# Hackathon-3

# Dynamic Frontend Components

# E-Commerce

## Introduction

This assignment focusses on building a dynamic frontend, a fully functional & responsive marketplace for a modern e-commerce technology, providing a seamless user experience for browsing, searching and purchasing products. This goal was to implement various components **SHOP.CO** that enhance user interaction advances features i.e. dynamic product listing, product-category, payment-gateway integration, an automatic cart system and optimize the marketplace usability. For implementing dynamic features such as,

i. Displaying products dynamically.
ii. Displaying product listing page.
iii. Adding product details page.
iv. Adding products to cart.
v. Shopping cart (or checkout button to check the product list for purchasing products dynamically)
vi. Ensure responsiveness across devices.
vii. Implement modularity by breaking the components into smaller, reusable parts.

## Tools and Technology

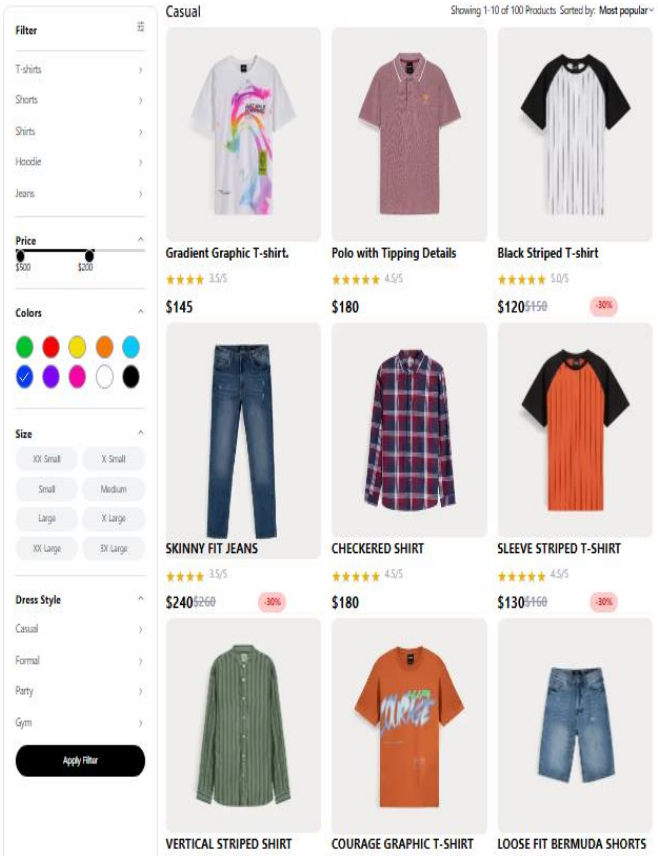
- **Framework**: React & Next.js
- **CMS:** Sanity CMS
- **Styling**: Tailwind CSS & CSS
- **API Integration**: APIs were utilized to fetch external data and sync it with the CMS.

- **State Management**: React Hooks.

