SQL Table Creation

Here is **Assignment-I** with **questions and their respective SQL answers**, based on the structure shown in your uploads:



Department of Computer Science & Engineering, RCCIIT

Problem 1.1: Create the following tables with proper constraints.

➤ Table: DEPT

```
CREATE TABLE DEPT (
DEPTNO INT PRIMARY KEY,
DNAME VARCHAR(50) NOT NULL,
DLOC VARCHAR(50)
);
```

➤ Table: EMP

```
CREATE TABLE EMP (
EMPNO INT PRIMARY KEY,
ENAME VARCHAR(50),
JOB VARCHAR(50),
MGR INT,
DOB DATE,
SAL DECIMAL(10,2),
COMM DECIMAL(10,2),
DEPTNO INT,
FOREIGN KEY (DEPTNO) REFERENCES DEPT(DEPTNO),
FOREIGN KEY (MGR) REFERENCES EMP(EMPNO)
);
```

Problem 1.2: Insert values into DEPT table.

```
INSERT INTO DEPT VALUES (10, 'MANAGEMENT', 'MAIN BLOCK');
INSERT INTO DEPT VALUES (20, 'DEVELOPMENT', 'MANUFACTURING UNIT');
INSERT INTO DEPT VALUES (30, 'MAINTAINANCE', 'MAIN BLOCK');
INSERT INTO DEPT VALUES (40, 'TRANSPORT', 'ADMIN BLOCK');
INSERT INTO DEPT VALUES (50, 'SALES', 'HEAD OFFICE');
```

Problem 1.3: Insert values into EMP table.

```
INSERT INTO EMP VALUES (7369, 'SMITH', 'CLERK', 7566, '1980-12-17', 800, 0, 20);
INSERT INTO EMP VALUES (7399, 'ASANT', 'SALESMAN', 7566, '1981-02-20', 1600, 300, 20);
INSERT INTO EMP VALUES (7499, 'ALLEN', 'SALESMAN', 7698, '1981-02-20', 1600, 300, 30);
INSERT INTO EMP VALUES (7521, 'WARD', 'SALESMAN', 7698, '1982-02-22', 1250, 500, 30);
INSERT INTO EMP VALUES (7566, 'JONES', 'MANAGER', 7839, '1981-02-28', 5975, 500, 20);
INSERT INTO EMP VALUES (7698, 'BLAKE', 'MANAGER', 7839, '1979-01-09', 2950, 1400, 30);
INSERT INTO EMP VALUES (7611, 'SCOTT', 'HOD', 7839, '1976-06-12', 3000, 0, 10);
INSERT INTO EMP VALUES (7839, 'CLARK', 'CEO', NULL, '1979-03-16', 7999, 0, 10);
INSERT INTO EMP VALUES (7368, 'FORD', 'SUPERVIS', 7366, '1980-12-17', 8000, 0, 40);
INSERT INTO EMP VALUES (7599, 'ALLEY', 'SALESMAN', 7698, '1981-02-20', 1600, 300, 30);
INSERT INTO EMP VALUES (7421, 'DRANK', 'CLERCK', 7698, '1982-01-22', 1250, 500, 30);
```

Done! Assignment-I includes table creation and data insertion as its main goal.

Would you like me to continue with Assignment-II solutions (which include SQL queries based on the data you just inserted)?

Great! Here's the **complete solution to Assignment-II**, including both **questions and SQL answers**, based on your uploaded document:

ASSIGNMENT-II

Department of Computer Science & Engineering, RCCIIT

Problem 2.1: Insert 5 records into dept table.

(Already done in Assignment-I)

☑ Problem 2.2: Insert 11 records into emp table.

(Already done in Assignment-I)

Problem 2.3: Find the name of all employees.

sql

SELECT ENAME FROM EMP;

Problem 2.4: Delete only those who are working as supervisors.

sql

DELETE FROM EMP WHERE JOB = 'SUPERVIS';

✓ Problem 2.5: Delete the rows whose empno is 7599.
sql
DELETE FROM EMP WHERE EMPNO = 7599;
☑ Problem 2.6: List the records in the emp table ordered by salary in
ascending order.
sql
SELECT * FROM EMP ORDER BY SAL ASC;
☑ Problem 2.7: List the records in the emp table ordered by salary in
descending order.
sql
SELECT * FROM EMP ORDER BY SAL DESC;
✓ Problem 2.8: Display only those employees whose deptno is 30.
sql
SELECT * FROM EMP WHERE DEPTNO = 30;
Problem 2.9: Display deptno from the table employee avoiding
duplicated values.

Problem 2.10: List the records in sorted order of their employees.

(Assuming sort by ENAME)

sql

SELECT * FROM EMP ORDER BY ENAME;

Problem 2.11: List the employee names whose commission is null.

sql

SELECT ENAME FROM EMP WHERE COMM IS NULL;

Problem 2.12: List the employee names and the department name in which they are working.

sql

SELECT E.ENAME, D.DNAME
FROM EMP E
JOIN DEPT D ON E.DEPTNO = D.DEPTNO;

Problem 2.13: Display name of the dept. with deptno 20.

sql

SELECT DNAME FROM DEPT WHERE DEPTNO = 20;

Problem 2.14: List ename whose commission is NULL.

(Same as Problem 2.11)

sql

SELECT ENAME FROM EMP WHERE COMM IS NULL;

☑ Problem 2.15: List ename whose manager is not NULL.

sql

SELECT ENAME FROM EMP WHERE MGR IS NOT NULL;

Would you like me to continue with Assignment-III next?

Here is the **complete Assignment-III** with **questions and SQL answers** based on your uploaded document:

ASSIGNMENT-III

Department of Computer Science & Engineering, RCCIIT

Problem 3.1: Select all employees from department numbers 7369, 7499.

(Seems like a mistake — should be EMPNO, not DEPTNO)

SELECT * FROM EMP WHERE EMPNO IN (7369, 7499);

Problem 3.2: Display all the details of the records whose employee name starts with 'S'.

sql

SELECT * FROM EMP WHERE ENAME LIKE 'S%';

Problem 3.3: Display all the details of the records whose employee name does not start with 'S'.

sql

SELECT * FROM EMP WHERE ENAME NOT LIKE 'S%';

Problem 3.4: Display the rows whose empno ranges from 7500 to 7600.

sql

SELECT * FROM EMP WHERE EMPNO BETWEEN 7500 AND 7600;

Problem 3.5: Display the rows whose empno not in range from 7500 to 7600.

Problem 3.6: Calculate the square root of the salary of all employees.

sql

SELECT ENAME, SAL, SQRT(SAL) AS SALARY_SQRT FROM EMP;

Problem 3.7: Count the total records in the emp table.

sql

SELECT COUNT(*) AS TOTAL_EMPLOYEES FROM EMP;

Problem 3.8: Calculate the total and average salary amount of the emp table.

sql

SELECT SUM(SAL) AS TOTAL_SALARY, AVG(SAL) AS AVERAGE_SALARY FROM EMP;

Problem 3.9: Determine the max and min salary and rename the column as max_salary and min_salary.

sql

SELECT MAX(SAL) AS MAX_SALARY, MIN(SAL) AS MIN_SALARY FROM EMP;

✓ Problem 3.10: Display total salary spent for employees.
sql
SELECT SUM(SAL) AS TOTAL_SALARY FROM EMP;
Problem 3.11: Display total salary spent for each job category.
sql
SELECT JOB, SUM(SAL) AS SALARY_SPENT FROM EMP GROUP BY JOB;
☑ Problem 3.12: List all employee names, salary and 15% rise in
salary.
sql
SELECT ENAME, SAL, SAL * 1.15 AS RAISED_SALARY FROM EMP;
☑ Problem 3.13: List all employees which start with either B or C.
sql
SELECT * FROM EMP WHERE ENAME LIKE 'B%' OR ENAME LIKE 'C%';

☑ Problem 3.14: Display number of employees working in each

department and their department name.

SELECT D.DNAME, COUNT(*) AS EMP_COUNT FROM EMP E JOIN DEPT D ON E.DEPTNO = D.DEPTNO GROUP BY D.DNAME;

Problem 3.15: Display the employee names whose name contains up to 5 characters.

sql

SELECT ENAME FROM EMP WHERE LENGTH(ENAME) <= 5;

Problem 3.16: List all employee names and their manager whose manager is 7499 or 7566 or 7611.

sql

SELECT ENAME, MGR FROM EMP WHERE MGR IN (7499, 7566, 7611);

Problem 3.17: Find how many job titles are available in employee table.

sql

SELECT COUNT(DISTINCT JOB) AS TOTAL_JOB_TITLES FROM EMP;

Problem 3.18: What is the difference between maximum and minimum salaries of Employees in the organization?

