# Day 3 Hackathon - API Integration and Data Migration

Introduction:

This report documents the process of integrating APIs into the Next.js project and migrating data into Sanity CMS. It outlines the steps taken for API integration, adjustments made to the schema, data migration methods used, and includes the required screenshots of the work done.

**API Integration Process:**

1. API Integration was done using the provided APIs. A script was written to fetch data from the API and integrate it into the Next.js frontend.
2. Utility functions were created for API calls, including handling responses and errors.
3. The API was tested using Postman and the frontend was updated to display data fetched from the API.
4. API responses were validated to ensure the data matched the schema in Sanity CMS.

Code Snippet:

```
async function fetchData() {
  try {
    const response = await axios.get(apiUrl);
    setData(response.data);
  } catch (error) {
    console.error('Error fetching data:', error);
  }
}
```

**Adjustments Made to Schemas:**

1. The schema was adjusted to align with the data structure provided by the API.
2. Field names were mapped and validated to ensure compatibility.

3. Validation rules were added to ensure required fields like 'name', 'price', and 'image' were included.

4. The 'product' schema was updated with additional fields as per the API data.

Code Snippet:

```
const productSchema = {
  name: 'product',
  type: 'document',
  fields: [
    { name: 'name', type: 'string', title: 'Name', validation: Rule.required() },
    { name: 'image', type: 'image', title: 'Image', validation: Rule.required() },
    { name: 'price', type: 'string', title: 'Price', validation: Rule.required() }
  ]
};
```

**Migration Steps and Tools Used:**

1. Data migration was carried out using scripts to fetch and transform the API data.

2. Migration scripts were written to import data from the API into Sanity CMS.

3. External tools like Postman were used to validate the API endpoints and data.

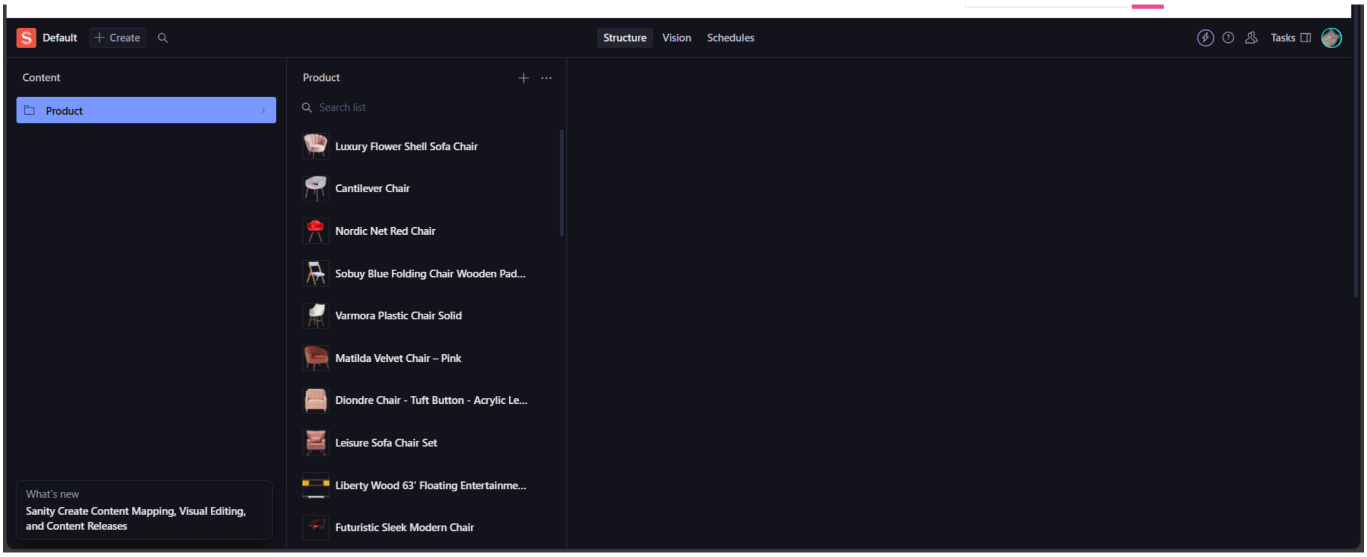
4. A manual data import was performed for small datasets where applicable.

