# COSC 2307

# ASSIGNMENT 2 – PART 1

## Question 1a (2.5 points) Use HR database (Sample tables and data are in DatabaseHR.pdf file or you can download it from the course website). Write a query to show all the names of regions, names of countries and number of locations in them (including regions/countries with 0 locations). Sort by number of locations starting from the highest number.

# Q1 (a)

SELECT R.Region\_Name, C.Country\_Name, COUNT(L.Location\_id) AS Number\_of\_Locations

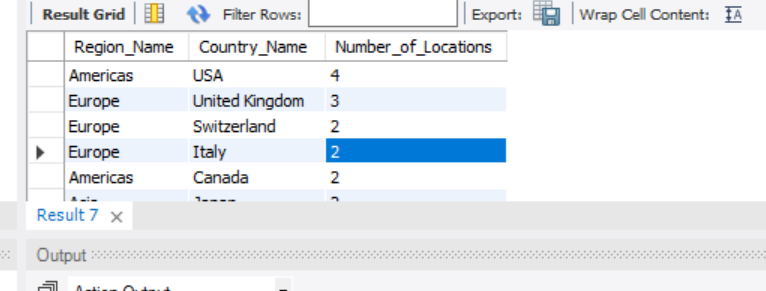
FROM Region AS R

LEFT JOIN Countries AS C ON R.Region\_ID = C.Region\_ID

LEFT JOIN Locations AS L ON C.Country\_ID = L.Country\_ID

GROUP BY R.Region\_Name, C.Country\_Name

ORDER BY Number\_of\_Locations DESC;



# Question 1b (2.5 points) Use HR database (Sample tables and data are in DatabaseHR.pdf file). Write a query to show all the employees who have salary between 1000 and 2000. Display: last name, first name, employee\_id, department name, job title, salary. Sort the output by last name and first name.

# Q1 (b)

select E.LAST\_NAME, E.FIRST\_NAME, E.EMPLOYEE\_ID, D.DEPARTMENT\_NAME, J.JOB\_TITLE, E.SALARY

from Employee E

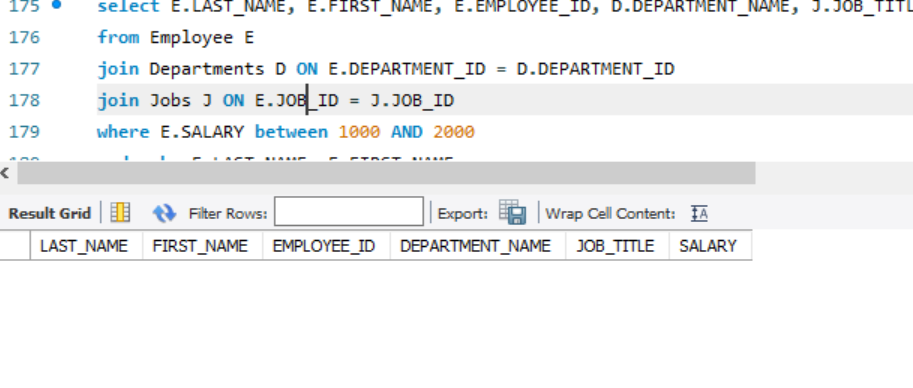
join Departments D ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID

join Jobs J ON E.JOB\_ID = J.JOB\_ID

where E.SALARY between 1000 AND 2000

order by E.LAST\_NAME, E.FIRST\_NAME;

Minimum salary in sample data is 4200. That’s why no output.



# ASSIGNMENT 2- PART 2:

# Question 2a (2.5 points) Use HR database (Sample tables and data are in DatabaseHR.pdf file). Write a query that shows: department name, the number of employees in each department (include departments with 0 employees), min, max, and average salary for all the departments in the database. Then use UNION ALL to append at the end text: Totals and the total number of employees, average, min, and max salary for the entire company.

