**Write a short essay talking about your understanding of transactions, locks and isolation levels.**

A transaction in SQL is a unit of execution that groups one or more tasks together. A transaction is considered successful if all the tasks within it are executed without error. Transactions are essential for maintaining data integrity, both for multiple related operations and when multiple users that update the database concurrently.

Locking is essential to successful SQL Server transactions processing, and it is designed to allow SQL Server to work seamlessly in a multi-user environment. Locking is the way that SQL Server manages transaction concurrency.

An isolation level defines how one transaction is isolated from other transactions. Isolation is the separation of resource or data modifications made by different transactions. Isolation levels are described for which concurrency side effects are allowed