DAY 03 – API INTEGRATION REPORT OF Q-Commerce Project

Process Of API Integration

1. Overview: The API integration is connects an external API providing foods and chefs data to a Sanity CMS Project.

2. Steps Taken:

- Environment Setups:
    - i. Used .env to load environment variables from .env.local.
    - ii. Key Variables Includes:
        - **o NEXT_PUBLIC_PROJECT_ID**
        - **o SANITY_API_TOKEN**

3. Data Fetching:

o Make concurrent API calls using axios to fetch food and chef data.
o Endpoints Accessed :
- i. https://sanity-nextjs-rouge.vercel.app/api/foods
- ii. https://sanity-nextjs-rouge.vercel.app/api/chefs

Understand the Provided API:

1st API: Foods
URL: https://sanity-nextjs-rouge.vercel.app/api/foods

This API provides data related to food items. Below are the key details to note:

1. Key Endpoint: /foods

- **o This endpoint likely returns a list of available food items.**
- **o Each food item may include details such as:**
    - **name:** The name of the food item.
    - **description:** A brief description of the food.
    - **price:** The cost of the item.
    - **tags:** Type of food (e.g., healthy, sweet, crispy).
    - **availability:** Item is available or not

2. Data Use:

- Display food items on the frontend.
- Create a dynamic routes for all products.

2nd API: Chefs

URL: https://sanity-nextjs-rouge.vercel.app/api/chefs

This API provides data related to chefs. Below are the key details to
Note:

1. Key Endpoint: /chefs

• This endpoint likely returns a list of chefs.
• Each chef may include details such as:

1 **Name:** The name of the chef.
2 **Position:** The position of the chef (e.g, Head Chef, Sous Chef

Executive Chefs

- **Specialty:** The chef's area of expertise (e.g., Italian cuisine, desserts).
- **Experience:** The number of years the chef has been in the industry.
- **Associated Foods:** A reference to the foods prepared by this chef.

2. Data Use:

- Display chef profiles on the frontend.
- Show a chef's details alongside the food items they prepare.

Migration Process

1. Approach: Using the Provided API

The migration process leverages two APIs:

• **Foods API:** https://sanity-nextjs-rouge.vercel.app/api/foods
• **Chefs API:** https://sanity-nextjs-rouge.vercel.app/api/chefs

Instead of manually inputting data into Sanity, the script automates the following:

• Fetching data from the APIs.
• Transforming the data to match Sanity's schema.

• Uploading images to Sanity's asset management system.
• Creating documents for **food** and **chef** entities in Sanity

2. Script Breakdown

Environment Configuration

• The script uses the **dotenv** library to load environment variables from **.env.local.**

This ensures secure handling of credentials, including:

- **NEXT_PUBLIC_SANITY_PROJECT_ID:** The Sanity project ID.
- **NEXT_PUBLIC_SANITY_DATASET:** The Sanity dataset name.
- **SANITY_API_TOKEN:** The API token for write access.

Sanity Client Initialization

The Sanity client is initialized with the provided environment variables. The useCdn flag is set to **false** to ensure the latest data is fetched during operations.

Data Fetching

• Data is fetched concurrently from the Foods and Chefs APIs using Promise.all. This reduces the overall execution time.

Image Upload to Sanity

• The **uploadImageToSanity** function downloads and uploads images to Sanity, returning a reference ID for each uploaded asset.

• Images are handled as optional fields to accommodate cases where images are missing.

Data Transformation and Upload

• Foods:

• Fields such as **name, category, price,** and **tags** are mapped directly.

• Optional fields like **originalPrice** and **description** are assigned default values if missing.

• Uploaded images are linked to the document using Sanity's **_ref** system

.**• Chefs:**

• Fields like **name, position, experience,** and **specialty** are included.

• Optional fields are handled similarly to the food documents.

