

TABLES

```
mysql> use emp;
Database changed
mysql> show tables
-> ;
+-----+
| Tables_in_emp |
+-----+
| dept_table    |
| emp_table     |
+-----+
2 rows in set (0.05 sec)
```

TABLES VALUES

```
mysql> select *from dept_table;
+-----+-----+-----+
| dept_no |  dname  |  loc  |
+-----+-----+-----+
| 10      | Accounts | Bangalore |
| 20      | IT       | Delhi    |
| 30      | Production | chennai |
| 40      | Sales    | Hyd      |
| 50      | Admn     | London   |
+-----+-----+-----+
5 rows in set (0.02 sec)
```

```
mysql> select *from emp_table;
+-----+-----+-----+-----+-----+-----+-----+
| empno |  ename  |  sal  | hire_date | commission | deptno | mgr |
+-----+-----+-----+-----+-----+-----+-----+
| 1001  | Sachin  | 19000 | 1980-01-01 | 2100        | 20     | 1003 |
| 1002  | Kapil   | 15000 | 1970-01-01 | 2300        | 10     | 1003 |
| 1003  | Stefen  | 12000 | 1990-01-01 | 500         | 20     | 1007 |
| 1004  | Williams | 9000  | 2001-01-01 | NULL        | 30     | 1007 |
| 1005  | John    | 5000  | 2005-01-01 | NULL        | 30     | 1006 |
| 1006  | Dravid  | 19000 | 1985-01-01 | 2400        | 10     | 1007 |
| 1007  | Martin  | 21000 | 2000-01-01 | 1040        | NULL   | NULL |
+-----+-----+-----+-----+-----+-----+-----+
7 rows in set (0.01 sec)
```

1. Select employee details of dept number 10 or 30.

```
mysql> select * from emp_table where deptno = 10 or deptno = 30 ;
```

empno	ename	sal	hire_date	commission	deptno	mgr
1002	Kapil	15000	1970-01-01	2300	10	1003
1004	Williams	9000	2001-01-01	NULL	30	1007
1005	John	5000	2005-01-01	NULL	30	1006
1006	Dravid	19000	1985-01-01	2400	10	1007

```
4 rows in set (0.00 sec)
```

2. Write a query to fetch all the dept details with more than 1 Employee.

```
mysql> SELECT dept_table.dname FROM emp_table INNER JOIN dept_table ON deptno = dept_no GROUP BY dept_table.dname HAVING COUNT(*) > 1;
```

dname
IT
Accounts
Production

```
3 rows in set (0.01 sec)
```

3. Write a query to fetch employee details whose name starts with the letter "S"

```
mysql> SELECT * FROM emp_table WHERE ename like 'S%'
-> ;
```

empno	ename	sal	hire_date	commission	deptno	mgr
1001	Sachin	19000	1980-01-01	2100	20	1003
1003	Stefen	12000	1990-01-01	500	20	1007

```
2 rows in set (0.00 sec)
```

4. Select Emp Details Whose experience is more than 2 years

```
mysql> select * from emp_table where ((DATEDIFF(CURDATE(),hire_date))/12) > 2;
```

empno	ename	sal	hire_date	commission	deptno	mgr
1001	Sachin	19000	1980-01-01	2100	20	1003
1002	Kapil	15000	1970-01-01	2300	10	1003
1003	Stefen	12000	1990-01-01	500	20	1007
1004	Williams	9000	2001-01-01	NULL	30	1007
1005	John	5000	2005-01-01	NULL	30	1006
1006	Dravid	19000	1985-01-01	2400	10	1007
1007	Martin	21000	2000-01-01	1040	NULL	NULL

5. Write a SELECT statement to replace the char "a" with "#" in Employee Name (Ex: **Sachin** as **S#chin**)

```
mysql> SELECT empno,REPLACE(ename,'a','#') from emp_table;
```

empno	REPLACE(ename,'a','#')
1001	S#chin
1002	K#pil
1003	Stefen
1004	Willi#ms
1005	John
1006	Dr#vid
1007	M#rtin

7 rows in set (0.00 sec)

6. Write a query to fetch employee name and his/her manager name.

```
mysql> SELECT E.ename AS "Employee Name", M.ename AS "Manager" FROM emp_table E LEFT OUTER JOIN emp_table M ON E.mgr = M.empno;
```

Employee Name	Manager
Sachin	Stefen
Kapil	Stefen
Stefen	Martin
Williams	Martin
John	Dravid
Dravid	Martin
Martin	NULL

