DAY 3 - API INTEGRATION REPORT - MORENT CAR RENTAL WEBSITE

Rental E-Commerce Website

How did i approch Api integration

My Approch

I checked the assigned API which was a good starting but i needed to adjust it for my needs

Assigned Api Structure **API:** https://sanity-nextjs-application.vercel.app/api/hackathon/template7


```
{
    "id": 1,
    "name": "Koenigsegg",
    "type": "Sport",
    "fuel_capacity": "90L",
    "transmission": "Manual",
    "seating_capacity": "2 People",
    "price_per_day": "$99.00",
    "image_url": "https://car-rental-website-five.vercel.app/_next/image?
    url=%2F_next%2Fstatic%2Fmedia%2Fcar.11698147.jpg&w=640&q=75",
    "tags": [
        "popular"
    ]
},
```


My Api Structure **API:** https://morent-way-to-rent-car.vercel.app/api/cars

This Link Might Not Work Before Hackathon Deadline


```
{
    "heart": true,
    "reviews": 20,
    "seating_capacity": "2 People",
    "image": {
        "_type": "image",
        "asset": {
            "_ref": "image-8d4b40b0870d3054a95e666e8a9c75191612f1d3-232x72-jpg",
            "_type": "reference"
        }
    },
    "slug": {
        "current": "koenigsegg",
        "_type": "slug"
    },
    "fuel_capacity": "90L",
    "desc": "Car description",
    "icons": true,
    "available": 5,
    "name": "Koenigsegg",
    "tags": [
        "popular"
    ],
    "price_per_day": "$99.00",
    "original_price": "$100.00",
    "card_type": "mobile",
    "type": "Sport",
    "transmission": "Manual"
},
```

Data Migration

I copied assigned migration script and ran it blindly and got errors 😄 LoL, so i had to adjust it for myself

Assigned Migration Script

API: https://github.com/AsharibAli/sanity-nextjs/blob/main/scripts/importTemplate7Data.mjs

My Migration Script

API: https://github.com/DanielHashmi/Morent---Way-to-Rent-Cars/blob/main/src/sanity/lib/migration.mjs
This Link Might Not Work Before Hackathon Deadline

Changes i Made

Environment Variables

The process.env.VARIABLE_NAMES didn't worked for me for some reason and i didn't bother myself to figure it out why, i choosed to add the actual projectId and token directly since its only for one time use so...

Custom Fields

I added custom fields for my specific needs, such as **heart** for favorites, **slug** for a readable and seo friendly unique key for each car, **available** for the rental car quantity, **desc** for the description and **reviews** to show rating on the card for the car

My Preference for slug instead of using the sanity _id

Personally i'm familar with slugs and i find it very easy to handle it inside my code, but some people might like using id's, the reason why i don't like id's to use inside my dynamic routes is because it doesn't directly fits inside the url it's fragile for that we need to use other methods to convert it from an actual id to an index but if we have a predifined slug inside the car data itself so we can directly add it inside the url and also its recommended to use slugs instead of id's

Challenges i faced

Well, the whole hackathon is a challenge for me, but adding the custom fields and then filling them with data inside sanity for each car manually 🔥

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

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

// Create Sanity client
const client = createClient({
 projectId: '😸',
 dataset: 'production',
 useCdn: false,
 token: '🐱',
 apiVersion: '2021-08-31'
});

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;
 } catch (error) {
  console.error('Failed to upload image:', imageUrl, error);
  return null;
 }
}

async function importData() {
 try {
  console.log('Fetching car data from API...');

  // API endpoint containing car data
  const response = await axios.get('https://sanity-nextjs-
application.vercel.app/api/hackathon/template7');
  const cars = response.data;

  console.log(`Fetched ${cars.length} cars`);

  for (const car of cars) {
   console.log(`Processing car: ${car.name}`);

   let imageRef = null;
   if (car.image_url) {
    imageRef = await uploadImageToSanity(car.image_url);
   }

