L4-W5-DBS301-Group functions

*STEP 1: Put the SQL and the results after each question below*

*STEP 2: Submit on Blackboard.*

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

Name this result *Real Amount*.

SELECT TO\_CHAR (ROUND(AVG(SALARY)), '$999,999.99') " Average pay"

, TO\_CHAR (ROUND(MIN(SALARY)), '$999,999.99') "Lowest pay"

, TO\_CHAR (ROUND(AVG(SALARY)) - ROUND(MIN(SALARY)), '$999,999.99') "Real Amount"

FROM EMPLOYEES;

Average pay Lowest pay Real Amount

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$8,775.00 $2,500.00 $6,275.00

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 "Department Number"

, TO\_CHAR (ROUND(MAX(SALARY), 2), '$999,999.99') "High"

, TO\_CHAR (ROUND(MIN(SALARY), 2), '$999,999.99') "Low"

, TO\_CHAR (ROUND(AVG(SALARY), 2), '$999,999.99') "Avg"

FROM EMPLOYEES

GROUP BY DEPARTMENT\_ID

ORDER BY 4 DESC;

Department Number High Low Avg

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90 $24,000.00 $17,000.00 $19,333.33

110 $12,000.00 $8,300.00 $10,150.00

80 $11,000.00 $8,600.00 $10,033.33

20 $13,000.00 $6,000.00 $9,500.00

$7,000.00 $7,000.00 $7,000.00

60 $9,000.00 $4,200.00 $6,400.00

10 $4,400.00 $4,400.00 $4,400.00

50 $5,800.00 $2,500.00 $3,500.00

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 "Dept#"

, JOB\_ID "Job"

, COUNT (\*) "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 "Job Title"

, SUM(SALARY) "Total Amount"

FROM EMPLOYEES

GROUP BY JOB\_ID

HAVING JOB\_ID NOT IN ('AD\_PRES', 'AD\_VP')

AND SUM(SALARY) > 15000

ORDER BY 2 DESC;

Job Title Total Amount

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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 "Manager#"

, COUNT (\*) "How Many"

FROM EMPLOYEES

WHERE MANAGER\_ID NOT BETWEEN 100 AND 102

GROUP BY MANAGER\_ID

HAVING COUNT (\*) > 2

ORDER BY 2 DESC;

Manager# How Many

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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

- 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 "Dep#"

, MAX(HIRE\_DATE) "Latest Date"

, MIN(HIRE\_DATE) "Earliest Date"

FROM EMPLOYEES

WHERE DEPARTMENT\_ID NOT IN (10, 20)

GROUP BY DEPARTMENT\_ID

HAVING TO\_CHAR(MAX(HIRE\_DATE), 'CC') < 21

ORDER BY 2 DESC;

Dep# Latest Date Earliest Date

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80 29-JAN-2000 11-MAY-1996

50 16-NOV-1999 17-OCT-1995

60 07-FEB-1999 03-JAN-1990

110 07-JUN-1994 07-JUN-1994

90 13-JAN-1993 17-JUN-1987