SELECT MAX(SAL) - MIN(SAL) AS SALARY_DIFFERENCE FROM EMP;

Problem 3.19: Find no. of dept in employee table.

sql

SELECT COUNT(DISTINCT DEPTNO) AS TOTAL_DEPARTMENTS FROM EMP;

Problem 3.20: Display the names and DOB of all employees who were born in February.

sql

SELECT ENAME, DOB FROM EMP WHERE TO_CHAR(DOB, 'MM') = '02';
-- Use `MONTH(DOB) = 2` in MySQL

☑ Problem 3.21: List out the employee names whose names start with S and ends with h.

sql

SELECT ENAME FROM EMP WHERE ENAME LIKE 'S%H';

☑ Problem 3.22: List out the employee names whose salary is greater than 5000, 6000.

Or simply:
SELECT ENAME FROM EMP WHERE SAL > 6000;
✓ Problem 3.23: List all employees which start with either J or T.
sql
SELECT * FROM EMP WHERE ENAME LIKE 'J%' OR ENAME LIKE 'T%';
☑ Problem 3.24: List all employee names and their salaries, whose
salary lies between 1500/- and 3500/- both inclusive.
sql
SELECT ENAME, SAL FROM EMP WHERE SAL BETWEEN 1500 AND 3500;
☑ Problem 3.25: List all employee names and jobs, whose job title
includes M or P.
sql
241
SELECT ENAME, JOB FROM EMP WHERE JOB LIKE '%M%' OR JOB LIKE '%P%';
V Problem 2.26: List all ampleyees who belong to the densytment 10
Problem 3.26: List all employees who belong to the department 10 or 20.
UI ZU.
sql

Problem 3.27: Display number of employees working in each department and their department name.

(Same as Problem 3.14)

sql

SELECT D.DNAME, COUNT(*) AS EMP_COUNT FROM EMP E JOIN DEPT D ON E.DEPTNO = D.DEPTNO GROUP BY D.DNAME;

Let me know if you'd like **Assignment-IV** next.

Here is the **complete Assignment–IV** with all **questions and SQL answers** based on your uploaded image:

ASSIGNMENT-IV

Department of Computer Science & Engineering, RCCIIT

Problem 4.1: Select all employees from 'maintenance' and 'development' dept.

```
SELECT *

FROM EMP E

JOIN DEPT D ON E.DEPTNO = D.DEPTNO

WHERE D.DNAME IN ('MAINTENANCE', 'DEVELOPMENT');
```

Problem 4.2: Display all employee names and salary whose salary is greater than minimum salary of the company and job title starts with 'M'.

```
SELECT ENAME, SAL
FROM EMP
WHERE SAL > (SELECT MIN(SAL) FROM EMP) AND JOB LIKE 'M%';
```

Problem 4.3: Issue a query to find all the employees who work in the same job as Jones.

```
SELECT *
FROM EMP
WHERE JOB = (SELECT JOB FROM EMP WHERE ENAME = 'JONES');
```

Problem 4.4: Issue a query to display information about employees who earn more than any employee in dept 30.

```
SELECT *
FROM EMP
```

✓ Problem 4.5: Display the employees who have the same job as Jones and whose salary >= Ford's.

```
SELECT *

FROM EMP

WHERE JOB = (SELECT JOB FROM EMP WHERE ENAME = 'JONES')

AND SAL >= (SELECT SAL FROM EMP WHERE ENAME = 'FORD');
```

Problem 4.6: Display the name and job of all employees in dept 20 who have a job that someone in the Management dept has as well.

