

Assignment - 9  
B-1

Name: Omkar Gaitwad  
Roll no 31126 BAJAJ

Date: / / Page No. \_\_\_\_\_

Title : MongoDB Queries

Problem Statement:

Be write mongoDB queries to perform CRUD operations

Objectives:

- Understand the concept of binary JSON format
- Understand the concept of mongoDB document model.

SW & HW Requirements:

MongoDB installed, windows 10 64bit, 8GB RAM

Theory

MongoDB a cross platform, document oriented database that provides high performance, high availability & easy scalability. MongoDB works on concept of collection & document.

Database:

Database is physical container for collections. Each database gets it's own set of files on the file system. A single MongoDB server typically has multiple databases.

Collection:

Collection is group of MongoDB documents. It is equivalent of RDBMS table. A collection exists within a single database.



collections do not enforce a schema. Documents within a collection can have different fields. Typically all documents in collection are of similar or related purpose.

### Document :

Document is a set of value pairs. Documents have dynamic schema means that documents in same collection can have different schema.

RDBMS	MongoDB
table	→ collection
Tuple/Row	→ document
column	→ field
Table join	→ Embedded documents
primary key	→ primary key (-id)

### CRUD operations:

- 1) db.collection(name, options)  
db.collection-name.insertOne(document)  
db.collection-name.insertMany([document n])
- 2) db.collection-name.find()
- 3) db.collection-name.update(criteria, updatedata)
- 4) collection-name.remove(criteria)
- 5) db.collection-name.save({\_id; new-data})

### conclusion:

Successfully designed & developed mongoDB queries for CRUD operations.

```
show dbs
```

```
use Assignment9
```

```
db
```

```
db.student.insertOne({  
    rollno: "31126",  
    name: "Omkar Gaikwad",  
    class: "TE1"  
})
```

```
db.student.insertMany([  
  {  
    rollno: "31127",  
    name: "Omkar Gaikwad",  
    class: "TE1"  
  },  
  {  
    rollno: "31128",  
    name: "Gayatri Godbole",  
    class: "TE1"  
  }  
])
```

```
db.student.find().pretty()
```

```
db.student.find({"rollno": "31127"}).pretty()
```

```
db.student.update({  
    "rollno": "31127"  
},  
{  
    $set:  
    {"name": "Vimal Galani"}  
})
```

```
db.student.remove({"rollno": "31127"})
```

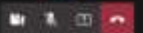
```
db.student.find().pretty()
```

```

Select Command Prompt - "C:\Program Files\MongoDB\Server\4.4\bin\mongo.exe"
test 0.000GB
> use Assignment9
switched to db Assignment9
> db
Assignment9
>
> db.student.insertOne({
... rollno: "31126",
... name: "Omkar Gaikwad",
... class: "TE1"
... })
{
  "acknowledged" : true,
  "insertedId" : ObjectId("618c96405e1c57c58246b252")
}
> db.student.insertMany([
... {
... rollno: "31127",
... name: "Omkar Gaikwad",
... class: "TE1"
... },
... {
... rollno: "31128",
... name: "Gayatri Godbole",
... class: "TE1"
... }
... ])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("618c96475e1c57c58246b253"),
    ObjectId("618c96475e1c57c58246b254")
  ]
}

```

DBSL\_11\_2021\_22 44/52



```

Select Command Prompt - "C:\Program Files\MongoDB\Server\4.4\bin\mongo.exe"
>
> db.student.find().pretty()
{
  "_id" : ObjectId("618c96405e1c57c58246b252"),
  "rollno" : "31126",
  "name" : "Omkar Gaikwad",
  "class" : "TE1"
}
{
  "_id" : ObjectId("618c96475e1c57c58246b253"),
  "rollno" : "31127",
  "name" : "Omkar Gaikwad",
  "class" : "TE1"
}
{
  "_id" : ObjectId("618c96475e1c57c58246b254"),
  "rollno" : "31128",
  "name" : "Gayatri Godbole",
  "class" : "TE1"
}
> db.student.find({"rollno":"31126"}).pretty()
{
  "_id" : ObjectId("618c96405e1c57c58246b252"),
  "rollno" : "31126",
  "name" : "Omkar Gaikwad",
  "class" : "TE1"
}
> db.student.update({
... "rollno": "31127"
... },
... {
... $set:
... {"name":"Vinal Galani"}
... })
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

```

DBSL\_11\_2021\_22 45/56



```
Select Command Prompt - "C:\Program Files\Mongo\Server\4.4\bin\mongosh.exe"
> db.student.update({
...   "rollno": "31127"
... },
... {
...   $set:
...     { "name": "Vimal Galani" }
... })
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.find({"rollno": "31127"}).pretty()
{
  "_id" : ObjectId("618c96475e1c57c58246b253"),
  "rollno" : "31127",
  "name" : "Vimal Galani",
  "class" : "TE1"
}
>
> db.student.remove({"rollno": "31127"})
WriteResult({ "nRemoved" : 1 })
>
> db.student.find().pretty()
{
  "_id" : ObjectId("618c96485e1c57c58246b252"),
  "rollno" : "31126",
  "name" : "Omkar Gaikwad",
  "class" : "TE1"
}
{
  "_id" : ObjectId("618c96475e1c57c58246b254"),
  "rollno" : "31128",
  "name" : "Gayatri Godbole",
  "class" : "TE1"
}
>
```