

Hackathon-3

Dynamic Frontend Components

E-Commerce

Introduction

This assignment focusses on building dynamic frontend components for a modern e-commerce marketplace. This goal was to implement various components **SHOP.CO** that enhance user interaction provide a seamless shopping experience, 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. Ensure responsiveness across devices.
- v. Implement modularity by breaking the components into smaller, reusable parts.

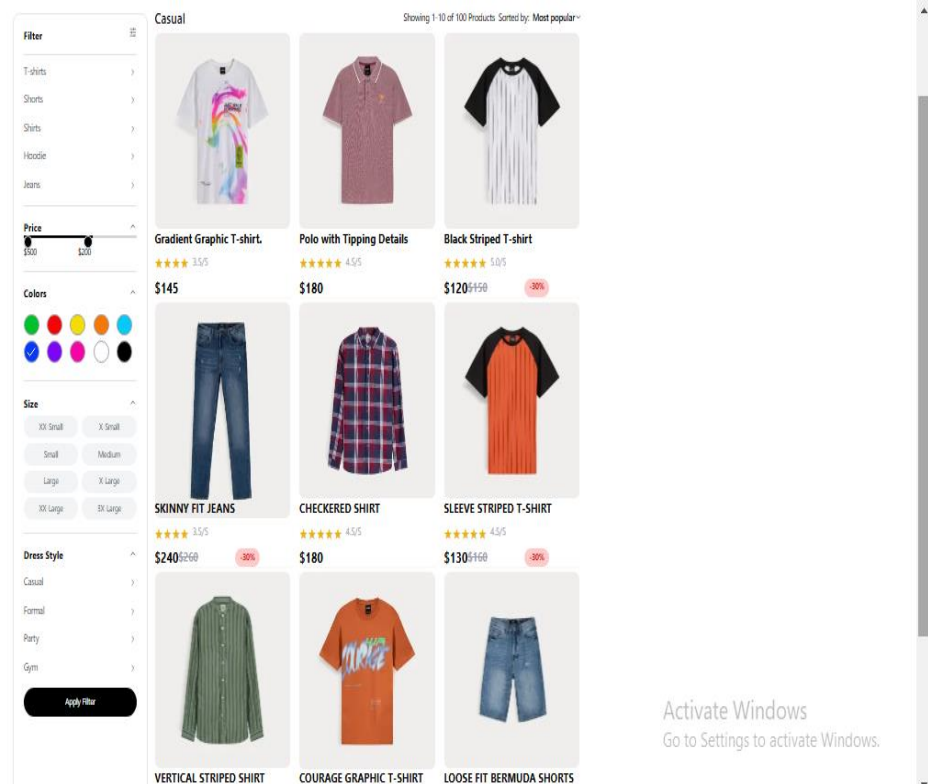
Tools and Technology

- **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.
- **ShadCn Library:** ShadCn was used to integrate pre-designed and accessible UI components, expending development without compromising design consistency.
- **State Management:** React Hooks.

