CSE 370 LAB ASSIGNMENT 3

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Section :05

Department of Computer Science and Engineering

Course Code: CSE 370	**Credits: 3.0**
Course Name: Database Systems	

Lab Homework 3

Proving yourself worthy of being able to handle bigger tasks, the tech lead has decided to give you a challenging job. However, this time, the data that you would be handling is very sensitive and no one wants this data to be leaked. Therefore, instead of getting the entire table, the tech lead has given you the list of attributes that the table contains and the table name. The information given is as follows:

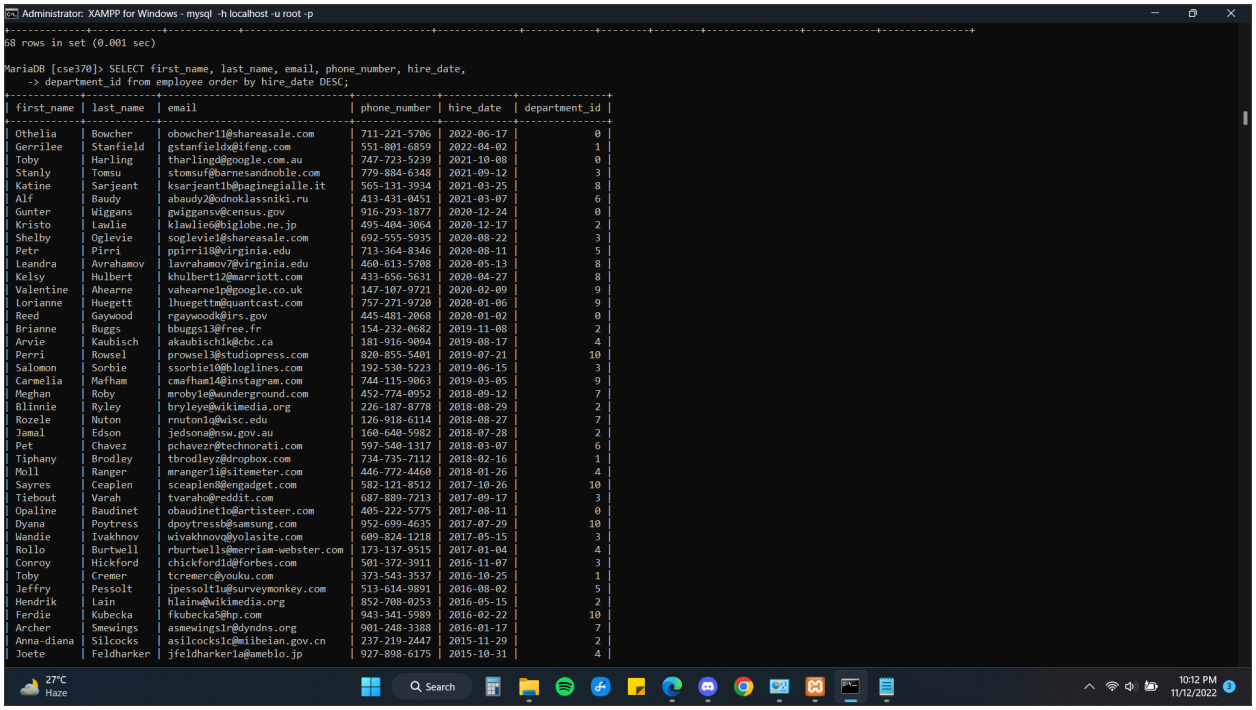
Table Name: ***employees***

Attribute Name	Attribute type
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

You are tasked with building the queries to retrieve the following information [test out your queries with dummy data]: [7 X 2 =14]

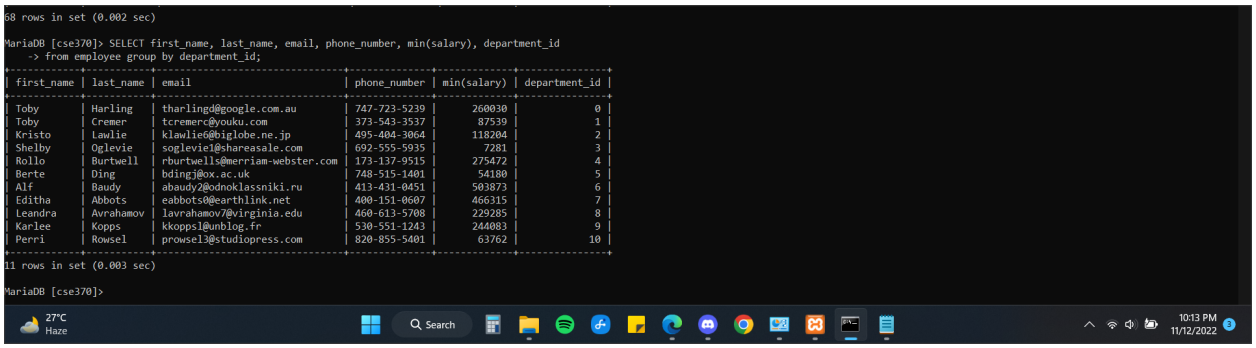
1. Find the **first_name, last_name, email, phone_number, hire_date** and **department_id** of all the employees with the latest **hire_date**.

