create database hr\_managment;

use hr\_managment;

2.1 Employees Table:

CREATE TABLE Employees (

EmployeeID INT AUTO\_INCREMENT NOT NULL,

FirstName VARCHAR(100) NOT NULL,

LastName VARCHAR(100) NOT NULL,

Email VARCHAR(255) NOT NULL UNIQUE,

Phone VARCHAR(15) NOT NULL,

HireDate DATE NOT NULL,

DepartmentID INT NOT NULL,

ManagerID INT,

Salary DECIMAL(10, 2),

PRIMARY KEY (EmployeeID),

FOREIGN KEY (DepartmentID) REFERENCES Departments(DepartmentID) ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (ManagerID) REFERENCES Employees(EmployeeID) ON DELETE SET NULL ON UPDATE CASCADE);

=========================================

2.2.Departments Table:

CREATE TABLE Departments (

DepartmentID INT NOT NULL,

DepartmentName VARCHAR(100) NOT NULL,

PRIMARY KEY (DepartmentID)

);

=========================================

2.3. PerformanceReviews:

CREATE TABLE PerformanceReviews (

ReviewID INT AUTO\_INCREMENT NOT NULL,

EmployeeID INT NOT NULL,

ReviewDate DATE NOT NULL,

PerformanceScore VARCHAR(15) NOT NULL,

Comments VARCHAR(255) NOT NULL,

PRIMARY KEY (ReviewID),

FOREIGN KEY (EmployeeID) REFERENCES Employees(EmployeeID)

);

==========================================

2.4. Payroll Table:

CREATE TABLE Payroll(

PayrollID int AUTO\_INCREMENT NOT NULL,

EmployeeID int NOT NULL,

PaymentDate date NOT NULL,

Amount DECIMAL (10,2),

PaymentMethod varchar(255),

PRIMARY KEY (PayrollID),

FOREIGN KEY (EmployeeID) REFERENCES employees (EmployeeID))

==========================================

-- Inserting data in employees table:-

INSERT INTO Employees () VALUES

('John', 'Doe', 'johndoe@example.com', '1234567890', '2020-01-15', 1, NULL, 60000), -- Manager of HR (No manager assigned)

('Jane', 'Smith', 'janesmith@example.com', '1234567891', '2021-03-22', 2, NULL, 75000), -- Manager of Finance (No manager assigned)

('Michael', 'Johnson', 'michaelj@example.com', '1234567892', '2019-08-12', 3, NULL, 80000), -- Manager of IT (No manager assigned)

('Emily', 'Davis', 'emilydavis@example.com', '1234567893', '2022-07-05', 4, NULL, 55000), -- Manager of Sales (No manager assigned)

('Chris', 'Brown', 'chrisbrown@example.com', '1234567894', '2020-06-30', 5, NULL, 70000), -- Manager of Marketing (No manager assigned)

('Jessica', 'Wilson', 'jessicawilson@example.com', '1234567895', '2021-11-18', 6, NULL, 65000), -- Manager of Operations (No manager assigned)

('Matthew', 'Moore', 'matthewmoore@example.com', '1234567896', '2018-02-25', 7, NULL, 72000), -- Manager of Customer Support (No manager assigned)

('Olivia', 'Taylor', 'oliviataylor@example.com', '1234567897', '2019-05-19', 8, NULL, 90000), -- Manager of R&D (No manager assigned)

('David', 'Anderson', 'davidanderson@example.com', '1234567898', '2020-10-14', 9, NULL, 85000), -- Manager of Legal (No manager assigned)

('Sophia', 'Thomas', 'sophiathomas@example.com', '1234567899', '2021-12-01', 10, NULL, 78000); -- Manager of Procurement (No manager assigned)

===================================

insert data in department table :\_

INSERT INTO Departments () VALUES

(1, 'Human Resources', NULL),

(2, 'Finance', NULL),

(3, 'IT', NULL),

(4, 'Sales', NULL),

(5, 'Marketing', NULL),

(6, 'Operations', NULL),

(7, 'Customer Support', NULL),

(8, 'Research and Development', NULL),

(9, 'Legal', NULL),

(10, 'Procurement', NULL);

===================================

insert data in payroll table :-

INSERT INTO Payroll (EmployeeID, PaymentDate, Amount, PaymentMethod) VALUES

(31, '2025-01-01', 60000, 'Bank Transfer'), -- John Doe (HR Department)

(32, '2025-01-01', 75000, 'Check'), -- Jane Smith (Finance Department)

(33, '2025-01-01', 80000, 'Bank Transfer'), -- Michael Johnson (IT Department)

(34, '2025-01-01', 55000, 'Check'), -- Emily Davis (Sales Department)

(35, '2025-01-01', 70000, 'Bank Transfer'), -- Chris Brown (Marketing Department)

(36, '2025-01-01', 65000, 'Check'), -- Jessica Wilson (Operations Department)

(37, '2025-01-01', 72000, 'Bank Transfer'), -- Matthew Moore (Customer Support Department)

(38, '2025-01-01', 90000, 'Check'), -- Olivia Taylor (R&D Department)

(39, '2025-01-01', 85000, 'Bank Transfer'), -- David Anderson (Legal Department)

(40, '2025-01-01', 78000, 'Check'); -- Sophia Thomas (Procurement Department)

====================================

insert data in performancereviews tabl:-

INSERT INTO PerformanceReviews () VALUES

(1,31 ,'2025-01-10', 'Excellent', 'Outstanding performance in HR management, consistently exceeding expectations.'),

