

1. NoSQL ?NoSQL RDBMS ?
 NoSQL ? NoSQL ?

NoSQL NoSQL = Not Only SQL

NoSQL

/
 NoSQL

2. NoSQL ?

NoSQL

MongoDB, Cassandra, CouchDB, Hypertable, Redis, Riak, Neo4j, HBASE, Couchbase, Memcached, RavenDB and Voldemort are the examples of NoSQL databases.

3. MySQL MongoDB ?

MySQL MongoDB MySQL MongoDB
 (data representation) schema (normalization)

MySQL MongoDB

4. MongoDB CouchDB CouchBase?

MongoDB CouchDB MongoDB CouchDB NoSQL
 MongoDB CouchDB

MongoDB vs CouchDB

CouchDB vs CouchBase

5. MongoDB NoSQL ?

MongoDB NoSQL

- 面向文件的
- 高性能
- 高可用性
- 易扩展性
- 丰富的查询语言

6.32 ?

journaling 32

journaling 32

7. journal (entry) () ?

journal (group)

8. MongoDB ?

MongoDB

();

9. (namespace) ?

MongoDB BSON (collection)

(namespace)

10. ?

(re-save())

11. ?

12. null ?

(null) (collection)

{}

13. fsync ?

(60)

(fsync

getLastError_old)(??)

14. / ?

MongoDB

MySQL MyISAM

15. ?

MongoDB

16. ?

10 30

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(strong consistent read)

(eventually consistent query)(slaveOk)

17. master primary?
(replica set) /
(failover) primary
18. secondary slave?
Secondary primary oplog(local.oplog.rs)
19. getLastError ?
getLastError("Safe Mode") getLastError
20. (sharded) MongoDB ?
(unsharded) MongoDB
(sharding)
(sharding)
21. (sharding) (replication) ?
(shard)
(shard)
22. (shard) ?
MongoDB (range) (collection)
(chunk)
64Mb 64 Mb
23. (chunk) ?
(shard) (ownership transfers)
24. (shard) ?
(shard) " Partial"
(shard) MongoDB
25. moveChunk ?
(shard) (balancing)
26. Mongo ?
db._adminCommand("connPoolStats");
27. (moveChunk) ?

- (consistent) (deterministic);
- (shard)
28. (replication) (journaling) ?
29. Chunk
- Chunk
30. MongoDB A:{B,C} A:{B,C} A:{C,B}
- A:{B,C}
31. Shard
- " Partial"
- MongoDB
32. MongoDB
- MongoDB javascript db.system.js
33. MongoDB GridFS MongoDB GridFS
- GridFS MongoDB GridFS
- BSON