Ans: SELECT first_name, last_name, email, phone_number, hire_date,
-> department_id from employee order by hire_date DESC;



2. 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.

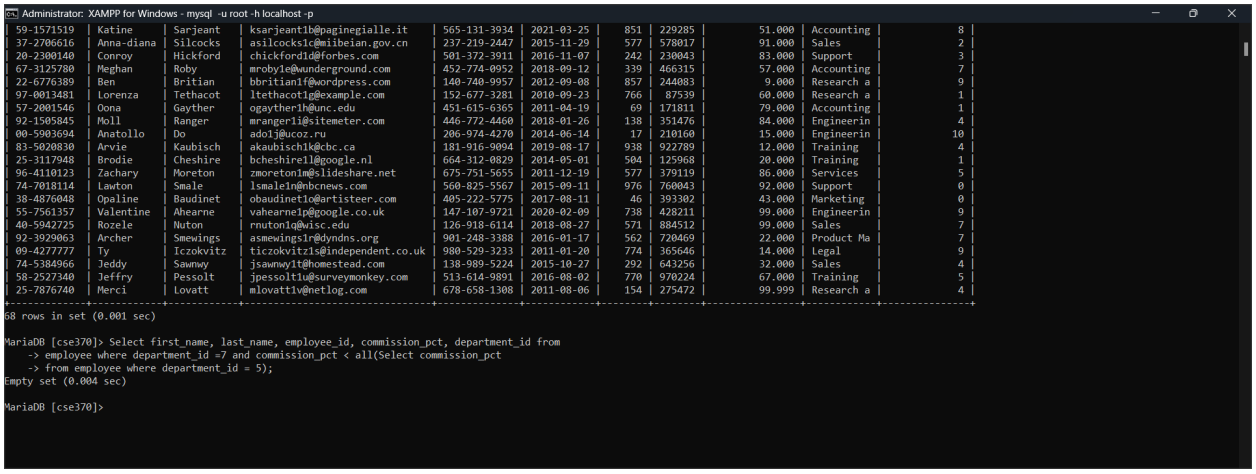
ANS: SELECT first_name, last_name, email, phone_number, min(salary), department_id
-> from employee group by department_id;



3. Find the ***first_name***, ***last_name***, ***employee_id***, ***commission_pct*** and ***department_id*** of all the employees in department XYZABC (**department_id** = 7) who have a lower ***commission_pct*** than all of the employees of department ABCXYZ(**department_id** = 5).

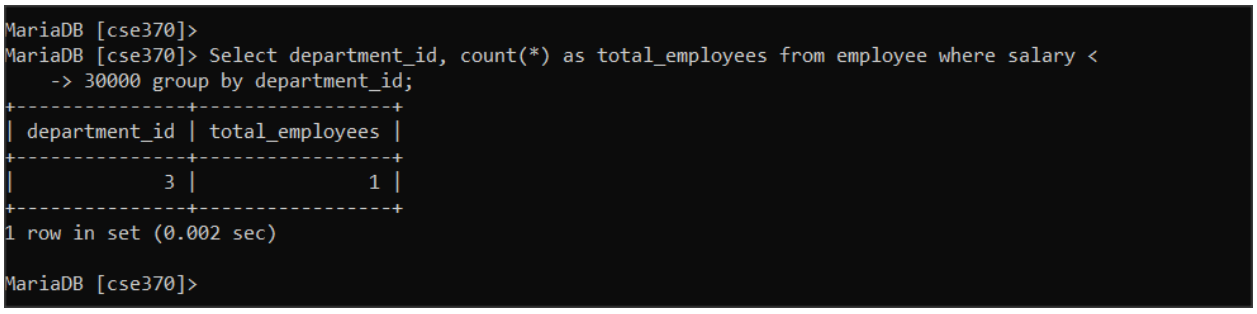
ANS: Select first_name, last_name, employee_id, commission_pct, department_id from

employee where department_id =7 and commission_pct < all(Select commission_pct from employee where department_id = 5)

