

# **Day 3: API Integration report**

## **(Furniture)**

### **API Integration Process:**

#### **Overview**

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

#### **Steps Taken**

##### **1. Environment Setup**

- Utilized dotenv to load environment variables from `.env.local`.
- Key environment variables included:
  - NEXT\_PUBLIC\_SANITY\_PROJECT\_ID
  - NEXT\_PUBLIC\_SANITY\_DATASET
  - SANITY\_TOKEN

##### **2. Sanity Client Creation**

- Used `@sanity/client` to establish a connection to the Sanity project.
- Configured the client with the following details:
  - Project ID
  - Dataset
  - API version
  - Authentication token

##### **3. Data Fetching**

- Made concurrent API calls using `axios` to fetch food and chef data.
- Accessed the following endpoints:
  - `https://sanity-nextjs-rouge.vercel.app/api/foods`
  - `https://sanity-nextjs-rouge.vercel.app/api/chefs`

##### **4. Data Processing**

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

##### **5. Sanity Document Creation**

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

## Error Handling

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

## *Adjustments made to schemas:*

```
src > sanity > schemaTypes > products.ts > product > fields
3 export const product = defineType({
4   name: "product",
5   title: "Product",
6   type: "document",
7   fields: [
8     {
9       name: "title",
10      title: "Title",
11      validation: (rule) => rule.required(),
12      type: "string"
13    },
14    {
15      name: "description",
16      type: "text",
17      validation: (rule) => rule.required(),
18      title: "Description",
19    },
20    {
21      name: "productImage",
22      type: "image",
23      validation: (rule) => rule.required(),
24      title: "Product Image"
25    },
26    {
27      name: "price",
28      type: "number",
29      validation: (rule) => rule.required(),
30      title: "Price",
31    },
32    {
33      name: "tags",
34      type: "array",
35      title: "Tags",
36      of: [{ type: "string" }]
37    },
38    {
39      name: "discountPercentage",
40      type: "number",
41      title: "Discount Percentage",
42    },
43    {
44      name: "isNew",
45      type: "boolean",
46      title: "New Badge",
47    }
48  ]
49 })
```

## ***Migration Steps and Tools Used:***

### Migration Steps

1. Backup Data
  - Take a backup of your existing dataset using the Sanity CLI or dashboard. This ensures you can restore your data if anything goes wrong.
2. Update Schema
  - Make the necessary changes to your schema, such as adding new fields, modifying existing ones, or updating validation rules.
3. Deploy Updated Schema
  - Deploy the updated schema to your Sanity Studio so the new structure is available in your environment.
4. Inspect Data
  - Check the existing data to ensure it aligns with the updated schema, especially for required fields or validation rules.
5. Migrate Data
  - If the updated schema introduces new required fields, manually or programmatically assign default values to the affected documents.
6. Test Locally
  - Run Sanity Studio locally and verify that the changes work as expected without breaking any functionality.
7. Validate Data
  - Validate all documents to ensure compliance with the new schema rules. Identify and fix any missing or invalid data.
8. Deploy to Production
  - Push the changes to the production environment and monitor to confirm everything works seamlessly.

### Tools Used

1. Sanity CLI
  - For exporting and importing datasets and deploying schema updates.
2. Sanity Studio
  - To update and test schema changes locally before deploying to production.
3. Sanity Dashboard
  - To monitor and manage the live dataset and environment.
4. GROQ Queries
  - For querying and inspecting existing documents to find missing or invalid data.
5. Custom Scripts (Optional)
  - For large-scale migrations, use JavaScript and the Sanity Client to automate updates to multiple documents.

