

## **Project Title:** Management System for Employee

### **Objective:**

The objective of the Employee Management System is to streamline the management of employees within large organizations. This system is designed to aid Human Resources (HR) departments in efficiently managing various tasks associated with employee management. It aims to centralize all company-related information, thus simplifying HR operations and enhancing employee access to necessary details.

### **Project Scope:**

The Employee Management System encompasses several key functionalities, including:

#### **Management Features**

1. **Employee Profile Management:** Allows HR managers to add, edit, or delete an employee's profile.
2. **Leave Management:** Allows HR managers to track, approve, or reject leave requests submitted by employees.
3. **Payroll Management:** Enables calculation and disbursement of employee salaries, including adjustments, deductions, and bonuses.
4. **Time and Attendance Management:** Allows tracking of employee attendance, hours worked, overtime, and punctuality.
5. **Benefits Administration:** Manages employee benefits such as insurance, retirement plans, health and wellness programs.
6. **Employee Grievance Handling:** Provides a channel for employees to raise issues or complaints, and enables HR to address them efficiently.

#### **Employee Features**

1. **Personal Profile Access:** Allows employees to view and update their personal details, contact information, and employment history.
2. **Payroll Access:** Employees can view their salary details, pay slips, tax deductions, and bonuses.
3. **Leave Application:** Employees can apply for leaves, track their leave status, and view their leave balance.
4. **Time and Attendance Tracking:** Employees can clock in and out, view their attendance records, and track their working hours.
5. **Benefits Access:** Allows employees to view their benefit plans and make selections based on their preferences.
6. **Company Updates:** Employees can view company news, updates, and announcements.

7. **Feedback and Grievance Submission:** Employees can provide feedback and raise issues or complaints through the system.
8. **Holiday Calendar:** Employees can view the company's holiday calendar.

These features will provide a robust platform for both management and employees, promoting efficient communication and transparency within the organization.

### **End User:**

The system will be built with a focus on user-friendliness, data security, scalability, and customization to meet the needs of different organizations.

### **Integration of the End users with the project (user stories)**

- **As an Admin,** I want to have control over all the employee details, payroll, and leave management system to effectively manage the company's HR needs.
- **As an Employee,** I want to have access to my personal details, salary information, leave status, and the company's holiday calendar so that I can stay informed and plan accordingly.

The Employee Management System aims to bridge the gap between the administrative tasks of the HR department and the informational needs of the employees. By creating a centralized system that is easy to use, secure, and efficient, the organization can enhance productivity and employee satisfaction.

### **Project Users, Actors, Vendors, Actuators**

#### **1. Project Users/Beneficiaries**

- **Admin:** The primary user of the system who is responsible for managing and updating all company and employee information. They handle the payroll, leave management, and overall company details.
- **Employees:** They use this system to check personal details, salary information, leave status, and the holiday calendar.

#### **2. Actors/Third-party Companies**

- **Software Development Companies:** These companies can provide expertise, support, and necessary tools for developing and maintaining the Employee Management System.
- **HR Consultancies:** They can use the system data for consulting services, helping the company to make strategic HR decisions.

#### **3. Vendors**

- **Hardware vendors:** They provide necessary hardware like servers, routers, and workstations to run the system.
- **Software vendors:** Software vendors provide critical software components for the system like database management systems and server operating systems.

#### 4. Actuators

- **Servers:** Servers run the system software and manage data. They're responsible for executing the instructions of the software.
- **Databases:** Databases store and manage all company and employee-related information.
- **APIs:** APIs (Application Programming Interfaces) enable the interaction between different software components, making it possible for the front-end and back-end of the system to communicate effectively.

#### Project Properties

1. **Functionality:** The system should be able to efficiently manage various aspects of human resources and employee needs, like payroll, leave management, recruitment, training and development, performance management, etc.
2. **Usability:** The system should be intuitive and user-friendly, allowing both management and employees to navigate through the features with ease.
3. **Security:** The system should be secure, protecting sensitive employee data, company information, and financial data.
4. **Scalability:** The system should be scalable, able to handle an increasing number of users and data as the company grows.
5. **Performance:** The system should be fast, responsive, and reliable.
6. **Integration:** The system should be able to integrate with third-party services, like email services, accounting software, etc.
7. **Customization:** The system should be customizable to meet the unique needs and policies of different companies.
8. **Accessibility:** The system should be accessible to users, taking into consideration various accessibility standards.
9. **Maintenance:** The system should be easy to maintain and update, with the possibility of adding new features, making updates, and applying security patches.
10. **Cost-effectiveness:** The system should be cost-effective, providing a return on investment through increased efficiency and productivity.

#### Suggested Software Applications and Platforms:

Front-end Framework: Graphics User Interface in C#

Back-end Framework: .NET Framework 4.7.2

Database Management System: PostgreSQL

Version Control: Git and GitHub

The chosen technologies are well-suited to the requirements of the Employee Management System, as they support the development of robust, secure, and scalable applications.

### **Plan Details Week 1-2: Requirements Gathering and System Design**

- Understand and document system requirements.
- Design system architecture and database schema.

### **Week 3,4,5: Front-end Development**

- Develop the user interface.
- Implement features for HR managers and employees.

### **Week 6,7,8: Back-end Development**

- Develop server-side logic using .NET.
- Implement features for data storage, retrieval, and processing.

### **Week 9,10: Testing and Deployment**

- Perform integration and system testing.
- Resolve bugs and issues.
- Prepare the system for deployment to the production environment.
- Finalize documentation and user manuals.