Day-3 API Integration and Data Migration

Introduction :

This report is about API integration and data migration from API to sanity CMS, by making required adjustments in schemas according to
Wearium Marketplace. The main goal was seamless API Integration And integrate with external product data, and ensure it smoothly fetch
and display it on the website.

- ## **API Integration Process :**

Following are the steps for API-Integration process :

1. **API Understanding:**

   Mention how the API documentation was reviewed to understand endpoints, methods, and parameters.

2. **Environment Variable Setup:**

   Explain how sensitive data like API keys were stored securely in `.env` files.

3. **API Call Implementation:**

   Detail how API calls were made (e.g., using Axios, Fetch, or Next.js server-side methods like `getServerSideProps`).

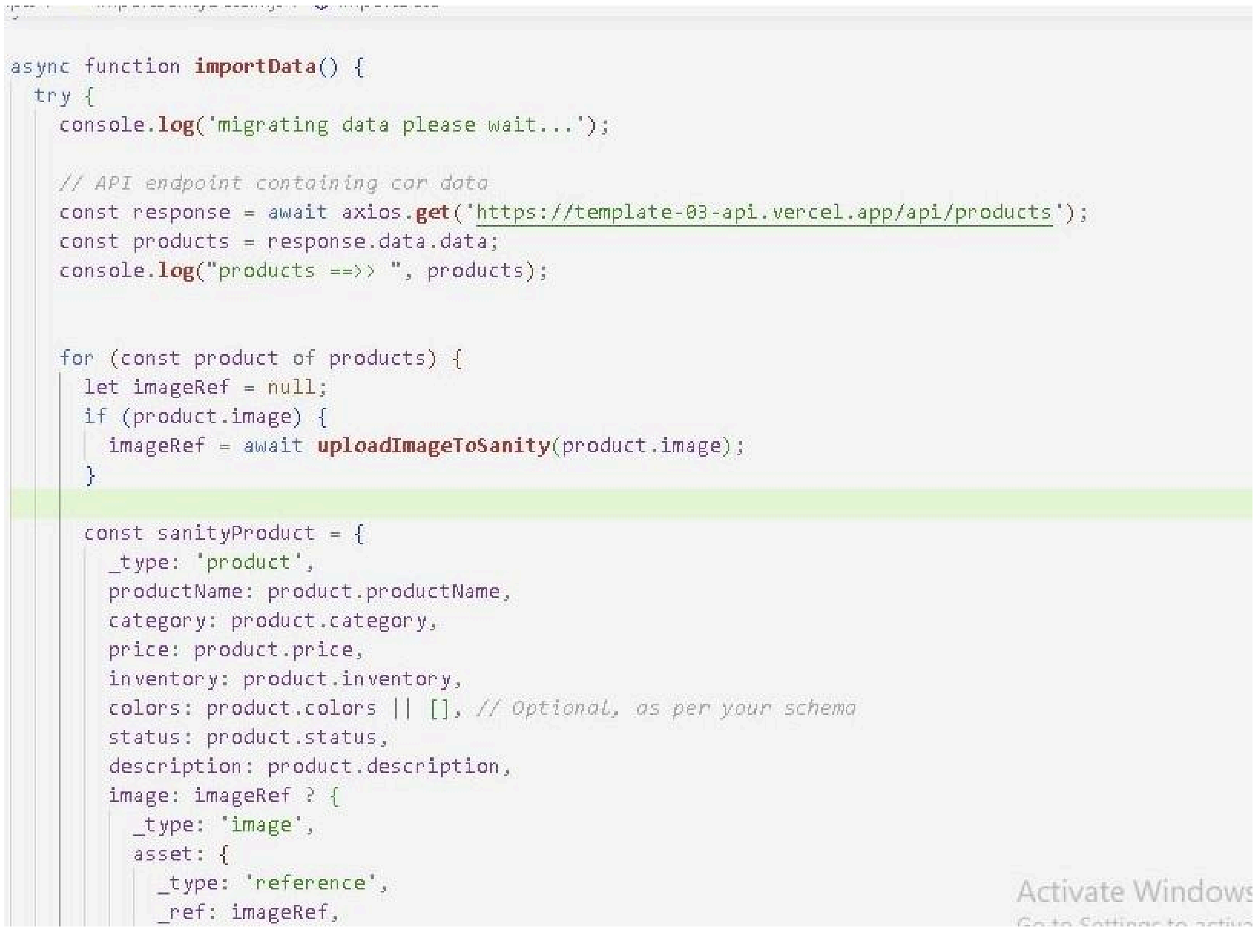
4. Error Handling:

Outline how error responses from the API were managed.

5. Testing:

Mention testing methods used to verify API functionality (e.g., Postman, browser console, or server logs).

