

introduction:

Project Overview:

In this project, I have successfully integrated an e-commerce API with a frontend application, leveraging Sanity CMS to streamline clothing product management. By dynamically uploading product details, including images, via the API, I've ensured seamless storage and accessibility within Sanity. This integration not only optimizes data handling but also powers a responsive and intuitive frontend, complete with advanced filtering, sorting, and categorization capabilities to enhance the user experience.

API Integration:

API used:

The information is sourced from a specialized API endpoint designed to deliver detailed data on a wide range of cars. The API URL is as follows:

<https://template1-neon-nu.vercel.app/api/products>

This API offers comprehensive details, including:

- Product ID.
- Product Name.
- Product Description.
- Product Price.
- Product Image.
- Product Category.
- Product Discount Percentage.
- Product New or Old.
- Product Colors. Product
- Sizes.

Code for Fetch:

Here's the custom code used to fetch product data and upload images to Sanity. You can place this code

`importData.js`

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Groq Query:

In this project, I have used the following GROQ query to retrieve clothing product data from Sanity. The query fetches details like product name, price, description, and image URL:

```
*[_type=="products"] {
  _id,
  name,
  description,
  price,
  "imageUrl" : image.asset->url,
  category,
  discountPercent,
  "isNew": new,
  colors,
  sizes
}
```

Snip Code:

Below is the code used to fetch car data and upload images to Sanity:

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

    if (imageId) {
      const document = {
        _type: 'products',
        name: product.name,
        description: product.description,
        price: product.price,
        image: {
          _type: 'image',
          asset: {
            _ref: imageId,
          },
        },
        category: product.category,
        discountPercent: product.discountPercent,
        isNew: product.isNew,
        colors: product.colors,
        sizes: product.sizes
      };
    }
  }
}
```

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

async function importProducts() {
  try {
    const response = await fetch('https://template1-neon-nu.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();
```

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Snip Code:

Below is the code used to fetch product data and upload images to Sanity:

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```
import { defineType } from "sanity"

