Project Title : WorkForcePro

Project Overview:

The WorkForcePro is designed to facilitate the efficient management of employee-related data, including their personal information, attendance records, and salary details. The system ensures accuracy in salary calculations, monitors employee attendance, and provides essential insights for effective human resource management.

Key Features:

- Company Management:
- Create and manage details of different companies.
- Define company-specific configurations such as Basic, Hrent, and Medical percentages.

- Department and Designation:
- Organize employees into departments.
- Define various designations within the organization.

- Shift Management:
- Configure different work shifts with specific timings.

- Employee Information:
- Record and manage employee details, including name, code, gender, and joining date.
- Automatically calculate Basic, HRent, and Medical based on company configurations.

- Attendance Tracking:
- Record daily attendance for employees.
- Capture InTime, OutTime, and attendance status (Present, Absent, Late, etc.).
- Generate monthly attendance summaries.

- Salary Processing:
- Automatically calculate salary components such as Basic, HRent, and Medical.
- Calculate AbsentAmount based on the number of absent days.
- Generate PayableAmount and track payment status.
- Trigger the update of the PaidAmount when payment is made.

ERD Diagram:

tblCompany

Column Name	Data Type	Allow Nulls
ComId	uniqueidentifier	
ComName	varchar(50)	
Basic	tinyint	
HRent	tinyint	
Medical	tinyint	
IsInactive	bit	

tblDepartment

Column Name	Data Type	Allow Nulls
DeptId	uniqueidentifier	
ComId	uniqueidentifier	
DeptName	varchar(30)	

tblDesignation

Column Name	Data Type	Allow Nulls
DesigId	uniqueidentifier	
ComId	uniqueidentifier	
DesigName	varchar(30)	

tblAttendance

Column Name	Data Type	Allow Nulls
ComId	uniqueidentifier	
EmpId	uniqueidentifier	
dtDate	smalldatetime	
TimeIn	time(7)	
TimeOut	time(7)	
AttStatus	varchar(1)	☑

tblSalary

Column Name	Data Type	Allow Nulls
ComId	uniqueidentifier	
EmpId	uniqueidentifier	
dtMonth	varchar(3)	
dtYear	varchar(4)	
Gross	money	
Basic	money	
HRent	money	
Medical	money	
Others	money	
AbsentAmount	money	
PaymentAmount	money	
IsPaid	bit	
PaidAmount	money	

tblAttendanceSummary

Column Name	Data Type	Allow Nulls
ComId	uniqueidentifier	
EmpId	uniqueidentifier	
dtMonth	varchar(3)	
dtYear	varchar(4)	
MonthDays	tinyint	
Present	tinyint	
Late	tinyint	
Absent	tinyint	
Holiday	tinyint	

tblEmployee

Column Name	Data Type	Allow Nulls
EmpId	uniqueidentifier	
ComId	uniqueidentifier	
DeptId	uniqueidentifier	
DesigId	uniqueidentifier	
EmpCode	varchar(15)	
EmpName	varchar(100)	
Gender	varchar(10)	
Gross	money	
Basic	money	☑
HRent	money	☑
Medical	money	☑
Others	money	☑

Technology Stack:

- Database: PostgreSQL
- Backend: ASP.NET Core (C#)
- Frontend: HTML, CSS, JavaScript (with Tabulator for data visualization)
- ORM: Entity Framework Core
- Data Access: Npgsql (PostgreSQL adapter for .NET)

Benefits:

- Centralized and organized employee data.
- Efficient salary processing and payment tracking.
- Accurate attendance tracking and reporting.
- Enhanced decision-making through insightful data analysis.

Note:

This project description is based on the provided database schema and assumes additional features and functionalities may be added based on specific requirements and business needs.