

## A – Atomicity

### Definition:

Transaction is **all-or-nothing**. If one part fails, the whole transaction is rolled back.

### Example:

Transferring ₹1000 from **Account A to Account B**:

- Debit ₹1000 from A
  - Credit ₹1000 to B
- If credit fails, debit is also rolled back.
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## ♦ C – Consistency

### Definition:

A transaction brings the database from one **valid state to another**. Data integrity is preserved.

### Example:

After transfer, total money (A + B) remains same → ₹10,000 before and after.

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## ♦ I – Isolation

### Definition:

Transactions run **independently**, even if they happen at the same time.

### Example:

If two users transfer money at the same time, their transactions **don't interfere** or see each other's incomplete changes.

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## ♦ D – Durability

### Definition:

Once committed, the result of a transaction is **permanent**, even if system crashes.

### Example:

If transfer is successful and app crashes, ₹1000 is **not lost**, it remains updated in DB