

PRACTICAL NO 3

CRUD Operation on MongoDB

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Seat No 027

ADVANCED DATABASE

Practical No: 3

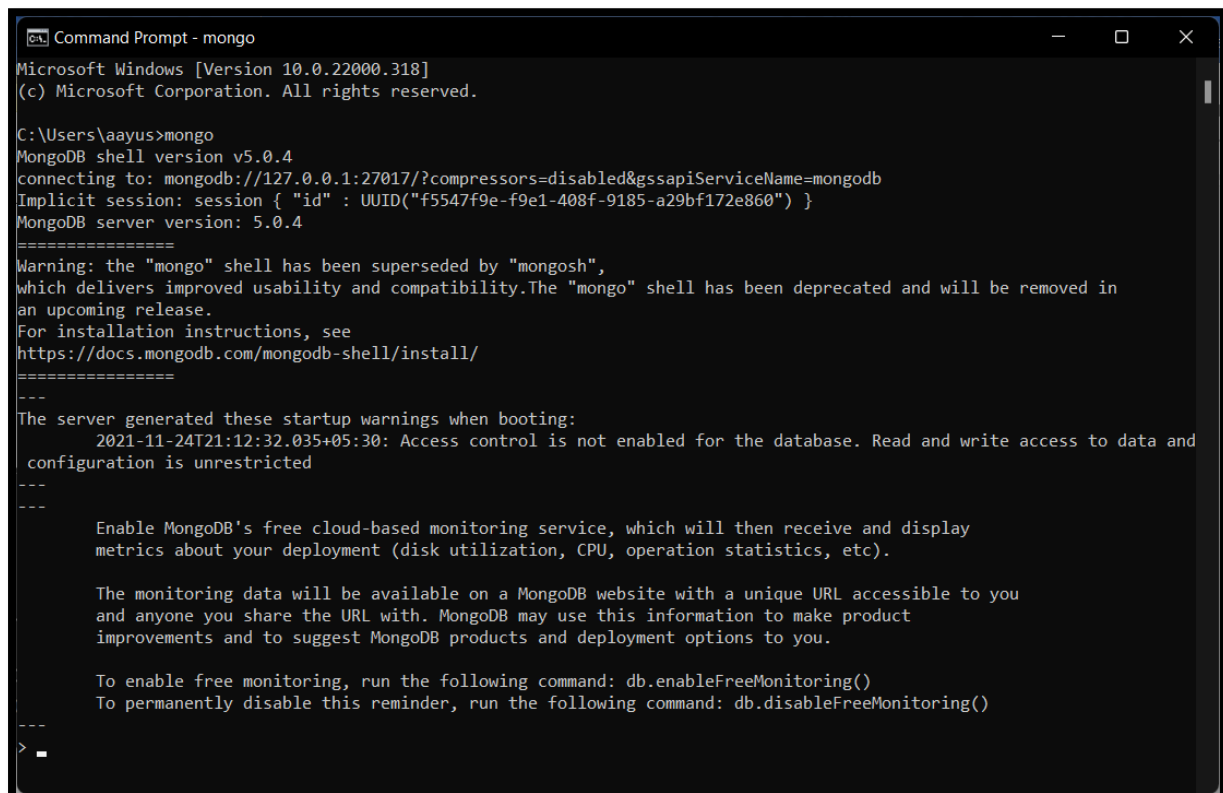
Aim: To perform CRUD Operation using MongoDB.

Software Requirement:

MongoDB

Practical Implementation Steps :