“Code snippet API integration to Fetch Data”

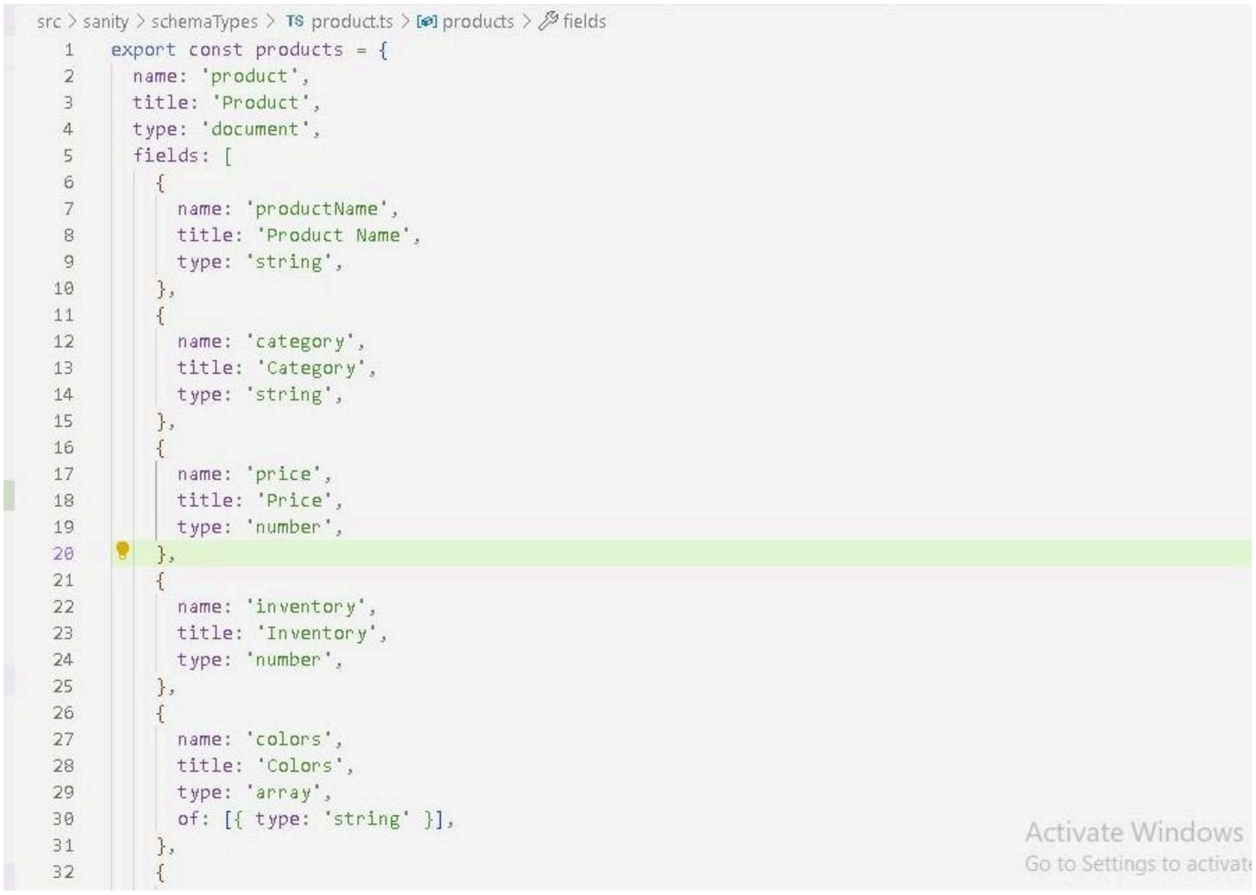


```
async function importData() {
  try {
    console.log('migrating data please wait...');

    // API endpoint containing car data
    const response = await axios.get('https://template-03-api.vercel.app/api/products');
    const products = response.data.data;
    console.log("products ==>> ", products);


    for (const product of products) {
      let imageRef = null;
      if (product.image) {
        imageRef = await uploadImageToSanity(product.image);
      }

      const sanityProduct = {
        _type: 'product',
        productName: product.productName,
        category: product.category,
        price: product.price,
        inventory: product.inventory,
        colors: product.colors || [], // Optional, as per your schema
        status: product.status,
        description: product.description,
        image: imageRef ? {
          _type: 'image',
          asset: {
            _type: 'reference',
            _ref: imageRef,
```

- **<u>Adjustments to Schmas :</u>**

1. **Products :**

New fields add products to the schema to handle API data, like category, status, inventory.



