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U19CS076
DBMS Tutorial

(Nested Subqueries)

Q1] ① Select * from employee where employee_No IN (Select employee_No from salary where salary > 25000);

② Insert into Employee_BKP values (Select * from employee where employee_No IN (Select employee_No from salary where salary > 25000);

Q2] ① The inner query returns a table with 2 columns →

Subject, Avg_Salary (average salary of teachers based on their subject)

→ No. of rows in table will be equal to number of unique subjects

→ Table alias name of output of inner query is given as salary_by_subject.

The outer query returns the maximum of the avg_salary from output table of inner query along with subject name.

② The innermost query returns a table having the class with maximum number of students. The penultimate query returns the ids from the table 'class' of the class having the maximum no. of students. The outermost query returns all information about the students in the class with the maximum students.

Q2] (I) TABLE1 : teachers
ATTRIBUTES : subject, monthly _ salary

TABLE2 : salary _ by _ subject
ATTRIBUTES : subject, avg _ salary

(II) TABLE 1 : classes
ATTRIBUTES : id, number _ by _ students

TABLE 2 : students
ATTRIBUTE : ~~class _ id all attributes of row where~~
~~class _ id = id with max. students~~
ATTRIBUTE : class _ id

maximum number of students.

③ I) select * from employee where Dept_ID = (Select Dept_ID from Department).

⇒ Outputs the row from employee table where Dept_ID matches the 1st entry of Dept_ID in the department table and not all.

Like o/p → 2 | Linda | 30 | 100 2 33 3 02 31 | 1 | 15000

⇒ Select * from employee where Dept_ID IN (Select Dept_ID from department);

C.   ⊘ o/p →

Emp-ID	Emp_Name	AGEG	Phone_Num	Dept ID	Salary
1	John	35	1002 33023	2	10000
2	Linda	30	100234565	1	15000
3	Max	40	122222344	3	22000
4	Will	40	1 2323424	3	31000
5	Michal	45	12323434	3	5000

II) Output →

Emp_IP	Emp_Name	AGEG	Phone_Num	Dep_ID	Salary
2	Linda	30	100234565	1	15000
3	Max	40	122222344	3	22000
4	Will	40	12323424	3	31000

Q4] Nested subquery way

    Update <table_name> SET credit_amount = 20 where
    day_credit = (Select day_credit from <table_name>
    where day_credit = 60);

Q5] Select s.name, s.city, (Select count (c.salesman_id)
    from customer c where s.city = c.city)
    from salesman s where s.city IN (Select c.city
    from customer c) group by (Select c.salesman_id
    from customer c where s.city = c.city);