Assignment – 2 : SQL Basics
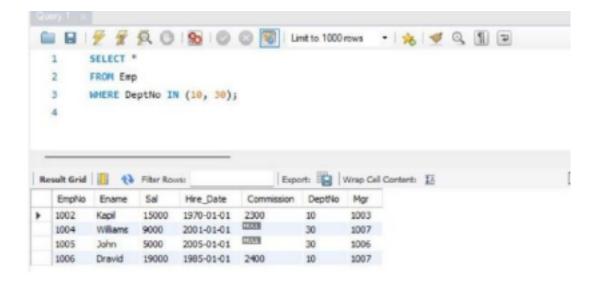
1. Select employee details of dept number 10 or 30
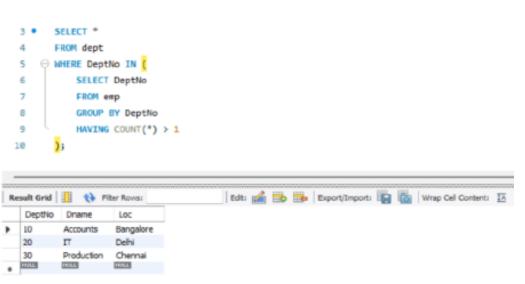
Query: SELECT *FROM Emp WHERE DeptNo IN (10, 30);

```
1    SELECT *
2    FROM Emp
3    WHERE DeptNo IN (10, 30);
4
```

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

2. Write a query to fetch all the dept details with more than 1 Employee
Query:
SELECT * FROM dept
WHERE DeptNo IN (
SELECT DeptNo FROM emp
GROUP BY DeptNo
HAVING COUNT(*) > 1
);
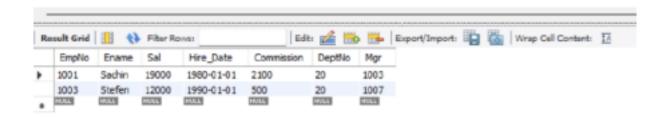
```
3 •  SELECT *
4    FROM dept
5    WHERE DeptNo IN (
6        SELECT DeptNo
7        FROM emp
8        GROUP BY DeptNo
9        HAVING COUNT(*) > 1
10   );
```

DeptNo	Dname	Loc
10	Accounts	Bangalore
20	IT	Delhi
30	Production	Chennai
NULL	NULL	NULL

3.Write a query to fetch employee details whose name starts with the letter "S"
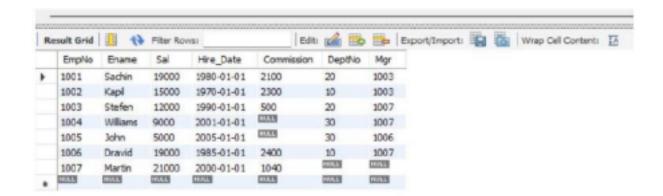
Query: SELECT * FROM emp
WHERE Ename LIKE 'S%';

```
3 •    SELECT *
4      FROM emp
5      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
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

4. Select Emp Details Whose experience is more than 2 years
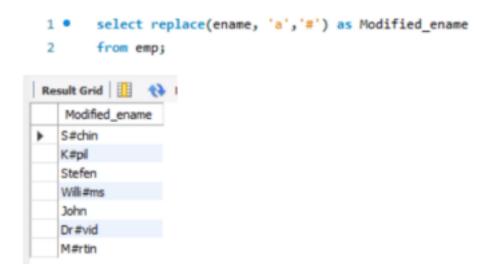
Query : SELECT * FROM emp
WHERE DATEDIFF(CURRENT_DATE(), Hire_Date) >= 730;

```
3 •    SELECT *
4      FROM emp
5      WHERE DATEDIFF(CURRENT_DATE(), Hire_Date) >= 730;
```

	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
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

5.Write a SELECT statement to replace the char "a" with "#" in Employee name.
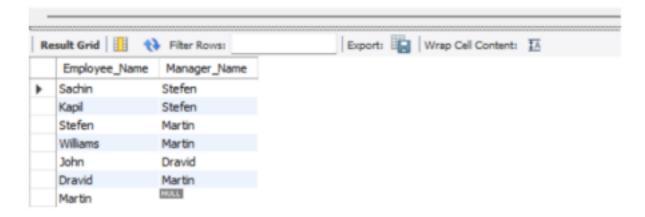
Query: select replace(ename, 'a', '#') as Modified_ename
From emp;

```
1 •    select replace(ename, 'a','#') as Modified_ename
2      from emp;
```

Result Grid

Modified_ename
▶ S#chin
K#pil
Stefen
Willi#ms
John
Dr#vid
M#rtin

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

Query: SELECT e.Ename AS Employee_Name, m.Ename AS
Manager_Name FROM emp e
LEFT JOIN emp m
ON e.Mgr = m.EmpNo;

