MARKETPLACE E-COMMERCE

INTRODUCTION:

This documentation will guide you through the setup and implementation of a Sanity schema, a migration script for transferring data to another Sanity account, and overall project setup.

NEXTJS PROJECT INSTALLATION:

Run the following command:

```
npx create-next-app@14.2.5
```

SANITY INSTALLATION:

After the installation of nextjs, Run the following command to install sanity in your nextjs project:

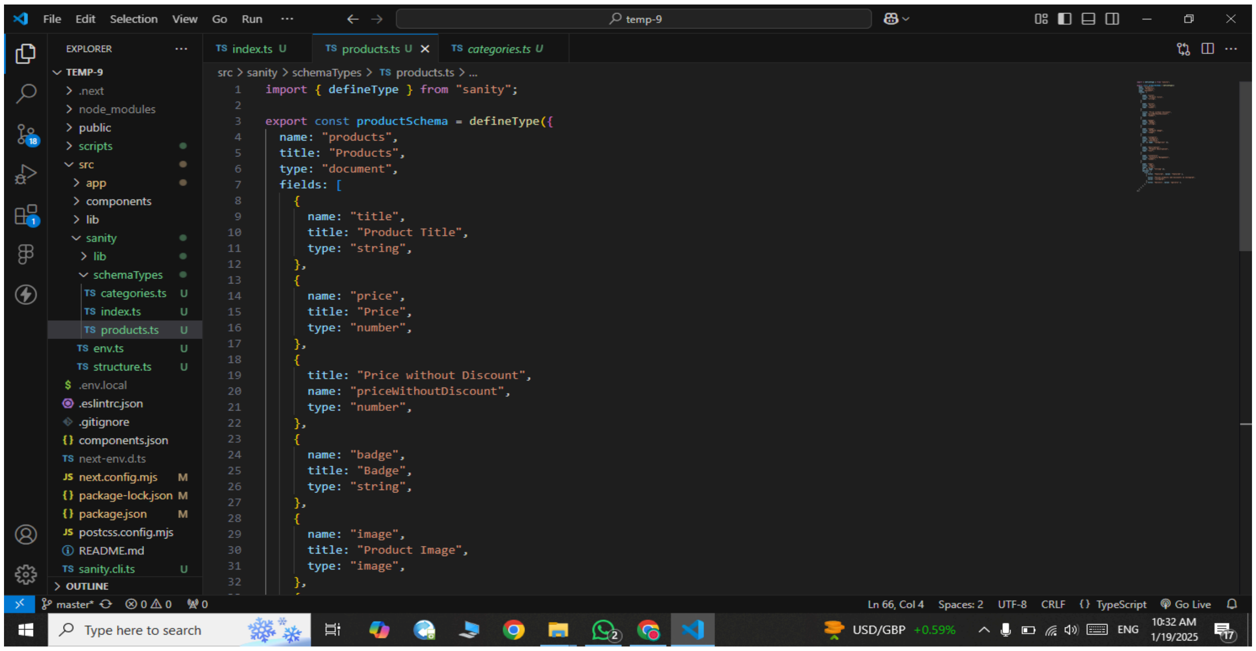
```
npm create sanity@latest
```

SANITY SCHEMA:

After the installation Navigate to your schema folder:

- If you have a `src` folder, go to `/src/sanity/schemaTypes`.
- Otherwise, go to `/sanity/schemaTypes`.