5. The Sanity import tool was utilized for bulk data uploads.

Code Snippet:

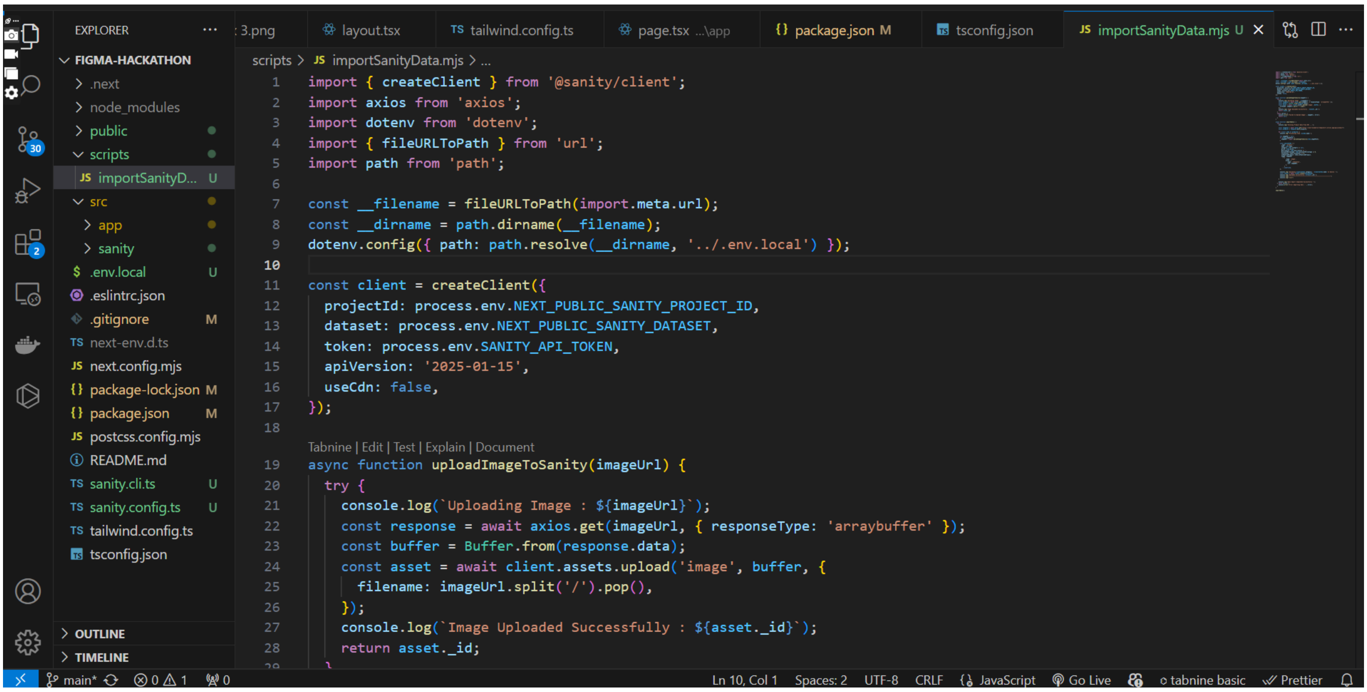
```
const migrationScript = async () => {
  const data = await fetchData();
  await importDataToSanity(data);
};
```