(Assuming 'Management' is a department name)

```
SELECT E.ENAME, E.JOB
FROM EMP E
JOIN DEPT D ON E.DEPTNO = D.DEPTNO
WHERE E.DEPTNO = 20
AND E.JOB IN (
SELECT E2.JOB
FROM EMP E2
JOIN DEPT D2 ON E2.DEPTNO = D2.DEPTNO
WHERE D2.DNAME = 'MANAGEMENT'
);
```

Problem 4.7: List all employees whose salary is greater than the average salary of their own department.

```
SELECT *
FROM EMP E1
WHERE SAL > (
SELECT AVG(SAL)
FROM EMP E2
WHERE E2.DEPTNO = E1.DEPTNO
);
```

Problem 4.8: Display emp name, job, department name where each employee works.

```
SELECT E.ENAME, E.JOB, D.DNAME
FROM EMP E
JOIN DEPT D ON E.DEPTNO = D.DEPTNO;
```

Problem 4.9: Employees having the same job as employees in 'Mainblock'. (use multiple subqueries)

```
SELECT *
FROM EMP
WHERE JOB IN (
SELECT JOB
FROM EMP
WHERE DEPTNO IN (
SELECT DEPTNO
FROM DEPT
WHERE LOC = 'MAINBLOCK'
)
);
```

Problem 4.10: List the employees in dept 10 with the same job as anyone in the development department.

```
SELECT *
FROM EMP
WHERE DEPTNO = 10
AND JOB IN (
SELECT E2.JOB
FROM EMP E2
JOIN DEPT D ON E2.DEPTNO = D.DEPTNO
WHERE D.DNAME = 'DEVELOPMENT'
);
```

Problem 4.11: List employees with same job and salary as 'FORD'.

```
SELECT *
FROM EMP
WHERE JOB = (SELECT JOB FROM EMP WHERE ENAME = 'FORD')
AND SAL = (SELECT SAL FROM EMP WHERE ENAME = 'FORD');
```

☑ Problem 4.12: List all departments with at least 2 salesmen.

```
SELECT DEPTNO
FROM EMP
WHERE JOB = 'SALESMAN'
GROUP BY DEPTNO
HAVING COUNT(*) >= 2;
```

Problem 4.13: List employees in dept 20 with the same job as anyone in dept 30.

```
SELECT *
FROM EMP
WHERE DEPTNO = 20
AND JOB IN (
SELECT JOB
FROM EMP
WHERE DEPTNO = 30
);
```

Problem 4.14: List employee names who get salary greater than max salaries of dept 0, 20, 30.

```
SELECT ENAME
FROM EMP
WHERE SAL > ALL (
SELECT MAX(SAL)
FROM EMP
WHERE DEPTNO IN (0, 20, 30)
GROUP BY DEPTNO
);
```

Problem 4.15: Display the maximum salaries of departments where max salary > 9000.

```
sql
```

SELECT DEPTNO, MAX(SAL) AS MAX_SALARY
FROM EMP
GROUP BY DEPTNO
HAVING MAX(SAL) > 9000;

☑ Problem 4.16: Display maximum salaries of departments whose min salary > 1000 and < 5000.

SELECT DEPTNO, MAX(SAL) AS MAX_SALARY
FROM EMP
GROUP BY DEPTNO

HAVING MIN(SAL) > 1000 AND MIN(SAL) < 5000;

Problem 4.17: Display employee names and their managers' names.

SELECT E.ENAME AS EMPLOYEE, M.ENAME AS MANAGER FROM EMP E

LEFT JOIN EMP M ON E.MGR = M.EMPNO;

☑ Problem 4.18: Display employee names and their managers' salaries.

sql

sql

SELECT E.ENAME AS EMPLOYEE, M.SAL AS MANAGER_SALARY FROM EMP E

Problem 4.19: Display name, job, empno, dept name and location for each dept, even if no employees.

```
SELECT E.ENAME, E.JOB, E.EMPNO, D.DNAME, D.LOC
FROM DEPT D
LEFT JOIN EMP E ON E.DEPTNO = D.DEPTNO;
```

Problem 4.20: Find manager's name for each employee. Output: empno, ename, job, manager's name.

```
SELECT E.EMPNO, E.ENAME, E.JOB, M.ENAME AS MANAGER_NAME
FROM EMP E
LEFT JOIN EMP M ON E.MGR = M.EMPNO;
```

☑ Problem 4.21: Display details of those who draw the same salary.

```
SELECT *
FROM EMP
WHERE SAL IN (
SELECT SAL
FROM EMP
GROUP BY SAL
HAVING COUNT(*) > 1
);
```

Let me know if you want Assignments I or II too — I can prepare them similarly.