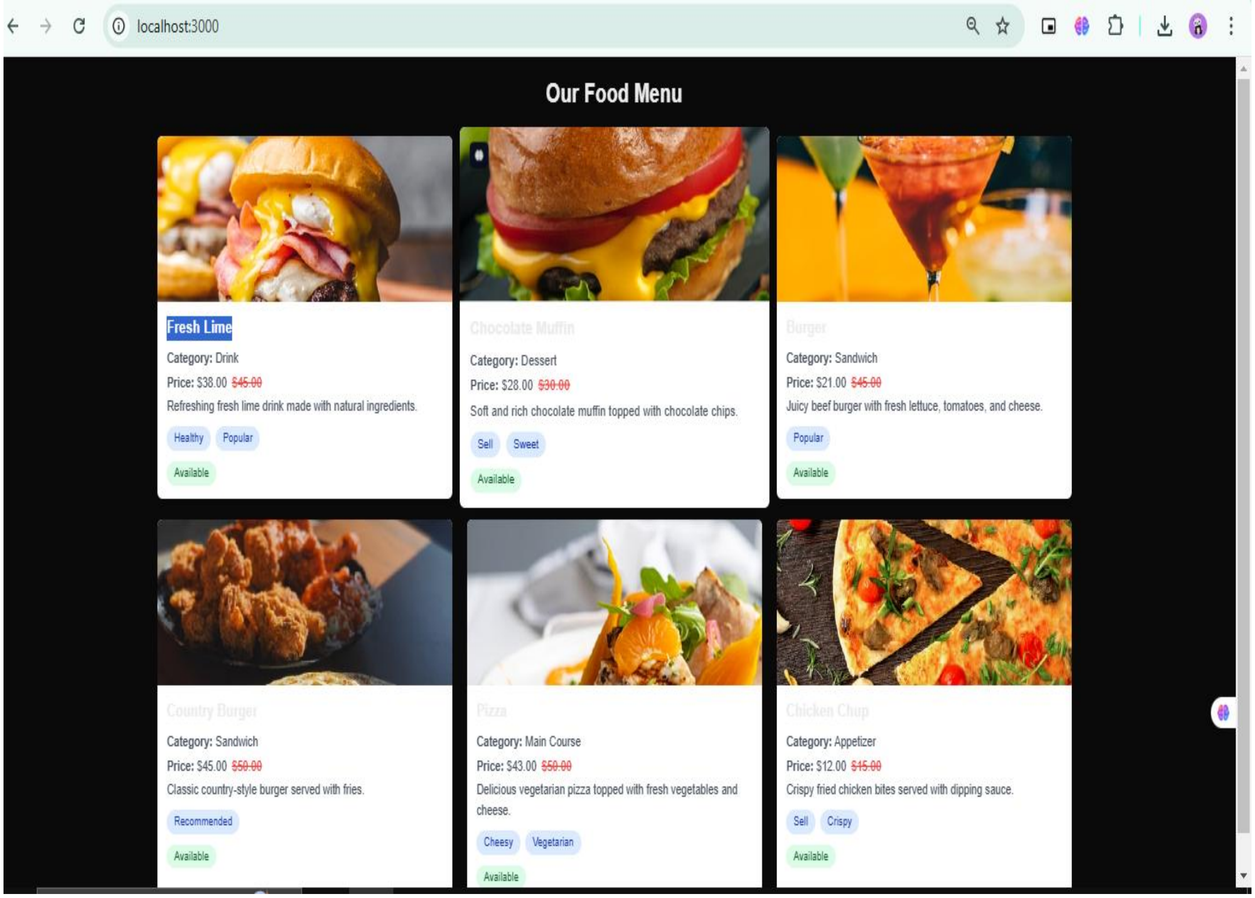


Our Food Menu

Fresh Lime

Category: Drink

Price: $38.00 ~~$45.00~~

Refreshing fresh lime drink made with natural ingredients.

Healthy Popular

Available

Chocolate Muffin

Category: Dessert

Price: $28.00 ~~$30.00~~

Soft and rich chocolate muffin topped with chocolate chips.

