Employee Attendance System – Project Preview

1. Project Overview

A full■stack web application that allows employees to mark attendance and managers to view, manage, and export attendance reports.

2. Tech Stack

Frontend: React + Redux Toolkit

Backend: Node.js + Express

Database: MongoDB (Mongoose)

Authentication: JWT

3. Key Modules

• Authentication (Employee & Manager)

• Attendance Check■In / Check■Out

• Employee Dashboard & History

• Manager Dashboard

• Attendance Filtering & Reports

• CSV Export

4. Employee Features

• Register & Login

• Check■In and Check■Out

• View monthly summary

• View attendance history

• Dashboard stats

5. Manager Features

• Login

• View attendance of all employees

• Filter attendance by date, status, employee

• Export CSV

• Department■wise & daily stats

6. Database Structure

Users:

id, name, email, hashed password, employeeId, department, role, createdAt

Attendance:

id, userId, date, checkInTime, checkOutTime, status, totalHours

## 7. Backend API Highlights

Auth:

POST /api/auth/register

POST /api/auth/login

Attendance (Employee):

POST /api/attendance/checkin

POST /api/attendance/checkout

Attendance (Manager):

GET /api/manager/all

GET /api/manager/export

## 8. Application Flow

• User logs in → receives JWT → saved in frontend.

• Employees check in/out.

• Managers track all attendance.

• Data stored in MongoDB.

• Reports exported as CSV.

## 9. Frontend Flow

React pages:

• Login/Register

• Employee Dashboard

• Mark Attendance

• History Page

• Manager Dashboard

• All Attendance View

• Reports Page

## 10. Conclusion

This project demonstrates complete full■stack development using React, Node.js, Express, and MongoDB with real■world attendance management functionality.