

## Project: Task Management App

You are free to use AI tools to assist in your implementation

### Requirements:

1. **Build a React-based Task Management App** with the following features:
  - Users can add, edit, and delete tasks.
  - Users can mark tasks as completed.
  - Users can filter tasks (e.g., show all, show completed, show pending).
  - The app should be responsive and mobile-friendly.
2. **State Management:**
  - Use React Context API, Redux, or Zustand to manage the state.
  - Ensure state is persistent across page reloads using local storage or another persistence method.
3. **UI/UX & Styling:**
  - Use a component library like Material-UI, Chakra UI, or Tailwind CSS.
  - Ensure an intuitive and clean design with smooth user interactions.
4. **API Integration:**
  - Fetch and save tasks using a mock API like JSONPlaceholder or a Firebase backend.
  - Implement optimistic UI updates to improve the user experience.
5. **Testing (Bonus):**
  - Write unit tests for components using Jest and React Testing Library.
  - Include basic end-to-end tests using Cypress or Playwright.

### Deliverables:

- A GitHub repository with your project code.
- A README file with setup instructions, project explanation, and design decisions.