

SQL ASSIGNMENT

Create Database.

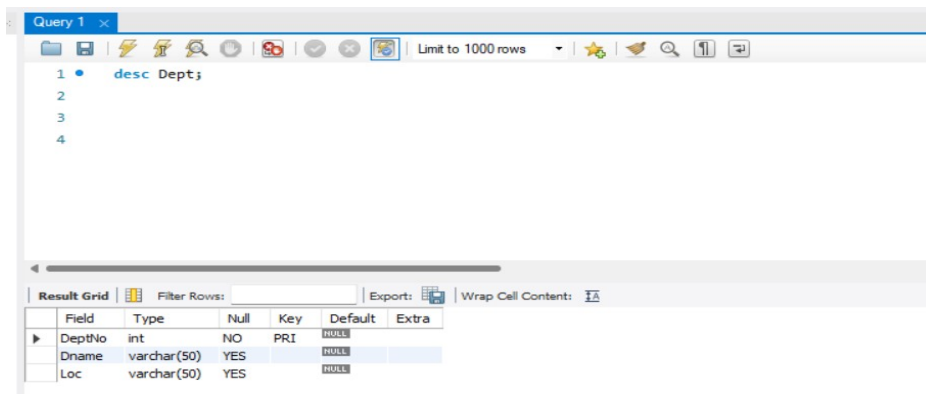
Create database db;

Show databases;

use db;

Query to Create Dept table with DeptNo as the primary key.

Create table Dept (DeptNo int PRIMARY KEY,Dname varchar(50),Loc varchar(50));



The screenshot shows a SQL query editor window titled "Query 1". The query text is: `desc Dept;`. Below the query editor, the "Result Grid" displays the structure of the Dept table. The table has three columns: DeptNo (int, PRIMARY KEY, NULL), Dname (varchar(50), YES, NULL), and Loc (varchar(50), YES, NULL).

Field	Type	Null	Key	Default	Extra
DeptNo	int	NO	PRI	NULL	
Dname	varchar(50)	YES		NULL	
Loc	varchar(50)	YES		NULL	

Insert into Dept (DeptNo, Dname, Loc) values

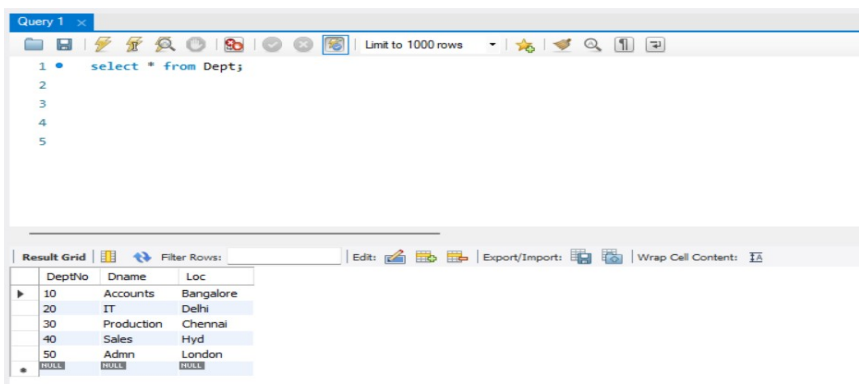
(10, 'Accounts', 'Bangalore'),

(20, 'IT', 'Delhi'),

(30, 'Production', 'Chennai'),

(40, 'Sales', 'Hyd'),

(50, 'Admn', 'London');