Sell Sweet

Available

Burger

Category: Sandwich

Price: $21.00 ~~$45.00~~

Juicy beef burger with fresh lettuce, tomatoes, and cheese.

Popular

Available

Country Burger

Category: Sandwich

Price: $45.00 ~~$50.00~~

Classic country-style burger served with fries.

Recommended

Available

Pizza

Category: Main Course

Price: $43.00 ~~$50.00~~

Delicious vegetarian pizza topped with fresh vegetables and cheese.

Cheesy Vegetarian

Available

Chicken Chup

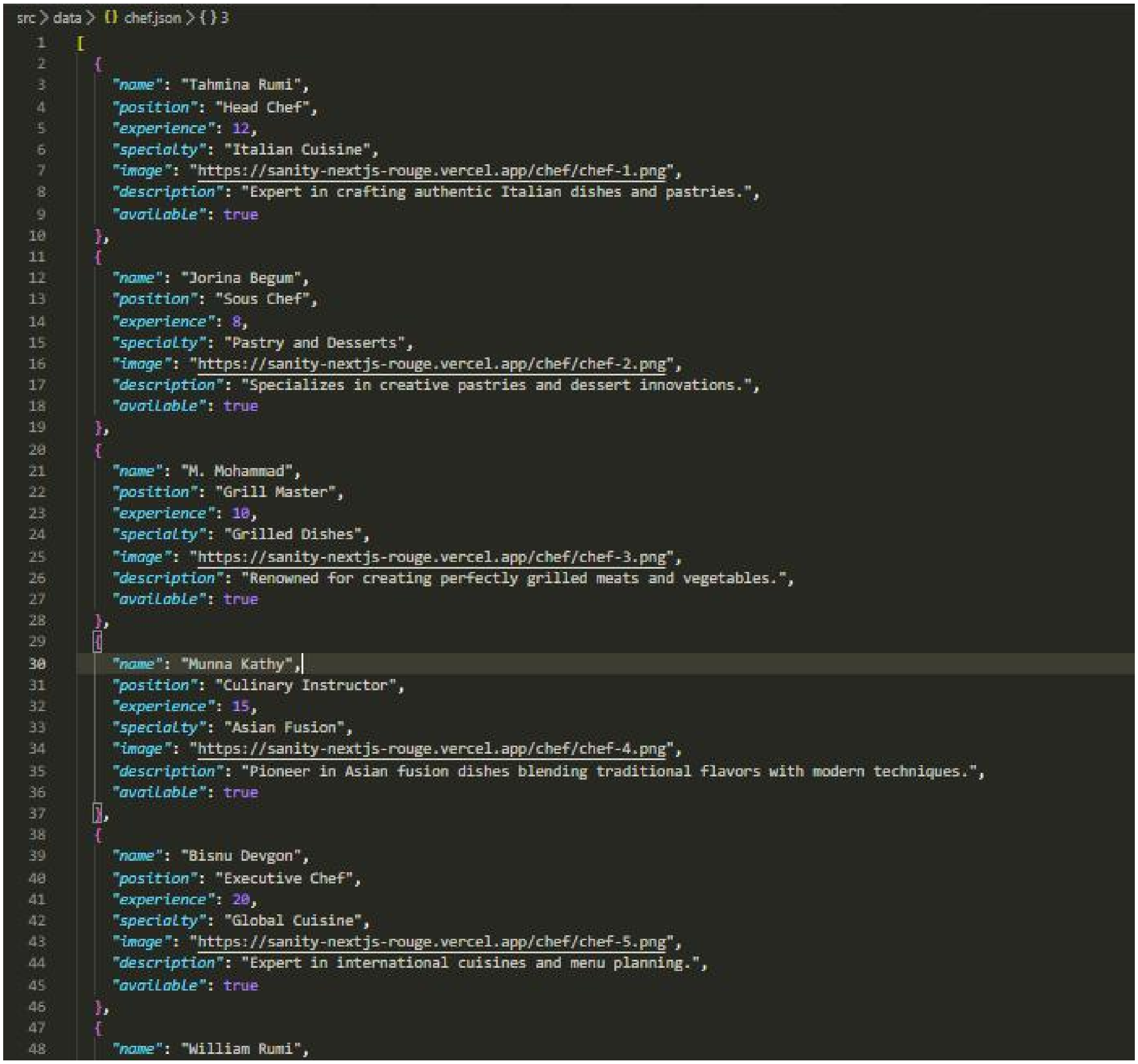
Category: Appetizer

Price: $12.00 ~~$15.00~~

Crispy fried chicken bites served with dipping sauce.

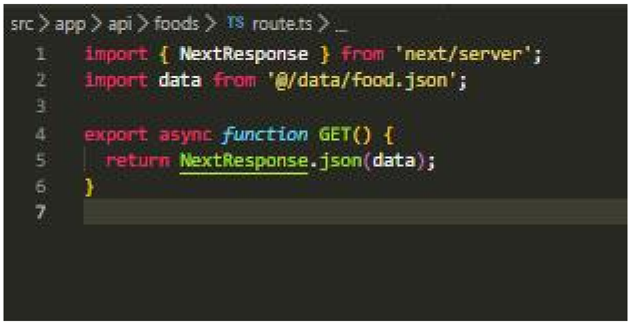
Sell Crispy

Available



```
[
  {
    "name": "Tahmina Rumi",
    "position": "Head Chef",
    "experience": 12,
    "specialty": "Italian Cuisine",
    "image": "https://sanity-nextjs-rouge.vercel.app/chef/chef-1.png",
    "description": "Expert in crafting authentic Italian dishes and pastries.",
    "available": true
  },
  {
    "name": "Jorina Begum",
    "position": "Sous Chef",
    "experience": 8,
    "specialty": "Pastry and Desserts",
    "image": "https://sanity-nextjs-rouge.vercel.app/chef/chef-2.png",
    "description": "Specializes in creative pastries and dessert innovations.",
    "available": true
  },
  {
    "name": "M. Mohammad",
    "position": "Grill Master",
    "experience": 10,
    "specialty": "Grilled Dishes",
    "image": "https://sanity-nextjs-rouge.vercel.app/chef/chef-3.png",
    "description": "Renowned for creating perfectly grilled meats and vegetables.",
    "available": true
  },
  {
    "name": "Munna Kathy",
    "position": "Culinary Instructor",
    "experience": 15,
    "specialty": "Asian Fusion",
    "image": "https://sanity-nextjs-rouge.vercel.app/chef/chef-4.png",
    "description": "Pioneer in Asian fusion dishes blending traditional flavors with modern techniques.",
    "available": true
  },
  {
    "name": "Bisnu Devgon",
    "position": "Executive Chef",
    "experience": 20,
    "specialty": "Global Cuisine",
    "image": "https://sanity-nextjs-rouge.vercel.app/chef/chef-5.png",
    "description": "Expert in international cuisines and menu planning.",
    "available": true
  },
  {
    "name": "William Rumi",
```

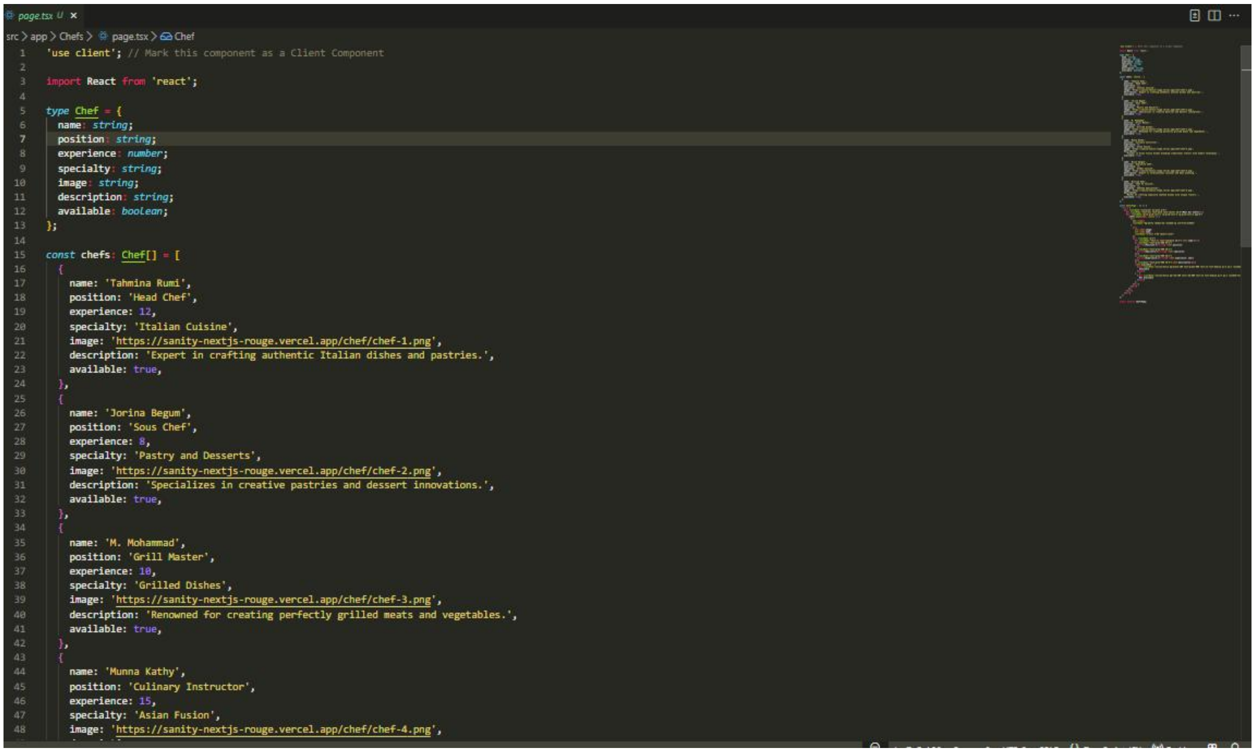
18-jan-2025



src > app > api > foods > TS route.ts > ...

```ts
import { NextResponse } from 'next/server';
import data from '@/data/food.json';

export async function GET() {
  return NextResponse.json(data);
}
```



page.tsx U ×

src > app > Chefs > page.tsx > Chef

```tsx
'use client'; // Mark this component as a Client Component

import React from 'react';

type Chef = {
  name: string;
  position: string;
  experience: number;
  specialty: string;
  image: string;
  description: string;
  available: boolean;
};

const chefs: Chef[] = [
  {
    name: 'Tahmina Rumi',
    position: 'Head Chef',
    experience: 12,
    specialty: 'Italian Cuisine',
    image: 'https://sanity-nextjs-rouge.vercel.app/chef/chef-1.png',
    description: 'Expert in crafting authentic Italian dishes and pastries.',
    available: true,
  },
  {
    name: 'Jorina Begum',
    position: 'Sous Chef',
    experience: 8,
    specialty: 'Pastry and Desserts',
    image: 'https://sanity-nextjs-rouge.vercel.app/chef/chef-2.png',
    description: 'Specializes in creative pastries and dessert innovations.',
    available: true,
  },
  {
    name: 'M. Mohammad',
    position: 'Grill Master',
    experience: 10,
    specialty: 'Grilled Dishes',
    image: 'https://sanity-nextjs-rouge.vercel.app/chef/chef-3.png',
    description: 'Renowned for creating perfectly grilled meats and vegetables.',
    available: true,
  },
  {
    name: 'Munna Kathy',
    position: 'Culinary Instructor',
    experience: 15,
    specialty: 'Asian Fusion',
    image: 'https://sanity-nextjs-rouge.vercel.app/chef/chef-4.png',
```

