

Assignment: React Application Development

Description:

Build a React application that serves as a simple to-do list and shopping cart. The application should have the following features:

To-Do List:

- Users can add new tasks to the to-do list.
- Users can mark tasks as completed or remove them from the list.
- Display the total number of tasks and the number of completed tasks.

Shopping Cart:

- Users can add items to the shopping cart.
- Users can remove items from the shopping cart.
- Display the total number of items in the cart and the subtotal.

API Integration:

- Fetch data from an API of your choice (e.g., weather, news, or movie API).
- Display the fetched data in a visually appealing format.

Routing:

- Set up multiple pages using React Router:

Home page: Display a welcome message and a brief introduction.

About page: Provide information about the company, team, or project.

Contact page: Display a contact form for users to submit inquiries or feedback.

Requirements:

- Use React functional components with hooks for this assignment.
- Implement state management using React Context.
- Use the fetch or axios library to make API requests.
- Handle loading and error states appropriately.
- Style the components and pages using appropriate CSS styles.
- Implement form validation and display appropriate error messages if the user submits invalid data.

Please provide detailed comments in your code to explain the functionality and purpose of each component and function.