

create database employee;

use employee;

```
CREATE TABLE DEPT (  
    DEPTNO INT PRIMARY KEY,  
    DNAME VARCHAR(50),  
    DLOC VARCHAR(50)  
);
```

```
CREATE TABLE EMPLOYEE (  
    EMPNO INT PRIMARY KEY,  
    ENAME VARCHAR(50),  
    MGR_NO INT,  
    HIREDATE DATE,  
    SAL DECIMAL(10,2),  
    DEPTNO INT,  
    FOREIGN KEY (DEPTNO) REFERENCES DEPT(DEPTNO)  
);
```

```
CREATE TABLE PROJECT (  
    PNO INT PRIMARY KEY,  
    PLOC VARCHAR(50),  
    PNAME VARCHAR(50)  
);
```

```
CREATE TABLE ASSIGNED_TO (  
    EMPNO INT,  
    PNO INT,  
    JOB_ROLE VARCHAR(50),  
    PRIMARY KEY (EMPNO, PNO),  
    FOREIGN KEY (EMPNO) REFERENCES EMPLOYEE(EMPNO),  
    FOREIGN KEY (PNO) REFERENCES PROJECT(PNO)
```

);

CREATE TABLE INCENTIVES (

EMPNO INT,

INCENTIVE_DATE DATE,

INCENTIVE_AMOUNT DECIMAL(10 , 2),

PRIMARY KEY (EMPNO , INCENTIVE_DATE),

FOREIGN KEY (EMPNO)

REFERENCES EMPLOYEE (EMPNO)

);

INSERT INTO DEPT VALUES

(10, 'HR', 'Mumbai'),

(20, 'Finance', 'Delhi'),

(30, 'IT', 'Bangalore'),

(40, 'Sales', 'Pune'),

(50, 'Marketing', 'Chennai'),

(60, 'R&D', 'Hyderabad');

INSERT INTO EMPLOYEE VALUES

(101, 'Amit', NULL, '2020-01-15', 50000, 10),

(102, 'Riya', 101, '2019-03-10', 60000, 20),

(103, 'Raj', 101, '2021-06-20', 55000, 30),

(104, 'Sneha', 102, '2022-08-25', 48000, 40),

(105, 'Karan', 103, '2023-02-12', 70000, 50),

(106, 'Meera', 104, '2021-12-01', 65000, 60);

INSERT INTO PROJECT VALUES

(201, 'Mysuru', 'Payroll System'),

```
(202, 'Delhi', 'Audit Automation'),  
(203, 'Bangalore', 'AI Chatbot'),  
(204, 'Pune', 'CRM Development'),  
(205, 'Chennai', 'Ad Campaign'),  
(206, 'Hyderabad', 'Product Prototype');
```

INSERT INTO ASSIGNED_TO VALUES

```
(101, 201, 'Manager'),  
(102, 202, 'Auditor'),  
(103, 203, 'Developer'),  
(104, 204, 'Tester'),  
(105, 205, 'Marketing Lead'),  
(106, 206, 'Research Analyst');
```

INSERT INTO INCENTIVES VALUES

```
(101, '2024-01-10', 5000),  
(102, '2024-02-12', 4000),  
(103, '2024-03-18', 3500),  
(104, '2024-04-25', 3000),  
(105, '2024-05-30', 6000),  
(106, '2024-06-15', 5500);
```

-- Retrieve the employee numbers of all employees who work on project located in Bengaluru, Hyderabad, or Mysuru

```
select a.EMPNO  
from ASSIGNED_TO a,PROJECT p  
where a.PNO=p.PNO
```

```
AND p.PLOC in ('Mysuru','Bangalore','Hyderabad');
```

-- Get Employee ID's of those employees who didn't receive incentives

```
SELECT EMPNO
```

```
FROM EMPLOYEE
```

```
WHERE EMPNO NOT IN (SELECT EMPNO FROM INCENTIVES);
```

-- Write a SQL query to find the employees name, number, dept, job_role, department location and project location who are working for a project location same as his/her department location.

```
select e.EMPNO,e.ENAME,d.DNAME,a.JOB_ROLE,d.DLOC,p.PLOC
```

```
from EMPLOYEE e,PROJECT p,ASSIGNED_TO a,DEPT d
```

```
where e.EMPNO=a.EMPNO AND p.PNO=a.PNO AND d.DEPTNO=e.DEPTNO and  
d.DLOC=p.PLOC;
```

-- List the name of the managers with the maximum employees

```
select MGR_NO,count(*) as EMP_NO
```

```
from EMPLOYEE
```

```
where MGR_NO IS NOT NULL
```

```
group by MGR_NO
```

```
LIMIT 1;
```

-- Display those managers name whose salary is more than average salary of his employee.

```
SELECT DISTINCT M.ENAME AS MANAGER_NAME, M.SAL AS MANAGER_SALARY
```

```
FROM EMPLOYEE M,EMPLOYEE E
```

where E.MGR_NO = M.EMPNO

GROUP BY M.EMPNO, M.ENAME, M.SAL

HAVING M.SAL > AVG(E.SAL);

-- Find the name of the second top level managers of each department.

