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Sec: 07

Commands: mysql -h localhost -u root

create table employees(employee_id char(10),First_name varchar(20),last_name varchar(20),

email varchar(60),Phone_number char(14),

Hire_date date,

Job_id int,

Salary int,

Commission_pct decimal(5,3),

Manager_id char(10),

Department_id int);

insert into employees values

('e001', 'Taylor', 'Otwell', 'otwell@laravel.com', 014000001,'2020-6-10',001, 55000, 30.201, 'm01',1),

('e002', 'Ryan', 'Dahl', 'ryan@nodejs.org', 01900002 ,'2020-04-22', 002, 3000, 59.031, 'm02' ,2),

('e003', 'Brendan', 'Eich', 'eich@javascript.com',01800002, '2020-05-07',007, 60000, 29.401,'m02',5),

('e004', 'Evan', 'You', 'you@vuejs.org',013000004 , '2020-06-11', 003,5000,20.105, 'm03' ,7),

('e005', 'Rasmus', 'Lerdorf', 'lerdorf@php.net',014000002 ,'2020-6-3', 004, 2000,40.945,'m06' ,7),

('e006', 'Guido van', 'Rossum', 'guido@python.org',01700000 ,'2020-07-18', 005,7000,62.401,'m06',5),

('e007', 'Adrian', 'Holovaty', 'adrian@djangoproject.com', 01800000 , '2020-05-07',006, 9000, 26.805,'m05',3);

Select * from employees;

```
MariaDB [lab1]> select * from employees;
+-------------+------------+-----------+----------------------------+--------------+------------+--------+--------+----------------+------------+---------------+
| employee_id | First_name | last_name | email                      | Phone_number | Hire_date  | Job_id | Salary | Commission_pct | Manager_id | Department_id |
+-------------+------------+-----------+----------------------------+--------------+------------+--------+--------+----------------+------------+---------------+
| e001        | Taylor     | Otwell    | otwell@laravel.com         | 14000001     | 2020-06-10 |      1 |  55000 |         30.201 | m01        |             1 |
| e002        | Ryan       | Dahl      | ryan@nodejs.org            | 1900002      | 2020-04-22 |      2 |   3000 |         59.031 | m02        |             2 |
| e003        | Brendan    | Eich      | eich@javascript.com        | 1800002      | 2020-05-07 |      7 |  60000 |         29.401 | m02        |             5 |
| e004        | Evan       | You       | you@vuejs.org              | 13000004     | 2020-06-11 |      3 |   5000 |         20.105 | m03        |             7 |
| e005        | Rasmus     | Lerdorf   | lerdorf@php.net            | 14000002     | 2020-06-03 |      4 |   2000 |         40.945 | m06        |             7 |
| e006        | Guido van  | Rossum    | guido@python.org           | 1700000      | 2020-07-18 |      5 |   7000 |         62.401 | m06        |             5 |
| e007        | Adrian     | Holovaty  | adrian@djangoproject.com   | 1800000      | 2020-05-07 |      6 |   9000 |         26.805 | m05        |             3 |
+-------------+------------+-----------+----------------------------+--------------+------------+--------+--------+----------------+------------+---------------+
7 rows in set (0.000 sec)
```

Task-1:

select first_name, last_name, email, phone_number, hire_date, department_id from employees order by hire_date desc;

```
MariaDB [lab1]> select first_name, last_name, email, phone_number, hire_date, department_id from employees order by hire_date desc;
+------------+-----------+----------------------------+--------------+------------+---------------+
| first_name | last_name | email                      | phone_number | hire_date  | department_id |
+------------+-----------+----------------------------+--------------+------------+---------------+
| Guido van  | Rossum    | guido@python.org           | 1700000      | 2020-07-18 |             5 |
| Evan       | You       | you@vuejs.org              | 13000004     | 2020-06-11 |             7 |
| Taylor     | Otwell    | otwell@laravel.com         | 14000001     | 2020-06-10 |             1 |
| Rasmus     | Lerdorf   | lerdorf@php.net            | 14000002     | 2020-06-03 |             7 |
| Brendan    | Eich      | eich@javascript.com        | 1800002      | 2020-05-07 |             5 |
| Adrian     | Holovaty  | adrian@djangoproject.com   | 1800000      | 2020-05-07 |             3 |
| Ryan       | Dahl      | ryan@nodejs.org            | 1900002      | 2020-04-22 |             2 |
+------------+-----------+----------------------------+--------------+------------+---------------+
7 rows in set (0.003 sec)
```

