

DATABASE PROJECT PROPOSAL (EMS)

Prepared By :

Arham Hussain (22k-4080)

Partham Kumar (22k-4079)

Aarib Vahidy (22k-4004)

Section: BAI-5B

Prepared For :

Sir Sameer Faisal

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.
- Attendance Management with warnings

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

PROPOSAL

DB PROJECT PROPOSAL

PROJECT AUTOMATION

- Check performance of employee through completed projects and grant bonuses accordingly.
- Check no. of leaves an employee has taken and how many more leaves is an employee eligible for.
- Automatic tracking of tasks and deadlines.
- Calculate salaries based on hours worked and per hour rate.
- Warning System for Attendance, if employees does more than a predefined no. of absences

EXPECTED OUTCOME:

The completed Employee Management System will allow users to effectively manage employee records and automate 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.