HACKATHON DAY “3” API Integration “COMFORTY”

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1)API integration process:

• After migrating data into Sanity, I fetched the data using GROQ queries using helper functions like “fetchFeaturedProducts( )” to fetch products for the featured section, “fetchProductCategories( )” to fetch products for a particular category, and other helper functions to render product data in multiple components.

• For single product pages and single category pages, I use dynamic GROQ queries to match the ID and slug using params and then display the products.

• With the help of QROQ queries, I get the desired data from Sanity using helper functions and render data in components.

2) Adjustments made to schemas:

I don’t really need to change the schema for products and categories as there Is enough data provided in the given API? I just added the slug field in the category for dynamic fetching.

3) Migration steps and tools used:

• Create a .env.local file in the root of project.

• Get token from sanity and add in .env file with project id and project dataset.

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• Create scripts folder in the root of project and inside it create migrate.mjs file.

• In migrate.mjs file write script to transfer data from the provided REST API into Sanity.

• Add “migrate”: ”node scripts/migrate.mjs” inside package..json inside scripts to run the script.

• Install npm install dotenv to load .env into migrate.mjs file.

• Run the command npm run migrate, this insert the data from the rest api to sanity studio.

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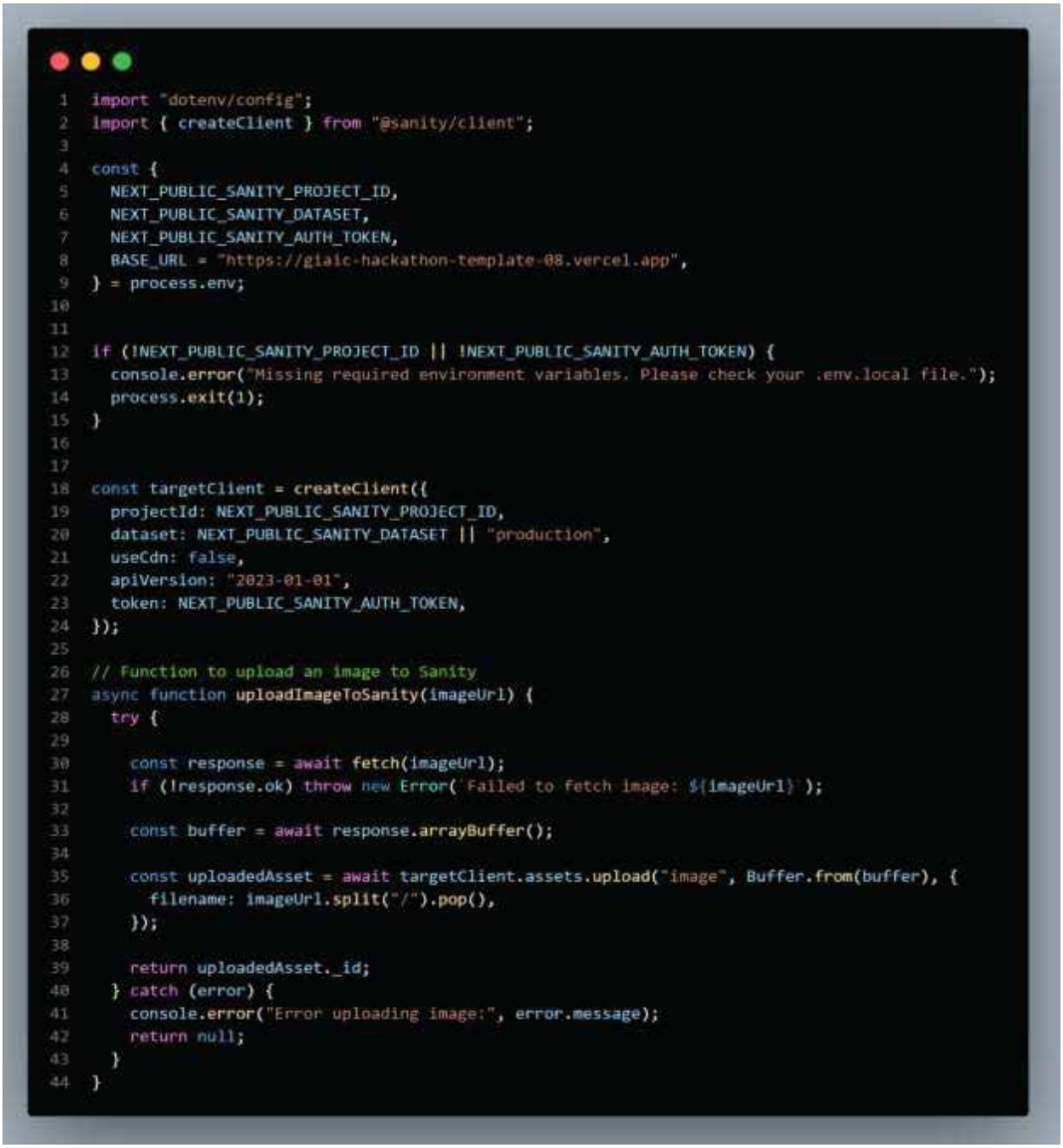
Migration Script:



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

const {
  NEXT_PUBLIC_SANITY_PROJECT_ID,
  NEXT_PUBLIC_SANITY_DATASET,
  NEXT_PUBLIC_SANITY_AUTH_TOKEN,
  BASE_URL = "https://giaic-hackathon-template-08.vercel.app",
} = process.env;


if (!NEXT_PUBLIC_SANITY_PROJECT_ID || !NEXT_PUBLIC_SANITY_AUTH_TOKEN) {
  console.error("Missing required environment variables. Please check your .env.local file.");
  process.exit(1);
}


const targetClient = createClient({
  projectId: NEXT_PUBLIC_SANITY_PROJECT_ID,
  dataset: NEXT_PUBLIC_SANITY_DATASET || "production",
  useCdn: false,
  apiVersion: "2023-01-01",
  token: NEXT_PUBLIC_SANITY_AUTH_TOKEN,
});

