

TASK 10 - CLOUD OPERATIONS (MONGODB)

DATABASES

Date 10/9/25

AIM:

To perform manage using MDM
Driver or MongoDB by creating document database and performing CRUD operations like creating, inserting, querying, finding and deleting operation.

STEPS:

Step 1) Install mongo db using following link
<https://www.mongodb.com/try/download/community>

Step 2) install mongosh using the below link
<https://www.mongodb.com/docs/mongosh/stable/#download-and-install-mongosh>

Step 3) To add the mongo DB shell binary
(locations to your Path environment variable).

Open the control panel.

In the System and Security category
click System.

In the System and Security category, click System

Click Advanced system settings the
System properties modal displays
click Environment Variable

```
> db.mylab.find({},{item:1,qty:1}).pretty()
{
  "_id" : ObjectId("627d13acc73990c074e6397c"),
  "item" : "canvas",
  "qty" : 100
}
{
  "_id" : ObjectId("627d1598c73990c074e6397d"),
  "item" : "journal",
  "qty" : 25
}
{
  "_id" : ObjectId("627d1598c73990c074e6397e"), "item" : "mat",
  "qty" : 85
}
{
  "_id" : ObjectId("627d1598c73990c074e6397f"), "item" :
  "mousepad", "qty" : 25}
```

In the System Variables section, Select path and click Edit. The edit environmental variable modal displays.

click New and add the file path to your longest binary

click OK to confirm your changes - on each other modal, click OK to confirm your changes.

Your PATH is configured correctly,

A list of valid commands displays.

CRUD OPERATIONS

db.createCollection("mylab")

{ "OK": 1 }

> db.mylab.insertOne({
 "item": "canvas",
 "tags": ["cotton"],
 "size": {
 "h": 28,
 "w": 355,
 "cm": 14
 },
 "qty": 100,
 "acknowledged": true
})

{
 "_id": "627d13acc75990c074e6397c",
 "item": "canvas",
 "tags": ["cotton"],
 "size": {
 "h": 28,
 "w": 355,
 "cm": 14
 },
 "qty": 100
}

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

[
 {
 "_id": "627d13acc75990c074e6397c",
 "item": "canvas",
 "tags": ["cotton"],
 "size": {
 "h": 28,
 "w": 355,
 "cm": 14
 },
 "qty": 100
 }]

json



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

→ do you want many ("details") for each object? If yes,
"id", "name", "size", "color", "material", "category",
"x", "y", "width", "height", "type", "quantity", etc.
→ we can use the "get" method to get the details
of a single object → `obj = [{"id": "1", "color": "blue", "size": "small",
"x": 77, "y": 88, "width": "1cm", "height": "1cm"}]`

↓
unknown tag → "None"
→ no nested tags → {

object Id ("627d1598c73990c074e
~~74e6397d~~ 97c")

object Id ("627d1598c73990c074e
6397c")

object Id ("627d1598c73990c074e
c6397f")

}

y

→ do you want find("by", {"item": "key", "qty": 1}) → pretty

↓
"id": object Id ("627d1598c73990c074e63
97c")

"item": "canvas",

"qty": 100

y

↓
"id": object Id ("627d1598c73990c074e6
397d")

"item": "journal",

"qty": 25

y

↓
"id": object Id ("627d1598c73990c0
74e6397e") , "item": "mat", "qty": 50

{
" _id": object_id ("627d1598c73990c74e6397f"),
"item": "mouse pad",
"qty": 25

}
} db.myLab.find({item:"canvas"}, pretty)
sort({_id:-1})

{
" _id": object_id ("627d13acc73990c74e6397f"),
"item": "canvas",

"qty": 100,

"tags": [

"cotton"

],

"size": 8

"h": 28,

"w": 355,

" uom": "cm"

}

y db.myLab.deleteOne({item:"journal"})

{}
} db.myLab.find({y, {item: 1, qty: 1}}, pretty)

{
" _id": object_id ("627d13acc73990c74e6397f"),
"item": "canvas",
"qty": 100

}

{" _id": object_id ("627d1598c73990c74e6397f")},

"item": "journal",

"qty": 25

b

{"_id": ObjectID("627d1598c73990c074e6397d"), "item": "mat",
"qty": 25}

c

{"_id": ObjectID("627d1598c73990c074d3aefb"), "item": "mouse pad",
"qty": 25}



Result:

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

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