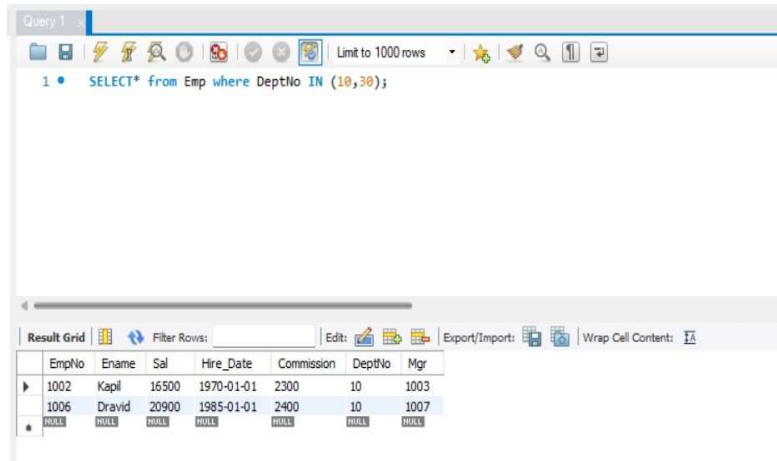
The screenshot shows a SQL query editor window titled "Query 1". The query text is: `select * from Dept;`. Below the query editor, the "Result Grid" displays the data inserted into the Dept table. The table has three columns: DeptNo, Dname, and Loc. The data rows are: (10, Accounts, Bangalore), (20, IT, Delhi), (30, Production, Chennai), (40, Sales, Hyd), and (50, Admn, London). The last row is highlighted with a blue background.

DeptNo	Dname	Loc
10	Accounts	Bangalore
20	IT	Delhi
30	Production	Chennai
40	Sales	Hyd
50	Admn	London

Queries:

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

SELECT * FROM Emp WHERE DeptNo IN (10,30);

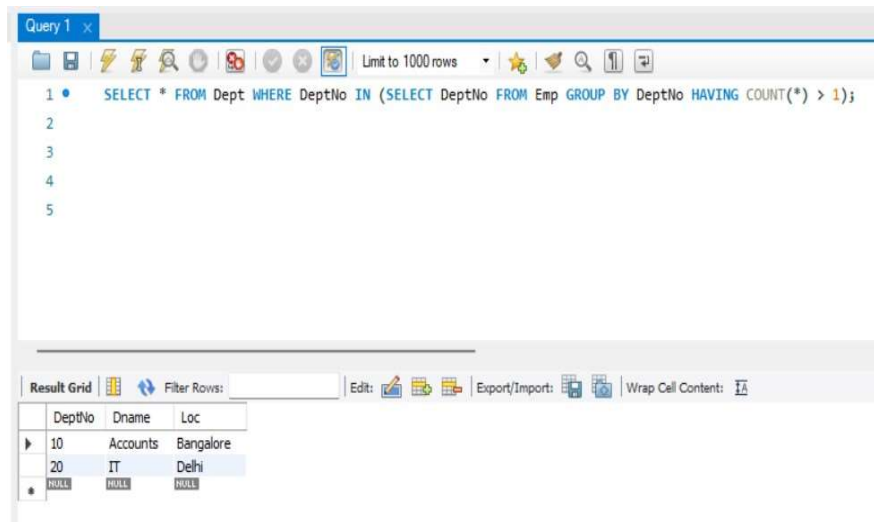


The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the SQL statement: `SELECT * FROM Emp WHERE DeptNo IN (10,30);`. The 'Limit to 1000 rows' dropdown is set to 1000. The 'Result Grid' at the bottom displays the following data:

EmpNo	Ename	Sal	Hire_Date	Commission	DeptNo	Mgr
1002	Kapil	16500	1970-01-01	2300	10	1003
1006	Dravid	20900	1985-01-01	2400	10	1007
NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

SELECT * FROM Dept WHERE DeptNo IN (SELECT DeptNo FROM Emp GROUP BY DeptNo HAVING COUNT(*) > 1);



The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the SQL statement: `SELECT * FROM Dept WHERE DeptNo IN (SELECT DeptNo FROM Emp GROUP BY DeptNo HAVING COUNT(*) > 1);`. The 'Limit to 1000 rows' dropdown is set to 1000. The 'Result Grid' at the bottom displays the following data:

DeptNo	Dname	Loc
10	Accounts	Bangalore
20	IT	Delhi
NULL	NULL	NULL

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

SELECT * FROM Emp WHERE Ename LIKE 'S%';

Query 1

1 SELECT * FROM Emp 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
NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

SELECT *FROM Emp WHERE DATEDIFF(CURDATE(), Hire_Date) > 730;

Query 1

1 SELECT *FROM Emp WHERE DATEDIFF(CURDATE(), Hire_Date) > 730;

2

3

4

5

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
NULL	NULL	NULL	NULL	NULL	NULL	NULL

5. Write a SELECT statement to replace the char “a” with “#” in Employee Name.

SELECT REPLACE(Ename, 'a', '#') AS Modified_Ename FROM Emp;