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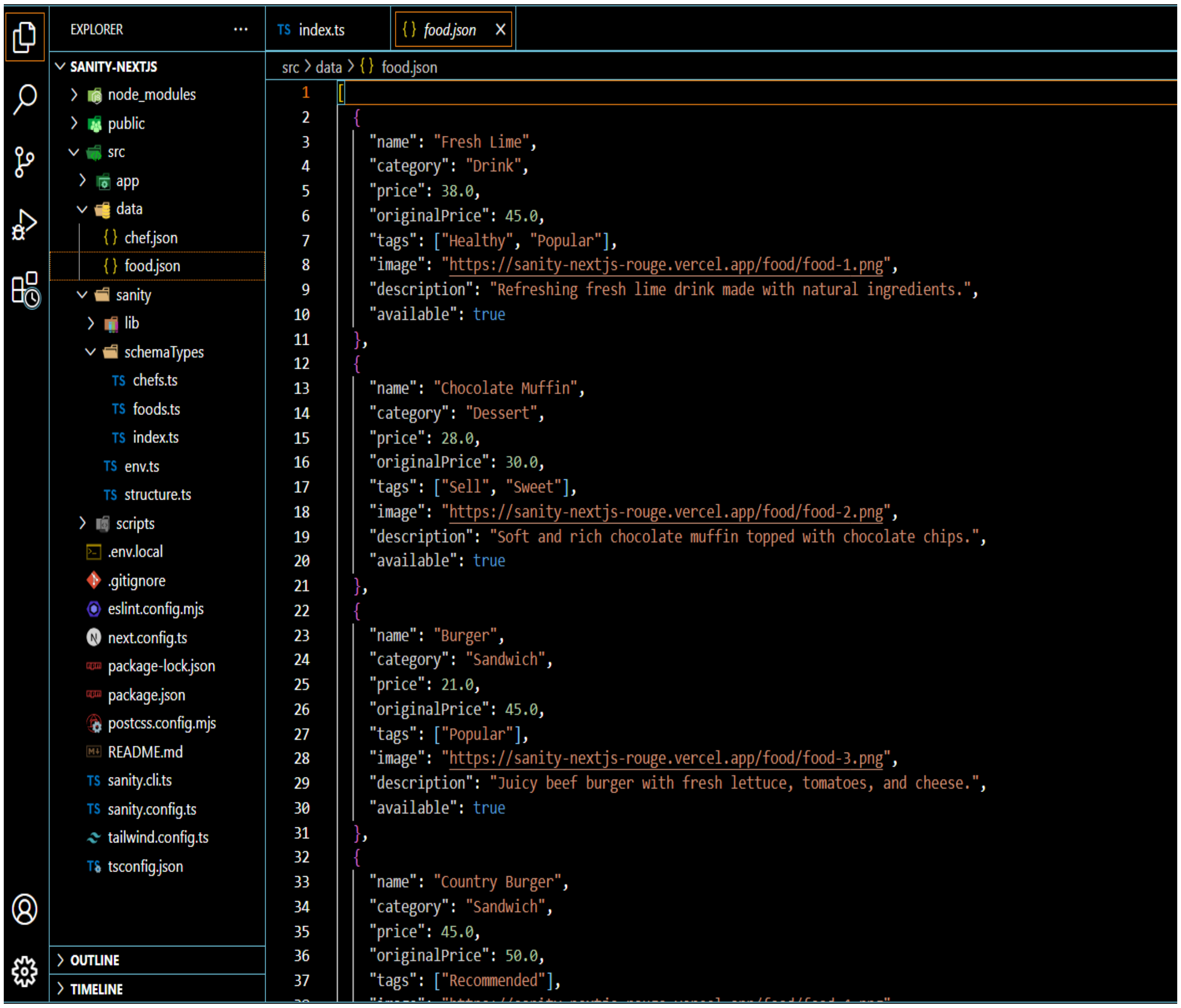
• **Chefs:**

- • Fields like **name, position, experience,** and **speciality** are included.
- • Optional fields are handled similarly to the food documents.

Error Handling

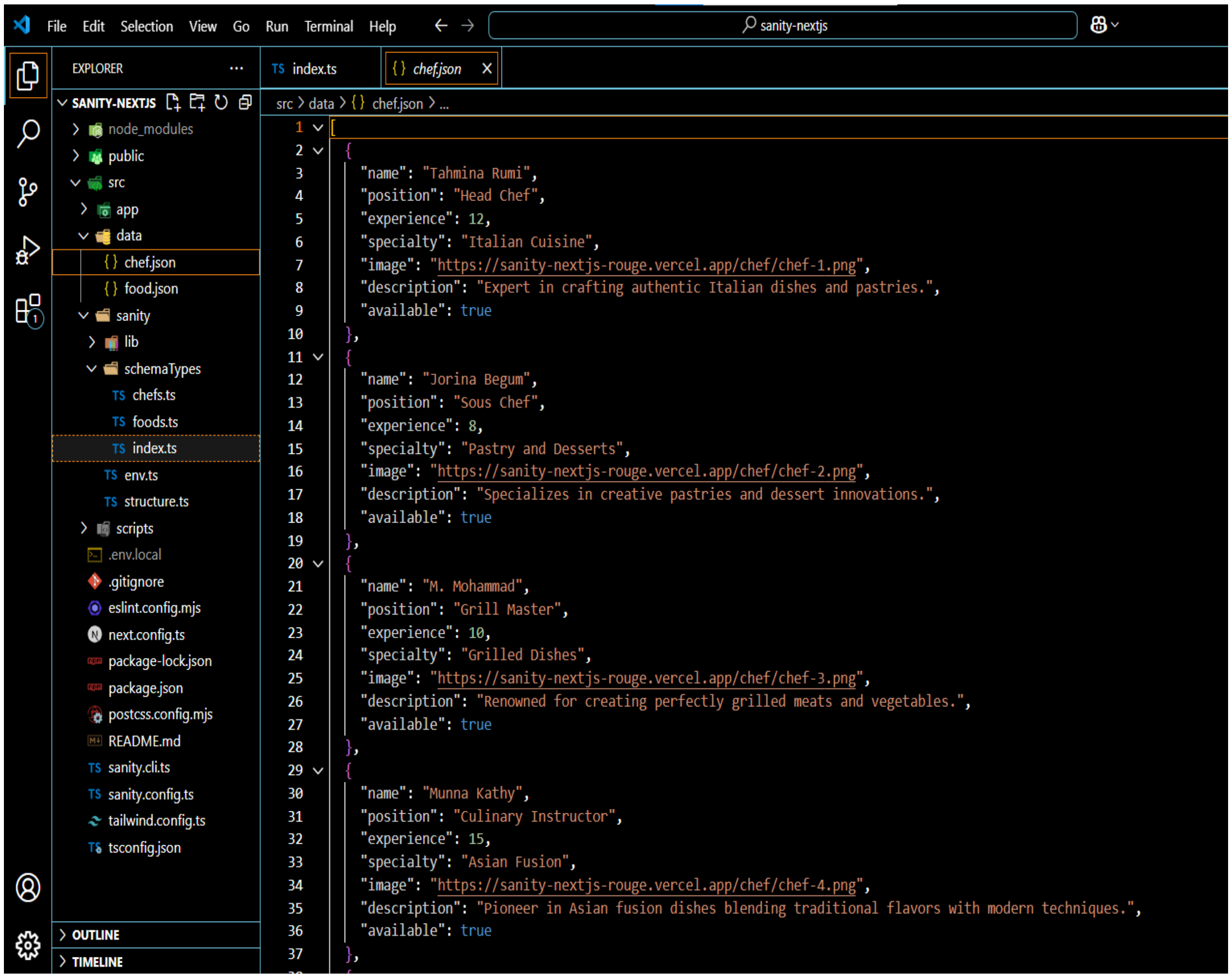
• Errors during API requests, image uploads, or document creation are logged to help identify and resolve issues.

FOOD API DATA



```json
[
  {
    "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"],
```

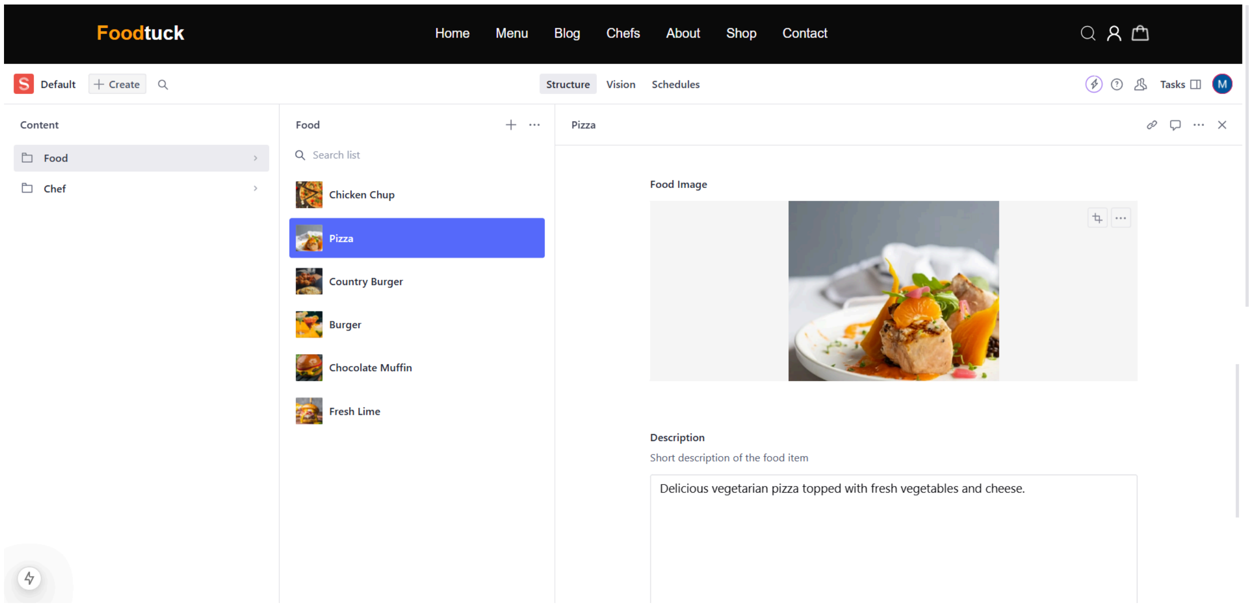
CHEF API DATA



```json
[
  {
    "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
  },
```

DATA IN SANITY

1. Foods:



Foodtuck

Home Menu Blog Chefs About Shop Contact

Default + Create Structure Vision Schedules Tasks

Content
- Food
- Chef

Food
- Search list
- Chicken Chup
- Pizza
- Country Burger
- Burger
- Chocolate Muffin
- Fresh Lime

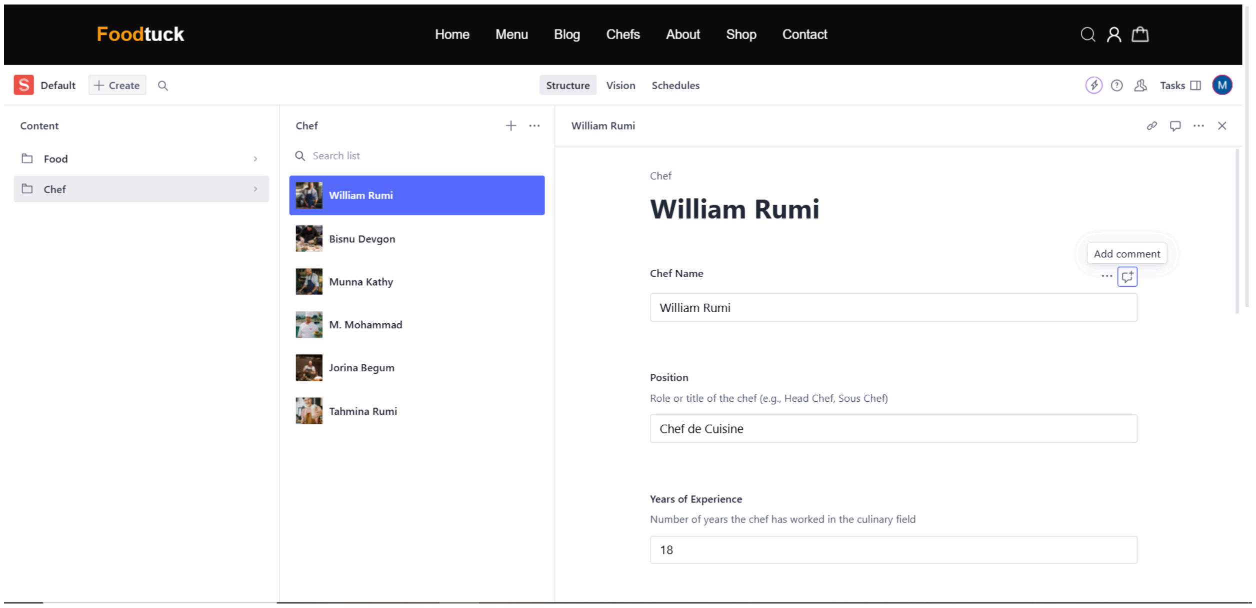
Pizza

Food Image

Description
Short description of the food item

Delicious vegetarian pizza topped with fresh vegetables and cheese.

