Assignment

Table creation:

```
mysql> USE CompanyDB;
Database changed
mysql> CREATE TABLE Dept (DeptNo INT PRIMARY KEY, Dname VARCHAR(100),Loc VARCHAR(100));
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> CREATE TABLE Emp (EmpNo INT PRIMARY KEY,Ename VARCHAR(100),Sal DECIMAL(10,2), Hire_Date DATE,Commission DECIMAL(10,2),DeptNo INT, Mgr INT, FOREIGN KEY (DeptNo) REFERENCES Dept(DeptNo),FOREIGN KEY (Mgr)
REFERENCES Emp(EmpNo));
Query OK, 0 rows affected (0.02 sec)
```

Value insertion:

```
mysql> INSERT INTO Dept (DeptNo, Dname, Loc) VALUES(10, 'Accounts', 'Bangalore'),(20, 'IT', 'Delhi'),(30, 'Production', 'Chennai'),(40, 'Sales', 'Hyderabad'),(50, 'Admin', 'London');
Query OK, 5 rows affected (0.00 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO Emp (EmpNo, Ename, Sal, Hire_Date, Commission, DeptNo, Mgr)VALUES(1007, 'Martin', 21000, '2000-01-01', 1040, NULL, NULL);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Emp (EmpNo, Ename, Sal, Hire_Date, Commission, DeptNo, Mgr)VALUES(1001, 'Sachin', 19000, '1980-01-01', 2100, 20, 1003),(1002, 'Kapil', 15000, '1970-01-01', 2300, 10, 1003),(1003, 'Stefen', 1
2000, '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);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`companydb`.`emp`, CONSTRAINT `emp_ibfk_2` FOREIGN KEY (`Mgr`) REFERENCES `emp` (`EmpNo`))
mysql> ^C
mysql> ^C
mysql> INSERT INTO Emp (EmpNo, Ename, Sal, Hire_Date, Commission, DeptNo, Mgr)VALUES(1007, 'Martin', 21000, '2000-01-01', 1040, NULL, NULL);
ERROR 1062 (23000): Duplicate entry '1007' for key 'emp.PRIMARY'
mysql> INSERT INTO Emp (EmpNo, Ename, Sal, Hire_Date, Commission, DeptNo, Mgr)VALUES(1003, 'Stefen', 12000, '1990-01-01', 500, 20, 1007),(1006, 'Dravid', 19000, '1985-01-01', 2400, 10, 1007);
Query OK, 2 rows affected (0.00 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> INSERT INTO Emp (EmpNo, Ename, Sal, Hire_Date, Commission, DeptNo, Mgr)VALUES(1001, 'Sachin', 19000, '1980-01-01', 2100, 20, 1003),(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);
Query OK, 4 rows affected (0.00 sec)
```

Tables:

```
mysql> SELECT * FROM Emp;
+-------+----------+----------+------------+------------+--------+------+
| EmpNo | Ename    | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+----------+----------+------------+------------+--------+------+
|  1001 | Sachin   | 19000.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1002 | Kapil    | 15000.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1003 | Stefen   | 12000.00 | 1990-01-01 |     500.00 |     20 | 1007 |
|  1004 | Williams |  9000.00 | 2001-01-01 |       NULL |     30 | 1007 |
|  1005 | John     |  5000.00 | 2005-01-01 |       NULL |     30 | 1006 |
|  1006 | Dravid   | 19000.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
|  1007 | Martin   | 21000.00 | 2000-01-01 |    1040.00 |   NULL | NULL |
+-------+----------+----------+------------+------------+--------+------+
7 rows in set (0.00 sec)

mysql> SELECT * FROM Dept;
+--------+------------+-----------+
| DeptNo | Dname      | Loc       |
+--------+------------+-----------+
|     10 | Accounts   | Bangalore |
|     20 | IT         | Delhi     |
|     30 | Production | Chennai   |
|     40 | Sales      | Hyderabad |
|     50 | Admin      | London    |
+--------+------------+-----------+
5 rows in set (0.00 sec)
```

Queries:

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

```
mysql> SELECT * FROM Emp WHERE DeptNo IN (10, 30);
+-------+----------+----------+------------+------------+--------+------+
| EmpNo | Ename    | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+----------+----------+------------+------------+--------+------+
|  1002 | Kapil    | 15000.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1006 | Dravid   | 19000.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
|  1004 | Williams |  9000.00 | 2001-01-01 |       NULL |     30 | 1007 |
|  1005 | John     |  5000.00 | 2005-01-01 |       NULL |     30 | 1006 |
+-------+----------+----------+------------+------------+--------+------+
4 rows in set (0.00 sec)
```

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

```
mysql> SELECT d.DeptNo, d.Dname, d.Loc, COUNT(e.EmpNo) AS EmployeeCount FROM Dept d JOIN Emp e ON d.DeptNo = e.DeptNo GROUP BY d.DeptNo, d
.Dname, d.Loc HAVING COUNT(e.EmpNo) > 1;
+--------+------------+-----------+---------------+
| DeptNo | Dname      | Loc       | EmployeeCount |
+--------+------------+-----------+---------------+
|     10 | Accounts   | Bangalore |             2 |
|     20 | IT         | Delhi     |             2 |
|     30 | Production | Chennai   |             2 |
+--------+------------+-----------+---------------+
3 rows in set (0.00 sec)
```

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

```
mysql> SELECT * FROM Emp WHERE Ename LIKE 'S%';
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1001 | Sachin | 19000.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1003 | Stefen | 12000.00 | 1990-01-01 |     500.00 |     20 | 1007 |
+-------+--------+----------+------------+------------+--------+------+
2 rows in set (0.00 sec)
```

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

```
mysql> SELECT * FROM Emp WHERE YEAR(Hire_Date) <= YEAR(CURDATE()) - 2;
+-------+----------+----------+------------+------------+--------+------+
| EmpNo | Ename    | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+----------+----------+------------+------------+--------+------+
|  1001 | Sachin   | 19000.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1002 | Kapil    | 15000.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1003 | Stefen   | 12000.00 | 1990-01-01 |     500.00 |     20 | 1007 |
|  1004 | Williams |  9000.00 | 2001-01-01 |       NULL |     30 | 1007 |
|  1005 | John     |  5000.00 | 2005-01-01 |       NULL |     30 | 1006 |
|  1006 | Dravid   | 19000.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
|  1007 | Martin   | 21000.00 | 2000-01-01 |    1040.00 |   NULL | NULL |
+-------+----------+----------+------------+------------+--------+------+
7 rows in set (0.00 sec)
```

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

```
mysql> SELECT Ename, REPLACE(Ename, 'a', '#') FROM Emp;
+----------+-----------------------------+
| Ename    | REPLACE(Ename, 'a', '#') |
+----------+-----------------------------+
| Sachin   | S#chin                      |
| Kapil    | K#pil                       |
| Stefen   | Stefen                      |
| Williams | Willi#ms                    |
| John     | John                        |
| Dravid   | Dr#vid                      |
| Martin   | M#rtin                      |
+----------+-----------------------------+
7 rows in set (0.00 sec)
```

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

```
mysql> SELECT e1.Ename AS Employee, e2.Ename AS Manager FROM Emp e1 LEFT JOIN Emp e2 ON e1.Mgr = e2.EmpNo;
+----------+---------+
| Employee | Manager |
+----------+---------+
| Sachin   | Stefen  |
| Kapil    | Stefen  |
| Stefen   | Martin  |
| Williams | Martin  |
| John     | Dravid  |
| Dravid   | Martin  |
| Martin   | NULL    |
+----------+---------+
```

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

```
mysql> SELECT d.Dname, SUM(e.Sal) AS TotalSalary FROM Dept d JOIN Emp e ON d.DeptNo = e.DeptNo GROUP BY d.Dname;
+------------+-------------+
| Dname      | TotalSalary |
+------------+-------------+
| IT         |    31000.00 |
| Accounts   |    34000.00 |
| Production |    14000.00 |
+------------+-------------+
3 rows in set (0.00 sec)
```

