

Day 3 - API Integration Report (Car Rental E-Commerce)

Objective

This document provides a detailed report on integrating API data and migrating it into Sanity CMS to build a functional backend for a car rental e-commerce platform. The data was provided by **Sir Asharib Ali** and **Sir Ahmed Raza Shaikh** as part of Template 7. The report covers the API integration process, schema adjustments, migration steps, and frontend implementation to display the data.

API Integration Process

1. API Details

The API provided car data, including attributes such as

- name
- brand
- type
- fuelCapacity
- transmission
- seatingCapacity
- pricePerDay
- originalPrice
- tags
- image

2. Utility Functions for API Calls

A utility function was created to fetch data from the API and handle errors gracefully.

Sanity Schema

To ensure compatibility with the provided API data, the following schema adjustments were made:

```
export default {
  name: 'car',
  type: 'document',
  title: 'Car',
  fields: [
    { name: 'name', type: 'string', title: 'Car Name' },
    { name: 'brand', type: 'string', title: 'Brand', description: 'Brand of the car (e.g., Nissan, Tesla, etc.)' },
    { name: 'type', type: 'string', title: 'Car Type', description: 'Type of the car (e.g., Sport, Sedan, SUV, etc.)' },
    { name: 'fuelCapacity', type: 'string', title: 'Fuel Capacity', description: 'Fuel capacity or battery capacity (e.g., 90L, 100kWh)' },
    { name: 'transmission', type: 'string', title: 'Transmission', description: 'Type of transmission (e.g., Manual, Automatic)' },
    { name: 'seatingCapacity', type: 'string', title: 'Seating Capacity', description: 'Number of seats (e.g., 2 People, 4 seats)' },
    { name: 'pricePerDay', type: 'string', title: 'Price Per Day', description: 'Rental price per day' },
    { name: 'originalPrice', type: 'string', title: 'Original Price', description: 'Original price before discount (if applicable)' },
    { name: 'tags', type: 'array', title: 'Tags', of: [{ type: 'string' }], options: { layout: 'tags' }, description: 'Tags for categorization (e.g., popular, recommended)' },
    { name: 'image', type: 'image', title: 'Car Image', options: { hotspot: true } }
  ]
};
```

Frontend Display

1. Fetching Data from Sanity

A function was implemented to fetch migrated data from Sanity CMS:

```
import { client } from "@sanity/lib/client";
import Image from "next/image";

export default async function Home() {
  const data = await client.fetch(`*[_type == "car"] {
    name,
    brand,
    type,
    fuelCapacity,
    transmission,
    seatingCapacity,
    pricePerDay,
    originalPrice,
    tags,
    "imageUrl": image.asset->url
  }`);
}
```

2. Rendering Data in Next.js

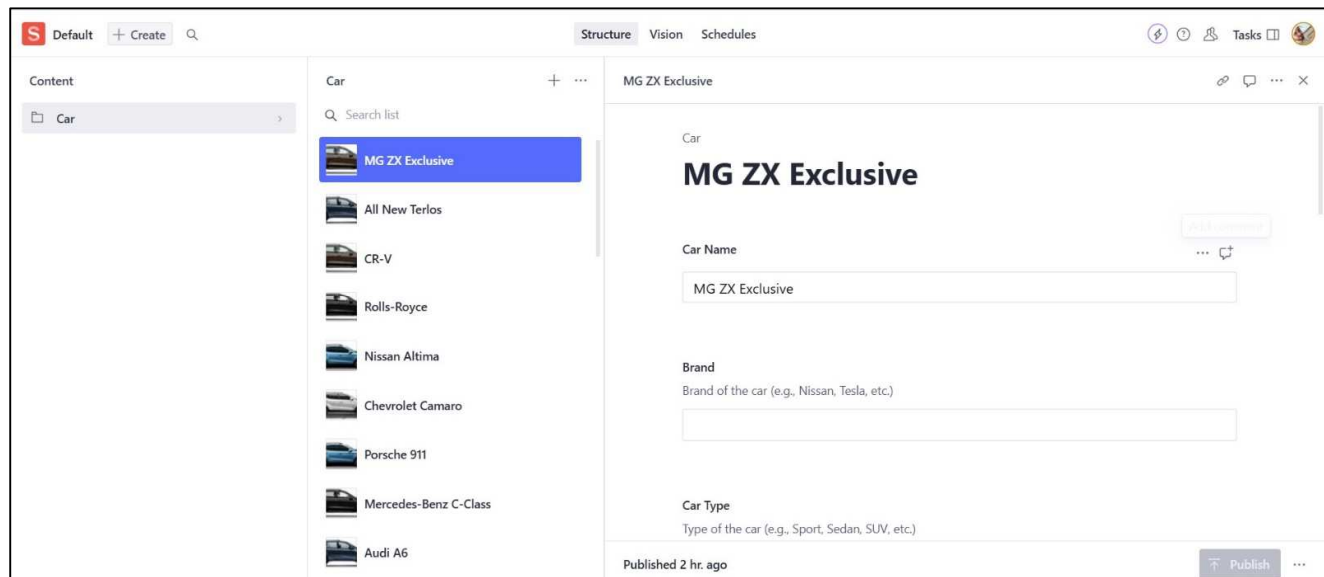
The car data was displayed using a grid layout with styled cards:

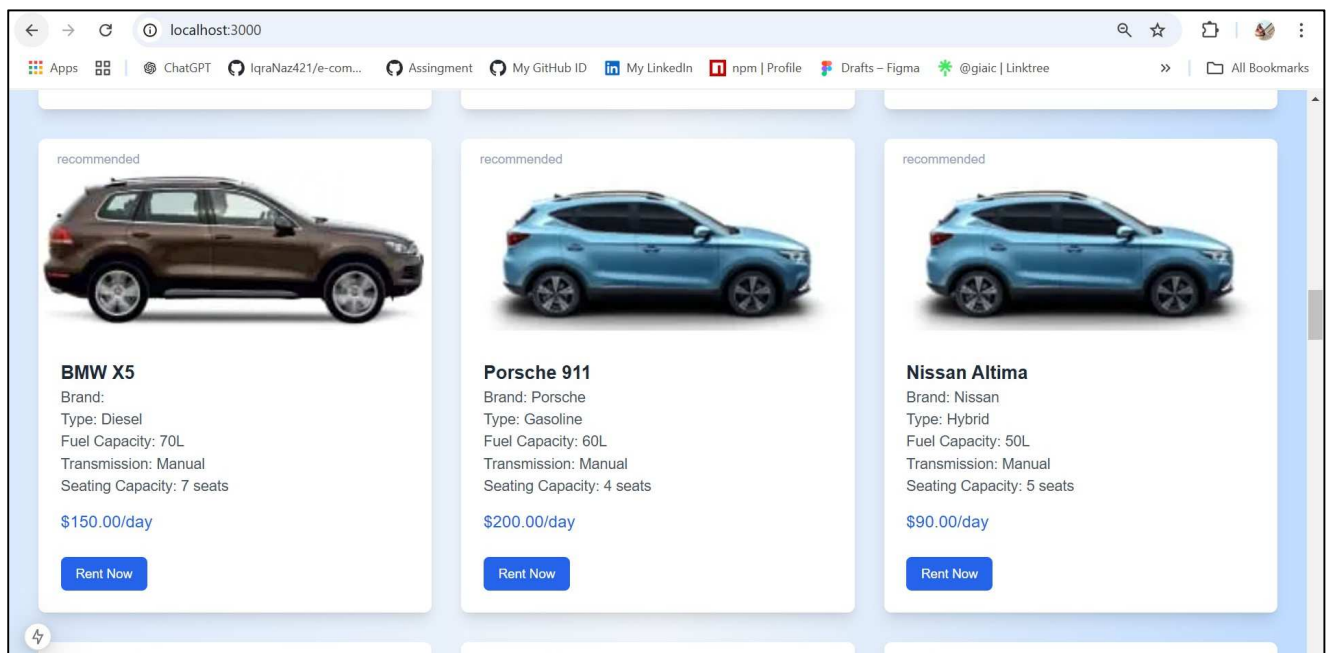
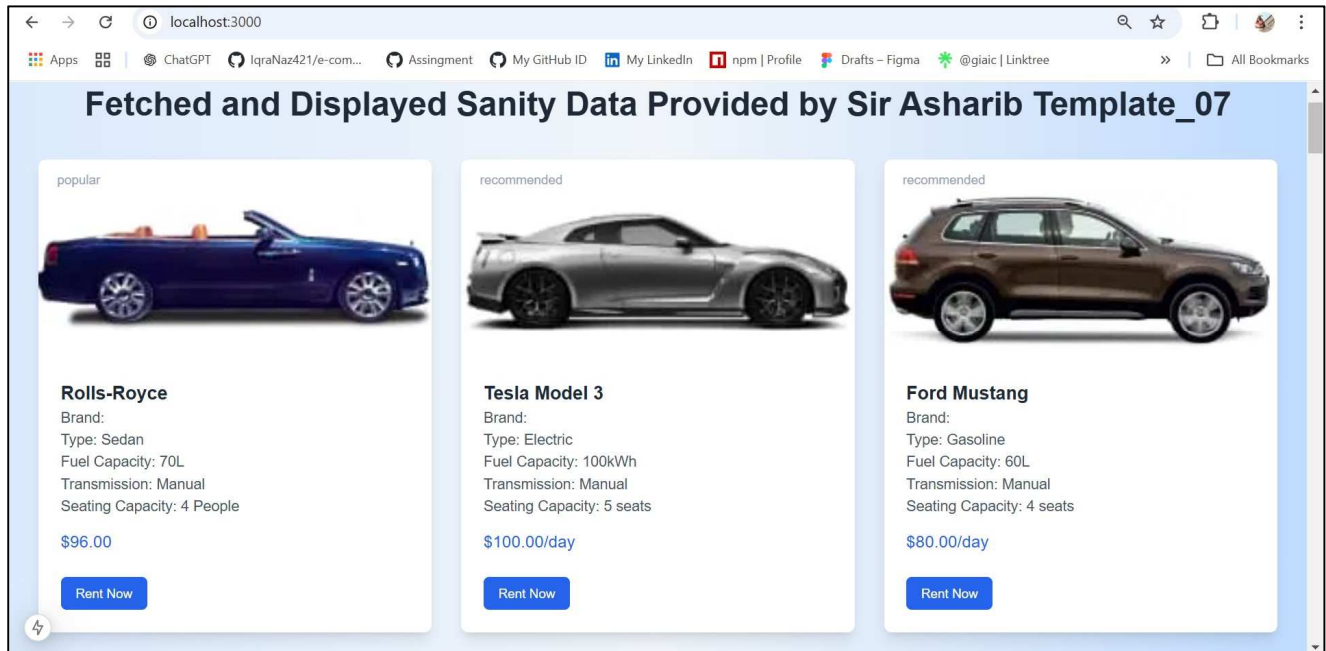
```
<div className="bg-gradient-to-r from-blue-100 via-slate-100 to-blue-200 min-h-screen py-12">
  <h1 className="text-4xl font-bold mb-10 text-center text-gray-800">
    Fetched and Displayed Sanity Data Provided by Sir Asharib Template_07
  </h1>

  <div className="grid grid-cols-1 sm:grid-cols-2 md:grid-cols-3 gap-8 px-8">
    {data.map((item: any, index: number) => {
      <div
        key={index}
        className="bg-white rounded-lg shadow-lg overflow-hidden relative hover:shadow-xl transition-shadow duration-300"
      >
        {/* Tags */}
        <div className="absolute top-2 left-2 text-slate-400 text-sm px-3 py-1 rounded-md">
          {item.tags}
        </div>

        {/* Image */}
        <Image
          src={item.imageUrl}
          alt={item.name}
          width={300}
          height={200}
          className="w-full h-48 object-contain mt-6"
        />

        {/* Content */}
        <div className="p-6">
          <h2 className="text-xl font-semibold text-gray-800">{item.name}</h2>
          <p className="text-gray-600">Brand: {item.brand}</p>
          <p className="text-gray-600">Type: {item.type}</p>
          <p className="text-gray-600">Fuel Capacity: {item.fuelCapacity}</p>
          <p className="text-gray-600">Transmission: {item.transmission}</p>
          <p className="text-gray-600">Seating Capacity: {item.seatingCapacity}</p>
          <div className="text-gray-800 font-medium mt-3">
            <span className="text-lg text-blue-600">{item.pricePerDay}</span>{" "}
            <span className="line-through text-gray-500 ml-2">{item.originalPrice}</span>
          </div>
          {/* Button */}
          <button
            className="mt-6 bg-blue-600 text-white px-4 py-2 rounded-md text-sm font-medium hover:bg-blue-700 transition-colors"
            type="button">
            Rent Now
          </button>
        </div>
      </div>
    })}
  </div>
</div>
```





Conclusion

This exercise provided hands-on experience in API integration, data migration, and schema validation. The result is a functional car rental e-commerce platform with a scalable backend powered by Sanity CMS and a responsive frontend built using Next.js.