**Screenshots of Work:**



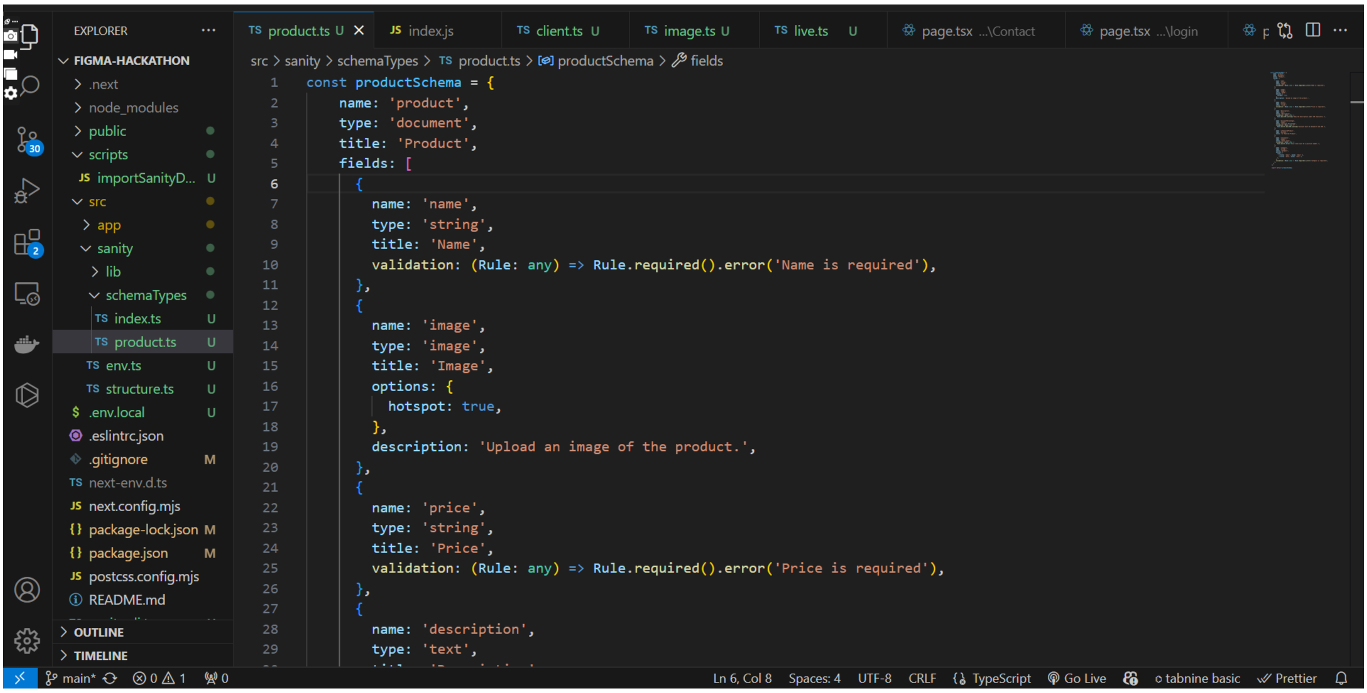
- Luxury Flower Shell Sofa Chair
- Cantilever Chair
- Nordic Net Red Chair
- Sobuy Blue Folding Chair Wooden Pad...
- Varmora Plastic Chair Solid
- Matilda Velvet Chair – Pink
- Diondre Chair - Tuft Button - Acrylic Le...
- Leisure Sofa Chair Set
- Liberty Wood 63' Floating Entertainme...
- Futuristic Sleek Modern Chair

Description: This screenshot shows the API call and response in Postman, where the data is fetched successfully from the provided API.



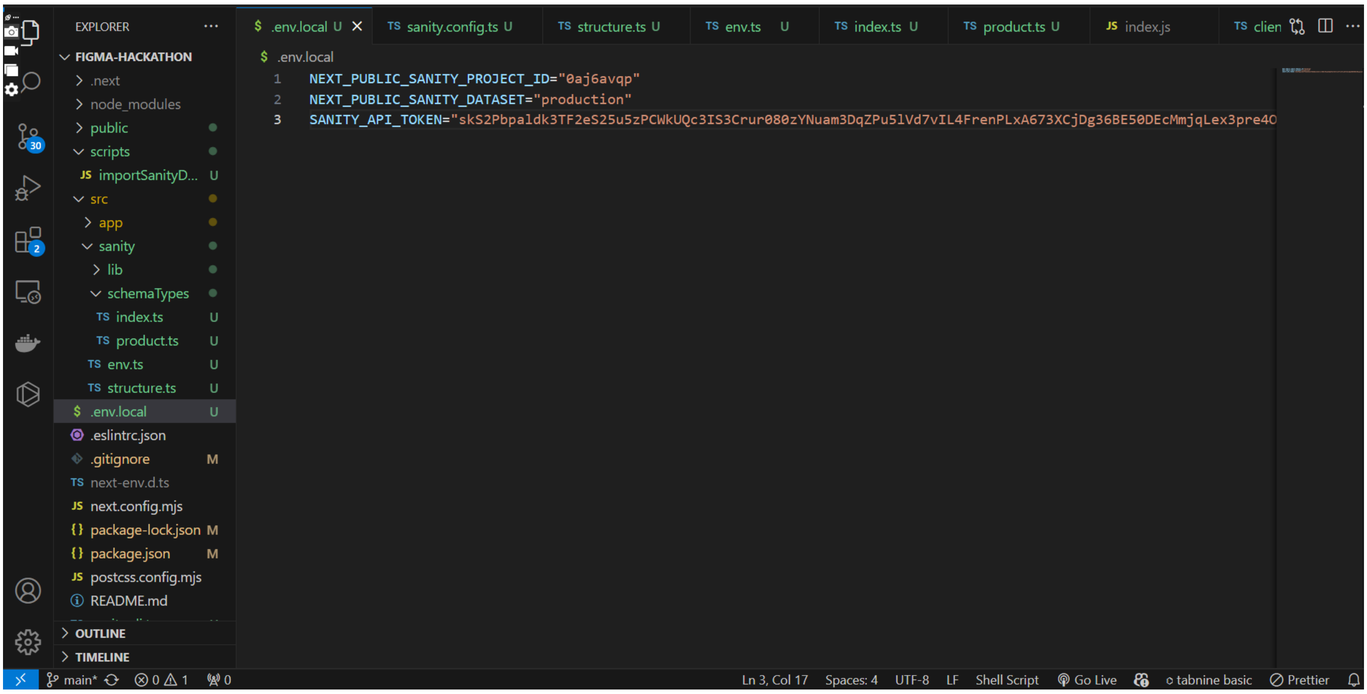
```javascript
import { createClient } from '@sanity/client';
import axios from 'axios';
import dotenv from 'dotenv';
import { fileURLToPath } from 'url';
import path from 'path';

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

const client = createClient({
  projectId: process.env.NEXT_PUBLIC_SANITY_PROJECT_ID,
  dataset: process.env.NEXT_PUBLIC_SANITY_DATASET,
  token: process.env.SANITY_API_TOKEN,
  apiVersion: '2025-01-15',
  useCdn: false,
});

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;
```

