

```
create database employee;
use employee;

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