

## MORE QUERIES ON EMPLOYEE DATABASE

```
show databases;
```

```
create database empl;
```

```
show databases;
```

```
use empl;
```

```
CREATE TABLE Department (  
    dept_id INT PRIMARY KEY,  
    dept_name VARCHAR(50),  
    dept_location VARCHAR(50),  
    manager_id INT  
);
```

```
CREATE TABLE Employee (  
    emp_id INT PRIMARY KEY,  
    emp_name VARCHAR(50),  
    job_role VARCHAR(50),  
    salary DECIMAL(10,2),  
    dept_id INT,  
    manager_id INT,  
    FOREIGN KEY (dept_id) REFERENCES Department(dept_id),  
    FOREIGN KEY (manager_id) REFERENCES Employee(emp_id)  
);
```

```
CREATE TABLE Project (  
    proj_id INT PRIMARY KEY,  
    proj_name VARCHAR(50),  
    proj_location VARCHAR(50),  
    dept_id INT,  
    FOREIGN KEY (dept_id) REFERENCES Department(dept_id)  
);
```

```
CREATE TABLE Works_On (  
    emp_id INT,  
    proj_id INT,  
    PRIMARY KEY (emp_id, proj_id),  
    FOREIGN KEY (emp_id) REFERENCES Employee(emp_id),  
    FOREIGN KEY (proj_id) REFERENCES Project(proj_id)  
);
```

```
CREATE TABLE Incentive (  
    emp_id INT,  
    incentive_date DATE,  
    incentive_amount DECIMAL(10,2),  
    FOREIGN KEY (emp_id) REFERENCES Employee(emp_id)  
);
```

```
show tables;
```

INSERT INTO Department VALUES

(10, 'HR', 'Bengaluru', 1001),  
(20, 'IT', 'Hyderabad', 1002),  
(30, 'Finance', 'Mysuru', 1003),  
(40, 'Admin', 'Pune', 1004),  
(50, 'Marketing', 'Chennai', 1005);

select \* from Department;

INSERT INTO Employee VALUES

(1001, 'Amit', 'Manager', 90000, 10, NULL),  
(1002, 'Ravi', 'Manager', 95000, 20, NULL),  
(1003, 'Sneha', 'Manager', 92000, 30, NULL),  
(1004, 'Kiran', 'Manager', 88000, 40, NULL),  
(1005, 'Meera', 'Manager', 97000, 50, NULL),  
(1010, 'Raj', 'Analyst', 55000, 20, 1002),  
(1011, 'Anu', 'Developer', 48000, 20, 1002),  
(1012, 'Vijay', 'HR Executive', 40000, 10, 1001),  
(1013, 'Priya', 'Accountant', 42000, 30, 1003),  
(1014, 'Suresh', 'Clerk', 30000, 40, 1004);

select \* from Employee;

INSERT INTO Project VALUES

(201, 'Recruitment', 'Bengaluru', 10),

```
(202, 'ERP Upgrade', 'Hyderabad', 20),  
(203, 'Budget Planning', 'Mysuru', 30),  
(204, 'Office Setup', 'Pune', 40),  
(205, 'Ad Campaign', 'Chennai', 50);
```

```
select * from Project;
```

```
INSERT INTO Works_On VALUES
```

```
(1010, 202),  
(1011, 202),  
(1012, 201),  
(1013, 203),  
(1014, 204);
```

```
select * from Works_On;
```

```
INSERT INTO Incentive VALUES
```

```
(1010, '2019-02-10', 2000),  
(1011, '2019-02-12', 1500),  
(1012, '2019-02-15', 1000),  
(1013, '2019-02-18', 2500),  
(1001, '2019-02-20', 3000);
```

```
select * from Incentive;
```

```
SELECT DISTINCT w.emp_id
```

```
FROM Works_On w
JOIN Project p ON w.proj_id = p.proj_id
WHERE p.proj_location IN ('Bengaluru', 'Hyderabad', 'Mysuru');
```

```
SELECT e.emp_id
FROM Employee e
WHERE e.emp_id NOT IN (SELECT emp_id FROM Incentive);
```

```
SELECT e.emp_name, e.emp_id, d.dept_name, e.job_role,
       d.dept_location, p.proj_location
FROM Employee e
JOIN Department d ON e.dept_id = d.dept_id
JOIN Works_On w ON e.emp_id = w.emp_id
JOIN Project p ON w.proj_id = p.proj_id
WHERE d.dept_location = p.proj_location;
```

```
SELECT m.emp_name AS manager_name, COUNT(e.emp_id) AS
total_employees
FROM Employee m
JOIN Employee e ON m.emp_id = e.manager_id
GROUP BY m.emp_name
HAVING COUNT(e.emp_id) = (
    SELECT MAX(cnt)
    FROM (
        SELECT COUNT(emp_id) AS cnt
        FROM Employee
        WHERE manager_id IS NOT NULL
```

```
GROUP BY manager_id  
) AS counts  
);
```

```
SELECT m.emp_name  
FROM Employee m  
JOIN Employee e ON m.emp_id = e.manager_id  
GROUP BY m.emp_name, m.salary  
HAVING m.salary > AVG(e.salary);
```

```
SELECT d.dept_name, m.emp_name AS top_manager  
FROM Department d  
JOIN Employee m ON d.manager_id = m.emp_id;
```

```
SELECT emp_id, incentive_amount  
FROM Incentive  
WHERE MONTH(incentive_date) = 2 AND YEAR(incentive_date) = 2019  
ORDER BY incentive_amount DESC  
LIMIT 1 OFFSET 1;
```

```
SELECT e.emp_name  
FROM Employee e  
JOIN Employee m ON e.manager_id = m.emp_id  
WHERE e.dept_id = m.dept_id;
```

