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# ASSIGNMENT - 6

**Table 1: TABLE emp ( emp no (PK), emp name VARCHAR(50), job VARCHAR(50), mgr no INT, hiredate DATE, sal FLOAT, dept no INT (FK) )**

```
mysql> create table emp(
    -> emp_no int,
    -> emp_name varchar(50),
    -> job varchar(50),
    -> mgr_no int,
    -> date DATE,
    -> salary float,
    -> dept_no int,
    -> primary key(emp_no),
    -> foreign key(dept_no) references dept(dept_no));
Query OK, 0 rows affected (0.02 sec)
```

**Table 2: TABLE dept ( dept no (PK), dept name VARCHAR(50), loc VARCHAR(50) )**

```
mysql> use d077_company;
Database changed
mysql> create table dept(
    -> dept_no int,
    -> dept_name varchar(50),
    -> location varchar(50),
    -> primary key(dept_no)
    -> );
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> INSERT INTO dept (dept_no, dept_name, location) VALUES
    -> (1, 'Sales', 'Dallas'),
    -> (2, 'Marketing', 'New York'),
    -> (3, 'HR', 'Chicago');
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> alter table emp
    -> change date hiredate DATE;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> INSERT INTO emp (emp_no, emp_name, job, mgr_no, hiredate, salary, dept_no) VALUES
    -> (1, 'John', 'Manager', NULL, '2023-01-10', 60000, 1),
    -> (2, 'Alice', 'Salesperson', 1, '2023-02-15', 45000, 1),
    -> (3, 'Bob', 'Salesperson', 1, '2023-03-20', 40000, 1),
    -> (4, 'Blake', 'Manager', NULL, '2023-01-05', 62000, 2),
    -> (5, 'Charlie', 'Marketer', 4, '2023-02-22', 48000, 2),
    -> (6, 'Daniel', 'HR Specialist', 4, '2023-04-12', 42000, 3),
    -> (7, 'Eva', 'HR Assistant', 6, '2023-06-30', 38000, 3),
    -> (8, 'Thomas', 'Salesperson', 1, '2023-05-20', 41000, 1),
    -> (9, 'King', 'CEO', NULL, '2023-01-01', 80000, 1);
Query OK, 9 rows affected (0.00 sec)
Records: 9  Duplicates: 0  Warnings: 0
```

**1. Write a query to display employee name and hiredate for all employees in the same department as Blake. Exclude Blake.**

```
mysql> SELECT emp_name, hiredate
    -> FROM emp
    -> WHERE dept_no = (
    ->     SELECT dept_no
    ->     FROM emp
    ->     WHERE emp_name = 'Blake'
    -> ) AND emp_name != 'Blake';
+-----------+-------------+
| emp_name  | hiredate    |
+-----------+-------------+
| Charlie   | 2023-02-22  |
| Emma      | 2023-07-15  |
| Grace     | 2023-09-25  |
+-----------+-------------+
3 rows in set (0.00 sec)
```

**2. Create a query to display the employee number and name for all employees who earn more than the average salary. Sort the results in descending order of salary.**

```
mysql> SELECT emp_no, emp_name
    -> FROM emp
    -> WHERE sal > (
    ->     SELECT AVG(sal)
    ->     FROM emp
    -> )
    -> ORDER BY sal DESC;
+--------+----------+
| emp_no | emp_name |
+--------+----------+
|      9 | King     |
|      4 | Blake    |
|      1 | John     |
+--------+----------+
3 rows in set (0.00 sec)
```

**3. Write a query to display the employee number and name for all employees who work in a department with any employee whose name contains a T.**

```
mysql> SELECT e.emp_no, e.emp_name, e.sal
    -> FROM emp e
    -> WHERE e.sal > (
    ->     SELECT AVG(sal)
    ->     FROM emp
    -> ) AND e.dept_no IN (
    ->     SELECT dept_no
    ->     FROM emp
    ->     WHERE emp_name LIKE '%T%'
    -> );
+--------+----------+-------+
| emp_no | emp_name | sal   |
+--------+----------+-------+
|      1 | John     | 60000 |
|      9 | King     | 80000 |
+--------+----------+-------+
2 rows in set (0.01 sec)
```

**4. Display the employee name, department number, and job title for all employees whose department location is Dallas.**

```
mysql> SELECT e.emp_name, e.dept_no, e.job
    -> FROM emp e
    -> JOIN dept d ON e.dept_no = d.dept_no
    -> WHERE d.loc = 'Dallas';
+----------+---------+-------------+
| emp_name | dept_no | job         |
+----------+---------+-------------+
| John     |       1 | Manager     |
| Alice    |       1 | Salesperson |
| Bob      |       1 | Salesperson |
| Thomas   |       1 | Salesperson |
| King     |       1 | CEO         |
+----------+---------+-------------+
5 rows in set (0.00 sec)
```

**5. Display the employee name and salary of all employees who report to the manager (named King).**

```
mysql> SELECT emp_name, sal
    -> FROM emp
    -> WHERE mgr_no = (
    ->     SELECT emp_no
    ->     FROM emp
    ->     WHERE emp_name = 'King'
    -> );
+----------+-------+
| emp_name | sal   |
+----------+-------+
| John     | 60000 |
| Alice    | 45000 |
| Bob      | 40000 |
| Thomas   | 41000 |
+----------+-------+
4 rows in set (0.00 sec)
```

**6. Display the department number, name, and job for all employees in the Sales department.**

```
mysql> SELECT e.dept_no, d.dept_name, e.job
    -> FROM emp e
    -> JOIN dept d ON e.dept_no = d.dept_no
    -> WHERE d.dept_name = 'Sales';
+---------+-----------+-------------+
| dept_no | dept_name | job         |
+---------+-----------+-------------+
|       1 | Sales     | Manager     |
|       1 | Sales     | Salesperson |
|       1 | Sales     | Salesperson |
|       1 | Sales     | Salesperson |
|       1 | Sales     | CEO         |
+---------+-----------+-------------+
5 rows in set (0.00 sec)
```

**7. Write a query to display the employee number, name, and salary for all employees who earn more than the average salary and who work in a department with any employee with a T in their name.**

```
mysql> SELECT e.emp_no, e.emp_name, e.sal
    -> FROM emp e
    -> WHERE e.sal > (
    ->     SELECT AVG(sal)
    ->     FROM emp
    -> ) AND e.dept_no IN (
    ->     SELECT dept_no
    ->     FROM emp
    ->     WHERE emp_name LIKE '%T%'
    -> );
+--------+----------+-------+
| emp_no | emp_name | sal   |
+--------+----------+-------+
|      1 | John     | 60000 |
|      9 | King     | 80000 |
+--------+----------+-------+
2 rows in set (0.01 sec)
```