

advance

JOINS

DOMS

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Joins

- they are used to combine two or more tables or result sets.

1. JOIN / INNER JOIN

return record having matching value in both tables.

2. LEFT OUTER RIGHT OUTER FULL OUTER

INNER JOIN

INNER JOIN

INNER JOIN

+

+

+

all records

all records

all records

from left

from right

from left

table,

table,

table

non match

non match

+

value

value

all records

replace by

replace by

from right

NULL

NULL

table

3. CROSS JOIN

return cartesian product of two tables

i.e., combine each row of left table with each row of right table

4. NATURAL JOIN

It's INNER JOIN but ON condition is

determined by SQL, itself. based on column names, primary keys etc.

Not recommended, inconsistent results.

5. SELF JOIN

- INNER JOIN but it is join with itself i.e. same table.
- use case when you have to link one records of table with another records of same table.

Key words

1. JOIN ON
2. LEFT JOIN ON / RIGHT / FULL
3. CROSS JOIN ON
4. NATURAL JOIN ON
5. SELF JOIN ON

advance
subquery

Sub Queries

①

Scalar

return single
cell

Multiple

either multiple
rows & columns
or single column
multiple rows.

- Both are inter dependent.
- not related to outer subquery.
- use () in where clause to compare multiple checks or conditions.

②

Correlated

a subquery which is related to outer subquery.

for each outer query record, inner sub query is executed. like nested loops.

you can nest as many as queries you want but keep in mind it is computationally expensive.

- All subqueries can be used anywhere like in WHERE, JOIN, HAVING, SELECT.

(Imp)

in SELECT clause, you must do only scalar subqueries otherwise will throw error.

OR basically. correlated query throw error in SELECT.