

API-Integration and Data Migration Report

Date: 7-01-25

Objective:-

The goal for Day 3 is to integrate API data into Sanity CMS for the Bismillah Project. This approach replicates real-world practices and prepares dynamic content updates for the marketplace. Instead of manually entering data, the API integration provided a more efficient and scalable solution.

API Integration Process:-

API integration refers to the process of connecting two or more applications or systems by using APIs (Application Programming Interfaces) to exchange data and perform actions.

These are steps which I follow for API integration process.

Environment Setup:-

- Used dotenv to load environment variables from .env.local.
- Key variable included:

Date 17-01-25

- NEXT-PUBLIC-SANITY-PROJECT-ID.
- NEXT-PUBLIC-SANITY-DATASET
- SANITY-TOKEN

Sanity Client Creation :

- Used @Sanity/client to establish a connection to the Sanity project
- Configured the client with the project ID, dataset, API version and authentication token.

Data Fetching :

- Made concurrent API calls using axios to fetch Nike shoes data.

Data Processing :

- In this data processing step . Iterated through the fetched data .
- Uploaded images to Sanity's asset library using .
- Client.assets.upload() method.

Sanity CMS Schema Design

To ensure the seamless handling of product data, I designed a schema called product in Sanity CMS. The Schema includes the following

fields.

- **Title:** The product title (String Type)
- **Description:** A detailed description of the product.
- **Product Image:** The main product image (Image type)
- **Price:** The price of the product (Number type)
- **Tags:** An array of tags to categorize the product
- **Discount Percentage:** The discount percentage (Number type)
- **Is New:** A boolean flag indicating if the product is new (Boolean type)

Migration Steps and Tools Used

1 Migration Steps:

Preparation:

- Analyzed API data structure and matched it with existing Sanity Schemas. Created Sanity Schemas for Nike shoes with necessary fields.

Data Import Script

- Built ImportData.js script to automate data fetching, processing and uploading.
- Utilized axios for API interaction and @Sanity/client for CMS operations.

Image Handling

- Downloaded images using axios with responseType

Date 17-01-25

'array buffer'.

- Uploaded images to Sanity, storing asset reference in document field.

Document Creation

- Mapped API data fields to Sanity Schema field.
- Ensured fallback values for optional missing field.

2. Tools Used :

- Node.js Modules
- axios for HTTP requests, dotenv for environment variable management.
- @sanity/client for CMS interactions.

Sanity Features

- Asset management for image uploads.
- API versioning for consistent schema support.

Utilities

- fileURLToPath and path for resolving file paths.

Sanity Studio

Used for schema creation, content management and displaying product data.

Sanity has a real-time data store for structured content and supporting APIs for assets, user management and more.

Sanity Plugins

Sanity plugin is a plugin bundled with Sanity Studio that allows you to write GraphQL queries against the current project ID and Dataset.

Sanity Datasets

A dataset is a collection of JSON documents that can be of different types and have references to each other.

Datasets are collections of documents and assets of different types that reference each other. A project can contain any number of datasets each with separate data and visibility.

Sanity Command Line Interface (CLI)

The Sanity Command Line Interface (CLI) is a collection of tools for managing, developing, debugging and deploying your Sanity Studio projects as well as running scripts to migrate or manipulate your data.

Installing the CLI globally

```
npm install --global sanity@latest
```

Alternatively

```
yarn global add sanity@latest
```



Screenshots and Frontend Display:

Screenshot of → API calls → Data successfully displayed in the frontend. → Populated Sanity CMS fields → Code snippets for API integration and migration scripts.

Conclusion :

The API integration and data migration were successfully completed, enhancing the efficiency and scalability of the "Bismillah" project. This integration streamlined the process of adding and updating product data in the marketplace, while the migration steps ensured data consistency and accuracy across the system. With this set up, the "Bismillah" project is now more dynamic and easier to maintain.