# Overview

## 1. Product Listing

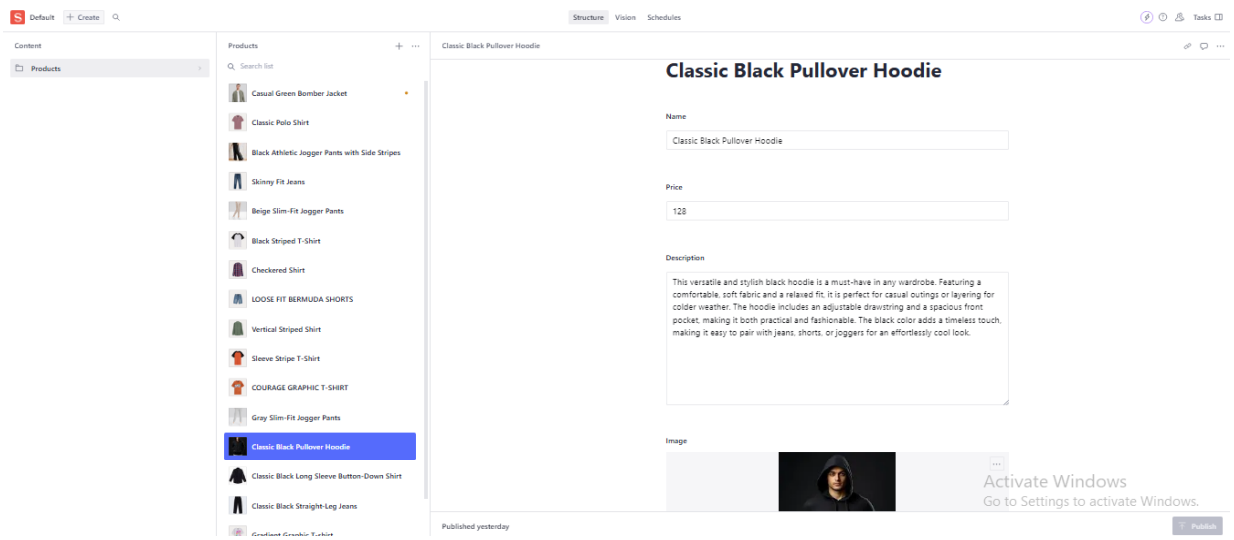
- Dynamically fetched product data from APIS.
- Displayed products in a responsive layout with name, price, image & description.





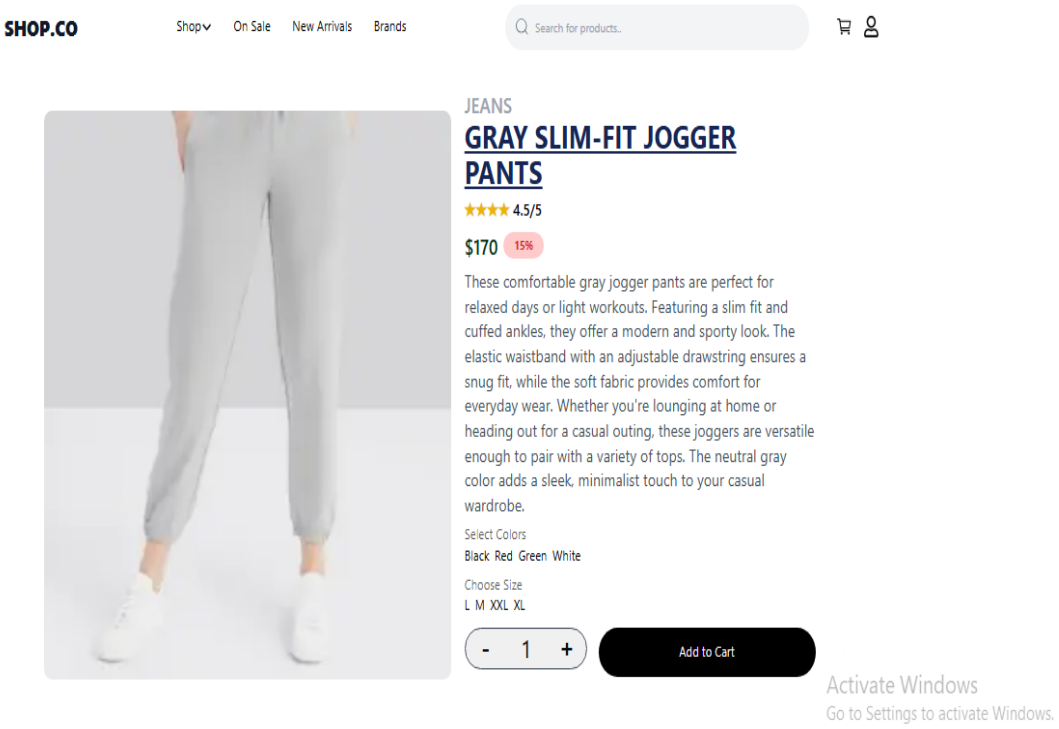

## 2. Sanity CMS

Sanity, a headless content management system (CMS), was integrated to, manage product data dynamically, it provides a robust platform for data management and real-time updates.

