

2/7/25

TASK 1 - 4

Independent and correlated Nested Queries

AIM:- To implement and understand nested queries in SQL with independent and correlated subqueries.

Procedure:-

1. Create required tables
2. Insert sample data
3. Write and execute independent nested queries.
4. Write and execute correlated nested queries.
5. observe and analyse the differences in execution and results.

Types of Nested Queries

1. Independent (simple) Nested Queries:-

Syntax:-

SELECT Column - list
FROM table

WHERE Column OPERATOR (SELECT column
FROM table WHERE condition);

Example 1:-

find employees who belong to the same department as John.

```
SELECT EmployeeName  
FROM Employees  
WHERE DeptID = (  
    SELECT DeptID  
    FROM Employees  
    WHERE EmployeeName = 'John'  
);
```

output:-

<u>John</u> <u>EmpID</u>	<u>empName</u>	<u>DeptID</u>	<u>Salary</u>
1	John	201	60000
2	Michael	201	55000
3	Sarah	201	62000
4	Alice	202	58000
5	Robert	202	61000
6	Emma	203	50000

output:-

empName

John
Michael
Sarah.

2. Correlated Nested queries

Syntax:-

Select column_list
from table t1

Where exists (select 1 from table 2
t2 Where condition involving t1.
column = t2 (column));

<u>ProjID</u>	<u>empID</u>
101	1
102	2
103	4
104	5

Syntax:-

Select employeeName from employees
Where exists (select 1 from projects p
Where p.EmpID = empID);

output:-


John

Michael

Alice

Robert.

VEL TECH	
EX No.	4
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	5
VIVA VOCE (3)	5
RECORD (4)	
TOTAL (15)	15
SIGN WITH DATE	


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Result :-

Thus, to study and implemented independent and correlated nested queries is executed successfully.