

# Distributed & Cloud Computing - CAT Cheat Sheet

- 1. Frontend vs Backend → Frontend = UI (React, HTML, CSS). Backend = Logic/DB (Node.js, Java).
- 2. Cloud Architecture → Frontend, Backend, Delivery (SaaS/PaaS/IaaS), Network, Middleware.
- 3. IPC Methods → Message Passing, Shared Memory, Pipes, RPC.
- 4. Security Challenges → Data breaches, Insider threats, DDoS, Data loss, Compliance.
- 5. No Recovery Plan → High risk: Data loss, Downtime. Use backups + disaster recovery.
- 6. Hybrid Cloud → Mix of Private + Public. Example: Banks (private data, public analytics).
- 7. Cloud Security → Encryption, Access control, Firewalls, Data masking, Audits.
- 8. Virtualization Saves Cost → Fewer servers, on-demand scaling. Example: VMs on 2 servers.
- 9. Cloud Terms → On-demand (characteristic), Elasticity (criterion). Example: Netflix scaling.
- 10. 5Vs of Big Data → Volume, Velocity, Variety, Veracity, Value.
- 11. Hadoop Architectures → v1: MapReduce only. v2: YARN supports multiple engines (Spark).