```
3 •    SELECT
4          e.Ename AS Employee_Name,
5          m.Ename AS Manager_Name
6      FROM emp e
7      LEFT JOIN emp m ON e.Mgr = m.EmpNo;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Employee_Name	Manager_Name
▶ Sachin	Stefen
Kapil	Stefen
Stefen	Martin
Williams	Martin
John	Dravid
Dravid	Martin
Martin	NULL

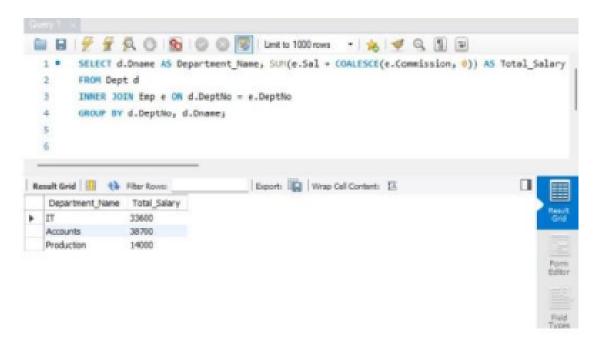## 7. Fetch Dept Name , Total Salry of the Dept

Query: SELECT d.Dname AS Department_Name,
SUMe.Sal + COALESCE(e.Commission, 0)) AS
Total_Salary
FROM Dept d

INNER JOIN Emp e ON d. DeptNo = e .DeptNo
GROUP BY d. DeptNo, d.Dname;

```
1 •   SELECT d.Dname AS Department_Name, SUM(e.Sal + COALESCE(e.Commission, 0)) AS Total_Salary
2     FROM Dept d
3     INNER JOIN Emp e ON d.DeptNo = e.DeptNo
4     GROUP BY d.DeptNo, d.Dname;
5
6
```
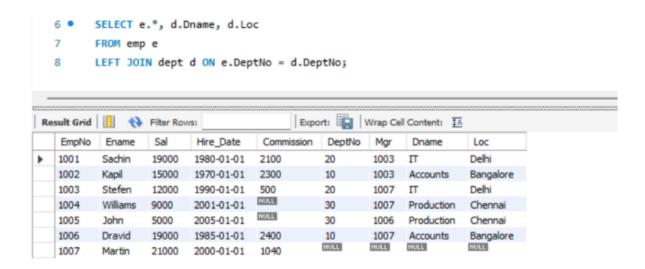
Department_Name	Total_Salary
IT	33600
Accounts	38700
Production	14000

8. Write a query to fetch all the employee details along with dept name, dept loc, irrespective of the emp existance in the dept.

Query: SELECT e.*, d.Dname, d.Loc
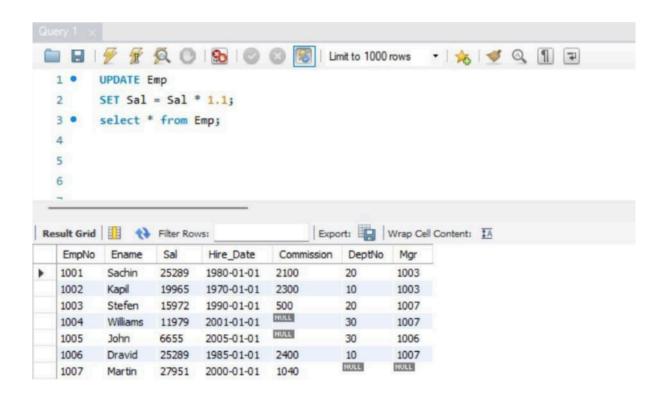FROM emp e
LEFT JOIN dept d
ON e.DeptNo = d.DeptNo;

```
6 •   SELECT e.*, d.Dname, d.Loc
7     FROM emp e
8     LEFT JOIN dept d ON e.DeptNo = d.DeptNo;
```

EmpNo	Ename	Sal	Hire_Date	Commission	DeptNo	Mgr	Dname	Loc
1001	Sachin	19000	1980-01-01	2100	20	1003	IT	Delhi
1002	Kapil	15000	1970-01-01	2300	10	1003	Accounts	Bangalore
1003	Stefen	12000	1990-01-01	500	20	1007	IT	Delhi
1004	Williams	9000	2001-01-01	NULL	30	1007	Production	Chennai
1005	John	5000	2005-01-01	NULL	30	1006	Production	Chennai
1006	Dravid	19000	1985-01-01	2400	10	1007	Accounts	Bangalore
1007	Martin	21000	2000-01-01	1040	NULL	NULL	NULL	NULL

