

```
Create Procedure spUpdateAddress
as
Begin
Begin Try
Begin Transaction
Update tblMailingAddress set City = 'LONDON'
where AddressId = 1 and EmployeeNumber = 101

Update tblPhysicalAddress set City = 'LONDON'
where AddressId = 1 and EmployeeNumber = 101
Commit Transaction
End Try
Begin Catch
Rollback Transaction
End Catch
End
```

A transaction is a unit of work that is performed against a database. Transactions are units or sequences of work accomplished in a logical order, whether in a manual fashion by a user or automatically by some sort of a database program.

A transaction is the propagation of one or more changes to the database. For example, if you are creating a record or updating a record or deleting a record from the table, then you are performing a transaction on that table. It is important to control these transactions to ensure the data integrity and to handle database errors.

Practically, you will club many SQL queries into a group and you will execute all of them together as a part of a transaction.

## Properties of Transactions

Transactions have the following four standard properties, usually referred to by the acronym **ACID**.

- **Atomicity** ensures that all operations within the work unit are completed successfully. Otherwise, the transaction is aborted at the point of failure and all the previous operations are rolled back to their former state.
- **Consistency** ensures that the database properly changes states upon a successfully committed transaction.
- **Isolation** enables transactions to operate independently of and transparent to each other.
- **Durability** ensures that the result or effect of a committed transaction persists in case of a system failure.