7 rows in set (0.01 sec)

7. Fetch Dept Name , Total Salry of the Dept

```
mysql> SELECT e.deptno,d.dname,SUM(e.sal) AS total_sal FROM emp_table e INNER JOIN dept_table d ON e.deptno = d.dept_no GROUP BY e.deptno,d.dname;
+-----+-----+-----+
| deptno | dname   | total_sal |
+-----+-----+-----+
| 20     | IT      | 31000    |
| 10     | Accounts| 34000    |
| 30     | Production| 14000    |
+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> |
```

8. Write a query to fetch ALL the employee details along with department name, department location, irrespective of employee existence in the department.

```
mysql> SELECT e.empno,e.ename,e.mgr,e.hire_date,e.sal,e.commission,e.deptno,d.dname FROM emp_table e,dept_table d WHERE e.deptno = d.dept_no;
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename   | mgr  | hire_date | sal  | commission | deptno | dname   |
+-----+-----+-----+-----+-----+-----+-----+
| 1001  | Sachin  | 1003 | 1980-01-01 | 19000 | 2100       | 20     | IT      |
| 1002  | Kapil   | 1003 | 1970-01-01 | 15000 | 2300       | 10     | Accounts|
| 1003  | Stefen  | 1007 | 1990-01-01 | 12000 | 500        | 20     | IT      |
| 1004  | Williams| 1007 | 2001-01-01 | 9000  | NULL       | 30     | Production|
| 1005  | John    | 1006 | 2005-01-01 | 5000  | NULL       | 30     | Production|
| 1006  | Dravid  | 1007 | 1985-01-01 | 19000 | 2400       | 10     | Accounts |
+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

9. Write an update statement to increase the employee salary by 10 %

```
mysql> UPDATE emp_table SET Sal = Sal + (Sal * 10/100);
Query OK, 7 rows affected (0.01 sec)
Rows matched: 7  Changed: 7  Warnings: 0
```

```
mysql> select*from emp_table;
```

```
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename   | sal  | hire_date | commission | deptno | mgr  |
+-----+-----+-----+-----+-----+-----+-----+
| 1001  | Sachin  | 20900 | 1980-01-01 | 2100       | 20     | 1003 |
| 1002  | Kapil   | 16500 | 1970-01-01 | 2300       | 10     | 1003 |
| 1003  | Stefen  | 13200 | 1990-01-01 | 500        | 20     | 1007 |
| 1004  | Williams| 9900  | 2001-01-01 | NULL       | 30     | 1007 |
| 1005  | John    | 5500  | 2005-01-01 | NULL       | 30     | 1006 |
| 1006  | Dravid  | 20900 | 1985-01-01 | 2400       | 10     | 1007 |
| 1007  | Martin  | 23100 | 2000-01-01 | 1040       | NULL   | NULL |
+-----+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

10. Write a statement to delete employees belong to Chennai location.

```
mysql> DELETE FROM dept_table WHERE loc = 'chennai';  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select*from dept_table;  
+-----+-----+-----+  
| dept_no | dname   | loc     |  
+-----+-----+-----+  
| 10      | Accounts | Bangalore |  
| 20      | IT       | Delhi     |  
| 40      | Sales    | Hyd       |  
| 50      | Admn     | London    |  
+-----+-----+-----+  
4 rows in set (0.00 sec)
```

11. Get Employee Name and gross salary (sal + comission) .

```
mysql> select ename, sal, commission,(sal + ((sal*commission) / 100)) as "total_salary" from emp_table;  
+-----+-----+-----+-----+  
| ename   | sal   | commission | total_salary |  
+-----+-----+-----+-----+  
| Sachin  | 20900 | 2100       | 459800      |  
| Kapil   | 16500 | 2300       | 396000      |  
| Stefen  | 13200 | 500        | 79200       |  
| Williams | 9900  | NULL       | NULL        |  
| John    | 5500  | NULL       | NULL        |  
| Dravid  | 20900 | 2400       | 522500      |  
| Martin  | 23100 | 1040       | 263340      |  
+-----+-----+-----+-----+  
7 rows in set (0.00 sec)
```

- 12 Increase the data length of the column Ename of Emp table from 100 to 250 using ALTER statement

```
mysql> desc emp_table;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| empno      | varchar(45)   | YES  |     | NULL    |       |
| ename      | varchar(45)   | YES  |     | NULL    |       |
| sal        | varchar(45)   | YES  |     | NULL    |       |
| hire_date  | date          | YES  |     | NULL    |       |
| commission | varchar(45)   | YES  |     | NULL    |       |
| deptno     | varchar(45)   | YES  |     | NULL    |       |
| mgr        | varchar(45)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

7 rows in set (0.00 sec)

