Aggregate Functions, Query & Sub-Query

Topic Covered In this Session

1. Aggregate Function (Sum, Count, Max, Min, Avg)
2. Sub Query

Sub Query

In SQL a Subquery can be simply defined as a query within another query. In other words we can say that a Subquery is a query that is embedded in WHERE clause of another SQL query.

Important rules for Subqueries:

- You can place the Subquery in a number of SQL clauses: WHERE clause, HAVING clause, FROM clause.
- Subqueries can be used with SELECT, UPDATE, INSERT, DELETE statements along with expression operator. It could be equality operator or comparison operator such as =, >, =, <= and Like operator.
- A subquery is a query within another query. The outer query is called as main query and inner query is called as subquery.
- The subquery generally executes first, and its output is used to complete the query condition for the main or outer query.
- Subquery must be enclosed in parentheses.
- Subqueries are on the right side of the comparison operator.
- ORDER BY command cannot be used in a Subquery. GROUPBY command can be used to perform same function as ORDER BY command.
- Use single-row operators with single row Subqueries. Use multiple-row operators with multiple-row Subqueries

Syntax:

```
SELECT column_name
FROM table_name
WHERE column_name expression operator
   (SELECT COLUMN_NAME from TABLE_NAME   WHERE ...);
```

Ques.

1. Max Salary in the tblPerson.
2. Max Salary & Name from the tblPerson
3. Second Max Salary from the tblPerson
4. Select Salary which is not equal to max salary.
5. Count City with City Name from tblPerson
6. Display Name ,City where city Count < 2
7. Highest Salary City Wise and display name of the Employee
8. Write a Query which are in Noida and Lucknow using IN
9. Write a Query which are not in Noida and Lucknow using NOT IN
10. Write a query find the largest salary where city count >2 from table(tblperson)

Require Table for the above Question tblPerson

tblPerson(ID,Name,Age,GenderID,City,Salary)

11. Find the name of Employee who are working on Project.
12. Find the name of Employee who are not working on Project.

Require Table for the 11 & 12 Question tblEmp & tblProject

tblEmp(ID,Name)

tblProject(ID, Project Name, EID foreign key reference tblEmp(ID))