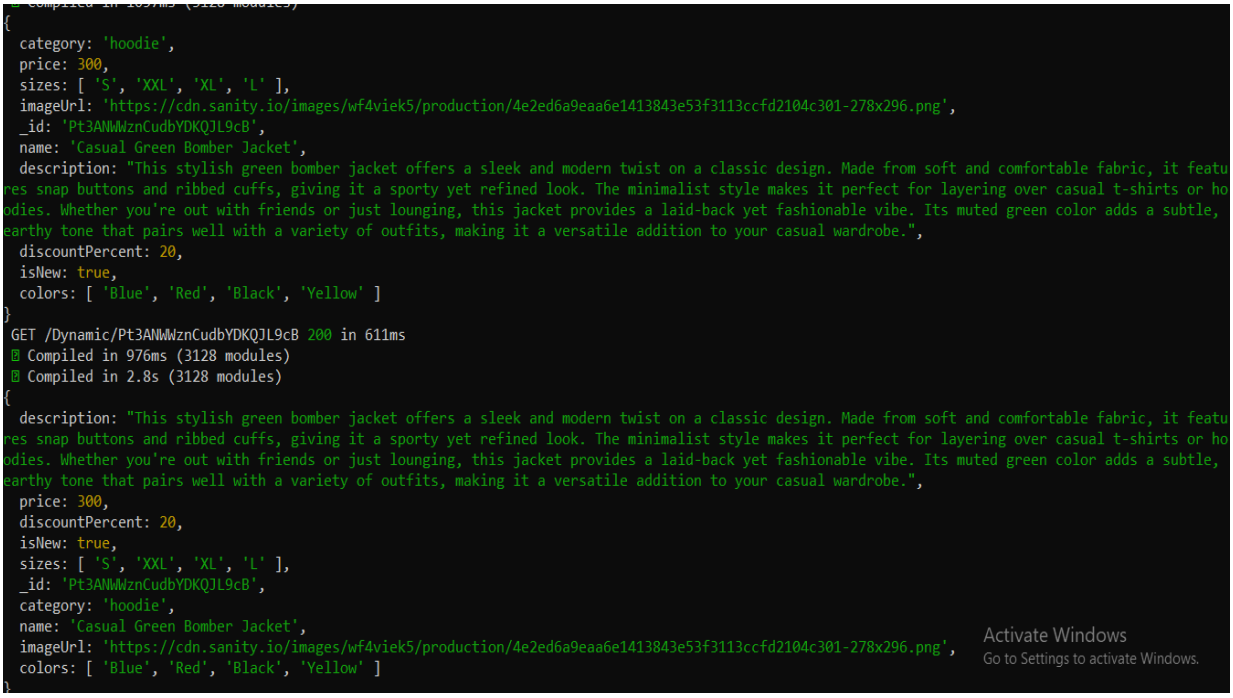



## 3. Product Page with Dynamic Data

Each product detail page, dynamically renders detailed information for the selected products, including the title, full Description, price and related images. Utilizing accurate dynamic routing ensures users are directed seamlessly to the correct product page based on their selection.



