

Employee HRMS Portal – Day 2

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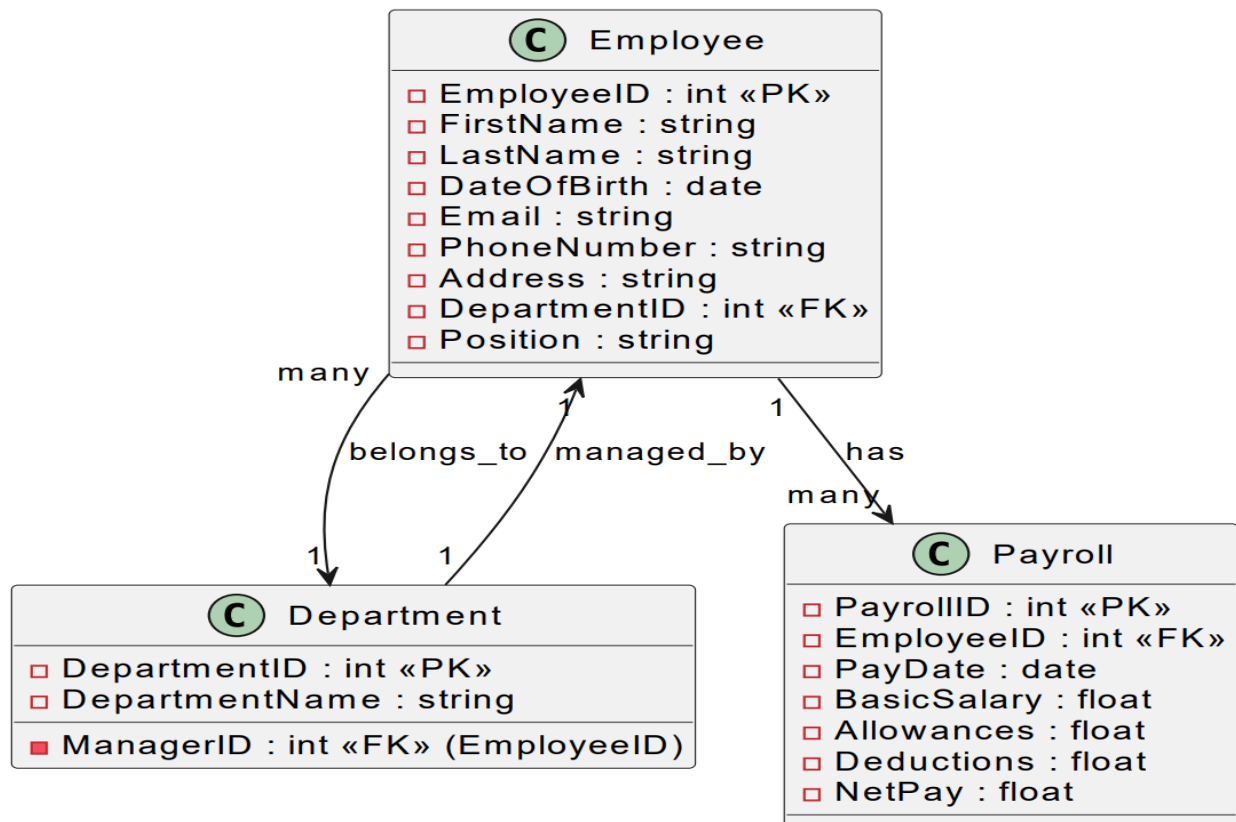
Date: [9/7/2025]

Project Name: Employee HRMS Portal

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Employee HR Management System – ER Diagram



1. Employee Class Diagram

Description:

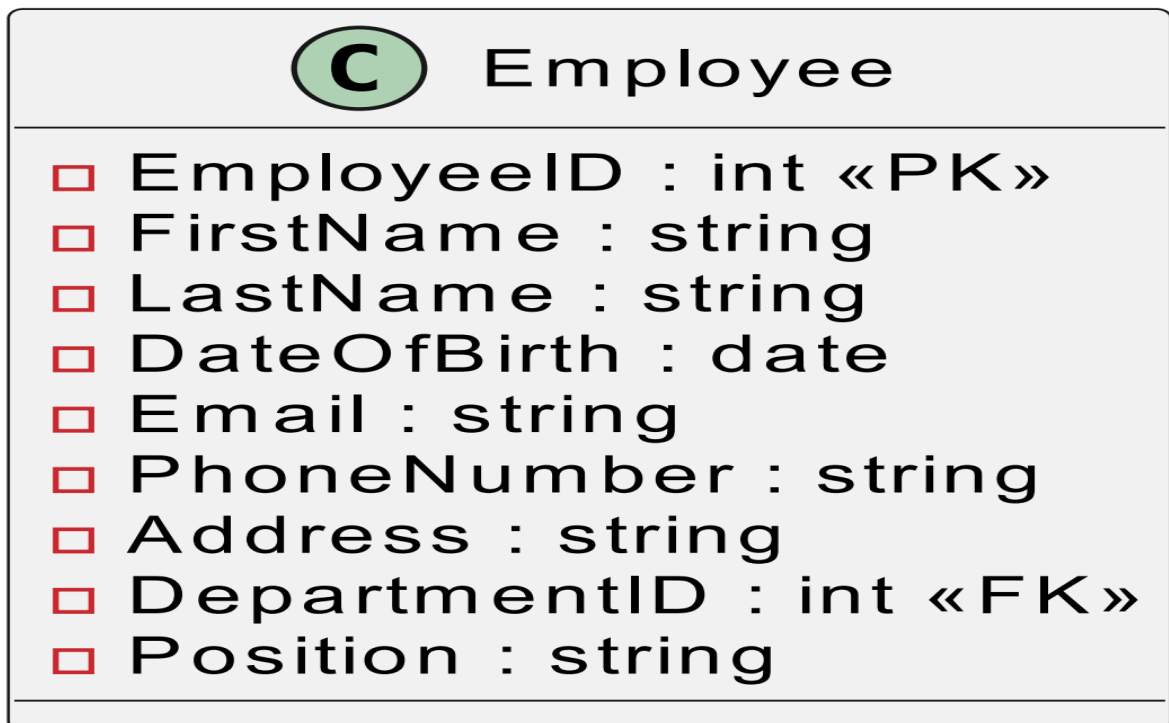
Represents the Employee entity capturing personal and employment information. An employee belongs to a department and has payroll records.

