

Difference Between JOIN and SUBQUERY

- JOIN can only be used in FROM while SUBQUERY can be used in SELECT, WHERE, HAVING, FROM, ORDER BY ,etc.
- Although SUBQUERY is easy to understand, JOIN will have a better performance than SUBQUERY because SQL has an optimizer for JOIN.

If we want the SQL query to be easy to understand, we use SUBQUERY. If we want query efficiency, we use JOIN.

What is CTE and when to use it?

CTE represents Common Table Expressions. It is an temporary name of results set to make the query more readable. CTE can only be used in the current batch. CTE can be recursive. Recursive CTE starts with an initial call to the CTE, which passes in some values to get things started, then calling itself again and again until it can stop and return something.

What are Table Variables? What is their Scope and where are they created in SQL Server?

Table Variable is a special type of SQL variable with data type TABLE. It must be used in the same batch where it is created. Table variables are stored in tempDb

What is the difference between DELETE and TRUNCATE? Which one will have better performance and why?

DELETE is usually used with WHERE to remove rows from a table. TRUNCATE removes all rows from table. TRUNCATE is faster and cannot be rolled back.

What is Identity Column? How does DELETE and TRUNCATE affect it?

Identity Column of a table is a column whose value will increase automatically.