

Day : 3

API Integration & Data Migration

API Integration Report:

Process:

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

2. Steps Taken:

→ Environment Setup:

- ❑ Used dotenv to load environment variables from .env.local.

- ❑ Key variables included:

- ❑ NEXT_PUBLIC_SANITY_PROJECT_ID
- ❑ NEXT_PUBLIC_SANITY_DATASET
- ❑ SANITY_TOKEN

-> Sanity Client Creation:

- ❑ Used @sanity/client to establish a connection to the Sanity project.
- ❑ Configured the client with the project ID, dataset, API version, and authentication token.

→ Data Fetching:

- ❑ Made concurrent API calls using axios to fetch food and chef data.

❑ Endpoints accessed:

- ❑ <https://sanity-nextjs-rouge.vercel.app/api/foods>
- ❑ <https://sanity-nextjs-rouge.vercel.app/api/chefs>

→ Data Processing:

- Iterated through the fetched data.
- Uploaded images to Sanity's asset library using the
- `client.assets.upload()` method.

→ Sanity Document Creation:

- Transformed fetched data into Sanity-compatible document structures.
- Uploaded each document using `client.create()`.

3. Error Handling:

- o Implemented try-catch blocks for API calls and Sanity operations.
- o Logged errors for debugging.

Adjustments Made to Schemas:

1. Chef Schema:

→ Added the following fields:

- Position: String field to specify the chef's role.
- Experience: Number field for years of experience.
- Specialty: String field for culinary specialization.
- Available: Boolean field for availability status.
- o Enabled hotspot option for the image field to allow flexible cropping.

2. Food Schema:

→ Key fields included:

- Category: String field for classification (e.g., Burgers, Drinks).

- Price: Number field for current price.
 - Original Price: Optional number field for discounted price.
 - Tags: Array field with a tag layout for categorization.
 - Available: Boolean field for stock status.
 - o Enabled hotspot for the image field to support adaptable displays.
- Migration Steps and Tools Used

1. Migration Steps:

→ Preparation:

- Analyzed API data structure and matched it with existing Sanity schemas.
- Created Sanity schemas for food and chef with necessary fields.

o Data Import Script:

- Built import-data.mjs script to automate data fetching, processing, and uploading.
- Utilized axios for API interaction and @sanity/client for CMS operations.

→ Image Handling:

- Downloaded images using axios with responseType: 'arraybuffer'.
- Uploaded images to Sanity, storing asset references in document fields.

→ Document Creation:

- Mapped API data fields to Sanity schema fields.
- Ensured fallback values for optional or missing fields.

2. Tools Used:

→ Node.js Modules:

- axios for HTTP requests.
- dotenv for environment variable management.
- @sanity/client for CMS interactions.

→ **Sanity Features:**

- Asset management for image uploads.
- API versioning for consistent schema support.

→ **Utilities:**

- fileURLToPath and path for resolving file paths.

