SQL Assignment: Table Creation and Queries Performed on: [1/4/2025]

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Question 1: Table Creation CREATE DATABASE CompanyDB;

USE CompanyDB;

CREATE TABLE Employees ( EmpID INT PRIMARY KEY,

Name VARCHAR(100) NOT NULL, Age INT,

Department VARCHAR(50), Salary DECIMAL(10, 2),

JoiningDate DATE, City VARCHAR(50)

);

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Question 2: Insert Records

INSERT INTO Employees VALUES

(1, 'Amit Sharma', 28, 'IT', 60000.00, '2023-04-10', 'Pune'),

(2, 'Neha Verma', 32, 'HR', 48000.00, '2022-01-15', 'Mumbai'),

(3, 'Rahul Mehta', 26, 'Finance', 52000.00, '2023-07-01', 'Delhi'),

(4, 'Sonal Desai', 35, 'IT', 75000.00, '2021-10-20', 'Pune'),

(5, 'Vikas Jain', 30, 'Sales', 45000.00, '2020-06-12', 'Mumbai'),

(6, 'Priya Singh', 29, 'HR', 46000.00, '2021-11-23', 'Nagpur'),

(7, 'Rohan Kulkarni', 27, 'IT', 65000.00, '2022-08-30', 'Mumbai'),

(8, 'Anjali Rao', 24, 'Marketing', 40000.00, '2023-02-05', 'Pune'),

(9, 'Deepak Patil', 31, 'Finance', 55000.00, '2019-03-18', 'Pune'),

(10, 'Meena Joshi', 33, 'IT', 82000.00, '2022-12-12', 'Mumbai');

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Basic Queries

Question 3: Display all records SELECT \* FROM Employees;

Question 4: Display Name, Department, and Salary

SELECT Name, Department, Salary FROM Employees;

Question 5: Employees earning more than Rs. 50,000 SELECT \* FROM Employees WHERE Salary > 50000;

Question 6: Employees from IT Department

SELECT \* FROM Employees WHERE Department = 'IT';

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Intermediate Queries

Question 7: Employees aged between 25 and 35

SELECT \* FROM Employees WHERE Age BETWEEN 25 AND 35;

Question 8: Employees joined after 1st Jan 2022

SELECT \* FROM Employees WHERE JoiningDate > '2022-01-01';

Question 9: Employees from Mumbai or Pune

SELECT \* FROM Employees WHERE City IN ('Mumbai', 'Pune');

Question 10: Total number of employees per department

SELECT Department, COUNT(\*) AS TotalEmployees FROM Employees GROUP BY Department;

Question 11: Average salary per department

SELECT Department, AVG(Salary) AS AverageSalary FROM Employees GROUP BY Department;

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Advanced Queries

Question 12: Employee with the highest salary

SELECT \* FROM Employees WHERE Salary = (SELECT MAX(Salary) FROM Employees);

Question 13: Top 3 highest-paid employees

SELECT \* FROM Employees ORDER BY Salary DESC LIMIT 3;

Question 14: Sort by Name (ASC) and Salary (DESC) SELECT \* FROM Employees ORDER BY Name ASC, Salary DESC;

Question 15: Increase IT department salary by 10%

UPDATE Employees SET Salary = Salary \* 1.10 WHERE Department = 'IT';

Question 16: Delete employees from HR department DELETE FROM Employees WHERE Department = 'HR';

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Projects Table and Joins

Question 17: Create Projects table CREATE TABLE Projects (

ProjectID INT PRIMARY KEY,

ProjectName VARCHAR(100), EmpID INT,

StartDate DATE, EndDate DATE,

FOREIGN KEY (EmpID) REFERENCES Employees(EmpID)

);

Question 18: Insert data into Projects INSERT INTO Projects VALUES

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| (101, | 'Inventory App', 1, '2023-06-01', '2023-12-01'), |
| (102, | 'Payroll System', 3, '2023-03-15', '2023-09-15'), |
| (103, | 'CRM Platform', 4, '2024-01-10', '2024-07-10'), |
| (104, | 'Data Analysis Tool', 7, '2023-11-05', '2024-05-05'); |

Display all projects SELECT \* FROM Projects;

Question 19: Employees on projects after 1st Jan 2023 SELECT E.Name, P.ProjectName

FROM Employees E

INNER JOIN Projects P ON E.EmpID = P.EmpID WHERE P.StartDate > '2023-01-01';

Question 20: Employees not assigned to any project SELECT E.Name

FROM Employees E

LEFT JOIN Projects P ON E.EmpID = P.EmpID WHERE P.ProjectID IS NULL;