



DATABASE PROJECT PROPOSAL

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PROPOSAL

DB PROJECT PROPOSAL



PROJECT TITLE

Employee Management System using React, Node.js, and MySQL

OBJECTIVE

The objective of this project is to design and implement an Employee Management System (EMS) that streamlines the management of employees, departments, Roles of Employees and administrative tasks (for e.g Salary Management). The system will utilize React for the frontend, Node.js for the backend, and MySQL as the database for data storage and retrieval.

SCOPE OF PROJECT:

The EMS will provide:

- User Authentication,
- User Session protection using JSON
- Main Dashboard
- Managing Employees(CRUD)
- Managing Departments
- Profile page.

TOOLS AND TECHNOLOGIES:

- Frontend: React.js
- Backend: Node.js with Express framework
- Database: MySQL (for relational data storage)
- Authentication: JSON Web Tokens (JWT) for secure user sessions
- Version Control: Git/GitHub for code management



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DATABASE DESIGN (INITIAL THOUGHT)

Database Design:

- Employee Table: Stores employee data (ID, name, position, salary, department, etc.).
- Admin Table: Contains admin details (ID, name, role, contact info).
- Department Table: Stores department-related data (ID, department name, etc.).
- User Table: Manages login credentials for employees and admins.
- And more tables according to implementation.

EXPECTED OUTCOME:

The completed Employee Management System will allow users to effectively manage employee records and activities according to their roles, departments, and administrative roles with a secure and user-friendly interface. It will also provide insights through the main dashboard, helping the organization to monitor and control key employee metrics.