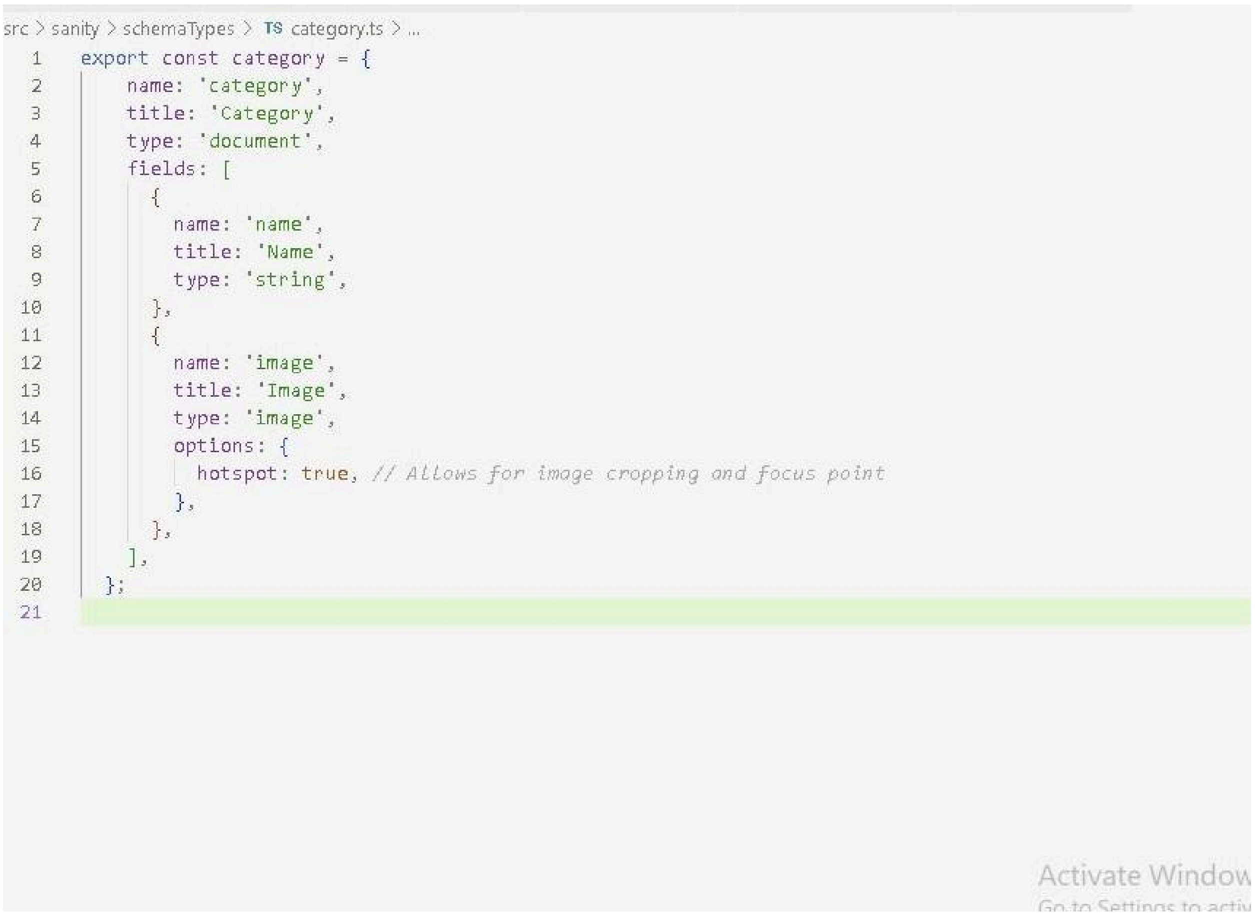
src > sanity > schemaTypes > product.ts > products > fields

```
export const products = {
  name: 'product',
  title: 'Product',
  type: 'document',
  fields: [
    {
      name: 'productName',
      title: 'Product Name',
      type: 'string',
    },
    {
      name: 'category',
      title: 'Category',
      type: 'string',
    },
    {
      name: 'price',
      title: 'Price',
      type: 'number',
    },
    {
      name: 'inventory',
      title: 'Inventory',
      type: 'number',
    },
    {
      name: 'colors',
      title: 'Colors',
      type: 'array',
      of: [{ type: 'string' }],
    },
    {
```

Activate Windows
Go to Settings to activat

2. Category :

A category reference was added to link products to their specific category.



src > sanity > schemaTypes > TS category.ts > ...

