

# The Database book

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# Transaction models

## ACID

### Atomic

All or nothing. A transaction needs to have all parts to succeed, otherwise it will fail. Example: Bank transfer (credit/debit)

### Consistent

A transaction needs to transition from one valid state to another.

### Isolated

Transactions don't interfere with each other

### Durable

Transactions are stored and are durable (resistant to crashes)

## BASE

### Basically Available

Operations will be performed (read/write) but there are no guarantees about consistency.

### Soft state

Consistency enforcement is the responsibility of the application. The database won't check or enforce this.

### Eventually consistent

Reads will become consistent at one point but not necessarily immediately.