SELECT DISTINCT E2.ENAME AS SECOND_TOP_MANAGER, D.DNAME

FROM EMPLOYEE E1

JOIN EMPLOYEE E2 ON E1.MGR_NO = E2.EMPNO

JOIN EMPLOYEE E3 ON E2.MGR_NO = E3.EMPNO

JOIN DEPT D ON E2.DEPTNO = D.DEPTNO;

-- Find the employee details who got second maximum incentive in January 2019.

SELECT *

FROM INCENTIVES

WHERE INCENTIVE_DATE BETWEEN '2019-01-01' AND '2019-01-31'

AND INCENTIVE_AMOUNT = (

SELECT MAX(INCENTIVE_AMOUNT)

FROM INCENTIVES

WHERE INCENTIVE_DATE BETWEEN '2019-01-01' AND '2019-01-31'

AND INCENTIVE_AMOUNT < (

SELECT MAX(INCENTIVE_AMOUNT)

FROM INCENTIVES

WHERE INCENTIVE_DATE BETWEEN '2019-01-01' AND '2019-01-31'

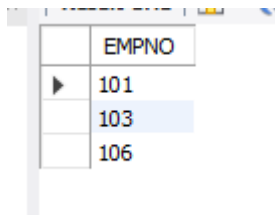
)

);

-- Display those employees who are working in the same department where his manager is working.

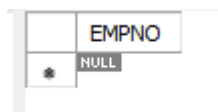
```
SELECT E.EMPNO, E.ENAME, E.DEPTNO, D.DNAME
FROM EMPLOYEE E
JOIN EMPLOYEE M ON E.MGR_NO = M.EMPNO
JOIN DEPT D ON E.DEPTNO = D.DEPTNO
WHERE E.DEPTNO = M.DEPTNO;
```

Retrieve the employee numbers of all employees who work on project located in Bengaluru, Hyderabad, or Mysuru



| | EMPNO |
|---|-------|
| ▶ | 101 |
| | 103 |
| | 106 |

-- Get Employee ID's of those employees who didn't receive incentives



| | EMPNO |
|---|-------|
| * | HULL |

-- Write a SQL query to find the employees name, number, dept, job_role, department location and project location who are working for a project location same as his/her department location

| Result Grid | | | | | | |
|--------------|-------|-------|-----------|------------------|--------------------|-----------|
| Filter Rows: | | | | Export: | Wrap Cell Content: | |
| | EMPNO | ENAME | DNAME | JOB_ROLE | DLOC | PLOC |
| ▶ | 101 | Amit | HR | Manager | Mysuru | Mysuru |
| | 102 | Riya | Finance | Auditor | Delhi | Delhi |
| | 103 | Raj | IT | Developer | Bangalore | Bangalore |
| | 104 | Sneha | Sales | Tester | Pune | Pune |
| | 105 | Karan | Marketing | Marketing Lead | Chennai | Chennai |
| | 106 | Meera | R&D | Research Analyst | Hyderabad | Hyderabad |

-- List the name of the managers with the maximum employees

| | MGR_NO | EMP_NO |
|---|--------|--------|
| ▶ | 101 | 2 |

-- Display those managers name whose salary is more than average salary of his employee.

| | MANAGER_NAME | MANAGER_SALARY |
|---|--------------|----------------|
| ▶ | Riya | 60000.00 |

-- Find the name of the second top level managers of each department.

| | SECOND_TOP_MANAGER | DNAME |
|---|--------------------|---------|
| ▶ | Riya | Finance |
| | Raj | IT |
| | Sneha | Sales |

Find the employee details who got second maximum incentive in January 2019.

| | EMPNO | INCENTIVE_DATE | INCENTIVE_AMOUNT |
|---|-------|----------------|------------------|
| * | NULL | NULL | NULL |

-- Display those employees who are working in the same department where his manager is working.

| RESULT (10) | | | | |
|-------------|-------|-------|--------|-------|
| | EMPNO | ENAME | DEPTNO | DNAME |