

Sub Queries

* It is used within another query that provides data to main query.

(SELECT, UPDATE, INSERT, DELETE)

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ETL → ☐

Types of Subqueries:

1) Single-row Subqueries:

(=, <, >, >=, <=)

returns only one row & can be used with single-row comparison operators

2) Multiple-Row Subqueries:

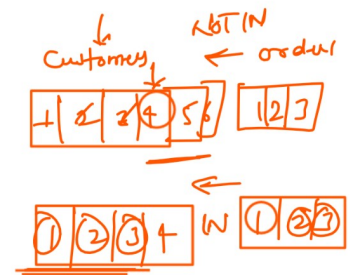
return multiple rows & must be used with multiple row operators

(IN, NOT IN, ANY, ALL, EXISTS)

→ IN: find customers who have placed orders

→ NOT IN: find customers who have never placed order

* Checks if a value matches with any value
in a list or subquery results



ALL: returns TRUE if the comparison is TRUE for all values returned by subquery

→ find products that costs more than all the products in the 'Accessories' category

ANY: returns TRUE if the comparison is TRUE for atleast one value returned by the subquery

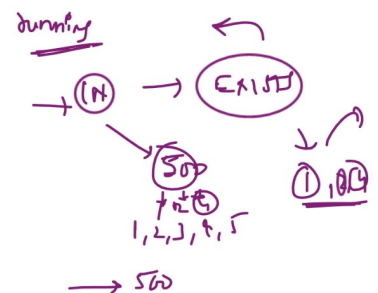
EXISTS / NOT EXISTS



* returns TRUE if the subquery returns any rows

eg: find customers who have placed orders

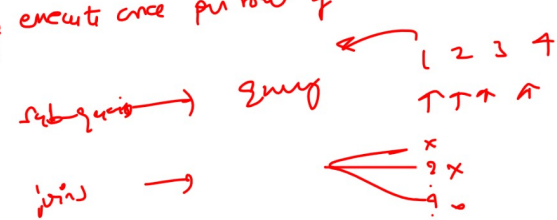
eg: find customers with no orders



Subqueries in Different Clauses :

where, SELECT, FROM
x ✓ ✓

Best Practices

- Use joins when ever possible → Joins perform better than subqueries
 - Avoid subqueries for larger datasets → They execute once per row of the outer query
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- USE EXPLAIN ANALYZE to see The execution plan & cost
- Use subqueries check when use LIMITS
- NULL values needs be taken care