

```
CREATE DATABASE company;
```

```
use company;
```

```
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,  
    PNAME VARCHAR(50),  
    PLOC VARCHAR(50)  
);
```

```
CREATE TABLE INCENTIVES (  
    EMPNO INT,  
    INCENTIVE_DATE DATE,  
    INCENTIVE_AMOUNT DECIMAL(10,2),
```

```
FOREIGN KEY (EMPNO) REFERENCES EMPLOYEE(EMPNO)
);
```

```
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)
);
```

```
INSERT INTO DEPT VALUES
(10, 'HR', 'Bengaluru'),
(20, 'IT', 'Hyderabad'),
(30, 'Finance', 'Mysuru'),
(40, 'Marketing', 'Bengaluru'),
(50, 'Research', 'Hyderabad');
```

```
INSERT INTO EMPLOYEE VALUES
(101, 'Arun', NULL, '2020-01-10', 50000, 10),
(102, 'Bhavna', 101, '2021-03-15', 60000, 20),
(103, 'Chitra', 101, '2019-07-20', 55000, 30),
(104, 'Deepak', 103, '2022-05-25', 45000, 40),
(105, 'Esha', 102, '2023-06-30', 48000, 50),
(106, 'Farhan', 101, '2024-02-10', 53000, 20);
```

INSERT INTO PROJECT VALUES

(1, 'AI Research', 'Hyderabad'),
(2, 'Data Analytics', 'Bengaluru'),
(3, 'Web Portal', 'Mysuru'),
(4, 'Cloud Infra', 'Hyderabad'),
(5, 'E-Commerce', 'Bengaluru');

INSERT INTO ASSIGNED_TO VALUES

(101, 2, 'Manager'),
(102, 1, 'Developer'),
(103, 3, 'Analyst'),
(104, 5, 'Tester'),
(105, 4, 'Support'),
(106, 1, 'Engineer');

INSERT INTO INCENTIVES VALUES

(101, '2024-04-01', 5000),
(102, '2024-05-10', 3000),
(104, '2024-08-20', 4000);

SELECT * FROM Employee;

Result Grid						
Filter Rows:						
	EMPNO	ENAME	MGR_NO	HIREDATE	SAL	DEPTNO
▶	101	Arun	NULL	2020-01-10	50000.00	10
	102	Bhavna	101	2021-03-15	60000.00	20
	103	Chitra	101	2019-07-20	55000.00	30
	104	Deepak	103	2022-05-25	45000.00	40
	105	Esha	102	2023-06-30	48000.00	50
	106	Farhan	101	2024-02-10	53000.00	20
✱	NULL	NULL	NULL	NULL	NULL	NULL

SELECT * FROM DEPT;

Result Grid			
Filter Rows:			
	DEPTNO	DNAME	DLOC
▶	10	HR	Bengaluru
	20	IT	Hyderabad
	30	Finance	Mysuru
	40	Marketing	Bengaluru
	50	Research	Hyderabad
✱	NULL	NULL	NULL

SELECT * FROM PROJECT;

Result Grid			
		Filter Rows:	
Edit:			
	PNO	PNAME	PLOC
▶	1	AI Research	Hyderabad
	2	Data Analytics	Bengaluru
	3	Web Portal	Mysuru
	4	Cloud Infra	Hyderabad
	5	E-Commerce	Bengaluru
✱	NULL	NULL	NULL

SELECT * FROM INCENTIVES;

Result Grid			
		Filter Rows:	
		Export:	
		Wrap Cell Content:	
	EMPNO	INCENTIVE_DATE	INCENTIVE_AMOUNT
▶	101	2024-04-01	5000.00
	102	2024-05-10	3000.00
	104	2024-08-20	4000.00

SELECT * FROM ASSIGNED_TO;

Result Grid			
		Filter Rows:	
	EMPNO	PNO	JOB_ROLE
▶	101	2	Manager
	102	1	Developer
	103	3	Analyst
	104	5	Tester
	105	4	Support
	106	1	Engineer
✱	NULL	NULL	NULL

SELECT DISTINCT A.EMPNO
FROM ASSIGNED_TO A
JOIN PROJECT P ON A.PNO = P.PNO


WHERE P.PLOC IN ('Bengaluru', 'Hyderabad', 'Mysuru');

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85 • SELECT EMPNO

Result Grid

Filter Rows:

Export:  Wrap Cell Cor

	EMPNO
▶	102
	106
	101
	103
	105
	104

Resets all sorted columns

SELECT EMPNO

FROM EMPLOYEE

WHERE EMPNO NOT IN (SELECT EMPNO FROM INCENTIVES);

Result Grid

Filter Rows:

	EMPNO
▶	106
	103
	105
*	NULL

SELECT

E.ENAME,

E.EMPNO,

D.DNAME,

A.JOB_ROLE,

D.DLOC AS DEPT_LOCATION,



P.PLOC AS PROJECT_LOCATION

FROM EMPLOYEE E

```

JOIN DEPT D ON E.DEPTNO = D.DEPTNO
JOIN ASSIGNED_TO A ON E.EMPNO = A.EMPNO
JOIN PROJECT P ON A.PNO = P.PNO
WHERE D.DLOC = P.PLOC;




```

Result Grid						
Filter Rows: <input type="text"/>						
Export:  Wrap Cell Content: 						
	ENAME	EMPNO	DNAME	JOB_ROLE	DEPT_LOCATION	PROJECT_LOCATION
▶	Bhavna	102	IT	Developer	Hyderabad	Hyderabad
	Farhan	106	IT	Engineer	Hyderabad	Hyderabad
	Arun	101	HR	Manager	Bengaluru	Bengaluru
	Chitra	103	Finance	Analyst	Mysuru	Mysuru
	Esha	105	Research	Support	Hyderabad	Hyderabad
	Deepak	104	Marketing	Tester	Bengaluru	Bengaluru

```

SELECT E1.ENAME AS MANAGER_NAME, COUNT(E2.EMPNO) AS EMPLOYEE_COUNT
FROM EMPLOYEE E1
JOIN EMPLOYEE E2 ON E1.EMPNO = E2.MGR_NO
GROUP BY E1.ENAME
HAVING COUNT(E2.EMPNO) = (
    SELECT MAX(EMP_COUNT)
    FROM (
        SELECT COUNT(E2.EMPNO) AS EMP_COUNT
        FROM EMPLOYEE E1
        JOIN EMPLOYEE E2 ON E1.EMPNO = E2.MGR_NO
        GROUP BY E1.EMPNO
    ) AS TEMP
);

```

Result Grid			Filter Rows: <input type="text"/>	Export: 	Wrap Cell Content
	MANAGER_NAME	EMPLOYEE_COUNT			
▶	Arun	3			

SELECT

M.ENAME AS MANAGER_NAME, M.SAL AS MANAGER_SALARY

FROM

EMPLOYEE M

WHERE

M.EMPNO IN (SELECT

E.MGR_NO

FROM

EMPLOYEE E

WHERE

E.MGR_NO IS NOT NULL)

AND M.SAL > (SELECT

AVG(E2.SAL)

FROM

EMPLOYEE E2

WHERE

E2.MGR_NO = M.EMPNO)


```
SELECT DISTINCT E.ENAME AS SECOND_LEVEL_MANAGER, D.DNAME AS DEPARTMENT
FROM EMPLOYEE E
JOIN EMPLOYEE M ON E.MGR_NO = M.EMPNO
JOIN DEPT D ON E.DEPTNO = D.DEPTNO
WHERE M.MGR_NO IS NULL;
```

```
SELECT E.*
FROM EMPLOYEE E
JOIN INCENTIVES I ON E.EMPNO = I.EMPNO
WHERE MONTH(I.INCENTIVE_DATE) = 1
AND YEAR(I.INCENTIVE_DATE) = 2019
AND I.INCENTIVE_AMOUNT = (
    SELECT DISTINCT INCENTIVE_AMOUNT
    FROM INCENTIVES
    WHERE MONTH(INCENTIVE_DATE) = 1
    AND YEAR(INCENTIVE_DATE) = 2019
ORDER BY INCENTIVE_AMOUNT DESC
LIMIT 1 OFFSET 1
);
```




163 | AND YEAR(INCENTIVE DATE) = 2019

Result Grid | Filter Rows: | Export: | Wrap Cell Cont

	EMPNO	ENAME	MGR_NO	HIREDATE	SAL	DEPTNO
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```
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;
```

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Result Grid			Filter Rows: <input type="text"/>	Export: 	Wrap C
	EMPNO	ENAME	DEPTNO	DNAME	