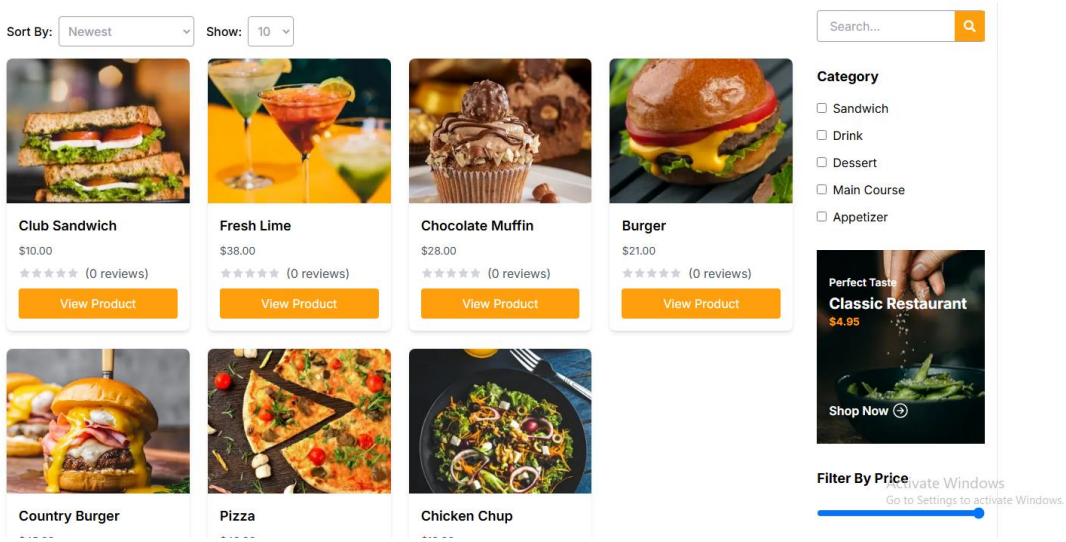
Day 4 - Dynamic Frontend Components – Marketplace Project

Screenshots of Implemented Components

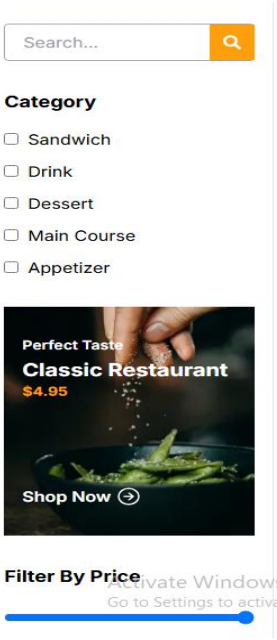
Product Listing Component



- Dynamically displays products in a grid layout.

- Shows product name, price, image, and stock status.

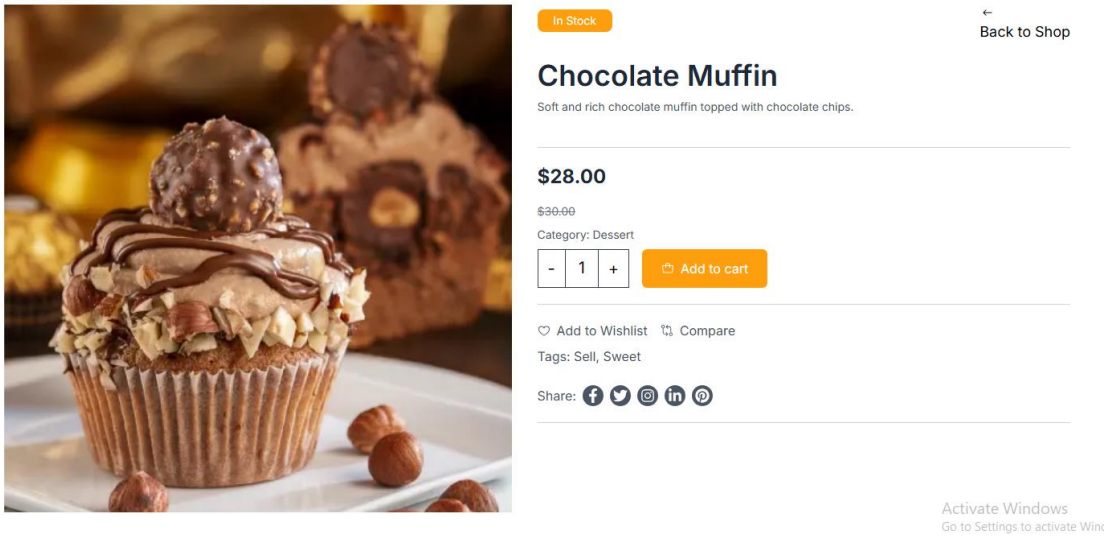
Sidebar Component



- Fetches and displays unique categories dynamically from the data source.

- Enables users to filter products by categories.

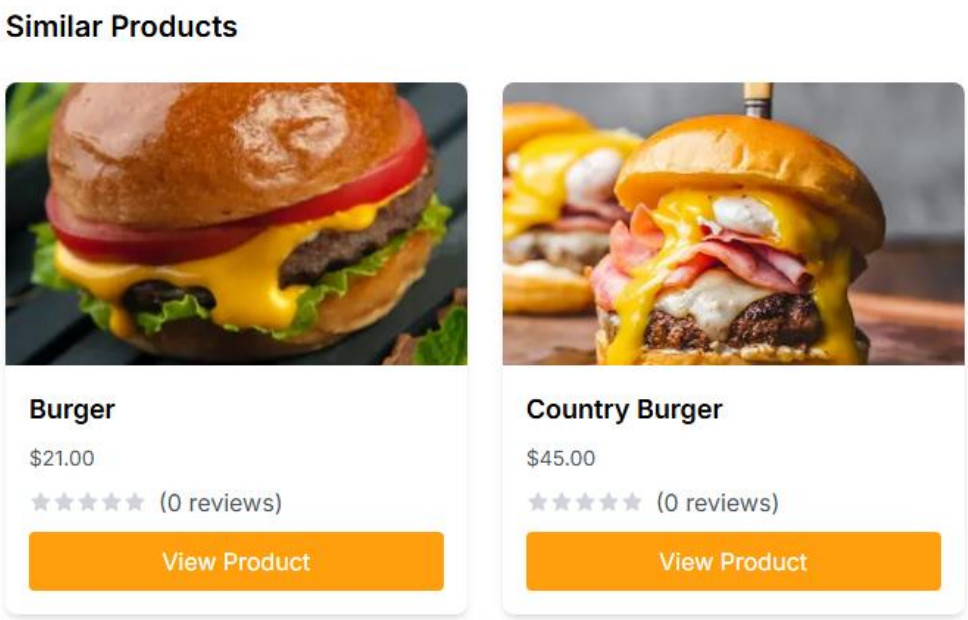
Product Detail Component



- Created with dynamic routing to render product-specific details.

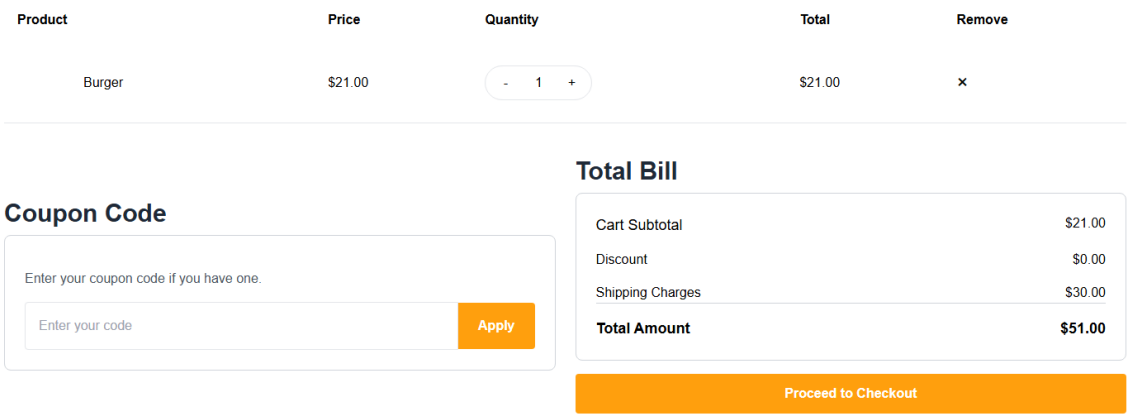
- Displays product name, description, price, available sizes/colors, and images.

