

WORKSHEET 9

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DOMAIN CAMP: 16-01-2023 to 28-01-2023

Subject Name: Database Management System

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Section/Group: DWWC-77

Question 1: How we can start with Mongo DB Atlas

Create a MongoDB Cloud account.

1. Create a MongoDB Atlas cluster.
2. Configure network access and create a cluster user.
3. Connect to the cluster.

Question 2: What are some differences between BSON documents used in MongoDB and JSON documents in general?

JSON VS BSON

Standard file format Type.

Binary file format Type.

Language free organize utilized for offbeat server browser communication. Binary JSON which comprise of a list of requested components containing a field title, sort, and a esteem. Field title sorts are ordinarily a string.

Broadly JSON comprises of question and cluster where the question could be a collection of key-value sets and the cluster is requested list of values. The parallel encoding method comprises of extra data such as lengths of strings and the protest subtypes. In addition, BinData and Date information sorts are the information sorts which are not upheld in JSON.

JSON stands for JavaScript Object Notation.

BSON stands for Binary JavaScript Object Notation.

JSON data contains its data basic in JSON format.

BSON gives extra datatypes over the JSON data.

Database like AnyDB, redis etc stores information into JSON format. MongoDB stores data in BSON format.

Question 3: How we create database in Mongo DB?

The use Command

MongoDB use DATABASE_NAME is used to create database. The command will create a new database if it doesn't exist, otherwise it will return the existing database.

Syntax

Basic syntax of use DATABASE statement is as follows – use

DATABASE_NAME

Example

If you want to use a database with name <mydb>, then use DATABASE statement would be as follows –

```
>use mydb switched
```

```
to db mydb
```

To check your currently selected database, use the command db

```
>db
```

```
Mydb
```

Question 4: How can we DROP a Database using MongoDB command?

The dropDatabase() Method

MongoDB db.dropDatabase() command is used to drop a existing database.

Syntax

Basic syntax of dropDatabase() command is as follows – db.dropDatabase()

Question 5: How we can we setting up cluster in Mongo DB Atlas?

Setting Up a MongoDB Cluster on Atlas

Every application is different, and MongoDB Atlas provides you with numerous ways to set up your cluster to suit your specific needs. Some particular configurations need to be thought of ahead of time, while you can change others on the fly. Using these settings, you will put in place all the best practices for Atlas in production. In this section, you will learn more about the various configurations that you can adjust on your initial cluster creation.

Deployment Type

Global Cluster Configuration

Cloud Provider and Region

Cluster Tier

Additional Settings

Question 6: How to create a backup using MongoDB command? Dump MongoDB Data

To create backup of database in MongoDB, you should use `mongodump` command. This command will dump the entire data of your server into the `dump` directory. There are many options available by which you can limit the amount of data or create backup of your remote server.

Syntax

The basic syntax of `mongodump` command is as follows –

```
>mongodump
```

Question 7: How to Add Members to Replica Set using MongoDB command?

1. Start the new `mongod` instance. Specify the data directory and the replica set name. ...
2. Connect to the replica set's primary. ...
3. Use `rs.add()` to add the new member to the replica set.

Question 8: How can drop a particular index using the `dropIndex()` method using MongoDB command?

The `dropIndex()` method drops or delete the specified index from the given collection. It takes only one parameter which is the index, that we want to drop and it is optional. To find the index name or the index specification document for the `dropIndex()` method, use `getIndexes()` method.

- Using this method you are not allowed to remove the default index of the `_id` field.
- You can also drop the hidden indexes.
- Starting from MongoDB 4.4, in this method, if the specified index is still being built, then this method will abort the building process of the specified index.

Note: Starting from MongoDB 4.2, you are not allowed to remove all the non- `_id` indexes using `db.Collection_Name.dropIndex("*")`. If you want to do that then use `db.Collection_Name.dropIndexes()` method.

Syntax:

`db.Collection_Name.dropIndex(index : <document/string>)`

Question 9. Name five Models used in SDLC

- Waterfall Model.
- V-Shaped Model.
- Iterative Model.
- Spiral Model.
- Big Bang Model.

Question 10. States the importance of Design phase?

The purpose of the Design Phase is to transform the requirements into complete and detailed system design specifications. Once the design is approved, the Development Team begins the Development Phase.