Day – 3: API Integration Report

Api Integration Process

Overview:

During Day 3, we focused on integrating APIs to establish seamless communication between the frontend, backend, and Sanity CMS. The integration ensured dynamic data retrieval and updates while maintaining performance and scalability.

Steps:

1. Identified the required API endpoints for data handling (e.g., fetching products, orders, and user details).
2. Configured API routes in the Next.js application to interact with Sanity CMS.
3. Debugged and tested API calls to verify successful data flow between components.

Schema Adjustments

Adjustments Made:

1. Modified the "Product" schema to include additional fields like "tags" and "category" for better filtering.
2. Updated the "Order" schema to store additional information..
3. Ensured all fields had appropriate validation rules to maintain data consistency.

Migration Steps and Tools Used

Migration Steps:

1. Clone the given repository of migration script.
2. Create Sanity project in my Avion website project.
3. Generate token of Sanity project.
4. Replace Token and Project id with avion sanity project’s token and projectId in migration script.
5. Compile ts file and run.

6. Migration Completed.

Tools Used:

- Sanity CLI for schema updates.
- Migration script.

Screenshots

1. **API Calls:**


```
  tags: [ 'new ceramics', 'popular products' ],
  image: 'https://cdn.sanity.io/images/k4usnf8h/production/e2cc69a6c9f9d1ff1fcfbe839844240e16f5f758-305x375.png'
},
{
  image: 'https://cdn.sanity.io/images/k4usnf8h/production/8795ff7bdb3d810dbe0c3eb52cd22116c9115bce-305x375.png',
  _id: 'product-23',
  price: 150,
  name: 'Vase Set',
  tags: [ 'new ceramics', 'popular products' ]
},
{
  _id: 'product-3',
  price: 210,
  name: 'Rustic Vase Set',
  tags: [ 'new ceramics' ],
  image: 'https://cdn.sanity.io/images/k4usnf8h/production/2219cafc285ec13a2ed3f88aa36cbea852a11735-305x375.png'
},
{
  price: 100,
  name: 'Wood Chair',
  tags: [ 'popular products' ],
  image: 'https://cdn.sanity.io/images/k4usnf8h/production/638c3039e0746f217acbacd325a2847939d92b08-2831x3534.jpg',
  _id: 'product-5'
},
{
  price: 200,
  name: 'The Lucky Lamp',
  tags: [ 'new ceramics' ],
  image: 'https://cdn.sanity.io/images/k4usnf8h/production/c10750f3c15f8807251977fe5e042b0a6cee55ab-305x375.png',
  _id: 'product-7'
```