## Screenshots of:

## API calls (Products):


```
const Result View Api: uploaded successfully: {
  createdAt: '2025-02-18T09:18:02',
  id: '5096276676336c0061',
  _rev: '5096276676336c0061',
  type: 'product',
  updatedAt: '2025-02-18T09:18:02',
  description: 'Bring the charm of nature into your home with the Rustic Vase Set. Perfect for those who appreciate timeless beauty and a warm, inviting atmosphere, this set of vases with a touch of rustic elegance fits any space. Crafted with care and attention to detail, these vases are designed to evoke the essence of vintage craftsmanship while seamlessly complementing both modern and traditional decor styles.'
}
+
'The Rustic Vase Set features a collection of three uniquely designed vases, each with its own character. Their sturdy bases, textured flanges, and artisanal finish capture the essence of the countryside, making them ideal for showcasing fresh flowers, dried arrangements, or simply as standalone decorative pieces. Whether placed on a table, side table, or dining area, these vases effortlessly enhance the ambiance of your home.'
+
'Made from high-quality materials, the Rustic Vase Set offers both style and durability. The natural, textured surfaces of the vases give them a rustic, hand-crafted appeal, ensuring that each set is one-of-a-kind. With their timeless design, these vases make a perfect gift for housewarming, weddings, or any special occasion.'
+
+
Key Features:
+
+
Set includes three uniquely designed rustic vases
Crafted from high-quality materials with a natural, hand-crafted finish
Perfect for showcasing flowers, greenery, or as standalone decorative pieces
Versatile design complements both modern and traditional interiors
Ideal for gifting or personal use in any living space
Add warmth and character to your home with the Rustic Vase Set where classic design meets natural beauty.
discountPercentage: 10,
stock: false,
stock: 20,
productImage: {
  type: 'image',
  url: 'image-2226a4c8b6c1d6d7f8a6d6e6d7a127b-36-073.jpg'
},
tags: [ 'rustic', 'vase', 'home decor', 'vintage', 'interior design' ],
title: 'Rustic Vase Set'
}

loading image: https://cdn.sanity.io/images/production/4649c4c8b6c1d6d7f8a6d6e6d7a127b-36-073.jpg
Product Timber Craft uploaded successfully: {id:5096102478b9e6f7a7228117b9f-226b-823-pp
  createdAt: '2025-02-18T09:18:02',
  id: '5096102478b9e6f7a7228117b9f-226b-823-pp',
  _rev: '5096102478b9e6f7a7228117b9f-226b-823-pp',
  type: 'product',
  updatedAt: '2025-02-18T09:18:02',
  description: 'Introducing the TimberCraft collection that celebrates the timeless beauty of wood craftsmanship and the art of nature's finest materials. Inspired by the rustic charm and durability of natural wood, TimberCraft brings warmth, character, and a touch of handcrafted elegance to any space. Perfect for those who value authenticity and sustainability, this collection combines the strength of handcrafted design, making it an ideal choice for modern and traditional homes alike.'
+
+
Each piece in the TimberCraft collection is meticulously crafted to highlight the unique grain and texture of the wood, bringing an organic, earthy feel to your space. Whether you're looking for furniture, decor, or accents, TimberCraft offers a variety of beautifully designed pieces that blend rustic appeal with contemporary sophistication. The collection is designed to stand the test of time, with materials chosen for their natural
