

# Day 3 API Integration (Furniture)

## 1. Introduction

This report documents the integration process of migrating external data from a REST API into the Sanity CMS for "Hekto," a furniture e-commerce platform. The goal is to automate content management for products such as sofas, chairs, office desks, and other furniture categories, ensuring seamless backend updates and synchronization with the Next.js frontend.

Key objectives include:

- Fetching product and category data (furniture-related) from an external API.
- Structuring and migrating this data to Sanity CMS.
- Displaying the migrated data dynamically on the frontend.

## 2. API Integration Overview

- **API Name:** The external marketplace API, hosted at:  
<https://next-ecommerce-template-4.vercel.app/api/product>.
- 
- **Data Fetched:**
  - **Products:** Details such as product titles, prices, descriptions, categories (e.g., sofas, chairs), images, etc.
  - **Categories:** Furniture categories like "Sofas" "chairs", etc., associated with products.
- **Sanity Client:** Used to manage and store fetched data in the CMS, ensuring compatibility with the defined schema structure

## 3. Schema Structure Changes

The product schema was enhanced to better represent furniture product details. Key updates include:

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### Updated Fields:

- **name (string):** The furniture product's name (required).
- **image (image):** Images showcasing each furniture item.
- **price (string):** The product price (required).
- **description (text):** A brief product description (max 150 characters).
- **discountPercentage (number):** The discount percentage (0 to 100).
- **isFeaturedProduct (boolean):** Flag indicating if the product is featured.
- **stockLevel (number):** Tracks stock levels (must be positive).
- **category (reference):** Links products to specific furniture categories.

### Snippet of Updated Product Schema:

```
sanity > schemaTypes > product.ts > [0] default > fields
1  export default {
2    name: "product",
3    type: "document",
4    title: "Product",
5    fields: [
6      {
7        name: "name",
8        type: "string",
9        title: "Name",
10       validation: (Rule: any) => Rule.required().error("Name is required"),
11      },
12      {
13        name: "image",
14        type: "image",
15        title: "Image",
16        options: {
17          hotspot: true,
18        },
19        description: "Upload an image of the product.",
20      },
21      {
22        name: "price",
23        type: "string",
24        title: "Price",
25        validation: (Rule: any) => Rule.required().error("Price is required"),
26      },
27      {
28        name: "description",
29        type: "text",
30        title: "Description",
31        validation: (Rule: any) =>
32          Rule.max(150).warning("Keep the description under 150 characters."),
33      },
34      {
35        name: "discountPercentage",
36        type: "number",
37        title: "Discount Percentage",
38        validation: (Rule: any) =>
39          Rule.min(0).max(100).warning("Discount must be between 0 and 100."),
40      },
41      {
42        name: "isFeaturedProduct",
43        type: "boolean",
44        title: "Is Featured Product",
45      },
46      {
47        name: "stockLevel",
48        type: "number",
49        title: "Stock Level",
50        validation: (Rule: any) =>
51          Rule.min(0).error("Stock level must be a positive number."),
52      },
53      {
54        name: "category",
55        type: "reference",
56        title: "Category",
57        validation: (Rule: any) => Rule.required().error("Category is required"),
58      },
59    ],
60  },
61 }
```

## 4. Migration Steps and Tools Used

### Tools Used:

1. **Sanity Client:** To interact with the Sanity CMS (via `@sanity/client`).
2. **Node.js & Fetch API:** For fetching data from the API and uploading it to Sanity.
3. **Environment Variables:** For secure storage of sensitive data like API tokens.
4. **Sanity Image Tool:** To upload and manage furniture images in the CMS.

### Migration Steps:

1. **Set Up Environment:**
  - Installed required dependencies: `@sanity/client`, `dotenv`.
  - Configured `.env.local` for secure storage of API keys.
2. **Sanity Client Setup:**
  - Created a `sanityClient` instance using project ID, dataset, and API token.

```
sanity > lib > client.ts > client
1  import { createClient } from 'next-sanity'
2
3  import { apiVersion, dataset, projectId } from '../env'
4
5  export const client = createClient({
6    projectId,
7    dataset,
8    apiVersion,
9    useCdn: true, // Set to false if statically generating pages, using ISR or tag-based revalidation
10 })
11
```

### 3. Fetch Data from API:

- Used `fetch` to retrieve furniture product and category data from the API.

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## 4. Upload Images to Sanity:

- Uploaded furniture images using the Sanity asset pipeline and retrieved asset IDs for linking.

```
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;
  }
}
```


*(Screenshot )API call in response*

```
},
{
  _id: '9pI000PMKhFhzCfbLwzB0',
  name: 'Nordic Net Red Chair',
  image: 'https://cdn.sanity.io/images/oa99xsm4/production/c919c7d6e7b1d3ece287cde7c3fff40c97216ac3-374x374.png',
  price: '320',
  stockLevel: 20,
  category: 'Chair',
  discountPercentage: 10
},
{
  _id: '9pI000PMKhFhzCfbLx0Sz',
  name: 'Luxury Flower Shell Sofa Chair',
  image: 'https://cdn.sanity.io/images/oa99xsm4/production/b36c424e4368829cc69cefdb42ba7b9d213e965e-1258x1258.png',
  price: '2500',
  stockLevel: 2,
  category: 'Sofa',
  discountPercentage: 0
},
{
  price: '520',
  stockLevel: 15,
  category: 'Chair',
  discountPercentage: 8,
  _id: 'Krp64Fxn7xGb8FK9AEPyyd',
  name: 'Cozy Armchair',
  image: 'https://cdn.sanity.io/images/oa99xsm4/production/11f2eae2d3d87ab7f9c58e4649636508887a573-534x554.png'
},
{
  name: 'Armchair Tortuga',
  image: 'https://cdn.sanity.io/images/oa99xsm4/production/d6aed5e3bb1c45542716cb31036c740f1113625e-1398x1194.png',
  price: '850',
  stockLevel: 10,
  category: 'Chair',
  discountPercentage: 0,
  _id: 'Krp64Fxn7xGb8FK9AERMvC',
  image: 'https://cdn.sanity.io/images/oa99xsm4/production/11f2eae2d3d87ab7f9c58e4649636508887a573-534x554.png'
},
{
  name: 'Armchair Tortuga',
```

# Data successfully display in Frontened (Latest Products)


### Latest Products

[New Arrival](#) [Best Seller](#) [Special Offer](#)




Stylish Golden Metal Legs Mint Blue Fabric Velvet Sofa Leisure Armchair

\$780 ~~\$65.00~~




Rapson Thirty-Nine Guest Chair

\$1300 ~~\$65.00~~




Liberty Wood 63' Floating Entertainment Center

\$1100 ~~\$65.00~~




Leisure Sofa Chair Set

\$1800 ~~\$65.00~~



Matilda Velvet Chair - Pink

\$600 ~~\$65.00~~




Nordic Net Red Chair

\$320 ~~\$65.00~~

## (Featured Products)


### Featured Products



Varmora Plastic Chair Solid

Code - Y523201


\$100



Tribù Elio Chair

Code - Y523201


\$1200



Hans Wegner Style Three-Legged Shell Chair

Code - Y523201

\$990



Sobuy Blue Folding Chair Wooden Padded

Code - Y523201

\$120

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# Code Snippets for API integration and (Migration Script):

```
async function importData() {
  try {
    console.log("Fetching Product Data From API ...");

    const response = await axios.get(
      "https://next-e-commerce-template-4.vercel.app/api/product"
    );
    const products = response.data.products;

    for (const item of products) {
      console.log(`Processing Item: ${item.name}`);

      let imageRef = null;
      if (item.imagePath) {
        imageRef = await uploadImageToSanity(item.imagePath);
      }

      const sanityItem = {
        _type: "product",
        name: item.name,
        category: item.category || null,
        price: item.price,
        description: item.description || "",
        discountPercentage: item.discountPercentage || 0,
        stockLevel: item.stockLevel || 0,
        isFeaturedProduct: item.isFeaturedProduct,
        image: imageRef
          ? {
              _type: "image",
              asset: {
                _type: "reference",
                _ref: imageRef,
              },
            }
          : undefined,
      };

      console.log(
        `Uploading ${sanityItem.category} - ${sanityItem.name} to Sanity !`
      );
    }
  }
}
```

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Ecommerce Accessories & Fashion Items

About 9,620 results (0.62 seconds)

per page:  Sort by: Best Match  View:



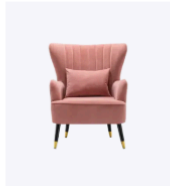
Stylish Golden Metal Legs Mint Blue Fabric  
Velvet Sofa Leisure Armchair  
780 ~~78030~~



Rapson Thirty-Nine Guest Chair  
1300 ~~130030~~



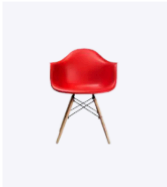
Liberty Wood 63" Floating Entertainment  
Center  
1100 ~~110030~~



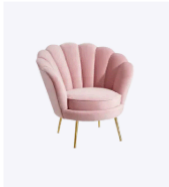
Leisure Sofa Chair Set  
1800 ~~180030~~



Matilda Velvet Chair - Pink  
600 ~~60030~~



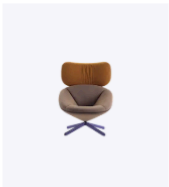
Nordic Net Red Chair  
320 ~~32030~~



Luxury Flower Shell Sofa Chair  
2500 ~~250030~~



Cozy Armchair  
520 ~~52030~~



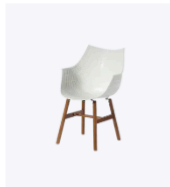
Armchair Tortuga



Uchiwa Quilted Lounge Chair



Diondre Chair - Tuft Button - Acrylic Legs



Varmora Plastic Chair Solid

Final Check List

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

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