```
mysql>
mysql> SELECT e1.ename AS employee_name
    -> FROM Emp e1
    -> JOIN Emp e2 ON e1.mgr = e2.empno
    -> WHERE e1.sal > e2.sal;
+---------------+
| employee_name |
+---------------+
| Anna Johnson  |
+---------------+
1 row in set (0.00 sec)

mysql> SELECT e.ename AS employee_name
    -> FROM Emp e
    -> JOIN (
    ->     SELECT deptno, MAX(sal) AS max_salary
    ->     FROM Emp
    ->     GROUP BY deptno
    -> ) dept_max
    -> ON e.deptno = dept_max.deptno AND e.sal = dept_max.max_salary;
+---------------+
| employee_name |
+---------------+
| John Doe      |
| Anna Johnson  |
| Chris Lee     |
+---------------+
3 rows in set (0.00 sec)

mysql> SELECT e1.ename AS employee_name_1, e2.ename AS employee_name_2, d.loc
    -> FROM Emp e1
    -> JOIN Dept d ON e1.deptno = d.deptno
    -> JOIN Emp e2 ON e1.deptno = e2.deptno AND e1.empno != e2.empno
    -> JOIN Dept d2 ON e2.deptno = d2.deptno AND d.loc = d2.loc;
+-----------------+-----------------+---------------+
| employee_name_1 | employee_name_2 | loc           |
+-----------------+-----------------+---------------+
| John Doe        | Jane Smith      | New York      |
| John Doe        | Emily Davis     | New York      |
| Jane Smith      | John Doe        | New York      |
| Jane Smith      | Emily Davis     | New York      |
| Emily Davis     | John Doe        | New York      |
| Emily Davis     | Jane Smith      | New York      |
| Michael Brown   | Anna Johnson    | San Francisco |
| Anna Johnson    | Michael Brown   | San Francisco |
+-----------------+-----------------+---------------+
8 rows in set (0.00 sec)

mysql> SELECT e.ename AS employee_name
    -> FROM Emp e
    -> JOIN (
    ->     SELECT deptno, MIN(sal) AS min_salary
    ->     FROM Emp
    ->     GROUP BY deptno
    -> ) dept_min
    -> ON e.deptno = dept_min.deptno AND e.sal = dept_min.min_salary;
+---------------+
| employee_name |
+---------------+
```

```
| Emily Davis    |
| Michael Brown |
| Chris Lee      |
+---------------+
3 rows in set (0.00 sec)

mysql> SELECT d.dname AS department_name
    -> FROM Dept d
    -> LEFT JOIN Emp e ON d.deptno = e.deptno
    -> WHERE e.empno IS NULL;
Empty set (0.00 sec)

mysql> select * from emp;
+-------+--------------+-----------+------+------------+----------+---------
+--------+
| empno | ename        | job       | mgr  | hiredate   | sal      | comm    |
deptno |
+-------+--------------+-----------+------+------------+----------+---------
+--------+
|     1 | John Doe     | Manager   | NULL | 1994-06-15 | 60000.00 |    NULL |
10 |
|     2 | Jane Smith   | Analyst   |    1 | 1999-08-24 | 50000.00 |  500.00 |
10 |
|     3 | Emily Davis  | Clerk     |    1 | 2000-11-30 | 40000.00 |    NULL |
10 |
|     4 | Michael Brown | Developer | NULL | 2005-12-15 | 70000.00 |    NULL |
20 |
|     5 | Anna Johnson | Team Lead |    4 | 2010-03-23 | 80000.00 | 1000.00 |
20 |
|     6 | Chris Lee    | Accountant | NULL | 2000-05-01 | 55000.00 |  800.00 |
30 |
+-------+--------------+-----------+------+------------+----------+---------
+--------+
6 rows in set (0.00 sec)

mysql>
```