# 1. Introduction

The Employee HRMS Portal is being developed to manage employee information, payroll, attendance, and leave requests in one centralized system The portal aims to provide a centralized platform for employees, HR personnel, and management to access and manage employee data, attendance, and payroll information.

# 2. Functional Requirements

## 2.1 Employee Management

* Create various tables and store related details in each of them –
  + Employee – emp\_name, mobile\_num, email\_id, and emp\_id.
  + Department – emp\_id, department, designation and day\_wage.
  + Attendance – emp\_id, date and attendance\_value.
  + Salary – emp\_id, basic, pf\_contribution, hra, and net\_pay.
* Read and fetch employee details.
* Update existing employee records by modifying salary/designation/department.
* Delete employee records when no longer active.

## 2.2 Attendance Management

* Attendance will be recorded daily for each employee.
* Attendance status will be stored as a numeric value to represent fractional workdays:
  + 1 → Full Day Present
  + 0.5 → Half Day Present
  + 0 → Absent
* Attendance records will be stored in MySQL Attendance table and linked to the corresponding employee id.
* Employees can submit leave requests with start\_date, end\_date and reason.
* Leave requests will be stored in DynamoDB for scalability.
* HR/Admin can fetch and review leave requests.

## 2.3 Payroll Management

* Payroll will manage the monthly salary achieved by employees.
* The system shall calculate salaries using data from Attendance and Department tables.
* Salary table contains various components like basic, pf\_contribution, hra, and net\_pay.
* Queue based batch processing shall be implemented for monthly payroll automation.
* Employees can view their pay slips and reports.

# 3. Nonfunctional requirements

## 3.1 Performance

* Fast and responsive user interface shall be provided.
* Database queries shall be optimized for efficient data retrieval and updates.
* Large volumes of employee data and attendance records shall be handled.

## 3.2 Usability

* Design a simple and command line interface for employees and HR personnel.
* Provide clear instructions and feedback to users.
* Display the results clutter free and easily understandable.

# 4. User Interface Requirements

## 4.1 Employee Dashboard

* Display employee profile information.
* Provide access to attendance and payroll data.
* Allow employees to request leave and view leave balances.

## 4.2 HR Dashboard

* Display employee directory and contact information.
* Provide access to attendance and payroll reports.
* Allow HR personnel to manage employee data and attendance records.

# 5. System requirements

## 5.1 Hardware requirements

* Any machine with adequate processing power, memory, and storage.

## 5.2 Software requirements

* Programming languages: Java.
* Database management system: MySQL and AWS DynamoDB.
* Testing and Automation tools: Jenkins and Cucumber.

# 6. Maintenance and support

* Stay up to date with the software updates and make necessary changes.
* Apply security patches and updates regularly