MARKETPLACE HACKATHON BUILDER 2025

INTRODUCTION

WELCOME TO THE MARKETPLACE BUILDER HACKATHON 2025, THIS IS A 7-DAY CHALLANGE DESIGNED TO HELP YOU LEARN, BUILD, AND LAUNCH YOUR VERY OWN ONLINE MARKETPLACE.

[SIR AMEEN ALAM]

DAY 1: LAYING THE FOUNDATION FOR YOUR MARKETPLACE JOURNEY

INTRODUCTION

On Day 1, it’s all about mind storming—just thinking about what I want to create. The main goal of my website is to build an online platform for interior design where users can easily find sofas, lighting, and other interior products, all in one place.

GENERAL E-COMMERCE

1. Business Goals

The goal of my website is to provide a one-stop platform where users can easily find and purchase interior design products like sofas, lighting, and décor without wasting time searching through multiple sites.

2. Target Audience

Our platform is for people who want to decorate or furnish their home. Whether you’re a homeowner, renter, designer, we have stylish and affordable furniture, lighting, and décor for you.

I want to create a responsive, pixel-perfect website that makes shopping for stylish interior products easy and enjoyable.

DAY 2 PLANNING THE TECHNICAL FOUNDATION

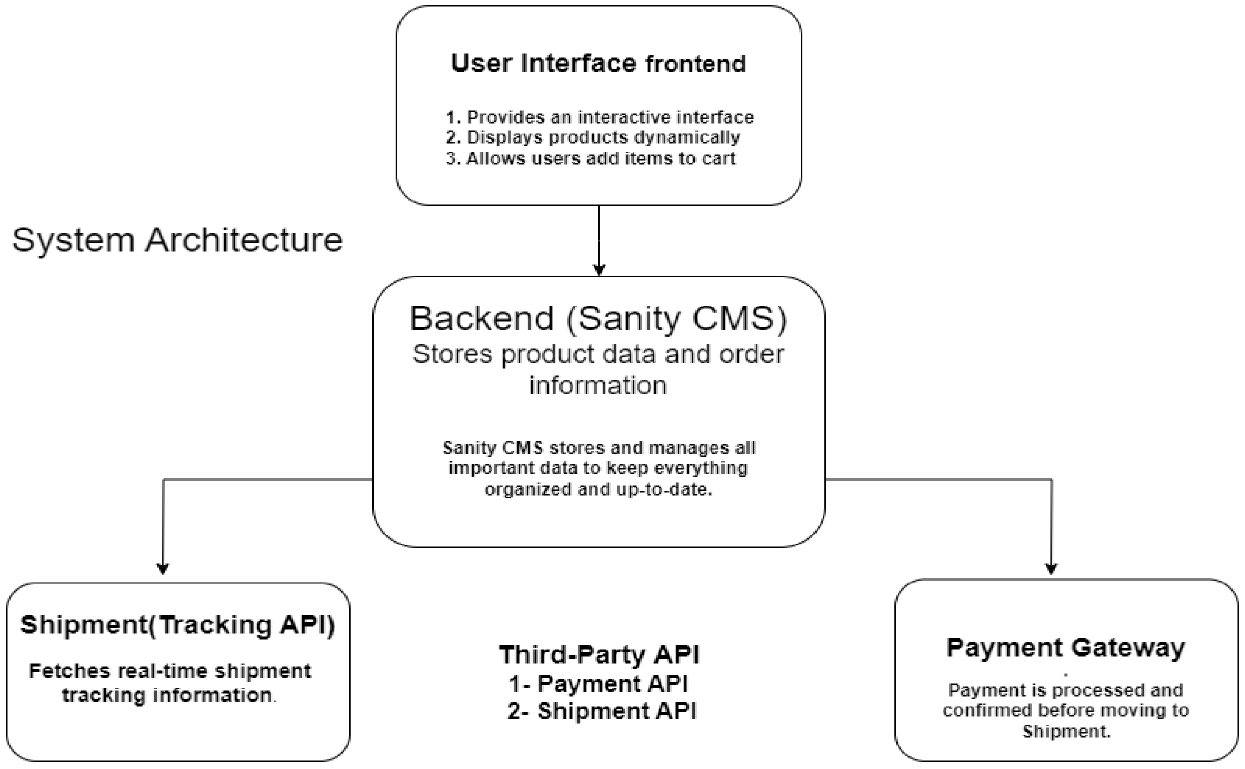
INTRODUCTION

On Day 2, we focus on how the website works. We'll use Sanity for managing content, Next.js for the frontend, and APIs to connect everything, with Sanity handling the backend. Sanity CMS serves as the backend.