Go to Settings to activate Windows.
```


```
+
Key Features:
+
+
Made from high-quality, sustainable timber for durability and lasting appeal
Rustic yet refined design that complements both modern and traditional interiors
Unique wood grains and textures that bring natural beauty to your space
Expert craftsmanship that adds the serenity of a cozy cabin
Perfect for creating a cozy, earthy atmosphere in any room
Bringing the timeless charm of nature into your home with TimberCraft where the beauty of wood meets modern craftsmanship, creating lasting pieces that stand out in both style and substance.
discountPercentage: 20,
stock: false,
stock: 10,
productImage: {
  type: 'image',
  url: 'image-15a307d9a6a6d0-047a6a6e6f7a7228117b9f-122b-823-pp'
},
tags: [
  'modern',
  'craftsmanship',
  'furniture',
  'wooden',
  'nature inspired'
],
title: 'Timber Craft'
}

loading image: https://cdn.sanity.io/images/production/4649c4c8b6c1d6d7f8a6d6e6d7a127b-36-073.jpg
Api uploaded successfully: image upload successful: {id:5096102478b9e6f7a7228117b9f-226b-823-pp
const Amber Haven uploaded successfully: {
  createdAt: '2025-02-18T09:18:02',
  id: '5096102478b9e6f7a7228117b9f-226b-823-pp',
  _rev: '5096102478b9e6f7a7228117b9f-226b-823-pp',
  type: 'product',
  updatedAt: '2025-02-18T09:18:02',
  description: 'Step into a world of warmth and tranquility with the Amber Haven collection inspired by the golden glow and timeless beauty of amber. This sophisticated line combines the soothing hues of amber with elegant, contemporary design to create a space that feels both welcoming and luxurious. Ideal for those seeking a serene haven, Amber Haven infuses your home with a sense of calm, warmth, and understated elegance.'
+
+
Crafted with high-quality materials and a keen eye for detail, each piece in the Amber Haven collection is designed to evoke feelings of comfort and relaxation. The soft, amber-toned accents, paired with sleek lines and refined craftsmanship, bring a touch of nature's beauty into your home. Whether you're furnishing your living room, bedroom, or dining area, Amber Haven creates an inviting atmosphere that radiates peace and sophistication.'
+
+
The collection's warmth and versatility allow it to seamlessly integrate into various decor styles, from modern to traditional, making it a perfect choice for those who love both timeless elegance and contemporary chic. Amber Haven offers a sanctuary of comfort and luxury, where every piece is designed to enhance your home and your well-being.'
+
+
Key Features:
+
+
Warm amber tones and elegant design create a cozy, inviting atmosphere
High-quality craftsmanship and materials ensure durability and long-lasting appeal
Versatile style complements a variety of interior designs, from modern to traditional
Perfect for creating a serene and luxurious space in any room
Ideal for those seeking a sophisticated yet cozy, warm, and sophisticated look
Bringing the golden glow of Amber Haven into your home where warmth, luxury, and timeless design come together to create a peaceful and elegant retreat.
discountPercentage: 15,
stock: true,
stock: 10,
Activate Windows
Go to Settings to activate Windows.
```