Task-2:

select first_name, last_name, employee_id,phone_number,salary, department_id from employees where salary in (select min(salary) from employees group by department_id);

```
MariaDB [lab1]> select first_name, last_name, employee_id,phone_number,salary, department_id from employees where salary in ( select min(salary) from employees  group by department_id );
+------------+-----------+-------------+--------------+--------+---------------+
| first_name | last_name | employee_id | phone_number | salary | department_id |
+------------+-----------+-------------+--------------+--------+---------------+
| Taylor     | Otwell    | e001        | 14000001     |  55000 |             1 |
| Ryan       | Dahl      | e002        | 1900002      |   3000 |             2 |
| Rasmus     | Lerdorf   | e005        | 14000002     |   2000 |             7 |
| Guido van  | Rossum    | e006        | 1700000      |   7000 |             5 |
| Adrian     | Holovaty  | e007        | 1800000      |   9000 |             3 |
+------------+-----------+-------------+--------------+--------+---------------+
5 rows in set (0.012 sec)
```

Task-3:

select first_name,last_name,employee_id,commission_pct,department_id from employees where department_id=7 and commission_pct < (select min(commission_pct) from employees where department_id=5);

```
MariaDB [lab1]> select first_name,last_name,employee_id,commission_pct,department_id from employees
where  department_id=7 and commission_pct < (select min(commission_pct) from employees where   depart
ment_id=5);
+------------+-----------+-------------+----------------+---------------+
| first_name | last_name | employee_id | commission_pct | department_id |
+------------+-----------+-------------+----------------+---------------+
| Evan       | You       | e004        |         20.105 |             7 |
+------------+-----------+-------------+----------------+---------------+
1 row in set (0.004 sec)
```

Task-4:

select department_id,count(*) from employees where salary<30000 and salary in (select max(salary) from employees group by department_id) group by department_id;

```
MariaDB [lab1]> select department_id,count(*) from employees where salary<30000 and salary in (selec
t max(salary) from employees group by department_id) group by department_id;
+---------------+----------+
| department_id | count(*) |
+---------------+----------+
|             2 |        1 |
|             3 |        1 |
|             7 |        1 |
+---------------+----------+
3 rows in set (0.003 sec)
```

Task-5:

select department_id,job_id,commission_pct from employees where commission_pct < job_id group by department_id;

```
MariaDB [lab1]> select department_id,job_id,commission_pct from employees where commission_pct < job
_id group by department_id;
Empty set (0.001 sec)
```

Task-6:

select manager_id from employees where salary>3500 and salary in (select min(salary) from employees group by manager_id);

```
MariaDB [lab1]> select manager_id from employees where salary>3500 and salary in (select min(salary)
 from employees group by manager_id);
+------------+
| manager_id |
+------------+
| m01        |
| m03        |
| m05        |
+------------+
3 rows in set (0.001 sec)
```

Task-7:

select first_name, last_name, employee_id, email, salary, department_id, commission_pct from employees where commission_pct in (select min(commission_pct) from employees group by manager_id);

```
MariaDB [lab1]> select first_name, last_name, employee_id, email, salary, department_id, commission_pct from employees where commission_pct in (select min(commission_pct) from employees group by manager_id);
+------------+-----------+-------------+------------------------+--------+---------------+----------------+
| first_name | last_name | employee_id | email                  | salary | department_id | commission_pct |
+------------+-----------+-------------+------------------------+--------+---------------+----------------+
| Taylor     | Otwell    | e001        | otwell@laravel.com     | 55000  |             1 |         30.201 |
| Brendan    | Eich      | e003        | eich@javascript.com    | 60000  |             5 |         29.401 |
| Evan       | You       | e004        | you@vuejs.org          | 5000   |             7 |         20.105 |
| Rasmus     | Lerdorf   | e005        | lerdorf@php.net        | 2000   |             7 |         40.945 |
| Adrian     | Holovaty  | e007        | adrian@djangoproject.com | 9000 |             3 |         26.805 |
+------------+-----------+-------------+------------------------+--------+---------------+----------------+
5 rows in set (0.001 sec)
```