New(500)

Hide Filter  Sort By 

Shoes

Sports Bra

Tops & T-Shirts

Hoddies & Sweetshirts

Jackets

Trousers & Tights

Shorts

Tracksuits

Jumpsuits & Rompers



Just In

Nike Air Force 1 Mid '07

Men's Shoes

1 Colour

MRP : ₹ 10 795.00



Just In

Nike Court Vision Low Next Nature

Men's Shoes

1 Colour

MRP : ₹ 4 995.00



Just In

Nike Air Force 1 PLT.AF.CORM

Women's Shoes

1 Colour

MRP : ₹ 8 695.00

Type here to search



16°C Haze

11:43 AM
1/19/2025



Find a Store | Help | Join Us | Sign In

Men Women Kids SNKRS

Search



Women's Shoes

Experience unmatched comfort with Nike's latest Air Max technology

₹ 13,995

Select Size

UK 6

UK 7

UK 8

UK 9

Add to Cart

Product Description

Turn style on its head with this crafted take on the Nike shoe. Featuring unique layering and premium materials, this shoe combines comfort with style. The unexpected shading and rich mixture of materials give this release an artisan finish.

Product Features

- Premium materials and construction
- Comfortable cushioning
- Durable rubber outsole
- Color: Black/White/White/Red
- Tags: Nike Air Max Pulse Nike Dri-FIT ADV TechKnit Ultra

Price

er ₹ 2 500.00
501.00 - ₹



Air Force 1 Mid '07
Shoes
our
₹ 10 795.00



Just In
Nike Court Vision Low Next Nature
Men's Shoes
1 Colour
MRP : ₹ 4 995.00



Just In
Nike Air Force 1 PLTFORM
Women's Shoes
1 Colour
MRP : ₹ 8 695.00



Just In
Nike Air Force 1 React
Men's Shoes
1 Colour
MRP : ₹ 13 295.00



Just In
Nike Standard Issues



Promo Exclusion
Air Jordan 1 Elevate Low



Promo Exclusion
Nike Dunk Low Retro SE



Sustainable Materials
Nike Dri-FIT UV Hybrane

Boys
Girls
Shop By Price

Under ₹ 2 500.00
₹ 2 501.00 - ₹



Just In
Nike Air Force 1 Mid '07
Men's Shoes
1 Colour
MRP : ₹ 10 795.00



Just In
Nike Court Vision Low Next Nature
Men's Shoes
1 Colour
MRP : ₹ 4 995.00



Just In
Nike Air Force 1 PLT.AF.ORM
Women's Shoes
1 Colour
MRP : ₹ 8 695.00



Just In
Nike Air Force 1 React
Men's Shoes
1 Colour
MRP : ₹ 13 295.00



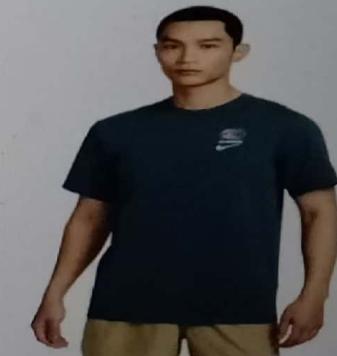
Just In
Nike Standard Issue
Women's Basketball Jersey
1 Colour
MRP : ₹ 2 895.00



Promo Exclusion
Air Jordan 1 Elevate Low
Women's Shoes
1 Colour
MRP : ₹ 11 895.00



Promo Exclusion
Nike Dunk Low Retro SE
Men's Shoes
1 Colour
MRP : ₹ 9 695.00



Sustainable Materials
Nike Dri-FIT UV Hyverse
Men's Short-Sleeve Graphic Fitness Top
1 Colour
MRP : ₹ 2 495.00



Type here to search



16°C Haze





Nike Air Max Pulse Nike Dri-FIT ADV TechKnit Ultra

Women's Shoes

Experience unmatched comfort with Nike's latest Air Max technology

Available Sizes:

UK 6 UK 7 UK 8 UK 9

Colors:

Black/White White/Red

₹ 13,995

128 reviews



Nike Air Max Pulse

Men's Shoes

Classic style meets modern comfort in this versatile design

Available Sizes:

UK 7 UK 8 UK 9 UK 10

Colors:

Grey/Black Blue/White

₹ 13,995

156 reviews



Nike Air Max Pulse

Men's Shoes

Premium materials and superior cushioning for ultimate performance

Available Sizes:

UK 7 UK 8 UK 9 UK 10

Colors:

Black/Red White/Blue

₹ 16,995

142 reviews



Find a Store | Help | Join Us | Sign In

Men Women Kids SNKRS

Search



Shopping Cart



Nike Air Max Pulse
Men's Shoes
Size: UK 10

- 1 +

₹ 16,995.00
1 × ₹ 16,995
[Remove](#)

Order Summary

Subtotal	₹ 16,995.00
GST (18%)	₹ 3,059.10
Shipping	Free

Total ₹ 20,054.10

Free shipping applied

[Proceed to Checkout](#)

New (500)

Hide Filters ▾

Sort By ▾

Shoes

Sports Bras

Tops & T-Shirts

Hoodies & Sweatshirts

Jackets

Trousers & Tights

Shorts

Tracksuits

Jumpsuits & Rompers

Skirts & Dresses

Socks

Accessories & Equipment

Gender

Men

Women

Unisex

Shop By Price

Under ₹ 2,500.00

₹ 2,501.00 - ₹ 7,500.00



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.

Men's Shoes

\$10795

Add To Cart



The Nike Court Vision Low blends basketball-inspired style with everyday comfort. Featuring a sleek design and durable materials, this versatile shoe is perfect for any casual wardrobe.

Men's Shoes

\$5695

Add To Cart



The Nike Waffle One SE updates a retro classic with fresh details. Its lightweight mesh, suede accents, and signature waffle sole combine style and performance in one standout shoe.

Women's Shoes

\$7895

Add To Cart



The Nike Air Force 1 SH T AF CRM elevates the iconic AF1



The Nike Standard Issue Basketball Jersey delivers a



The Nike Dri-FIT 1/4 Zip Reverse Knit offers comfort and

Our Product

```
38      "@types/react-dom": "^18",
39      "@types/react-slick": "^0.23.13",
40      "eslint": "^8",
41      "eslint-config-next": "14.2.2",
42      "postcss": "^8",
43      "tailwindcss": "^3.4.1",
44      "typescript": "^5"
45    }
46  }
47
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

POR

powershell + v   ... ^ >

```
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, this women's shoe redefines style and comfort in a fresh, modern way."
},
{
  productName: 'Nike Air Force 1 React',
```

Activate Windows
Go to Settings to activate Windows.

Ln 11, Col 3 Spaces: 2 UTF-8 LF {} JSON 

```
41     "eslint-config-next": "14.2.2",
42     "postcss": "^8",
43     "tailwindcss": "^3.4.1",
44     "typescript": "^5"
45   }
46 }
47
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

