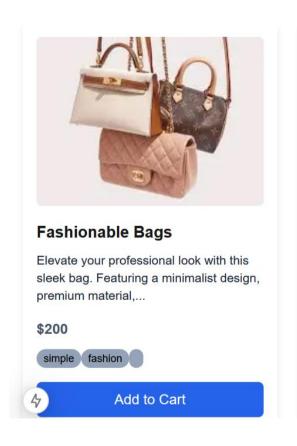
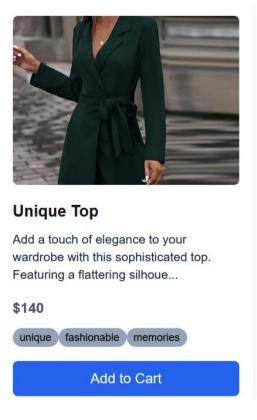
# DYNAMIC FRONTEND COMPONENTS - [CLOTHING & BAGS]

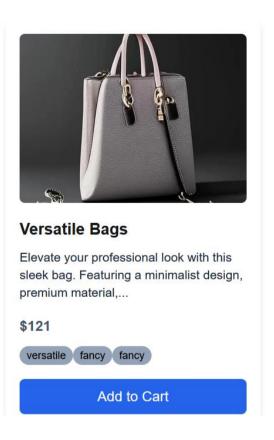
MADE BY ZUNAIRA HUSSAIN

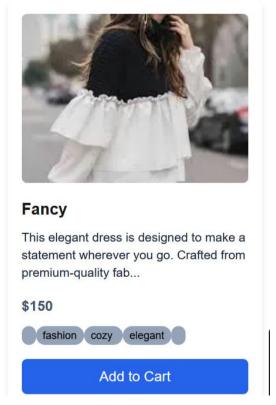
# PRODUCT LISTING PAGE

The product listing page showcases the entire catalog in an elegantly structured, responsive grid layout. Each product card features pivotal details such as images, titles, and prices, with seamlessly integrated filtering and sorting mechanisms for a user refined experience









## PRODUCT DETAIL

The product details page delivers a comprehensive overview of each item, featuring high-resolution images, detailed descriptions, pricing, and specifications. It is designed to enhance user engagement and drive informed purchase decisions by incorporating visually appealing layouts and strategically placed call-to-action elements.

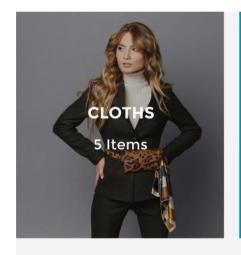
Home Shop Products About Pricing Contacts Contact Us **Bandages Dress T shirt** designhill ★ ★ ★ ☆ ☆ 10 Reviews \$106 Availability:In Stock A versatile dress t-shirt with a relaxed fit, made from soft, breathable cotton, Perfect for casual **Select Option** 

# **CATEGORIES FILTER**

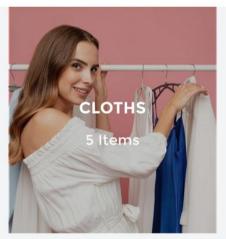
The categories section provides a well-structured and intuitive navigation experience, enabling users to explore products effortlessly based on defined classifications.

Q Search...