Similar Products Component



- Suggests related products based on tags fetched via the API.

Shopping Cart Page

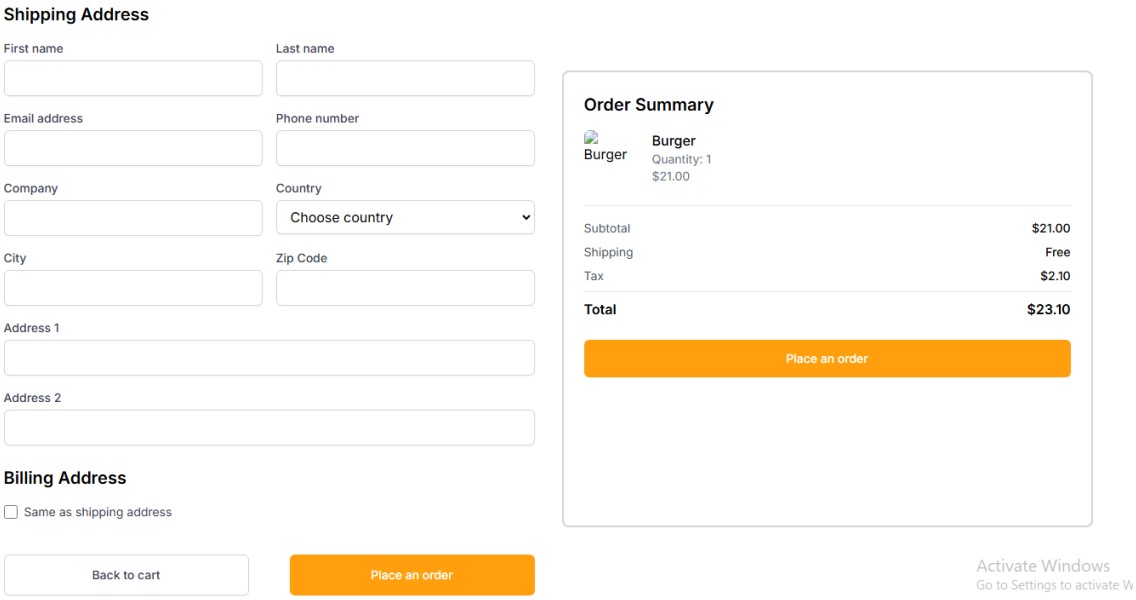


- Displays the items added to the cart with their details such as name, quantity, and price.

- Allows users to update the quantity or remove items from the cart.

- Shows the total price dynamically as items are added, removed, or updated.

Checkout Page



- Features a form that collects billing and shipping details from the user.

- Includes form validation to ensure all required fields are correctly filled.

- On clicking the "Place Order" button, displays a dialog box with a thank-you message to confirm the order submission.

Implemented Functionalities

Category Filter Functionality

- The `SearchableProductList` component manages the search bar.

- Filters products in real-time based on the `searchQuery` state.

Dynamic Routing for Product Details

- Dynamically fetches and renders product details from Sanity CMS or API endpoints.

- Routes like `/productdetail/:id` are created using a `[id].tsx` file.

Product Listing Component

- Fetches product data from the backend using Sanity CMS.

- Displays each product as a card with the following details:

  - Name

  - Description

  - Price

  - Stock status

API Integration

- Configured a Sanity CMS client for efficient data fetching.

- Applied proper fetching logic to populate components with real-time data.

Challenges and Solutions

Challenge: Implementing real-time updates for filtering and search.

- Solution: Utilized React state (`useState`) and event handlers for dynamic filtering.

Challenge: Dynamic routing for individual product pages.

- Solution: Created a dynamic `[id].tsx` file in the `/shop` directory.

Best Practices Followed

- Modular and reusable component design (e.g., `ProductList`, `ThankYouDialog `).

- State management with React's `useState` and `useContext` for global data sharing.

- Applied responsive design principles using Tailwind CSS for a professional and user-friendly interface.