

Day 3 - API Integration Report

Komal's Shoes E-commerce Store

Overview of Marketplace Website Integration and API Setup

This document outlines the integration process of an API into the e-commerce website for Komal's Shoes Store. The goal is to transition from static product data to a dynamic and scalable solution using Sanity CMS as a content management system (CMS).

Objective

The website initially contained hardcoded product details such as names, images, and prices. To improve flexibility and ensure real-time updates, we integrated Sanity CMS to dynamically manage and retrieve product data. Using GROQ queries, the website fetches updated product information directly from the CMS, eliminating the need for manual updates in the code. This document provides a step-by-step guide on how the API was integrated, ensuring a seamless transition from static data to a dynamic, real-time updating system that enhances both user experience and ease of content management.

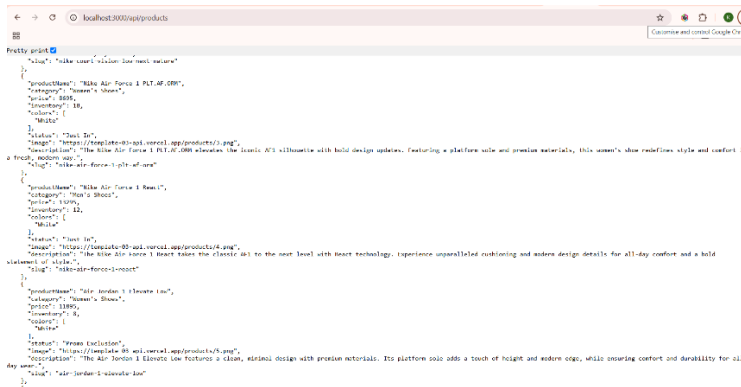
Objectives:

- Integrating APIs into the shoe store website.
- Migrating product data into Sanity CMS.
- Ensuring compatibility between the API and the CMS schema.

API Integration

Folder Structure and API Setup:

I have created a data folder in src directory and add products.json file in data to configure API inside it. So that product data can be fetch dynamically.



The screenshot displays the Studio Vision interface with a REST client tab. The request is a GET call to the endpoint `https://c10up2um.api.sanity.io/v2025-01-16/data/query/product?_type=product`. The response is a JSON array containing 16 items. The first item is a detailed object for a Nike Air Force 1 Mid '07 shoe, including its name, description, price, and image asset.

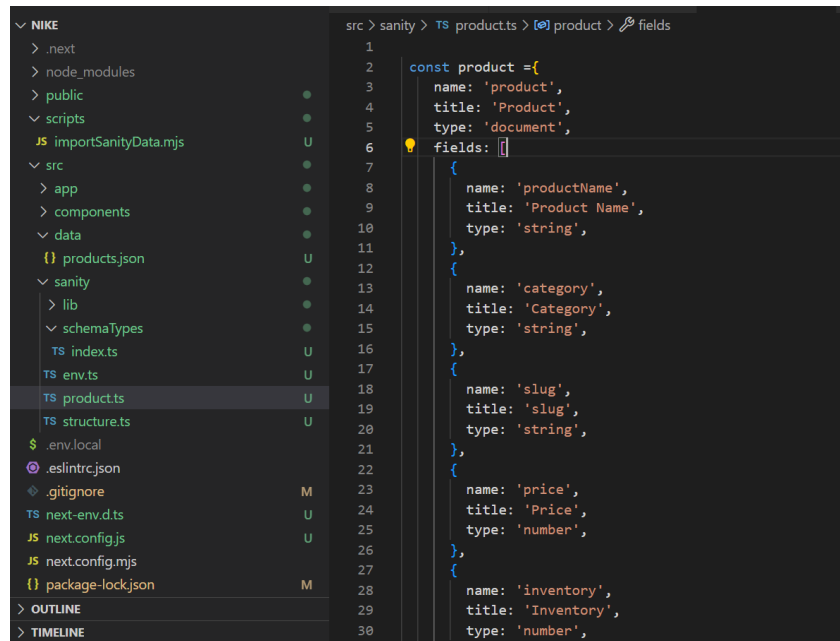
```

{
  "_type": "product"
}

[
  {
    "_rev": "Fh6f1li0vFx5G2ehku5F4v",
    "_id": "Fh6f1li0vFx5G2ehku5F8h",
    "category": "Men's Shoes",
    "_updatedAt": "2025-02-01T19:18:19Z",
    "status": "Just In",
    "description": "The Nike Air Force 1 Mid '07 delivers timeless style with premium leather and mid-cut design. Perfect for everyday wear, it provides exceptional comfort and durability. The iconic Air-Sole cushioning adds responsive support for long-lasting performance.",
    "slug": "nike-air-force-1-mid-07",
    "image": {
      "_type": "image",
      "asset": {
        "_type": "image",
        "_ref": "image-d5ee6135e220e7c8de63e4b91159ff788e27757d-348x348-png",
        "_type": "reference",
        "price": 18795,
        "_createdAt": "2025-02-01T19:18:19Z",
        "tvme": "product"
      }
    }
  }
]

