

Hackathon 3 - Day 3:

API Integration and Data Migration- [Nike store]

Overview:

Day 3 focused on integrating APIs with Sanity CMS, emphasizing the use of GROQ queries and schema updates to support dynamic data needs. Below is a summary of the tasks completed:

Key Objectives:

1. Establish a seamless connection with Sanity CMS to efficiently manage product data.
2. Utilize GROQ queries to dynamically retrieve structured data from Sanity.
3. Revise the Sanity schema to meet the changing requirements of the API.
4. Transfer product data from an external API to Sanity CMS, including uploading associated images.
5. Conduct thorough testing and validation to ensure smooth data integration between the backend and frontend.

1. API Data Migration to Sanity:

Objective:

- Transfer product data, including images, from an external API to Sanity CMS.

Steps Taken:

1. Fetch Product Data:

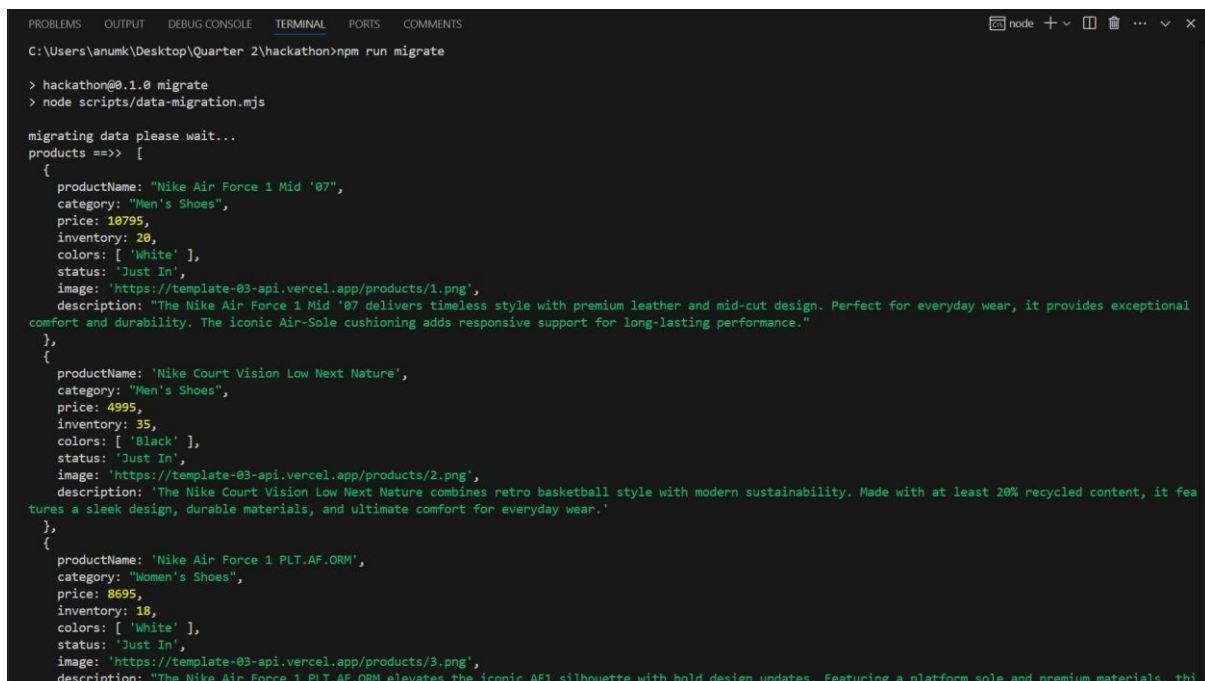
- Utilized Axios to fetch product data from an external API.
- Example API Endpoint: `https://template-03api.vercel.app/api/products`.

2. Upload Images to Sanity:

- Used the `client.assets.upload` method to upload product images to Sanity CMS.
- Ensured that each image was correctly associated with its respective product.