Marketplace Technical Foundation-InteriorDesigningWebsite

Flowchart

Flowchart explains the relationship between the frontend, backend (Sanity CMS), and third-party APIs.

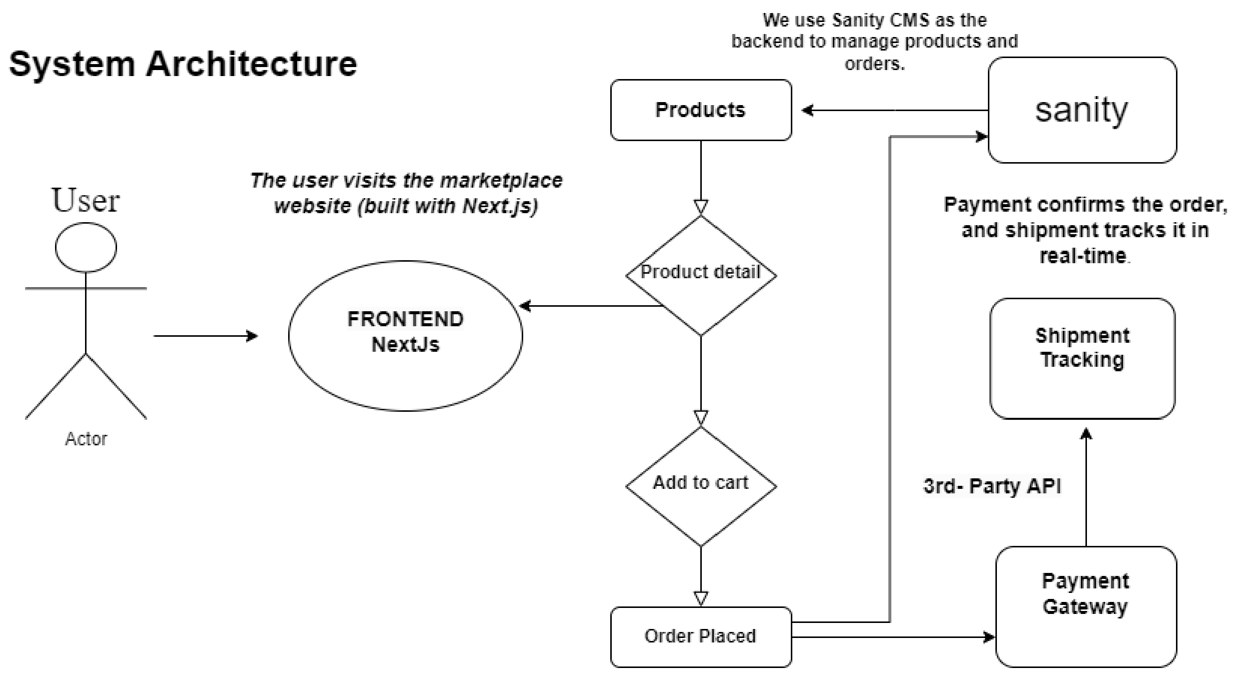

User Interface frontend
1. Provides an interactive interface
2. Displays products dynamically
3. Allows users add items to cart
System Architecture
Backend (Sanity CMS)
Stores product data and order information
Sanity CMS stores and manages all important data to keep everything organized and up-to-date.
Shipment(Tracking API)
Fetches real-time shipment tracking information.
Third-Party API
1- Payment API
2- Shipment API
Payment Gateway
Payment is processed and confirmed before moving to Shipment.

Frontend (Next.js): The website where users browse products.

Sanity CMS: Stores product data and sends it to the website.

Third-Party APIs: Handle payments and shipping, connected to the backend.

Here's How My Website Works:


System Architecture
We use Sanity CMS as the backend to manage products and orders.
Products
sanity
User
The user visits the marketplace website (built with Next.js)
Payment confirms the order, and shipment tracks it in real-time.
Product detail
FRONTEND NextJs
Actor
Shipment Tracking
Add to cart
3rd- Party API
Payment Gateway
Order Placed

Here, everything is connected: the frontend links to the backend, where Sanity CMS manages product data, while third-party APIs handle payments and shipping, ensuring a smooth experience from browsing to checkout.

