

# Advanced Task Board with Drag-and-Drop Functionality

## Objective:

The objective of this project is to build an interactive Kanban-style task board with advanced features. This board will allow users to create, manage, and organize tasks using drag-and-drop functionality, while also incorporating additional features like task prioritization, search, and persistent state management.

## Project Overview:

You will create a feature-rich frontend-only application to practice and master advanced frontend concepts, such as:

- Implementing drag-and-drop using libraries.
- State management for tasks and columns.
- Styling for responsive and interactive UI components.

## Features:

### Core Features:

#### 1. Task Creation:

- Add new tasks with the following fields:
  - Title (mandatory)
  - Description
  - Due Date (optional)
- Display tasks as cards in the "To Do" column by default.

#### 2. Drag and Drop:

- Drag tasks from one column to another (e.g., "To Do" to "In Progress" to "Completed").
- Use React Beautiful DnD or React DnD for smooth functionality.

#### 3. Task Deletion:

- Delete tasks from any column using a delete button on each task card.

#### 4. State Persistence:

- Save the board's state (tasks and their column positions) using localStorage, so the data persists after page refresh.

## Enhanced Features:

- Task Prioritization: Add priority tags (High, Medium, Low) with color-coded labels.
- Task Editing: Provide an 'Edit' option to update the task's title, description, or priority.
- Reordering Tasks Within Columns: Drag tasks to rearrange their order within the same column.
- Search and Filter: Add a search bar to filter tasks by title or description and a filter option to view tasks based on priority.
- Task Deadlines: Display due dates on task cards and highlight overdue tasks in red.
- Progress Tracking: Add a progress bar or a statistics section to show the percentage of tasks completed.

**Tech Stack:**

- React (Frontend Framework)
- React Beautiful DnD or React DnD (Drag-and-Drop Functionality)
- Tailwind CSS or Material-UI (Styling)
- Redux (State Persistence)
- Moment.js or Date-fns (Date Management)