Day 3 - API Integration Report - Premium Furniture & Decor Marketplace

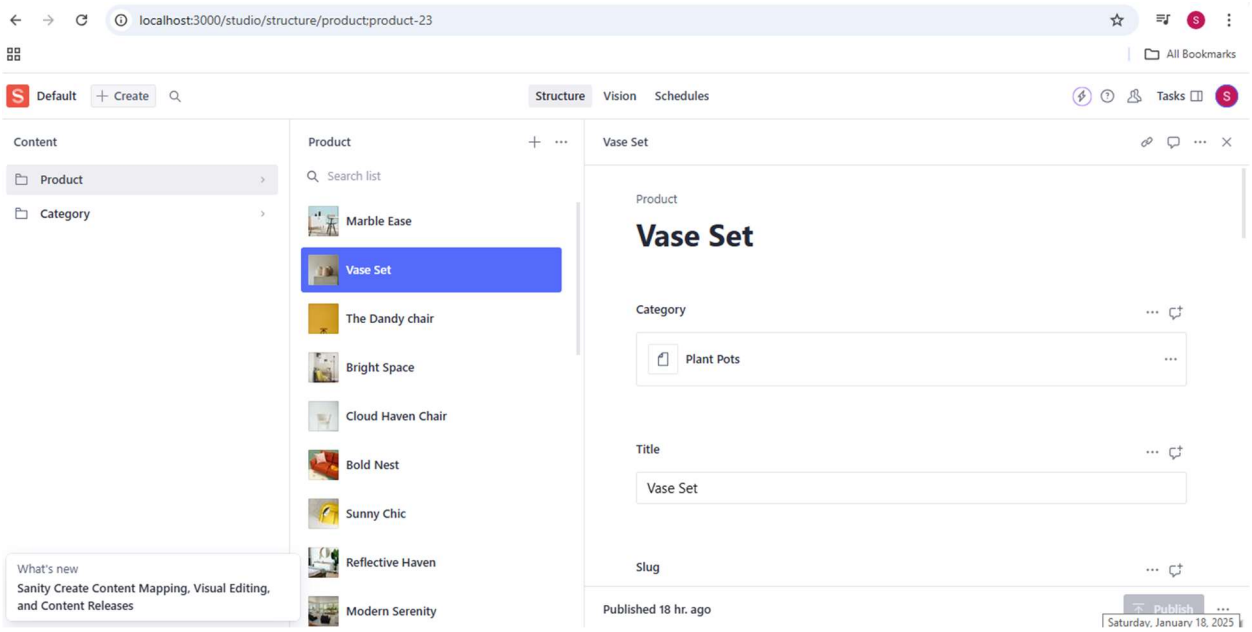
Introduction: Day 3 ka task API integration aur data migration ka tha. Is task me sanity studio ke sath data fetch karna, schemas ko add karna, aur Next.js project me successfully integrate karna shamil tha. Neeche is process ki puri detail likhi gayi hai.

Process Explanation:

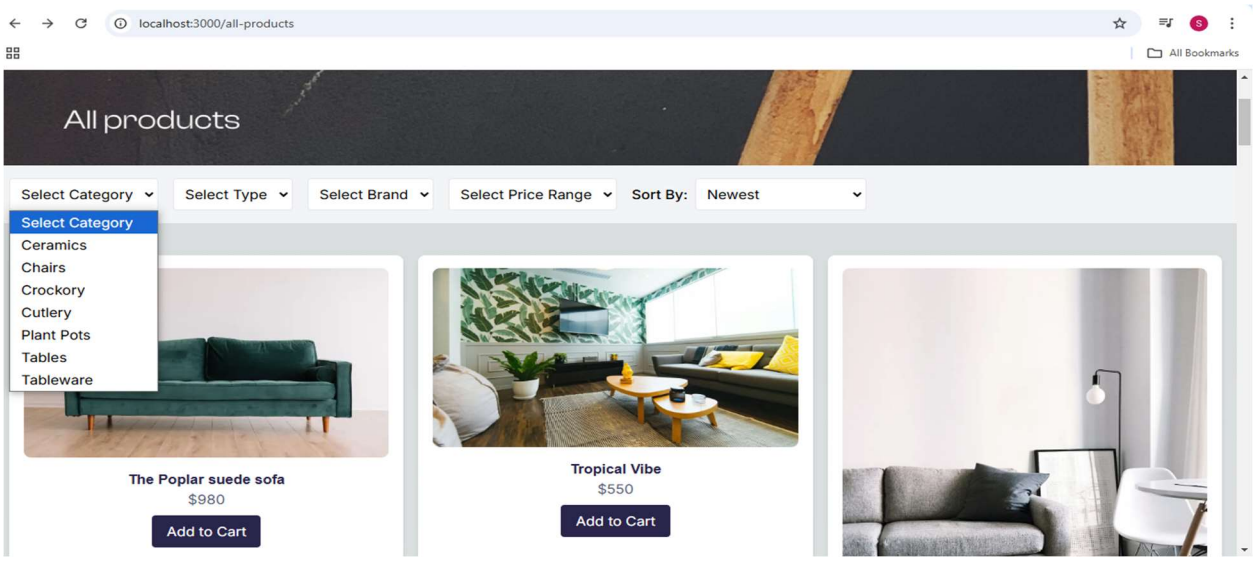
1. **GitHub Repository Clone:**
    - Mujhe ek GitHub repository ka link diya gaya tha.
    - Maine repo clone kiya using:
    - git clone https://github.com/bilalmk/hackathon-template02.git
    - cd sanity-migration folder
    - npm install
2. **Sanity Studio Setup:**
    - Project ID aur Token ko apne project ke "sanity.config.js" me add kiya.
    - Jo schema files provide ki gayi theen unko schemas folder me add kiya.
3. **Schemas Creation:**
    - Do files create ki:
        - product.ts
        - category.ts
    - Dono files me required fields ko define kiya.
    - index.ts me dono schemas ko import kiya.
    - Initially error aya tha, lekin "export default" ka issue resolve karke schema successfully integrate kar liya.
4. **Data Import:**
    - Data import karne ke liye importData.js script di gayi thi.
    - Script ko run kiya using:
    - node importData.js
    - Sanity CMS me fields populate ho gayi theen.
5. **API Integration in Next.js:**
    - Provided schemas ko Next.js ke All Products page me fetch kiya.
    - Data ko display karne ke liye Client-Side Rendering (CSR) ka istamaal kiya gaya, jisme useEffect aur Sanity ke client ko dynamic data fetch karne aur render karne ke liye istemal kiya gaya. Sanity client ke liye imported environment variables (apiVersion, dataset, projectId) ka use kiya gaya hai, jo environment-specific configuration ke liye flexibility provide karte hain.

6. **Successful Output:**
    - Sanity Studio me data show ho raha ha.
    - Frontend page par products aur categories ka data render ho gaya ha.