Planning Before Building the Website

Before building the website, it's important to plan ahead. On Day 1 and Day 2, we focused on the technical setup, defining how the website will work, including the integration of the backend, frontend, and third-party APIs for smooth functionality.

DAY 3 - API INTEGRATION AND DATA MIGRATION

INTRODUCTION:

On Day 3, the focus is on integrating APIs and migrating data into Sanity CMS to set up the marketplace backend.

API Integration Report - InteriorDesigningWebsite

An API allows us to integrate third-party services into our project, making it easier to use external features and data.

Using the Provided API in Our Project

Template 6 - Sir Fahad Khan and Sir Hamza Alvi

API: https://template6-six.vercel.app/api/products

I have Template 6, and I am using the provided API to integrate data into Sanity for our project.

API Integration Process

- Set up Sanity in your project.
- Create a product file in "schemaTypes" and write the product schema.
- Write a script and add the environment to your project.
- Open Sanity Studio at https://localhost:3000/studio/.
- Check the data is imported correctly.

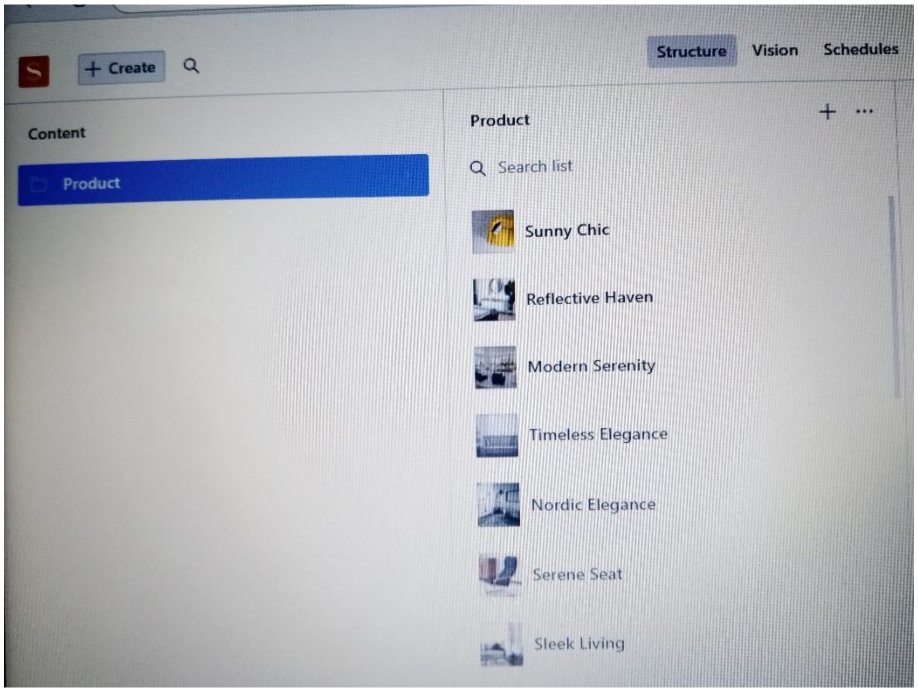
Why We Use Sanity

We use Sanity as our backend to store and manage information, like product details. It helps us easily add, update, and save data, making everything work smoothly on our website.

Main purpose of the Day 3 is that we used provided api and integrated its data into Sanity. Then, we fetched the data from Sanity and displayed it on the Frontend.