***Data successfully displayed in the frontend:***  
**Food data:**




**Bold Nest**  
Welcome to Bold Nest—where fearless...  
Rs. 260




**Cloud Haven Chair**  
Sink into comfort with the Cloud...  
Rs. 210




**Vase Set**  
Decorate your home decor with the...  
Rs. 150




**Bed**  
Introducing the Bed—your sanctuary...  
Rs. 250




**Wood Chair**  
Introducing the Wood Chair...  
Rs. 100




**Retro Vibe**  
Introducing RetroVibe—a perfect...  
Rs. 240




**The Lucky Lamp**  
Introducing The Lucky Lamp...  
Rs. 200




**Zen Table**  
Introducing the serenity and balance into...  
Rs. 250 [Activate Windows](#)  
Go to Settings to activate Windows.




**Rustic Vase Set**  
Bring the charm of nature into your...  
Rs. 200



**Timber Craft**  
Introducing Timber Craft—the collected...  
Rs. 320

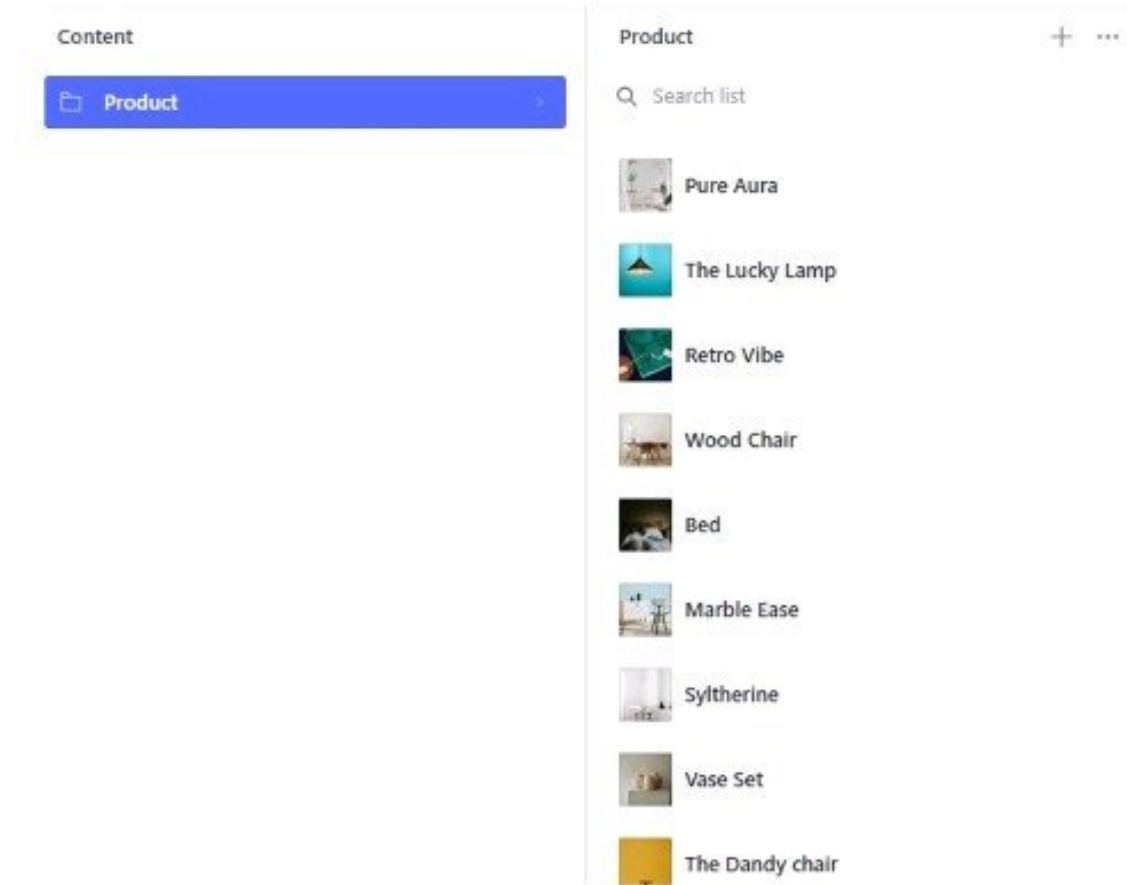


**Amber Haven**  
Step into a world of warmth and...  
Rs. 150



**The Dandy chair**  
Meet The Dandy Chair—the epitome...  
Rs. 150

***Populated sanity CMS fields:***  
***Products :***





## Code Snippets for API integration and migration scripts:

```
1 import { createClient } from "@sanity/client";
2 const client = createClient({
3   projectId: "rpor8hos",
4   dataset: "production",
5   useCdn: true,
6   apiVersion: "2025-01-13",
7   token: SANITY_TOKEN,
8 });
9
10 async function uploadImageToSanity(imageUrl) {
11   try {
12     console.log(`Uploading image: ${imageUrl}`);
13
14     const response = await fetch(imageUrl);
15     if (!response.ok) {
16       throw new Error(`Failed to fetch image: ${imageUrl}`);
17     }
18     const buffer = await response.arrayBuffer();
19     const bufferImage = Buffer.from(buffer);
20     const bufferImage: Buffer<ArrayBufferLike>
21     const asset = await client.assets.upload("image", bufferImage, {
22       filename: imageUrl.split("/").pop(),
23     });
24     console.log(`Image uploaded successfully: ${asset._id}`);
25     return asset._id;
26   } catch (error) {
27     console.error(`Failed to upload image:`, imageUrl, error);
28     return null;
29   }
30 }
31
32 async function uploadProduct(product) {
33   try {
34     const imageUrl = product.imageUrl;
35     const imageId = await uploadImageToSanity(imageUrl);
36
37     if (imageId) {
38       const document = {
39         _type: "product",
40         title: product.title,
41         price: product.price,
42         productImage: {
43           _type: "image",
44           asset: {
45             _ref: imageId,
46           },
47         },
48         tags: product.tags,
49         discountPercentage: product.discountPercentage, // Type in field name: discountPercentage -> discountPercentage
50         description: product.description
51       };
52     }
53   } catch (error) {
54     console.error(`Failed to upload product:`, product, error);
55     return null;
56   }
57 }
```