

ASSIGNMENT 12

Aim: Create a database with suitable example using MongoDB and implement basic commands on MongoDB database

Problem Statement: Create a database with suitable example using MongoDB and implementing

- insert and saving document (batch insert, insert validation)
- removing document
- updating document (document replacement, using modifiers, upserts, updating multiple documents, returning updated documents)

Objective: • To understand MongoDB basic commands

- To implement the concept of document oriented databases

Theory: SQL vs MongoDB

| SQL Concepts | MongoDB Concepts |
|------------------------------------------------------------------|--------------------------------------------------------------------|
| • Database | • Database |
| • Table | • Collection |
| • Row | • Document or BSON Document |
| • Column | • Field |
| • Index | • Index |
| • Table Join | • Embedded documents & Linking |
| • Primary Key | • Primary Key |
| • Specify any unique column or column combination as primary key | • In MongoDB, the primary key is automatically set to the Id field |
| • Aggregation (eg- group by) | • Aggregation Pipeline |

i) Create a collection in MongoDB

db.createCollection("Teacher - info")

2) Create a capped collection in MongoDB

```
db.createCollection("audit", {capped: true, size: 20480})
```

3) Inserting a document into collection

```
db.Teacher-info.insert({Teacher-id: "Pic001", Teacher-Name: "Ravi", Dept-Name: "IT", sal: 30000, status: "A"})
```

4) Update a document into collection

```
- db.Teacher-info.update({sal: {$gt: 25000}}, { $set: {Dept-Name: "ETC"} }, {multi: true})
```

```
- db.Teacher-info.update({status: "A"}, {$inc: {sal: 10000}}, {multi: true})
```

5) Remove a document from collection

```
db.Teacher-info.remove({Teacher-id: "Pic001"});  
db.Teacher-info.remove({})
```

6) Alter a field into a document

```
db.Teacher-info.update({}, {$set: {join-date: new Date()}}, {multi: true})
```

7) To drop a particular collection

```
db.Teacher-info.drop()
```

Conclusion:

Understood to implement data from MongoDB database with the help of statements and operators.