L4-W5-DBS301-Group functions

Due Friday Week 5 by midnight (better if week 4)

*STEP 1: Rename the file to L4-yiour id name*

*STEP 2: Put the SQL and the results after each question below*

*STEP 3: Email this back before the deadline. Subject line L4-your id and section*

1 Display the difference between the Average pay and Lowest pay in the company.

Name this result *Real Amount*.

SELECT AVG(salary)- MIN(salary) AS "Real Amount"

FROM employees

Real Amount

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6275

2 Display the department number and Highest, Lowest and Average pay per each department. Name these results *High, Low* and *Avg.*

Sort the output so that the department with highest average salary is shown first.

SELECT department\_id, MAX(salary) AS "High",

MIN(salary) AS "Low", ROUND(AVG(salary),0) AS "Avg"

FROM employees

GROUP BY department\_id

ORDER BY 4 DESC;

DEPARTMENT\_ID High Low Avg

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90 24000 17000 19333

110 12000 8300 10150

80 11000 8600 10033

20 13000 6000 9500

7000 7000 7000

60 9000 4200 6400

10 4400 4400 4400

50 5800 2500 3500

3 Display how many people work the same job in the same department.

Name these results *Dept#, Job* and *How Many.*

Include only jobs that involve more than one person.

Sort the output so that jobs with the most people involved are shown first.

SELECT department\_id AS "Dept#",

job\_id AS "Job",

COUNT(\*) AS "How Many"

FROM employees

GROUP BY department\_id, job\_id

HAVING COUNT(\*) > 1

ORDER BY 3 DESC;

Dept# Job How Many

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50 ST\_CLERK 4

60 IT\_PROG 3

80 SA\_REP 2

90 AD\_VP 2

4 For each job title display the job title and total amount paid each month for this type of the job. Exclude titles *AD\_PRES* and *AD\_VP* and also include only jobs that require more than $15,000.

Sort the output so that top paid jobs are shown first.

SELECT job\_id, SUM(salary)

FROM employees

GROUP BY job\_id

HAVING job\_id NOT IN('AD\_PRES','AD\_VP')

AND SUM(salary) > 15000

ORDER BY 2 DESC;

JOB\_ID SUM(SALARY)

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SA\_REP 26600

IT\_PROG 19200

5 For each manager number display how many persons he / she supervises. Exclude managers with numbers 100, 101 and 102 and also include only those managers that supervise more than 2 persons.

Sort the output so that manager numbers with the most supervised persons are shown first.

SELECT manager\_id, COUNT(\*)

FROM employees

GROUP BY manager\_id

HAVING manager\_id NOT IN(100, 101, 102)

AND COUNT(\*) > 2

ORDER BY 2 DESC;

MANAGER\_ID COUNT(\*)

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124 4

149 3

6 For each department show the latest and earliest hire date, but exclude departments 10 and 20 and also exclude those departments where the last person was hired in this century. Sort the output so that the most recent meaning latest hire dates are shown first.

SELECT department\_id, MIN(hire\_date), MAX(hire\_date)

FROM employees

WHERE department\_id NOT IN (10, 20)

AND MAX(hire\_date) < '00-01-01'

GROUP BY department\_id

ORDER BY 2 DESC;

MIN(HIRE\_DATE) MAX(HIRE\_DATE)

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95-10-17 99-11-16

90-01-03 99-02-07

94-06-07 94-06-07

87-06-17 93-01-13