CSE2007 - DBMS

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LAB 7

EMPLOYEE Table:

EMP_ID	EMP_NAME	DESIGNATION	MANAGER_ID	DOJ	DEPT_ID	SALARY	GENDER
1008	Kiran	Principal		1978-02-01	DEPT_1004	99000.00	M
1001	Akash	Salesman	1008	1991-07-15	DEPT_1003	35000.00	M
1002	Rishabh	Manager	1008	1992-05-23	DEPT_1001	65000.00	M
1004	Ridhi	Manager	1008	1987-11-22	DEPT_1001	85000.00	F
1003	Rihan	Analyst	1004	1991-07-15	DEPT_1001	55000.00	M
1007	Seema	Manager	1008	1991-07-15	DEPT_1001	65000.00	F
1005	Sajal	Salesman	1007	1991-07-15	DEPT_1003	35000.00	M
1006	Biki	Salesman	1002	1999-11-26	DEPT_1003	25000.00	F

DEPARTMENT Table:

DEPT_NUM	DEPT_NAME	DEPT_LOCATION	Phn_Num
DEPT_1001	Human Resource	Delhi	1111
DEPT_1002	Production	Kolkata	2222
DEPT_1003	Marketing	Kerala	3333
DEPT_1004	Audit	Noida	4444
DEPT_1005	Finance	Andhra Pradesh	5555

PROJECT Table:

Pno	Pname	Budget	City
P001	HealthCare	750000	Kolkata
P002	ComputerVision	1000000	Delhi
P003	NetworkSecurity	9500000	Chennai
P004	Forensic	1200000	Guwahati
P005	Security	1500000	Hyderabad

Works Table:

Eno	Pno	Duration
1001	P001	6
1002	P001	6
1003	P001	6
1005	P002	9
1006	P002	9
1007	P002	9
1004	P003	5
1008	P003	5

Execute the following queries:

1. Display which employees worked in which locations?

```
mysql> select EMP_ID, EMP_NAME, DEPT_LOCATION from EMPLOYEE inner join DEPARTMENT on EMPLOYEE.DEPT_ID = DEPARTMENT.DEPT_NUM;
+--------+----------+---------------+
| EMP_ID | EMP_NAME | DEPT_LOCATION |
+--------+----------+---------------+
|   1002 | Rishabh  | Delhi         |
|   1003 | Rihan    | Delhi         |
|   1004 | Ridhi    | Delhi         |
|   1007 | Seema    | Delhi         |
|   1001 | Akash    | Kerala        |
|   1005 | Sajal    | Kerala        |
|   1006 | Bikki    | Kerala        |
|   1008 | Kiran    | Noida         |
+--------+----------+---------------+
8 rows in set (0.00 sec)
```

Consider the following tables for writing the queries

EMPLOYEE Table:

EMP_ID	EMP_NAME	DESIGNATION	MANAGER_ID	DOJ
1008	Kiran	Principal		1978-02-0

2. Find the name, id, designation, department id, department name, of the employees who work in Kerala.

```
mysql> select EMP_NAME, EMP_ID, DESIGNATION, DEPT_ID, DEPT_NAME
    -> from EMPLOYEE
    -> inner join DEPARTMENT on EMPLOYEE.DEPT_ID = DEPARTMENT.DEPT_NUM
    -> where DEPT_LOCATION="Kerala";
+----------+--------+-------------+-----------+-----------+
| EMP_NAME | EMP_ID | DESIGNATION | DEPT_ID   | DEPT_NAME |
+----------+--------+-------------+-----------+-----------+
| Akash    |   1001 | Salesman    | DEPT_1003 | Marketing |
| Sajal    |   1005 | Salesman    | DEPT_1003 | Marketing |
| Bikki    |   1006 | Salesman    | DEPT_1003 | Marketing |
+----------+--------+-------------+-----------+-----------+
3 rows in set (0.00 sec)
```

3. Display the manager details (manager id and manager name) of all employees. (Hints: employee name and employee id)

```
mysql> select A.EMP_ID as EMP_ID, A.EMP_NAME as EMP_NAME, B.EMP_ID as MANAGER_ID, B.EMP_NAME as MANAGER_NAME  from EMPLOYEE A, EMPLOYEE B where A.EMP_ID<>B.EMP_ID and A.MANAGER_ID=B.EMP_ID orde
r by A.EMP_ID;
+--------+----------+------------+--------------+
| EMP_ID | EMP_NAME | MANAGER_ID | MANAGER_NAME |
+--------+----------+------------+--------------+
|   1001 | Akash    |       1008 | Kiran        |
|   1002 | Rishabh  |       1008 | Kiran        |
|   1003 | Rihan    |       1004 | Ridhi        |
|   1004 | Ridhi    |       1008 | Kiran        |
|   1005 | Sajal    |       1007 | Seema        |
|   1006 | Bikki    |       1002 | Rishabh      |
|   1007 | Seema    |       1008 | Kiran        |
+--------+----------+------------+--------------+
7 rows in set (0.01 sec)
```

Consider the following tables for writing the queries

EMPLOYEE Table:

EMP_ID	EMP_NAME	DESIGNATION	MANAGER_ID	DOJ	DEPT_ID	SALARY	GENDER
1008	Kiran	Principal		1978-02-01	DEPT_1004	99000.00	M

4. Find project details (project number, project name, budget, project duration) of all employees. (2 Marks)

```
mysql> select Eno, Pno, Budget, Duration from PROJECT natural join WORKS;
+------+------+---------+----------+
| Eno  | Pno  | Budget  | Duration |
+------+------+---------+----------+
| 1001 | P001 |  750000 |        6 |
| 1002 | P001 |  750000 |        6 |
| 1003 | P001 |  750000 |        6 |
| 1005 | P002 | 1000000 |        9 |
| 1006 | P002 | 1000000 |        9 |
| 1007 | P002 | 1000000 |        9 |
| 1004 | P003 | 9500000 |        5 |
| 1008 | P003 | 9500000 |        5 |
+------+------+---------+----------+
8 rows in set (0.00 sec)
```

5. Display the department name, number of employees and total salary in each department. (2 Marks)

```
mysql> select DEPT_ID, DEPT_NAME,count(*),sum(SALARY) from EMPLOYEE inner join DEPARTMENT on DEPARTMENT.DEPT_NUM=EMPLOYEE.DEPT_ID group by DEPT_ID having count(*)>0;
+-----------+----------------+----------+-------------+
| DEPT_ID   | DEPT_NAME      | count(*) | sum(SALARY) |
+-----------+----------------+----------+-------------+
| DEPT_1003 | Marketing      |        3 |       95000 |
| DEPT_1001 | Human Resource |        4 |      270000 |
| DEPT_1004 | Audit          |        1 |       99000 |
+-----------+----------------+----------+-------------+
3 rows in set (0.00 sec)
```

6. Display the project details where employees work for more than 6 hours.

```
mysql> select PROJECT.Pno, PROJECT.Pname, PROJECT.Budget, PROJECT.City, WORKS.Duration from PROJECT inner join WORKS on WORKS.Pno=PROJECT.Pno where WORKS.Duration>6;
+------+---------------+---------+-------+----------+
| Pno  | Pname         | Budget  | City  | Duration |
+------+---------------+---------+-------+----------+
| P002 | ComputerVision | 1000000 | Delhi |        9 |
| P002 | ComputerVision | 1000000 | Delhi |        9 |
| P002 | ComputerVision | 1000000 | Delhi |        9 |
+------+---------------+---------+-------+----------+
3 rows in set (0.00 sec)
```

7. Display the name, date of join, salary of the manager who had joined after 1991-07-15.

```
mysql> select EMP_NAME, DOJ, SALARY from EMPLOYEE where DOJ>1991-07-15 and Designation = "Manager";
+----------+------------+--------+
| EMP_NAME | DOJ        | SALARY |
+----------+------------+--------+
| Rishabh  | 1992-05-23 |  65000 |
| Ridhi    | 1987-11-22 |  85000 |
| Seema    | 1991-07-15 |  65000 |
+----------+------------+--------+
3 rows in set, 1 warning (0.01 sec)
```

8. Display the department name, manager name, and city of all managers.

```
mysql> select DEPARTMENT.DEPT_NAME, EMPLOYEE.EMP_NAME, DEPARTMENT.DEPT_LOCATION  from EMPLOYEE inner join DEPARTMENT on EMPLOYEE.DEPT_ID=DEPARTMENT.DEPT_NUM;
+----------------+----------+---------------+
| DEPT_NAME      | EMP_NAME | DEPT_LOCATION |
+----------------+----------+---------------+
| Human Resource | Rishabh  | Delhi         |
| Human Resource | Rihan    | Delhi         |
| Human Resource | Ridhi    | Delhi         |
| Human Resource | Seema    | Delhi         |
| Marketing      | Akash    | Kerala        |
| Marketing      | Sajal    | Kerala        |
| Marketing      | Bikki    | Kerala        |
| Audit          | Kiran    | Noida         |
+----------------+----------+---------------+
8 rows in set (0.00 sec)
```

Execute the following queries: