**Day 3 - API Integration Report –**

**[Muhammad Shariq’s Marketplace]**

**API Integration & Data Migration Report Using Sanity:**

**Project Overview**

This project integrated an external API into a web application while utilizing Sanity for efficient content migration and management. This seamless connection allowed for dynamic data retrieval from the Sanity CMS, greatly enhancing the user experience. By processing and displaying the fetched content on the user interface (UI), the project delivered up-to-date information effortlessly, showcasing the benefits of combining these powerful tools for a more engaging platform.

1. **Data Migration Using Sanity**

**Tools Used:**

* Sanity CMS: A headless CMS for managing structured content.
* Sanity Client: Used to interact with the Sanity API for fetching data.
* Backend: Node.js & Next.js.

**Steps for Migration:**

1. **Data Structure Setup in Sanity:**  
   Configured content schemas in Sanity to match the data format needed for the application. This includes defining fields such as product names, images, and descriptions.
2. **Content Migration:**

Migrated existing data into Sanity through its web interface or by using custom scripts (e.g., importing CSV or JSON data into Sanity).

Used **Sanity Studio** to manage and validate the data during the migration process.

1. **API Configuration:**

Configured the Sanity API to allow access to the migrated data. Set the project ID, dataset, and API version for communication.

1. **Testing Migration:**

Validated that all content was correctly migrated and appeared as expected in the Sanity Studio before fetching it on the frontend.

1. **API Integration with Sanity**

**API Communication:**

* **Sanity Client:** Utilized the Sanity client to fetch data from the headless CMS API.
* **Data Fetching:** Used the Sanity API's **GROQ** query language to query specific data (e.g., products, images, etc.).

**Steps for API Integration:**

* **Install Sanity Client:** Installed the Sanity client package to allow interaction with the Sanity API: npm install @sanity/client