Day 3 - API Integration Report - OutfitPlus

API Integration Process

Overview

The API integration for OutfitPlus involved setting up an endpoint to fetch paginated product data from Sanity CMS and displaying it dynamically on the frontend. The integration was done using Next.js API routes.

Steps Implemented:

1. **Created an API route** in `pages/api/products.ts` to fetch paginated product data from Sanity.
2. **Integrated the API** into the frontend to dynamically display products.
3. **Implemented schema adjustments** to support additional fields.
4. **Migrated existing data** from a local source to Sanity using a migration script.

Adjustments Made to Schemas

Product Schema (`sanity/schemaTypes/product.ts`)

The schema was updated to include essential fields such as ID, name, image, price, discount, description, category, and rating.

Updated Schema:

```
export default {
  name: "product",
  title: "Product",
  type: "document",
  fields: [
    { name: "id", title: "ID", type: "string" },
    { name: "name", title: "Name", type: "string" },
    { name: "image", title: "Image", type: "image", options: { hotspot: true } },
    { name: "price", title: "Price", type: "number", validation: (Rule: any) =>
Rule.required().positive() },
    { name: "discount", title: "Discount", type: "number", validation: (Rule: any) =>
Rule.required().min(0).max(100) },
    { name: "description", title: "Description", type: "text" },
    { name: "category", title: "Category", type: "string", options: { list: [
        { title: "Men's Wear", value: "Men's Wear" },
        { title: "Women's Wear", value: "Women's Wear" },
        { title: "Kid's Wear", value: "Kid's Wear" },
        { title: "Accessories", value: "Accessories" }
      ] }
    },
    { name: "rating", title: "Rating", type: "string" },
  ],
};
```

Migration Steps and Tools Used

Tools Used:

- **Sanity Client** for interacting with the CMS.
- **Node.js Fetch API** for retrieving product data.
- **Sanity Image Upload API** for handling product images.

Migration Script (`migrateToSanity.mjs`)

```
import { createClient } from "@sanity/client";
import fetch from "node-fetch";

const client = createClient({
  projectId: "6jutbhfg",
  dataset: "production",
  token: "YOUR_SANITY_TOKEN",
  useCdn: false,
  apiVersion: "2021-03-25",
});

async function uploadImageToSanity(imageUrl) {
  const response = await fetch(imageUrl);
  const buffer = await response.buffer();
  return client.assets.upload("image", buffer, { filename: imageUrl.split("/").pop() });
}

async function migrateToSanity() {
  try {
    const response = await fetch("http://127.0.0.1:3000/api/products");
    if (!response.ok) throw new Error(`HTTP error! status: ${response.status}`);

    const products = await response.json();
    console.log(`Fetched ${products.length} products from API`);

    for (const product of products) {
      try {
        const imageAsset = await uploadImageToSanity(product.imageUrl);
        const result = await client.create({
          _type: "product",
          id: product.id,
          name: product.name,
          image: { _type: "image", asset: { _type: "reference", _ref: imageAsset._id } },
          price: parseFloat(product.price.replace("$", "")),
          discount: parseFloat(product.discount.replace("%", "")),
          description: product.description,
          category: product.category,
          rating: product.rating,
        });
        console.log(`Created product with ID: ${result._id}`);
      } catch (err) {
        console.error(`Failed to create product: ${product.name}`, err);
      }
    }
    console.log("Migration completed successfully!");
  } catch (error) {
    console.error("Error during migration:", error);
  }
}

migrateToSanity();
```

API Calls

API Endpoint (`pages/api/products.ts`)

