Trending Now   DSA   Data Structures   Algorithms   Interview Preparation   Data Science   Topic-wise Practice   J

SQL | Sub queries in From Clause

Mayank Kumar 12

Read   Discuss   Courses   Practice

From clause can be used to specify a sub-query expression in SQL. The relation produced by the sub-query is then used as a new relation on which the outer query is applied.

- Sub queries in the from clause are supported by most of the SQL implementations.
- The correlation variables from the relations in from clause cannot be used in the sub-queries in the from clause.

Syntax:

```
SELECT column1, column2 FROM
(SELECT column_x  as C1, column_y FROM table WHERE PREDICATE_X)
as table2, table1
WHERE PREDICATE;
```

Note: The sub-query in the from clause is evaluated first and then the results of evaluation are stored in a new temporary relation.
Next, the outer query is evaluated, selecting only those tuples from the temporary relation that satisfies the predicate in the where clause of the outer query.

Query

Example 1: Find all professors whose salary is greater than the average budget of all the departments.

Instructor relation:

InstructorID	Name	Department	Salary
44547	Smith	Computer Science	95000
44541	Bill	Electrical	55000
47778	Sam	Humanities	44000
48147	Erik	Mechanical	80000
411547	Melisa	Information Technology	65000
48898	Jena	Civil	50000

Department relation:

Department Name	Budget
Computer Science	100000
Electrical	80000
Humanities	50000
Mechanical	40000
Information Technology	90000
Civil	60000

Query:

```
select I.ID, I.NAME, I.DEPARTMENT, I.SALARY from
(select avg(BUDGET) as averageBudget from DEPARTMENT) as BUDGET, Instructor as I
where I.SALARY > BUDGET.averageBudget;
```

Output

InstructorID	Name	Department	Salary
44547	Smith	Computer Science	95000
48147	Erik	Mechanical	80000

Explanation: The average budget of all departments from the department relation is 70000. Erik and Smith are the only instructors in the instructor relation whose salary is more than 70000 and therefore are present in the output relation.

Last Updated : 11 Apr, 2022

40

Similar Reads

1.   Difference between Having clause and Group by clause

2.   SQL | Distinct Clause

3.   SQL | WHERE Clause

4.   Top Clause in Microsoft SQL Server

5.   SQL | Union Clause

6.   SQL | WITH clause

7.   SQL | Except Clause

8.   SQL | OFFSET-FETCH Clause

9.   SQL | LIMIT Clause

10.   SQL | Intersect & Except clause

Previous   Next

Article Contributed By :

Mayank Kumar 12
Mayank Kumar 12

Vote for difficulty

Current difficulty : Easy

| Easy | Normal | Medium | Hard | Expert |

Improved By :   Dharmesh Singh 2,   19eucs091