// Function to upload an image to Sanity
async function uploadImageToSanity(imageUrl) {
  try {

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

    const buffer = await response.arrayBuffer();

    const uploadedAsset = await targetClient.assets.upload("image", Buffer.from(buffer), {
      filename: imageUrl.split("/").pop(),
    });

    return uploadedAsset._id;
  } catch (error) {
    console.error("Error uploading image:", error.message);
    return null;
  }
}
```

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```
// Main function to migrate data from REST API to Sanity
async function migrateData() {
  console.log("Starting data migration...");

  try {

    const categoriesResponse = await fetch(`${BASE_URL}/api/categories`);
    if (!categoriesResponse.ok) throw new Error("Failed to fetch categories.");
    const categoriesData = await categoriesResponse.json();

    const productsResponse = await fetch(`${BASE_URL}/api/products`);
    if (!productsResponse.ok) throw new Error("Failed to fetch products.");
    const productsData = await productsResponse.json();

    const categoryIdMap = {};

    // Migrate categories
    for (const category of categoriesData) {
      console.log(`Migrating category: ${category.title}`);
      const imageId = await uploadImageToSanity(category.imageUrl);

      // Prepare the new category object
      const newCategory = {
        _id: category._id,
        _type: "categories",
        title: category.title,
        image: imageId ? { _type: "image", asset: { _ref: imageId } } : undefined,
      };

      const result = await targetClient.createOrReplace(newCategory);
      categoryIdMap[category._id] = result._id; // Store the new category ID
      console.log(`Migrated category: ${category.title} (ID: ${result._id})`);
    }

    // Migrate products
    for (const product of productsData) {
      console.log(`Migrating product: ${product.title}`);
      const imageId = await uploadImageToSanity(product.imageUrl);

      // Prepare the new product object
      const newProduct = {
        _type: "products",
        title: product.title,
        price: product.price,
        priceWithoutDiscount: product.priceWithoutDiscount,
        badge: product.badge,
        image: imageId ? { _type: "image", asset: { _ref: imageId } } : undefined,
        category: {
          _type: "reference",
          _ref: categoryIdMap[product.category._id],
        },
        description: product.description,
        inventory: product.inventory,
        tags: product.tags,
      };

      // Save the product to Sanity
      const result = await targetClient.create(newProduct);
      console.log(`Migrated product: ${product.title} (ID: ${result._id})`);
    }

    console.log("Data migration completed successfully!");
  } catch (error) {
    console.error("Error during migration:", error.message);
    process.exit(1);
  }
}

migrateData();
```

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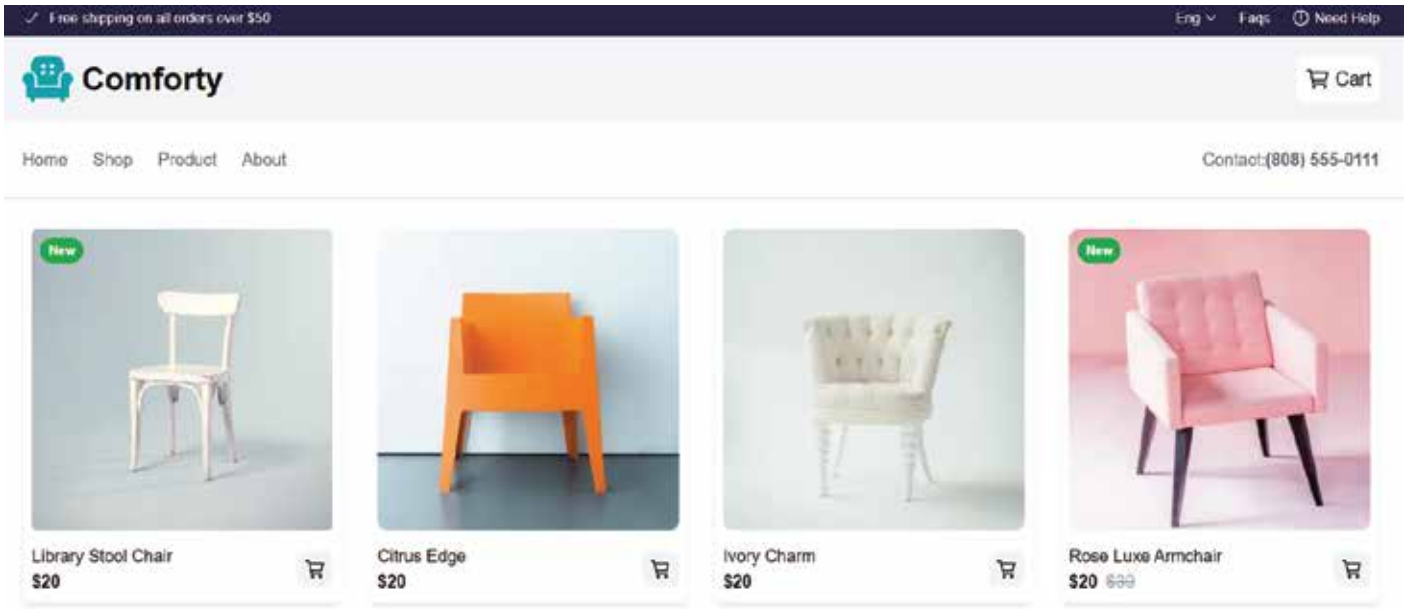

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