```
mysql> alter table emp_table modify ename varchar(250);
```

Query OK, 7 rows affected (0.03 sec)

Records: 7 Duplicates: 0 Warnings: 0

```
mysql> desc emp_table;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| empno      | varchar(45)   | YES  |     | NULL    |       |
| ename      | varchar(250)  | YES  |     | NULL    |       |
| sal        | varchar(45)   | YES  |     | NULL    |       |
| hire_date  | date          | YES  |     | NULL    |       |
| commission | varchar(45)   | YES  |     | NULL    |       |
| deptno     | varchar(45)   | YES  |     | NULL    |       |
| mgr        | varchar(45)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

7 rows in set (0.00 sec)

13. Write query to get current datetime

```
mysql> Select CURRENT_TIMESTAMP AS "CURRENTTIMESTAMP";
```

```
+-----+
| CURRENTTIMESTAMP |
+-----+
| 2023-02-20 20:24:51 |
+-----+
```

1 row in set (0.00 sec)

14. Write a statement to create STUDENT table, with related 5 columns

```
mysql> create table student(
-> std_id varchar(20) primary key,
-> sname varchar(50),
-> grade varchar(10),
-> location varchar(100),
-> DOB date)
-> ;
Query OK, 0 rows affected (0.01 sec)

mysql> desc student;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| std_id | varchar(20)   | NO   | PRI | NULL    |       |
| sname  | varchar(50)   | YES  |     | NULL    |       |
| grade  | varchar(10)   | YES  |     | NULL    |       |
| location | varchar(100) | YES  |     | NULL    |       |
| DOB    | date          | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

15. Write a query to fetch number of employees in who is getting salary more than 10000

```
mysql> SELECT ename, empno FROM emp_table WHERE sal > 10000;
+-----+-----+
| ename | empno |
+-----+-----+
| Sachin | 1001  |
| Kapil  | 1002  |
| Stefen | 1003  |
| Dravid | 1006  |
| Martin | 1007  |
+-----+-----+
5 rows in set (0.00 sec)
```

16. Write a query to fetch minimum salary, maximum salary and average salary from emp table.

```
mysql> SELECT MAX(sal), MIN(sal), AVG(sal) FROM emp_table;
+-----+-----+-----+
| MAX(sal) | MIN(sal) | AVG(sal) |
+-----+-----+-----+
| 9900     | 13200    | 15714.285714285714 |
+-----+-----+-----+
1 row in set (0.01 sec)
```

17. Write a query to fetch number of employees in each location

```
mysql> select e.deptno,d.dname,count(*) from emp_table e INNER JOIN dept_table d ON e.deptno = d.dept_no group by e.deptno,d.dname;
```

deptno	dname	count(*)
20	IT	2
10	Accounts	2

2 rows in set (0.01 sec)

18. Write a query to display employee names in descending order

```
mysql> Select * from emp_table order by ename desc;
```

empno	ename	sal	hire_date	commission	deptno	mgr
1004	Williams	9900	2001-01-01	NULL	30	1007
1003	Stefen	13200	1990-01-01	500	20	1007
1001	Sachin	20900	1980-01-01	2100	20	1003
1007	Martin	23100	2000-01-01	1040	NULL	NULL
1002	Kapil	16500	1970-01-01	2300	10	1003
1005	John	5500	2005-01-01	NULL	30	1006
1006	Dravid	20900	1985-01-01	2400	10	1007

19. Write a statement to create a new table(**EMP_BKP**) from the existing **EMP** table

```
mysql> CREATE TABLE SALARY AS SELECT empno, sal FROM emp_table;
```

Query OK, 7 rows affected (0.04 sec)
Records: 7 Duplicates: 0 Warnings: 0

```
mysql> select*from SALARY;
```

empno	sal
1001	20900
1002	16500
1003	13200
1004	9900
1005	5500
1006	20900
1007	23100

7 rows in set (0.00 sec)

20. Write a query to fetch first 3 characters from employee name appended with salary

```
mysql> SELECT MAX(sal), MIN(sal),AVG(sal) FROM emp_table;
+-----+
| MAX(sal) | MIN(sal) | AVG(sal) |
+-----+
| 9900     | 13200    | 15714.285714285714 |
+-----+
1 row in set (0.01 sec)
```

21. Get the details of the employees whose name starts with S

