

NoSQL

- "Not only SQL"
- Designed for modern big data environment
 - Volume- terabytes/day
 - Velocity- events/sec
 - Variety- not necessarily simple types
- How does NoSQL address these challenges?
 - Scalability- distribute across nodes
 - Availability
 - * Multiple replicated nodes with failover
 - * Tradeoff: expensive to ensure consistency between replicas
 - * Eventual consistency
 - Sharding- distribute across nodes
 - Key lookup
 - No schemas- using semi-structured, self-describing data (JSON and XML)
 - Less powerful query languages- simple Create-Read-Update-Delete (CRUD) operations
 - * No joins
 - * Single object access