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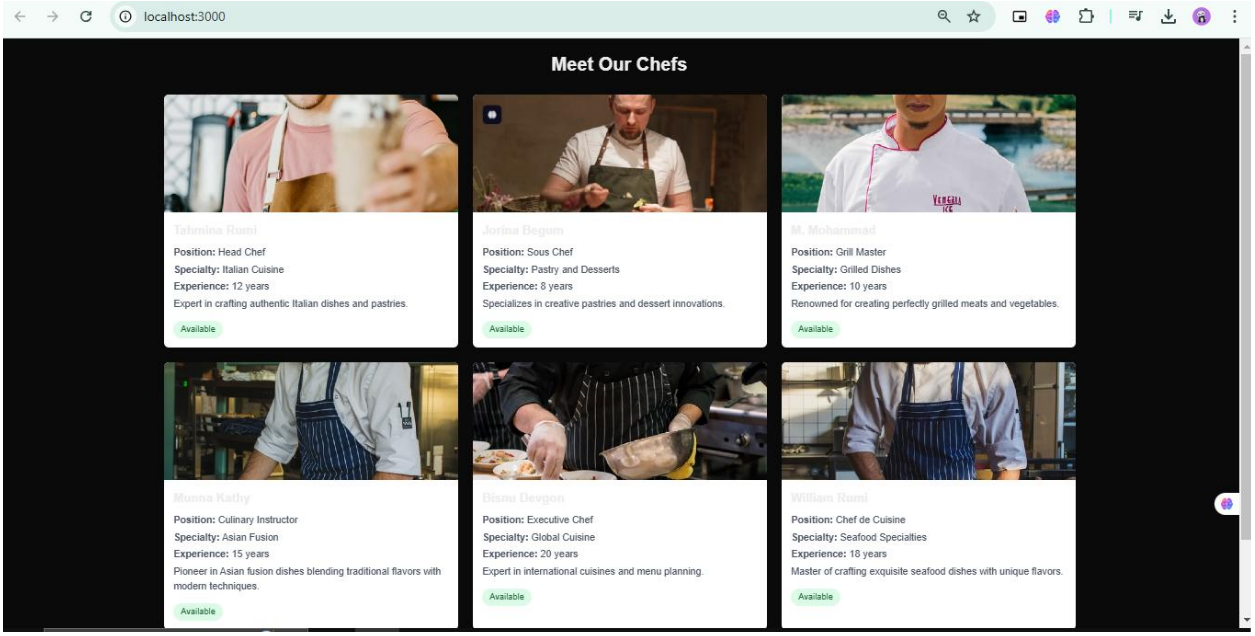

Meet Our Chefs

Tahmina Rumi

Position: Head Chef
Specialty: Italian Cuisine
Experience: 12 years
Expert in crafting authentic Italian dishes and pastries.
Available

Jorina Begum

Position: Sous Chef
Specialty: Pastry and Desserts
Experience: 8 years
Specializes in creative pastries and dessert innovations.
Available

M. Mohammad

Position: Grill Master
Specialty: Grilled Dishes
Experience: 10 years
Renowned for creating perfectly grilled meats and vegetables.
Available

Munna Kathy

Position: Culinary Instructor
Specialty: Asian Fusion
Experience: 15 years
Pioneer in Asian fusion dishes blending traditional flavors with modern techniques.
Available

Bisnu Devgon

Position: Executive Chef
Specialty: Global Cuisine
Experience: 20 years
Expert in international cuisines and menu planning.
Available

William Rumi

Position: Chef de Cuisine
Specialty: Seafood Specialties
Experience: 18 years
Master of crafting exquisite seafood dishes with unique flavors.
Available

Day 3 Checklist:

Self-Validation Checklist:

API Understanding	✓
Schema Validation	✓
Data Migration	✓
API Integration in Next.js	✓
Submission Preparation:	✓

18-jan-2025

Hackhton3 Day3

MARKETPLACE API INTEGRATION AND DATA MIGRATION REPORT BY WARDA

Shift: Tuesday 2 to 5

https://www.linkedin.com