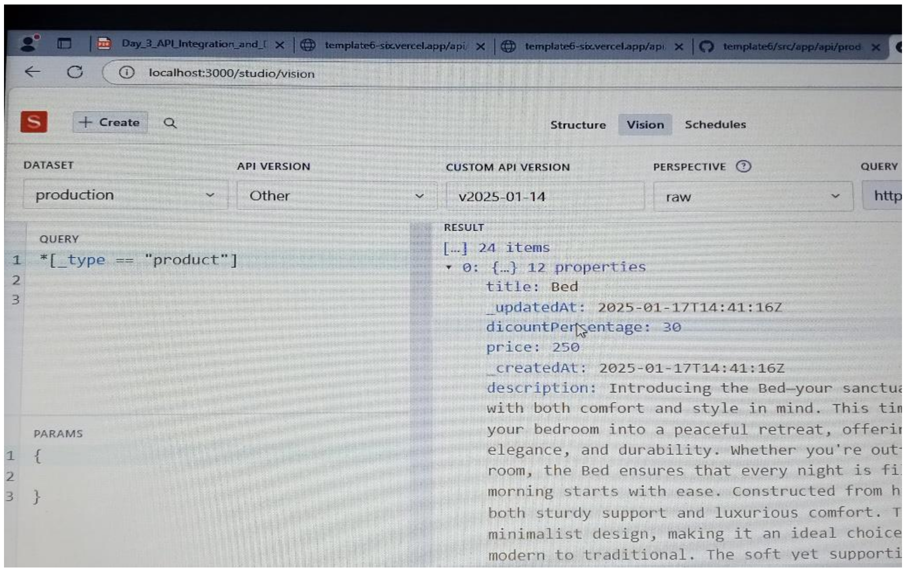
Snippets

1. Data Successfully Integrated into Sanity



Sunny Chic
Reflective Haven
Modern Serenity
Timeless Elegance
Nordic Elegance
Serene Seat
Sleek Living

2. Using GROQ Query to Verify Data in Sanity Studio


Day_3_API_Integration_and_[
template6-six.vercel.app/api/
template6-six.vercel.app/api
template6/src/app/api/prod
localhost:3000/studio/vision
+ Create
Structure
Vision
Schedules

DATASET: production
API VERSION: Other
CUSTOM API VERSION: v2025-01-14
PERSPECTIVE: raw
QUERY: http

