Day: 03

API INTEGRATION AND DATA MIGRATION REPORT [Nike]:

API Integration Process:

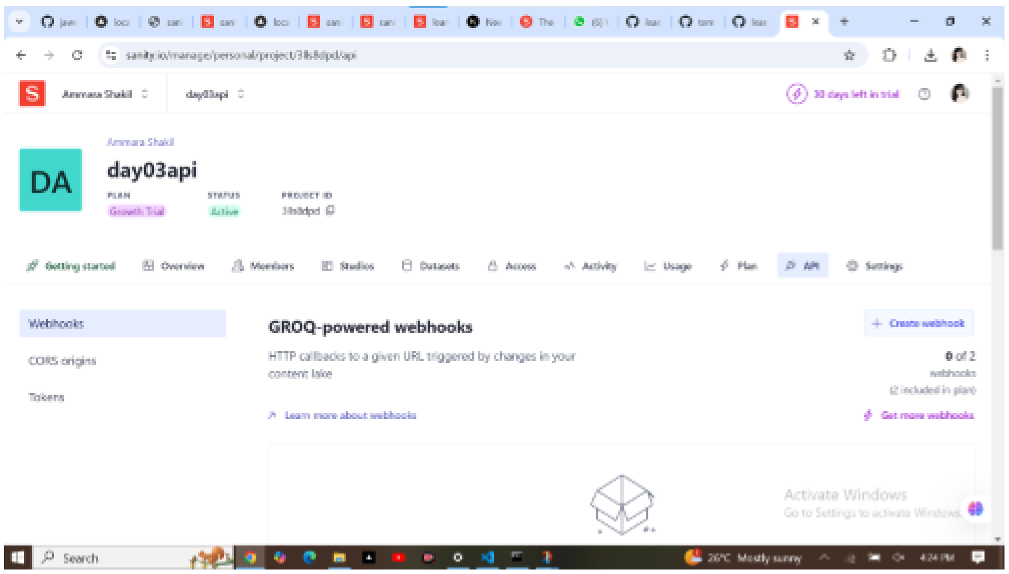
Goals:

“Goal for day 03 is integrate APIs onto the nextjs project by using given APIs of templates, migrate into the sanity CMS and displaying it on to our frontend “

API integration process for my marketplace (Nike Website) involved in multiple stages to fetch data from given external API migrate it to the sanity CMS and display it onto the frontend.

Here is the breakdown of stages that I have been followed:

API Token Configuration:

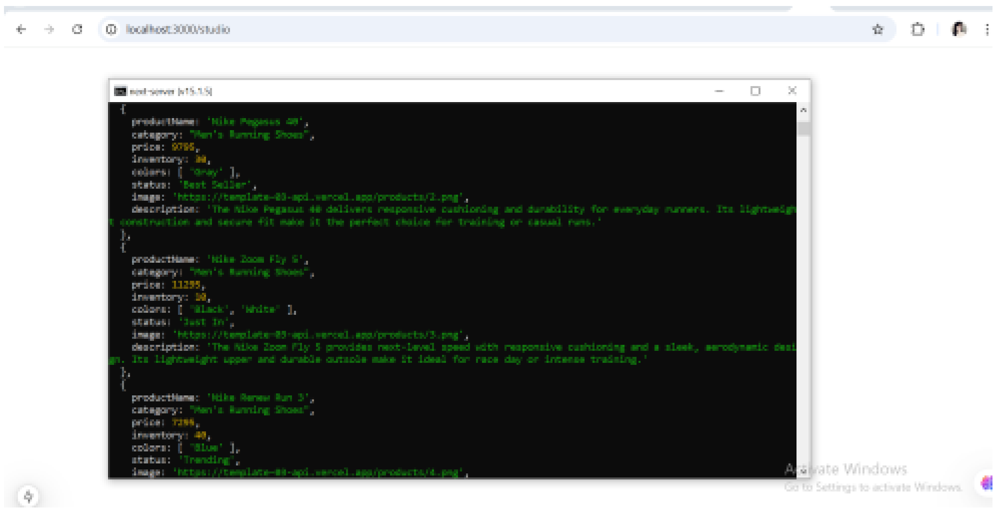


HTTP callbacks to a given URL triggered by changes in your content lake

Provided API:

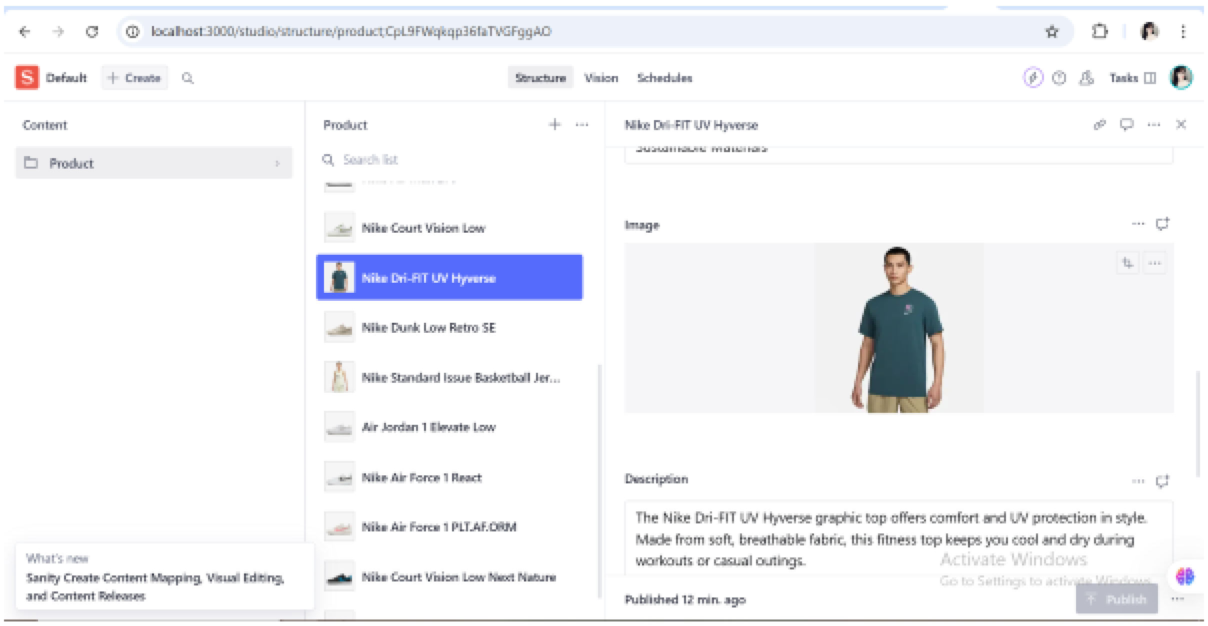
- ***External API**: Used provided API of template three (03). There is a data of products like product name, prices, color and description.*
- ***API Token Configuration:** Firstly, made an account on sanity. The provided API token and specific ID was securely stored into the env file.*
- ***Data Migration**: By the help of specific command and migration script. we migrate data on to sanity CMS. I have chosen sanity to display product data dynamically on frontend.*
- ***Frontend Integration**: GET requests were sent to fetch product data using the API token. By using a functional utilities and components display data on to the frontend.*

MIGRATE DATA:



localhost:3000/studio

```
  {
    productName: 'Nike Pegasus 40',
    category: "Men's Running Shoes",
    price: 9795,
    inventory: 30,
    colors: [ 'Gray' ],
    status: 'Best Seller',
    image: 'https://template-03-api.vercel.app/products/2.png',
    description: 'The Nike Pegasus 40 delivers responsive cushioning and durability for everyday runners. Its lightweigh
t construction and secure fit make it the perfect choice for training or casual runs.'
  },
  {
    productName: 'Nike Zoom Fly 5',
    category: "Men's Running Shoes",
    price: 11295,
    inventory: 50,
    colors: [ 'Black', 'White' ],
    status: 'Just In',
    image: 'https://template-03-api.vercel.app/products/3.png',
    description: 'The Nike Zoom Fly 5 provides next-level speed with responsive cushioning and a sleek, aerodynamic desi
gn. Its lightweight upper and durable outsole make it ideal for race day or intense training.'
  },
  {
    productName: 'Nike Renew Run 3',
    category: "Men's Running Shoes",
    price: 7295,
    inventory: 40,
    colors: [ 'Blue' ],
    status: 'Trending',
    image: 'https://template-03-api.vercel.app/products/4.png',
```

