BRAC UNIVERSITY

Assignment-02

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Section: 05

Course code: CSE370

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Assignment

At first we have to create table and insert the values:

Task1: Find the first_name, last_name, email, phone_number, hire_date and department_id of all the employees with the latest hire_date.

Command: select first_name, last_name, email, phone_number, hire_date, department_id from employees where hire_date=(select max(hire_date) from employees);

```
MariaDB [21300423_ramisa]> select first_name, last_name, email, phone_number, hire_date, department_id from employees where hire_date=(select max(hire_date) from employ
ees);
+------------+-----------+-------------------------+--------------+------------+---------------+
| first_name | last_name | email                   | phone_number | hire_date  | department_id |
+------------+-----------+-------------------------+--------------+------------+---------------+
| Refayet    | Tariq     | refayet.tariq@yahoo.com | 01744444448  | 2023-10-09 | DPT003        |
+------------+-----------+-------------------------+--------------+------------+---------------+
1 row in set (0.013 sec)
```

Task2: Find the *first_name*, *last_name*, *employee_id*, *phone_number*, *salary* and *department_id* of all the employees with the lowest salary in each department.

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


```
MariaDB [21301423_ramisa]> select first_name, last_name, employee_id, phone_number, salary, department_id from employees where (department_id, salary) in (select depart
ment_id, min(salary) from employees group by department_id);

+------------+-----------+-------------+--------------+--------+---------------+
| first_name | last_name | employee_id | phone_number | salary | department_id |
+------------+-----------+-------------+--------------+--------+---------------+
| Farhana    | Yasmin    | EMP002      | 01706364448  | 40000  | DPT005        |
| Tahsin     | Rahman    | EMP003      | 01700000008  | 25000  | DPT001        |
| Mujibur    | Rahman    | EMP004      | 01716274626  | 35000  | DPT007        |
| Nusyba     | Neha      | EMP005      | 01706364448  | 30000  | DPT002        |
| Walid      | Jahin     | EMP007      | 01733333338  | 25000  | DPT003        |
| Shariar    | Shaikat   | EMP010      | 01733333444Š | 60000  | DPT004        |
+------------+-----------+-------------+--------------+--------+---------------+
6 rows in set (0.007 sec)
```

Task3: Find the *first_name, last_name, employee_id, commission_pct and department_id* of all the employees in the department 'DPT007' who have a lower commission_pct than all of the employees of the department 'DPT005'.

Command: select e1.first_name, e1.last_name, e1.employee_id, e1.commission_pct, e1.department_id from employees e1 where e1.department_id = 'DPT007' and e1.commission_pct < (select min(e2.commission_pct) from employees e2 where e2.department_id = 'DPT005');

<u>**Task4:**</u> Find the department_id and total number of employees of each department which does not have a single employee under it with a salary more than 30,000.

<u>**Command:**</u> select department_id, count(employee_id) as total_employees from employees group by department_id having max(salary) <= 30000;

```
MariaDB [213O1423_ramisa]> select department_id, count(employee_id) as total_employees from employees group by department_id having max(salary) <= 30000;
+---------------+-----------------+
| department_id | total_employees |
+---------------+-----------------+
| DPT002        |               1 |
+---------------+-----------------+
1 row in set (0.003 sec)
```

Task5: For each of the departments, find the department_id, job_id and commission_pct with commission_pct less than at least one other job_id in that department.

Command: select e1.department_id, e1.job_id, e1.commission_pct from employees e1 where e1.commission_pct < any(select e2.commission_pct from employees e2 where e2.department_id = e1.department_id and e2.job_id <> e1.job_id);

```
MariaDB [21301423_ramisa]> select e1.department_id, e1.job_id, e1.commission_pct from employees e1 where e1.commission_pct < any(select e2.commission_pct from employees
e2 where e2.department_id = e1.department_id and e2.job_id <> e1.job_id);
+---------------+--------+----------------+
| department_id | job_id | commission_pct |
+---------------+--------+----------------+
| DPT005        | JOB002 |          0.130 |
| DPT001        | JOB003 |          0.200 |
| DPT003        | JOB001 |          0.050 |
| DPT003        | JOB007 |          0.120 |
| DPT004        | JOB001 |          0.520 |
| DPT004        | JOB003 |          0.257 |
+---------------+--------+----------------+
6 rows in set (0.003 sec)
```

Task6: Find the *manager_id* who does not have any employee under them with a *salary* less than 3500.

Command: select manager_id from employees group by manager_id having min(salary) >= 3500;

```
MariaDB [21301423_ramisa]> select manager_id from employees group by manager_id having min(salary) >= 3500;
+------------+
| manager_id |
+------------+
| MNG001     |
| MNG002     |
| MNG003     |
| MNG007     |
+------------+
4 rows in set (0.001 sec)
```

Task7: Find the first_name, last_name, employee_id, email, salary, department_id and commission_pct of the employee who has the lowest commission_pct under each manager.

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

```
MariaDB [21301423_ramisa]> select e.first_name, e.last_name, e.employee_id, e.email, e.salary, e.department_id, e.commission_pct from employees e where (e.manager_id, e
.commission_pct) in (select manager_id, min(commission_pct) from employees group by manager_id);
+------------+------------+-------------+----------------------------+--------+---------------+----------------+
| first_name | last_name  | employee_id | email                      | salary | department_id | commission_pct |
+------------+------------+-------------+----------------------------+--------+---------------+----------------+
| Nusyba     | Neha       | EMP005      | nusyba.neha@gmail.com      | 30000  | DPT002        |          0.120 |
| Tahmina    | Chowdhury  | EMP006      | tahmina.chowdhury@gmail.com| 55000  | DPT005        |          0.230 |
| Walid      | Jahin      | EMP007      | walid.jahin@yahoo.com      | 23000  | DPT003        |          0.050 |
| Rehnuma    | Islam      | EMP009      | rehnuma.islam@yahoo.com    | 55000  | DPT003        |          0.120 |
+------------+------------+-------------+----------------------------+--------+---------------+----------------+
4 rows in set (0.002 sec)
```