   const sanityCar = {
    // Api Fields
    _type: 'car',
    name: car.name,
    type: car.type,
    fuel_capacity: car.fuel_capacity,
    transmission: car.transmission,
    seating_capacity: car.seating_capacity,
    price_per_day: car.price_per_day,
    original_price: car.original_price || null,
    tags: car.tags || [],
    image: imageRef ? {
     _type: 'image',
     asset: {
     _type: 'reference',
     _ref: imageRef,
     },
    } : undefined,
    // Custom Fields
    slug: car.name.toLowerCase().replaceAll(' ', '-'),
    heart: false,
    available: 5,
    // Detail Page Fields
    desc: 'Car description here',
    reviews: 20,
   };

   console.log('Uploading car to Sanity:', sanityCar.name);
   const result = await client.create(sanityCar);
   console.log(`Car uploaded successfully: ${result._id}`);
  }

  console.log('Data import completed successfully!');
 } catch (error) {
  console.error('Error importing data:', error);
 }
}

importData();
```

Fetching and Displaying Data

I created **api/cars/route.ts** file inside my nextjs app folder

route.ts i wrote this for /api/cars endpoint

```ts
import client from "@/sanity/lib/client";
import { CardQuery } from "@/sanity/lib/grok";
import { CAR } from "@/types/types";
import { NextResponse } from "next/server";

export const GET = async (req: any) => {
    const limit = req.nextUrl.searchParams.get("limit");
    const slug = req.nextUrl.searchParams.get("slug");

    try {
        if (limit) {
            let cars: CAR[] = await client.fetch(CardQuery);
            return NextResponse.json(cars.slice(0, limit));
        }
        if (slug) {
            let cars: CAR[] = await client.fetch(CardQuery);
            return NextResponse.json(cars.find(car => car.slug.current === slug));
        }
        let cars: CAR[] = await client.fetch(CardQuery);
        return NextResponse.json(cars);
    } catch (error) {
        console.error('No internet or an error occurred.', error);
        return NextResponse.json(
            { error: 'An error occurred while fetching data.' },
            { status: 500 }
        );
    }
};

```

Endpoint: /api/cars Will fetch all cars

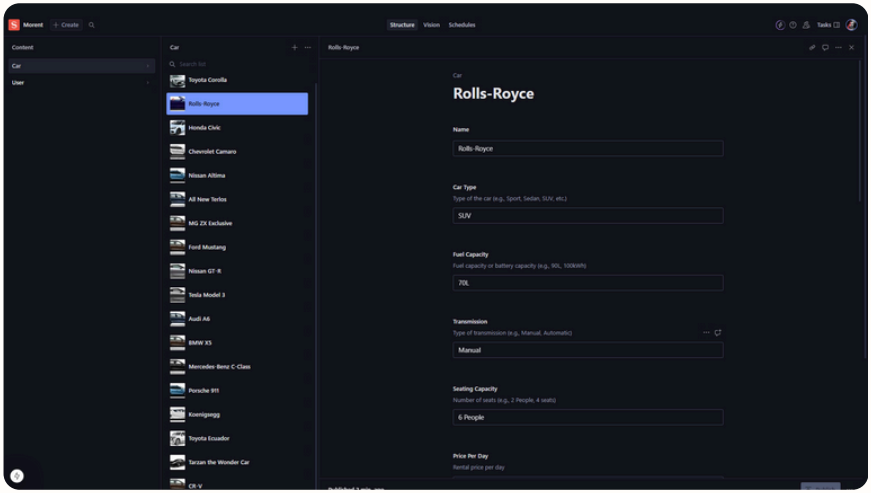
Endpoint: /api/cars?limit=3 Will fetch 3 cars

Endpoint: /api/cars?slug=honda-civic Will fetch honda-civic car

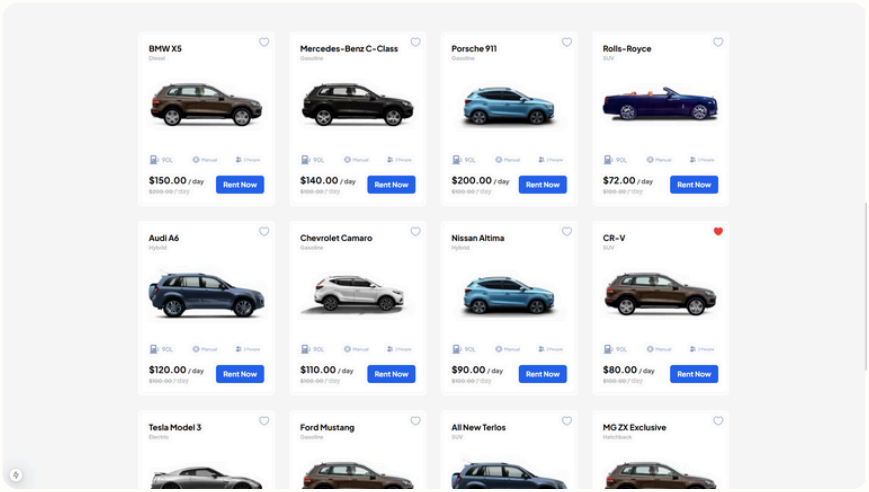
This is how i fetched data and displayed it to the frontend