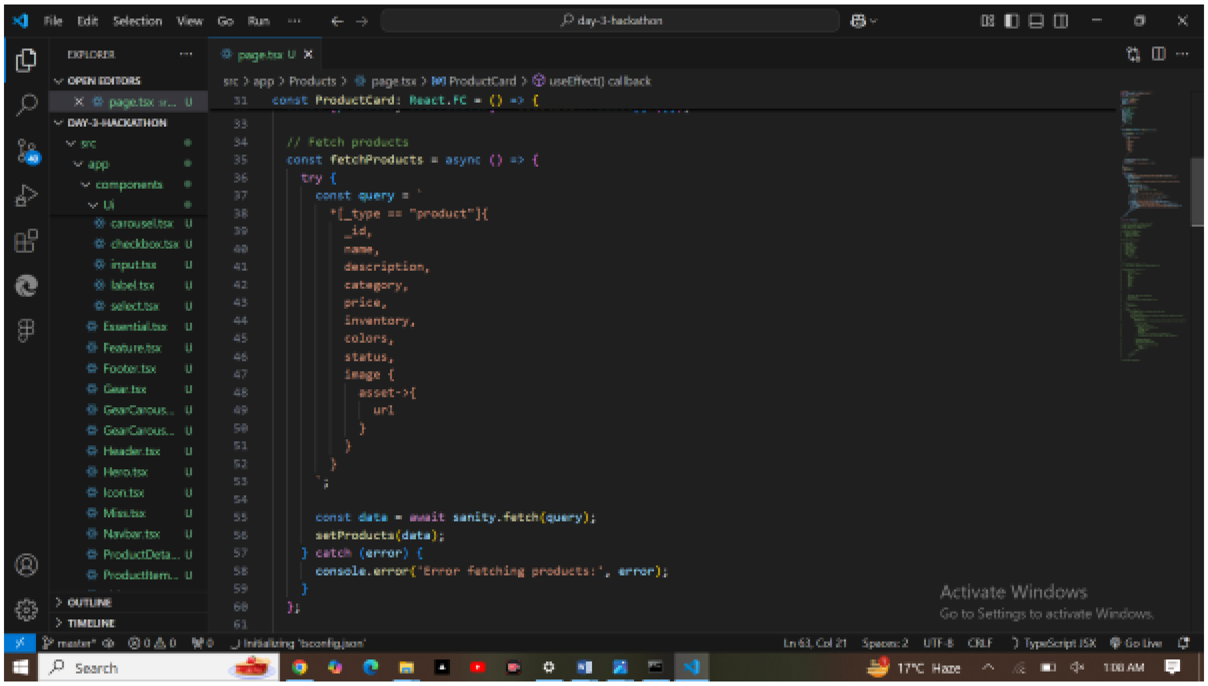


localhost:3000/studio/structure/product;CpL9FWqkqp36faTVGFggAO

The Nike Dri-FIT UV Hyverse graphic top offers comfort and UV protection in style. Made from soft, breathable fabric, this fitness top keeps you cool and dry during workouts or casual outings.

Schema Adjustments:

I have configured the schema according to my specific needs and requirements:



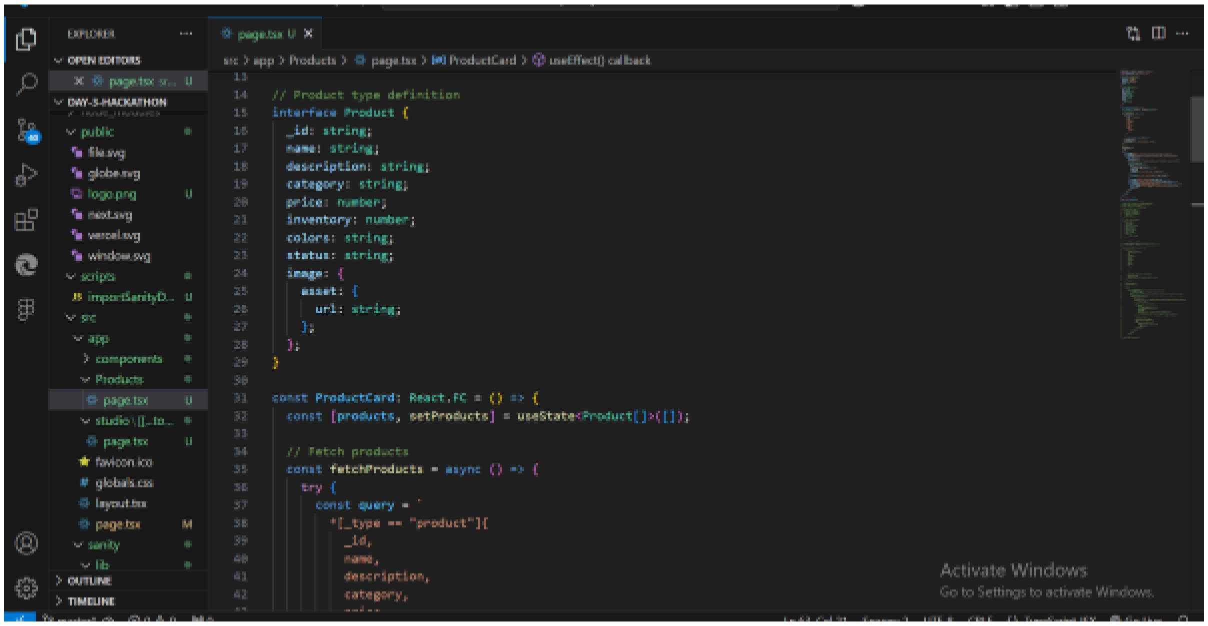
src > app > Products > page.tsx > ProductCard > useEffect() callback

```
const ProductCard: React.FC = () => {

  // Fetch products
  const fetchProducts = async () => {
    try {
      const query = `
        *[_type == "product"]{
          _id,
          name,
          description,
          category,
          price,
          inventory,
          colors,
          status,
          image {
            asset->{
              url
            }
          }
        }
      `;

      const data = await sanity.fetch(query);
      setProducts(data);
    } catch (error) {
      console.error('Error fetching products:', error);
    }
  };
```