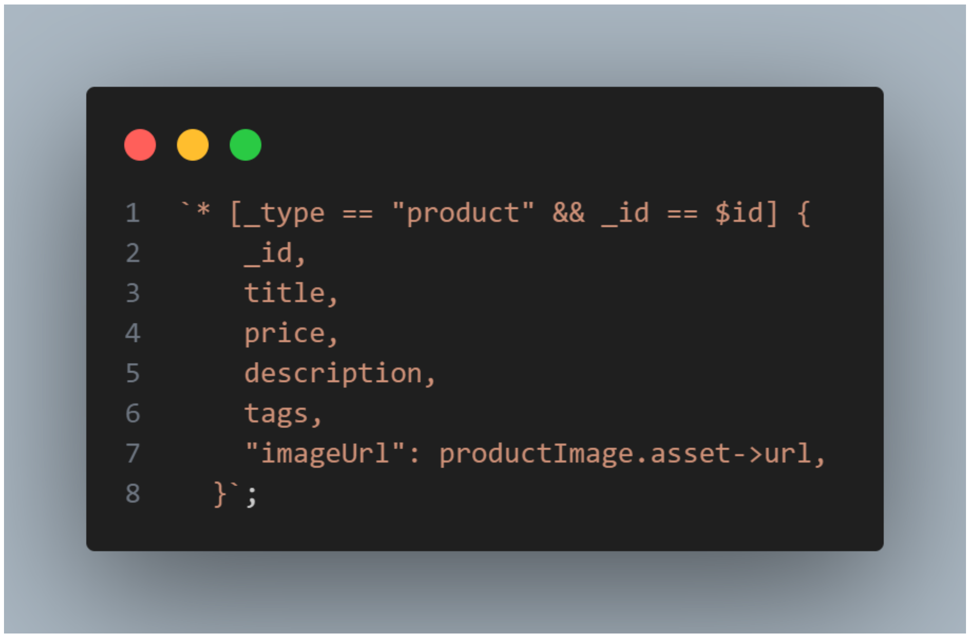
QUERY
```
*[_type == "product"]
```

PARAMS
```
{

}
```

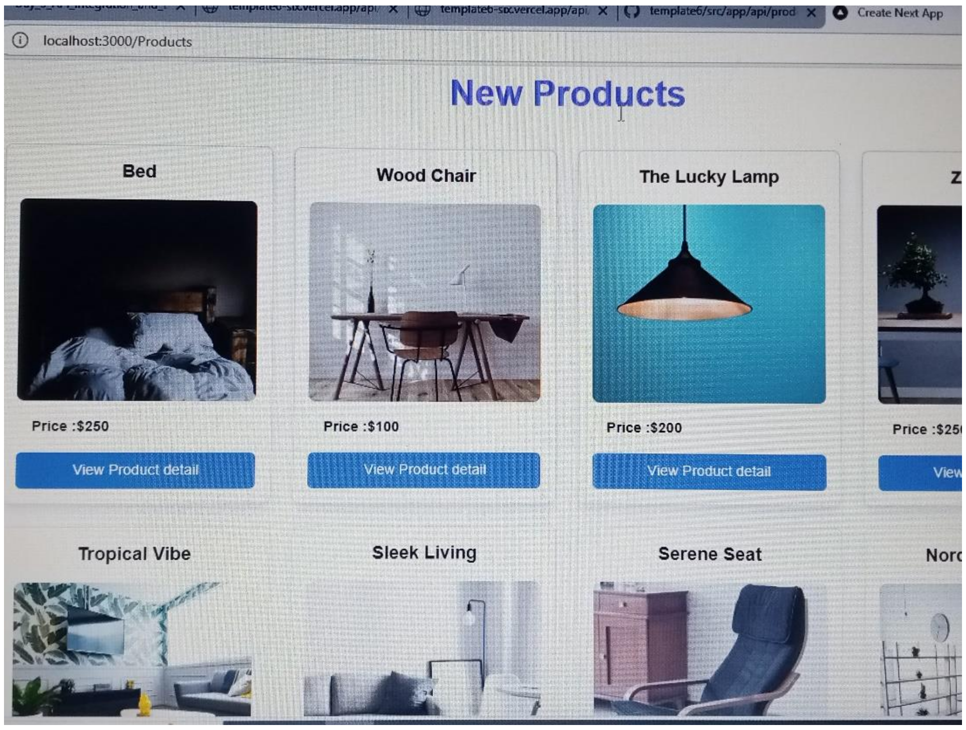
RESULT
```
[…] 24 items
▾ 0: {…} 12 properties
    title: Bed
    _updatedAt: 2025-01-17T14:41:16Z
    dicountPercentage: 30
    price: 250
    _createdAt: 2025-01-17T14:41:16Z
    description: Introducing the Bed—your sanctu
    with both comfort and style in mind. This ti
    your bedroom into a peaceful retreat, offeri
    elegance, and durability. Whether you're out
    room, the Bed ensures that every night is fi
    morning starts with ease. Constructed from h
    both sturdy support and luxurious comfort. T
    minimalist design, making it an ideal choice
    modern to traditional. The soft yet supporti
```

3. Fetching Data with GROQ Query



```
`* [_type == "product" && _id == $id] {
    _id,
    title,
    price,
    description,
    tags,
    "imageUrl": productImage.asset->url,
  }`;
```

