Capabilities Between Oracle NoSql and Oracle RDBMS

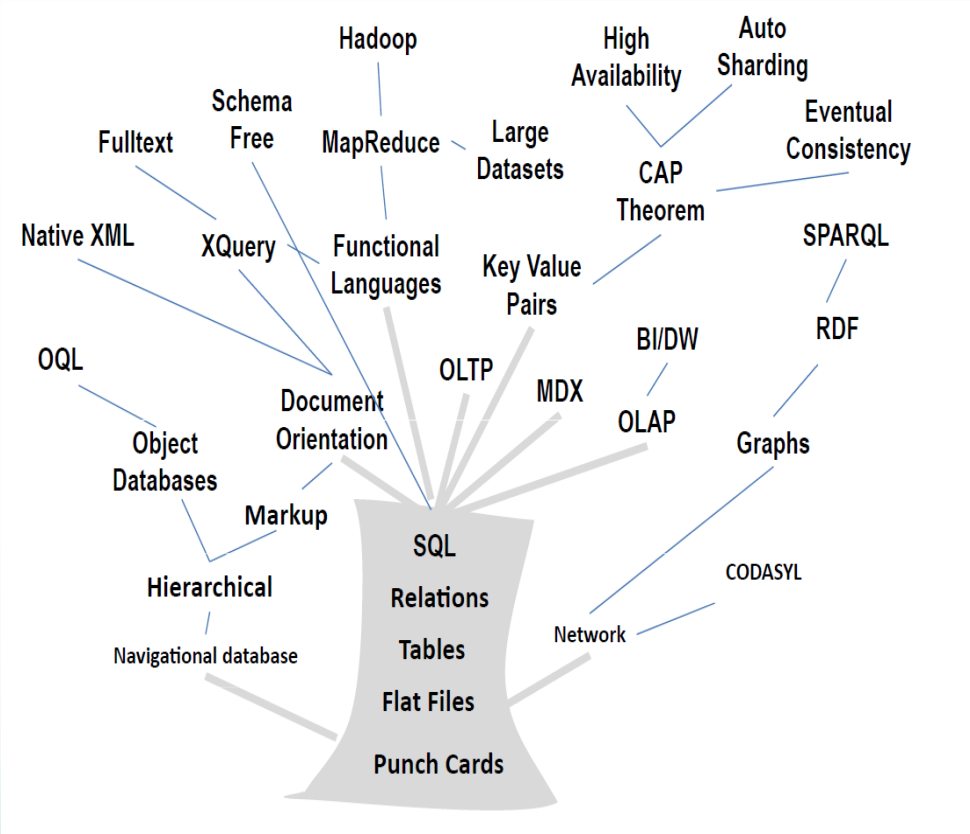
NOSQL vs RDBMS

AGENDA

- What is NOSQL?
- What is RDBMs
- How does NOSQL compare to RDBMS

What is NOSQL?

- Definitions for NOSQL vary greatly from newer systems using document stores, key value stores, XML databases, graph databases, column stores, object stores, etc. (like MongoDB, Cassandra, Couchbase, Hadoop, etc.) to older Hierarchical systems that had many similar characteristics (like Cache and GT.M)
- The NOSQL concept tree illustrates the variety of concepts related to NOSQL.



RDBMS

- Relational Databases use the notion of databases separated into tables where each column represents a field and each row represents a record. Tables can be related or linked with each other with the use of foreign keys or common columns. On an abstract level tables represent entities, such as users, customers or suppliers.

Overview of Oracle NoSql Performance Features

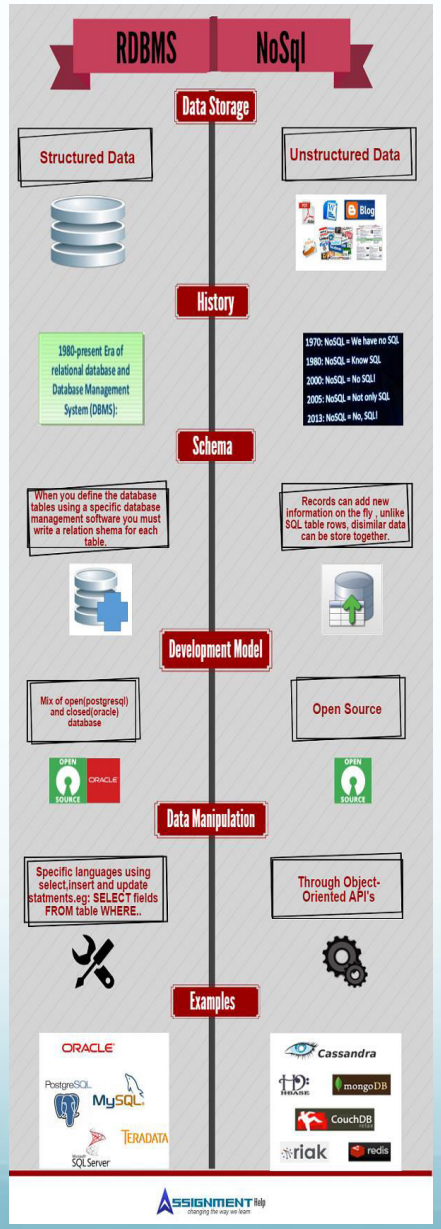
- Simple data model using key-value pairs with secondary indexes
- Simple programming model with ACID transactions, tabular data models, and JSON support
- Application security with authentication and session-level SSL encryption
- Integrated with Oracle Database, Oracle Wallet, and Hadoop
- Geo-distributed data with support for multiple data centers
- High availability with local and remote failover and synchronization

Overview of Oracle RDBMS Performance Features

Oracle includes several software mechanisms to fulfil the requirements of an information management system:

- Data concurrency of a multiuser system must be maximized.
- Data must be read and modified in a consistent fashion. The data a user is viewing or changing is not changed (by other users) until the user is finished with the data.
- High performance is required for maximum productivity from the many users of the database system.

Difference Between RDBMS and NoSql



Difference Between RDBMS and NoSql

RDBMS

- It is completely a structured way of storing data
- The amount of data stored in RDBMS depends on physical memory of the system or in other words it is vertically scalable
- For defining and manipulating the data RDBMS use structured query language i.e. SQL which is very powerful
- In RDBMS schema represents logical view in which data is organized and tells how the relation are associates

NoSql

- It is completely a unstructured way of storing data.
- While in Nosql there is no limit you can scale it horizontally.
- Work on only open source development models
- NoSql have dynamic schema with the unstructured data.
- It uses UnQL i.e. unstructured query language and focused on collection of documents and vary from database to database

Difference Between RDBMS and NoSql

RDBMS Scalability :

- RDBMS database is vertically scalable so to manage the increasing load by increase in CPU, RAM, SSD on a single server.
- RDBMS is best suited for high transactional based application and its more stable and promise for the atomicity and integrity of the data.
- RDBMS support large scale deployment and get support from there vendors

NoSql Scalability :

- Nosql database is horizontally scalable so to handle the large traffic you can add few servers to support that.
- NoSql is still rely on community support and for large scale NoSql deployment only limited experts are available