2. Chefs:



Foodtuck

Home Menu Blog Chefs About Shop Contact

Default + Create Structure Vision Schedules Tasks

Content
- Food
- Chef

Chef
- Search list
- William Rumi
- Bisnu Devgon
- Munna Kathy
- M. Mohammad
- Jorina Begum
- Tahmina Rumi

William Rumi

Chef
William Rumi

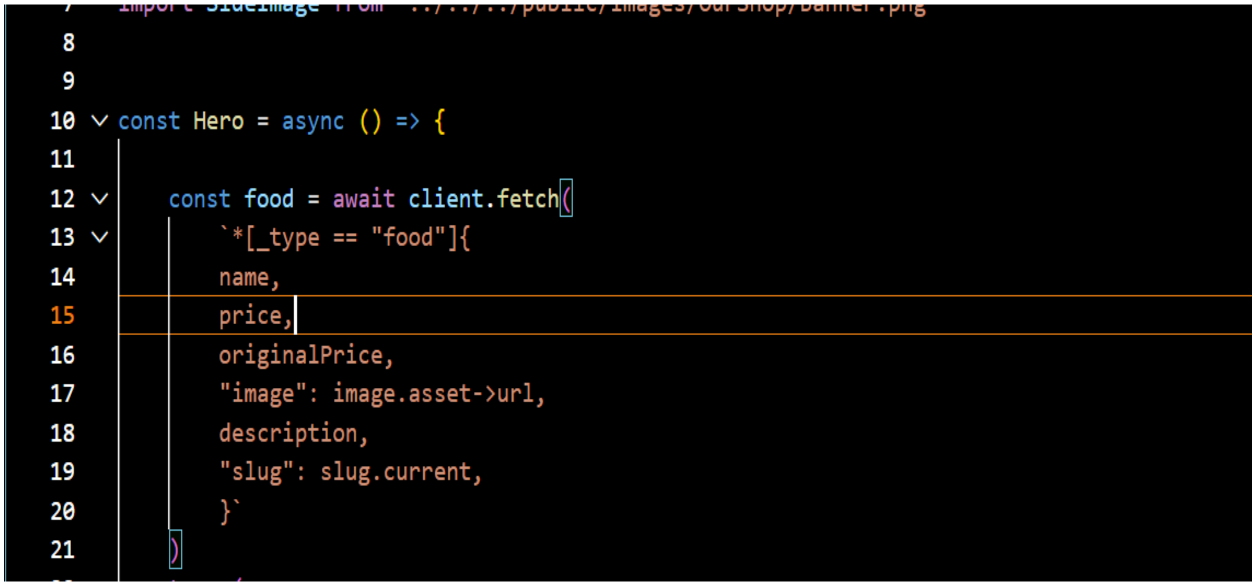
Add comment

Chef Name: William Rumi

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

Years of Experience
Number of years the chef has worked in the culinary field
18

Fetch Food Data

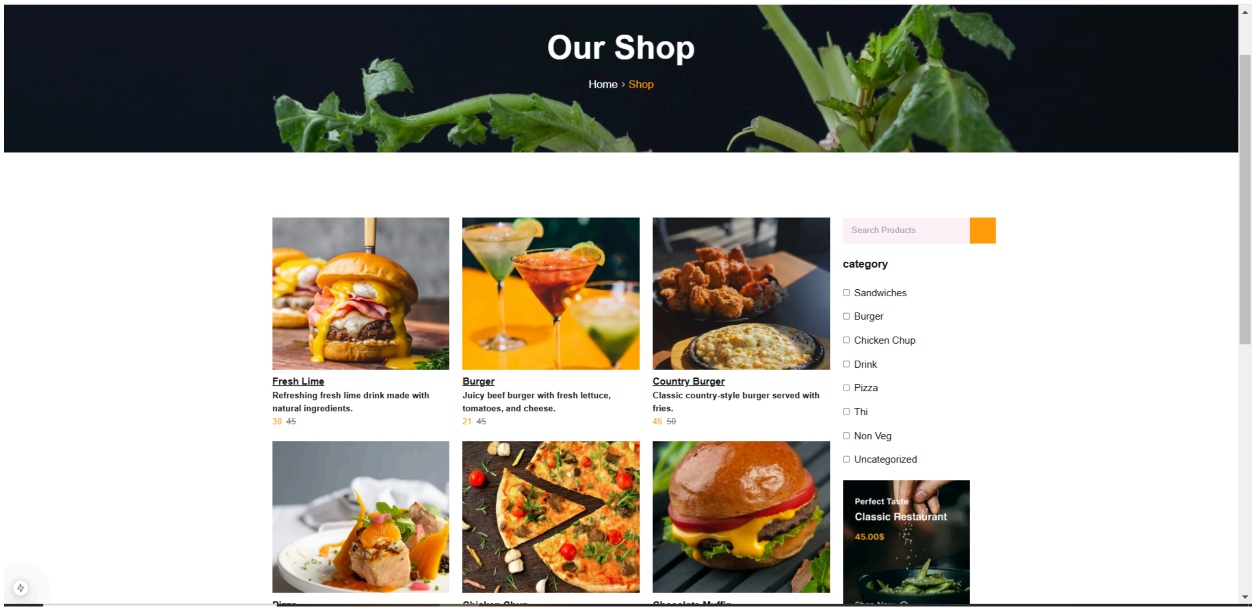


```
const Hero = async () => {

    const food = await client.fetch(
        `*[_type == "food"]{
        name,
        price,
        originalPrice,
        "image": image.asset->url,
        description,
        "slug": slug.current,
        }`
    )
```