4.Display Data on Frontend



localhost:3000/Products

New Products

Bed

Price :$250

View Product detail

Wood Chair

Price :$100

View Product detail

The Lucky Lamp

Price :$200

View Product detail

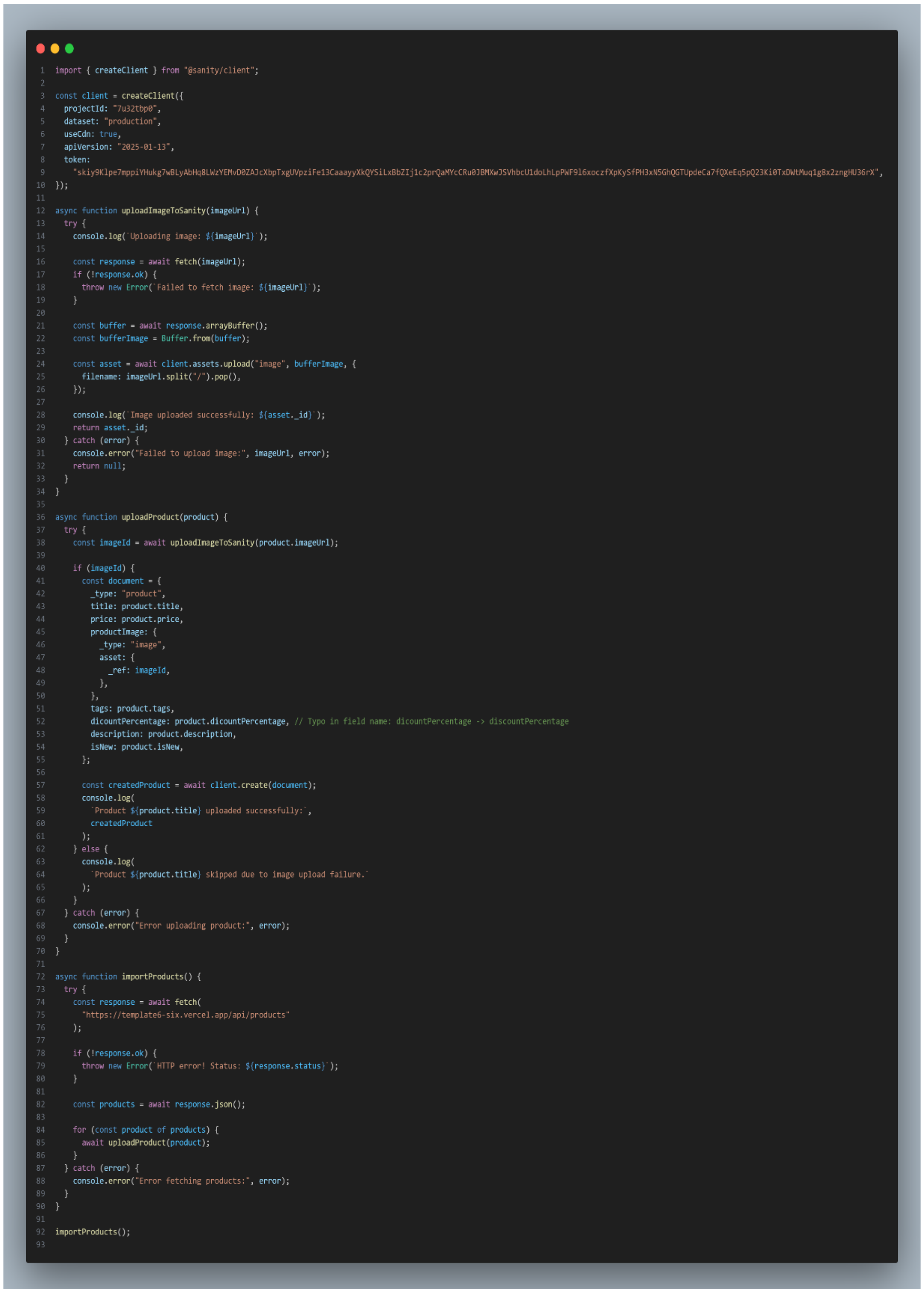
Price :$25

Tropical Vibe

Sleek Living

Serene Seat

Script to Fetch and Display Data from Sanity



```javascript
import { createClient } from "@sanity/client";

const client = createClient({
  projectId: "7u32tbp0",
  dataset: "production",
  useCdn: true,
  apiVersion: "2025-01-13",
  token:
    "skiy9Klpe7mppiYHukg7wBLyAbHq8LWzYEMvD0ZAJcXbpTxgUVpziFe13CaaayyXkQYSiLxBbZIj1c2prQaMYcCRu0JBMXwJSVhbcU1doLhLpPWF9l6xoczfXpKySfPH3xN5GhQGTUpdeCa7fQXeEq5pQ23Ki0TxDWtMuq1g8x2zngHU36rX",
});

async function uploadImageToSanity(imageUrl) {
  try {
    console.log(`Uploading image: ${imageUrl}`);

    const response = await fetch(imageUrl);
    if (!response.ok) {
      throw new Error(`Failed to fetch image: ${imageUrl}`);
    }

    const buffer = await response.arrayBuffer();
    const bufferImage = Buffer.from(buffer);

    const asset = await client.assets.upload("image", bufferImage, {
      filename: imageUrl.split("/").pop(),
    });

    console.log(`Image uploaded successfully: ${asset._id}`);
    return asset._id;
  } catch (error) {
    console.error("Failed to upload image:", imageUrl, error);
    return null;
  }
}

async function uploadProduct(product) {
  try {
    const imageId = await uploadImageToSanity(product.imageUrl);

    if (imageId) {
      const document = {
        _type: "product",
        title: product.title,
        price: product.price,
        productImage: {
          _type: "image",
          asset: {
            _ref: imageId,
          },
        },
        tags: product.tags,
        dicountPercentage: product.dicountPercentage, // Typo in field name: dicountPercentage -> discountPercentage
        description: product.description,
        isNew: product.isNew,
      };

      const createdProduct = await client.create(document);
      console.log(
        `Product ${product.title} uploaded successfully:`,
        createdProduct
      );
    } else {
      console.log(
        `Product ${product.title} skipped due to image upload failure.`
      );
    }
  } catch (error) {
    console.error("Error uploading product:", error);
  }
}

async function importProducts() {
  try {
    const response = await fetch(
      "https://template6-six.vercel.app/api/products"
    );

    if (!response.ok) {
      throw new Error(`HTTP error! Status: ${response.status}`);
    }

    const products = await response.json();

    for (const product of products) {
      await uploadProduct(product);
    }
  } catch (error) {
    console.error("Error fetching products:", error);
  }
}

importProducts();
```