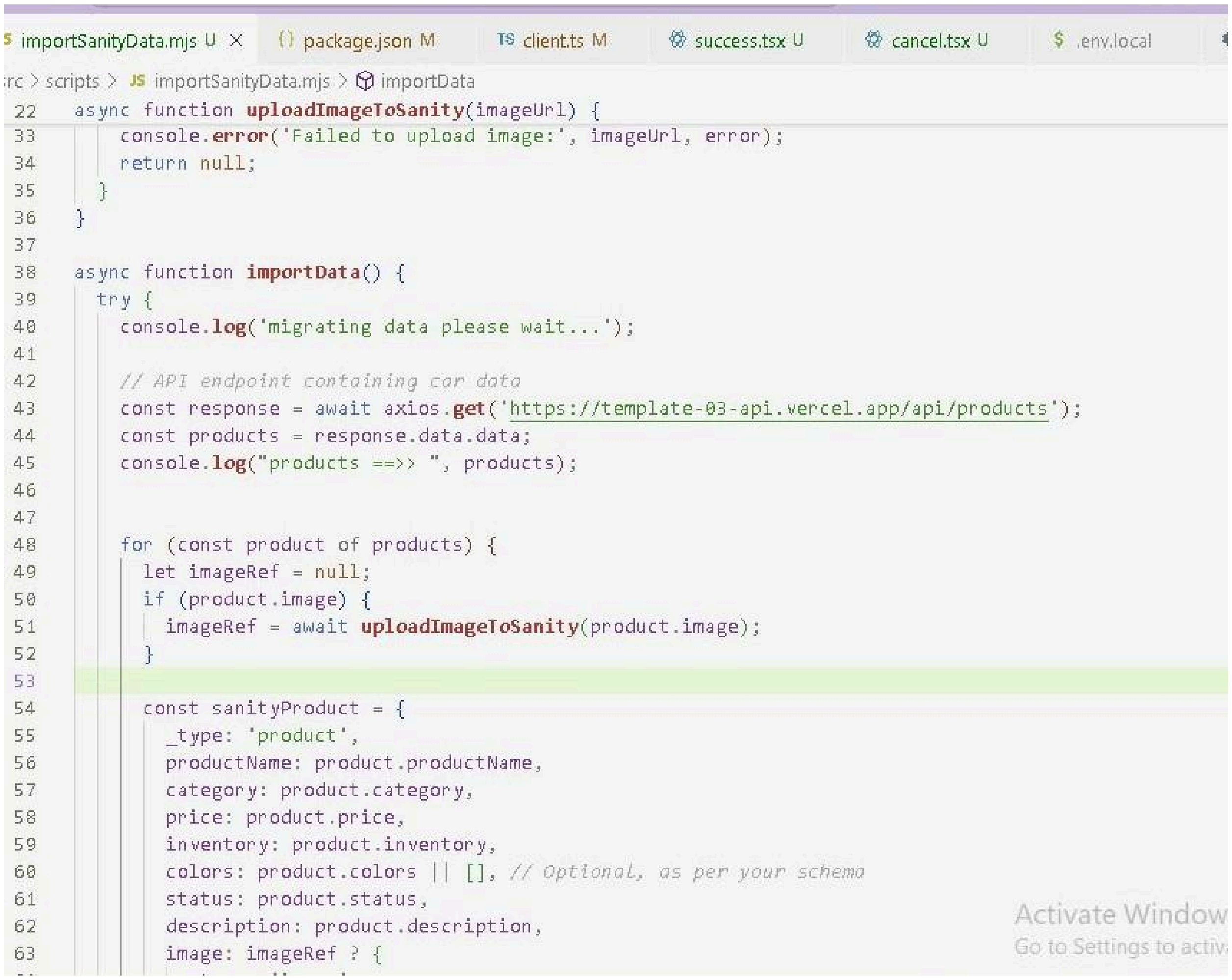
```
export const category = {
    name: 'category',
    title: 'Category',
    type: 'document',
    fields: [
      {
        name: 'name',
        title: 'Name',
        type: 'string',
      },
      {
        name: 'image',
        title: 'Image',
