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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*.

ANSWER:

SELECT avg(salary) - MIN(salary) "Real Amount"

FROM employees;

OUTPUT:

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.

ANSWER:

SELECT department\_id, max(salary) High, min(salary) Low, round(avg(salary)) "Avg"

FROM employees

GROUP BY department\_id

ORDER BY 4 DESC;

OUTPUT:

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

8 rows selected

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.

ANSWER:

SELECT department\_id "Dept#", job\_id "Job", count(department\_id) "How Many"

FROM employees

GROUP BY department\_id, job\_id

HAVING count(department\_id) > 1

ORDER BY 3 DESC;

OUTPUT:

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.

**ANSWER**:

SELECT job\_id "Job Title", sum(salary) "Total Amount Paid"

FROM employees

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

GROUP BY job\_id

HAVING sum(salary) > 15000

ORDER BY 2 DESC;

**OUTPUT**:

Job Title Total Amount Paid

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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.

**ANSWER**:

SELECT manager\_id "Manager Number", count(employee\_id) "Supervise Person"

FROM employees

GROUP BY manager\_id

HAVING manager\_id NOT IN (100, 101, 102) AND count(employee\_id) > 2

ORDER BY 2 DESC;

**OUTPUT**:

Manager Number Supervise Person

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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.

ANSWER:

SELECT department\_id "Department", max(hire\_date) "Latest", min(hire\_date) "Earliest"

FROM employees

WHERE department\_id NOT IN (10, 20)

GROUP BY department\_id

HAVING max(hire\_date) > '00-JAN-01'

ORDER BY 2 DESC;

OUTPUT:

Department Latest Earliest

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80 00-01-29 96-05-11