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| [Home](http://www.techonthenet.com/index.php) > [Oracle/PLSQL](http://www.techonthenet.com/oracle/index.php)  **Oracle/PLSQL: Subqueries**  **What is a subquery?**  A subquery is a query within a query. In Oracle, you can create subqueries within your SQL statements. These subqueries can reside in the WHERE clause, the FROM clause, or the SELECT clause.  **WHERE clause**  Most often, the subquery will be found in the WHERE clause. These subqueries are also called **nested subqueries**.  For example:   |  | | --- | | select \* from all\_tables tabs | | where tabs.table\_name in | (select cols.table\_name | |  | from all\_tab\_columns cols | |  | where cols.column\_name = 'SUPPLIER\_ID'); |   **Limitations:**  Oracle allows up to 255 levels of subqueries in the WHERE clause.  **FROM clause**  A subquery can also be found in the FROM clause. These are called **inline views**.  For example:  select suppliers.name, subquery1.total\_amt from suppliers,    (select supplier\_id, Sum(orders.amount) as total\_amt    from orders    group by supplier\_id) subquery1, where subquery1.supplier\_id = suppliers.supplier\_id;  In this example, we've created a subquery in the FROM clause as follows:  (select supplier\_id, Sum(orders.amount) as total\_amt  from orders  group by supplier\_id) subquery1  This subquery has been aliased with the name *subquery1*. This will be the name used to reference this subquery or any of its fields.  **Limitations:**  Oracle allows an unlimited number of subqueries in the FROM clause.  **SELECT clause**  A subquery can also be found in the SELECT clause.  For example:  select tbls.owner, tbls.table\_name,   (select count(column\_name) as total\_columns    from all\_tab\_columns cols    where cols.owner = tbls.owner    and cols.table\_name = tbls.table\_name) subquery2 from all\_tables tbls;  In this example, we've created a subquery in the SELECT clause as follows:  (select count(column\_name) as total\_columns  from all\_tab\_columns cols  where cols.owner = tbls.owner  and cols.table\_name = tbls.table\_name) subquery2  The subquery has been aliased with the name *subquery2*. This will be the name used to reference this subquery or any of its fields.  The trick to placing a subquery in the select clause is that the subquery must return a single value. This is why an aggregate function such as [SUM](http://www.techonthenet.com/sql/sum.php), [COUNT](http://www.techonthenet.com/sql/count.php), [MIN](http://www.techonthenet.com/sql/min.php), or [MAX](http://www.techonthenet.com/sql/max.php) is commonly used in the subquery.  *Acknowledgements*: We'd like to thank Peter for contributing to this solution! |

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