        type: 'image',
        options: {
          hotspot: true, // Allows for image cropping and focus point
        },
      },
    ],
  };
```

- **Data Migration Process :**

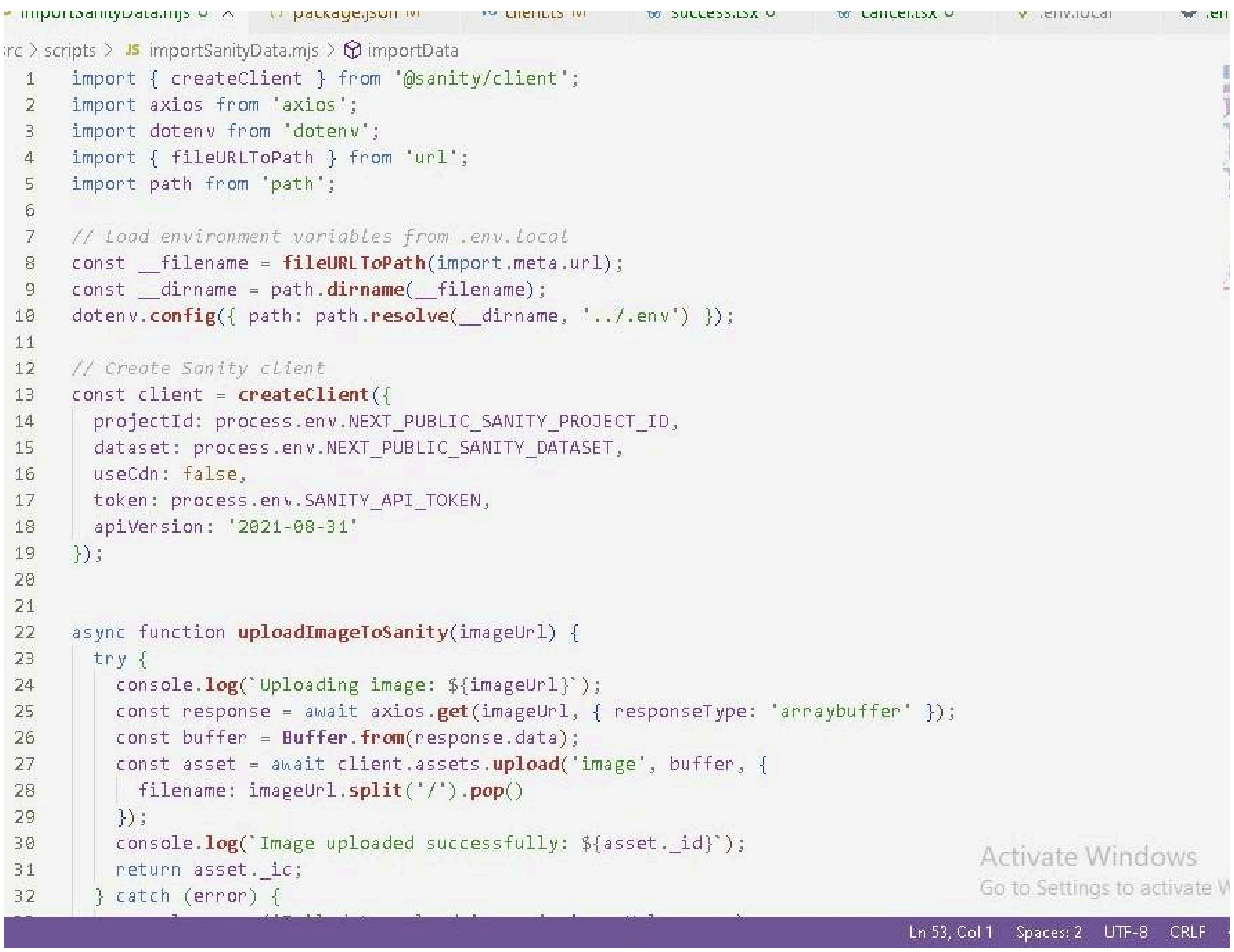
Following steps are use to migrate data from external API to sanity CMS :

1. **Migration scripts :**

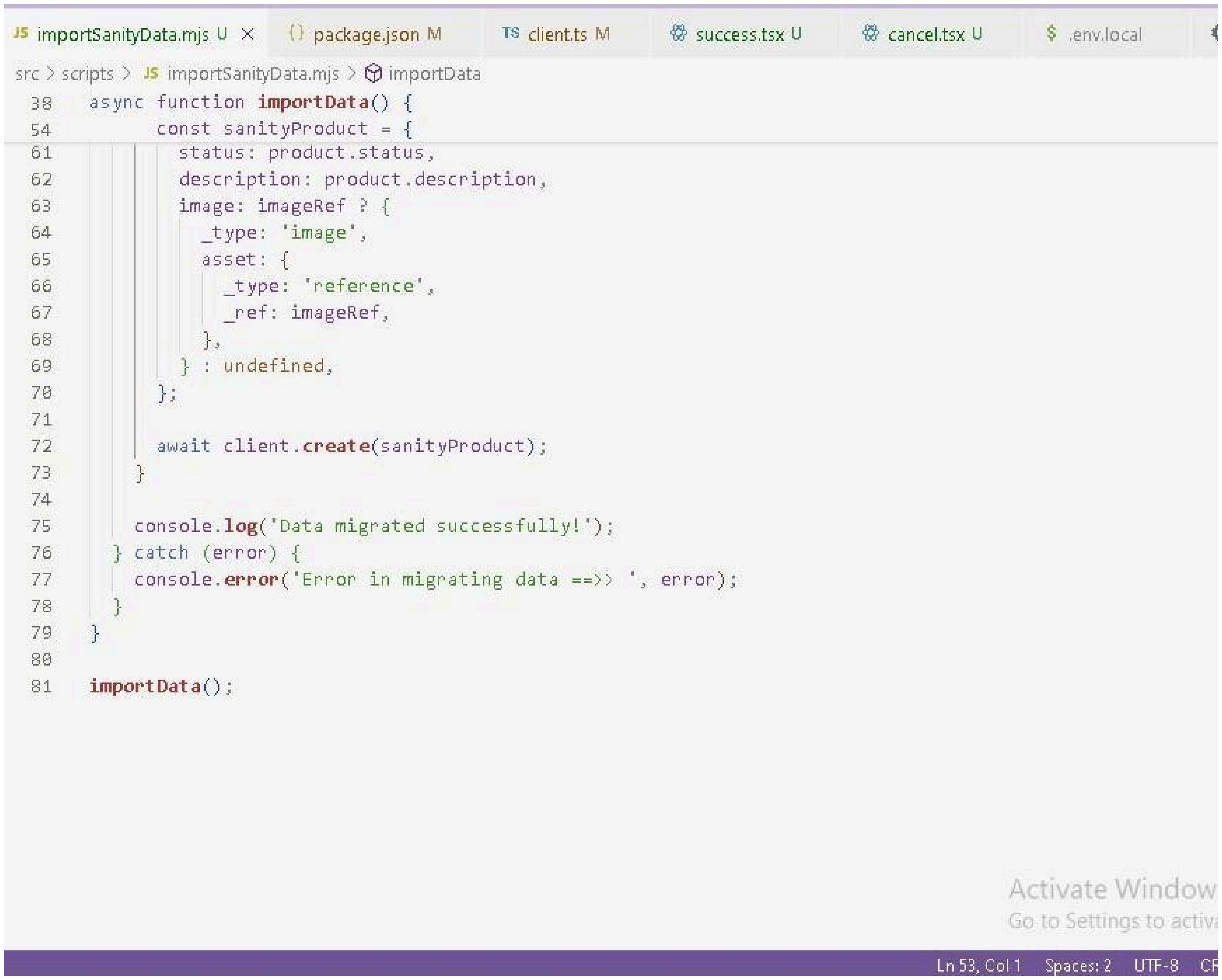
First step is to make migration scripts to push data from API to sanity. This script used Sanity's client to create documents into CMS with data from the external API.



```
async function uploadImageToSanity(imageUrl) {
    console.error('Failed to upload image:', imageUrl, error);
    return null;
  }
}

async function importData() {
  try {
    console.log('migrating data please wait...');

    // API endpoint containing car data
    const response = await axios.get('https://template-03-api.vercel.app/api/products');
    const products = response.data.data;
    console.log("products ==>> ", products);


    for (const product of products) {
      let imageRef = null;
      if (product.image) {
        imageRef = await uploadImageToSanity(product.image);
      }

      const sanityProduct = {
        _type: 'product',
        productName: product.productName,
        category: product.category,
        price: product.price,
        inventory: product.inventory,
        colors: product.colors || [], // Optional, as per your schema
        status: product.status,
        description: product.description,
        image: imageRef ? {
```