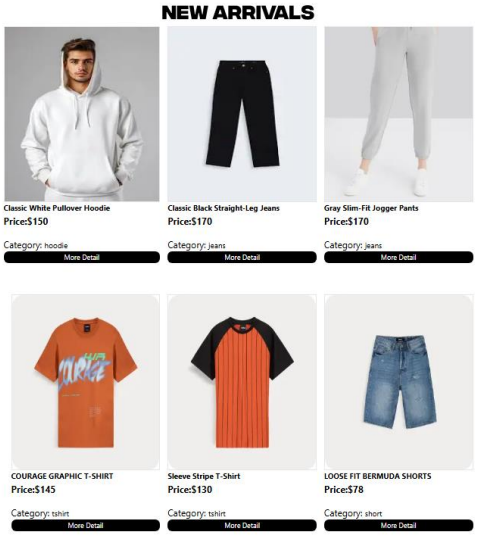
# Dynamic Data Show from Terminal

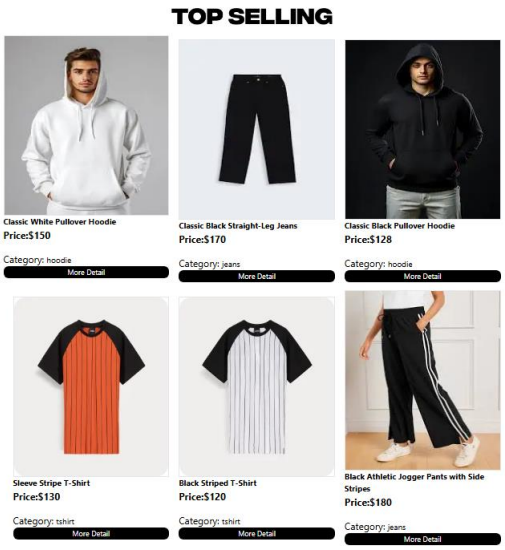



This is how we can work dynamically with terminal inputs in **Visual Studio Code**.

# 4. Category Components

- Fetch categories dynamically from the data source
- Allow filtering products by selected category.



