

Task 10:- CRUD Operations In Document Database

14/10/25
Aim:-

To perform mongoose using npm design on mongo db designing document database and performing CRUD operations like creating, inserting, querying, finding and removing operations.

Steps:-

Step 1: Install mongodb using following link.

<https://www.mongodb.com/try/download/community>

Step 2: Install mongosh using the below link.

<https://www.mongodb.com/docs/mongodb-shell/#download>

- and - install - mongosh

Step 3: To add the MongoDB shell binary's location to your PATH environment variable.

open the control panel.

In the system and security category, click system, click Advanced system settings. The system properties modal displays.

click environment variables.

In the system variables section, select path and click edit. the Edit Environment variable modal displays.

click New and add the filepath to your mongosh binary. click Ok to confirm your changes. On each other modal, click ok to confirm your changes.

To confirm that your PATH environment variable is correctly configured to find mongosh, open a command prompt and enter the mongosh --help command.

If your PATH is configured correctly, a list of valid commands.

Step 4:- Open mongo shell 4.0 from C:\Program Files\mongodb\server\bin\mongo.exe.

Step 5:- Type the CRUD (CREATE READ UPDATE DELETE) commands GIVEN IN TEXT FILE

CRUD operations:

```
db.createCollection("mylab")
```

```
{ "ok": 1 }
```

```
> db.mylab.insertOne({ item: "Canvas", qty: 100, tags: ["cotton"], size: { h: 28, w: 35.5, uom: "cm" } })
```

```
{
```

```
  "acknowledged": true,
```

```
  "insertedId": ObjectId("627d13acc73990c074e6397c")
```

```
}
```

```
> db.mylab.find({ item: "Canvas" })
```

```
{ "_id": ObjectId("627d13acc73990c074e6397c"), "item": "Canvas",  
  "qty": 100, "tags": ["cotton"], "size": { "h": 28, "w": 35.5,  
  "uom": "cm" }, "acknowledged": true }
```

```
> db.mylab.insertMany([ { item: "Journal", qty: 25, tags: ["blank", "red"], size: { h: 14, w: 21, uom: "cm" } }, { item: "mousepad", qty: 85, tags: ["gray"], size: { h: 27.9, w: 35.5, uom: "cm" } }, { item: "mousepad", qty: 25, tags: ["gel", "blue"], size: { h: 19, w: 22.85, uom: "cm" } } ])
```

```
"acknowledged": true,
```

```
"insertedIds": [ ObjectId("627d1598c73990c074e6397d"),  
  ObjectId("627d1598c73990c074e6397e"),  
  ObjectId("627d1598c73990c074e6397f") ]
```

```
}
```

```
> db.mylab.find({ item: "Journal" })
```

```
{ "_id": ObjectId("627d1598c73990c074e6397d"), "item": "Journal", "qty": 25 }
```

```
{ "_id": ObjectId("627d1598c73990c074e6397e"), "item": "Journal", "qty": 85 }
```

```
{ "_id": ObjectId("627d1598c73990c074e6397f"), "item": "Journal", "qty": 25 }
```

```
{ "_id": ObjectId("627d1578c73990c074e6397d"), "item": "mousepad", "qty": 25 }
```



```

> db.mylab.find({item: 'canvas', qty: 1}).pretty()
{ "_id": ObjectId("627d1390c73990c074e6397c"), "item":
  "canvas",
  "qty": 100
}
{ "_id": ObjectId("627d13acc73990c074e6397d"),
  "item": "journal",
  "qty": 25
}
{ "_id": ObjectId("627d1598c73990c074e6397e"), "item":
  "mat", "qty": 85 }
{ "_id": ObjectId("627d1598c73990c074e6397f"),
  "item": "mousepad",
  "qty": 25
}
> db.mylab.find({item: "canvas"}).pretty().sort({item:-
{
  "_id": ObjectId("627d13acc73990c074e6397e"), "item":
    "Canvas", "qty": 100, "tags": ["Cotton"], "size": {"h": 28, "w":
    35.5, "uom": "cm"}
}
> db.mylab.deleteOne({item: "journal"})
{:}
> db.mylab.find({item: 1, qty: 1}).pretty()
{
  "_id": ObjectId("627d13acc73990c074e6397c"), "item": "canv
  "qty": 100
}
{
  "_id": ObjectId("627d1598c73990c074e6397d"), "item": "journ
  "qty": 25
}
{ "_id": ObjectId("627d1598c73990c074e6397e"), "item":
  "mat", "qty": 85 }
{
  "_id": ObjectId("627d1598c73990c074e6397f"), "item":
  "mousepad", "qty": 25 }

```

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Result: The implementation of CRUD operations like creating, inserting, finding and removing operations using mongoDB is successfully executed.