(2,32,'2025-01-10', 'Good', 'Strong performance in Finance, good team player and manager.'),

(3,33 ,'2025-01-10', 'Excellent', 'Consistently performs well in IT, resolves technical issues quickly and efficiently.'),

(4,34, '2025-01-10', 'Good', 'Good sales numbers and leadership, could improve team engagement.'), -- Emily Davis (Sales)

(5,35, '2025-01-10', 'Average', 'Marketing efforts have been average, some room for improvement in campaigns.'),

(6,36, '2025-01-10', 'Excellent', 'Great leadership in Operations, highly organized and productive team.'),

(7,37, '2025-01-10', 'Good', 'Good performance in customer support, responds to inquiries in a timely manner.'),

(8,38, '2025-01-10', 'Excellent', 'Highly innovative in R&D, leads projects with creativity and efficiency.'),

(9,39, '2025-01-10', 'Good', 'Solid performance in legal, meets deadlines and provides good legal counsel.'),

(10,40,'2025-01-10', 'Average', 'Procurement department is doing well, but there is potential for better vendor relationships.' );

=====================================

update manager rows in department table :

UPDATE Departments SET ManagerID = 31 WHERE DepartmentID = 1; UPDATE Departments SET ManagerID = 32 WHERE DepartmentID = 2; UPDATE Departments SET ManagerID = 33 WHERE DepartmentID = 3; UPDATE Departments SET ManagerID = 34 WHERE DepartmentID = 4; UPDATE Departments SET ManagerID = 35 WHERE DepartmentID = 5;

UPDATE Departments SET ManagerID = 36 WHERE DepartmentID = 6; UPDATE Departments SET ManagerID = 37 WHERE DepartmentID = 7; UPDATE Departments SET ManagerID = 38 WHERE DepartmentID = 8; UPDATE Departments SET ManagerID = 39 WHERE DepartmentID = 9; UPDATE Departments SET ManagerID = 40 WHERE DepartmentID = 10;

====================================

---------------------------------Queries---------------------------------

01) Retrieve the names and contact details of employees hired after January 1, 2023.

==>SELECT FirstName, LastName, Email, Phone, HireDate

FROM Employees

WHERE HireDate > '2023-01-01';

---------------------------------------------------------------------------

02)Find the total payroll amount paid to each department.

==>SELECT D.DepartmentName, SUM(P.Amount) AS TotalPayroll

FROM Payroll P

JOIN Employees E ON P.EmployeeID = E.EmployeeID

JOIN Departments D ON E.DepartmentID = D.DepartmentID

GROUP BY D.DepartmentName;

----------------------------------------------------------------------------

03)List all employees who have not been assigned a manager.

==>SELECT FirstName, LastName, DepartmentID, ManagerID

FROM Employees

WHERE ManagerID IS NULL;

-----------------------------------------------------------------------------

04) Retrieve the highest salary in each department along with the employee’s name.

==>SELECT D.DepartmentName, E.FirstName, E.LastName, E.Salary

FROM Employees E

JOIN Departments D ON E.DepartmentID = D.DepartmentID

WHERE E.Salary = (

SELECT MAX(Salary)

FROM Employees

WHERE DepartmentID = E.DepartmentID

);

------------------------------------------------------------------------------

05)Find the most recent performance review for each employee.

==>SELECT E.FirstName, E.LastName, PR.ReviewDate, PR.PerformanceScore, PR.Comments

FROM Employees E

JOIN PerformanceReviews PR ON E.EmployeeID = PR.EmployeeID

WHERE PR.ReviewDate = (

SELECT MAX(ReviewDate)

FROM PerformanceReviews

WHERE EmployeeID = E.EmployeeID

);

-----------------------------------------------------------------------------

06)Count the number of employees in each department.

==>SELECT D.DepartmentName, COUNT(E.EmployeeID) AS EmployeeCount

FROM Employees E

JOIN Departments D ON E.DepartmentID = D.DepartmentID

GROUP BY D.DepartmentName;

-----------------------------------------------------------------------------

07)List all employees who have received a performance score of "Excellent." Identify the most frequently used payment method in payroll.

7.1)-Employees who received an "Excellent" performance score:

==>SELECT E.FirstName, E.LastName, PR.PerformanceScore

FROM Employees E

JOIN PerformanceReviews PR ON E.EmployeeID = PR.EmployeeID

WHERE PR.PerformanceScore = 'Excellent';

7.2)-Most frequently used payment method in payroll:

==>SELECT PaymentMethod, COUNT(\*) AS Frequency

FROM Payroll

GROUP BY PaymentMethod

ORDER BY Frequency DESC

LIMIT 1;

------------------------------------------------------------------------------

08)Retrieve the top 5 highest-paid employees along with their departments.

==>SELECT E.FirstName, E.LastName, E.Salary, D.DepartmentName

FROM Employees E

JOIN Departments D ON E.DepartmentID = D.DepartmentID

ORDER BY E.Salary DESC

LIMIT 5;

--------------------------------------------------------------------------------

09)Show details of all employees who report directly to a specific manager (e.g., ManagerID = 101).

==>SELECT E.FirstName, E.LastName, E.Email, E.Phone, D.DepartmentName

FROM Employees E

JOIN Departments D ON E.DepartmentID = D.DepartmentID

WHERE E.ManagerID = 101;

===================End==========================