Here are Some Screenshots,

→ *Foods API Calls;*

```

▼ (6) [{-}, {-}, {-}, {-}, {-}, {-}] ⓘ
  ▼ 0:
    available: true
    category: "Drink"
    description: "Refreshing fresh lime drink made with natural ingredients."
    ▶ image: {_type: 'image', asset: {-}}
    name: "Fresh Lime"
    originalPrice: 45
    price: 38
    slug: null
    ▶ tags: (2) ['Healthy', 'Popular']
      _id: "2CvABo0fgTAGzXYTLxXf2I"
    ▶ [[Prototype]]: Object
  ▼ 1:
    available: true
    category: "Main Course"
    description: "Delicious vegetarian pizza topped with fresh vegetables and cheese."
    ▶ image: {_type: 'image', asset: {-}}
    name: "Pizza"
    originalPrice: 50
    price: 43
    slug: null
    ▶ tags: (2) ['Cheesy', 'Vegetarian']
      _id: "2CvABo0fgTAGzXYTLxXj3Z"
    ▶ [[Prototype]]: Object
  ▼ 2:
    available: true
    category: "Appetizer"
    description: "Crispy fried chicken bites served with dipping sauce."
    ▶ image: {asset: {-}, _type: 'image'}
    name: "Chicken Chup"
    originalPrice: 15
    price: 12
    slug: null
    ▶ tags: (2) ['Sell', 'Crispy']
      _id: "2CvABo0fgTAGzXYTLxXjLh"
    ▶ [[Prototype]]: Object
  ...
  ▼ 3:
    available: true
    category: "Sandwich"
    description: "Juicy beef burger with fresh lettuce, tomatoes, and cheese."
    ▶ image: {_type: 'image', asset: {-}}
    name: "Burger"
    originalPrice: 45
    price: 21
    slug: null
    ▶ tags: ['Popular']
      _id: "8rHgms8cRnJSVtFj3h1HSU"
    ▶ [[Prototype]]: Object
  ▼ 4:
    available: true
    category: "Dessert"
    description: "Soft and rich chocolate muffin topped with chocolate chips."
    ▶ image: {_type: 'image', asset: {-}}
    name: "Chocolate Muffin"
    originalPrice: 30
    price: 28
    slug: null
    ▶ tags: (2) ['Sell', 'Sweet']
      _id: "N3HGTmq4DJkdZuEv8oPyc8"
    ▶ [[Prototype]]: Object
  ▼ 5:
    available: true
    category: "Sandwich"
    description: "Classic country-style burger served with fries."
    ▶ image: {_type: 'image', asset: {-}}
    name: "Country Burger"
    originalPrice: 50
    price: 45
    slug: null
    ▶ tags: ['Recommended']
      _id: "N3HGTmq4DJkdZuEv8oPz0m"
    ▶ [[Prototype]]: Object
    length: 6
    ▶ [[Prototype]]: Array(0)

```

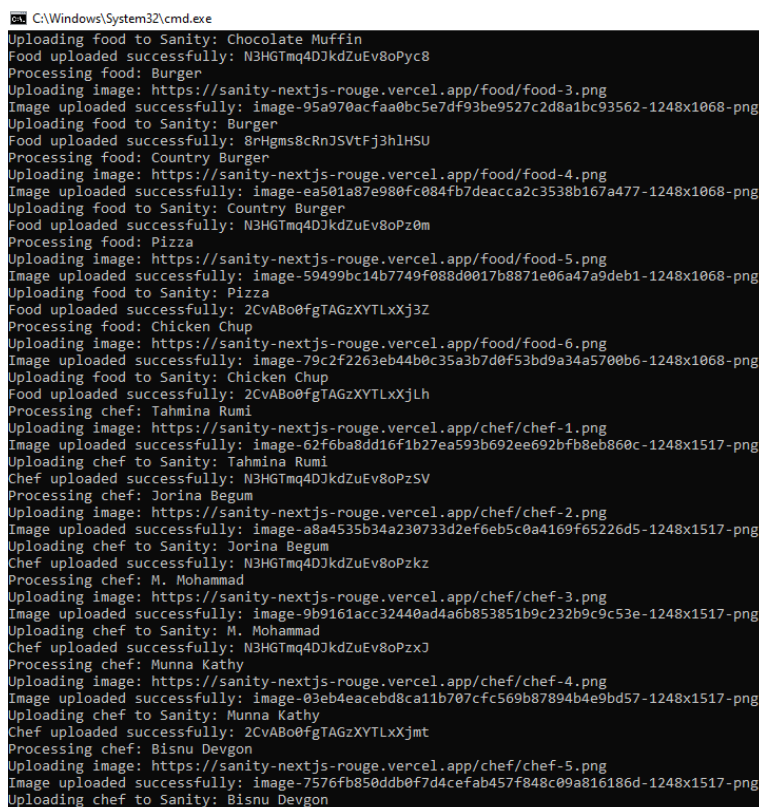
Chefs API Call;

```

{
  name: 'Munna Kathy',
  position: 'Culinary Instructor',
  image: 'https://cdn.sanity.io/images/1193bges/production/03eb4eacebd8ca11b707cfc569b87894b4e9bd57-1248x1517.png'
},
{
  name: 'Bisnu Devgon',
  position: 'Executive Chef',
  image: 'https://cdn.sanity.io/images/1193bges/production/7576fb850ddb0f7d4cefab457f848c09a816186d-1248x1517.png'
},
{
  name: 'William Rumi',
  position: 'Chef de Cuisine',
  image: 'https://cdn.sanity.io/images/1193bges/production/ef1c3b9ecfd9bc1aad0a931c6b4c564d6939e4f8-1248x1517.png'
},
{
  name: 'Tahmina Rumi',
  position: 'Head Chef',
  image: 'https://cdn.sanity.io/images/1193bges/production/62f6ba8dd16f1b27ea593b692ee692bfb8eb860c-1248x1517.png'
},
{
  name: 'Jorina Begum',
  position: 'Sous Chef',
  image: 'https://cdn.sanity.io/images/1193bges/production/a8a4535b34a230733d2ef6eb5c0a4169f65226d5-1248x1517.png'
},
{
  name: 'M. Mohammad',
  position: 'Grill Master',
  image: 'https://cdn.sanity.io/images/1193bges/production/9b9161acc32440ad4a6b853851b9c232b9c9c53e-1248x1517.png'
}
]
GET /chef 200 in 308ms