```ts
try {
    let data = await fetch(`${process.env.NEXT_PUBLIC_BASE_URL}/api/cars`);
    carDetails = await data.json();
} catch (error) {
    console.log('No internet! or something else occurred.', error);
}
```

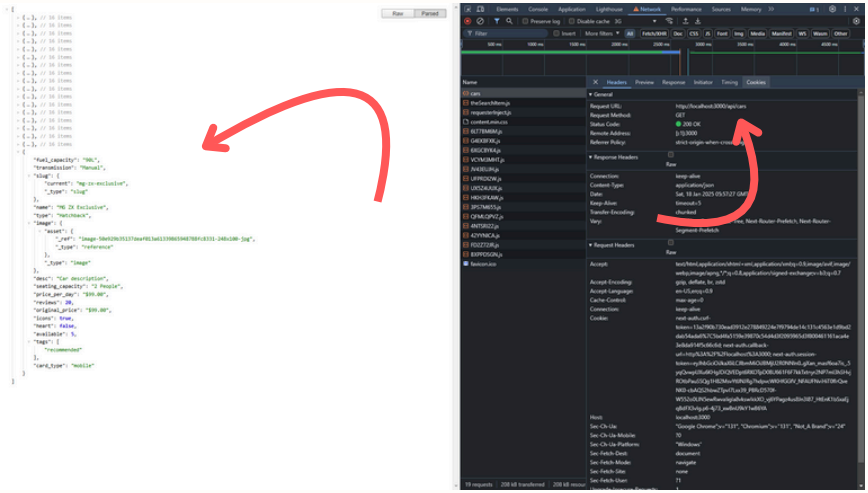
Sanity Populated with Data ScreenShot



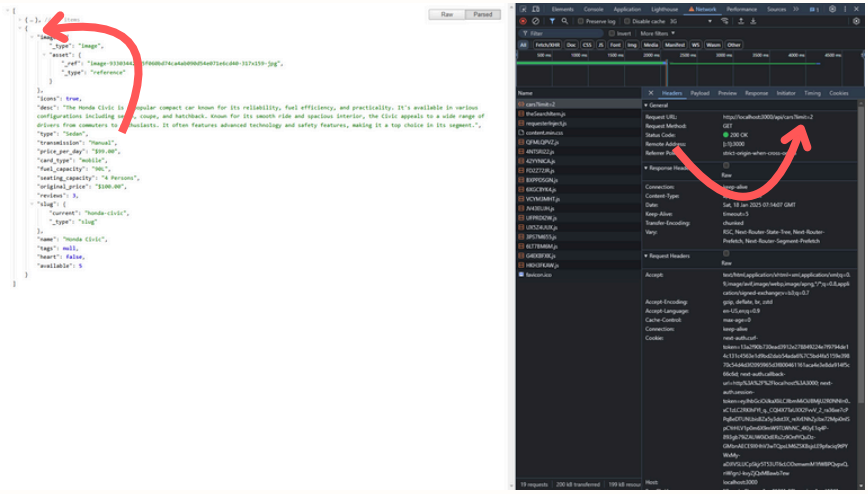
Displayed Cars ScreenShot



Api: /api/cars **Response ScreenShot**



Api: /api/cars?limit=2 **Response ScreenShot**



Api: /api/cars?slug=honda-civic **Response ScreenShot**