powershell + ▾

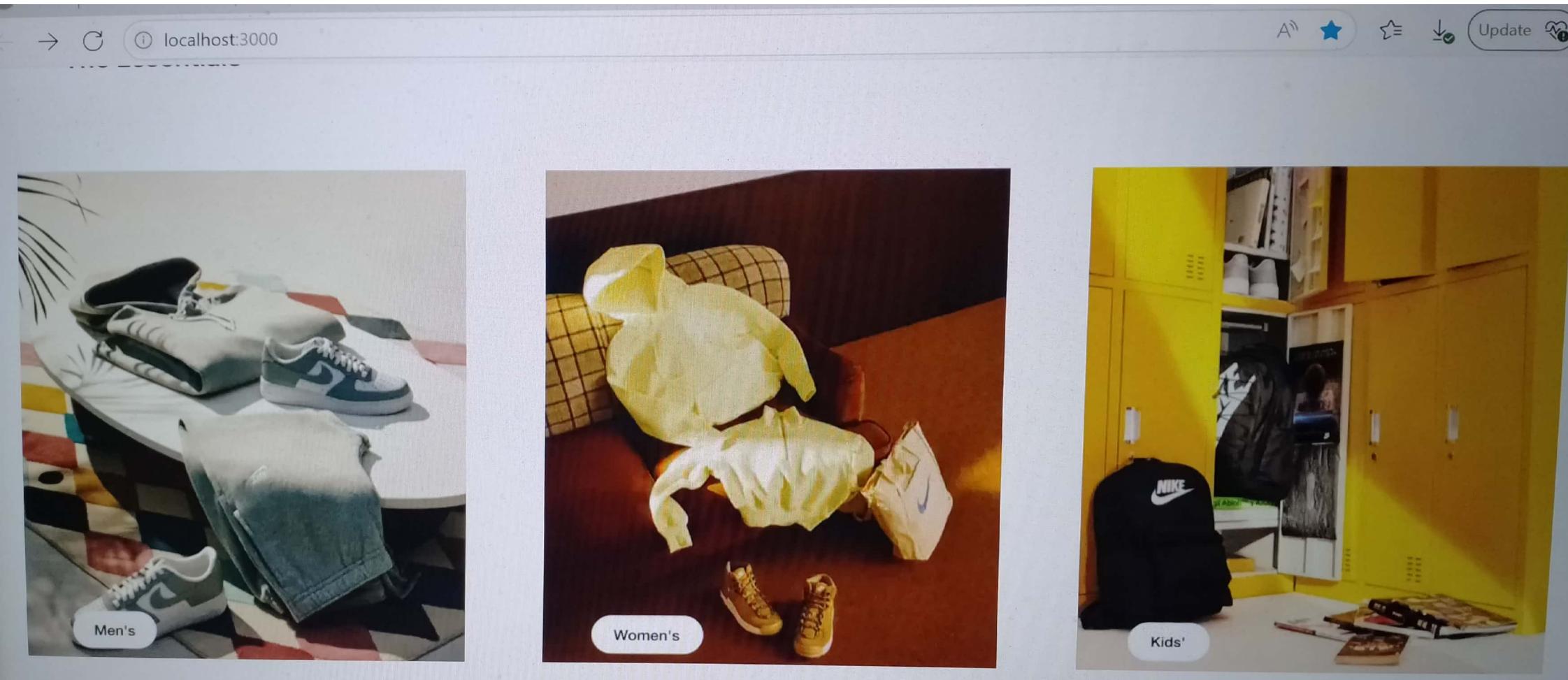
```
status: 'Promo Exclusion',
image: 'https://template-03-api.vercel.app/products/7.png',
description: 'The Nike Dunk Low Retro SE brings vintage vibes with a modern twist. Featuring premium mater
and a neutral color palette, this classic sneaker is versatile, stylish, and perfect for any casual occasion.'
},
{
  productName: 'Nike Dri-FIT UV Hyverse',
  category: "Men's Short-Sleeve Graphic Fitness Top",
  price: 2495,
  inventory: 50,
  colors: [ 'Teal' ],
```

