**Employee Management System**

1. **Overview**
   1. **What:**

* Employee Management System is an application that manages employee data within an organization, including details about employees, departments (e.g., Operations, IT, Accounting, Finance, Admin, HR), attendance, and payroll.
* It provides features such as viewing employee details, viewing and handling attendance details, viewing and handling leave details (e.g., apply leaves, assign leave application to the respective manager, approve leaves), on-boarding (adding new employees), off-boarding (removing resigned employees), updating personal details (e.g., contact number, address, blood group), and updating job-specific details (e.g., employee ID, role, salary, department, tenure, skillset, KPIs handled, performance scores).
* The application uses MySQL as the DBMS.
* This is a web-based application that runs on a browser and is accessible within the Local Area Network (LAN) of the organization.
  1. **Why:**
* This application is useful for any organization (e.g., IT & ITES companies, banks, insurance companies, restaurants, warehouses) with employees driving the business.
* It can be used to sort and filter employees based on performance scores and provide yearly salary hikes and promotions based on the budget.
  1. **How:**
* Backend: MySQL, SQL and Python
* Frontend: Streamlit

1. **Database Structure**

**EMS**

**Employee**

Emp\_ID (Primary\_Key)

Emp\_Name

Dept\_ID

Role\_ID

Contact\_No

Email

Address

Date\_of\_Birth

Gender

Emergency\_Contact

Joining\_Date

Manager\_ID

**Department**

Dept\_ID (Primary\_Key)

Dept\_Name

Manager\_ID

**Roles**

Role\_ID (Primary\_Key)

Role\_Name

Role\_Desc

**Attendance**

Att\_Date

Emp\_ID

Attendance\_Status

**Leaves**

Leave\_Date

Emp\_ID

Approver\_ID

Approver\_Role

Approval\_Status

**Payroll**

Emp\_ID

Month\_Year

Salary

Deductions

Net\_Pay

**Performance**

Financial\_Year

Emp\_ID

Number\_Of\_Projects

Score

**Projects**

Project\_ID (Primary\_Key)

Project\_Name

Start\_Date

End\_Date

Dept\_ID

Manager\_ID

**Employee\_Project**

Emp\_ID

Project\_ID

Role\_in\_Project

Hours\_Spent

1. **Features and Roles**

**Employee (common to all):**

Mark attendance

View attendance status

Mark leave

View individual leaves

View performance details

View projects

**Human Resource Management:**

View employee

Add Employee

Delete Employee

Update details of the employee

Add payroll for new employee

Update payroll for employee

Add payroll for the month

Generate performance data and update details

**Department Head:**

Update role

Change department

Update manager

Add roles

**Manager:**

View leaves

View approval request

**Project Manager:**

Add project

Update project details

Add or update employee project

1. **Screenshot of MySQL workbench, all the SQL commands and tables.**
   1. Employee table:

**A screenshot of a computer

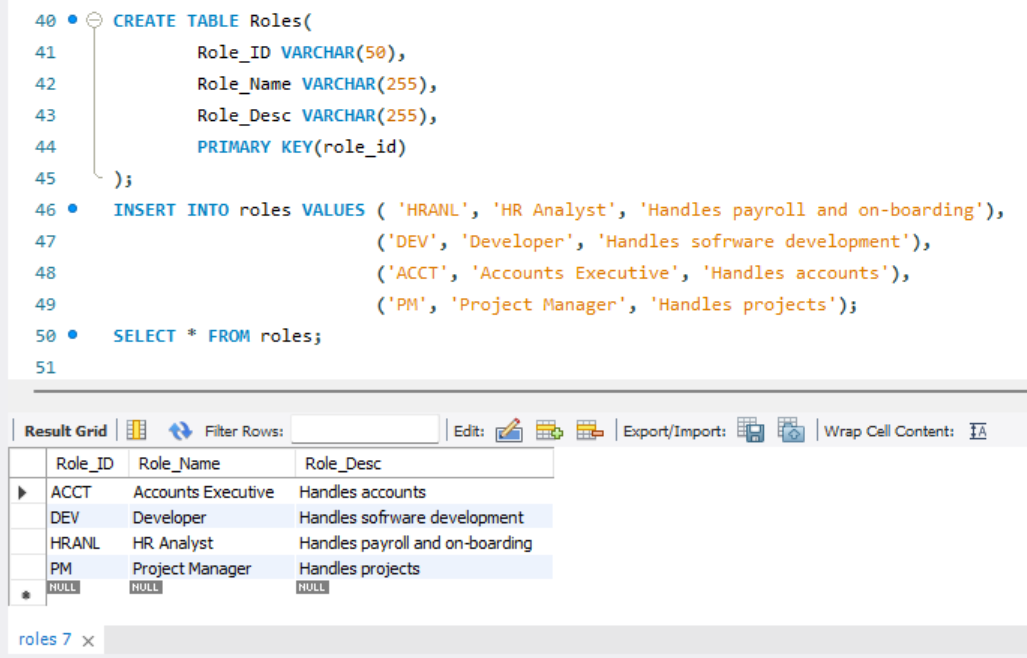
Description automatically generated**

* 1. Department table:

**A screenshot of a computer

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* 1. Roles table:

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* 1. Attendance table:

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* 1. Leaves table:

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* 1. Payroll table:

**A screenshot of a computer

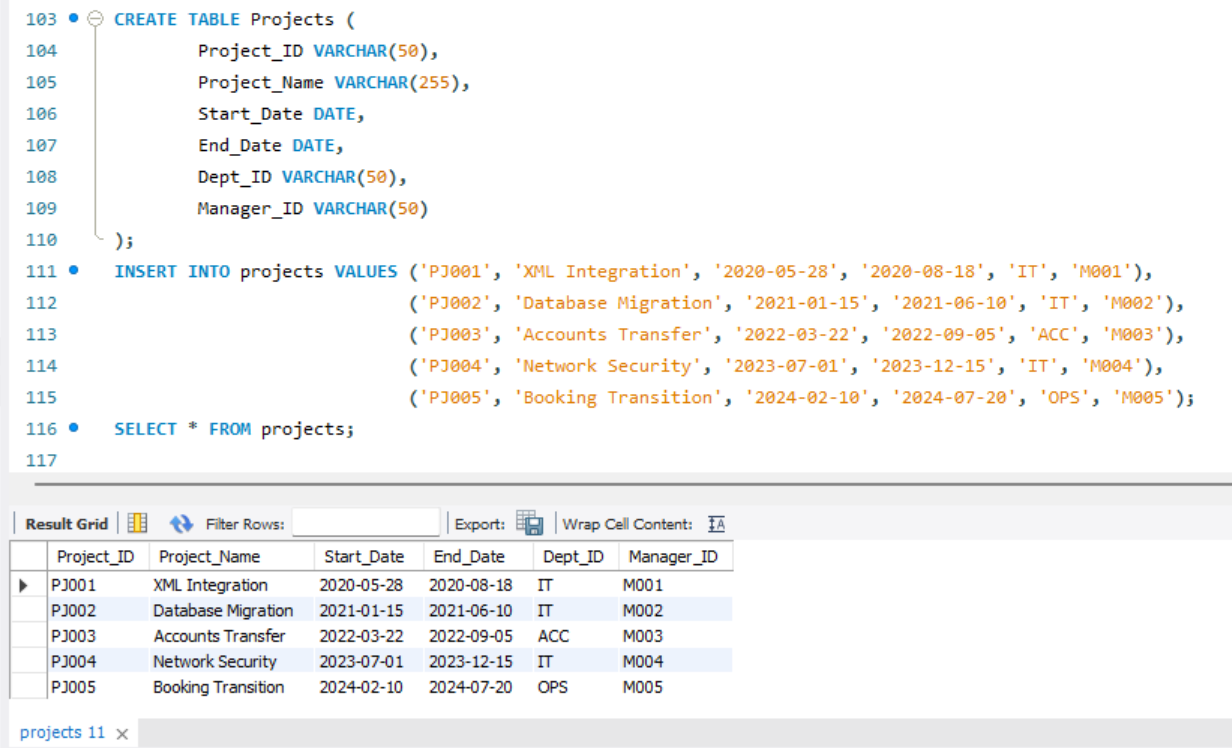
Description automatically generated**

* 1. Performance table:

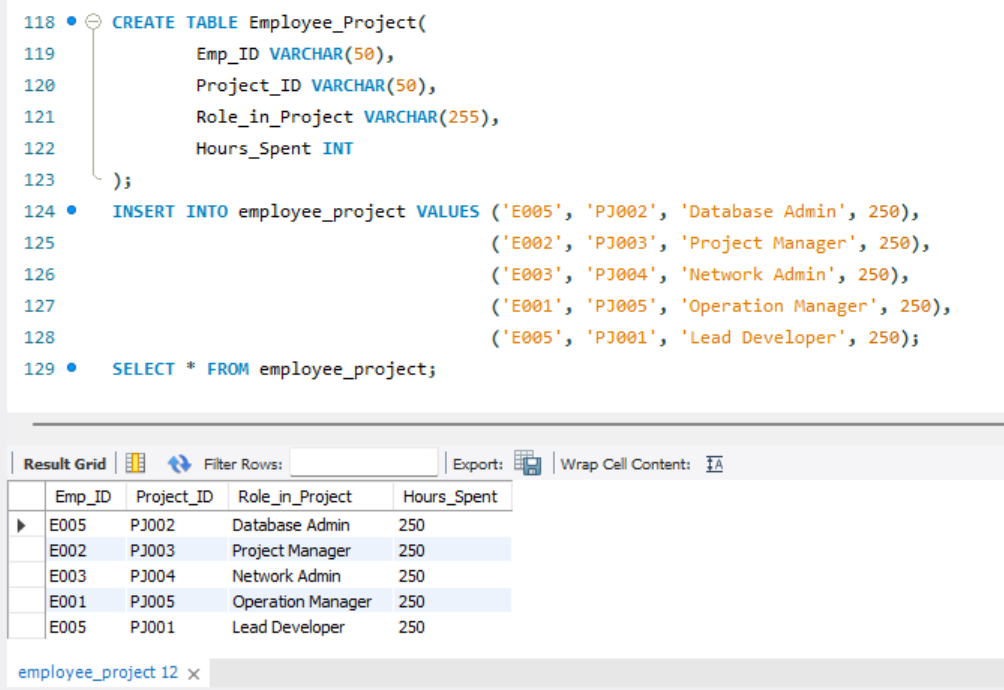
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* 1. Projects table:

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* 1. Employee\_Project table:

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1. **Main streamlit python code**
2. **Screenshot of streamlit application including all the features**