Description: This screenshot displays the populated fields in the Sanity CMS, confirming successful data migration.



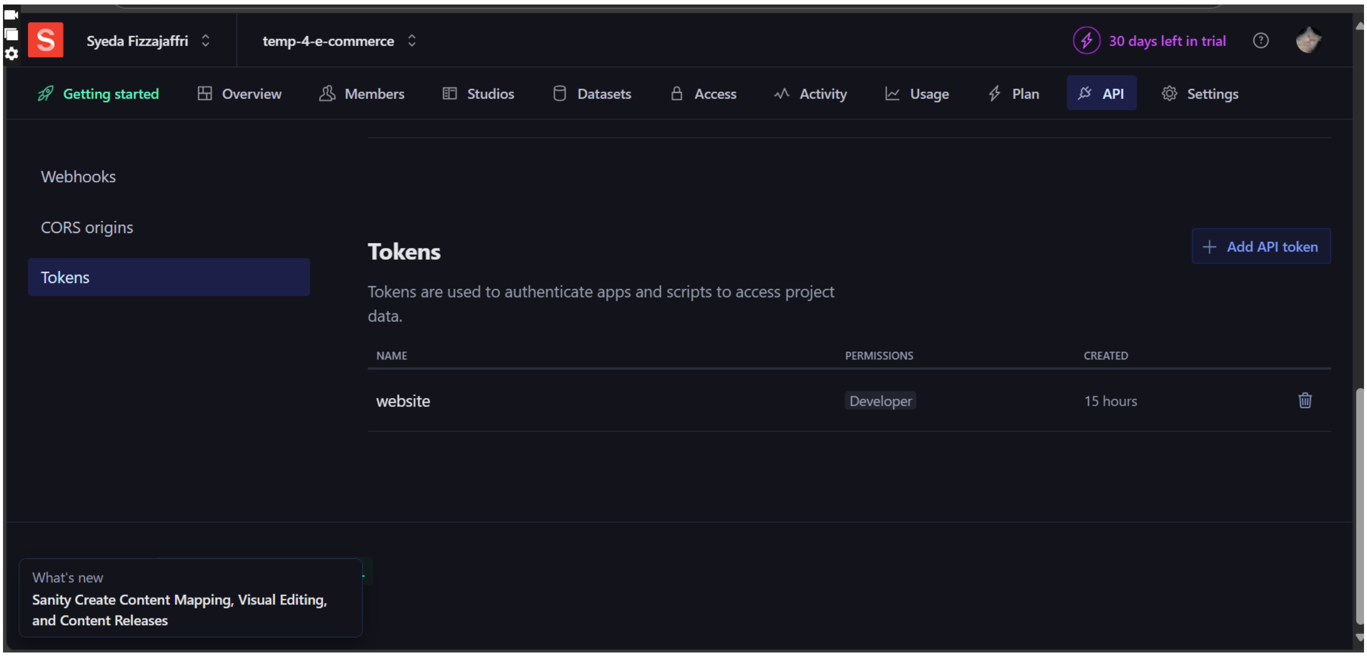
```
const productSchema = {
    name: 'product',
    type: 'document',
    title: 'Product',
    fields: [
      {
        name: 'name',
        type: 'string',
        title: 'Name',
        validation: (Rule: any) => Rule.required().error('Name is required'),
      },
      {
        name: 'image',
        type: 'image',
        title: 'Image',
        options: {
          hotspot: true,
        },
        description: 'Upload an image of the product.',
      },
      {
        name: 'price',
        type: 'string',
        title: 'Price',
        validation: (Rule: any) => Rule.required().error('Price is required'),
      },
      {
        name: 'description',
        type: 'text',
```