```

I have Created a schema in Sanity CMS and add slug field which was missing in schema to fetch data dynamically and import product.ts file in sanity/schemaTypes/index.ts



```
src > sanity > TS product.ts > fields
1
2 const product = {
3   name: 'product',
4   title: 'Product',
5   type: 'document',
6   fields: [
7     {
8       name: 'productName',
9       title: 'Product Name',
10      type: 'string',
11    },
12    {
13      name: 'category',
14      title: 'Category',
15      type: 'string',
16    },
17    {
18      name: 'slug',
19      title: 'slug',
20      type: 'string',
21    },
22    {
23      name: 'price',
24      title: 'Price',
25      type: 'number',
26    },
27    {
28      name: 'inventory',
29      title: 'Inventory',
30      type: 'number',
31    }
32  ]
33 }
```

```
src > sanity > schemaTypes > TS index.ts > ...
1 import { type SchemaTypeDefinition } from 'sanity'
2 import product from '../product'
3
4
5
6 export const schema: { types: SchemaTypeDefinition[] } = {
7   types: [product],
8 }
9
```

Data Migration

Method Used:

- Created an import script named importSanityData.js to migrate data into Sanity CMS.

```

scripts > JS importSanityData.mjs > importData > response
1 import { createClient } from '@sanity/client';
2 import axios from 'axios';
3 import dotenv from 'dotenv';
4 import { fileURLToPath } from 'url';
5 import path from 'path';
6
7
8 // Load environment variables from .env.local
9 const __filename = fileURLToPath(import.meta.url);
10 const __dirname = path.dirname(__filename);
11 dotenv.config({ path: path.resolve(__dirname, '../.env.local') });
12
13 // Create Sanity client
14 const client = createClient({
15   projectId: process.env.NEXT_PUBLIC_SANITY_PROJECT_ID,
16   dataset: process.env.NEXT_PUBLIC_SANITY_DATASET,
17   useCdn: false,
18   token: process.env.SANITY_API_TOKEN,
19   apiVersion: '2021-08-31'
20 });
21
22
23 async function uploadImageToSanity(imageUrl) {
24   try {
25     console.log(`Uploading image: ${imageUrl}`);
26     const response = await axios.get(imageUrl, { responseType: 'arraybuffer' });
27     const buffer = Buffer.from(response.data);
28     const asset = await client.assets.upload('image', buffer, {
29       filename: imageUrl.split('/').pop()
30     });

```

Steps for Migration:

1. Install required dependencies: `npm install @sanity/client axios dotenv`
2. Run the import script: `npm run import-data`
3. Verify that data has been successfully imported into Sanity CMS.

```

D:\assignments\nike>npm run import-data

> nike@0.1.0 import-data
> node scripts/importSanityData.mjs

migrating data please wait...
products ==>> [
  {
    productName: "Nike Air Force 1 Mid '07",
    category: "Men's Shoes",
    price: 10795,
    inventory: 20,
    colors: [ 'White' ],
    status: 'Just In',
    image: 'https://template-03-api.vercel.app/products/1.png',
    description: "The Nike Air Force 1 Mid '07 delivers timeless style with premium leather and mid-cut design. Perfect for everyday wear, it provides exceptional comfort and durability. The iconic Air-Sole cushioning adds responsive support for long-lasting performance.",
    slug: 'nike-air-force-1-mid-07'
  },
  {
    productName: 'Nike Court Vision Low Next Nature',
    category: "Men's Shoes",
    price: 4995,
    inventory: 35,
    colors: [ 'Black' ],
    status: 'Just In',
    image: 'https://template-03-api.vercel.app/products/2.png',
    description: 'The Nike Court Vision Low Next Nature combines retro basketball style with modern sustainability. Made with at least 20% recycled content, it features a sleek design, durable materials, and ultimate comfort for everyday wear.',
    slug: 'nike-court-vision-low-next-nature'
  },
  {

```

Result:

- Product data is successfully migrated into Sanity CMS.

- GROQ queries are used to fetch and display data dynamically in the project.

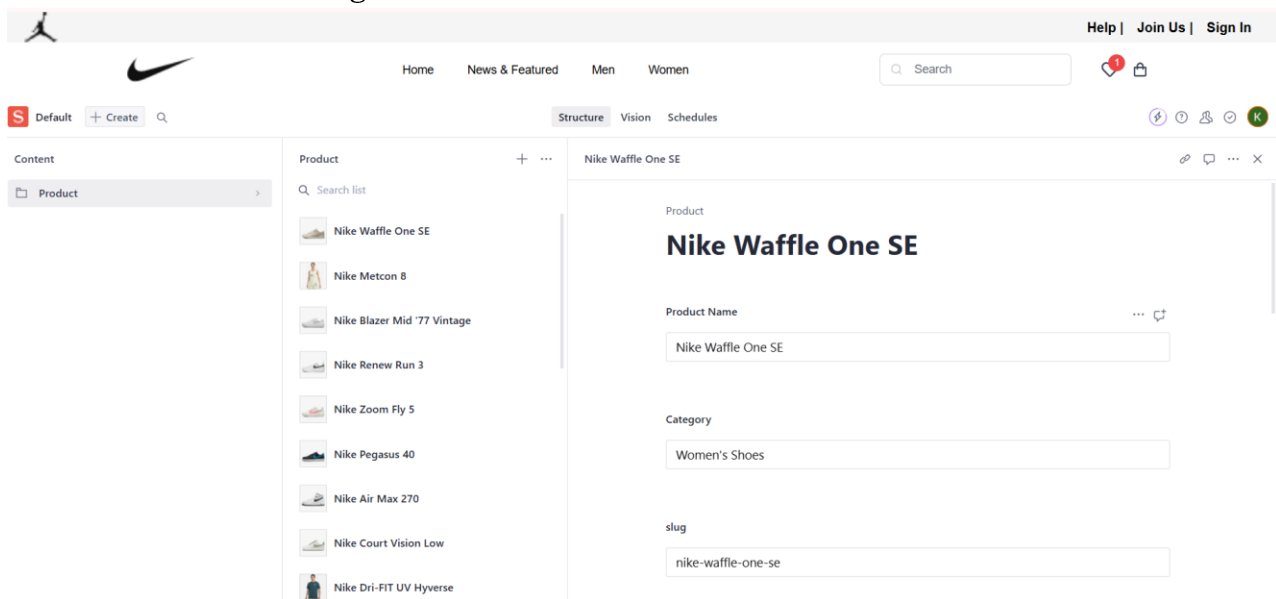
Validation Checklist:

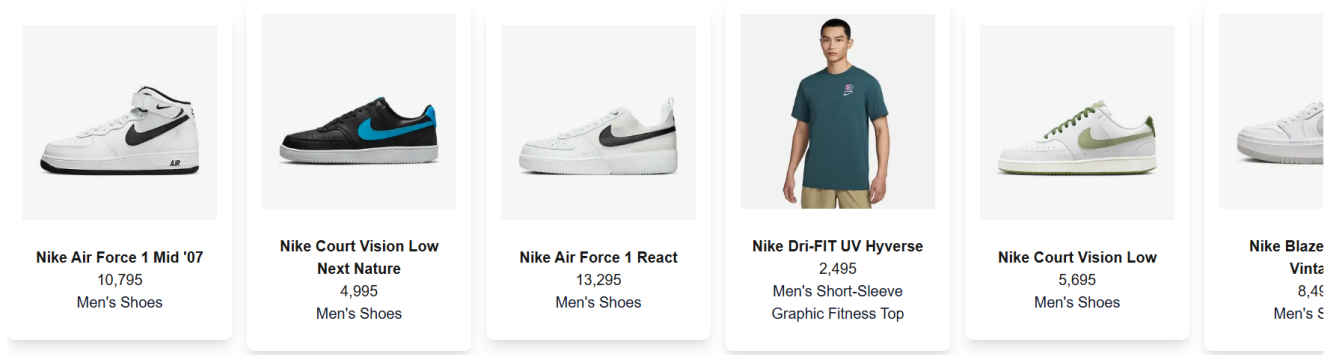
- Data populated in Sanity CMS: **Yes**
- Product details displayed correctly on the frontend: **Yes**
- Errors handled gracefully: **Yes**

Result and Output

Expected Output:

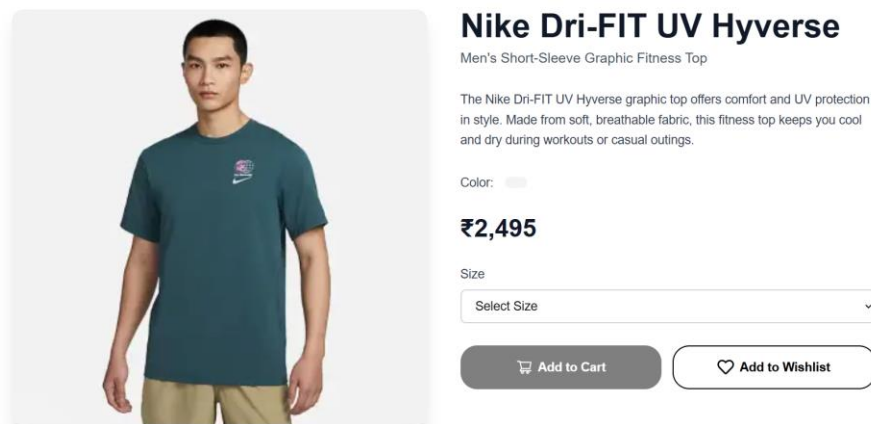
1. Data in Sanity CMS:
 - Products stored with details such as:
 - Name
 - Price
 - Category
 - Image





2. Frontend Display:

- Product listings, categories, and detailed pages working as intended



Conclusion

The API integration successfully replaced static product data with a dynamic, CMS-driven approach using Sanity. The website now reflects real-time updates from the CMS, improving efficiency, scalability, and user experience.