- ✓ **Step 1:-** Open CMD and hit command "Mongo" [To directly run MongoDB from Command Prompt we need to First Set the Environment Variable for MongoDB]
- ✓ To set Environment Variable Follow the Steps:
 - ❖ Open C drive -> Program Files -> MongoDB -> server -> 5.0 -> bin
C:\Program Files\MongoDB\Server\5.0\bin [Copy the Path].
 - ❖ Start -> Search For "Edit the System Environment Variable" -> Open.
 - ❖ Add the Copied Path in System Variable and done.



```
Command Prompt - mongo
Microsoft Windows [Version 10.0.22000.318]
(c) Microsoft Corporation. All rights reserved.

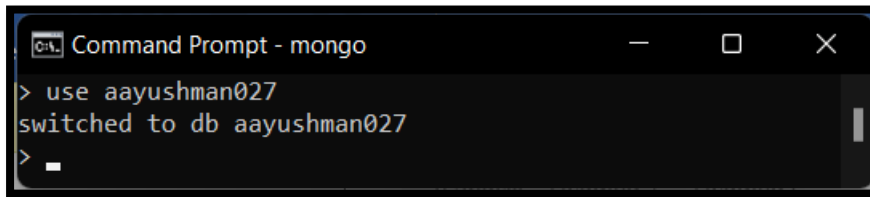
C:\Users\ayus>mongo
MongoDB shell version v5.0.4
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("f5547f9e-f9e1-408f-9185-a29bf172e860") }
MongoDB server version: 5.0.4
=====
Warning: the "mongo" shell has been superseded by "mongosh",
which delivers improved usability and compatibility. The "mongo" shell has been deprecated and will be removed in
an upcoming release.
For installation instructions, see
https://docs.mongodb.com/mongodb-shell/install/
=====
---
The server generated these startup warnings when booting:
  2021-11-24T21:12:32.035+05:30: Access control is not enabled for the database. Read and write access to data and
configuration is unrestricted
---
---
  Enable MongoDB's free cloud-based monitoring service, which will then receive and display
metrics about your deployment (disk utilization, CPU, operation statistics, etc).

  The monitoring data will be available on a MongoDB website with a unique URL accessible to you
and anyone you share the URL with. MongoDB may use this information to make product
improvements and to suggest MongoDB products and deployment options to you.

  To enable free monitoring, run the following command: db.enableFreeMonitoring()
  To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---
> _
```

- ✓ **Step 2:** Creating and selecting database
Command : use aayushman027 [i.e. aayushman027 is Database Name]
Note: To list all Database use the command : Show dbs.

ADVANCED DATABASE



```
Command Prompt - mongo
> use aayushman027
switched to db aayushman027
>
```

- ✓ **Step 3: Creating Collections and Inserting Values [C - Create]**
Creating a collection and inserting values can be done together. Here we have orcollection name as 'student '




```
Command Prompt - mongo
> db.student.insert({name: "aayushman"})
WriteResult({ "nInserted" : 1 })
> db.student.insert(
... { no:2,
... name: "abhishek",
... Course:{CourseName: "MSC ComputerScience", Duration: "2 Years"},
... Address: {City: "Mumbai", State: "Maharashtra", Country: "India"}
... })
WriteResult({ "nInserted" : 1 })
>
```

- ✓ **Step 4: Read Data from the Collections [R - Read]**
To retrieve the inserted document



```
Command Prompt - mongo
> db.student.find()
{ "_id" : ObjectId("61a0fa074ad52e8d216e0d42"), "No" : 1, "Name" : "Aayushman", "Course" : "MSC-CS", "Subject" : "ADB", "Duration" : "40 Minute" }
{ "_id" : ObjectId("61a0fa074ad52e8d216e0d43"), "No" : 2, "Name" : "Abhishek", "Course" : "MSC-IT", "Subject" : "AI", "Duration" : "50 Minute" }
>
```

- ✓ **Step 5: Updating a Document in a Collection [U - Update]**



```
Command Prompt - mongo
> db.student.update ({No : 2}, {$set: {"Name" : "Aashi"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.find()
{ "_id" : ObjectId("61a0fa074ad52e8d216e0d42"), "No" : 1, "Name" : "Aayushman", "Course" : "MSC-CS", "Subject" : "ADB", "Duration" : "40 Minute" }
{ "_id" : ObjectId("61a0fa074ad52e8d216e0d43"), "No" : 2, "Name" : "Aashi", "Course" : "MSC-IT", "Subject" : "AI", "Duration" : "50 Minute" }
>
```

- ✓ **Step 6: Removing an Entry From the Collection[D- Delete]**



```
Command Prompt - mongo
> db.student.remove({No : 2})
WriteResult({ "nRemoved" : 1 })
> db.student.find()
{ "_id" : ObjectId("61a0fa074ad52e8d216e0d42"), "No" : 1, "Name" : "Aayushman", "Course" : "MSC-CS", "Subject" : "ADB", "Duration" : "40 Minute" }
>
```

Conclusion: Successfully Performed and Implemented the CRUD Operation Using MongoDB.