```
mysql> SELECT * FROM emp_table WHERE ename LIKE 'S%';
+-----+
| empno | ename   | sal   | hire_date | commission | deptno | mgr |
+-----+
| 1001   | Sachin | 20900 | 1980-01-01 | 2100        | 20     | 1003 |
| 1003   | Stefen | 13200 | 1990-01-01 | 500         | 20     | 1007 |
+-----+
2 rows in set (0.00 sec)
```

22. Get the details of the employees who works in Bangalore location

```
mysql> SELECT ename FROM emp_table WHERE deptno IN (SELECT dept_no FROM dept_table WHERE loc='Bangalore');
+-----+
| ename |
+-----+
| Kapil |
| Dravid |
+-----+
```

23. Write the query to get the employee details whose name started within any letter between A and K

```
mysql> select ename from emp_table where ename between 'A' and 'K';
+-----+
| ename |
+-----+
| John  |
| Dravid |
+-----+
2 rows in set (0.00 sec)
```

24. Write a query in SQL to display the employees whose manager name is **Stefen**

```
mysql> SELECT *FROM emp_table WHERE mgr IN (SELECT empno FROM emp_table WHERE ename = 'Stefen');
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename  | sal   | hire_date | commission | deptno | mgr  |
+-----+-----+-----+-----+-----+-----+-----+
| 1001  | Sachin | 20900 | 1980-01-01 | 2100        | 20     | 1003 |
| 1002  | Kapil  | 16500 | 1970-01-01 | 2300        | 10     | 1003 |
+-----+-----+-----+-----+-----+-----+-----+
```

25. Write a query in SQL to list the name of the managers who is having maximum number of employees working under him

```
mysql> SELECT mgr, COUNT(*) AS "Number of Employees" FROM emp_table GROUP BY mgr ORDER BY COUNT(*) DESC
-> ;
+-----+-----+
| mgr  | Number of Employees |
+-----+-----+
| 1007 | 3                    |
| 1003 | 2                    |
| 1006 | 1                    |
| NULL | 1                    |
+-----+-----+
```

26. Write a query to display the employee details, department details and the manager details of the employee who has second highest salary

```
mysql> SELECT MAX(sal) FROM emp_table WHERE sal < (SELECT MAX(sal) FROM emp_table);
+-----+
| MAX(sal) |
+-----+
| 5500      |
+-----+
1 row in set (0.00 sec)
```

27. Write a query to list all details of all the managers

```
mysql> SELECT * FROM emp_table WHERE empno IN (SELECT mgr FROM emp_table);
+-----+-----+-----+-----+-----+-----+-----+
| empno | ename  | sal   | hire_date | commission | deptno | mgr  |
+-----+-----+-----+-----+-----+-----+-----+
| 1003  | Stefen | 13200 | 1990-01-01 | 500         | 20     | 1007 |
| 1006  | Dravid | 20900 | 1985-01-01 | 2400        | 10     | 1007 |
| 1007  | Martin | 23100 | 2000-01-01 | 1040        | NULL   | NULL |
+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

28. Write a query to list the details and total experience of all the managers

```
mysql> select empno,ename ,hire_date, DATEDIFF(CURDATE(),hire_date) "exp in days" from emp_table where empno in (select mgr from emp_table);
```

empno	ename	hire_date	exp in days
1003	Stefen	1990-01-01	12107
1006	Dravid	1985-01-01	13933
1007	Martin	2000-01-01	8455

29. Write a query to list the employees who is manager and takes commission less than 1000 and works in Delhi

```
mysql> SELECT * FROM emp_table,dept_table WHERE commission < 1000 AND loc = 'DELHI' AND mgr IS NOT NULL -> ;
```

empno	ename	sal	hire_date	commission	deptno	mgr	dept_no	dname	loc
1003	Stefen	13200	1990-01-01	500	20	1007	20	IT	Delhi

1 row in set (0.00 sec)

30. Write a query to display the details of employees who are senior to Martin

```
mysql> select * from emp_table where hire_date < ( select hire_date from emp_table where ename = 'Martin');
```

empno	ename	sal	hire_date	commission	deptno	mgr
1001	Sachin	20900	1980-01-01	2100	20	1003
1002	Kapil	16500	1970-01-01	2300	10	1003
1003	Stefen	13200	1990-01-01	500	20	1007
1006	Dravid	20900	1985-01-01	2400	10	1007

4 rows in set (0.00 sec)