# Quiz Submissions - Quiz 10                               ✕

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**Attempt 1**

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**Submission View**

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## Question 1                                              1 / 1 point

The CAP theorem states that a distributed system must guarantee consistency.

- ◯ True
- ✔ ◯ False

## Question 2                                              1 / 1 point

Making a replica of a server is mapping the same server to multiple places on the ring.

- ✔ ◯ True
- ◯ False

## Question 3                                              1 / 1 point

This means that the data and its copies will at some point in time become consistent.

- ◯ time consistency

- ◯ period consistency

- ✔ ◯ eventual consistency

- ◯ backup consistency

## Question 4                                              1 / 1 point

Document store queries can be slow because they have to scan the entire collect.

- ✔ ◯ True
- ◯ False

## Question 5 0 / 1 point

NOSQL databases must adhere to the same ACID properties of a RDBMS.

✗ ○ True

➡ ○ False

## Question 6 1 / 1 point

Vertical Scaling is adding more DBMS servers to the system.

○ True

✓ ○ False

## Question 7 0 / 1 point

MongoDB is best at storing

○ Structured Data

➡ ○ Semi-Structured Data

✗ ○ Unstructured Data

○ Any of these formats

## Question 8 1 / 1 point

NoSQL tend to have huge complex query languages like SQL.

○ True

✓ ○ False

## Question 9 2 / 2 points

Explain what BASE stands for.

BASE stands for Basically Available Soft state Eventual consistency.

**The correct answer is not displayed for Written Response type questions.**

## Question 10 0 / 1 point

Document stores have a fixed schema and changes are not allowed.

✖ ⃝ True

➡ ⃝ False

## Question 11                                                                         1 / 1 point

Cypher is an example of a document based NoSQL database.

⃝ True

✔ ⃝ False

## Question 12                                                                         1 / 1 point

What does the following Cypher query express?

OPTIONAL MATCH (user;User)-[:FRIENDS_WITH]-(friend;User)

WHERE user.name = "Bart Baesens"

RETURN user, count(friend) AS NumberOfFriends

⃝ This query will fail if Bart Baesens is FRIENDS_WITH himself.

⃝ Get the node for Bart Baesens and a count of all his friends, even if no FRIENDS_WITH relation exists.

⃝ Get the node for Bart Baesens and all his friends.

✔ ⃝ Get the node for Bart Baesens and a count of all his friends, but only if at least one FRIENDS_WITH relation exists.

## Question 13                                                                         1 / 1 point

All related documents in MongoDB belong to a what?

Answer: Collection ✔

## Question 14                                                                         1 / 1 point

NoSQL has complex APIs.

⃝ True

✔ ⃝ False

## Question 15                                                                         1 / 1 point

Which of the following statements on the MapReduce model is correct?

✔ ◯ Per input entry of a key-value pair, multiple output entries can be produced.

◯ The reduce operation can happen only one and after all the mapping operations have finished.

◯ The reduce function cannot be called on partial results.

◯ The output format of the reduce function does not really matter.

## Question 16     1 / 1 point

MongoDB sorts before projections

✔ ◯ True

◯ False

## Question 17     1 / 1 point

NoSQL is typically schema-free or has a flexible schema.

✔ ◯ True

◯ False

## Question 18     0 / 1 point

When are column oriented databases more efficient than row oriented databases?

◯ When inserts are performed where all of the row data is supplied at the same time.

➡ ◯ When aggregates need to be calculated over many or all rows in a relation.

✘ ◯ When many columns of a single relation need to be fetched at the same time.

◯ When a lot of JOINs need to be performed in queries.

## Question 19     1 / 1 point

In a key value store a key can be hashed many times to determine its final location.

✔ ◯ True

◯ False

## Question 20      0 / 1 point

In MongoDB, which operator will you use in an update operation to only update the value of a single attribute of a document (as opposed to the entire document)?

Answer: updateOne() ✗ **($set)**

## Question 21      0 / 1 point

MongoDB is a key value database

✗ ⭘ True

➡ ⭘ False

## Question 22      1 / 1 point

This type of NoSQL database speeds up data access by having an in-memory hash-table put on top of a traditional database.

⭘ valuecached

⭘ systemcached

✓⭘ memcached

⭘ datacached

## Question 23      1 / 1 point

One of the benefits of NoSQL is a distributed system of cheap hardware.

✓⭘ True

⭘ False

## Question 24      6 / 6 points

List 4 types of NoSQL databases. And *briefly* explain 2 of them.

The 4 types of NoSQL databases are column-oriented, tuple and document store, key-value, and graph.
A key-value database stores data as a key and value pair.
A column-oriented database stores data tables columns of data.

**The correct answer is not displayed for Written Response type questions.**

## Question 25                                                                 1 / 1 point

The aggregation pipeline in MongoDB takes in an array of stages

✓ ○ True

○ False

## Question 26                                                                 1 / 1 point

Using Cypher, how do you get a list of all movies Scott Johnson has liked, when he has given at least four stars?

○ SELECT (b:User)--m:Movie)

WHERE b.name = "Scott Johnson"

AND m.starts >= 4

○ MATCH (b:User)-[I:LIKES]-(m:Movie)

WHERE b.name = "Scott Johnson"

AND m.stars >=4

RETURN m

○ MATCH (b:User)--(m:Movie)

WHERE b.name = "Scott Johnson"

AND l.stars >= 4

RETURN m

✓ ○ MATCH (b:User)-[I:LIKES]-(m:Movie)

WHERE b.name = "Scott Johnson"

AND l.stars >= 4

RETURN m

## Question 27                                                                 0 / 1 point

Which statements regarding memcached is CORRECT

○ Memcached functions as a persistent database.

⇨ ◯ When using Memcached, it is the client's responsibility to distribute data entries among the different servers.

◯ Memcached provides data redundancy.

✘ ◯ The Memcached hash table can grow very large (several gigabytes), but is very difficult to scale across multiple servers.

## Question 28                                    1 / 1 point

NoSQL is typically open source and yet to be really proved in the real world.

✓ ◯ True

◯ False

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**Attempt Score:**      27 / 34 - B-

**Overall Grade** (highest attempt)**:**      27 / 34 - B-

Done