Nested select statement in SQL Server

Can someone help me understand why the following doesn't work?

```
SELECT name FROM (SELECT name FROM agentinformation)
```

I guess my understanding of SQL is wrong, because I would have thought this would return the same thing as

```
SELECT name FROM agentinformation
```

Doesn't the inner select statement create a result set which the outer SELECT statement then queries?

sql sql-server nested subquery querying

edited Sep 16 '16 at 17:33

Somnath Muluk
28.3k 15 164 182

asked Jan 7 '11 at 20:27

Brennan Vincent
3,230 6 22 33

2 Answers

You need to alias the subquery.

```
SELECT name FROM (SELECT name FROM agentinformation) a
```

or to be more explicit

```
SELECT a.name FROM (SELECT name FROM agentinformation) a
```

answered Jan 7 '11 at 20:29

Joe Stefanelli
103k 13 175 190

13	Right, I'm an idiot! Thanks, will accept once allowed. – Brennan Vincent Jan 7 '11 at 20:30
52	Make sure your alias is somewhat verbose too! I love when I get to work on a wuery with t1,t2,t3,t4,t5,t6 – Doug Chamberlain Jan 7 '11 at 20:33
2	Where would a `where` clause go for the outer query? – Colonel Panic Nov 16 '12 at 10:20
3	@ColonelPanic: The WHERE clause for the outer query would be tacked on at the very end. – Joe Stefanelli Nov 16 '12 at 14:50
26	@BrennanVincent Idiots don't ask questions ;) – 0x016F2818 Oct 27 '15 at 12:24

Answer provided by Joe Stefanelli is already correct.

```
SELECT name FROM (SELECT name FROM agentinformation) as a
```

We need to make alias of subquery because query needs table object which we will get from making an alias to subquery. Conceptually, the subquery results are substituted into the outer query. As we need table object in outer query, we need to make an alias of inner query.

Statements that include a subquery usually take one of these formats:

- WHERE expression [NOT] IN (subquery)
- WHERE expression comparison_operator [ANY | ALL] (subquery)
- WHERE [NOT] EXISTS (subquery)

Check for more subquery rules and subquery types.

More examples of Nested Subquery.

1. IN / NOT IN – This operator takes the output of inner query after inner query gets executed which can be zero or more values and send it to outer query. The outer query then fetches all the matching [IN operator] or not non matching [NOT IN operator] rows.
2. ANY – [>ANY or ANY operator takes the list of values produced by inner query and fetches all the values which are greater than the minimum value of the list. The

e.g. >ANY(100,200,300), the ANY operator will fetch all the values greater than 100.

3. ALL – [>ALL or ALL operator takes the list of values produced by inner query and fetches all the values which are greater than the maximum of the list. The

e.g. >ALL(100,200,300), the ALL operator will fetch all the values greater than 300.

4. EXISTS - The EXISTS keyword produces a Boolean value [TRUE/FALSE]. This EXISTS checks the existence of the rows returned by the sub query.

edited May 23 '17 at 12:18

Community ♦
1 1

answered Sep 16 '16 at 17:31

Somnath Muluk
28.3k 15 164 182

1 up for its DETAILS – C JC Mar 23 '17 at 8:50