MySQL Project: Grouping by Ekaterina(Kate) Rogatina

In this short project, I am going through some SQL problems on Grouping. The SQL problems in this project involve usage of SQL Aggregate functions AVG and COUNT. AVG is a function that can be used to calculate the Average or Mean of all values of a specified column in the result set.

I am going to take data from HR database. This HR database schema consists of 5 tables called **EMPLOYEES**, **JOB_HISTORY**, **JOBS**, **DEPARTMENTS** and **LOCATIONS**.

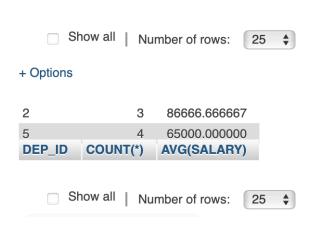
Problem:

1. For each department retrieve the number of employees in the department, and the average employee salary in the department.

Solution:

SELECT DEP_ID, COUNT(*), AVG(SALARY) FROM EMPLOYEES GROUP BY DEP_ID;

Output:





To retrieve the number of employees in the department, I USE SELECT COUNT(*) FROM EMPLOYEES;

To retrieve the average salary for all employees in EMPLOYEES table, I USE SELECT AVG(SALARY) FROM EMPLOYEES

Problem:

2. Label the computed columns in the result set of SQL problem 1 as NUM_EMPLOYEES and AVG_SALARY, order the result set by Average Salary.

Solution:

Solution: SELECT DEP_ID, COUNT(*) AS "NUM_EMPLOYEES", AVG(SALARY) AS "AVG_SALARY"
FROM EMPLOYEES
GROUP BY DEP_ID
ORDER BY AVG_SALARY;

Output:



Problem:

3. Problem: In SQL problem 3, limit the result to departments with fewer than 4 employees.

Solution:

SELECT DEP_ID, COUNT(*) AS "NUM_EMPLOYEES", AVG(SALARY) AS "AVG_SALARY" FROM EMPLOYEES GROUP BY DEP_ID HAVING count(*) < 4 ORDER BY AVG_SALARY;

Output:

