



# What is a Sub Query ?



# Subquery

- A Subquery or Inner query or a Nested query is a query within another SQL query and embedded within the WHERE clause.
- A subquery is used to return data that will be used in the main query as a condition to further restrict the data to be retrieved.
- Subqueries can be used with the SELECT, INSERT, UPDATE, and DELETE statements along with the operators like =, <, >, >=, <=, IN, BETWEEN, etc
- Subqueries can be used to return either a scalar (single) value or a row set; whereas, joins are used to return rows.



# Subqueries rules to follow

- Subqueries must be enclosed within parentheses.
- A subquery can have only one column in the SELECT clause, unless multiple columns are in the main query for the subquery to compare its selected columns.
- An ORDER BY command cannot be used in a subquery, although the main query can use an ORDER BY.
- Subqueries that return more than one row can only be used with multiple value operators such as the IN operator.
- The BETWEEN operator cannot be used with a subquery.



# Subquery Syntax and Example

- `SELECT column-names`  
`FROM table-name1`  
`WHERE value IN (SELECT column-name`  
`FROM table-name2`  
`WHERE condition)`
- `SELECT * FROM CUSTOMERS`  
`WHERE ID IN (SELECT ID FROM`  
`CUSTOMERS WHERE SALARY > 4500) ;`