

Nosql Data Management





CHAPTER-2

NoSQL Data Management



Introduction to NoSQL

What is NoSQL?

- NoSQL is non-relational database management system.
- A NoSQL database provides a mechanism for storage and retrieval of data that is modeled in means other than the tabular relations used in relational databases.
- It is a type of Non-Relational Database system.
- It follows CAP theorem rather than ACID properties of RDBMS.

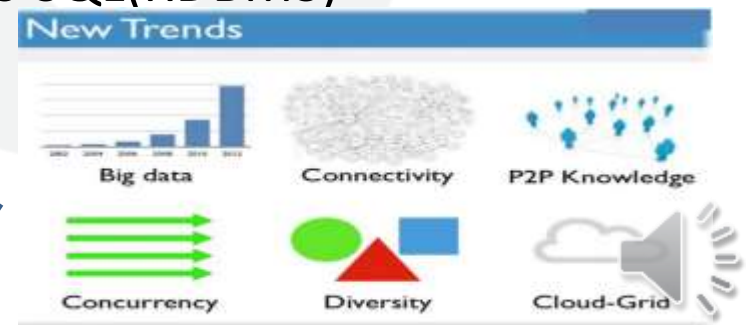




Why and when NoSql should be used ?

- The Traditional database is more predictable and preferable for Structured data.
- But, NoSQL is preferable for handling unstructured type of data . Unstructured data is type of data which has no proper format this type of data is generated by machine and humans in the form of satellite image, social media, mobile data, web-content etc
- NoSQL has high performance with high availability, and offers rich query language and easy scalability compared to SQL(RDBMS)

Why NoSQL is needed today most ???



Need of NoSQL

- Explosion of Social media sites (FaceBook, Twitter etc) resulting in generation of large data of different formats and size.
- Rise of Cloud based technologies like Amazon Web Services (AWS), Google cloud and Microsoft Azure
- Expansion of Open source communities.



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