Overview

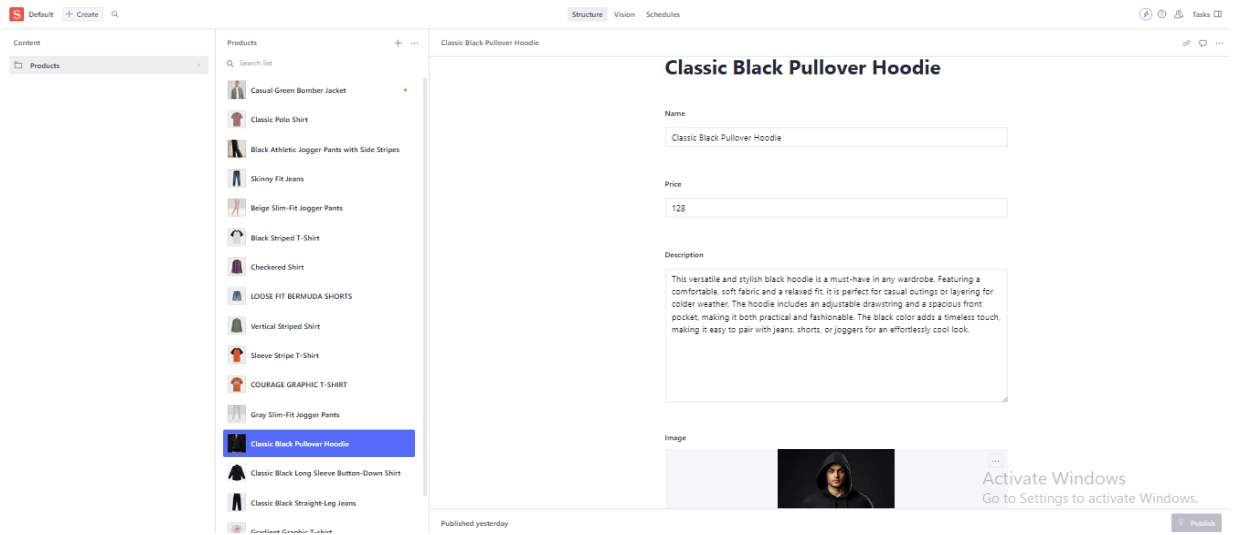
1. Product Listing

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



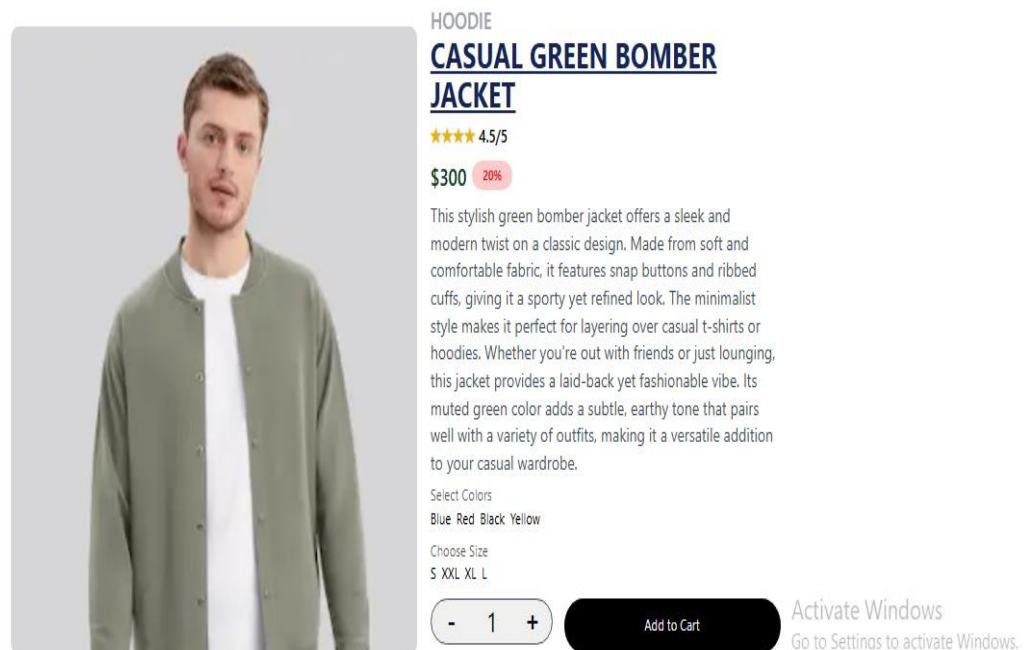
2. Product Listing Page with Dynamic

The product listing page dynamically display products using a manually exported JSON dataset. Each product includes its images, name, and its price etc. and a brief description, presented in an aesthetically pleasing format.



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.





JEANS

GRAY SLIM-FIT JOGGER PANTS

★★★★ 4.5/5

\$170 15%

These comfortable gray jogger pants are perfect for relaxed days or light workouts. Featuring a slim fit and cuffed ankles, they offer a modern and sporty look. The elastic waistband with an adjustable drawstring ensures a snug fit, while the soft fabric provides comfort for everyday wear. Whether you're lounging at home or heading out for a casual outing, these joggers are versatile enough to pair with a variety of tops. The neutral gray color adds a sleek, minimalist touch to your casual wardrobe.

Select Colors

Black Red Green White

Choose Size

L M XXL XL

- 1 +

Add to Cart

Activate Windows

Go to Settings to activate Windows.