Bandages Home Shop Products About Pricing Contacts Contact Us





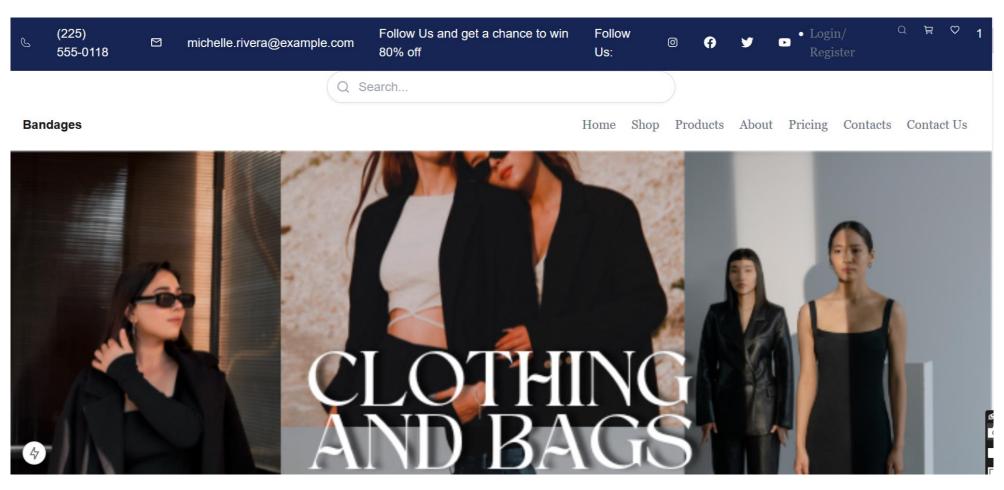






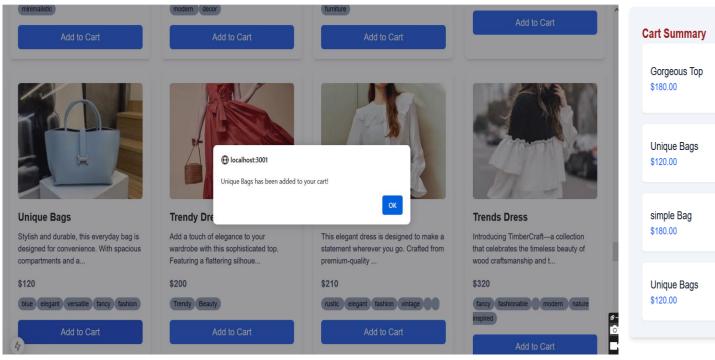
### SEARCH BAR

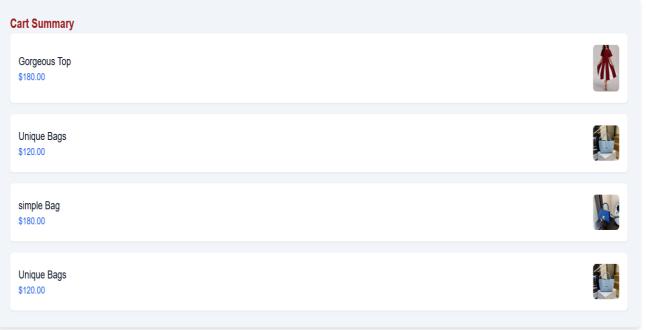
The search bar is a powerful, user-centric feature designed to deliver quick and accurate results by dynamically filtering products based on keywords. With its intuitive design and real-time functionality, it enhances navigation efficiency, driving a seamless and personalized user experience.



### CART DETAILS AND SUMMARY

The cart details and summary section provides a clear and organized overview of selected items, including product names, quantities, prices, and subtotal calculations. Enhanced with a streamlined layout, it ensures users can easily review, update, or remove items while highlighting the total cost and offering a smooth transition to the checkout process.





# Steps Taken to Build and Integrate Components

#### **Search Bar Functionality:**

Developed a reusable Search Bar component with real-time filtering logic using Reacts use State. Integrated the search functionality with the product list to dynamically display results based on user input.

#### **Product Listing:**

Fetched product data via an API/JSON file using Fetch API.

Created a responsive Product List and modular Product Card components to display product details dynamically.

#### **Product Carting:**

Implemented global state management for the cart using Reacts Context API or Redux.

Added "Add to Cart" functionality and designed a Cart component to show selected products, calculate totals, and allow updates.

# Challenges Faced and Solutions Implemented

#### **Search Optimization:**

Challenge: Slow, case-sensitive search.

Solution: Used lowercase normalization and a de bounce mechanism for efficient, case-

insensitive searches.

#### **State Management:**

Challenge: Complex cart state sharing.

Solution: Used Context API/Redux for global state management and ensured proper item

handling by updating quantities.

#### **Responsive Design:**

Challenge: Consistent layout across devices.

**Solution:** Utilized CSS Flexbox, Grid, and media queries for adaptability.

# **Best Practices During Development**

**Reusability:** Built modular components (Search Bar, Product Card, Cart)

**Separation of Concerns:** Isolated business logic from UI for cleaner code.

**Error Handling:** Added user-friendly messages and error boundaries for APIs.

Version Control: Committed updates regularly with clear messages.

Responsiveness: Followed a mobile-first design approach.

**Testing:** Conducted edge-case testing for search, product listing, and cart functionalities.