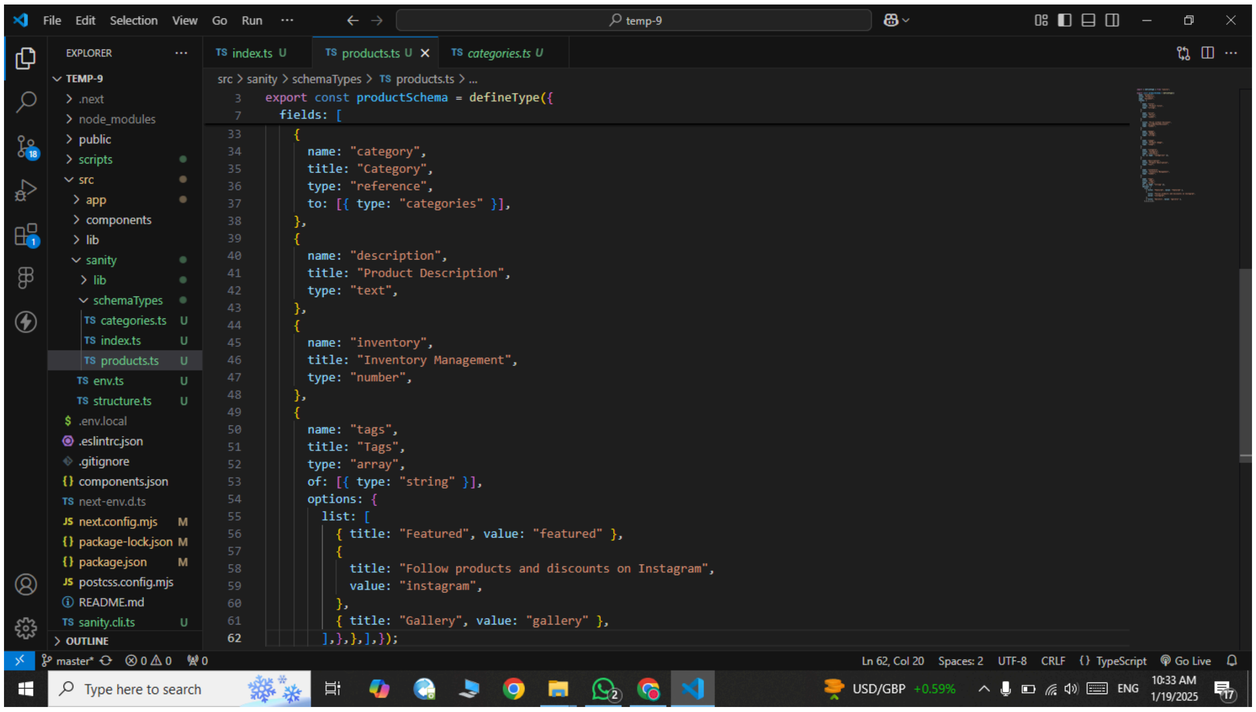
Create two new files products.ts and categories.ts and add the following code:



File Edit Selection View Go Run ···
temp-9
EXPLORER
TEMP-9
index.ts U
products.ts U
categories.ts U
src > sanity > schemaTypes > products.ts > ...

```
import { defineType } from "sanity";

export const productSchema = defineType({
  name: "products",
  title: "Products",
  type: "document",
  fields: [
    {
      name: "title",
      title: "Product Title",
      type: "string",
    },
    {
      name: "price",
      title: "Price",
      type: "number",
    },
    {
      title: "Price without Discount",
      name: "priceWithoutDiscount",
      type: "number",
    },
    {
      name: "badge",
      title: "Badge",
      type: "string",
    },
    {
      name: "image",
      title: "Product Image",
      type: "image",
    },
```