3. Create Product Documents in Sanity:

- Processed the fetched data by iterating over each product and creating corresponding documents in Sanity CMS using the `client.create()` method.



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
C:\Users\anumk\Desktop\Quarter 2\hackathon>npm run migrate

> hackathon@0.1.0 migrate
> node scripts/data-migration.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."
  },
  {
    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."
  },
  {
    productName: 'Nike Air Force 1 PLT.AF.ORM',
    category: "Women's Shoes",
    price: 8695,
    inventory: 18,
    colors: [ 'White' ],
    status: 'Just In',
    image: 'https://template-03-api.vercel.app/products/3.png',
    description: "The Nike Air Force 1 PLT.AF.ORM elevates the iconic AF1 silhouette with bold design updates. Featuring a platform sole and premium materials, thi
```

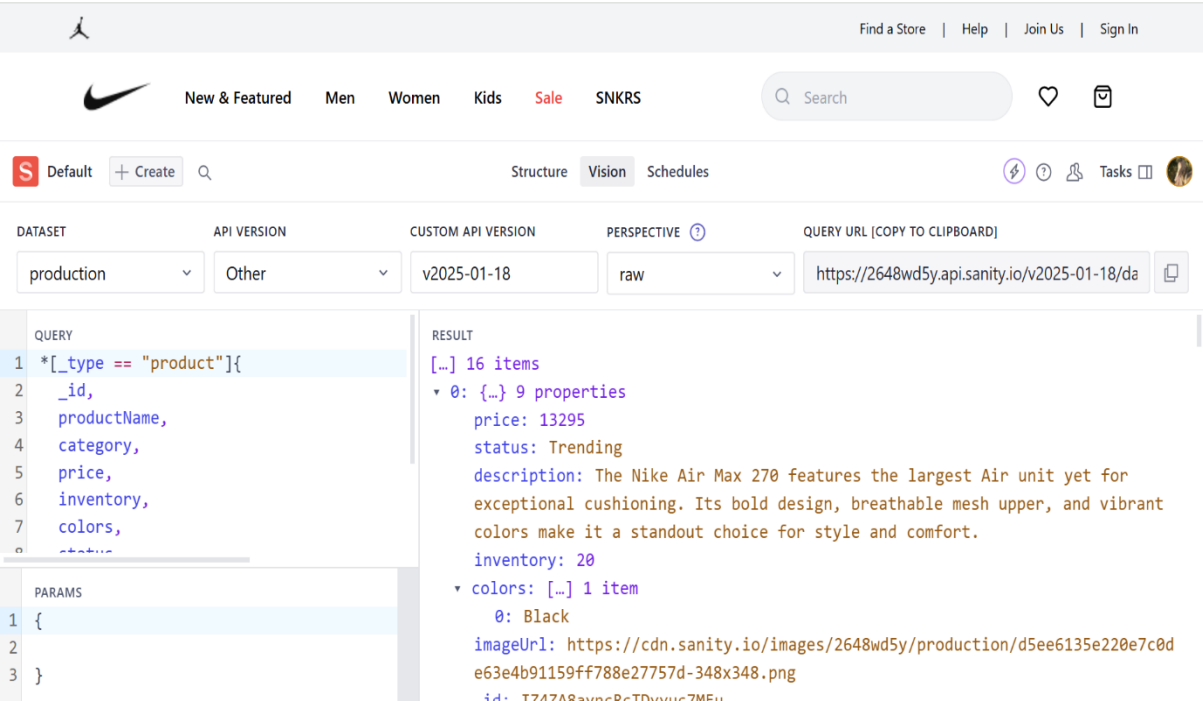
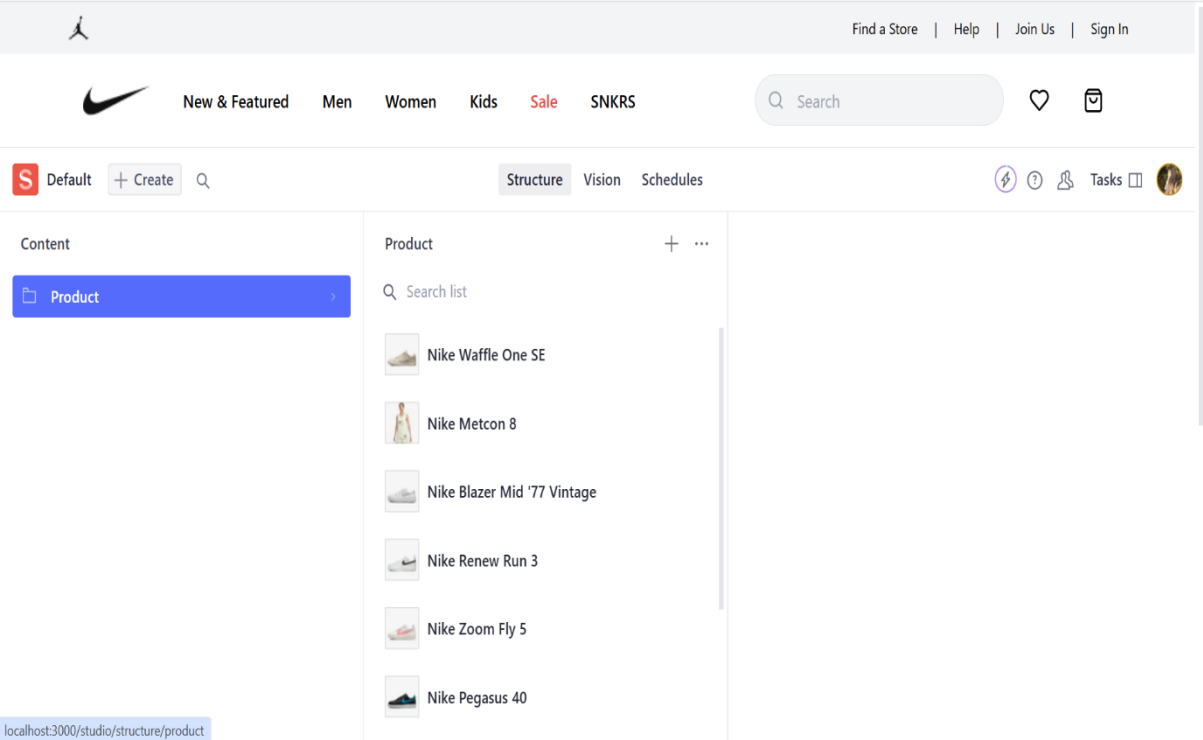
2. Sanity CMS Integration:

Connection Setup:

- Successfully integrated the `@sanity/client` library into the project for seamless communication with the Sanity CMS.
- Configured the client with project-specific credentials, including `projectId`, `dataset`, and `apiVersion`, ensuring secure and efficient access.

Purpose:

To streamline product management and take advantage of Sanity's powerful features, including real-time updates, flexible content modeling, and efficient image optimization.



