Human Resource Management System – Requirements Document

Day

# Project Overview

The Employee Management System (EMS) is designed to manage employee records efficiently. It allows HR/admin to perform CRUD operations on employee records, handle payroll, track attendance, manage departments, and process leave requests. The goal is to automate HR processes, reduce manual work, and improve data accuracy.

# Classes/Modules and Responsibilities

* 1. Admin
     + Responsible for managing the overall system access and permissions.
     + Can perform CRUD operations on employees, payroll, attendance, departments, and leave requests.
     + Secure login and authentication.
  2. Employee
     + Stores employee information: ID, Name, Department ID, Salary, Email, Phone, Date of Joining, and Password.
     + Supports CRUD operations:
     + Create: Add new employee.
     + Read: View employee list or search by name.
     + Update: Modify employee details.
     + Delete: Remove employee record.
  3. Department
     + Stores department information: ID, Name, Location.
     + Supports CRUD operations:
     + Create: Add new department.
     + Read: View departments.
     + Update: Modify department details.
     + Delete: Remove department.
  4. Payroll
     + Manages employee salary and deductions.
     + Fields: Employee ID, Basic, HRA, Allowances, Deductions, Net Salary, Date.
     + Features:
     + Generate payroll.
     + View payroll records.
     + Update payroll details.
     + Delete payroll records.
  5. Attendance
     + Tracks daily employee attendance.
     + Fields: Employee ID, Date, Status (Present/Absent/Leave).
     + Features:
     + Mark attendance.
     + View daily or monthly attendance.
     + Update attendance records.
  6. LeaveRequest
     + Handles employee leave requests.
     + Fields: Employee ID, Leave Type, Start Date, End Date, Status.
     + Features:
     + Apply leave.
     + View leave requests by employee or all employees.
     + Approve/Reject leave requests.
     + Update leave request status.

# Non-Functional Requirements

* Security: Passwords and sensitive information (salary, personal data) must be stored securely.
* Usability: User-friendly console interface with clear prompts and validation messages.
* Performance: Efficient data retrieval and updates for employees, payroll, attendance, and leave.
* Reliability: Accurate and consistent storage of all records.

# Technology Stack

* Language: Java
* Database: MySQL / DynamoDB
* Build Tool: Maven
* Other Libraries: JDBC for DB connection

# Deliverables

* Fully functional Employee Management System including:
* Employee CRUD module
* Payroll module
* Attendance module
* Department module
* LeaveRequest module
* Admin access module