

Characteristics of NoSQL

- Does not follow ACID properties
- Less complexity as of SQL queries
- Schema less
- Fast development
- Large data volumes
- Easy and frequent DB changes



When to use NoSQL

- When Traditional RDBMS model provides restriction
- When ACID properties is not supported
- Temporary data (Like Wishlist, shopping cart, session data etc)
- When joins are expensive in RDBMS (product cost, hardware, maintenance)

When not to use NoSQL

- Financial Data, Data requiring strict ACID properties, Business critical data





CAP Theorem

- **Consistency**-This means that the data in the database remains consistent after the execution of an operation. For example after an update operation all clients see the same data.
- **Availability**-This means that the system is always on (service guarantee availability), no downtime.
- **Partition Tolerance**-This means that the system continues to function even the communication among the servers is unreliable, i.e. the servers may be partitioned into multiple groups that cannot communicate with one another. Here, if part of the database is unavailable, other parts are always unaffected.