```

Successfully Data Upload to Sanity;



```

C:\Windows\System32\cmd.exe
Uploading food to Sanity: Chocolate Muffin
Food uploaded successfully: N3HGTmq4DJkdZuEv8oPyc8
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: 8rHgms8cRnJSVtFj3hlHSU
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: N3HGTmq4DJkdZuEv8oPz0m
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: 2CvAB00fgTAGzXYTLxxj3Z
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: 2CvAB00fgTAGzXYTLxxjLh
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: N3HGTmq4DJkdZuEv8oPzSV
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: N3HGTmq4DJkdZuEv8oPzkz
Processing chef: M. Mohammad
Uploading image: https://sanity-nextjs-rouge.vercel.app/chef/chef-3.png
Image uploaded successfully: image-9b9161acc32440ad4a6b853851b9c232b9c9c53e-1248x1517.png
Uploading chef to Sanity: M. Mohammad
Chef uploaded successfully: N3HGTmq4DJkdZuEv8oPzxJ
Processing chef: Munna Kathy
Uploading image: https://sanity-nextjs-rouge.vercel.app/chef/chef-4.png
Image uploaded successfully: image-03eb4eacebd8ca11b707cfc569b87894b4e9bd57-1248x1517.png
Uploading chef to Sanity: Munna Kathy
Chef uploaded successfully: 2CvAB00fgTAGzXYTLxxjmt
Processing chef: Bisnu Devgon
Uploading image: https://sanity-nextjs-rouge.vercel.app/chef/chef-5.png
Image uploaded successfully: image-7576fb850ddb0f7d4cefab457f848c09a816186d-1248x1517.png
Uploading chef to Sanity: Bisnu Devgon

```

Successfully Data Displayed in Frontend; → Food Data;



Burger

\$38.00 ~~\$45.00~~



Chocolate Muffin

\$43.00 ~~\$50.00~~



Pizza

\$12.00 ~~\$15.00~~



Fresh Lime

\$21.00 ~~\$45.00~~



Country Burger

\$28.00 ~~\$30.00~~



Chicken Chup

\$45.00 ~~\$50.00~~

→ *Chef Data;*



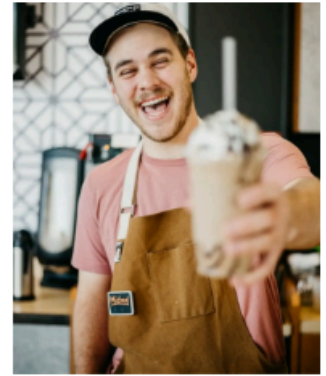
Munna Kathy
Culinary Instructor



Bisnu Devgon
Executive Chef



William Rumi
Chef de Cuisine



Tahmina Rumi
Head Chef



Jorina Begum
Sous Chef



M. Mohammad
Grill Master

Final check:

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

By Ubaid Raza