

Distributed Database Systems

NoSQL Databases

Final Presentation Definition

1. Introduction

Next Generation Databases mostly addressing some of the points: being non-relational, distributed, open-source and horizontally scalable.

The original intention has been modern web-scale databases. The movement began early 2009 and is growing rapidly. Often more characteristics apply such as: schema-free, easy replication support, simple API, eventually consistent / BASE (not ACID), a huge amount of data and more. So the misleading term "nosql" (the community now translates it mostly with "not only sql") should be seen as an alias to something like the definition above.

2. Presentation Definition

According to the NoSQL database assigned to the team, you must development a short presentation and its report, which must include the following sections:

- Introduction to the database: Starting project, year of creation, objective, etc.
- Type of database: Wide Column Store / Column Families, Document Store, Key Value / Tuple Store, Graph Databases, etc.
- Database architecture: philosophy, structure (data organization), procedure to store and retrieve data, data storage model, etc.
- Query requirements: Typical queries look like?, SQL needed? BI / Analytic-Tools needed? (M/R sufficient) ? etc.
- Performance aspects: Latency / Request behavior / distribution [High = 10, Low = 0], Throughput [High = 10, Low = 0], High Concurrency?
- Others: advantages and disadvantages, cost, security, etc.

3. Other considerations

- Time of presentation: 25 mins. Including audience questions.
- Final presentation and report deadline: June 12, 2015.