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

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

// Create Sanity client
const client = createClient({
  projectId: process.env.NEXT_PUBLIC_SANITY_PROJECT_ID,
  dataset: process.env.NEXT_PUBLIC_SANITY_DATASET,
  useCdn: false,
  token: process.env.SANITY_API_TOKEN,
  apiVersion: '2021-08-31'
});


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) {
```



```
async function importData() {
      const sanityProduct = {
        status: product.status,
        description: product.description,
        image: imageRef ? {
          _type: 'image',
          asset: {
            _type: 'reference',
            _ref: imageRef,
          },
        } : undefined,
      };

      await client.create(sanityProduct);
    }

    console.log('Data migrated successfully!');
  } catch (error) {
    console.error('Error in migrating data ==>> ', error);
  }
}

importData();
```

2. **Run command :**

   To transfer data from API to sanity this command runs for one time only .

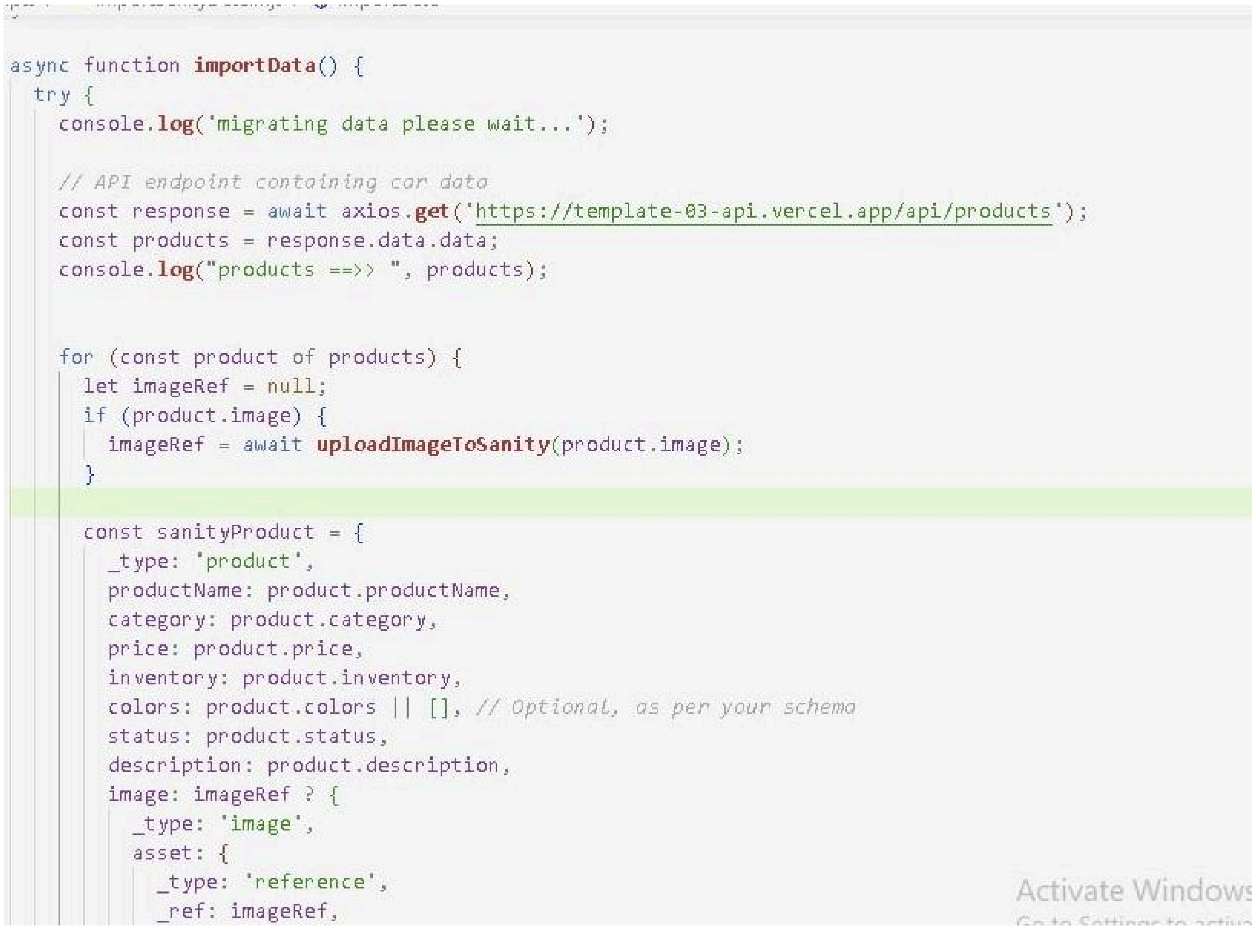
   “Npm run scripts/importSanityData.mjs”

3. **Verification :**

   Sanity studio interface used to validate data migration. We could check product document and their fields to check all the details were saved successfully

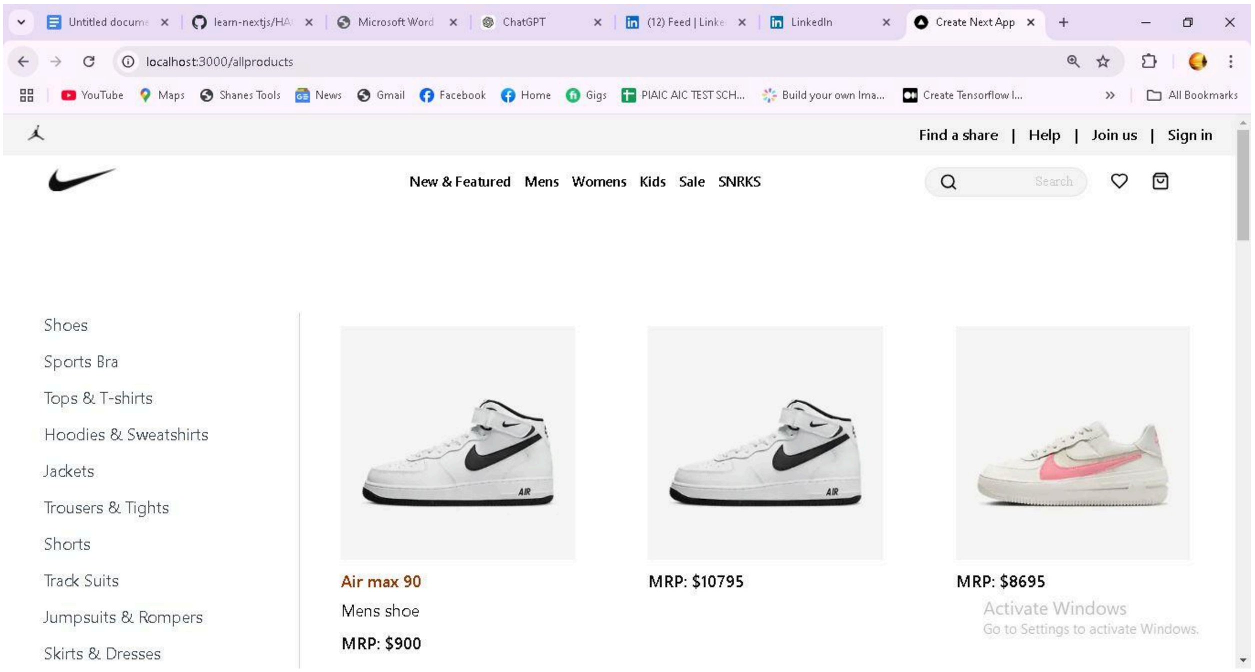
- **Screenshots :**

1.API calls :



