Final Quiz Due Oct 1, 11:59 PM +07 Graded Quiz • 1 min Congratulations! You passed! Go to next item Grade **Latest Submission** To pass 80% or received 100% Grade 100% higher 1. Which requirement would prompt you to consider choosing NoSQL over RDBMS? 1/1 point Multi-document transactions Complicated joins Full data consistency Flexible schema Expand **⊘** Correct If your data is unstructured and could benefit from a flexible schema, then a NoSQL database will make more sense. 2. Which of the following is an advantage of partitioning and storing redundant data? 1/1 point Secure synchronization If one node fails it can be retrieved elsewhere. Data does not need to be synchronized. Concurrency control Expand **⊘** Correct Correct! If one node fails, that piece of data can be retrieved from another node. 3. In the ACID model what does it mean for the data to be "durable"? 1/1 point If a transaction fails, it will not impact the already changed data. Transactions cannot compromise the integrity of other transactions by interacting with them while they are still in progress. All operations in a transaction succeed or every operation is rolled back. On the completion of a transaction, the structural integrity of the data in the database is not compromised. Expand **⊘** Correct Correct! Durable implies that if the data related to a completed transaction will persist even in the case of network or power outages. If a transaction fails, it will not impact the already changed data. 4. Which of the following makes NoSQL databases most appropriate for use with cloud computing? 1/1 point Their distributed nature makes them easily deployed and operated on clusters of servers. They are denormalized. They have intuitive data structures. They support complex queries. Expand **⊘** Correct Correct! The distributed data nature of NoSQL databases means that they can be deployed and operated on clusters of servers in cloud architectures, thereby massively reducing cost." 5. Which term refers to offloading of database administration and maintenance from the end user? 1/1 point NoSQL as a Service Administration as a Service Database as a Service Software as a Service Expand **⊘** Correct Correct! A fully managed service model, otherwise called database-as-a-service (or DBaaS) offloads the administration and maintenance from the end-user and allows developers to focus on building applications with these modern databases. 6. In MongoDB, which of the following common aggregation stages takes the outcome from the previous stage and 1/1 point stores it in a target collection? \$count \$merge \$project \$sort Expand **⊘** Correct The "\$merge" aggregation stage takes the outcome from the previous stage and stores it in a target collection. 7. True or False: MongoDB supports rapidly changing schemas. 1/1 point True ○ False Expand **⊘** Correct Correct! MongoDB utilizes an evolving schema. 8. Which statement about MongoDB is true? 1/1 point You can design complex data structures easily. Occuments are linked by primary keys. Data in the same document must be of the same data type. It requires third-party software for complex queries. Expand **⊘** Correct Correct! You can design complex data structures easily in MongoDB without worrying about the complexity of how it is stored and how it should be linked. 9. Which of the following is a distinguishing characteristic of a compound index in MongoDB? 1/1 point When an index helps you to quickly locate data without looking for it everywhere When you create an index for the most frequent queries When the index is stored in a particular order When a single index structure holds reference to more than one field Expand **⊘** Correct MongoDB stores data being indexed on the index entry and a location of the document on disk. 10. Which is an advantage of sharding? 1/1 point It provides fault tolerance. It increases throughput by directing queries to relevant partitions. It prevents you from accidentally deleting your database. It creates redundancy. Expand **⊘** Correct Correct! When you partition your data across shards, you increase your throughput by directing your queries only to relevant shards. 11. What would you most likely use blobs for in Cassandra Query Language (CQL)? 1/1 point Storing multimedia objects Storing a high range of integers Representing encoded strings Storing key-value pairs Expand **⊘** Correct Blobs are typically used to store images, audio, or other multimedia objects. 12. Which of the following statements is true about the default WRITE statements in Cassandra Query Language 1/1 point (CQL)? It doesn't locate and read data before executing a WRITE. They are slower than INSERT and UPDATE statements. Data is optimized using compaction after a WRITE operation. Every WRITE operation creates a new file called SSTable. Expand **⊘** Correct Correct! By default, Cassandra doesn't locate and read data before executing a WRITE statement. 13. What is Apache Cassandra most useful for? 1/1 point Fast data storage and retrieval Search-related use cases Joins and complex aggregations Orop-in replacement for a relational database Expand **⊘** Correct Cassandra is an open source NoSQL database with extremely fast write throughput, and easy and rapid data retrieval. 14. What are the two primary functions of a "partition key"? Select two. 1/1 point It optimizes the read performance of queries. ✓ Correct Correct! The primary key helps to optimize read queries. It determines the location of the data in a cluster. ✓ Correct Correct! A partition key determines the data locality in a cluster. It specifies the order that the data is arranged in inside the partition. It adds uniqueness to each entry in a table. Expand **⊘** Correct Great, you got all the right answers. 15. Which statement is true about Cassandra compared to a traditional relational database? 1/1 point Cassandra provides both strong consistency and availability whereas a relational database provides only availability. Cassandra provides both strong consistency and availability whereas a relational database provides only eventual consistency. Cassandra provides eventual consistency whereas a relational database provides strong consistency Cassandra provides eventual consistency and availability whereas a relational database provides only eventual consistency. Expand **⊘** Correct Correct! Cassandra is frequently referred to as "eventual or tunable consistency" in the sense that by default Cassandra trades consistency in order to achieve availability. 16. When you create a new IBM Cloudant database, what do you need to select? 1/1 point The partitioning type The number of documents The replication type The curl command line tool Expand **⊘** Correct When you create a database, you must select whether you want the database to be partitioned or non-17. What is the default HTTP method used in curl if the method is not specified? 1/1 point GET OPOST O PUT ○ DELETE Expand **⊘** Correct Correct! Curl defaults to using the 'GET' HTTP method unless you specify another method using the "-X" command-line switch. 18. What is the maximum number of databases can an IBM Cloudant cluster hold? 1/1 point O 10 O 100 0 1000 Unlimited Expand **⊘** Correct Correct! A cluster can hold any number of databases. 19. How do users get routed to a data center? 1/1 point Closest geographical location With an algorithm that optimizes time vs. distance At random With ping timing Expand **⊘** Correct Correct! Users get routed to the data center 'closest' to them - or more accurately - by using ping timing, users actually get routed to the data center 'fastest' to them, i.e. closest in terms of time not distance. 20. What is the IBM Cloudant Query equivalent of the WHERE clause in SQL? 1/1 point -find ok":true selector X switch

Expand

Cloudant Query's language is based on the MongoDB query language, which uses queries expressed in

query. This is the equivalent of the WHERE clause in SQL.

JSON formatted objects. These use a "selector" attribute to define the subset of data to be returned by the

⊘ Correct