

## # Recovery Failures

- 1) Transaction
  - a) logical
  - b) system error
- 2) System crash
- 3) Disk failure

## # Fail stop assumption

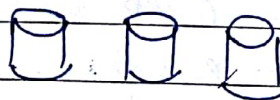
- Data stored in volatile memory will get affected on system crash.
- but data stored in non-volatile memory will not get affected on system crash.

## # Recovery manager -

~~Restores~~ Restores database after failure to the previous form.

### Storage type

- 1) Volatile storage
- 2) Non-volatile storage
- 3) Stable storage



## RAID -

Redundant array of independent disks

### Disk mirroring

Every logical disk must consist of two ~~this~~ separate disks so that if one disk fails, data can be recovered from other disk.

### Stable storage implementation

- 1) Successful completion
- 2) Partial failure
- 3) Total failure.