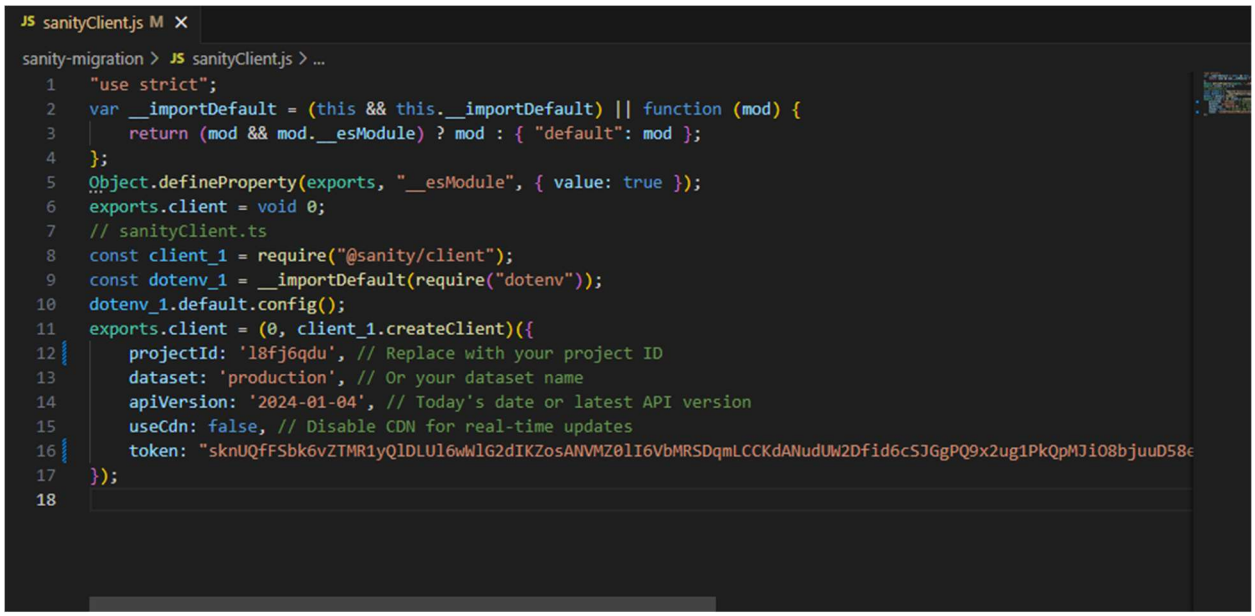
Sanity Studio



Frontend Data



Sanity.js



SCHEMAS

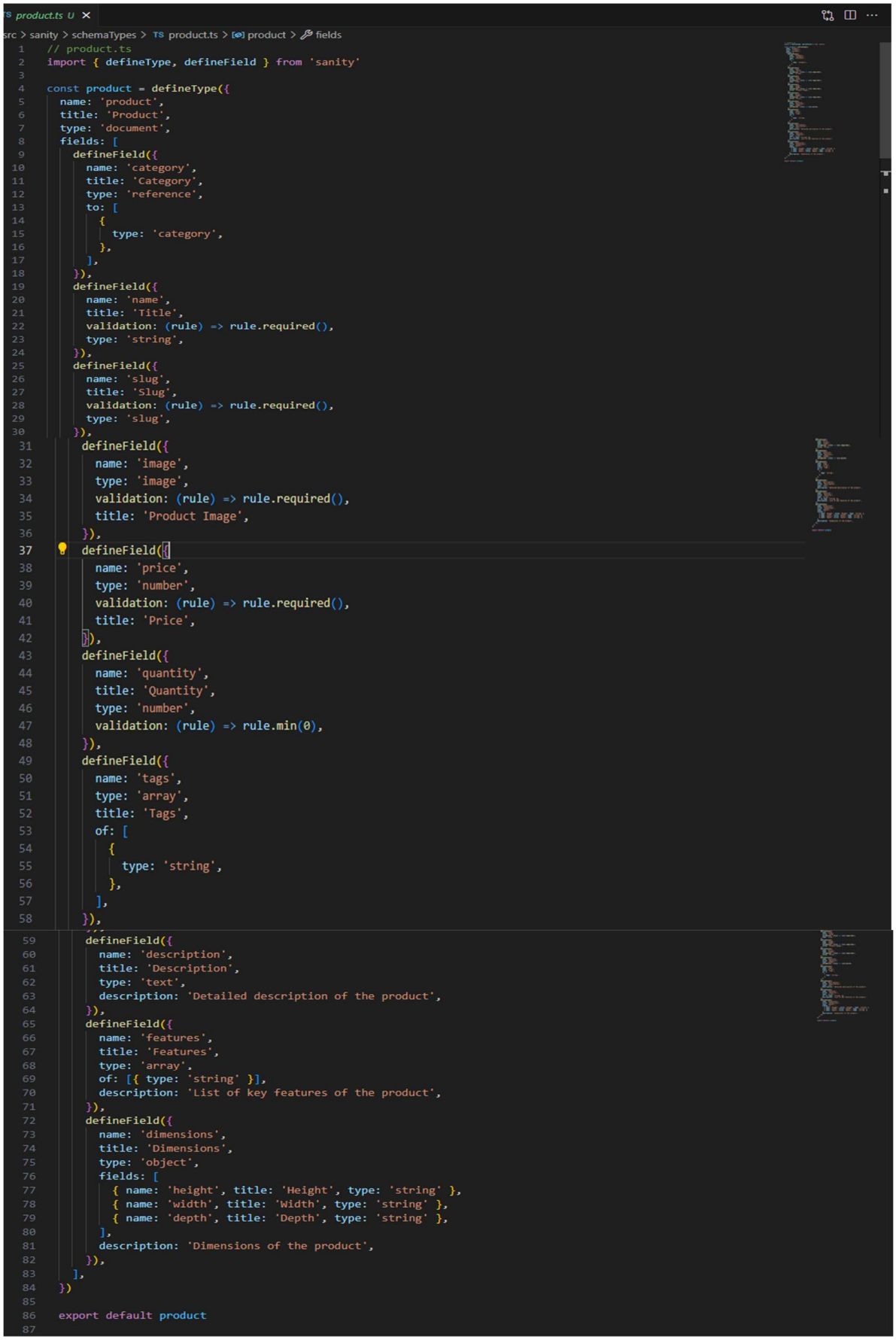
Category.ts

```ts
// category.ts
import { defineType, defineField } from 'sanity'

const Category = defineType({
  name: 'category',
  title: 'Category',
  type: 'document',
  fields: [
    defineField({
      name: 'name',
      title: 'Name',
      type: 'string',
      validation: (rule) => rule.required(),
    }),
    defineField({
      name: 'slug',
      title: 'Slug',
      type: 'slug',
      validation: (rule) => rule.required(),
      options: {
        source: 'name',
      },
    }),
  ],
})

export default Category
```