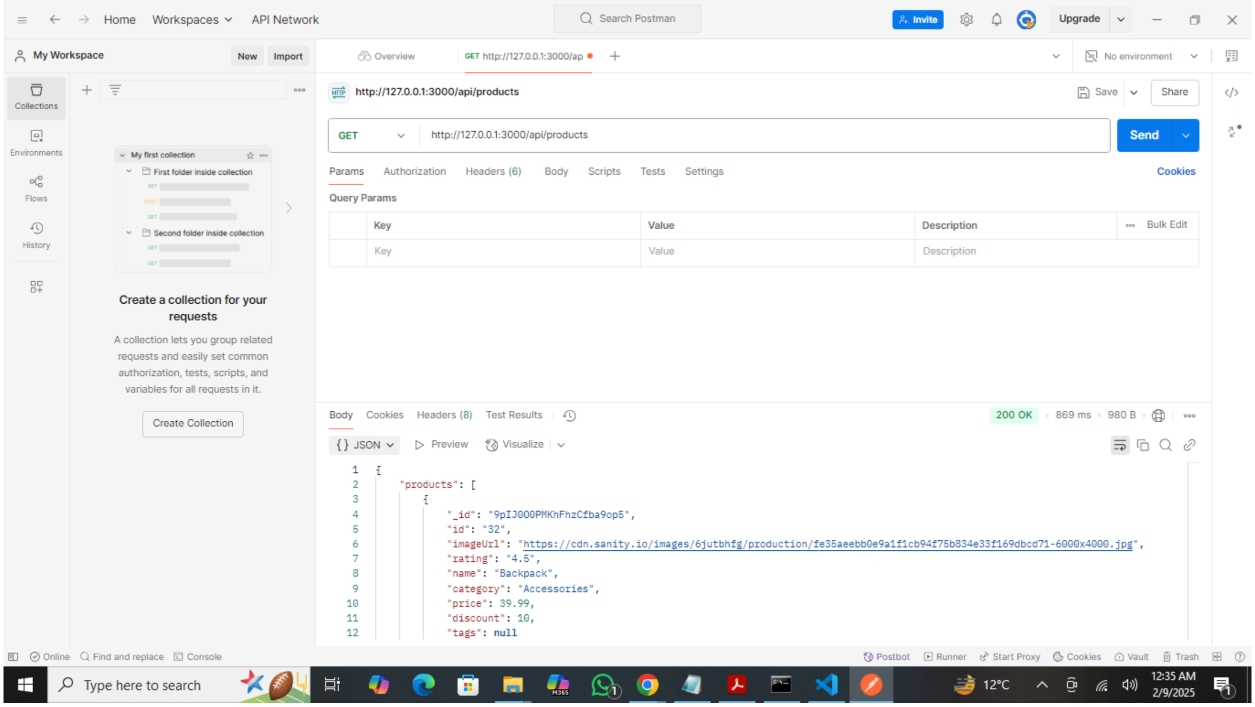
```
import type { NextApiRequest, NextApiResponse } from "next";
import { getPaginatedProducts } from "@/sanity/lib/client";

export default async function handler(req: NextApiRequest, res: NextApiResponse) {
 const { page = "1", perPage = "8", categories, search } = req.query;
 try {
   const result = await getPaginatedProducts(
     Number(page), Number(perPage),
     categories ? (Array.isArray(categories) ? categories : [categories]) : undefined,
     search ? String(search) : undefined
   );
   res.status(200).json(result);
 } catch (error) {
   console.error("Error fetching products:", error);
   res.status(500).json({ error: "Error fetching products" });
 }
}
```

Screenshots

1. API Calls:

(Screenshot of API response in Postman or browser console)



Create a collection for your requests

A collection lets you group related requests and easily set common authorization, tests, scripts, and variables for all requests in it.