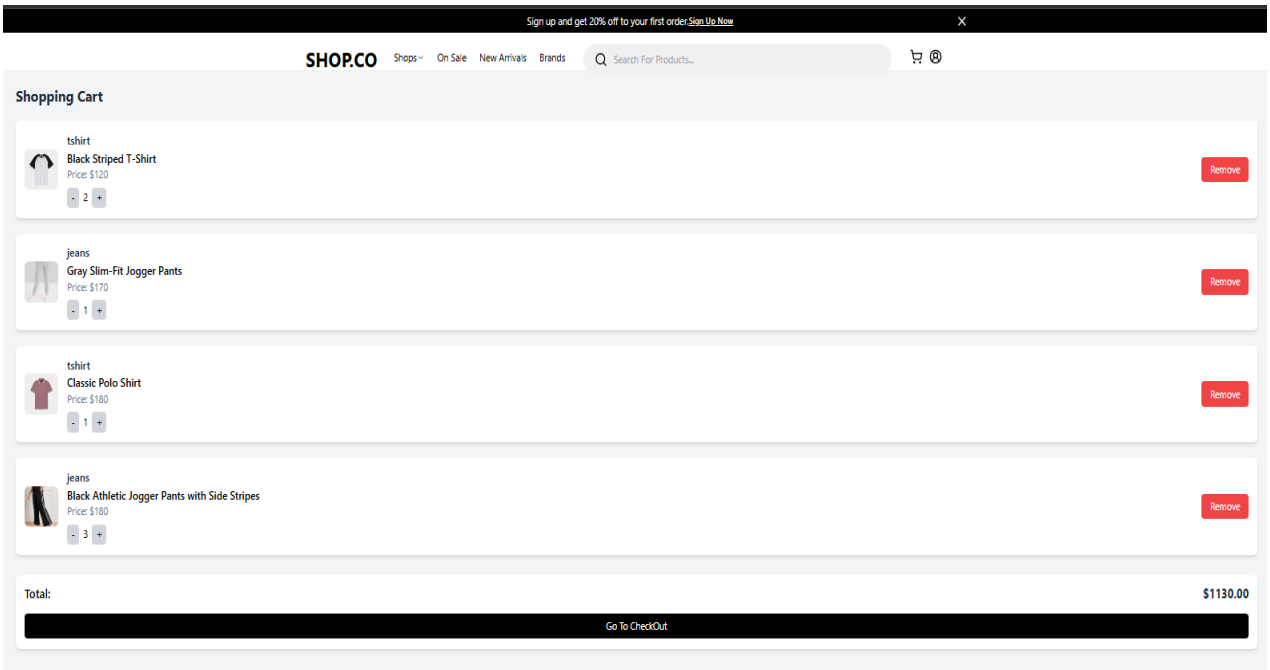


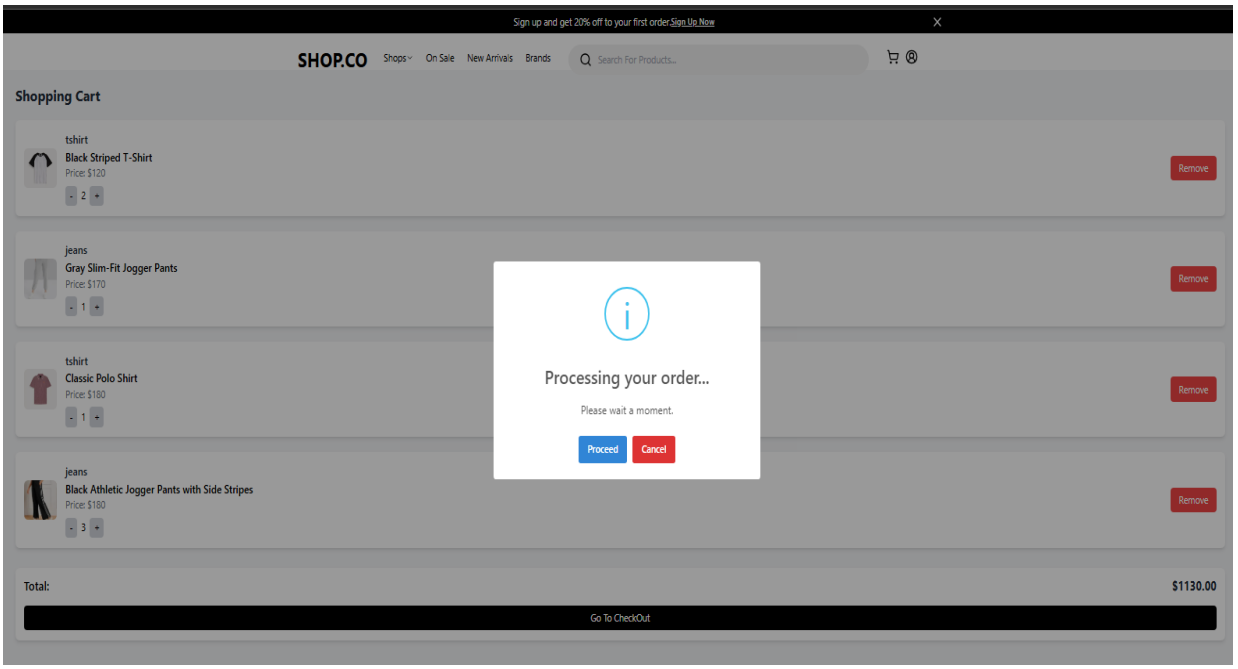

## 5. Shopping Cart with “using Shopping-Cart”

Use Shopping Cart provide a building function for managing cart functionality.

## 6. Check Out

User Cart items are synchronized during the checkout process.