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

```
mysql> SELECT e.*, d.Dname, d.Loc FROM Emp e RIGHT JOIN Dept d ON e.DeptNo = d.DeptNo;
+-------+----------+----------+------------+------------+--------+------+------------+-----------+
| EmpNo | Ename    | Sal      | Hire_Date  | Commission | DeptNo | Mgr  | Dname      | Loc       |
+-------+----------+----------+------------+------------+--------+------+------------+-----------+
|  1002 | Kapil    | 15000.00 | 1970-01-01 |    2300.00 |     10 | 1003 | Accounts   | Bangalore |
|  1006 | Dravid   | 19000.00 | 1985-01-01 |    2400.00 |     10 | 1007 | Accounts   | Bangalore |
|  1001 | Sachin   | 19000.00 | 1980-01-01 |    2100.00 |     20 | 1003 | IT         | Delhi     |
|  1003 | Stefen   | 12000.00 | 1990-01-01 |     500.00 |     20 | 1007 | IT         | Delhi     |
|  1004 | Williams |  9000.00 | 2001-01-01 |       NULL |     30 | 1007 | Production | Chennai   |
|  1005 | John     |  5000.00 | 2005-01-01 |       NULL |     30 | 1006 | Production | Chennai   |
|  NULL | NULL     |     NULL | NULL       |       NULL |   NULL | NULL | Sales      | Hyderabad |
|  NULL | NULL     |     NULL | NULL       |       NULL |   NULL | NULL | Admin      | London    |
+-------+----------+----------+------------+------------+--------+------+------------+-----------+
8 rows in set (0.00 sec)
```

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

```
mysql> UPDATE Emp SET Sal = Sal * 1.1;
Query OK, 7 rows affected (0.00 sec)
Rows matched: 7  Changed: 7  Warnings: 0

mysql> SELECT * FROM Emp;
+-------+----------+----------+------------+------------+--------+------+
| EmpNo | Ename    | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+----------+----------+------------+------------+--------+------+
|  1001 | Sachin   | 20900.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1002 | Kapil    | 16500.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1003 | Stefen   | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |
|  1004 | Williams |  9900.00 | 2001-01-01 |       NULL |     30 | 1007 |
|  1005 | John     |  5500.00 | 2005-01-01 |       NULL |     30 | 1006 |
|  1006 | Dravid   | 20900.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
|  1007 | Martin   | 23100.00 | 2000-01-01 |    1040.00 |   NULL | NULL |
+-------+----------+----------+------------+------------+--------+------+
7 rows in set (0.00 sec)
```

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

```
mysql> DELETE FROM Emp WHERE DeptNo IN (SELECT DeptNo FROM Dept WHERE Loc = 'Chennai');
Query OK, 2 rows affected (0.00 sec)

mysql> SELECT * FROM Emp;
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1001 | Sachin | 20900.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1002 | Kapil  | 16500.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1003 | Stefen | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |
|  1006 | Dravid | 20900.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
|  1007 | Martin | 23100.00 | 2000-01-01 |    1040.00 |   NULL | NULL |
+-------+--------+----------+------------+------------+--------+------+
5 rows in set (0.00 sec)
```

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

```
mysql> SELECT Ename, (Sal + IFNULL(Commission, 0)) AS Gross_Salary FROM Emp;
+--------+--------------+
| Ename  | Gross_Salary |
+--------+--------------+
| Sachin |     23000.00 |
| Kapil  |     18800.00 |
| Stefen |     13700.00 |
| Dravid |     23300.00 |
| Martin |     24140.00 |
+--------+--------------+
5 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> ALTER TABLE Emp MODIFY Ename VARCHAR(250);
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM Emp;
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1001 | Sachin | 20900.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1002 | Kapil  | 16500.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1003 | Stefen | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |
|  1006 | Dravid | 20900.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
|  1007 | Martin | 23100.00 | 2000-01-01 |    1040.00 |   NULL | NULL |
+-------+--------+----------+------------+------------+--------+------+
5 rows in set (0.00 sec)

mysql> DESC Emp;
+------------+---------------+------+-----+---------+-------+
| Field      | Type          | Null | Key | Default | Extra |
+------------+---------------+------+-----+---------+-------+
| EmpNo      | int           | NO   | PRI | NULL    |       |
| Ename      | varchar(250)  | YES  |     | NULL    |       |
| Sal        | decimal(10,2) | YES  |     | NULL    |       |
| Hire_Date  | date          | YES  |     | NULL    |       |
| Commission | decimal(10,2) | YES  |     | NULL    |       |
| DeptNo     | int           | YES  | MUL | NULL    |       |
| Mgr        | int           | YES  | MUL | NULL    |       |
+------------+---------------+------+-----+---------+-------+
```

