

MARKET PLACE E-COMMERCE WEBSITE

HACKATHONE 3 DAY4

Hackathon Project Documentation: E-Commerce Website

This project was developed as part of my hackathon task, aiming to create a fully functional **E-Commerce Website** using modern web technologies. The website features a dynamic product listing, detailed product pages, advanced filtering and pagination, and a responsive design optimized for various devices.

Technologies Used

- **Frontend:**
 - **Next.js:** A React framework for building dynamic, server-rendered web applications.
 - **Tailwind CSS:** A utility-first CSS framework for fast and responsive web design.
 - **TypeScript:** A superset of JavaScript that enhances code quality and maintainability.
 - **Icons & UI Components:**
 - **React Icons:** A library of customizable icons for React applications.
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Features

1. **Dynamic Product Listings & Categories:**
 - Products are fetched dynamically from a backend service (in this case, a mock API or database).
 - Users can view and filter products based on various categories like **T-Shirts, Shirts, Hoodies, Jeans**, etc.
2. **Product Detail Pages:**
 - Each product has a dedicated page displaying detailed information, including images, description, price, and available options (color, size, etc.).
3. **Filters & Sorting:**
 - **Category Filtering:** Users can filter products by category (e.g., Casual, Formal, etc.).
 - **Price Filtering:** Adjust the price range to view products within a specific budget.

- **Color, Size, & Style Filters:** Allows users to refine their search based on color, size, and style preferences.
 - 4. **Pagination:**
 - The product list is split into multiple pages, and users can navigate between pages using **next** and **previous** buttons or by selecting specific pages.
 - **Dynamic Pagination** ensures smooth navigation through large product inventories.
 - 5. **Responsive Design:**
 - The layout is fully responsive, adapting to different screen sizes and devices, offering an optimized experience for both desktop and mobile users.
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Project Setup & Flow

- **Fetching Products:** The products are fetched through an API that retrieves product details like name, price, description, and image URL.
 - **Product Display:** Products are displayed in a grid layout, with an option to click through to the detailed product page.
 - **Filter Handling:** Filters for categories, color, size, style, and price range are managed using React's `useState` for state management. The page dynamically updates as filters are applied.
 - **Pagination:** Pagination is handled by calculating the total number of pages based on the filtered products and displaying a navigation bar to allow users to go between pages.
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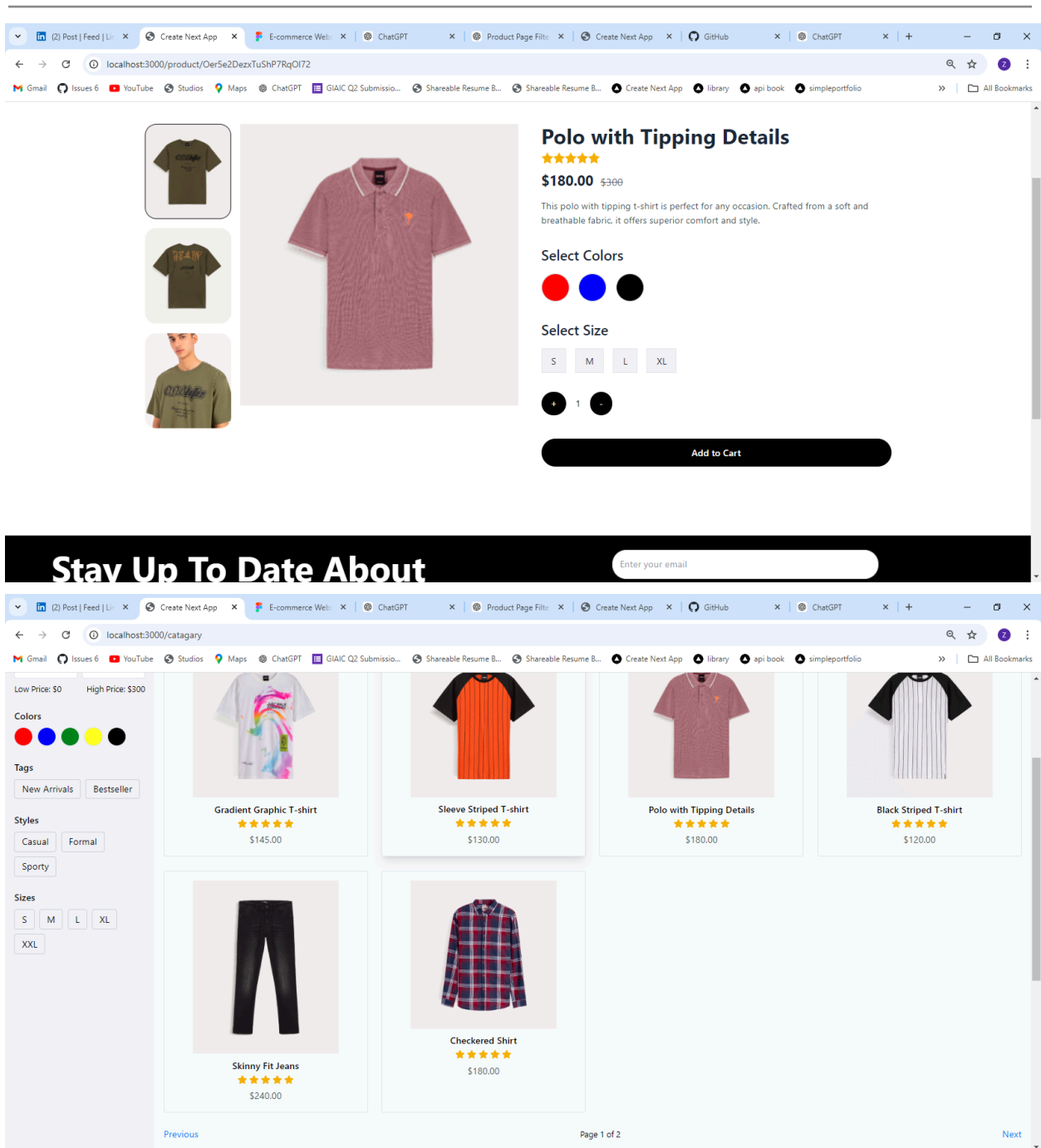
Challenges Faced

