# Experiment No. 6

**Aim:** Study and solve the Nested queries

**Theory:**

A Sub query or Inner query or Nested query is a query within another SQL query and embedded within the WHERE clause. A sub query is used to return data that will be used in the main query as a condition to further restrict the data to be retrieved.

Sub queries can be used with the SELECT, INSERT, UPDATE, and DELETEstatements along with the operators like =, , >=, <=, IN, BETWEEN etc.

There are a few rules that sub queries must follow: Sub queries must be enclosed within parentheses. A sub query can have only one column in the SELECT clause, unless multiple columns are in the main query for the sub query to compare its selected columns. An ORDER BY cannot be used in a sub query, although the main query can use an ORDER BY. The GROUP BY can be used to perform the same function as the ORDER BY in a sub query. Sub queries that return more than one row can only be used with multiple value operators, such as the IN operator. The SELECT list cannot include any references to values that evaluate to a BLOB, ARRAY, CLOB, or NCLOB. A sub query cannot be immediately enclosed in a set function. The BETWEEN operator cannot be used with a sub query; however, the BETWEEN operator can be used

Syntax for subquery

```
SELECT column_name [, column_name ]
FROM   table1 [, table2 ]
WHERE  column_name OPERATOR
  (SELECT column_name [, column_name ]
  FROM table1 [, table2 ]
  [WHERE])
```

**Conclusion :**

**LAB PRACTICE ASSIGNMENT:**

Consider following Employee table

| Eid | Ename | Edept | Esalary |
|---|---|---|---|
| 1 | Ram | HR | 10000 |
| 2 | Amrit | MRKT | 20000 |
| 3 | Ravi | HR | 30000 |
| 4 | Nitin | MRKT | 40000 |
| 5 | Varun | IT | 50000 |

Perform following queries

1) Display maximum salary of emploee
2) Display name of the employee with maximum salary
3) Display second maximum salary of the employee
4) Display name of the employee with second maximum salary of the employee
5) Display name of the departments with number of employees working in it
6) Display name of the departments where number of employees are less than 2
7) Display name of employees in query 6
8) Display highest salary department wise with name of employees