Description: This screenshot shows the frontend display of data, where the product listings are rendered successfully.



```
NEXT_PUBLIC_SANITY_PROJECT_ID="0aj6avqp"
NEXT_PUBLIC_SANITY_DATASET="production"
SANITY_API_TOKEN="skS2Pbpaldk3TF2eS25u5zPCWkUQc3IS3Crur080zYNuam3DqZPu5lVd7vIL4FrenPLxA673XCjDg36BE50DEcMmjqLex3pre40
```

Description: This screenshot shows the product page on the frontend, with the correct product information.



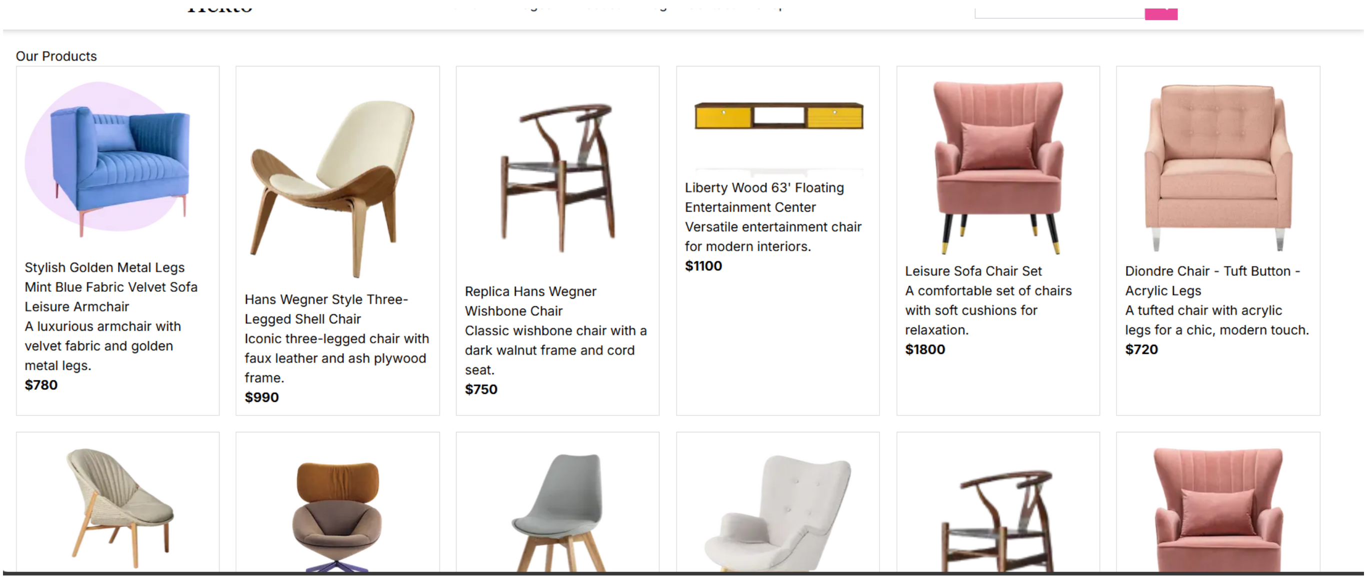
Tokens

Tokens are used to authenticate apps and scripts to access project data.

| NAME | PERMISSIONS | CREATED |
|---|---|---|
| website | Developer | 15 hours |

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

Description: This screenshot confirms that the product data has been successfully uploaded to the Sanity CMS.


Our Products

Stylish Golden Metal Legs Mint Blue Fabric Velvet Sofa Leisure Armchair
A luxurious armchair with velvet fabric and golden metal legs.
**$780**

Hans Wegner Style Three-Legged Shell Chair
Iconic three-legged chair with faux leather and ash plywood frame.
**$990**

Replica Hans Wegner Wishbone Chair
Classic wishbone chair with a dark walnut frame and cord seat.
**$750**

Liberty Wood 63' Floating Entertainment Center
Versatile entertainment chair for modern interiors.
**$1100**

Leisure Sofa Chair Set
A comfortable set of chairs with soft cushions for relaxation.
**$1800**

Diondre Chair - Tuft Button - Acrylic Legs
A tufted chair with acrylic legs for a chic, modern touch.
**$720**

Description: This screenshot shows the final display on the website, where all the integrated products appear.

*By Ummefizza*