MySQL Workbench

Local instance MySQL80 x

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Administration Schemas

Information

No object selected

Object Info Session

Query 1

```

118 WHERE d.dept_location = p.proj_location;
119
120 • SELECT m.emp_name AS manager_name, COUNT(e.emp_id) AS total_employees
121 FROM Employee m
122 JOIN Employee e ON m.emp_id = e.manager_id
123 GROUP BY m.emp_name
124 HAVING COUNT(e.emp_id) = (
125     SELECT MAX(cnt)
126     FROM

```

Result Grid

manager_name	total_employees
Ravi	2

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Action Output

#	Time	Action	Message	Duration / Fetch
34	09:36:36	SELECT m.emp_name AS manager_name, COUNT(e.emp_id) AS total_employees FROM E...	1 row(s) returned	0.047 sec / 0.000 sec
35	09:37:11	SELECT m.emp_name FROM Employee m JOIN Employee e ON m.emp_id = e.manager_id ...	4 row(s) returned	0.031 sec / 0.000 sec
36	09:37:32	SELECT d.dept_name, m.emp_name AS top_manager FROM Department d JOIN Employee ...	5 row(s) returned	0.000 sec / 0.000 sec
37	09:37:54	SELECT emp_id, incentive_amount FROM Incentive WHERE MONTH(incentive_date) = 2 ...	1 row(s) returned	0.031 sec / 0.000 sec
38	09:38:22	SELECT e.emp_name FROM Employee e JOIN Employee m ON e.manager_id = m.emp_id ...	5 row(s) returned	0.015 sec / 0.000 sec
39	09:40:48	SELECT m.emp_name AS manager_name, COUNT(e.emp_id) AS total_employees FROM E...	1 row(s) returned	0.000 sec / 0.000 sec

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Information

No object selected

Object Info Session

Query 1

```

133
134 • SELECT m.emp_name
135 FROM Employee m
136 JOIN Employee e ON m.emp_id = e.manager_id
137 GROUP BY m.emp_name, m.salary
138 HAVING m.salary > AVG(e.salary);
139
140 • SELECT d.dept_name, m.emp_name AS top_manager
141 FROM Department d

```

Result Grid

emp_name
Ravi
Amit
Sneha
Kiran

SQLAdditions

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Action Output

#	Time	Action	Message	Duration / Fetch
35	09:37:11	SELECT m.emp_name FROM Employee m JOIN Employee e ON m.emp_id = e.manager_id ...	4 row(s) returned	0.031 sec / 0.000 sec
36	09:37:32	SELECT d.dept_name, m.emp_name AS top_manager FROM Department d JOIN Employee ...	5 row(s) returned	0.000 sec / 0.000 sec
37	09:37:54	SELECT emp_id, incentive_amount FROM Incentive WHERE MONTH(incentive_date) = 2 ...	1 row(s) returned	0.031 sec / 0.000 sec
38	09:38:22	SELECT e.emp_name FROM Employee e JOIN Employee m ON e.manager_id = m.emp_id ...	5 row(s) returned	0.015 sec / 0.000 sec
39	09:40:48	SELECT m.emp_name AS manager_name, COUNT(e.emp_id) AS total_employees FROM E...	1 row(s) returned	0.000 sec / 0.000 sec
40	09:41:29	SELECT m.emp_name FROM Employee m JOIN Employee e ON m.emp_id = e.manager_id ...	4 row(s) returned	0.000 sec / 0.000 sec

