

## Task for MERN Stack Developer

**Task Title:** Build a Task Management Feature

### Objective:

Develop a **Task Management** feature using the **MERN (MongoDB, Express.js, React, Node.js) stack** that allows users to **create, update, delete, and track tasks**. The feature should have a **user-friendly UI**, backend API, and database integration.

### Requirements:

#### Frontend (React & Redux - if necessary):

- Build a **responsive** UI using React with Tailwind CSS.
- Implement a **Task List** that displays all tasks.
- Allow users to **create, edit, delete, and mark tasks as complete/incomplete**.
- Use a modal or a form for task creation/editing.
- Provide a **filter/search** option to sort tasks by status (completed, pending).

#### Backend (Node.js & Express.js):

- Create a **RESTful API** with the following routes:
- POST /tasks → Create a new task.
- GET /tasks → Fetch all tasks.
- GET /tasks/:id → Fetch a single task.
- PUT /tasks/:id → Update a task (edit details, mark as completed).
- DELETE /tasks/:id → Delete a task.
- Implement **error handling** and validation.

#### Database (MongoDB & Mongoose):

- Define a **Task Schema** with fields:
- title (String, required)
- description (String)
- status (Enum: "pending", "completed", default: "pending")
- createdAt (Timestamp)
- Connect MongoDB using Mongoose.

#### Authentication (Basic JWT - Optional):

- Allow users to register and log in.
- Protect task operations so only authenticated users can modify tasks.

### **Deployment (Optional - If time allows):**

- Deploy backend using **Render/Vercel**.
- Deploy frontend using **Vercel/Netlify**.
- Use **MongoDB Atlas** for database hosting.

### **Expected Deliverables:**

- **GitHub Repository** with clean, structured code.
- **API Documentation** (Postman Collection or README).
- A short **demo video or screenshots** showing the feature in action.