Data Successfully displayed

1. Foods



Our Shop

Home › Shop

Search Products

category

- ☐ Sandwiches
- ☐ Burger
- ☐ Chicken Chup
- ☐ Drink
- ☐ Pizza
- ☐ Thi
- ☐ Non Veg
- ☐ Uncategorized

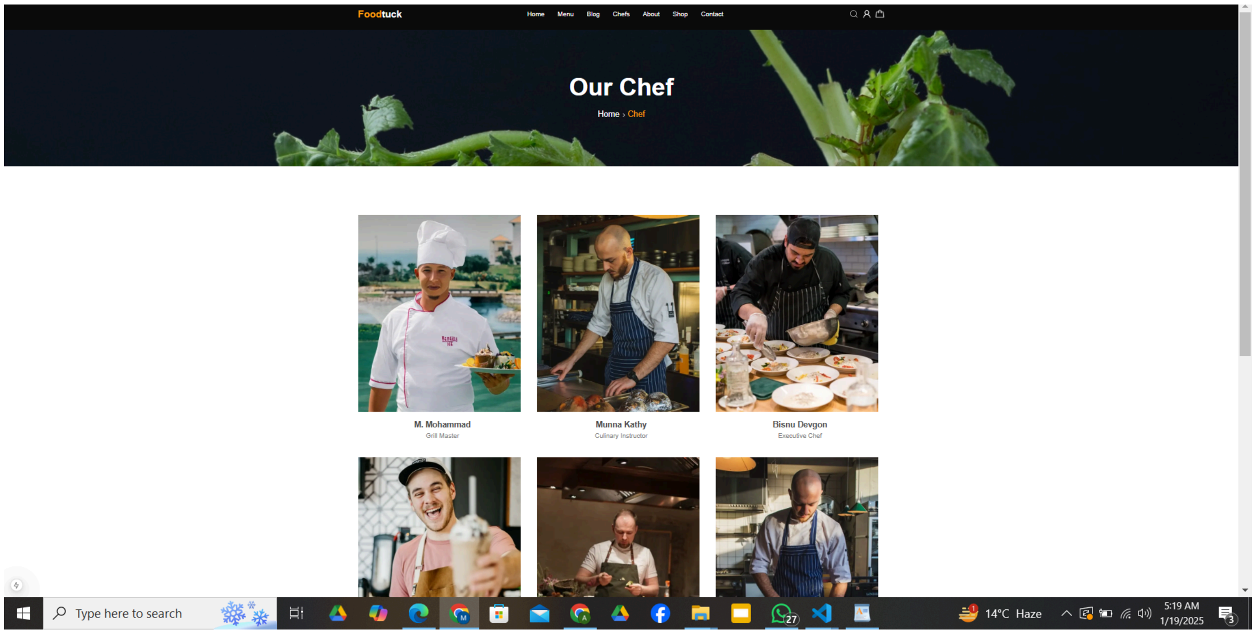
Fresh Lime
Refreshing fresh lime drink made with natural ingredients.
38 ~~45~~

Burger
Juicy beef burger with fresh lettuce, tomatoes, and cheese.
21 ~~45~~

Country Burger
Classic country-style burger served with fries.
45 ~~50~~

Perfect Taste
Classic Restaurant
45.00$

2. Chefs



Foodtuck

Home Menu Blog Chefs About Shop Contact

Our Chef

Home › Chef

M. Mohammad
Grill Master

Munna Kathy
Culinary Instructor

Bisnu Devgon
Executive Chef

Type here to search

14°C Haze

5:19 AM
1/19/2025

Conclusion:

The Day 3 tasks were completed successfully, as follows:

1. Efficient Automation: The migration script streamlined the import of API data into sanity, It saved significant time compared to manual input.

2. Seamless Integration: The use of GROQ queries enabled smooth integration of Sanity data with the frontend.

3. Real-World Practice: This experience simulated real-world scenarios of handling APIs, validating schemas, and integrating headless CMS with Next.js.