# **Task Management App: Simple Full-Stack Assignment**

## **Objective**

Create a basic task management application using FastAPI for the backend, SQLAlchemy as the ORM, and React for the frontend.

## **Requirements**

### **Backend (FastAPI + SQLAlchemy ORM)**

1. Set up a FastAPI application with the following endpoints:
   * GET /api/tasks: Retrieve all tasks
   * POST /api/tasks: Create a new task
   * PUT /api/tasks/{task\_id}: Update a task's status
   * DELETE /api/tasks/{task\_id}: Delete a task
2. Use SQLAlchemy ORM to create a Task model with the following fields:
   * id (primary key)
   * title (string)
   * description (string)
   * status (string: "todo", "in\_progress", or "done")
   * created\_at (datetime)
3. Implement CRUD operations for the Task model.

### **Frontend (React)**

1. Create a React application with the following components:
   * TaskList: Display all tasks
   * TaskForm: Add a new task
   * TaskItem: Display individual task details with options to update status or delete
2. Implement basic styling using CSS (you can use a framework like Bootstrap if you prefer).
3. Use React Hooks for state management and side effects.

## **Bonus Points**

* Add basic error handling and loading states
* Implement simple client-side form validation
* Add basic sorting or filtering functionality for the task list

## **Submission Guidelines**

1. Provide a GitHub repository with your complete solution.
2. Include a README.md with:
   * Setup instructions for both backend and frontend
   * Any assumptions or design decisions you made
3. Deploy the application and provide a live demo URL.
4. Upload a 1 page report (include Github project, demo links) <https://docs.google.com/forms/d/e/1FAIpQLSdHgTEIDsIKTKjlb4z1c0Pwz8B8y3mF3K68QKwTWlYD_GE8gA/viewform>