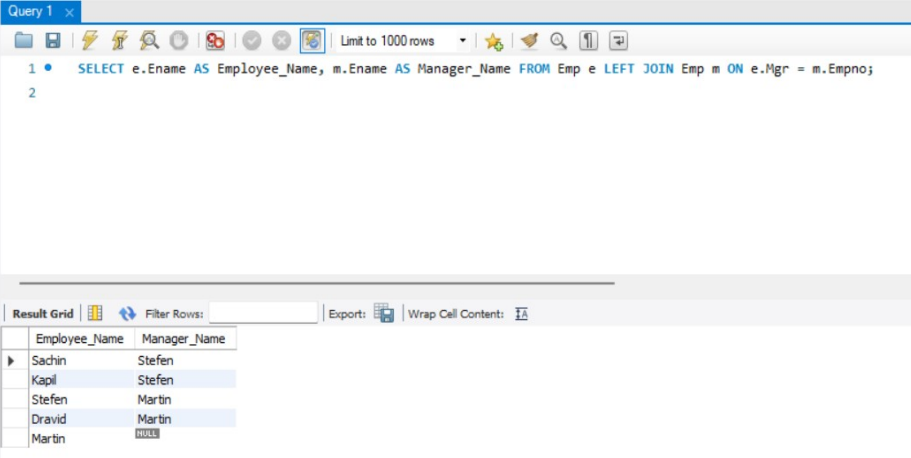
Query 1

1 SELECT REPLACE(Ename, 'a', '#') AS Modified_Ename FROM Emp;

Modified_Ename
S#chin
K#pil
Stefen
Dr#vid
M#rtin

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

```
SELECT e.Ename AS Employee_Name, m.Ename AS Manager_Name FROM Emp e LEFT  
JOIN Emp m ON e.Mgr = m.Empno;
```



The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the following SQL statement:

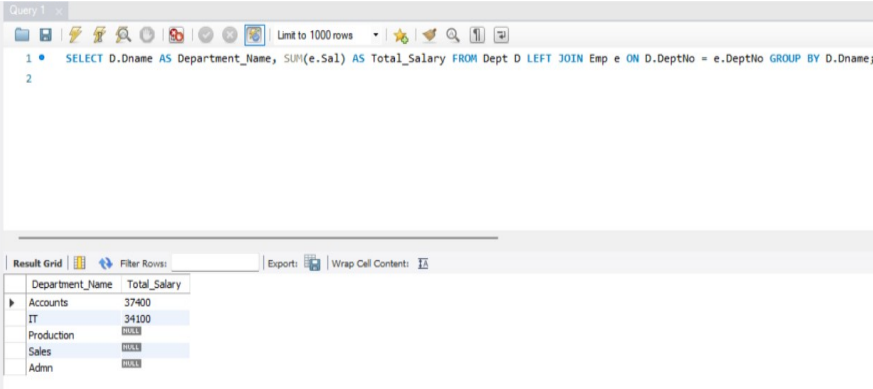
```
1 • SELECT e.Ename AS Employee_Name, m.Ename AS Manager_Name FROM Emp e LEFT JOIN Emp m ON e.Mgr = m.Empno;  
2
```

Below the query editor, the 'Result Grid' tab is active, displaying the results of the query. The results are as follows:

Employee_Name	Manager_Name
Sachin	Stefen
Kapil	Stefen
Stefen	Martin
Dravid	Martin
Martin	NULL

7. Fetch Dept Name , Total Salary of the Dept.

```
SELECT D.Dname AS Department_Name, SUM(e.Sal) AS Total_Salary FROM Dept D  
LEFT JOIN Emp e ON D.DeptNo = e.DeptNo GROUP BY D.Dname;
```



The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the following SQL statement:

```
1 • SELECT D.Dname AS Department_Name, SUM(e.Sal) AS Total_Salary FROM Dept D LEFT JOIN Emp e ON D.DeptNo = e.DeptNo GROUP BY D.Dname;  
2
```

Below the query editor, the 'Result Grid' tab is active, displaying the results of the query. The results are as follows:

Department_Name	Total_Salary
Accounts	37400
IT	34100
Production	NULL
Sales	NULL
Admin	NULL