```
async function importData() {
  try {
    console.log('migrating data please wait...');

    // API endpoint containing car data
    const response = await axios.get('https://template-03-api.vercel.app/api/products');
    const products = response.data.data;
    console.log("products ==>> ", products);


    for (const product of products) {
      let imageRef = null;
      if (product.image) {
        imageRef = await uploadImageToSanity(product.image);
      }

      const sanityProduct = {
        _type: 'product',
        productName: product.productName,
        category: product.category,
        price: product.price,
        inventory: product.inventory,
        colors: product.colors || [], // Optional, as per your schema
        status: product.status,
        description: product.description,
        image: imageRef ? {
          _type: 'image',
          asset: {
            _type: 'reference',
            _ref: imageRef,
```

2.Frontend display:



localhost:3000/allproducts

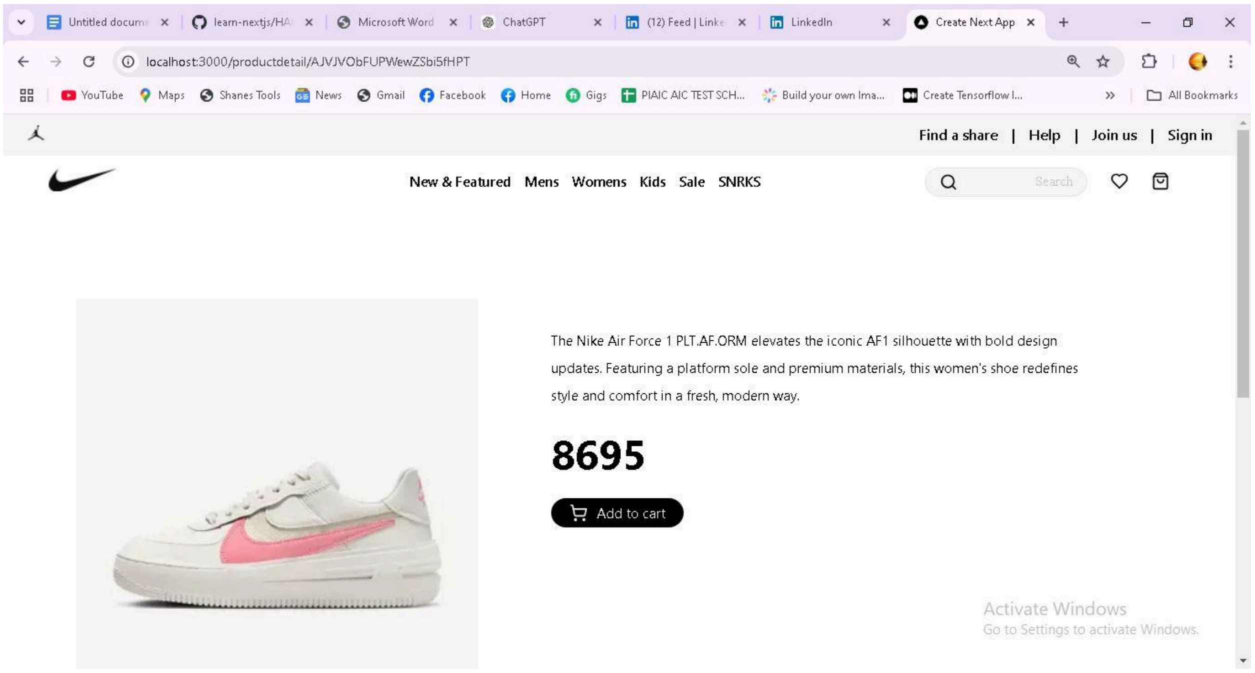
Find a share | Help | Join us | Sign in
New & Featured Mens Womens Kids Sale SNRKS
Search

Shoes
Sports Bra
Tops & T-shirts
Hoodies & Sweatshirts
Jackets
Trousers & Tights
Shorts
Track Suits
Jumpsuits & Rompers
Skirts & Dresses

Air max 90
Mens shoe
MRP: $900

MRP: $10795

MRP: $8695



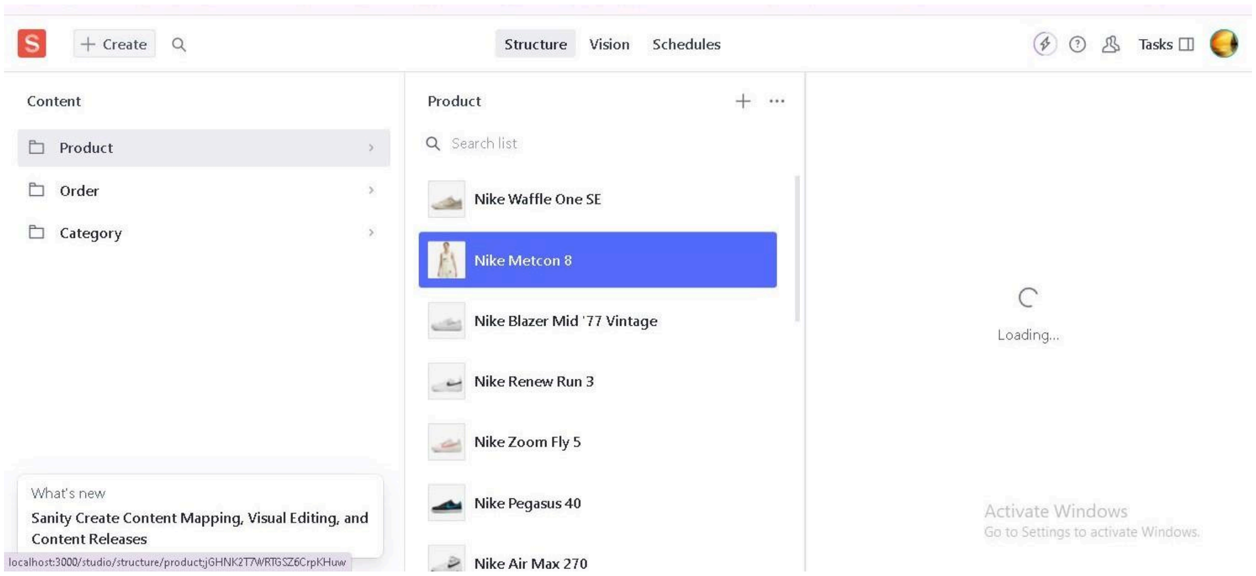
localhost:3000/productdetail/AJVJVObFUPWewZSbi5fHPT

Find a share | Help | Join us | Sign in
New & Featured Mens Womens Kids Sale SNRKS
Search

The Nike Air Force 1 PLT.AF.ORM elevates the iconic AF1 silhouette with bold design updates. Featuring a platform sole and premium materials, this women's shoe redefines style and comfort in a fresh, modern way.

8695

3. Sanity studio fields :



Nike Waffle One SE
Nike Metcon 8
Nike Blazer Mid '77 Vintage
Nike Renew Run 3
Nike Zoom Fly 5
Nike Pegasus 40
Nike Air Max 270

What's new
Sanity Create Content Mapping, Visual Editing, and Content Releases