

# 11/9/25 Task 4: Independent and correlated Nested queries

Aim:

To implement and understand Nested queries in SQL, including independent and correlated subqueries

Procedure:

1. Create require table
2. Insert sample data
3. write and execute independent nested queries
4. write and execute correlated nested queries
5. Observe and analysis 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: Independent Nested query

Patient Id	Patient Name	dept	bill amount
101	Alice	Cardiology	5000
102	Bob	oncology	7500
103	Carol	Cardiology	6000
104	David	orthopedic	8200

query:

```
SELECT "pat name"  
FROM patients  
WHERE dept = C
```

```
SELECT dept  
FROM patients  
WHERE "pat name" = 'Alice'
```

);

patname
Alice
Carol

## 2. Correlated Nested Queries

Syntax:

```
SELECT column_list  
FROM table1 t1  
WHERE EXISTS C
```

```
SELECT 1
```

```
FROM table2 t2
```

```
WHERE condition involving t1.column = t2.column
```

);

Example 2: Correlated nested query

pat id	pat name	dept
101	Alice	cardiology
102	Bob	oncology
103	Carol	cardiology

bill id	pat id	bill amount
1	101	5000
2	102	300
3	103	6000

Query:

```
SELECT p. "pat name"  
FROM patients p  
WHERE EXISTS(  
    SELECT 1  
    FROM bills b  
    WHERE b. "pat id" = p. "pat id"  
);
```

PatName
Alice
Carol
bob

VEL TECH - CSE	
EX NO.	4
PERFORMANCE (5)	8
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	-
TOTAL (20)	18
DATE	11/12/23

Result:

Thus the implementation and condensed nested queries in SQL are executed successfully