export default defineType({
  name: 'products',
  title: 'Products',
  type: 'document',
  fields: [
    {
      name: 'name',
      title: 'Name',
      type: 'string',
    },
    {
      name: 'price',
      title: 'Price',
      type: 'number',
    },
    {
      name: 'description',
      title: 'Description',
      type: 'text',
    },
    {
      name: 'image',
      title: 'Image',
      type: 'image',
    },
    {
      name: "category",
      title: "Category",
      type: 'string',
      options: {
        list: [
          {title: 'T-Shirt', value: 'tshirt'},
          {title: 'Short', value: 'short'},
          {title: 'Jeans', value: 'jeans'},
          {title: 'Hoddie', value: 'hoodie'},
          {title: 'Shirt', value: 'shirt'},
        ]
      }
    }
  ],
})
```

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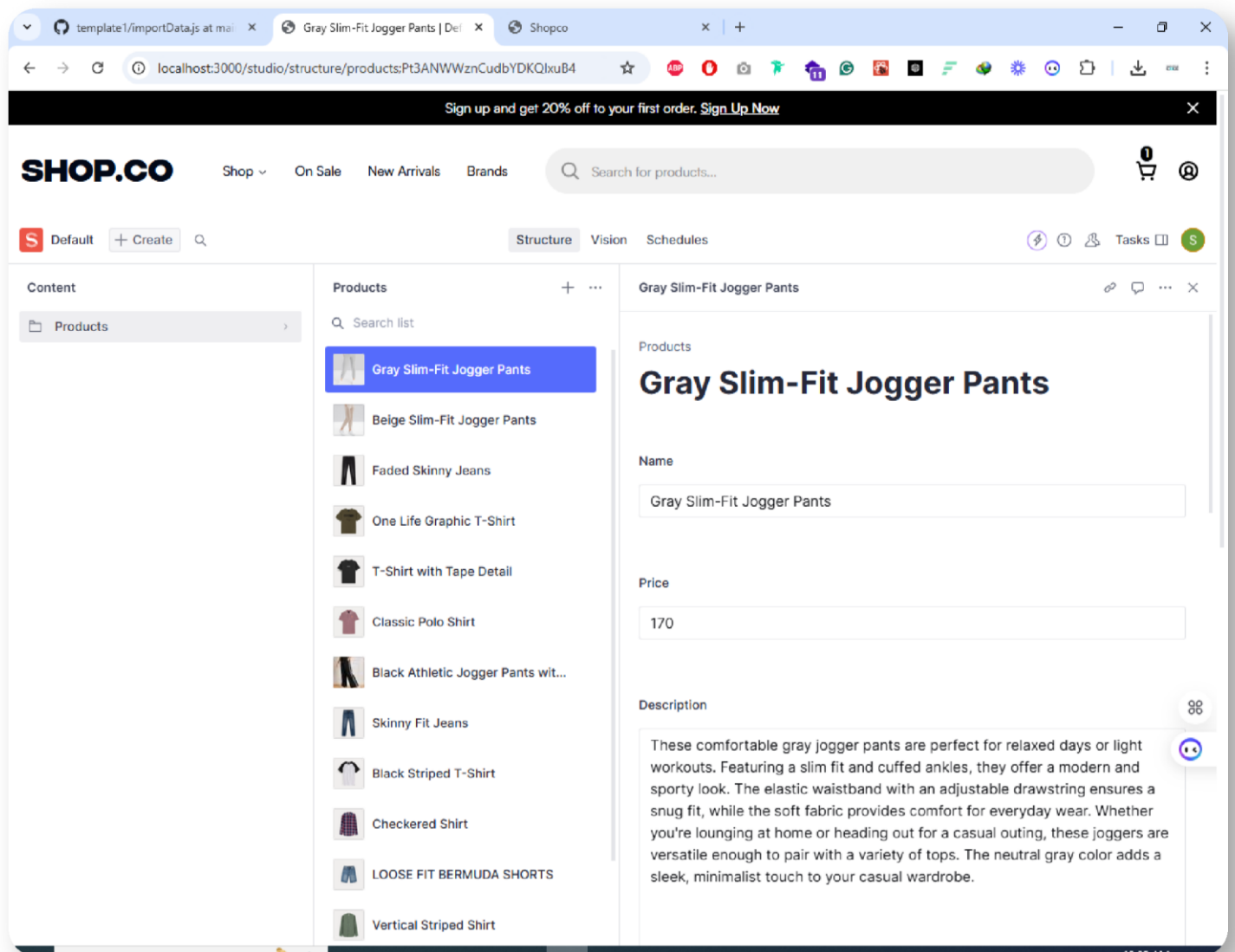
```
        name:"discountPercent",
        title:"Discount Percent",