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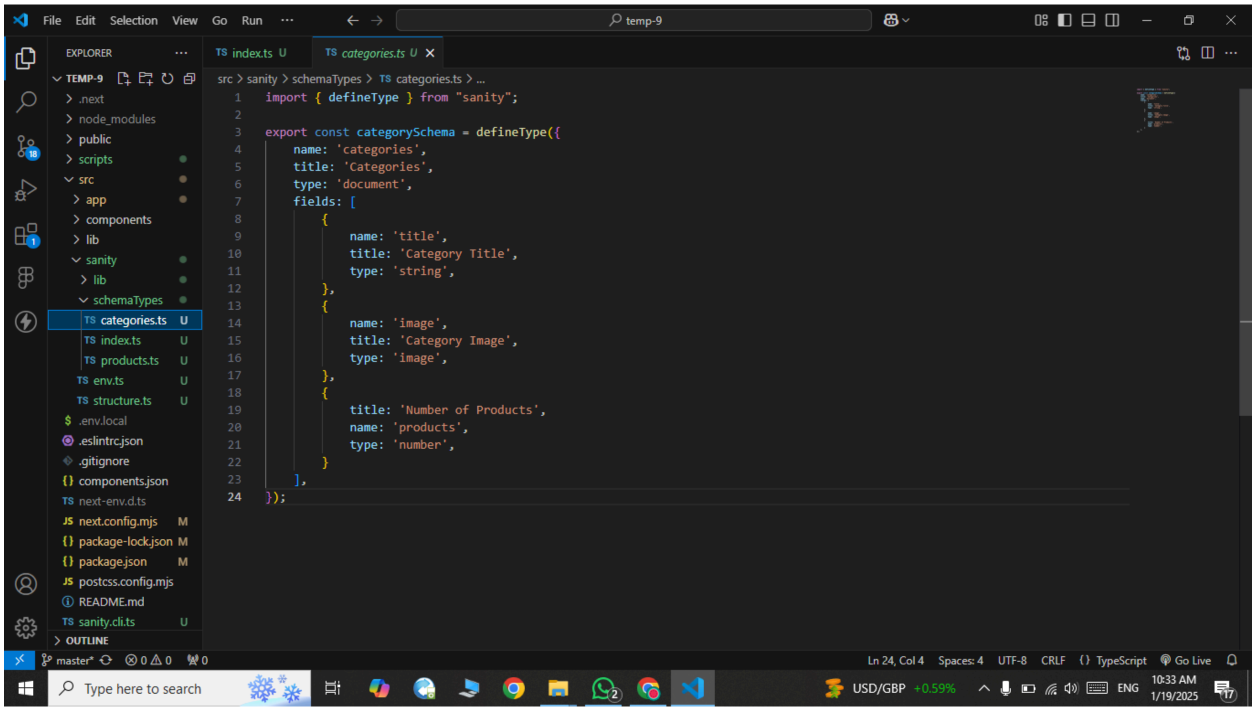
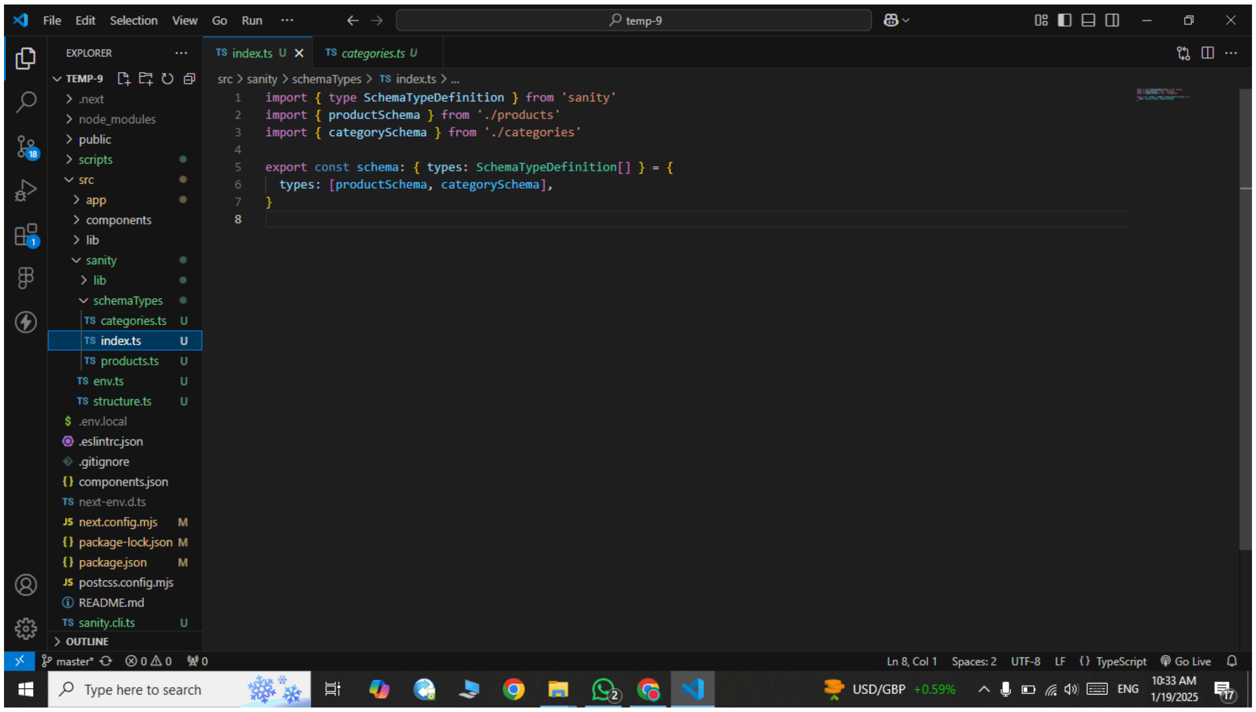
temp-9
EXPLORER
TEMP-9
index.ts U
products.ts U
categories.ts U
src > sanity > schemaTypes > products.ts > ...

```
export const productSchema = defineType({
  fields: [
    {
      name: "category",
      title: "Category",
      type: "reference",
      to: [{ type: "categories" }],
    },
    {
      name: "description",
      title: "Product Description",
      type: "text",
    },
    {
      name: "inventory",
      title: "Inventory Management",
      type: "number",
    },
    {
      name: "tags",
      title: "Tags",
      type: "array",
      of: [{ type: "string" }],
      options: {
        list: [
          { title: "Featured", value: "featured" },
          {
            title: "Follow products and discounts on Instagram",
            value: "instagram",
          },
          { title: "Gallery", value: "gallery" },
        ],},},],});
```



```ts
import { defineType } from "sanity";

export const categorySchema = defineType({
    name: 'categories',
    title: 'Categories',
    type: 'document',
    fields: [
        {
            name: 'title',
            title: 'Category Title',
            type: 'string',
        },
        {
            name: 'image',
            title: 'Category Image',
            type: 'image',
        },
        {
            title: 'Number of Products',
            name: 'products',
            type: 'number',
        }
    ],
});
```