Frontend Integration: *Create a Product list component with the help of react hooks {useState and useEffect} displayed fetched data successfully.*

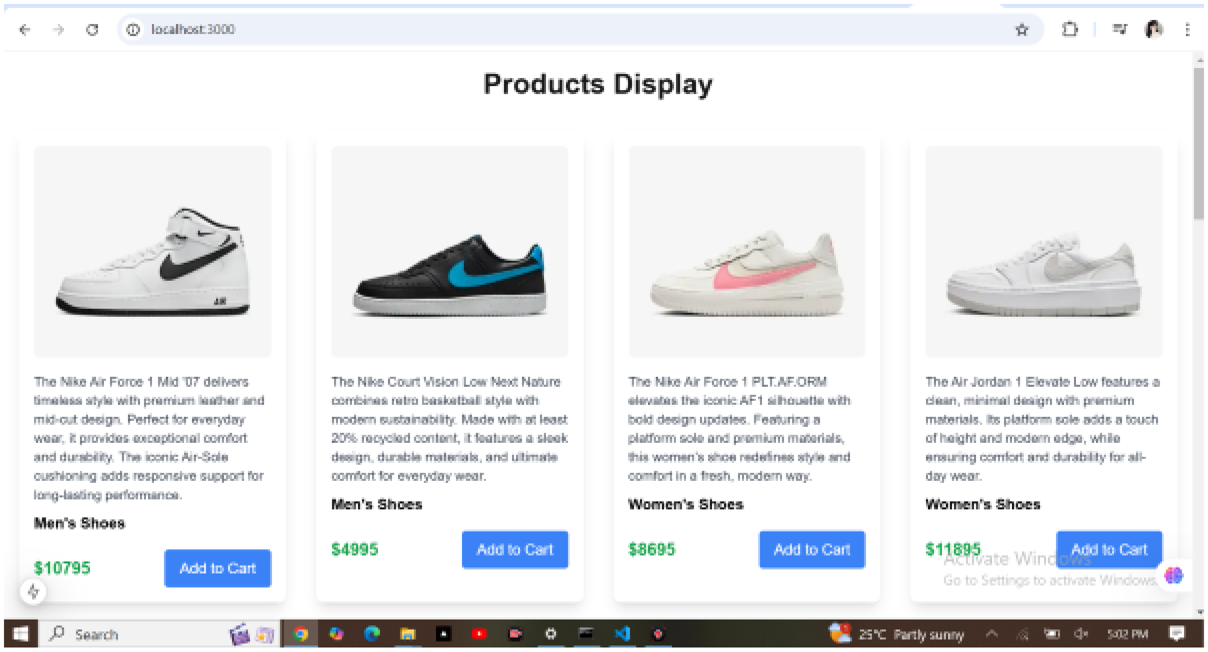


```
// Product type definition
interface Product {
  _id: string;
  name: string;
  description: string;
  category: string;
  price: number;
  inventory: number;
  colors: string;
  status: string;
  image: {
    asset: {
      url: string;
    };
  };
}

const ProductCard: React.FC = () => {
  const [products, setProducts] = useState<Product[]>([]);

  // Fetch products
  const fetchProducts = async () => {
    try {
      const query = `
        *[_type == "product"]{
          _id,
          name,
          description,
          category,
```

Displayed Data:



localhost:3000

Products Display

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 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.

Men's Shoes

$4995 Add to Cart

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.

Women's Shoes

$8695 Add to Cart

The Air Jordan 1 Elevate Low features a clean, minimal design with premium materials. Its platform sole adds a touch of height and modern edge, while ensuring comfort and durability for all-day wear.

Women's Shoes

$11895 Add to Cart

Conclusion:

In conclusion, the journey of migrating data from an external API to sanity and then seamlessly fetching and displaying it on a user-friendly frontend is a testament to the power of modern web development. By utilizing sanity as a dynamic content management solution and React hooks for real-time data rendering, we created a smooth and efficient pipeline that bridges the backend and frontend effortlessly. This approach not only optimizes backend-to-frontend communications but also delivers a highly intuitive and interactive user interface.