



# SQL VS NOSQL

---

K.S Mohan

SQL Vs NOSQL- K.S Mohan

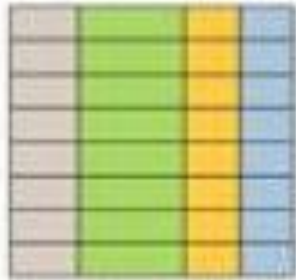
# SQL Vs NOSQL

| SQL   | NOSQL   |
|---|---|
| Relational Db                               | Non relational Distributed DB   |
| Relational Model                            | Model-less Approach   |
| Predefined Schema                           | Dynamic Schema  |
| Table Oriented                              | Document based, graph based, wide column, store or key value pair     |
| Can scale vertically                        | Can scale both vertically & horizontally                              |
| Uses SQL                                    | UnQL  |
| Not preferred for very large dataset        | preferred for very large, mixed dataset                               |
| Not suits for hierarchical data             | Suits well for hierarchical data , uses key value                     |
| Emphasis ACID                               | Emphasis CAP  |
| Excellent support from vendors              | Relies greatly on community   |
| Supports complex querying                   | Does have good support on complex query                               |
| Can be configure for data consistency       | Min. support for consistency, concentrate on availability , tolerance |
| Eg : oracle, DB2, MYSQL, ACCESS, PostgreSQL | MongoDB, Cassandra, Redis, Neo4J, CouchDB, CouchBase, Riak            |

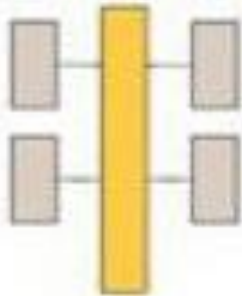
## SQL Databases

## Non-SQL Databases

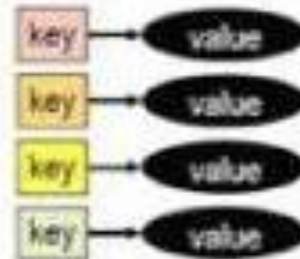
### Relational



### Analytical (OLAP)



### Key-Value



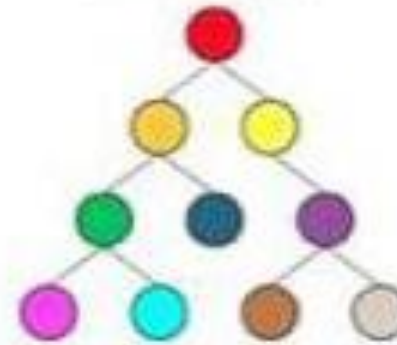
### Column-Family

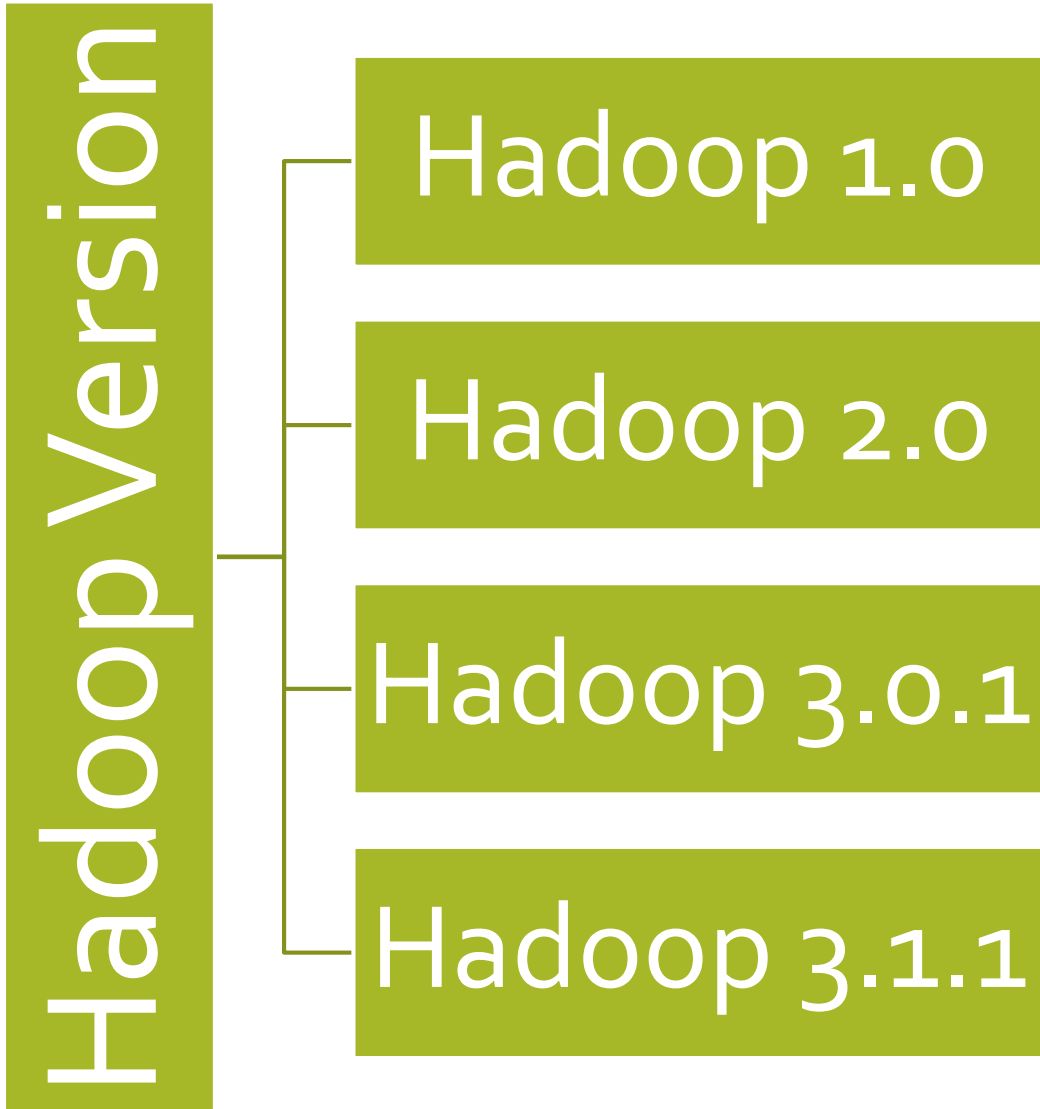


### Graph



### Document





# Hadoop 1.0

Data storage framework

Data processing framework

Job tracker, Task Tracker

# Hadoop 2.0

- Application Master
- Node Manager