2. **Data Displayed on Frontend:**

New ceramics

Sleek Living
£300

Modern Serenity
£480

Reflective Haven
£300

The Lucky Lamp
£200

View collection

Our popular products

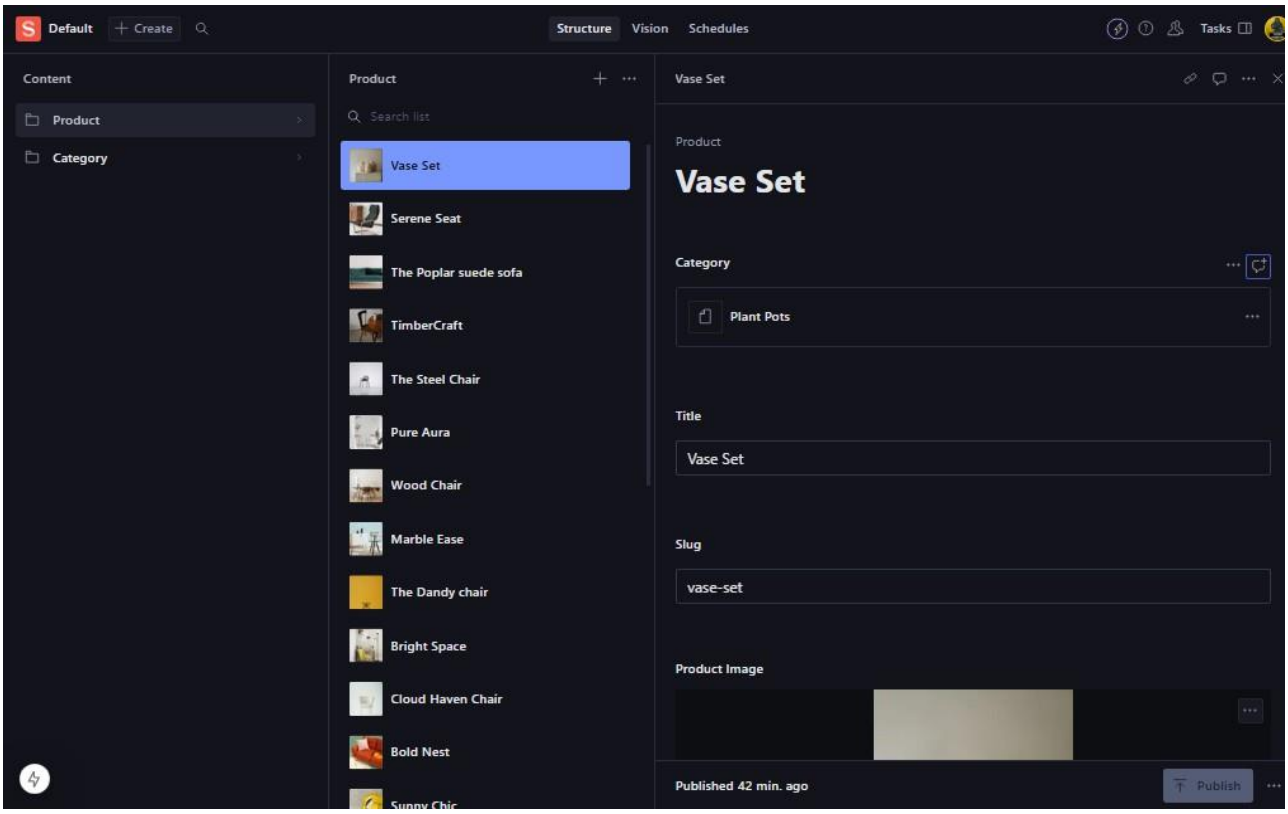
The Poplar suede sofa
£980

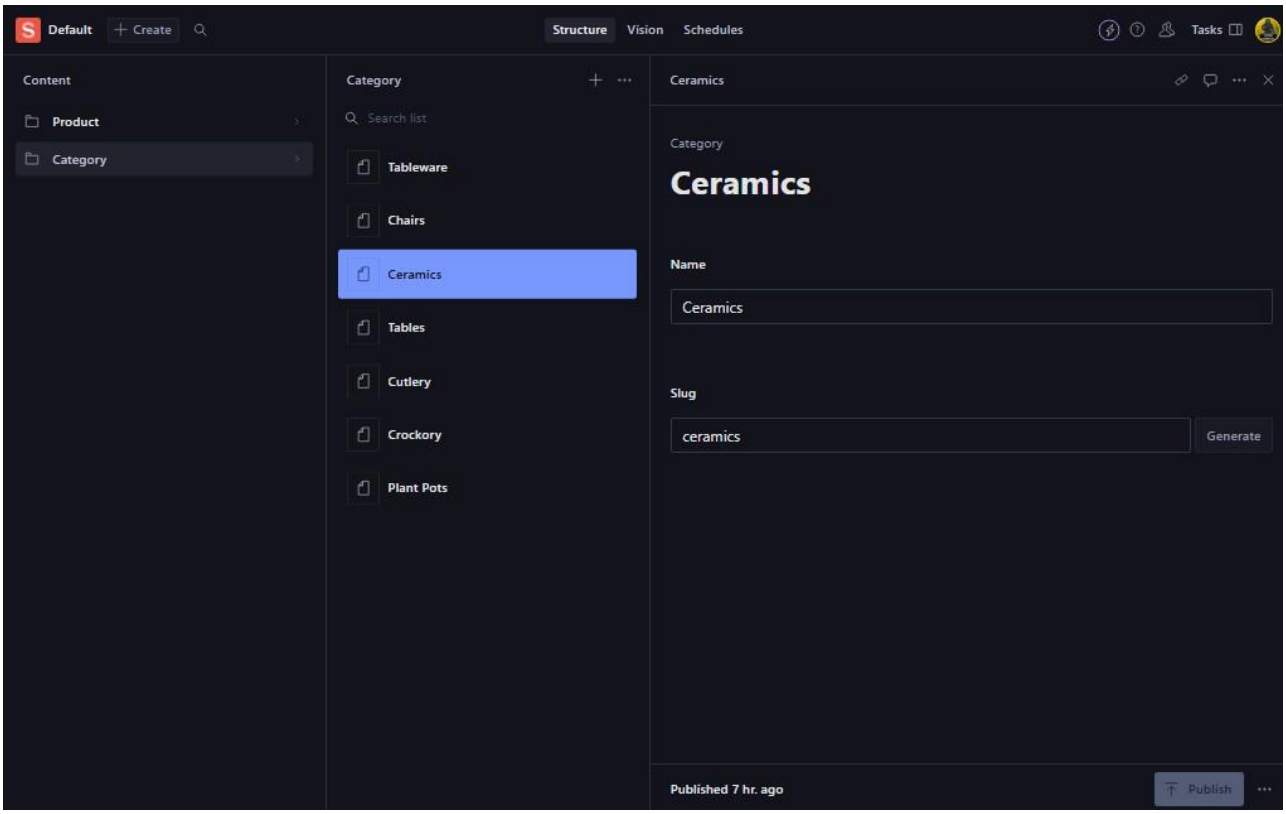
Sleek Living
£300

Zen Table
£250

View collection

3. Populated Fields in Sanity CMS:


Default
Create
Structure
Vision
Schedules
Tasks
Content
Product
Category
Product
Search list
Vase Set
Serene Seat
The Poplar suede sofa
TimberCraft
The Steel Chair
Pure Aura
Wood Chair
Marble Ease
The Dandy chair
Bright Space
Cloud Haven Chair
Bold Nest
Sunny Chic
Vase Set
Product
Vase Set
Category
Plant Pots
Title
Vase Set
Slug
vase-set
Product Image
Published 42 min. ago
Publish


Default
Create
Structure
Vision
Schedules
Tasks
Content
Product
Category
Category
Search list
Tableware
Chairs
Ceramics
Tables
Cutlery
Crockory
Plant Pots
Ceramics
Category
Ceramics
Name
Ceramics
Slug
ceramics
Generate
Published 7 hr. ago
Publish

Code Snippets

API Integration Example:

```
    const [productData, setProductData] = useState<product[] | []>([])
    useEffect(() => {
        async function dataFetch() {
            const data = await client.fetch(`*[_type == "product" &&
            ("popular products" in tags || "new ceramics" in tags)]{
                                _id,
                                price,
                            name,
                        tags,
                            "image" : image.asset->url
}`)
            setProductData(data)
        }
        dataFetch()

    }, [])
    const popularProducts = productData.filter(item => item.tags.includes
    ("popular products"));
    const newCeramics = productData.filter(item => item.tags.includes
    ("new ceramics"));
```

Conclusion:

Day 3 was pivotal in ensuring seamless API integration and data migration, with the foundation now successfully laid.