http://127.0.0.1:3000/api/products

GET http://127.0.0.1:3000/api/products

Query Params

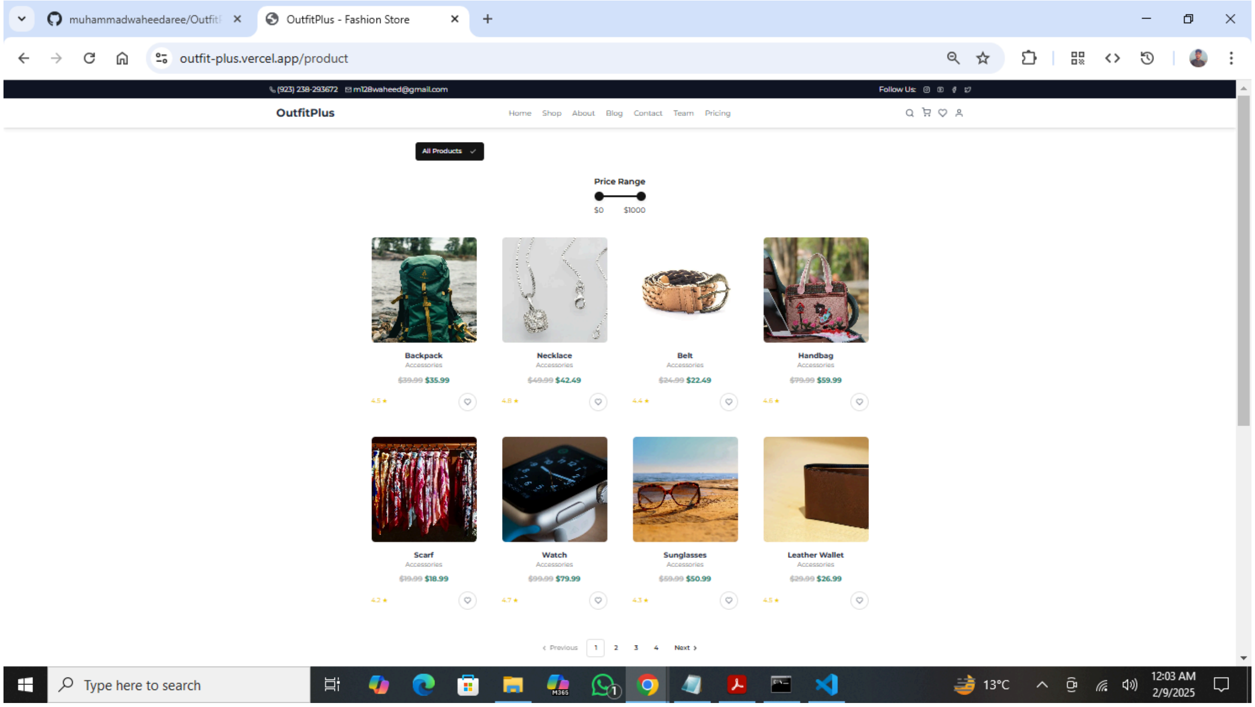
Key	Value	Description
Key	Value	Description

200 OK · 869 ms · 980 B

```
{
    "products": [
        {
            "_id": "9pIJ000PMKhFhzCfba9op5",
            "id": "32",
            "imageUrl": "https://cdn.sanity.io/images/6jutbhfg/production/fe35aeebb0e9a1f1cb94f75b834e33f169dbcd71-6000x4000.jpg",
            "rating": "4.5",
            "name": "Backpack",
            "category": "Accessories",
            "price": 39.99,
            "discount": 10,
            "tags": null
```

2. Data Successfully Displayed in Frontend:

(Screenshot of product listings on the website)



OutfitPlus - Fashion Store

outfit-plus.vercel.app/product

(923) 238-293672 m128waheed@gmail.com Follow Us:

Price Range

$0 $1000

Backpack
Accessories
~~$39.99~~ $35.99
4.5 ★

Necklace
Accessories
~~$49.99~~ $42.49
4.8 ★

Belt
Accessories
~~$24.99~~ $22.49
4.4 ★

Handbag
Accessories
~~$79.99~~ $59.99
4.6 ★

Scarf
Accessories
~~$19.99~~ $18.99
4.2 ★

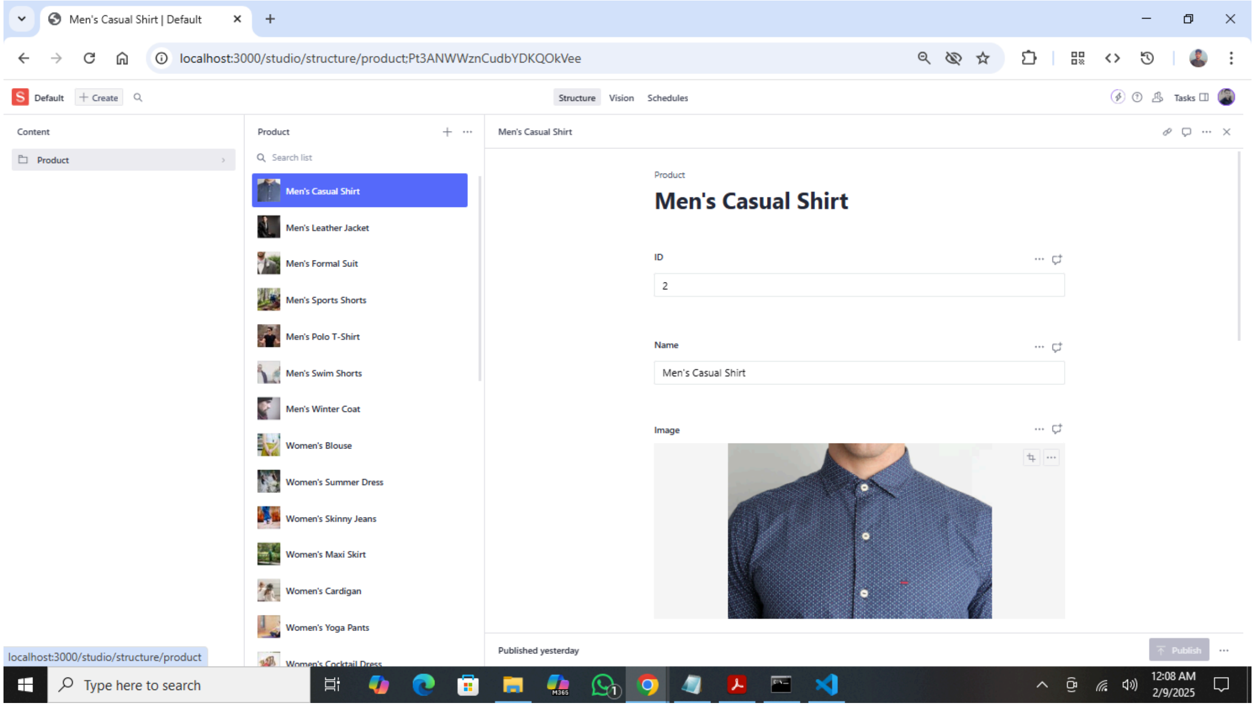
Watch
Accessories
~~$99.99~~ $79.99
4.7 ★

Sunglasses
Accessories
~~$59.99~~ $50.99
4.3 ★

Leather Wallet
Accessories
~~$29.99~~ $26.99
4.5 ★

3. Populated Sanity CMS Fields:

(Screenshot of Sanity Studio showing uploaded products)



Men's Casual Shirt | Default

localhost:3000/studio/structure/product;Pt3ANWWznCudbYDKQOkVee

Product

- Men's Casual Shirt
- Men's Leather Jacket
- Men's Formal Suit
- Men's Sports Shorts
- Men's Polo T-Shirt
- Men's Swim Shorts
- Men's Winter Coat
- Women's Blouse
- Women's Summer Dress
- Women's Skinny Jeans
- Women's Maxi Skirt
- Women's Cardigan
- Women's Yoga Pants
- Women's Cocktail Dress

Men's Casual Shirt

Product

Men's Casual Shirt

ID: 2

Name: Men's Casual Shirt

Image

Published yesterday

Conclusion

The API integration and data migration were successfully implemented, allowing seamless fetching and rendering of product data from Sanity CMS to the frontend. Screenshots attached demonstrate successful API responses, UI integration, and data storage in Sanity.

✅ **Task Completed Successfully!** 🎉