

# TaskPlanner Documentation

TaskPlanner is a web application for task management, built with React, Node.js (Express), MongoDB, and Material UI.

## Features:

- User registration and login
- Task creation, editing, and deletion
- Set priority, due date, and description
- Mark tasks as completed
- Clean UI using Material UI
- Tasks stored in MongoDB via backend API

## TaskPlanner Project Goals

- Provide a simple and intuitive task management interface
- Implement full CRUD functionality
- Ensure secure access through authentication and registration
- Use modern UI design with Material UI components

## TaskPlanner Architecture

### Frontend:

- React + TypeScript
- Axios + Context for state and API handling
- Material UI for the user interface

### Backend:

- Node.js with Express
- MongoDB with Mongoose schemas

### Flow:

1. User signs up or logs in
2. Access is granted to the homepage
3. Tasks can be added via modal dialog
4. Tasks are saved in MongoDB and shown in the UI

## **User Interface Structure**

### **1. Authentication:**

- Login page
- Registration page

### **2. Home Page:**

- Logout button (clears cache/session)
- "Add Task" button (opens modal)
- Task cards:
  - Title
  - Description
  - Due Date
  - Priority Level
  - Completed checkbox
  - Edit and Delete buttons

## **Technologies Used**

### **Frontend:**

- React
- TypeScript
- Material UI
- Axios

### **Backend:**

- Node.js
- Express
- MongoDB
- Mongoose

### **Other:**

- LocalStorage / Cookies for auth handling