        type: 'number',
    },
    {
        name:"new",
        type: 'boolean',
        title:"New",
    },
    {
        name:"colors",
        title:"Colors",
        type: 'array',
        of:[
            {type: 'string'}
        ]
    },
    {
        name:"sizes",
        title:"Sizes",
        type: 'array',
        of:[
            {type: 'string'}
        ]
    }
],
})
```

This schema provides a flexible content management system, enabling the dynamic editing and updating of product details as needed.

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Once the data is imported, your Sanity Studio interface will look like this:



Roll: 00463271

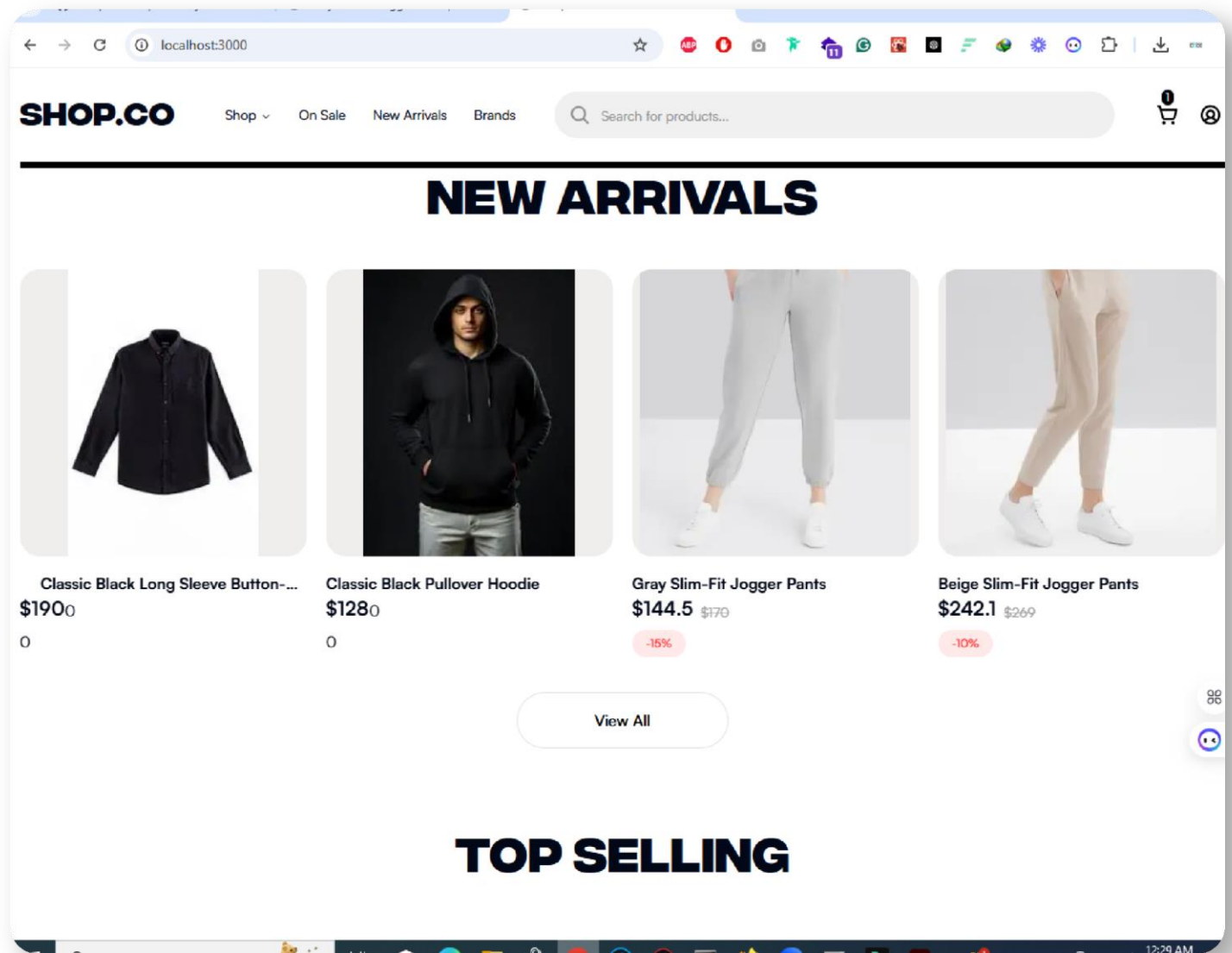
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Frontend Page

The frontend page showcases the clothing product details fetched from Sanity. Below is an example of how the page appears:

In this refernece we can clearly see images, product title, price and discount.



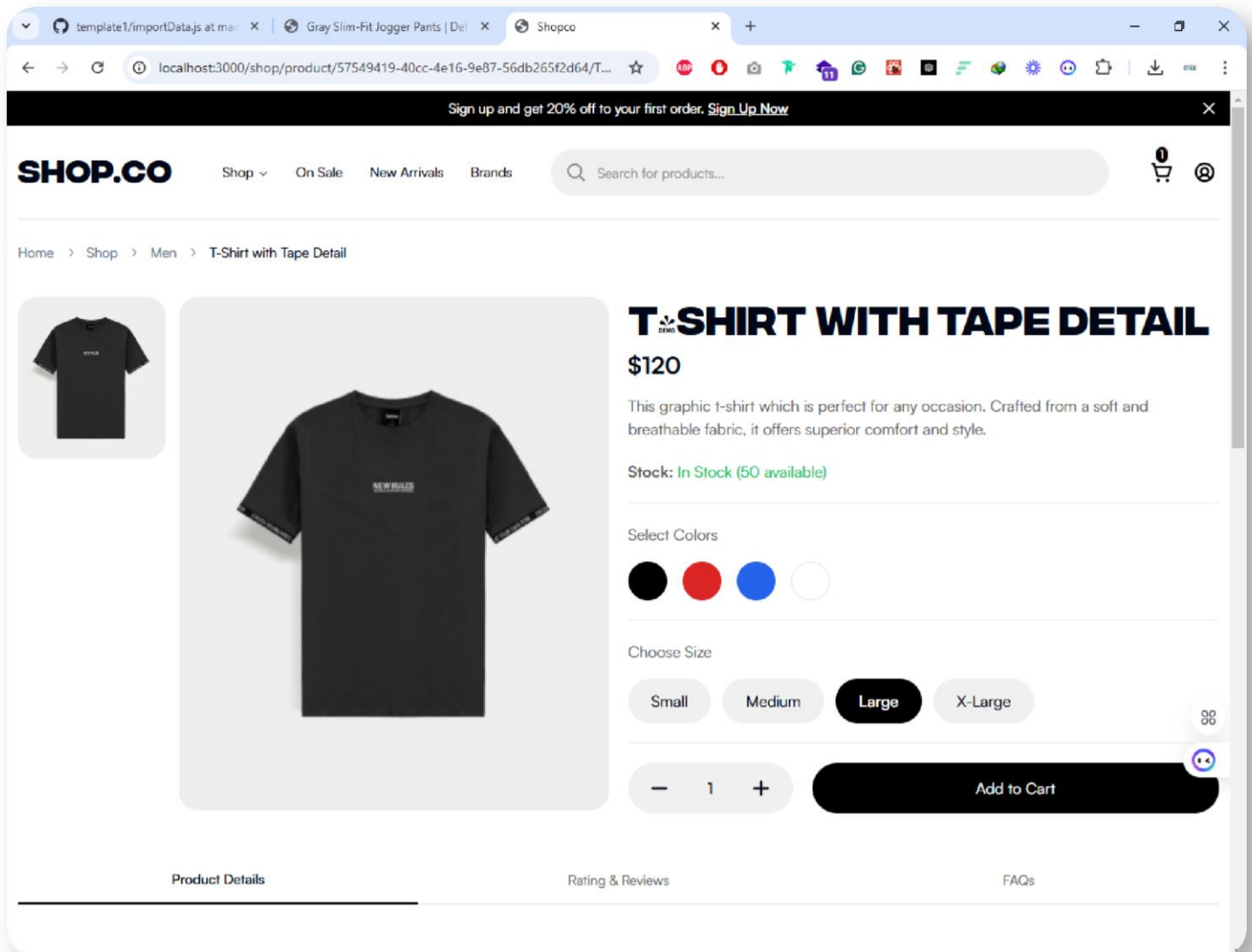
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Dynamic Page

The frontend page showcases the clothing product details fetched from Sanity. Below is an example of how the page appears:

In this refernece we can clearly see images, product title, price and discount, colors and its sizes.



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Conclusion

The integration of the e-commerce API with the frontend application through Sanity has been successfully implemented. The API dynamically retrieves clothing product details and images, while Sanity acts as the backend for storing and managing this data. This setup streamlines the handling of product information and elevates the user experience by providing an intuitive, flexible, and engaging frontend for seamless browsing and shopping.

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