

create database employeee;

use employeee;

```
CREATE TABLE DEPT (  
    DEPTNO INT PRIMARY KEY,  
    DNAME VARCHAR(50) NOT NULL,  
    DLOC VARCHAR(50)  
);
```

```
CREATE TABLE EMPLOYEE (  
    EMPNO INT PRIMARY KEY,  
    ENAME VARCHAR(50) NOT NULL,  
    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(100),  
    PNAME VARCHAR(200) NOT NULL  
);
```

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

```
CREATE TABLE INCENTIVES (  
    EMPNO INT,
```

```

    INCENTIVE_DATE DATE PRIMARY KEY,
    INCENTIVE_AMOUNT DECIMAL(10,2),
    FOREIGN KEY (EMPNO) REFERENCES EMPLOYEE(EMPNO)
);

INSERT INTO DEPT VALUES (1, 'R', 'BLR'),
(2, 'D', 'HBD'),
(3, 'M', 'Mysuru'),
(4, 'Sales', 'BLR'),
(5, 'HR', 'CHY'),
(6, 'Finance', 'MUMBAI');

INSERT INTO EMPLOYEE VALUES (1001, 'Raj', NULL, '2020-01-15', 75000, 1),
(1002, 'Priya ', 1001, '2020-03-20', 65000, 1),
(1003, 'Amit ', 1001, '2021-05-10', 55000, 2),
(1004, 'Sneha ', NULL, '2019-11-05', 80000, 2),
(1005, 'Vikram ', 1004, '2021-08-22', 60000, 3),
(1006, 'Ananya ', 1004, '2022-02-14', 58000, 4),
(1007, 'Karthik ', 1001, '2020-07-18', 62000, 5);

SELECT EMPNO FROM EMPLOYEE;


INSERT INTO PROJECT VALUES (101, 'BLR', 'A Project'),
(102, 'HBD', 'B PROJECT'),
(103, 'Mysuru', 'C PROJECT'),
(104, 'BLR', 'D PROJECT'),
(105, 'CHY', 'E PROJECT'),
(106, 'MUMBAI', 'F PROJECT');

INSERT INTO ASSIGNED_TO VALUES (1001, 101, 'Manager'),
(1002, 101, 'Developer'),
(1003, 102, 'Tech Lead'),
(1004, 102, 'Architect'),
(1005, 103, 'JDeveloper'),
(1006, 104, 'Analyst'),

```

```

(1007, 105, 'SEngineer');

INSERT INTO INCENTIVES VALUES (1001, '2023-06-30', 15000),

(1002, '2023-06-3', 12000),

(1003, '2023-12-31', 10000),

(1004, '2023-06-7', 18000),

(1005, '2024-01-15', 8000),

(1006, '2023-12-5', 11000);

```

-- 7-11-2025

-- List employees with their department name & location

```

SELECT

e.EMPNO,

e.ENAME,

d.DNAME AS Department_Name,

d.DLOC AS Department_Location

FROM EMPLOYEE e

JOIN DEPT d ON e.DEPTNO = d.DEPTNO;

```

	EMPNO	ENAME	Department_Name	Department_Location
▶	1001	Raj	R	BLR
	1002	Priya	R	BLR
	1003	Amit	D	HBD
	1004	Sneha	D	HBD
	1005	Vikram	M	Mysuru
	1006	Ananya	Sales	BLR
	1007	Karthik	HR	CHY

-- Employees who are not assigned to any project

SELECT

e.EMPNO,

e.ENAME

FROM EMPLOYEE e

LEFT JOIN ASSIGNED\_TO a ON e.EMPNO = a.EMPNO

WHERE a.PNO IS NULL;

EMPNO	ENAME
-------	-------

-- Department-wise average & max salary

select d.DNAME,avg(e.SAL) as avgsalary,max(e.SAL)

as max\_salary

from DEPT d

left join EMPLOYEE e on d.DEPTNO=e.DEPTNO

group by d.DNAME;

	DNAME	avgsalary	max_salary
	R	70000.000000	75000.00
	D	67500.000000	80000.00
	M	60000.000000	60000.00
	Sales	58000.000000	58000.00
▶	HR	62000.000000	62000.00
	Finance	NULL	NULL

-- Total incentives earned by each employee (lifetime)

```
select E.EMPNO,SUM(I.INCENTIVE_AMOUNT)
```

```
FROM EMPLOYEE E,INCENTIVES I
```

```
WHERE E.EMPNO=I.EMPNO
```

```
GROUP BY E.EMPNO;
```

	EMPNO	SUM(I.INCENTIVE_AMOUNT)
▶	1002	12000.00
	1004	18000.00
	1001	15000.00
	1006	11000.00
	1003	10000.00
	1005	8000.00

;

-- Employees working on a given project (project name :Alpha Project)

```
SELECT E.EMPNO,E.ENAME,P.PNAME
```

```
FROM EMPLOYEE E,PROJECT P,ASSIGNED_TO A
```

```
WHERE E.EMPNO=A.EMPNO AND A.PNO=P.PNO AND PNAME='C PROJECT';
```

	EMPNO	ENAME	PNAME
▶	1005	Vikram	C PROJECT

-- Departments with no employees

```
SELECT DEPTNO,ENAME
```

```
FROM EMPLOYEE
```

```
WHERE DEPTNO NOT IN(SELECT DEPTNO FROM DEPT);
```

	DEPTNO	ENAME
--	--------	-------

-- Managers and their direct report counts (MGR\_NO references EMPNO)

```
SELECT M.ENAME AS MANAGER_NAME,  
COUNT(E.EMPNO) AS DIRECT_REPORT  
FROM EMPLOYEE M  
JOIN EMPLOYEE E ON M.EMPNO=E.MGR_NO  
GROUP BY M.ENAME;
```

	MANAGER_NAME	DIRECT_REPORT
▶	Raj	3
	Sneha	2

-- Employees assigned to more than one project.

```
SELECT  
e.EMPNO,  
e.ENAME,  
COUNT(a.PNO) AS Project_Count  
FROM EMPLOYEE e  
JOIN ASSIGNED_TO a ON e.EMPNO = a.EMPNO  
GROUP BY e.EMPNO, e.ENAME  
HAVING COUNT(a.PNO) > 1;
```

	EMPNO	ENAME	Project_Count
--	-------	-------	---------------