```

1  import React, { useEffect, useState } from 'react';
2  import Card from '../cards/card';
3  import { client } from '../sanity/lib/client';
4
5  export interface Product {
6    _id: number;
7    productName: string;
8    category: string;
9    price: string;
10   colors: string[];
11   imageUrl: string;
12   description: string;
13 }
14
15
16 const ProductList = () => {
17   const [products, setProducts] = useState<Product[]>([]);
18   const [loading, setLoading] = useState<boolean>(true);
19   const [error, setError] = useState<string | null>(null);
20
21   useEffect(() => {
22     const fetchProducts = async () => {
23       const query = `
24         *[_type == "product"]{
25           _id,
26           productName,
27           category,
28           price,
29           inventory,
30           colors,
31           status,
32           "imageUrl": image.asset->url,
33           description
34         }
35       `;
36
37       try {
38         setLoading(true);
39         const result = await client.fetch(query);
40         setProducts(result);
41       } catch (err) {
42         console.error(err);
43         setError('Failed to fetch products');
44       } finally {
45         setLoading(false);
46       }
47     };
48
49     fetchProducts();
50   }, []);
51
52   if (loading) {
53     return <p>Loading...</p>;
54   }
55
56   if (error) {
57     return <p>{error}</p>;
58   }
59
60   return (
61     <div className="grid grid-cols-1 md:grid-cols-3 lg:grid-cols-3 pb-10 border-b-2">
62       {products.map((product) => (
63         <Card
64           key={product._id}
65           id={product._id}
66           category={product.category}
67           productName={product.productName}
68           description={product.description}
69           colors={product.colors}
70           price={product.price}
71           imageUrl={product.imageUrl}
72         />
73       ))}
74     </div>
75   );
76 };
77
78 export default ProductList;
79

```

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New (500)

Shoes

Sports Bras

Tops & T-Shirts

Hoodies & Sweatshirts

Jackets

Trousers & Tights

Shorts

Tracksuits

Jumpsuits & Rompers

Skirts & Dresses

Socks

Accessories & Equipment

4

Gender

Gender

☐ Men

☐ Women

☐ Unisex


Shop By Price

☐ Under ₹ 2,500.00

☐ ₹ 2,501.00 - ₹ 7,500.00

Hide Filters


Sort By



Men's Shoes

Nike Air Force 1 Mid '07 White


MRP: ₹ 10795



Men's Shoes

Nike Dunk Low Retro SE Beige


MRP: ₹ 9695



Men's Short-Sleeve Graphic Fitness Top

Nike Dri-FIT UV Hyverse Teal


MRP: ₹ 2495



Women's Shoes

Nike Waffle One SE Pink


MRP: ₹ 7895



Men's Shoes

Nike Court Vision Low Next Nature Black


MRP: ₹ 4995



Men's Shoes

Nike Air Force 1 React White


MRP: ₹ 13295



Women's Shoes

Air Jordan 1 Elevate Low White


MRP: ₹ 11895



Men's Running Shoes

Nike Pegasus 40 Gray


MRP: ₹ 9795



Men's Running Shoes

Nike Zoom Fly 5 BlackWhite


MRP: ₹ 11295



Men's Training Shoes

Nike Metcon 8 Black


MRP: ₹ 10295



Women's Shoes

Nike Air Force 1 PLT.AF.ORM White

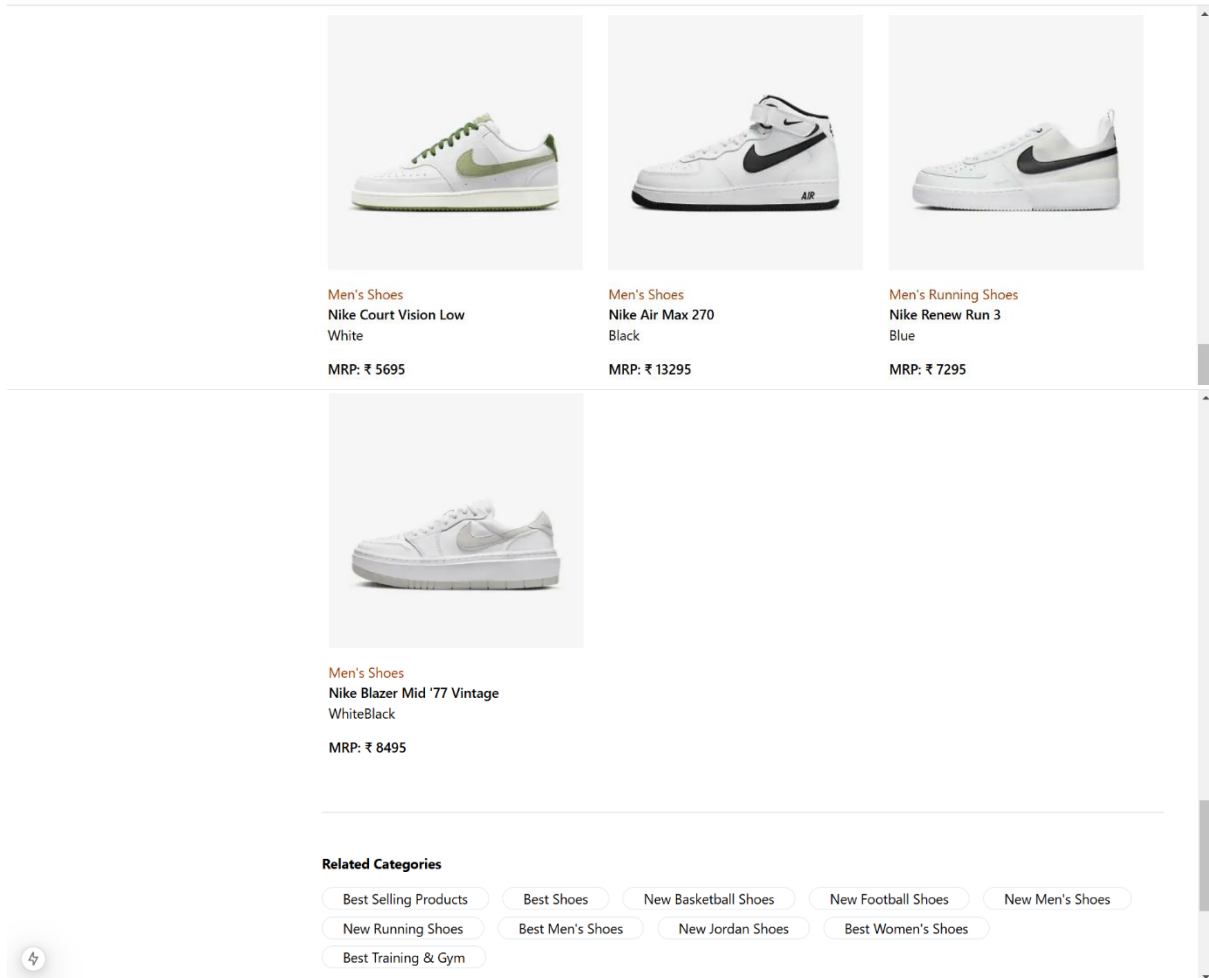
MRP: ₹ 8695



Women's Basketball Jersey

Nike Standard Issue Basketball Jersey White

MRP: ₹ 2895



3. Schema Enhancements in Sanity CMS:

- Refined the product schema to meet the application's evolving requirements, incorporating new fields and validations.

- **Key Updates:**

- **Inventory:** Added to monitor product stock levels.
- **Colors:** Updated to store available color options as an array.

```
TS products.ts U X ... TS products.ts U X
src > sanity > schemaTypes > TS products.ts > ... src > sanity > schemaTypes > TS products.ts > ...
1 export const productSchema = { 1 export const productSchema = {
2   name: 'product', 5   fields: [
3   title: 'Product', 32   {
4   type: 'document', 33     name: 'status',
5   fields: [ 34     title: 'Status',
6     { 35     type: 'string',
7       name: 'productName', 36   },
8       title: 'Product Name', 37   {
9       type: 'string', 38     name: 'image',
10    }, 39     title: 'Image',
11    { 40     type: 'image', // Using Sanity's image type for image field
12     name: 'category', 41     options: {
13     title: 'Category', 42       hotspot: true,
14     type: 'string', 43   },
15   }, 44   },
16   { 45   {
17     name: 'price', 46     name: 'description',
18     title: 'Price', 47     title: 'Description',
19     type: 'number', 48     type: 'text',
20   }, 49   },
21   { 50   },
22     name: 'inventory', 51   }
23     title: 'Inventory',
24     type: 'number',
25   },
26   {
27     name: 'colors',
28     title: 'Colors',
29     type: 'array',
30     of: [{ type: 'string' }],
31   },
32   {
33     name: 'status',
```