Answer following questions

1. In SQL Server, assuming you can find the result by using both joins and subqueries, which one would you prefer to use and why?

A general rule is that joins are faster in most cases. The more data tables have, the subqueries are slower. The less data tables have, the subqueries have equivalent speed as joins.

1. What is CTE and when to use it?

A Common Table Expression (CTE) is the result set of a query which exists temporarily and for use only within the context of a larger query. If you need to reference/join the same data set multiple times you can do so by defining a CTE. Therefore, it can be a form of code re-use.

3. What are Table Variables? What is their scope and where are they created in SQL Server?

A table variable is a data type that can be used within a Transact-SQL batch, stored procedure, or function—and is created and defined similarly to a table, only with a strictly defined lifetime scope. The table variable scope is within the batch. We can define a table variable inside a stored procedure and function as well. In this case, the table variable scope is within the stored procedure and function. We cannot use it outside the scope of the batch, stored procedure, or function.

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

* Truncate reseeds identity values, whereas delete doesn't.
* Truncate removes all records and doesn't fire triggers.
* Truncate is faster compared to delete as it makes less use of the transaction log.
* Truncate is not possible when a table is referenced by a Foreign Key or tables are used in replication or with indexed views.

1. What is Identity column? How does DELETE and TRUNCATE affect it?

An identity column is a column in a database table that is made up of values generated by the database. Delete not reset but keep on increasing. TRUNCATE resets the identity value to the original seed value of the table.

1. What is difference between “delete from table\_name” and “truncate table table\_name”?

Both deletes all rows from table, but truncate cannot rollback the changes.