# **Explain what is MongoDB?**

Mongo-DB is a document database which provides high performance, high availability and easy scalability.

# **What is “Namespace” in MongoDB?**

MongoDB stores BSON (Binary Interchange and Structure Object Notation) objects in the collection. The concatenation of the collection name and database name is called a namespace.

# **What is sharding in MongoDB?**

The procedure of storing data records across multiple machines is referred as Sharding. It is a MongoDB approach to meet the demands of data growth. It is the horizontal partition of data in a database or search engine. Each partition is referred as shard or database shard.

# **How can you see the connection used by Mongos?**

To see the connection used by Mongos use db\_adminCommand (“connPoolStats”);

# **Explain what is a replica set?**

A replica set is a group of mongo instances that host the same data set. In replica set, one node is primary, and another is secondary. From primary to the secondary node all data replicates.

# **How replication works in MongoDB?**

Across multiple servers, the process of synchronizing data is known as replication. It provides redundancy and increase data availability with multiple copies of data on different database server. Replication helps in protecting the database from the loss of a single server.

# **While creating Schema in MongoDB what are the points need to be taken in consideration?**

Points need to be taken in consideration are

* Design your schema according to user requirements
* Combine objects into one document if you use them together. Otherwise, separate them
* Do joins while write, and not when it is on read
* For most frequent use cases optimize your schema
* Do complex aggregation in the schema

# **What is the syntax to create a collection and to drop a collection in MongoDB?**

* Syntax to create collection in MongoDB is db.createCollection(name,options)
* Syntax to drop collection in MongoDB is db.collection.drop()

# **Explain what is the role of profiler in MongoDB?**

MongoDB database profiler shows performance characteristics of each operation against the database. You can find queries using the profiler that are slower than they should be.

# **Explain can you move old files in the moveChunk directory?**

Yes, it is possible to move old files in the moveChunk directory, during normal shard balancing operations these files are made as backups and can be deleted once the operations are done.

# **To do safe backups what is the feature in MongoDB that you can use?**

Journaling is the feature in MongoDB that you can use to do safe backups.

# **Mention what is Objecld composed of?**

* Timestamp
* Client machine ID
* Client process ID
* 3 byte incremented counter

# **Mention what is the command syntax for inserting a document?**

For inserting a document command syntax is database.collection.insert (document).

# **Mention how you can inspect the source code of a function?**

To inspect a source code of a function, without any parentheses, the function must be invoked.

# **What is the command syntax that tells you whether you are on the master server or not? And how many master does MongoDB allow?**

Command syntax Db.isMaster() will tell you whether you are on the master server or not. MongoDB allows only one master server, while couchDB allows multiple masters.

# **Mention the command syntax that is used to view Mongo is using the link?**

The command syntax that is used to view mongo is using the link is db.\_adminCommand(“connPoolStats.”)

# **Explain what are indexes in MongoDB?**

Indexes are special structures in MongoDB, which stores a small portion of the data set in an easy to traverse form. Ordered by the value of the field specified in the index, the index stores the value of a specific field or set of fields.

# **Mention what is the basic syntax to use index in MongoDB?**

The basic syntax to use in MongoDB is >db.COLLECTION\_NAME.ensureIndex ( {KEY:1} ). In here the key is the the name of the COLUMN (or KEY:VALUE pair) which is present in the documents.

# **Explain what is GridFS in MongoDB?**

For storing and retrieving large files such as images, video files and audio files GridFS is used. By default, it uses two files fs.files and fs.chunks to store the file’s metadata and the chunks.

**If you remove an object attribute, is it deleted from the database?**

Yes, it is deleted. Hence, it is better to eliminate the attribute and then save the object again.

# **What makes MongoDB the best?**

MongoDB is considered to be the best NoSQL database because of its following features:

* Document-oriented (DO)
* High performance (HP)
* High availability (HA)
* Easy scalability
* Rich query language

# **How does MongoDB provide consistency?**

MongoDB uses the **reader–writer locks**, allowing simultaneous readers to access any supply like a database or a collection but always offering private access to single writes.

# **Which syntax is used to create a Collection in MongoDB?**

We can create a collection in MongoDB using the following syntax:

db.createCollection(name,options)

# **Which syntax is used to drop a Collection in MongoDB?**

We can use the following syntax to drop a collection in MongoDB:

db.collection.drop()

# **Which command is used for inserting a document in MongoDB?**

The following command is used for inserting a document in MongoDB:

database.collection.insert (document)

# **Which command is used to see a connection?**

We can use the following command to see the connection:

db\_adminCommand (“connPoolStats”)

# **Define the primary Replica set.**

The primary replica set accepts all write operations from clients.

# **Define the secondary Replica sets.**

The secondaries replicate the primary replica set’s oplog and apply the operations to their datasets such that the secondaries’ datasets reflect the primary’s dataset.

# **What are Embedded documents?**

Embedded documents capture relationships between data by storing related data in a single document structure.

# **What is the use of the pretty() method?**

The pretty() method is used to show the results in a formatted way.

# **Which method is used to remove a document from a collection?**

The remove() method is used to remove a document from a collection.

# **MongoDB Commands Cheatsheet**

The following is the list of the commands:

Start and stop the MongoDB Database:

sudo service mongod start

sudo service mongod stop

Access the MongoDB database using Shell:

mongo --host localhost:27017

Show all databases:

show dbs

Create a database, say, testdb; Switch to the database:

use testdb

Until a collection is created in a database, the database name is not listed as a result of execution of the command, "show dbs."

Add a collection:

db.createCollection("user")

Show all collections in a database; Execute the "use dbname" command to access the database before executing the command given below.

show collections

show tables

The following command also work:

db.getCollectionNames()

Insert a record in the collection; A record is inserted in the collection, "user."

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db.user.insert({"name": "Ajitesh Shukla", "location": "hyderabad", "username": "eajitesh"})

Display list of records of a collection; "user" collection is used.

db.user.find()

db.user.find().pretty()

Display a list of records matching with value (s) of specific fields:

db.user.find({"username": "eajitesh"})

db.user.find({"username": "eajitesh", "location": "hyderabad"})

Drop the collection:

db.user.drop()

Create users in the database; The below command creates a user with username as "ajitesh" and having the role such as "readWrite" and "dbAdmin"

db.createUser({"user": "ajitesh", "pwd": "gurukul", "roles": ["readWrite", "dbAdmin"]})

Show users; If executed without selecting a database, it displays all users along with database information.

show users

Login into the database with username and password:

mongo -u USERNAME -p PASSWORD --authenticationDatabase DATABASENAME

For user created in above command, the login command would look like the following:

mongo -u ajitesh -p gurukul --authenticationDatabase testdb