Attributes:

- EmployeeID : int (Primary Key)
- FirstName : string
- LastName : string
- DateOfBirth : date
- Email : string
- PhoneNumber : string
- Address : string
- DepartmentID : int (Foreign Key)
- Position : string
- Salary : float

Relationships:

- Each Employee belongs to one Department (many-to-one).
- Each Employee has one or many Payroll records (one-to-many).



2. Department Class Diagram

Description:

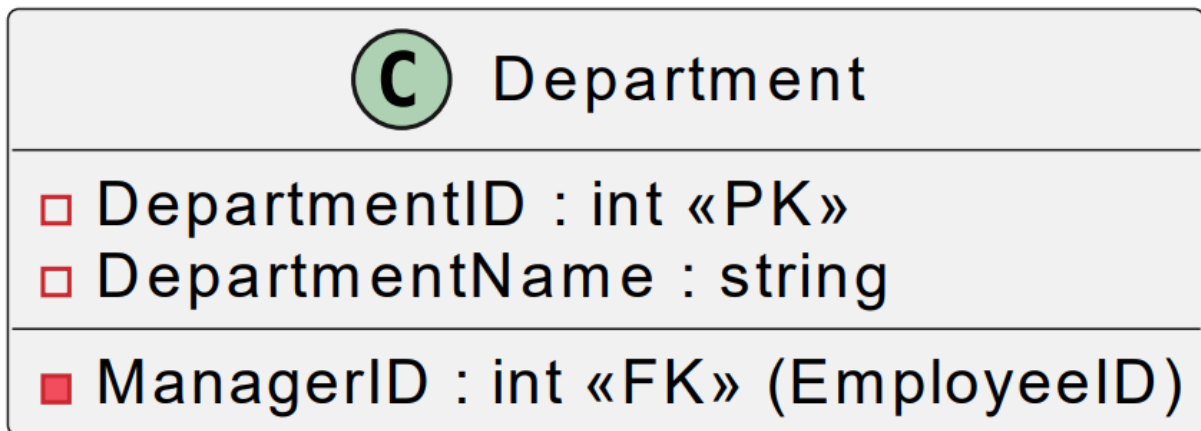
Represents the Department entity that organizes employees.

Attributes:

- DepartmentID : int (Primary Key)
- DepartmentName : string
- ManagerID : int (Foreign Key to EmployeeID of manager)

Relationships:

- One Department has many Employees (one-to-many).



3. Payroll Class Diagram

Description:

Represents payroll details related to salary and deductions.

Attributes:

- PayrollID : int (Primary Key)
- EmployeeID : int (Foreign Key)
- PayDate : date
- BasicSalary : float
- Allowances : float
- Deductions : float
- NetPay : float

Relationships:

- Each Payroll record is for one Employee (many-to-one).

C Payroll	
<input type="checkbox"/>	PayrollID : int «PK»
<input type="checkbox"/>	EmployeeID : int «FK»
<input type="checkbox"/>	PayDate : date
<input type="checkbox"/>	BasicSalary : float
<input type="checkbox"/>	Allowances : float
<input type="checkbox"/>	Deductions : float
<input type="checkbox"/>	NetPay : float

4. MySQL Schema Design

Employee Table:

sql

```
CREATE TABLE Employee (  
  EmployeeID INT PRIMARY KEY,  
  FirstName VARCHAR(50),  
  LastName VARCHAR(50),  
  DateOfBirth DATE,  
  Email VARCHAR(100),  
  PhoneNumber VARCHAR(20),  
  Address VARCHAR(255),  
  DepartmentID INT,  
  Position VARCHAR(50),  
  FOREIGN KEY (DepartmentID) REFERENCES Department(DepartmentID)  
);
```

Payroll Table:

sql

```
CREATE TABLE Payroll (  
  PayrollID INT PRIMARY KEY,  
  EmployeeID INT,  
  PayDate DATE,
```

```
BasicSalary FLOAT,  
Allowances FLOAT,  
Deductions FLOAT,  
NetPay FLOAT,  
FOREIGN KEY (EmployeeID) REFERENCES Employee(EmployeeID)  
);
```

5. Conclusion

This document consolidates the foundational design of the Employee HRMS Portal by outlining clear class diagrams for Employee, Department, and Payroll entities, along with corresponding MySQL schema definitions. These deliverables ensure a consistent data model and establish a solid groundwork for implementing business logic, user interfaces, and advanced features such as reporting, access control, and automation in subsequent phases of development.