

Transaction processing – a transaction is a sequence of one or more of the CRUD operations performed as a single, logical unit of work

Commit – the entire sequence succeeds (save all changes if successful)

Rollback / Abort – the entire sequence fails (revert changes if failure occurs)

Transactions help ensure:

- Data integrity – prevents incomplete updates
- Error recovery – enables system restoration
- Concurrency control – manages simultaneous transactions
- Reliable data storage – ensures durability
- Simplified error handling – manifest failures systematically