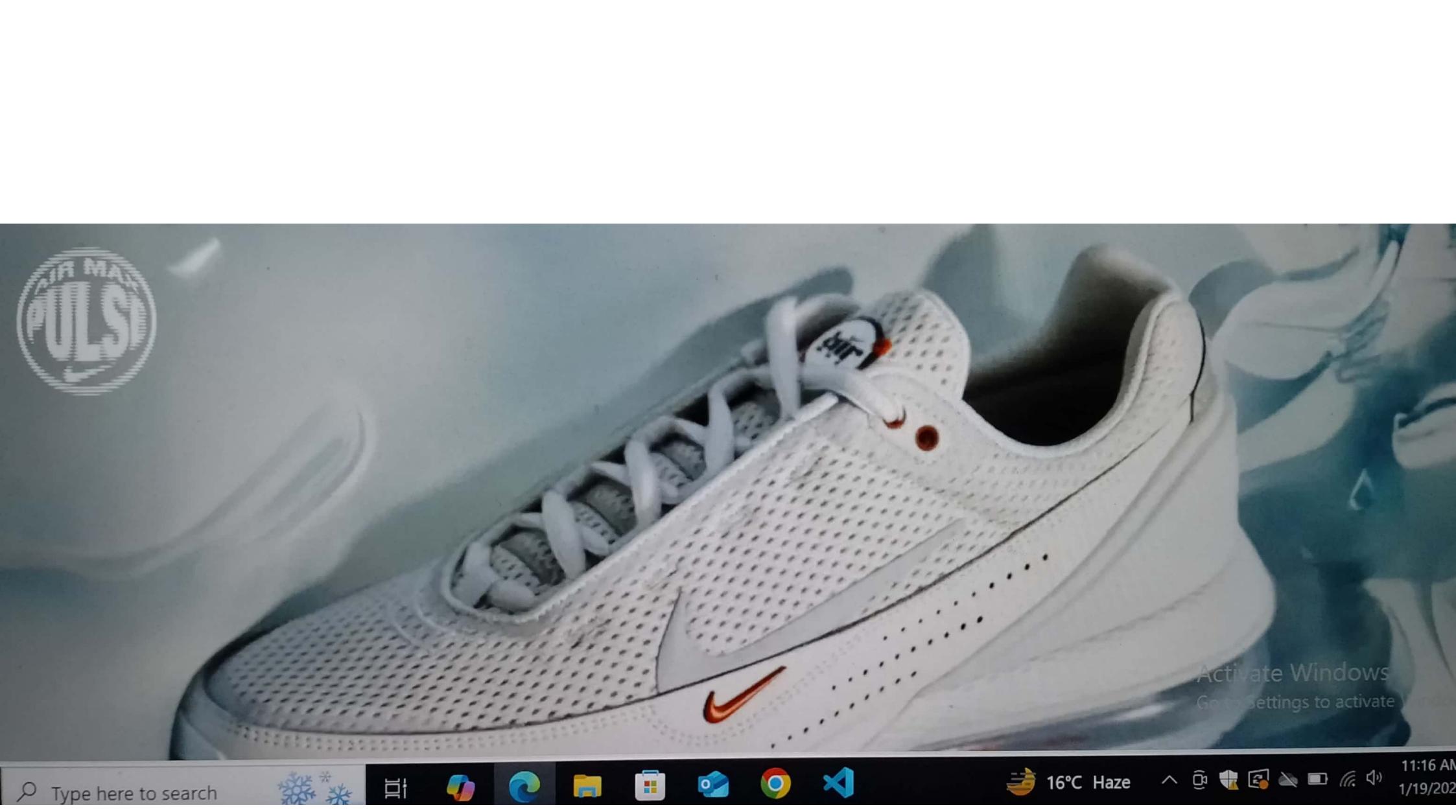
Activate Windows
Go to Settings to activate Win

Ln 11, Col 3 Spaces: 2 UTF-8 LF {} JSON



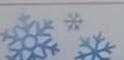
16°C Haze ^ ☰ 📁 🔍 ⚡ ⚡ 11:19
1/19/2





Activate Windows
Go to Settings to activate Windows

Type here to search



16°C Haze



11:16 AM
1/19/2024



Nike Air Max Pulse
Women's Shoes

₹ 13 995



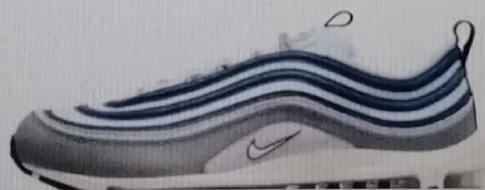
Nike Air Max Pulse
Men's Shoes

₹ 13 995



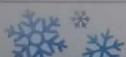
Nike Air Max Pulse
Women's Shoes

₹ 16 996



Activate Windows
Go to Settings to activate Windows

be here to search



16°C Haze



11:17 AM
1/19/2025



Activate Windows

Go to Settings to activate Windows

Type here to search



16°C Haze



11:16 AM
1/19/2025



File Edit Selection View Go Run ... ← →

EXPLORER

✓ E-COMMERCE-HACKATHON-MAIN

> .next

> node_modules

> public

✓ scripts

JS importSanityData.mjs

✓ src

> app

> components

> lib

> sanity

\$.env.local

⚙ .eslintrc.json

◆ .gitignore

{ components.json

TS next-env.d.ts

JS next.config.mjs

{ package-lock.json

{ package.json

JS postcss.config.mjs

ⓘ README.md

TS sanity.cli.ts

TS sanity.config.ts

TS tailwind.config.ts

tsconfia.json

> OUTLINE

> TIMELINE

✖ 0 ▲ 0 ⌂ 0

TS product.ts

{ } packa Close

```
1 {  
2 "na  
3 "ve  
4 "pri  
▷ De  
5 "scr  
6 "de  
7 "bu  
8 "st  
9 "lin  
10 "imp  
11 },  
12  
13 "depend  
14 "@rad  
15 "@san  
16 "@san  
17 "@san
```

PROBLEMS OUTPUT

```
GET /studio/struc  
GET /studio/struc  
GET /favicon.ico 2  
GET / 200 in 180ms  
GET /studio 404 in  
GET /studio 404 in  
GET /favicon.ico 20  
GET / 200 in 207ms  
GET / 200 in 113ms  
GET /favicon.ico 200
```

S Default + Create Q.

[Structure](#) [Vision](#) [Schedules](#)

Content

Product

Product



Q. Search list



Nike Pegasus 40



Nike Air Max 270



Nike Court Vision Low



Nike Dri-FIT UV Hyverse



Nike Dunk Low Retro SE



Nike Standard Issue Basketball Jersey



Air Jordan 1 Elevate Low



Nike Air Force 1 React



Defaults

+ Create



Content

Product

Structure Vision Sc

Product



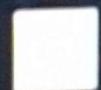
Search list



Nike Pegasus 40



Nike Air Max 270



Nike Court Vision Low



Nike Dri-FIT UV Hyverse



Nike Dunk Low Retro SE



Nike Standard Issue Basketball Jersey



Air Jordan 1 Elevate Low



Nike Air Force 1 React



EXPLORER

...

TS product.ts U X

TS index.ts U

JS importSanityData.mjs



UIUXHACKATHON

- > .next
- > node_modules
- > public
- script
 - importSanityData.mjs
- > src
- \$.env.local
- .eslintrc.json
- .gitignore
- { components.json
- TS next-env.d.ts
- JS next.config.mjs
- { package-lock.json M
- { package.json M
- JS postcss.config.mjs
- ① README.md
- TS sanity.cli.ts U
- TS sanity.config.ts U
- TS tailwind.config.ts
- tsconfig.json

D:\More Extra Works for Drive\uiuxhackathon\src\sanity\schemaTypes\pr

Untracked

```
2 "name": "my-hackathon",
3 "version": "0.1.0",
4 "private": true,
▷ Debug
5 "scripts": {}
6   "dev": "next dev",
7   "build": "next build",
8   "start": "next start",
9   "lint": "next lint",
10  "import-data": "node scripts/importSan
11 },
12 "dependencies": {
13   "@next/font": "^14.2.15",
14   "@radix-ui/react-slot": "^1.1.0",
15   "@sanity/client": "^6.25.0",
16   "@sanity/image-url": "^1.1.0",
17   "@sanity/vision": "^3.70.0",
18   "axios": "^1.7.9",
19   "class-variance-authority": "^0.7.1",
20   "clsx": "^2.1.1",
21   "dotenv": "^16.4.7",
22   "import-data": "^1.0.0",
23   "lucide": "^0.468.0",
24   "lucide-react": "^0.468.0",
25   "next": "14.2.15",
```

APT INTEGRATION

Migration Report

BISMILLAH PROJECT

- Bismillah is built using Next.js for the frontend and Sanity CMS for managing products data.
- The focus of this hackthon project is to integrate Sanity CMS for managing product listings effectively.
- Aim to offer a smooth products with smooth user experience with interactive filters for browsing different shoes, clothes for sports activities.