# ASSIGNMENT

**Problem Statement**

Managing personal or professional contacts effectively is essential but often cumbersome without a centralized, easy-to-use tool. The goal of this project is to build a simple, full-stack Contact Manager web app that allows users to add, view, and delete contacts seamlessly from any device with internet access.

**Technologies Used**

* **Frontend:** React.js — to build an interactive, responsive user interface.
* **Backend:** Node.js with Express.js — to create RESTful API endpoints.
* **Database:** MongoDB (using MongoDB Atlas) — to store contact information securely in the cloud.
* **HTTP Client:** Axios — for communication between frontend and backend.
* **Hosting:** Render for backend, Vercel or Netlify for frontend (deployment setup optional).
* **Environment Management:** dotenv for managing environment variables.

**What Was Done**

* Developed backend API allowing CRUD operations on contacts (Create, Read, Delete).
* Designed a React frontend with components for listing contacts, adding new contacts, and deleting existing ones.
* Implemented API integration using Axios to connect React frontend to Express backend.
* Used MongoDB Atlas as a cloud-hosted NoSQL database.
* Added smooth animations, modern styling with gradients and subtle patterns.
* Provided detailed setup instructions to run locally and deploy publicly.

**How to Start the Project Locally**

**Prerequisites:**

* Node.js (version 18.x or higher recommended)
* npm package manager
* MongoDB Atlas account and cluster setup
* Code editor like VS Code

**Backend Setup:**

* Navigate to the backend folder: cd contact-manager/backend
* Create a .env file containing your MongoDB connection URI, e.g.: MONGO\_URI=your-mongodb-connection-string
* Install dependencies: yarn install
* Start the backend server: yarn start
* The backend runs by default on port 5000

**Frontend Setup:**

* Navigate to the frontend folder: cd frontend
* Install dependencies: yarn install
* Start the React app: yarn start
* The frontend runs on port 3000, opens in browser automatically.

**How to Use the App**

1. Open the React app in your browser at http://localhost:3000.
2. Use the **Add Contact** form to enter a new contact’s:
   * Name
   * Email
   * Phone number
3. Click **Add Contact** button to save it.
4. View the list of added contacts below the form.
5. To delete a contact, click the **Delete** button next to that contact.
6. All data is saved in MongoDB and persists across sessions.