9. Write an update statement to increase the employee salary by 10%
Query:
-> UPDATE Emp
SET Sal = Sal * 1.1;
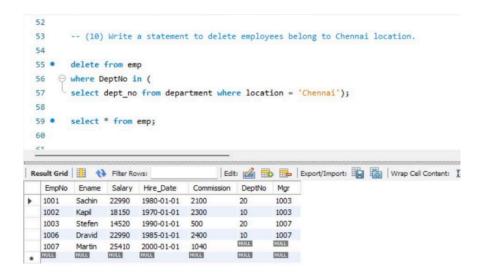
-> select * from Emp;

10. Write a statement to delete employee belongs to chennai loc.
Query: DELETE from emp
where DeptNo in (
SELECTdept_no from department where location = 'Chennai');
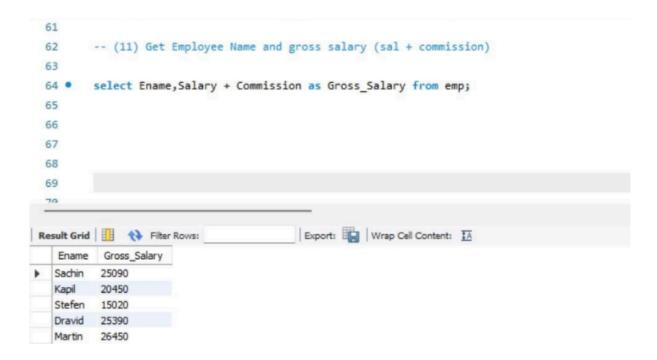SELECT* from emp;

```
52
53      -- (10) Write a statement to delete employees belong to Chennai location.
54
55  •    delete from emp
56   ⊖  where DeptNo in (
57    └   select dept_no from department where location = 'Chennai');
58
59  •    select * from emp;
60
```

EmpNo	Ename	Salary	Hire_Date	Commission	DeptNo	Mgr
1001	Sachin	22990	1980-01-01	2100	20	1003
1002	Kapil	18150	1970-01-01	2300	10	1003
1003	Stefen	14520	1990-01-01	500	20	1007
1006	Dravid	22990	1985-01-01	2400	10	1007
1007	Martin	25410	2000-01-01	1040	NULL	NULL
NULL	NULL	NULL	NULL	NULL	NULL	NULL

11. Get Employee Name and gross salary (sal + comission) .
Query: SELECT Ename, Sal +
COALESCE(Commission,0) AS Gross_Salary
FROM Emp;
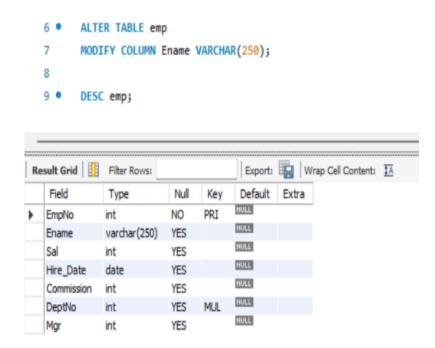
```
61
62      -- (11) Get Employee Name and gross salary (sal + commission)
63
64  •    select Ename,Salary + Commission as Gross_Salary from emp;
65
66
67
68
69
```

Ename	Gross_Salary
Sachin	25090
Kapil	20450
Stefen	15020
Dravid	25390
Martin	26450

12. Increase the data length of the column Ename of Emp table from 100 to 250 using ALTER statement
Query: ->ALTER TABLE emp
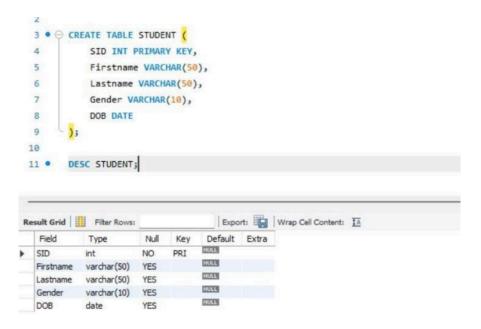MODIFY COLUMN Ename VARCHAR(250);
-> DESC emp;

```
6 •    ALTER TABLE emp
7      MODIFY COLUMN Ename VARCHAR(250);
8
9 •    DESC emp;
```

Field	Type	Null	Key	Default	Extra
EmpNo	int	NO	PRI	NULL	
Ename	varchar(250)	YES		NULL	
Sal	int	YES		NULL	
Hire_Date	date	YES		NULL	
Commission	int	YES		NULL	
DeptNo	int	YES	MUL	NULL	
Mgr	int	YES		NULL	

