

# **Project Documentation: Employee Management System**

## **Table of Contents**

1. Introduction
2. System Overview
3. User Roles and Functional Requirements
  - o Admin
  - o Employee
  - o Manager
4. System Features
5. Data Requirements
6. System Architecture Diagram
7. Database Design
8. Conclusion

## **1. Introduction**

The Employee Management System is a web-based application designed to manage employees, projects, and resources within an organization. The system categorizes users into three types: Admin, Employee, and Manager, each with distinct functionalities and access levels. This documentation outlines the functional requirements, system features, data requirements, and user interface details for the User Management System.

## **2. System Overview**

The Employee Management System aims to streamline the management of employees and projects by providing a centralized platform for administration, resource allocation, and information access. The system ensures that users have appropriate access to functionalities based on their roles, facilitating efficient and organized management of organizational resources.

## **3. User Roles and Functional Requirements**

### **Admin**

Admins have comprehensive access to the system's functionalities, enabling them to manage users, projects, and resources effectively.

#### **Functional Requirements:**

- **Add New Employees/Managers and Projects:**
  - Admins can add new employees, managers, and projects to the system by providing relevant details such as name, email, project name, etc.
- **View All Employees and Projects:**
  - Admins can view a list of all employees and projects within the organization.
- **Assign/Unassign Projects to Employees:**
  - Admins can assign employees to projects and unassign them when necessary.
- **Approve/Reject Managers' Requests for Resources:**
  - Admins can review and approve or reject resource requests made by managers.
- **Delete Employees:**
  - Admins can remove employees from the system.
- **Update Employee Details:**
  - Admins can modify employee information, including personal details and project assignments.
- **Manage Attendance/Notices and Approve Leave Requests:**
  - Admins can add attendance records, post notices, and approve or reject leave requests from employees.

#### **Manager (Admin Subtype)**

Managers have access to specific functionalities that assist in managing projects and requesting resources.

#### **Functional Requirements:**

- **View All Employees, Managers, and Projects:**
  - Managers can view lists of all employees, managers, and projects.
- **Filter Employees by Skills and Unassigned Status:**
  - Managers can search for employees based on their skills and identify those who are not assigned to any projects.
- **Request Employees for Projects:**

- Managers can request the admin to allocate unassigned employees to their projects based on required skills.
- **Request Multiple Employees for a Project:**
  - Managers can submit requests for multiple employees for a single project.
- **View Attendance/Notices and Raise Leave Requests:**
  - Managers can view attendance records, check notices, and submit leave requests.

## **Employee**

Employees have limited access to the system, focusing on updating personal information and viewing relevant details.

### **Functional Requirements:**

- **Update New Skills:**
  - Employees can add new skills to their profile.
- **View Personal Information:**
  - Employees can view their details, including the project they are tagged to and their manager's information.
- **View All Employees (Including Managers):**
  - Employees can access a list of all employees and managers within the organization.
- **View Attendance/Notices and Raise Leave Requests:**
  - Employees can check their attendance records, view notices, and submit leave requests.

## **4. System Features**

### **Authentication**

- All users must have a valid email address that belongs to the organization.
- Secure login and logout functionality.

### **Dashboard**

- Role-based dashboards displaying relevant information and functionalities for each user type.

## **Employee Management**

- Add, view, update, and delete employee details.
- Assign and unassign projects to employees.

## **Project Management**

- Add and view projects.
- Manage project assignments.

## **Resource Requests**

- Managers can request resources (employees) for their projects.
- Admins can approve or reject resource requests.

## **Attendance and Notices**

- Record attendance and post notices for employees.
- View attendance records and notices.

## **Leave Management**

- Employees and managers can submit leave requests.
- Admins can approve or reject leave requests.