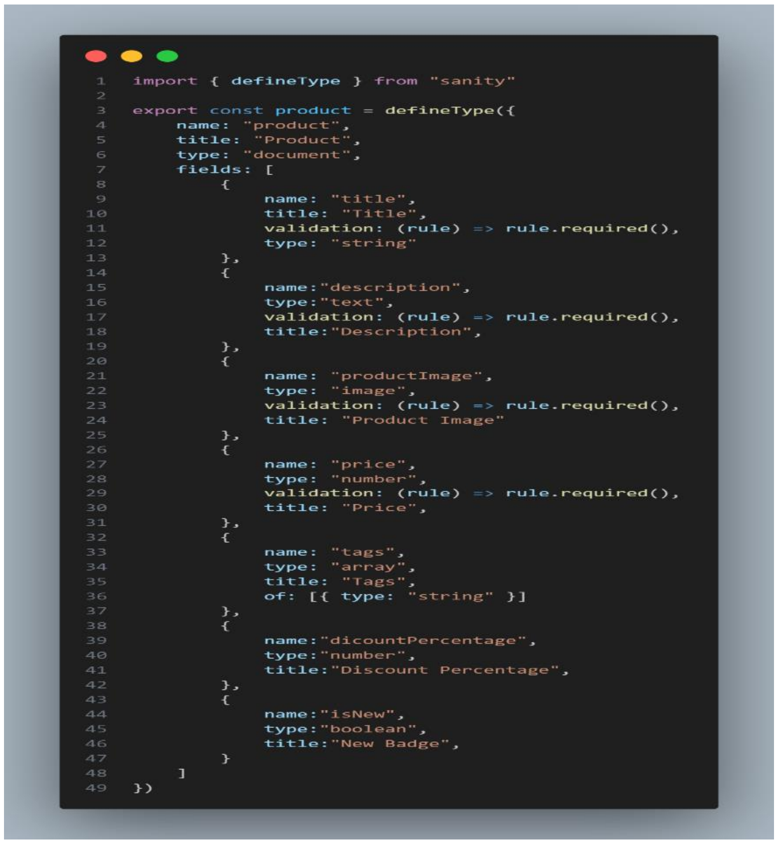
Schema:

A schema defines the structure of the data in Sanity. , making it easier to manage and display consistent content.

For Product:

- **title**: product name
- **description**: A description of the product.
- **productImage**: An image field to upload a product image.
- **tag**: A tag or category for the product.
- **price**: product price.
- **discountPercentage**: The discount percentage applied to the product.
- is **New**: A boolean field to indicate if the product is new.

Code :



```
import { defineType } from "sanity"

export const product = defineType({
    name: "product",
    title: "Product",
    type: "document",
    fields: [
        {
            name: "title",
            title: "Title",
            validation: (rule) => rule.required(),
            type: "string"
        },
        {
            name:"description",
            type:"text",
            validation: (rule) => rule.required(),
            title:"Description",
        },
        {
            name: "productImage",
            type: "image",
            validation: (rule) => rule.required(),
            title: "Product Image"
        },
        {
            name: "price",
            type: "number",
            validation: (rule) => rule.required(),
            title: "Price",
        },
        {
            name: "tags",
            type: "array",
            title: "Tags",
            of: [{ type: "string" }]
        },
        {
            name:"dicountPercentage",
            type:"number",
            title:"Discount Percentage",
        },
        {
            name:"isNew",
            type:"boolean",
            title:"New Badge",
        }
    ]
})
```