- **State Management:** Managing different states for filters and pagination required careful consideration to ensure a smooth user experience.
 - **Responsive Design:** Adapting the design to work seamlessly across different screen sizes was a challenge, especially ensuring that the layout remained usable on mobile devices.
 - **Performance Optimization:** Ensuring smooth performance when filtering and loading products dynamically required optimization in both frontend rendering and API calls.
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Future Improvements

- **Payment Gateway Integration:** Adding a payment gateway for a real-world shopping experience.
- **User Authentication:** Implementing user login functionality for order tracking and personalized shopping experience.

- **Advanced Search:** Adding an advanced search feature for more precise product discovery.



2) Post | Feed | L...

Create Next App

E-commerce Web...

ChatGPT

Product Page Fil...

Create Next App

GitHub

ChatGPT

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localhost:3000/checkout

GmailIssues 6YouTubeStudiosMapsChatGPTGIAIC Q2 Submissio...Shareable Resume B...Shareable Resume B...Create Next Applibraryapi booksimpleportfolio

Sign up and get 20% off to your first order. **Shop Up Now**

Checkout

First Name

First Name

Email

Email

Company

Company

Address

Address 1

Country

United States

Last Name

Last Name

Phone Number

Phone Number

City

City


Zip Code


Zip Code

☐ Billing address is the same as shipping address

< Back to Cart

Proceed to Shipping >

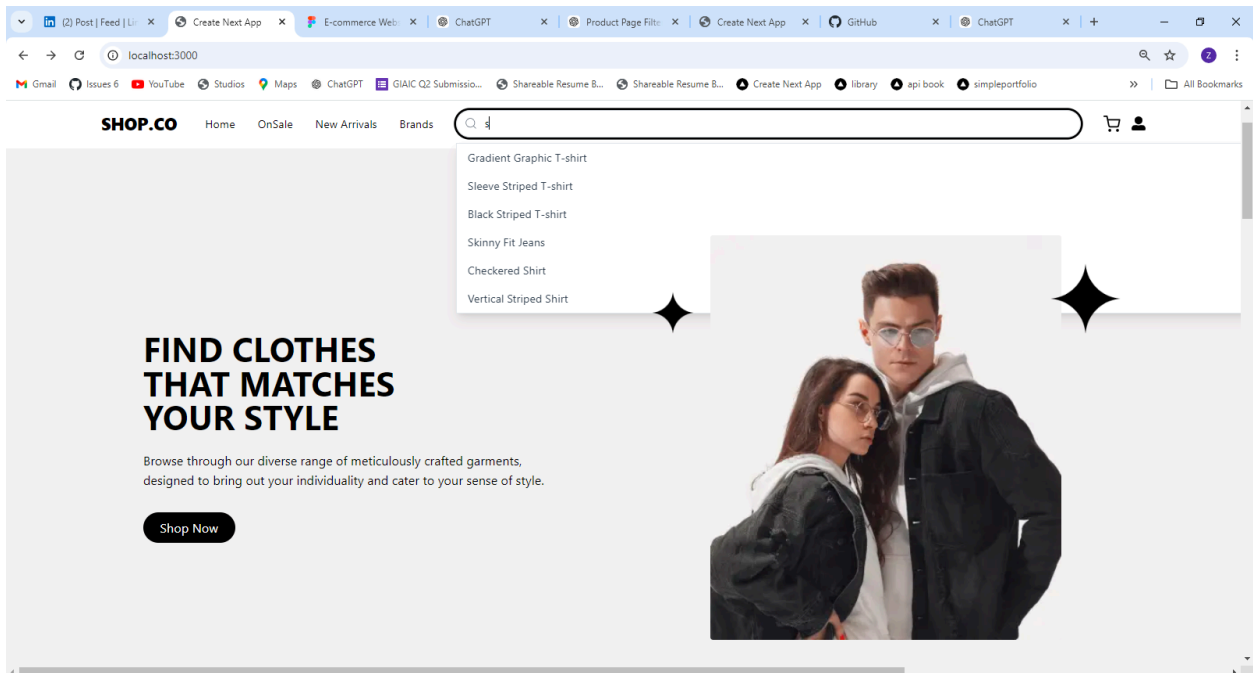
 **Sleeve Striped T-shirt**
\$130

- 1 + 

Total: \$130.00

Sub-total	\$130.00
Shipping	Free
Discount	25%
Tax	\$54.76
Total	\$152.26

Place an Order



User Profile

First Name: khan

Last Name: dd

Email: hlo345@gmail.com

Phone Number: 03122456778

Address: H304 Behind Jacobline

City: bb

Country: United States

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[Order Tracking](#)



Sleeve Striped T-shirt
\$130

- 1 +

Total: \$130.00

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Address bar: localhost:3000

Navigation: SHOP.CO Home OnSale New Arrivals Brands Search

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