# Q2 (a)

SELECT D.DEPARTMENT\_NAME,

COUNT(E.EMPLOYEE\_ID) AS Number\_of\_Employees,

MIN(E.SALARY) AS Min\_Salary,

MAX(E.SALARY) AS Max\_Salary,

AVG(E.SALARY) AS Average\_Salary

FROM Departments D

LEFT JOIN Employee E ON D.DEPARTMENT\_ID = E.DEPARTMENT\_ID

GROUP BY D.DEPARTMENT\_NAME

UNION ALL

-- Query to retrieve totals for the entire company

SELECT 'Totals' AS DEPARTMENT\_NAME,

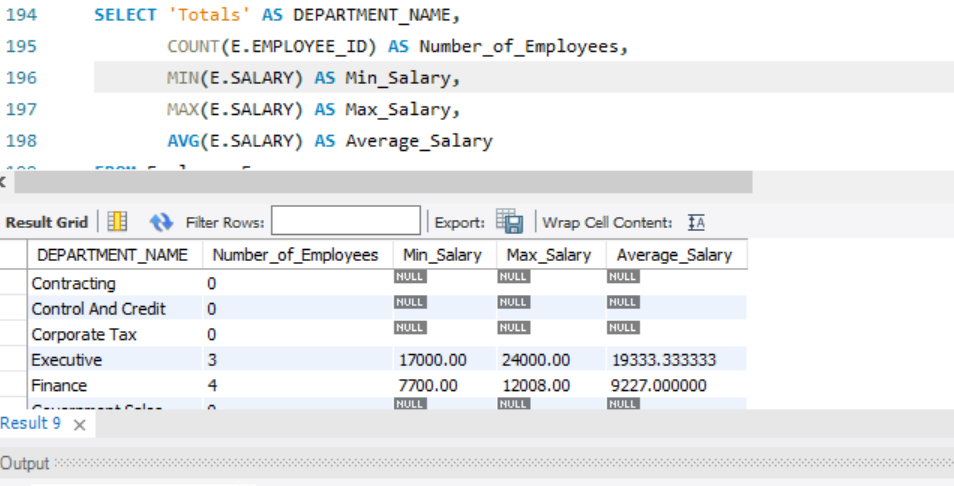
COUNT(E.EMPLOYEE\_ID) AS Number\_of\_Employees,

MIN(E.SALARY) AS Min\_Salary,

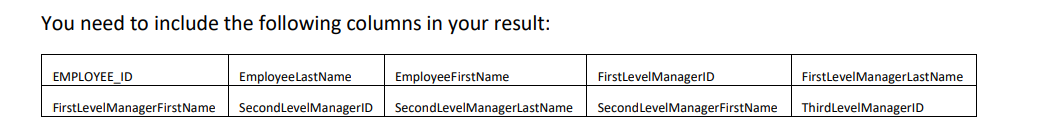
MAX(E.SALARY) AS Max\_Salary,

AVG(E.SALARY) AS Average\_Salary

FROM Employee E;



# Question 2b (2.5 points) Use HR database (Sample tables and data are in DatabaseHR.pdf file). Write a query to show employee id, last name, first name of all the employees, their managers, and the managers of their managers.



# Q2 (b)

SELECT E1.EMPLOYEE\_ID AS EMPLOYEE\_ID, E1.LAST\_NAME AS EmployeeLastName, E1.FIRST\_NAME AS EmployeeFirstName,

E2.EMPLOYEE\_ID AS FirstLevelManagerID,E2.LAST\_NAME AS FirstLevelManagerLastName, E2.FIRST\_NAME AS FirstLevelManagerFirstName,

E3.EMPLOYEE\_ID AS SecondLevelManagerID, E3.LAST\_NAME AS SecondLevelManagerLastName, E3.FIRST\_NAME AS SecondLevelManagerFirstName,

E4.EMPLOYEE\_ID AS ThirdLevelManagerID,E4.LAST\_NAME AS ThirdLevelManagerLastName, E4.FIRST\_NAME AS ThirdLevelManagerFirstName

FROM Employee E1

LEFT JOIN Employee E2 ON E1.MANAGER\_ID = E2.EMPLOYEE\_ID

LEFT JOIN Employee E3 ON E2.MANAGER\_ID = E3.EMPLOYEE\_ID

LEFT JOIN Employee E4 ON E3.MANAGER\_ID = E4.EMPLOYEE\_ID;

