# API Integration and Data Migration Report

## <u>Day: 3 - API Integration and Data</u> <u>Migration</u>

## API Integration Process

## 1. Setup and Configuration:

- Installed required dependencies like:
  - o npm install
  - o npm install dotenv etc
- Configured the Sanity client with project-specific credentials in the environment file.

## 2. Data Fetching:

- Utilized GROQ queries to fetch data from Sanity CMS.
- Implemented dynamic API routes in Next.js to interact with Sanity endpoints.

### 3. Frontend Integration:

- Retrieved data using the configured API endpoints.
- Displayed fetched data in styled components on the frontend.

## 4. Error Handling:

- Implemented error handling mechanisms for API requests to ensure stability.
- Logged errors to the console for debugging during development.

#### Product Schema

#### **Product Schema:**

- Defined fields such as title, description, price, and image.
- Ensured all required fields are included to match frontend requirements.

## Migration Steps and Tools Used

## **Export Data:**

• Exported existing data from the source system in JSON format.

#### **Sanity Import Tool:**

- Utilized Sanity's CLI import tool to migrate data.
- Command: sanity dataset import <file.json> production.

#### **Verification:**

- Verified the integrity of imported data using GROQ queries.
- Ensured data fields matched the schema definitions.

## **Frontend Updates:**

• Updated components to ensure compatibility with migrated data.

#### **Screenshots**

- API Calls: Screenshots showcasing successful API requests and responses.
- **Frontend Display:** Visual representation of data rendered on the frontend.
- Sanity CMS Fields: Screenshots of populated fields within the Sanity Studio.

## Code Snippets

```
async function uploadImageToSanity(imageUrl) {
 JS importData.js U
                             try {
   console.log(`Uploading image: ${imageUrl}`);
                              const response = await fetch(imageUrl);
 {} package.json M 16

Js postcss.config.mjs 17
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TS sanity.cli.ts

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                                                                                                                                    E cmd + ∨ □ · · · · ×
                   PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
 TS sanity.config.ts U C:\Users\Ayesha Maryam\Desktop\day3\hackathon>npm install @sanity/client axios dotenv
                     added 3 packages, and audited 1288 packages in 23s
 stsconfig.json
 {} tsconfig.tsbuildinfo
                     241 packages are looking for funding run `npm fund` for details
stsconfig.json
                     found 0 vulnerabilities
                     C:\Users\Ayesha Maryam\Desktop\day3\hackathon>
```

```
EXPLORER
                                                                                                                 TS sanity.cli.ts U TS route.ts U X TS index.d.mts
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D
                                          import { client } from "@/sanity/lib/client";
import { NextResponse } from "next/server";
          > node_modules
6
          > public
          ∨ api\products ○
                                                     "imageUrl" :productImage.asset -> url,
                                                  price,
tags,
dicountPercentage,
             > fonts
             > pages
             ∨ studio \ [[...t... □
              return NextResponse.json(data, { status: 200 });
} catch (error) {
console.error('Error fetching data from Sanity:', error);
return new NextResponse('Error fetching data', { status: 500 });
             # globals.css
            page.tsx
                                                                                                                                                                                                                            ≥ cmd
                                                                                                                                                                                                                           ল্ল node
                                       > sanity@0.1.0 dev
> next dev
                                         ▲ Next.js 14.2.23
- Local: http://localhost:3000
                                          - Environments: .env.local
          eslintrc.json
       > OUTLINE
                                         ✓ Starting...
✓ Ready in 9.59
```

```
'Key ! Factures:\n' +
'\n' +
'Set includes three uniquely designed rustic vases\n' +
'Crafted from high-quality materials with a natural, hand-crafted finish\n' +
'Perfect for displaying flowers, greenery, or as standalone decorative pieces\n' +
'Versatile design complements both modern and traditional interiors\n' +
'Ideal for gifting or personal use in any living space\n' +
'Add warmth and character to your home with the Rustic Vase Set-where classic design meets natural beauty.',
    hackathon
> noue_...
> public
   > node modules
     JS importData.js U
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                                                                                                isNew: false,
price: 210,
productImage: {

✓ api\products

                                                                                                        | Cype: 'image',
| asset: {
| _ref: 'image-2219cafc285ec13a2ed3f88aa36cbea852a11735-305x375-png'
        ∨ studio \ [[...t... □
                                                                                                 tags: [ 'rustic ', 'vase ', 'home decor', 'vintage ', 'interior design' ],
title: 'Rustic Vase Set'
          page.tsx U
        # globals.css
                                                                                         Juloading image: https://cdn.sanity.io/images/7xt4qcah/production/cbfd4d2e1e3a58e25763a1d84efe10a8c25aeed7-3264x4928.jpg
Image uploaded successfully: image-35a8072e40a8b80142ff8e96e0f3af21811f5b9f-3264x4928-jpg
Product Timber Craft uploaded successfully: {
        page.tsx
                                                                                                _createdAt: '2025-01-18T19:42:54Z',
_id: 'sDoE4Hn6nkBPnCufhSU8At',
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  gitignore
 TS next-env.d.ts
 JS next.config.mjs
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{} package.json M
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"Each piece in the TimberCraft collection is meticulously crafted to highlight the unique grains and textures of the wood, bringing an organic, earthy
to your space. Whether you're looking for furniture, decor, or accents, TimberCraft offers a variety of beautifully designed pieces that blend rustic app
ith contemporary sophistication. The collection is designed to stand the test of time, with materials chosen for their durability and lasting beauty.\n" +
 JS postcss.config.mjs
OUTLINE
```