13.Write query to get current datetime
Query: SELECT Now();

```
1 •    SELECT NOW();
2
3
```

NOW()
2024-02-16 12:31:19

14. Write a statement to create STUDENT table, with related 5 columns
Query: CREATE TABLE STUDENT (
SID INT PRIMARY KEY, Firstname VARCHAR(50),
Lastname VARCHAR(50), Gender VARCHAR(10), DOB DATE
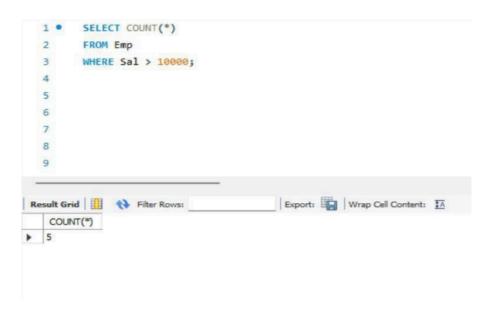-> DESC student;

```
  2
3 • ⊖ CREATE TABLE STUDENT (
  4        SID INT PRIMARY KEY,
  5        Firstname VARCHAR(50),
  6        Lastname VARCHAR(50),
  7        Gender VARCHAR(10),
  8        DOB DATE
  9      );
 10
 11 •    DESC STUDENT;
```

Result Grid | Filter Rows: [   ] | Export: | Wrap Cell Content: IA

Field	Type	Null	Key	Default	Extra
SID	int	NO	PRI	NULL	
Firstname	varchar(50)	YES		NULL	
Lastname	varchar(50)	YES		NULL	
Gender	varchar(10)	YES		NULL	
DOB	date	YES		NULL	

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

Query : SELECT COUNT (*)
FROM Emp
WHERE Sal › 10000;

```
1 •    SELECT COUNT(*)
2      FROM Emp
3      WHERE Sal > 10000;
4
5
6
7
8
9
```

Result Grid | Filter Rows: [   ] | Export: | Wrap Cell Content: IA

COUNT(*)
5

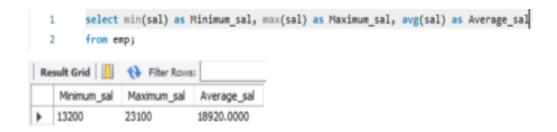## 16. Write a query to fetch minimum sal, max sal and avg sal from emp table.

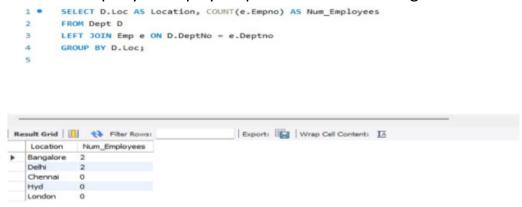**Query**: SELECT min(salary) as Min_Salary,
max(salary) as Max_Salary,

avg(salary) as Avg_Salary
from emp;

```
1    select min(sal) as Minimum_sal, max(sal) as Maximum_sal, avg(sal) as Average_sal
2    from emp;
```

Result Grid | Filter Rows:

Minimum_sal	Maximum_sal	Average_sal
13200	23100	18920.0000

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

Query: SELECT d.Loc, COUNT(*) AS Num_Emp
FROM dept d
JOIN emp e ON d.DeptNo = e.DeptNo
GROUP BY d.Loc;

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

```
1    SELECT D.Loc AS Location, COUNT(e.Empno) AS Num_Employees
2    FROM Dept D
3    LEFT JOIN Emp e ON D.DeptNo = e.Deptno
4    GROUP BY D.Loc;
5
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ‡A

Location	Num_Employees
Bangalore	2
Delhi	2
Chennai	0
Hyd	0
London	0

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

Query: SELECT Ename FROM Emp ORDER BY Ename DESC;

```
1    SELECT Ename FROM Emp ORDER BY Ename DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ‡A

Ename
Stefen
Sachin
Martin
Kapil
Dravid

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

Query: EMP table
CREATE TABLE EMP_BKP AS
SELECT * FROM emp;
20. Write a query to fetch first 3 characters from employee name appended with salary.

```
1      CREATE TABLE EMP_BKP2 AS SELECT * FROM Emp;
2 •    Select * FROM EMP_BKP2;
3
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

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
1007	Martin	23100	2000-01-01	1040	NULL	NULL

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

Query: SELECT CONCAT(LEFT(Ename, 3), ' - ', Sal) AS Name_Salary FROM Emp;

```
1 •    SELECT CONCAT(LEFT(Ename, 3), ' - ', Sal) AS Name_Salary FROM Emp;
2
3
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

Name_Salary
Sac - 20900
Kap - 16500
Ste - 13200
Dra - 20900
Mar - 23100