AGGREGATING DATA USING GROUP FUNCTIONS

EXP:10 DATE:

Determine the validity of the following three statements. Circle either True or False.

1. Group functions work across many rows to produce one result per group.

Ans: False

2. Group functions include nulls in calculations.

Ans: False

3. The WHERE clause restricts rows prior to inclusion in a group calculation.

Ans: True

The HR department needs the following reports:

4. Find the highest, lowest, sum, and average salary of all employees. Label the columns Maximum, Minimum, Sum, and Average, respectively. Round your results to the nearest whole number.

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Ans: SELECT
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ROUND(MAX(salary)) AS "MAXIMUM",
ROUND(MIN(salary)) AS "MINIMUM",
ROUND(SUM(salary)) AS "SUM",
ROUND(AVG(salary)) AS "AVERAGE"

FROM MY_EMPLOYEE;

MAXIMUM	MINIMUM	SUM	AVERAGE
1550	1000	3650	1217 Activate
1 rows returned in 0.03 seconds Download			Go to Setti

5. Modify the above query to display the minimum, maximum, sum, and average salary for each job type.

Ans : select round(max(e.salary)) as maximum,round(min(e.salary)) as minimum,round(sum(e.salary)) as sum,round(avg(e.salary)) as average from EMPLOYEETABLE e join DEPARTMENTTABLE d on d.dept_id = e.DEPARTMENT_ID group by e.DEPARTMENT_ID;

MAXIMUM	MINIMUM	SUM	AVERAGE	
80000	80000	80000	80000	
90000	90000	90000	90000	
60000	60000	60000	60000	
90000	90000	90000	90000	
4 rows returned in 0.04 seconds Download				

6. Write a query to display the number of people with the same job. Generalize the query so that the user in the HR department is prompted for a job title.

Ans : select d.JOB_CUR,count(*) as NUMBEROFEMPLOYEES from employeetable e join department d on e.department_id=d.dept_id group by d.job_cur



7. Determine the number of managers without listing them. Label the column Number of Managers. Hint: Use the MANAGER_ID column to determine the number of managers.

Ans: select count(distinct manager_id) as "Number of Managers" from employeetable where manager_id is NOT NULL



8. Find the difference between the highest and lowest salaries. Label the column DIFFERENCE.

Ans: select max(salary)-min(salary) as difference from employeetable



9. Create a report to display the manager number and the salary of the lowest-paid employee for that manager. Exclude anyone whose manager is not known. Exclude any groups where the minimum salary is \$6,000 or less. Sort the output in descending order of salary.

Ans : select manager_id,min(salary) as "Lowest Salary" from employeetable where manager_id is not null group by manager_id having min(salary)>6000 order by "Lowest Salary" desc

MANAGER_ID	Lowest Salary
883	90000
881	90000
882	80000
884	70000
885	60000
5 rows returned in 0.01 seconds Download	

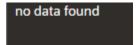
10. Create a query to display the total number of employees and, of that total, the number of employees hired in 1995, 1996, 1997, and 1998. Create appropriate column headings.

Ans : select extract(year from HIRE_DATE) as "yearly wise employment",count(*) from employeetable group by extract(year from HIRE_DATE) having extract(year from HIRE_DATE) in (1995,1996,1997,1998)



11. Create a matrix query to display the job, the salary for that job based on department number, and the total salary for that job, for departments 20, 50, 80, and 90, giving each column an appropriate heading.

Ans: SELECT d.job_cur, SUM(e.salary) FROM employeetable e JOIN DEPARTMENT d ON e.DEPARTMENT_ID = d.dept_id WHERE e.DEPARTMENT_ID IN (20, 50, 80, 90) GROUP BY d.job_cur;



12.Write a query to display each department's name, location, number of employees, and the average salary for all the employees in that department. Label the column name-Location, Number of people, and salary respectively. Round the average salary to two decimal places.

Ans: select d.job_cur as "Name",d.country as "Location",count(e.department_id) as "Number Of People",round(avg(e.salary),2) "Salary" from department d join employeetable e on e.department id=d.dept id group by job cur,d.country;

Name	Location	Number of People	Salary
FULSTACK			5500
BACKEND	ATLANTICA		50000
executive	PAKISTAN		4000
3 rows returned in 0.03 seconds Download			