L4-W5-DBS301-Group functions

*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*

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

1 rows selected

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), MIN(SALARY), ROUND(AVG(SALARY), 2)

FROM EMPLOYEES

WHERE DEPARTMENT\_ID IS NOT NULL

GROUP BY DEPARTMENT\_ID

ORDER BY 4 DESC;

DEPARTMENT\_ID MAX(SALARY) MIN(SALARY) ROUND(AVG(SALARY),2)

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90 24000 17000 19333.33

110 12000 8300 10150

80 11000 8600 10033.33

20 13000 6000 9500

60 9000 4200 6400

10 4400 4400 4400

50 5800 2500 3500

7 rows selected

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

Name these results *Dept#, Job* and *HowMany.*

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(DEPARTMENT\_ID) AS "HowMany"

FROM EMPLOYEES

GROUP BY DEPARTMENT\_ID, JOB\_ID

HAVING COUNT(1) > 1

ORDER BY 3 DESC;

Dept# Job HowMany

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50 ST\_CLERK 4

60 IT\_PROG 3

80 SA\_REP 2

90 AD\_VP 2

4 rows selected

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 AS "Job Title", ROUND(AVG(SALARY), 2) AS "Monthly Salary"

FROM EMPLOYEES

WHERE NOT JOB\_ID LIKE 'AD\_PRES'

AND NOT JOB\_ID LIKE 'AD\_VP'

GROUP BY JOB\_ID

HAVING SUM(SALARY) >= 15000

ORDER BY 2 DESC;

Job Title Monthly Salary

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SA\_REP 8866.67

IT\_PROG 6400

2 rows selected

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 AS "Manager Member", COUNT(MANAGER\_ID)

FROM EMPLOYEES

WHERE MANAGER\_ID NOT IN (100, 101, 102)

GROUP BY MANAGER\_ID

HAVING COUNT(2) > 2

ORDER BY 2 DESC;

MANAGER\_ID COUNT(MANAGER\_ID)

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124 4

149 3

2 rows selected

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 latest hire dates are shown first.

SELECT DEPARTMENT\_ID, MAX(HIRE\_DATE) AS "Lasted Hire", MIN(HIRE\_DATE) AS "Earliest Hire"

FROM EMPLOYEES

WHERE DEPARTMENT\_ID NOT IN (10, 20)

GROUP BY DEPARTMENT\_ID

HAVING MAX(HIRE\_DATE） < '00-01-01'

ORDER BY 2 DESC;

DEPARTMENT\_ID Lasted Hire Earliest Hire

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50 99-11-16 95-10-17

60 99-02-07 90-01-03

110 94-06-07 94-06-07

90 93-01-13 87-06-17

4 rows selected