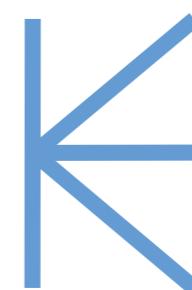


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# Employee Management Systems

Technology- Python, MySQL

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# Introduction to Employee Management Systems

The Employee Management System is a console-based application designed to manage employee data efficiently. The system allows users to perform various operations, including inserting new employee records, viewing all employees or specific employees by ID, updating existing employee details, and deleting employee records. This system utilizes a MySQL database to store and manage employee data, providing a user-friendly interface for interacting with the database through a main menu-driven approach.



# Key Features of EMS

- **Insert Employee:** Add new employee records into the database.
- **View Employees:** Display a list of all employees.
- **View Employee by ID:** Retrieve and display details of a specific employee by their ID.
- **Update Employee:** Modify details of an existing employee.
- **Delete Employee:** Remove an employee record from the database

# Technologies Used

1. **Python**: Used for developing the console-based application.
2. **MySQL**: The relational database for storing employee data.
3. **MySQL Connector**: Facilitates communication between the Python application and the MySQL database.

# DATABASE STRUCTURE

Database Name: AmdocsProject

Table Name: Employee

Fields:

- Employee\_Id (int)
- Name (varchar)
- Department (varchar)
- Age (int)
- Email (varchar)

# PROJECT WORKFLOW

- **Authentication:** User inputs MySQL credentials for connecting to the database.
- **Main Menu:** Users can choose between various options like Insert, View, Update, Delete, or Exit.
- **Database Interaction:** The application performs the selected action on the MySQL database.
- **Result:** The result of the operation (insert/view/update/delete) is displayed in the console.



# CODE IMPLEMENTATION

- Main Menu: Provides options to the user to perform operations.
- InsertData.py: Inserts a new employee into the database.
- ViewAll.py: Displays all employee records.
- ViewbyId.py: Displays an employee's details based on their ID.
- UpdateEmp.py: Updates an existing employee's details.
- DeleteEmp.py: Deletes an employee record from the database.

# OUTPUT

## Authentication for Database Connection

```
C:\Users\aaKri\PycharmProjects\AmdocsDemo\venv\Scripts\p
```

```
Enter MySQL username: root
```

```
Enter MySQL database password: 18082002
```

# OUTPUT

## MAIN MENU SHOW

--- Employee Management System ---

1. Insert Employee
2. View Employees
3. View Employee by ID
4. Update Employee
5. Delete Employee
6. Exit

Enter your choice:

# OUTPUT

## INSERT EMPLOYEE

--- Employee Management System ---

1. Insert Employee
2. View Employees
3. View Employee by ID
4. Update Employee
5. Delete Employee
6. Exit

Enter your choice: 1

Enter Id: 9

Enter Name: Sam

Enter Department: Tech

Enter Age: 24

Enter Email: sam@gmail.com

Employee Data Inserted Successfully

# VIEW ALL EMPLOYEE

--- Employee Management System ---

1. Insert Employee
2. View Employees
3. View Employee by ID
4. Update Employee
5. Delete Employee
6. Exit

Enter your choice: 2

Employee Records:

ID: 1, Name: Aakriti, Department: Socom, Salary: 22, Email: aakriti@gmail.com  
ID: 2, Name: Anand, Department: Marketing, Salary: 25, Email: shubh@gmail.com  
ID: 3, Name: Ravi Kumar, Department: HR, Salary: 24, Email: ravi.kumar@example.com  
ID: 4, Name: Priya Sharma, Department: Finance, Salary: 23, Email: priya.sharma@example.com  
ID: 5, Name: Amit Verma, Department: IT, Salary: 29, Email: amit.verma@example.com  
ID: 6, Name: Sneha Patel, Department: Marketing, Salary: 22, Email: sneha.patel@example.com  
ID: 8, Name: Kartikey, Department: Socom, Salary: 23, Email: kartikey@gmail.com  
ID: 9, Name: Sam, Department: Tech, Salary: 24, Email: sam@gmail.com

# VIEW EMPLOYEE BY ID

--- Employee Management System ---

1. Insert Employee
2. View Employees
3. View Employee by ID
4. Update Employee
5. Delete Employee
6. Exit

Enter your choice: 3

Enter employee ID: 4

ID: 4, Name: Priya Sharma, Department: Finance, Salary: 23, Email: priya.sharma@example.com

# UPDATE EMPLOYEE

--- Employee Management System ---

- 1. Insert Employee
- 2. View Employees
- 3. View Employee by ID
- 4. Update Employee
- 5. Delete Employee
- 6. Exit

Enter your choice: 4

Enter employee ID to update: 2

Current details: ID: 2, Name: Anand, Department: Marketing, Age: 25, Email: shubh@gmail.com

Enter new name (or leave blank to keep current):

Enter new department (or leave blank to keep current):

Enter new age (or leave blank to keep current):

Enter new email (or leave blank to keep current): anand@gmail.com

Employee details updated successfully.

## UPDATE EMPLOYEE

|   | Employee_Id | Name         | Department | Age | Email                    |
|---|-------------|--------------|------------|-----|--------------------------|
| ▶ | 1           | Aakriti      | Socom      | 22  | aakriti@gmail            |
|   | 2           | Anand        | Marketing  | 25  | anand@gmail.com          |
|   | 3           | Ravi Kumar   | HR         | 24  | ravi.kumar@example.com   |
|   | 4           | Priya Sharma | Finance    | 23  | priya.sharma@example.com |
|   | 5           | Amit Verma   | IT         | 29  | amit.verma@example.com   |
|   | 6           | Sneha Patel  | Marketing  | 22  | sneha.patel@example.com  |
|   | 8           | Kartikey     | Socom      | 23  | kartikey@gmail.com       |
|   | 9           | Sam          | Tech       | 24  | sam@gmail.com            |

# DELETE EMPLOYEE

--- Employee Management System ---

- 1. Insert Employee
- 2. View Employees
- 3. View Employee by ID
- 4. Update Employee
- 5. Delete Employee
- 6. Exit

Enter your choice: 5

Enter employee ID to delete: 9

Employee deleted successfully.

## DELETE EMPLOYEE

|   | Employee_Id | Name         | Department | Age | Email                    |
|---|-------------|--------------|------------|-----|--------------------------|
| ▶ | 1           | Aakriti      | Socom      | 22  | aakriti@gmail            |
|   | 2           | Anand        | Marketing  | 25  | anand@gmail.com          |
|   | 3           | Ravi Kumar   | HR         | 24  | ravi.kumar@example.com   |
|   | 4           | Priya Sharma | Finance    | 23  | priya.sharma@example.com |
|   | 5           | Amit Verma   | IT         | 29  | amit.verma@example.com   |
|   | 6           | Sneha Patel  | Marketing  | 22  | sneha.patel@example.com  |
|   | 8           | Kartikey     | Socom      | 23  | kartikey@gmail.com       |

# Thanks!