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

```
SELECT e.*, D.Dname AS Department_Name, D.Loc AS Department_Location FROM Dept  
D LEFT JOIN Emp e ON D.DeptNo = e.DeptNo;
```

Query 1

```

1 • SELECT e.*, D.Dname AS Department_Name, D.Loc AS Department_Location
2 FROM Dept D
3 LEFT JOIN Emp e ON D.DeptNo = e.DeptNo;
4

```

Result Grid

EmpNo	Ename	Sal	Hire_Date	Commission	DeptNo	Mgr	Department_Name	Department_Location
1006	Dravid	20900	1985-01-01	2400	10	1007	Accounts	Bangalore
1002	Kapil	16500	1970-01-01	2300	10	1003	Accounts	Bangalore
1003	Stefen	13200	1990-01-01	500	20	1007	IT	Delhi
1001	Sachin	20900	1980-01-01	2100	20	1003	IT	Delhi
NULL	NULL	NULL	NULL	NULL	NULL	NULL	Production	Chennai
NULL	NULL	NULL	NULL	NULL	NULL	NULL	Sales	Hyd
NULL	NULL	NULL	NULL	NULL	NULL	NULL	Admn	London

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

UPDATE Emp SET Sal = Sal * 1.1;

Query 1

```

1 • UPDATE Emp SET Sal = Sal * 1.1;

```

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

DELETE FROM Emp WHERE DeptNo IN (SELECT DeptNo FROM Dept WHERE Loc = 'Chennai');

Query 1

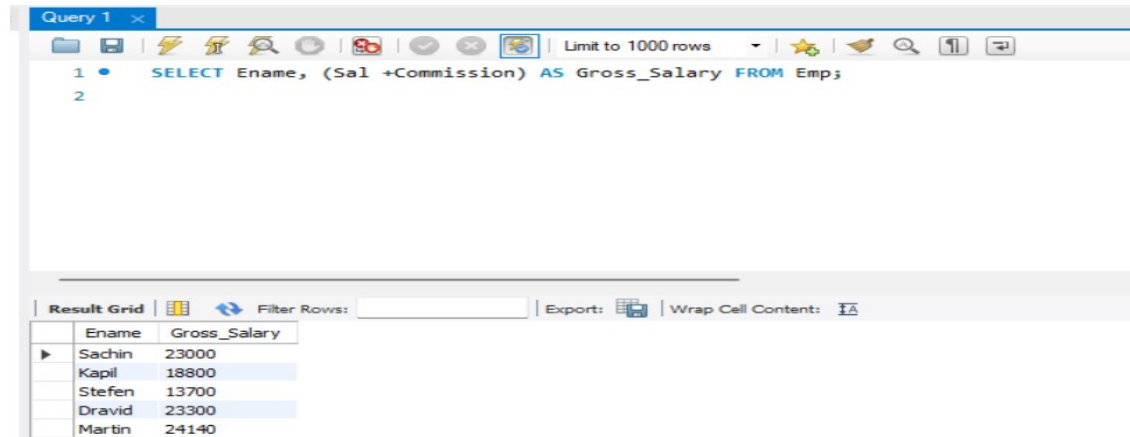
```

1 DELETE FROM Emp WHERE DeptNo IN (SELECT DeptNo FROM Dept WHERE Loc = 'Chennai');

```

11. Get Employee Name and gross salary (Sal + commission) .

SELECT Ename, (Sal +Commission) AS Gross_Salary FROM Emp;



The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the following SQL statement:

```
1 • SELECT Ename, (Sal +Commission) AS Gross_Salary FROM Emp;
2
```

Below the query editor, the 'Result Grid' tab is active, displaying the results of the query. The grid has two columns: 'Ename' and 'Gross_Salary'. The data is as follows:

Ename	Gross_Salary
Sachin	23000
Kapil	18800
Stefen	13700
Dravid	23300
Martin	24140

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

ALTER TABLE Emp MODIFY COLUMN Ename varchar(250);



The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the following SQL statement:

```
1 • ALTER TABLE Emp MODIFY COLUMN Ename varchar(250);
2
```

13. Write query to get current datetime.

SELECT NOW();



The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the following SQL statement:

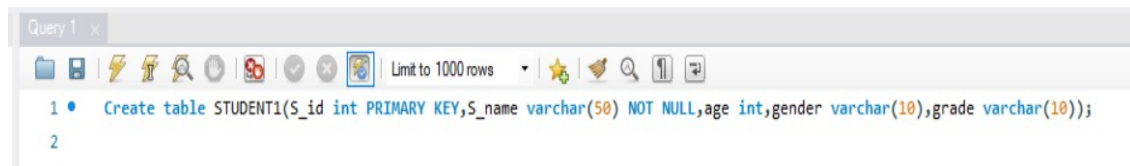
```
1 • SELECT NOW();
2
3
```

Below the query editor, the 'Result Grid' tab is active, displaying the results of the query. The grid has one column: 'NOW()'. The data is as follows:

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

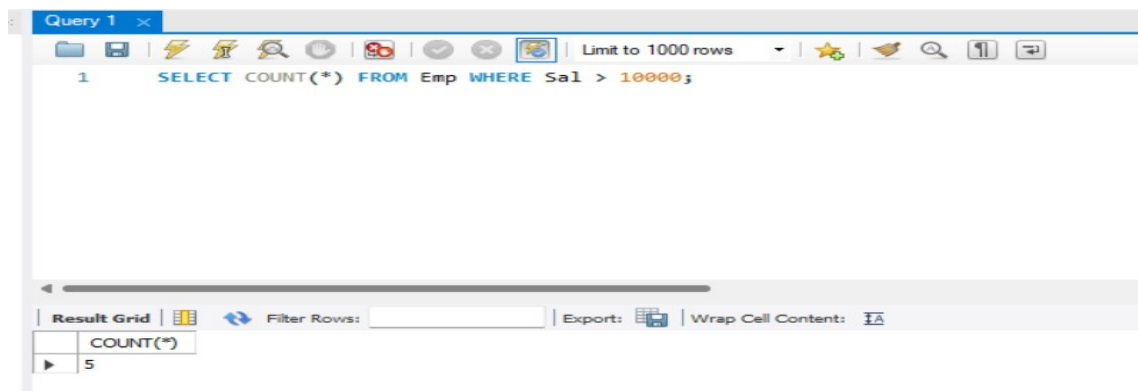
14. Write a statement to create STUDENT table, with related 5 columns.

Create table STUDENT1(S_id int PRIMARY KEY,S_name varchar(50) NOT NULL,age int ,gender varchar(10),grade varchar(10));



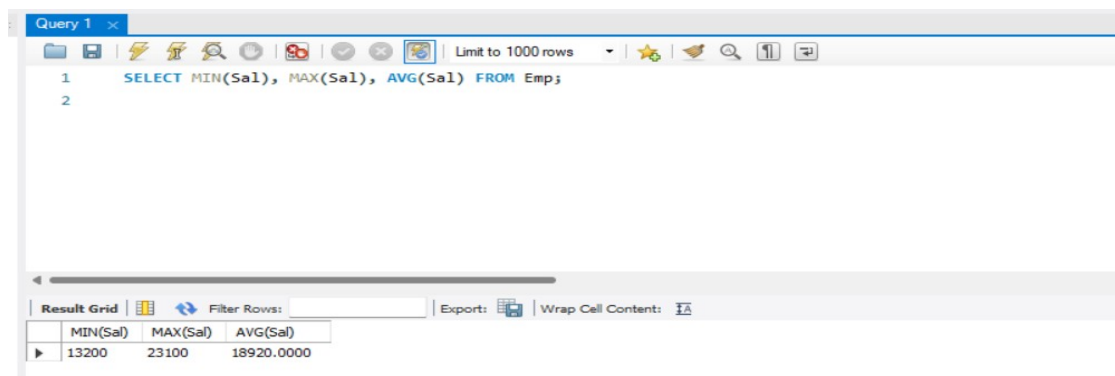
15. Write a query to fetch number of employees in who is getting salary more than 10000.