Dynamic Data Show from Terminal

```
Compiled in 107ms (3128 modules)
{
  category: 'hoodie',
  price: 300,
  sizes: [ 'S', 'XXL', 'XL', 'L' ],
  imageUrl: 'https://cdn.sanity.io/images/wf4viek5/production/4e2ed6a9eaa6e1413843e53f3113ccfd2104c301-278x296.png',
  _id: 'Pt3ANWwznCudbYDKQJL9cB',
  name: 'Casual Green Bomber Jacket',
  description: "This stylish green bomber jacket offers a sleek and modern twist on a classic design. Made from soft and comfortable fabric, it features snap buttons and ribbed cuffs, giving it a sporty yet refined look. The minimalist style makes it perfect for layering over casual t-shirts or hoodies. Whether you're out with friends or just lounging, this jacket provides a laid-back yet fashionable vibe. Its muted green color adds a subtle, earthy tone that pairs well with a variety of outfits, making it a versatile addition to your casual wardrobe.",
  discountPercent: 20,
  isNew: true,
  colors: [ 'Blue', 'Red', 'Black', 'Yellow' ]
}
GET /Dynamic/Pt3ANWwznCudbYDKQJL9cB 200 in 611ms
Compiled in 976ms (3128 modules)
Compiled in 2.8s (3128 modules)
{
  description: "This stylish green bomber jacket offers a sleek and modern twist on a classic design. Made from soft and comfortable fabric, it features snap buttons and ribbed cuffs, giving it a sporty yet refined look. The minimalist style makes it perfect for layering over casual t-shirts or hoodies. Whether you're out with friends or just lounging, this jacket provides a laid-back yet fashionable vibe. Its muted green color adds a subtle, earthy tone that pairs well with a variety of outfits, making it a versatile addition to your casual wardrobe.",
  price: 300,
  discountPercent: 20,
  isNew: true,
  sizes: [ 'S', 'XXL', 'XL', 'L' ],
  _id: 'Pt3ANWwznCudbYDKQJL9cB',
  category: 'hoodie',
  name: 'Casual Green Bomber Jacket',
  imageUrl: 'https://cdn.sanity.io/images/wf4viek5/production/4e2ed6a9eaa6e1413843e53f3113ccfd2104c301-278x296.png',
  colors: [ 'Blue', 'Red', 'Black', 'Yellow' ]
}
```

Activate Windows


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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


NEW ARRIVALS




HOODIE
Casual Green Bomber Jacket
★★★★★ 5.0/5
\$300 20%
[More Details](#)



HOODIE
Classic White Pullover Hoodie
★★★★★ 5.0/5
\$150 10%
[More Details](#)




JEANS
Classic Black Straight-Leg Jeans
★★★★★ 5.0/5
\$170 16%
[More Details](#)




HOODIE
Classic Black Pullover Hoodie
★★★★★ 5.0/5
\$128 0
[More Details](#)

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TOP SELLING




SHIRT
Classic Black Long Sleeve Button-Down Shirt
★★★★★ 4.5/5
\$190
[More Details](#)



JEANS
Gray Slim-Fit Jogger Pants
★★★★★ 4.5/5
\$170 -15%
[More Details](#)



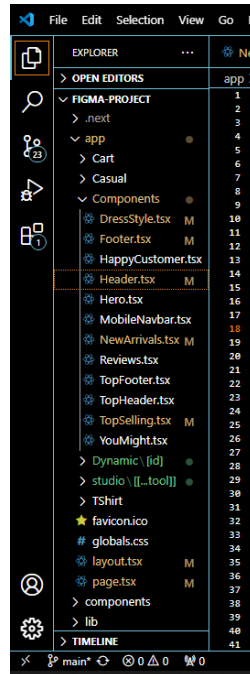
TSHIRT
COURAGE GRAPHIC T-SHIRT
★★★★★ 4.5/5
\$145
[More Details](#)



SHIRT
Checkered Shirt
★★★★★ 4.5/5
\$178 0
[More Details](#)

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Functional Deliverable



Challenges Faced and Solution Implementation

- **Challenge:** Implementation persistent cart state using local storage.
- **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.