# **5. Data Requirements**

## **User Data**

- **Admin:**
  - ID, Name, Email, password
- **Employee:**
  - ID, Name, Email, Skills, Project ID, Manager ID, other
- **Manager:**
  - ID, Name, Email, Role, Project IDs, other

## Project Data

- Project ID, Project Name, Description, Assigned Employees, Manager

## Attendance Data

- Attendance ID, Employee ID, year, month

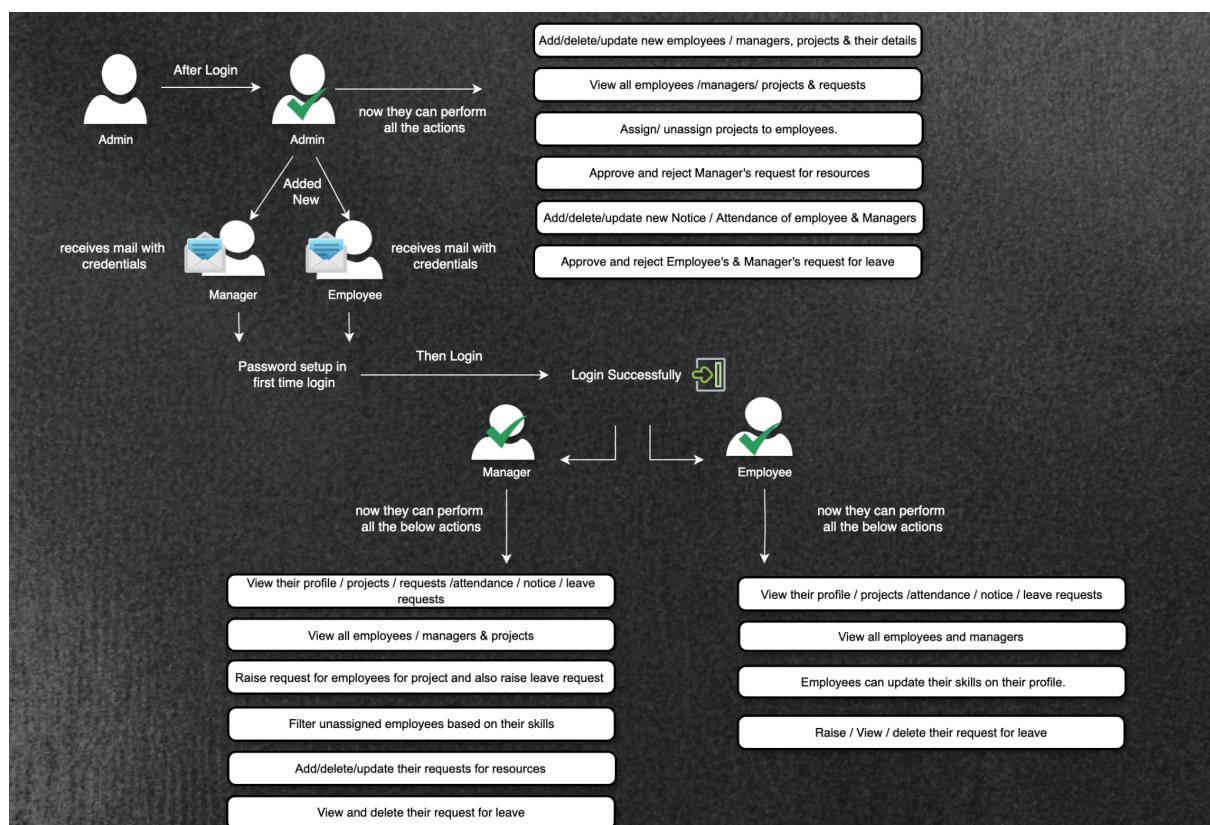
## Notice Data

- Notice ID, Title, Content, Date

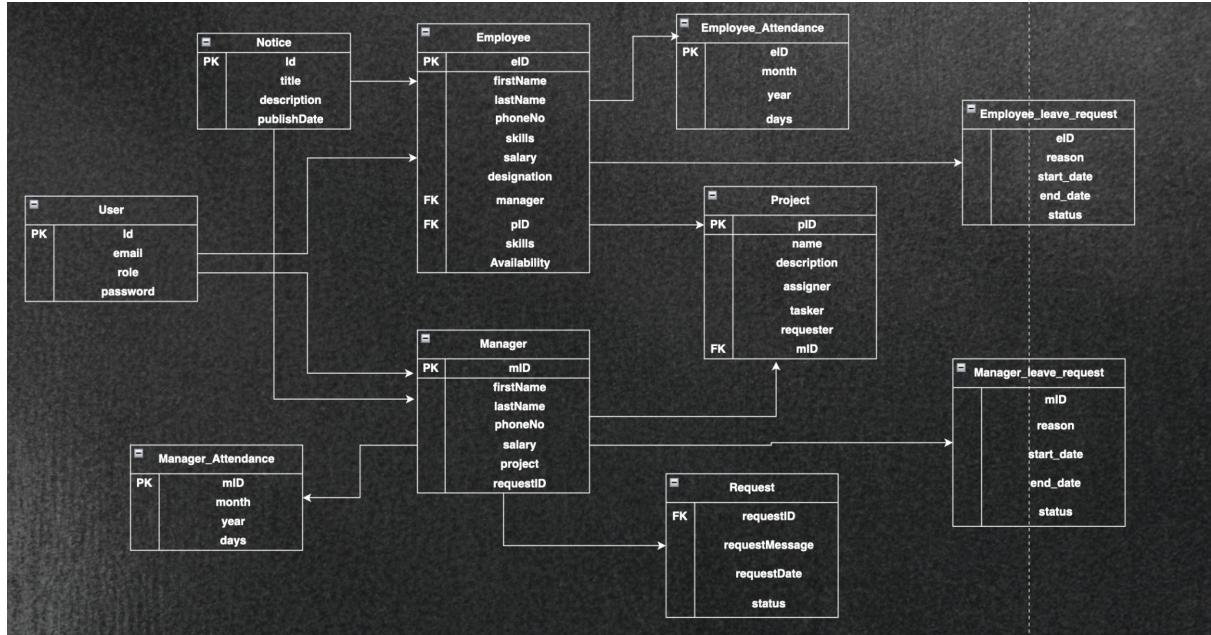
## Leave Request Data

- Leave Request ID, Employee ID, Start Date, End Date, Reason, Status (Pending/Approved/Rejected)

## 6. System Architecture Diagram



# Schema Design



## 7. Design and Implementation

- Employee table with fields: ID, name, email, project\_id, skills, etc.
- Manager table with fields: ID, name, email, project\_ids, etc.
- Project table with fields: ID, name, description, manager\_id, etc.
- LeaveApplication table with fields: ID, employee\_id, start\_date, end\_date, reason, status, etc.
- Request table
- Notice Table
- Attendance table

## 8. Conclusion

The provided diagram illustrates the workflow and actions available to different roles within a system, specifically Admin, Manager, and Employee, post-login. Initially, an Admin logs into the system, after which they are empowered to perform a wide range of actions. These actions include adding, deleting, and updating new employees, managers, projects, and their details. Admins can view all employees, managers, projects, and requests, assign or unassign projects to employees, and approve or reject various requests for resources and leave. Upon adding new managers or employees, the system sends

these new users an email containing their credentials. When these users log in for the first time, they are prompted to set up their passwords.

Once a Manager logs in successfully, they can perform specific tasks such as viewing their profile, projects, requests, attendance, notices, and leave requests. Additionally, they can view all employees, managers, and projects, raise requests for employees for projects, and leave requests. Managers can also filter unassigned employees based on their skills, manage their requests for resources, and handle their leave requests by viewing or deleting them as necessary.

Similarly, Employees, upon successful login, gain access to their profile, projects, attendance, notices, and leave requests. They can view all employees and managers, update their skills on their profiles, and manage their leave requests by raising, viewing, or deleting them. This hierarchical workflow ensures that each role within the system has distinct responsibilities and capabilities, facilitating efficient management and operations within the organization.