SELECT COUNT(*) FROM Emp WHERE Sal>10000;



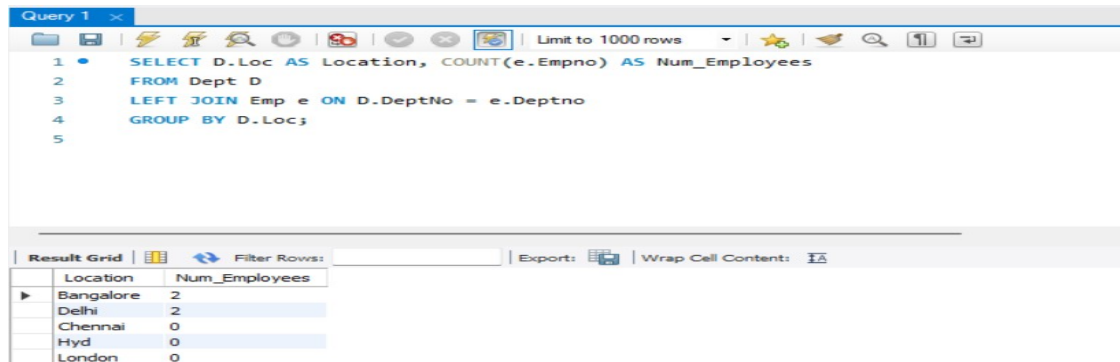
16. Write a query to fetch minimum salary, maximum salary and average salary from emp table.

SELECT MIN(Sal), MAX(Sal), AVG(Sal) FROM Emp;



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

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



The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the following SQL statement:

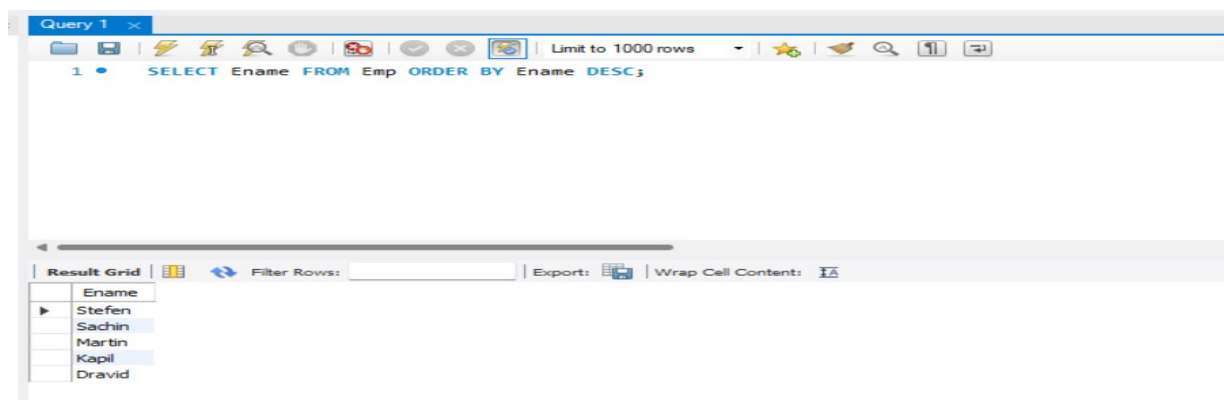
```
1 • SELECT D.Loc AS Location, COUNT(e.Empno) AS Num_Employees  
2 FROM Dept D  
3 LEFT JOIN Emp e ON D.DeptNo = e.Deptno  
4 GROUP BY D.Loc;  
5
```

The 'Result Grid' tab is active, displaying the following data:

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

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

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



The screenshot shows a SQL Developer window titled 'Query 1'. The query editor contains the following SQL statement:

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

The 'Result Grid' tab is active, displaying the following data:

Ename
Stefen
Sachin
Martin
Kapil
Dravid

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

```
CREATE TABLE EMP_BKP2 AS SELECT * FROM Emp;
```

```
Select * FROM EMP_BKP2;
```

The screenshot shows a SQL query editor window titled "Query 1". The query text is as follows:

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

Below the query editor, the "Result Grid" is displayed, showing the data from the EMP_BKP2 table. The table has 8 columns: EmpNo, Ename, Sal, Hire_Date, Commission, DeptNo, and Mgr. The data is as follows:

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.

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

The screenshot shows a SQL query editor window titled "Query 1". The query text is as follows:

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

Below the query editor, the "Result Grid" is displayed, showing the output of the query. The table has 1 column: Name_Salary. The data is as follows:

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