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Information

No object selected

Query 1

```

136 JOIN Employee e ON m.emp_id = e.manager_id
137 GROUP BY m.emp_name, m.salary;
138 HAVING m.salary > AVG(e.salary);
139
140 SELECT d.dept_name, m.emp_name AS top_manager
141 FROM Department d
142 JOIN Employee m ON d.manager_id = m.emp_id;
143
144 SELECT emp_id, incentive_amount

```

Result Grid

dept_name	top_manager
HR	Amit
IT	Ravi
Finance	Sneha
Admin	Kiran
Marketing	Meera

Output

Action Output

#	Time	Action	Message	Duration / Fetch
36	09:37:32	SELECT d.dept_name, m.emp_name AS top_manager FROM Department d JOIN Employee ...	5 row(s) returned	0.000 sec / 0.000 sec
37	09:37:54	SELECT emp_id, incentive_amount FROM Incentive WHERE MONTH(incentive_date) = 2 ...	1 row(s) returned	0.031 sec / 0.000 sec
38	09:38:22	SELECT e.emp_name FROM Employee e JOIN Employee m ON e.manager_id = m.emp_id ...	5 row(s) returned	0.015 sec / 0.000 sec
39	09:40:48	SELECT m.emp_name AS manager_name, COUNT(e.emp_id) AS total_employees FROM E...	1 row(s) returned	0.000 sec / 0.000 sec
40	09:41:29	SELECT m.emp_name FROM Employee m JOIN Employee e ON m.emp_id = e.manager_id ...	4 row(s) returned	0.000 sec / 0.000 sec
41	09:42:47	SELECT d.dept_name, m.emp_name AS top_manager FROM Department d JOIN Employee ...	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

SQLAdditions

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Information

No object selected

Query 1

```

142 JOIN Employee m ON d.manager_id = m.emp_id;
143
144 SELECT emp_id, incentive_amount
145 FROM Incentive
146 WHERE MONTH(incentive_date) = 2 AND YEAR(incentive_date) = 2019
147 ORDER BY incentive_amount DESC
148 LIMIT 1 OFFSET 1;
149
150 SELECT emp_id, incentive_amount

```

Result Grid

emp_id	incentive_amount
1013	2500.00

Output

Action Output

#	Time	Action	Message	Duration / Fetch
37	09:37:54	SELECT emp_id, incentive_amount FROM Incentive WHERE MONTH(incentive_date) = 2 ...	1 row(s) returned	0.031 sec / 0.000 sec
38	09:38:22	SELECT e.emp_name FROM Employee e JOIN Employee m ON e.manager_id = m.emp_id ...	5 row(s) returned	0.015 sec / 0.000 sec
39	09:40:48	SELECT m.emp_name AS manager_name, COUNT(e.emp_id) AS total_employees FROM E...	1 row(s) returned	0.000 sec / 0.000 sec
40	09:41:29	SELECT m.emp_name FROM Employee m JOIN Employee e ON m.emp_id = e.manager_id ...	4 row(s) returned	0.000 sec / 0.000 sec
41	09:42:47	SELECT d.dept_name, m.emp_name AS top_manager FROM Department d JOIN Employee ...	5 row(s) returned	0.000 sec / 0.000 sec
42	09:43:44	SELECT emp_id, incentive_amount FROM Incentive WHERE MONTH(incentive_date) = 2 ...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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Information

No object selected

Object Info Session

Query 1

```
148 LIMIT 1 OFFSET 1;
149
150 SELECT e.emp_name
151 FROM Employee e
152 JOIN Employee m ON e.manager_id = m.emp_id
153 WHERE e.dept_id = m.dept_id;
154
155
156
```

Result Grid

emp_name
Raj
Anu
Vijay
Priya
Suresh

Result 31 x

Read Only Context Help Snippets

SQLAdditions

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Output

#	Time	Action	Message	Duration / Fetch
38	09:38:22	SELECT e.emp_name FROM Employee e JOIN Employee m ON e.manager_id = m.emp_id ...	5 row(s) returned	0.015 sec / 0.000 sec
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40	09:41:29	SELECT m.emp_name FROM Employee m JOIN Employee e ON m.emp_id = e.manager_id ...	4 row(s) returned	0.000 sec / 0.000 sec
41	09:42:47	SELECT d.dept_name, m.emp_name AS top_manager FROM Department d JOIN Employee ...	5 row(s) returned	0.000 sec / 0.000 sec
42	09:43:44	SELECT emp_id, incentive_amount FROM Incentive WHERE MONTH(incentive_date) = 2 ...	1 row(s) returned	0.000 sec / 0.000 sec
43	09:45:04	SELECT e.emp_name FROM Employee e JOIN Employee m ON e.manager_id = m.emp_id ...	5 row(s) returned	0.000 sec / 0.000 sec