Day 3 - API Integration Report - [Marketplace-Technical-Foundation-
-Hamza-Furniture-] Repo Name

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API Integration Process

The API integration process involved fetching product data from an
external API and importing it into Sanity CMS. The steps are outlined
below:

Fetching Product Data: Data was retrieved from https://next-
ecommerce-template-4.vercel.app/api/product using Axios.

Uploading Images to Sanity: Images associated with products were
downloaded and uploaded to Sanity as assets.

Storing Data in Sanity: The transformed data was structured according
to the Sanity schema and uploaded to the database.

Migration Steps and Tools Used

Migration Process

API Data Fetching: Retrieved data from next-ecommerce-template-4 API.

Image Upload: Downloaded images and stored them in Sanity CMS.

Data Transformation: Adjusted the data structure to match the Sanity schema.

Data Insertion: Used the Sanity client to insert data into the CMS.

Tools Used

- Tailwind Css

Next.js

Sanity CMS

Axios

Node.js

Dotenv

Anasseth Repo

Code Implementation

The following code snippet demonstrates the API integration:

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

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

const client = createClient({
  projectId: process.env.NEXT_PUBLIC_SANITY_PROJECT_ID,
  dataset: process.env.NEXT_PUBLIC_SANITY_DATASET,
  token: process.env.SANITY_API_TOKEN,
  apiVersion: '2025-01-13',
  useCdn: false,
});

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;
  }
```

```javascript
  catch (error) {
    console.error('Failed to Upload Image:', imageUrl, error);
    return null;
  }
}

async function importData() {
  try {
    console.log('Fetching Product Data From API ...');
    const response = await axios.get("https://next-ecommerce-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 uploadImageToSanihty(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,
```

```javascript
        image: imageRef
          ? {
              _type: 'image',
              asset: {
                _type: 'reference',
                _ref: imageRef,
              },
            }
          : undefined,
      };

      console.log(`Uploading ${sanityItem.category} - ${sanityItem.name} to
Sanity !`);
      const result = await client.create(sanityItem);
      console.log(`Uploaded Successfully: ${result._id}`);
    }

    console.log('Data Import Completed Successfully !');
  } catch (error) {
    console.error('Error Importing Data : ', error);
  }
}

importData();
```

Adjustments Made to Schemas

The product schema was adjusted to accommodate data from the external API while ensuring required fields and data validation.

```javascript
import { defineField, defineType } from "sanity";

export const productType = defineType({
  name: 'product',
  type: 'document',
  title: 'Product',
  fields: {
    defineField({
      name: 'name',
      type: 'string',
      title: 'Name',
      validation: (Rule: any) => Rule.required().error('Name is required'),
    }),
    defineField({
      name: 'image',
      type: 'image',
      title: 'Image',
      options: {
        hotspot: true,
      },
    }),
    defineField({
      name: 'price',
      type: 'string',
      title: 'Price',
      validation: (Rule: any) => Rule.required().error('Price is required'),
    }),
    defineField({
      name: 'description',
      type: 'text',
      title: 'Description',
      validation: (Rule: any) =>
        Rule.max(150).warning('Keep the description under 150 characters.'),
    }),
    defineField({
      name: 'discountPercentage',
      type: 'number',
      title: 'Discount Percentage',
      validation: (Rule: any) =>
        Rule.min(0).max(100).warning('Discount must be between 0 and 100.'),
    }),
    defineField({
      name: 'isFeaturedProduct',
      type: 'boolean',
      title: 'Is Featured Product',
    }),
    defineField({
      name: 'stockLevel',
      type: 'number',
      title: 'Stock Level',
      validation: (Rule: any) => Rule.min(0).error('Stock level must be a positive number.'),
    }),
    validation: (Rule: any) => Rule.required().error('Category is required'),
    }),
  },
});
    defineField({
      name: 'category',
      type: 'string',
      title: 'Category',
      options: {
        list: [
          { title: 'Chair', value: 'Chair' },
          { title: 'Sofa', value: 'Sofa' },
        ],
      },
      validation: (Rule: any) => Rule.required().error('Category is required'),
    }),
  },
});
    validation: (Rule: any) => Rule.required().error('Category is required'),
    }),
  },
});
```

Required Steps

Populated Sanity CMS Fields:

Verify that all product fields are correctly stored in Sanity CMS.

Ensure that uploaded images appear correctly in the CMS.

Code Snippets for API Integration and Migration Scripts:

Ensure that all integration scripts are documented properly.

Validate that the scripts function correctly in the production environment.

Featured Products

Alpha Chair - Solid...

Code - Y523201

$900

Armchair Tortuga

Code - Y523201

$850

Cantilever Chair

Code - Y523201

$780

Cozy Armchair

Code - Y523201

$520

Content

📁 **Product**   ›

Product   + ···

🔍 Search list

Uchiwa Quilted Lounge Chair

Nautilus Lounge Chair

Leisure Sofa Chair Set

Nordic Net Red Chair

Cantilever Chair

Diondre Chair - Tuft Button - Acrylic Le...

Replica Hans Wegner Wishbone Chair

Armchair Tortuga

Stylish Golden Metal Legs Mint Blue Fa...

High Quality Modern Customized Plast...

Luxury Flower Shell Sofa Chair

Futuristic Sleek Modern Chair

Tribù Elio Chair

Rapson Thirty-Nine Guest Chair

Matilda Velvet Chair – Pink

Sabury Blue Folding Chair Wooden Pad

```json
{
    "products": [
        {
            "id": "1",
            "name": "Tribù Elio Chair",
            "imagePath": "https://next-ecommerce-template-4.vercel.app/product/Chair (5).png",
            "price": "1200",
            "description": "A sleek outdoor chair with natural wooden elements and a modern look.",
            "discountPercentage": 10,
            "isFeaturedProduct": true,
            "stockLevel": 25,
            "category": "Chair"
        },
        {
            "id": "2",
            "name": "Armchair Tortuga",
            "imagePath": "https://next-ecommerce-template-4.vercel.app/product/Chair (35).png",
            "price": "850",
            "description": "An elegant armchair with plush cushions and a curved design for comfort.",
            "discountPercentage": 0,
            "isFeaturedProduct": false,
            "stockLevel": 10,
            "category": "Chair"
        },
        {
            "id": "3",
            "name": "Uchiwa Quilted Lounge Chair",
            "imagePath": "https://next-ecommerce-template-4.vercel.app/product/Chair (6).png",
            "price": "1600",
            "description": "A spacious lounge chair with a quilted back and soft cushioning.",
            "discountPercentage": 20,
            "isFeaturedProduct": true,
            "stockLevel": 5,
            "category": "Chair"
        },
        {
            "id": "4",
            "name": "Stylish Golden Metal Legs Mint Blue Fabric Velvet Sofa Leisure Armchair",
            "imagePath": "https://next-ecommerce-template-4.vercel.app/product/Chair (3).png",
            "price": "780",
            "description": "A luxurious armchair with velvet fabric and golden metal legs.",
            "discountPercentage": 0,
            "isFeaturedProduct": false,
            "stockLevel": 12,
            "category": "Sofa"
        },
        {
            "id": "5",
            "name": "Hans Wegner Style Three-Legged Shell Chair",
            "imagePath": "https://next-ecommerce-template-4.vercel.app/product/Chair (4).png",
            "price": "990",
            "description": "Iconic three-legged chair with faux leather and ash plywood frame.",
            "discountPercentage": 10,
            "isFeaturedProduct": false,
            "stockLevel": 8,
            "category": "Chair"
        },
        {
            "id": "6",
            "name": "Rapson Thirty-Nine Guest Chair",
            "imagePath": "https://next-ecommerce-template-4.vercel.app/product/Chair (7).png",
            "price": "1300",
            "description": "A mid-century modern chair with clean lines and durable materials.",
            "discountPercentage": 15,
            "isFeaturedProduct": true,
            "stockLevel": 20,
            "category": "Chair"
        },
```