13. Write query to get current datetime.

```
mysql> SELECT NOW();
+---------------------+
| NOW()               |
+---------------------+
| 2025-03-03 11:33:57 |
+---------------------+
1 row in set (0.00 sec)
```

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

```
mysql> CREATE TABLE STUDENT ( StudentID INT PRIMARY KEY,Name VARCHAR(100), Age INT,Course VARCHAR(100),EnrollmentDate DATE);
Query OK, 0 rows affected (0.01 sec)

mysql>  SELECT * FROM STUDENT
    -> ;
Empty set (0.00 sec)
```

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

```
mysql> SELECT COUNT(*) AS Num_Employees FROM Emp WHERE Sal > 10000;
+---------------+
| Num_Employees |
+---------------+
|             5 |
+---------------+
1 row in set (0.00 sec)
```

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

```
mysql> SELECT MIN(Sal) AS Min_Salary, MAX(Sal) AS Max_Salary, AVG(Sal) AS Avg_Salary FROM Emp;
+------------+------------+-------------+
| Min_Salary | Max_Salary | Avg_Salary  |
+------------+------------+-------------+
|   13200.00 |   23100.00 | 18920.000000 |
+------------+------------+-------------+
1 row in set (0.00 sec)
```

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

```
mysql> SELECT d.Loc, COUNT(e.EmpNo) AS Num_Employees FROM Dept d LEFT JOIN Emp e ON d.DeptNo = e.DeptNo GROUP BY d.Loc;
+----------+--------------+
| Loc      | Num_Employees |
+----------+--------------+
| Bangalore |            2 |
| Delhi     |            2 |
| Chennai   |            0 |
| Hyderabad |            0 |
| London    |            0 |
+----------+--------------+
5 rows in set (0.00 sec)
```

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

```
mysql> SELECT Ename FROM Emp ORDER BY Ename DESC;
+--------+
| Ename  |
+--------+
| Stefen |
| Sachin |
| Martin |
| Kapil  |
| Dravid |
+--------+
5 rows in set (0.00 sec)
```

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

```
mysql> CREATE TABLE EMP_BKP AS SELECT * FROM Emp;
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM EMP_BKP
    -> ;
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1001 | Sachin | 20900.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1002 | Kapil  | 16500.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1003 | Stefen | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |
|  1006 | Dravid | 20900.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
|  1007 | Martin | 23100.00 | 2000-01-01 |    1040.00 |   NULL | NULL |
+-------+--------+----------+------------+------------+--------+------+
5 rows in set (0.00 sec)
```

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

```
mysql> SELECT CONCAT(LEFT(Ename, 3), Sal) AS Employee_Info FROM Emp;
+---------------+
| Employee_Info |
+---------------+
| Sac20900.00   |
| Kap16500.00   |
| Ste13200.00   |
| Dra20900.00   |
| Mar23100.00   |
+---------------+
5 rows in set (0.00 sec)
```

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

```
mysql> SELECT * FROM Emp WHERE Ename LIKE 'S%';
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1001 | Sachin | 20900.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1003 | Stefen | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |
+-------+--------+----------+------------+------------+--------+------+
2 rows in set (0.00 sec)
```

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

```
mysql> SELECT e.* FROM Emp e JOIN Dept d ON e.DeptNo = d.DeptNo WHERE d.Loc = 'Bangalore';
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1002 | Kapil  | 16500.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1006 | Dravid | 20900.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
+-------+--------+----------+------------+------------+--------+------+
2 rows in set (0.00 sec)
```

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

```
mysql> SELECT * FROM Emp WHERE Ename REGEXP '^[A-K]';
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1002 | Kapil  | 16500.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1006 | Dravid | 20900.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
+-------+--------+----------+------------+------------+--------+------+
2 rows in set (0.00 sec)
```

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

```
mysql> SELECT e.* FROM Emp e JOIN Emp m ON e.Mgr = m.EmpNo WHERE m.Ename = 'Stefen';
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1001 | Sachin | 20900.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1002 | Kapil  | 16500.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
+-------+--------+----------+------------+------------+--------+------+
2 rows in set (0.00 sec)
```

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 Num_Employees FROM Emp WHERE Mgr IS NOT NULL GROUP BY Mgr ORDER BY Num_Employees DESC LIMIT 1;
+------+---------------+
| Mgr  | Num_Employees |
+------+---------------+
| 1003 |             2 |
+------+---------------+
1 row in set (0.00 sec)
```

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 e.*, d.*, m.Ename AS Manager_Name FROM Emp e JOIN Dept d ON e.DeptNo = d.DeptNo LEFT JOIN Emp m ON e.Mgr = m.EmpNo WHERE e.Sal = (SELECT DISTINCT Sal FROM Emp ORDER BY Sal DESC LIMIT 1 OFFSET 1);
+-------+--------+----------+------------+------------+--------+------+--------+----------+--------+--------------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  | DeptNo | Dname    | Loc    | Manager_Name |
+-------+--------+----------+------------+------------+--------+------+--------+----------+--------+--------------+
|  1001 | Sachin | 20900.00 | 1980-01-01 |    2100.00 |     20 | 1003 |     20 | IT       | Delhi  | Stefen       |
|  1006 | Dravid | 20900.00 | 1985-01-01 |    2400.00 |     10 | 1007 |     10 | Accounts | Bangalore | Martin    |
+-------+--------+----------+------------+------------+--------+------+--------+----------+--------+--------------+
2 rows in set (0.01 sec)
```

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

```
mysql> SELECT * FROM Emp WHERE EmpNo IN (SELECT DISTINCT Mgr FROM Emp WHERE Mgr IS NOT NULL);
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1003 | Stefen | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |
|  1007 | Martin | 23100.00 | 2000-01-01 |    1040.00 |   NULL | NULL |
+-------+--------+----------+------------+------------+--------+------+
2 rows in set (0.00 sec)
```

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

```
mysql> SELECT e.*, TIMESTAMPDIFF(YEAR, e.Hire_Date, CURDATE()) AS Experience_Years FROM Emp e WHERE EmpNo IN (SELECT DISTINCT Mgr FROM Emp WHERE Mgr IS NOT NULL);
+------+--------+----------+------------+------------+--------+------+-----------------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  | Experience_Years |
+------+--------+----------+------------+------------+--------+------+-----------------+
|  1003 | Stefen | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |              35 |
|  1007 | Martin | 23100.00 | 2000-01-01 |    1040.00 |   NULL | NULL |              25 |
+------+--------+----------+------------+------------+--------+------+-----------------+
2 rows in set (0.00 sec)
```

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

```
mysql> SELECT e.* FROM Emp e JOIN Dept d ON e.DeptNo = d.DeptNo WHERE e.EmpNo IN (SELECT DISTINCT Mgr FROM Emp WHERE Mgr IS NOT NULL) AND IFNULL(e.Commission, 0) < 1000 AND d.Loc = 'Delhi';
+------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+------+--------+----------+------------+------------+--------+------+
|  1003 | Stefen | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |
+------+--------+----------+------------+------------+--------+------+
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
    -> WHERE Hire_Date < (SELECT Hire_Date FROM Emp WHERE Ename = 'Martin');
+-------+--------+----------+------------+------------+--------+------+
| EmpNo | Ename  | Sal      | Hire_Date  | Commission | DeptNo | Mgr  |
+-------+--------+----------+------------+------------+--------+------+
|  1001 | Sachin | 20900.00 | 1980-01-01 |    2100.00 |     20 | 1003 |
|  1002 | Kapil  | 16500.00 | 1970-01-01 |    2300.00 |     10 | 1003 |
|  1003 | Stefen | 13200.00 | 1990-01-01 |     500.00 |     20 | 1007 |
|  1006 | Dravid | 20900.00 | 1985-01-01 |    2400.00 |     10 | 1007 |
+-------+--------+----------+------------+------------+--------+------+
4 rows in set (0.00 sec)
```