DAY4: BUILDING DYNAMIC FRONTEND COMPONENTS FOR YOUR MARKETPLACE:

INTRODUCTION:

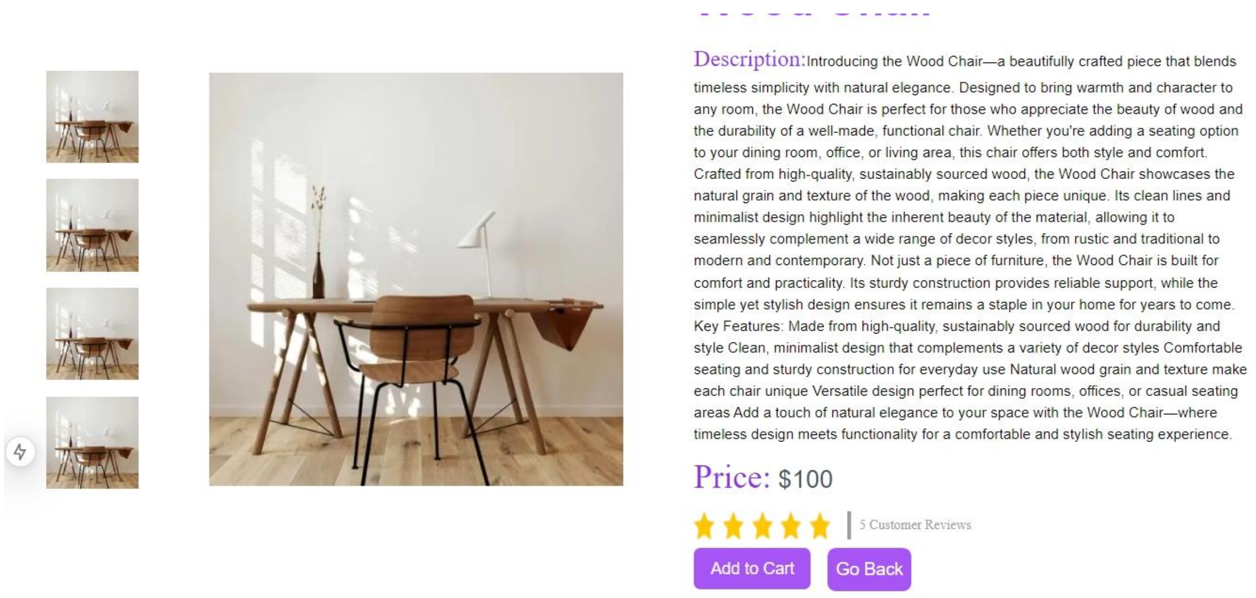
Day4, I created dynamic frontend components to show product details. Each product will have its own page, and I'l use dynamic routes to make the website more flexible and responsive.

Product Detail Page:

On the product detail page, the product's name, price, and image will be displayed, giving users all the information they need about the product.

Dynamic Route Setup

To create a dynamic route, we make a folder with square brackets `[]`, like `[id]`. This allows each product to have its own page based on its unique ID



Description:Introducing the Wood Chair—a beautifully crafted piece that blends timeless simplicity with natural elegance. Designed to bring warmth and character to any room, the Wood Chair is perfect for those who appreciate the beauty of wood and the durability of a well-made, functional chair. Whether you're adding a seating option to your dining room, office, or living area, this chair offers both style and comfort. Crafted from high-quality, sustainably sourced wood, the Wood Chair showcases the natural grain and texture of the wood, making each piece unique. Its clean lines and minimalist design highlight the inherent beauty of the material, allowing it to seamlessly complement a wide range of decor styles, from rustic and traditional to modern and contemporary. Not just a piece of furniture, the Wood Chair is built for comfort and practicality. Its sturdy construction provides reliable support, while the simple yet stylish design ensures it remains a staple in your home for years to come. Key Features: Made from high-quality, sustainably sourced wood for durability and style Clean, minimalist design that complements a variety of decor styles Comfortable seating and sturdy construction for everyday use Natural wood grain and texture make each chair unique Versatile design perfect for dining rooms, offices, or casual seating areas Add a touch of natural elegance to your space with the Wood Chair—where timeless design meets functionality for a comfortable and stylish seating experience.

Price: $100

★★★★★ | 5 Customer Reviews

THANKYOU

Design By Kristina