Product.ts


product.ts U
src > sanity > schemaTypes > product.ts > product > fields
// product.ts
import { defineType, defineField } from 'sanity'
const product = defineType({
name: 'product',
title: 'Product',
type: 'document',
fields: [
defineField({
name: 'category',
title: 'Category',
type: 'reference',
to: [
{
type: 'category',
},
],
}),
defineField({
name: 'name',
title: 'Title',
validation: (rule) => rule.required(),
type: 'string',
}),
defineField({
name: 'slug',
title: 'Slug',
validation: (rule) => rule.required(),
type: 'slug',
}),
defineField({
name: 'image',
type: 'image',
validation: (rule) => rule.required(),
title: 'Product Image',
}),
defineField({
name: 'price',
type: 'number',
validation: (rule) => rule.required(),
title: 'Price',
}),
defineField({
name: 'quantity',
title: 'Quantity',
type: 'number',
validation: (rule) => rule.min(0),
}),
defineField({
name: 'tags',
type: 'array',
title: 'Tags',
of: [
{
type: 'string',
},
],
}),
defineField({
name: 'description',
title: 'Description',
type: 'text',
description: 'Detailed description of the product',
}),
defineField({
name: 'features',
title: 'Features',
type: 'array',
of: [{ type: 'string' }],
description: 'List of key features of the product',
}),
defineField({
name: 'dimensions',
title: 'Dimensions',
type: 'object',
fields: [
{ name: 'height', title: 'Height', type: 'string' },
{ name: 'width', title: 'Width', type: 'string' },
{ name: 'depth', title: 'Depth', type: 'string' },
],
description: 'Dimensions of the product',
}),
],
})
export default product

All Product Page

```
// Fetch categories and products
useEffect(() => {
  const fetchCategoriesAndProducts = async () => {
    // Fetching Categories
    const categoryData = await client.fetch(`*[_type == "category"]`);
    setCategories(categoryData);

    // Fetching Products
    const productData = await client.fetch(
      `*[_type == "product"]{
        _id,
        name,
        price,
        image,
        category->{
          name
        },
        type,
        brand,
        date
      }`
    );
    setProducts(productData);
    setFilteredProducts(productData);
  };

  fetchCategoriesAndProducts();
}, []);

// Filter Products Based on selected filters
useEffect(() => {
```

Conclusion: Day 3 ke task me API integration aur data migration ka kaam successfully complete ho gaya. Har step ko samajhne aur implement karne ke baad data ko Sanity Studio aur Next.js ke frontend me render kar liya gaya.