Now import schema in /sanity/schemaType/index.ts



```ts
import { type SchemaTypeDefinition } from 'sanity'
import { productSchema } from './products'
import { categorySchema } from './categories'

export const schema: { types: SchemaTypeDefinition[] } = {
  types: [productSchema, categorySchema],
}
```

DATA MIGRATION SCRIPT:

1. Setting Up Environment Variables

a. Create a `.env` file in the root of your project and add the following variables:

```
NEXT_PUBLIC_SANITY_PROJECT_ID="your projectId"

NEXT_PUBLIC_SANITY_DATASET="production"

NEXT_PUBLIC_SANITY_AUTH_TOKEN="auth token"
```

b. Refer to the Practice Hackathon Docs for details on how to retrieve these values.

2. Create `migrate.mjs` file inside of the script folder and add the following code:

```
// Import environment variables from .env.local
```

```
import "dotenv/config";



// Import the Sanity client to interact with the Sanity backend

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



// Load required environment variables

const {
  NEXT_PUBLIC_SANITY_PROJECT_ID, // Sanity project ID

  NEXT_PUBLIC_SANITY_DATASET, // Sanity dataset (e.g., "production")

  NEXT_PUBLIC_SANITY_AUTH_TOKEN, // Sanity API token

  BASE_URL = "https://giaic-hackathon-template-08.vercel.app", // API base
URL for products and categories

} = process.env;



// Check if the required environment variables are provided

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); // Stop execution if variables are missing

}



// Create a Sanity client instance to interact with the target Sanity
dataset

const targetClient = createClient({

  projectId, // Your Sanity project ID

  dataset, // Default to "production" if not set

  useCdn: false, // Disable CDN for real-time updates

  apiVersion: "2023-01-01", // Sanity API version

  token, // API token for authentication

});
```

```
// Function to upload an image to Sanity
async function uploadImageToSanity(imageUrl) {
  try {
    // Fetch the image from the provided URL
    const response = await fetch(imageUrl);
    if (!response.ok) throw new Error(`Failed to fetch image: ${imageUrl}`);

    // Convert the image to a buffer (binary format)
    const buffer = await response.arrayBuffer();

    // Upload the image to Sanity and get its asset ID
    const uploadedAsset = await targetClient.assets.upload("image", Buffer.from(buffer), {
      filename: imageUrl.split("/").pop(), // Use the file name from the URL
    });

    return uploadedAsset._id; // Return the asset ID
  } catch (error) {
    console.error("Error uploading image:", error.message);
    return null; // Return null if the upload fails
  }
}
```

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

  try {
    // Fetch categories from the REST API
    const categoriesResponse = await fetch(`${BASE_URL}/api/categories`);
    if (!categoriesResponse.ok) throw new Error("Failed to fetch
categories.");
    const categoriesData = await categoriesResponse.json(); // Parse
response to JSON

    // Fetch products from the REST API
    const productsResponse = await fetch(`${BASE_URL}/api/products`);
    if (!productsResponse.ok) throw new Error("Failed to fetch
products.");
    const productsData = await productsResponse.json(); // Parse response
to JSON

    const categoryIdMap = {}; // Map to store migrated category IDs

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

      // Prepare the new category object
      const newCategory = {
        _id: category._id, // Use the same ID for reference mapping
        _type: "categories",
        title: category.title,
        image: imageId ? { _type: "image", asset: { _ref: imageId } } : undefined, // Add image if uploaded
      };

      // Save the category to Sanity
      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); // Upload product image
      // 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, // Add image if uploaded

        category: {

          _type: "reference",

          _ref: categoryIdMap[product.category._id], // Use the migrated
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})`);
```

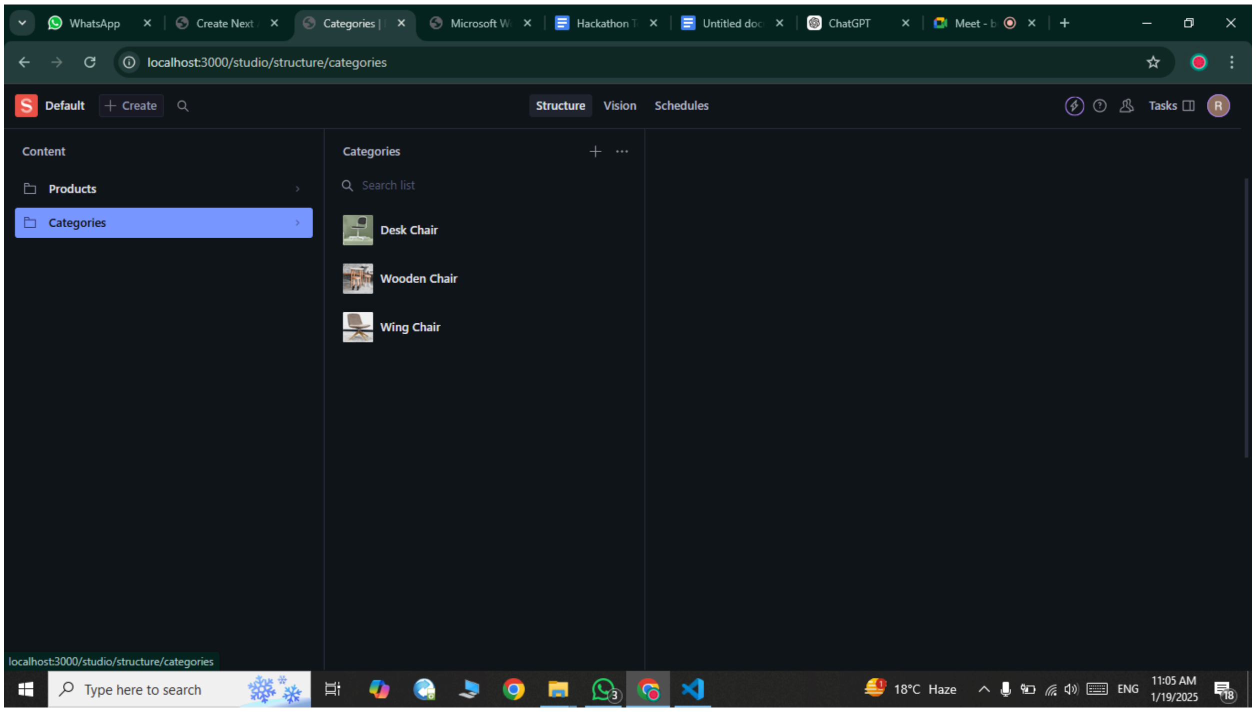
```
    }


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


// Start the migration process
migrateData();
```

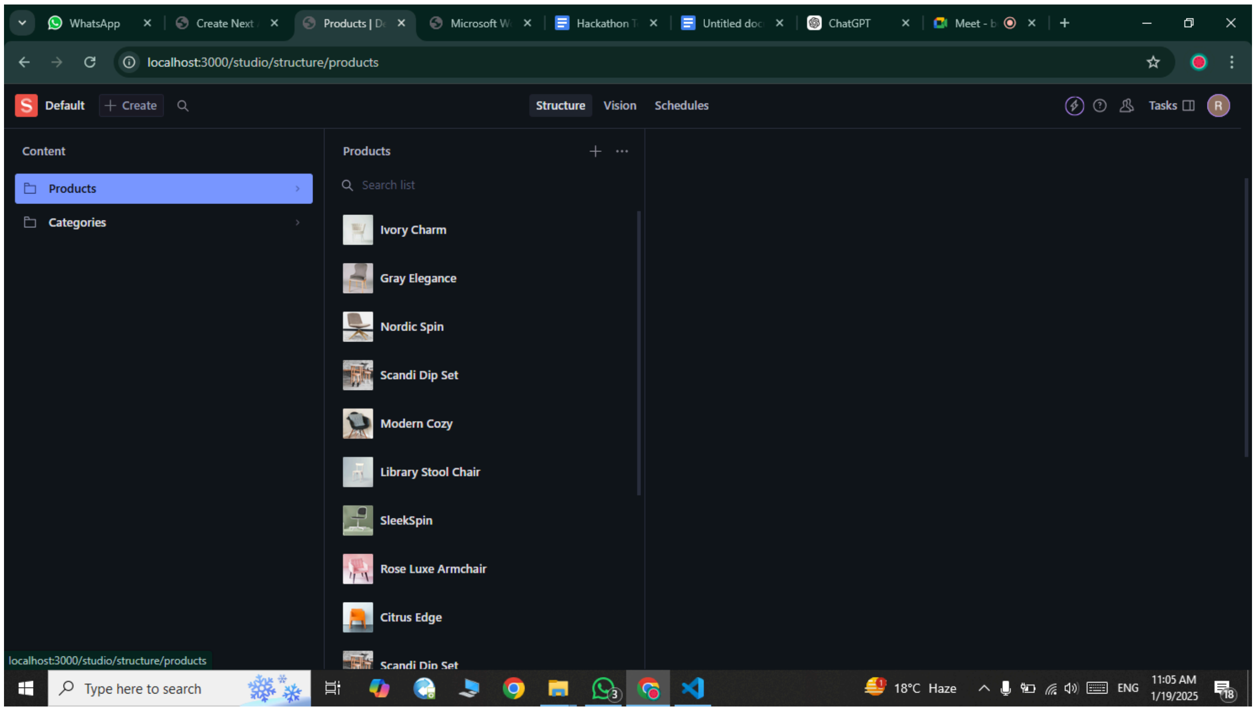
```
"migrate": "node scripts/migrate.mjs"
```

```
 "scripts": {
    "dev": "next dev",
    "build": "next build",
    "start": "next start",
    "lint": "next lint",
    "migrate": "node scripts/migrate.mjs"
  },
```

Install the following package before running the script npm install dotenv

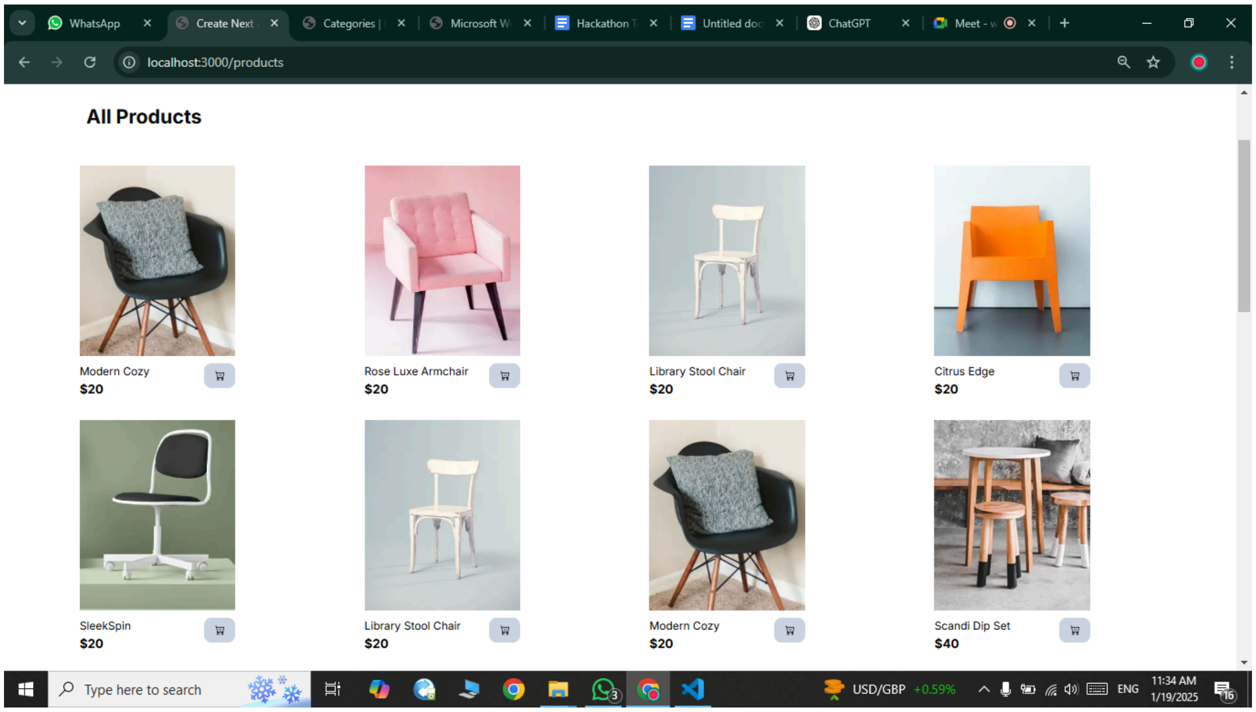
Now run the command npm run migrate





Products

- Ivory Charm
- Gray Elegance
- Nordic Spin
- Scandi Dip Set
- Modern Cozy
- Library Stool Chair
- SleekSpin
- Rose Luxe Armchair
- Citrus Edge
- Scandi Dip Set



All Products

Modern Cozy
$20

Rose Luxe Armchair
$20

Library Stool Chair
$20

Citrus Edge
$20

SleekSpin
$20

Library Stool Chair
$20

Modern Cozy
$20

Scandi Dip Set
$40