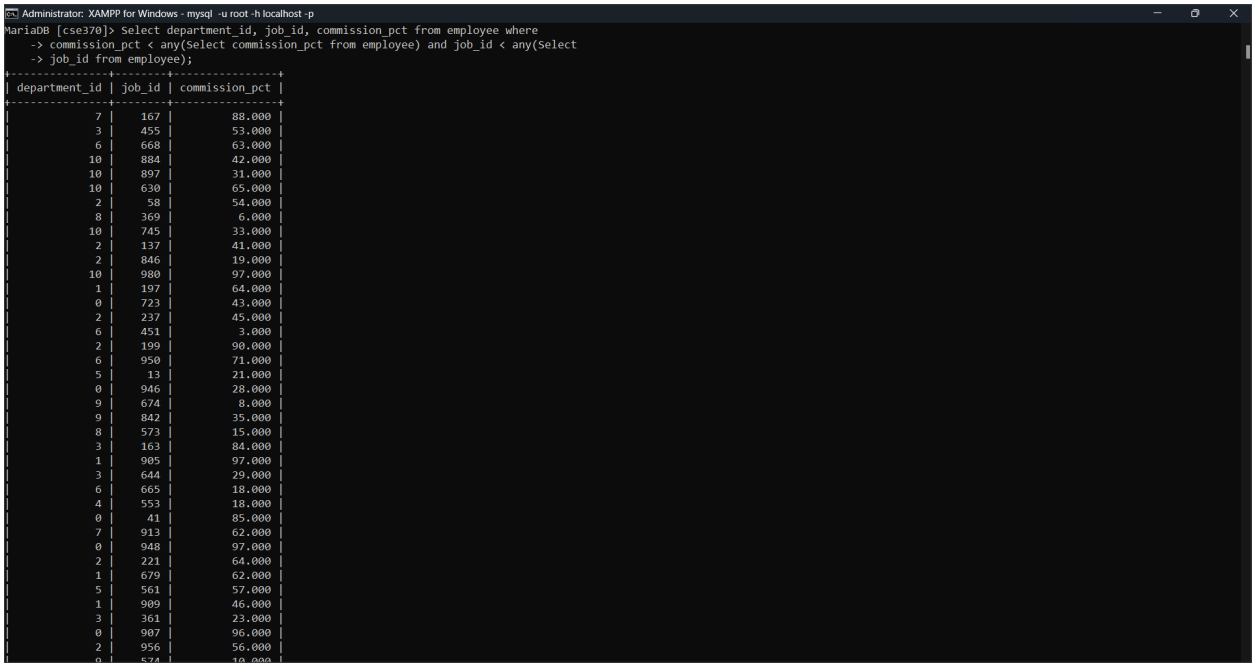


4. Find the **department_id** and total number of employees of each department which does not have a single employee under it with a **salary** more than 30,000.

ANS: Select department_id, count(*) as total_employees from employee where salary < 30000 group by department_id;

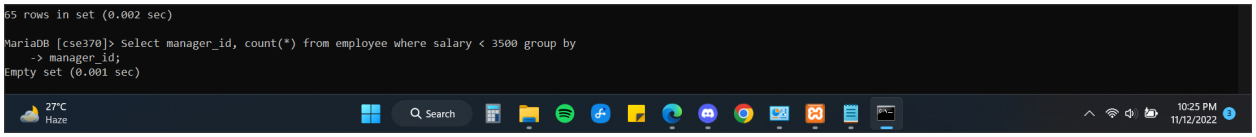


5. For each of the departments, find the ***department_id***, ***job_id*** and ***commission_pct*** with ***commission_pct*** less than at least one other ***job_id*** in that department.
   ANS: Select department_id, job_id, commission_pct from employee where commission_pct < any(Select commission_pct from employee) and job_id < any(Select
   job_id from employee);



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

ANS: Select manager_id, count(*) from employee where salary < 3500 group by manager_id;



7. 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.

ANS: Select first_name, last_name, employee_id, email, salary, department_id, min(commission_pct)
as minimum_pct from employee group by manager_id

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MariaDB [cse370]> Select first_name, last_name, employee_id, email, salary, department_id, min(commission_pct)
    -> as minimum_pct from employee group by manager_id;
+------------+-----------+-------------+--------------------------+--------+---------------+-------------+
| first_name | last_name | employee_id | email                    | salary | department_id | minimum_pct |
+------------+-----------+-------------+--------------------------+--------+---------------+-------------+
| Toby       | Harling   | 17-2147203  | tharlingd@google.com.au  | 457021 |             0 |      43.000 |
| Shelby     | Oglevie   | 96-5191133  | soglevie1@shareasale.com | 162220 |             3 |      18.000 |
| Karlee     | Kopps     | 96-8079804  | kkoppsl@unblog.fr        | 925932 |             9 |       8.000 |
| Wandie     | Ivakhnov  | 68-8310242  | wivakhnovq@yolasite.com  |   7281 |             3 |      29.000 |
| Lorianne   | Huegett   | 38-3044720  | lhuegettm@quantcast.com  | 548024 |             9 |      14.000 |
| Alf        | Baudy     | 20-5047207  | abaudy2@odnoklassniki.ru | 503873 |             6 |       1.000 |
| Kristo     | Lawlie    | 45-2642939  | klawlie6@biglobe.ne.jp   | 523171 |             2 |      22.000 |
| Perri      | Rowsel    | 03-4330161  | prowsel3@studiopress.com | 847114 |            10 |       9.000 |
| Editha     | Abbots    | 91-4149345  | eabbots0@earthlink.net   | 557518 |             7 |       3.000 |
| Leandra    | Avrahamov | 14-9310768  | lavrahamov7@virginia.edu | 545062 |             8 |       6.000 |
| Toby       | Baleine   | 65-1024284  | tbaleinep@tinyurl.com    | 292713 |             1 |      18.000 |
| Dyana      | Poytress  | 30-8235022  | dpoytressb@samsung.com   |  63762 |            10 |      12.000 |
+------------+-----------+-------------+--------------------------+--------+---------------+-------------+
12 rows in set (0.001 sec)

MariaDB [cse370]>
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