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On Sale
New Arrivals
Brands
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Shopping Cart
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Black Striped T-Shirt
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- 2 +
Remove
jeans
Gray Slim-Fit Jogger Pants
Price: $170
- 1 +
Remove
tshirt
Classic Polo Shirt
Price: $180
- 1 +
Remove
jeans
Black Athletic Jogger Pants with Side Stripes
Price: $180
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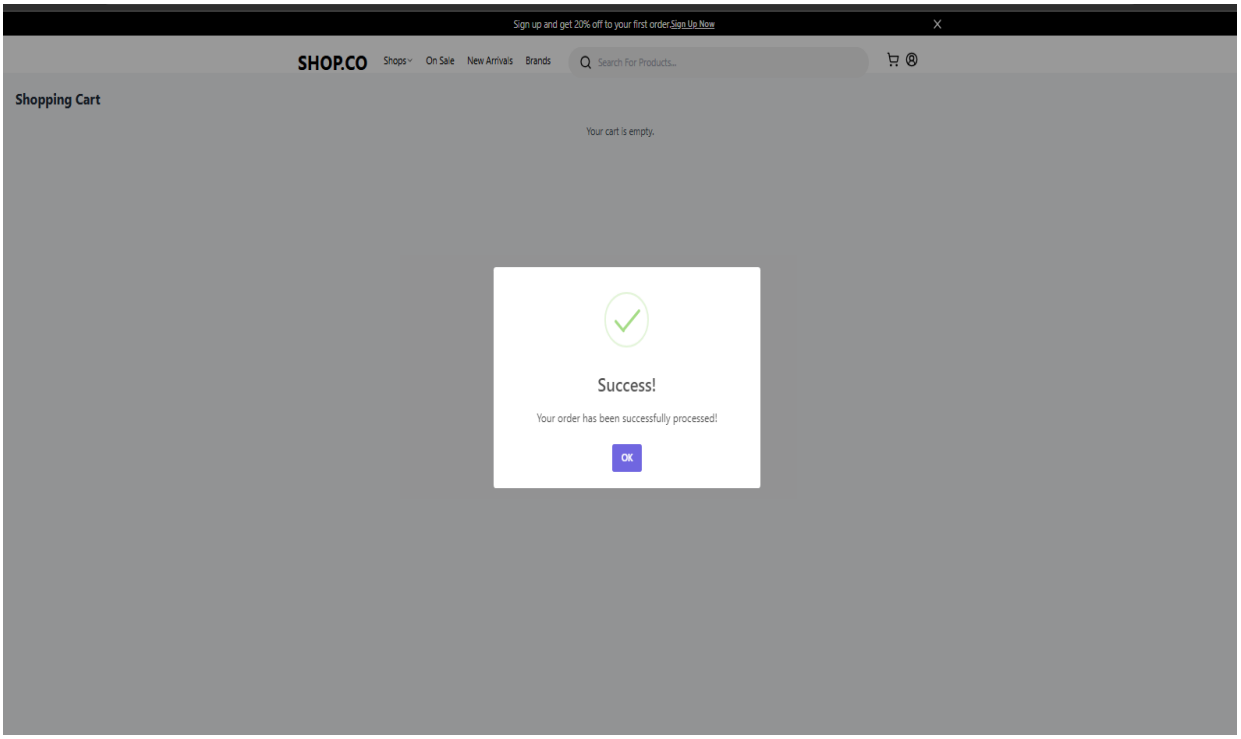
Remove
Total:
$1130.00
Go To CheckOut
Processing your order...
Please wait a moment.
Proceed
Cancel


Sign up and get 20% off to your first order Sign Up Now
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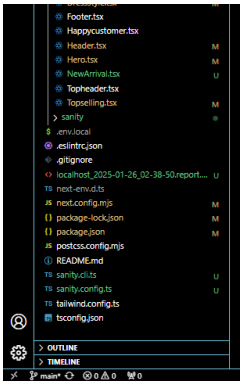
Shops
On Sale
New Arrivals
Brands
Search For Products...
Shopping Cart
Your cart is empty.
Success!
Your order has been successfully processed!
OK

## Functional Deliverable


## Challenges Faced and Solution Implementation

✓ **Challenge:**

1) Managing Time management product updates.
2) Responsive design complexity.
3) Dynamic Integration.
4) Create Add to Cart.

**Solution:** Designed logic to save, retrieve and update cart data in local storage effectively, ensuring real-time updates without performance loss.

## Best Practice Followed During Development

- ✓ Components Reusability
- ✓ Dynamic Routing
- ✓ Error Handling and UI
- ✓ Efficient Image Handling
- ✓ State and Management

## Self-Validation Checklist

| Frontend Component Development | Styling & Responsiveness | Code Quality | Documentation & Submission | Final Review |
|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ |

# Conclusion:

This e-commerce website utilized modern web-development frameworks and tools, providing user-friendly platform for online shopping. Its dynamic category page, responsive design & real time data updates make it suitable for marketplace-based application.