

BIG DATA LAB

BASIC CRUD OPERATIONS:-

>mongo command is used to check whether mongoDB is present.

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~$ mongo
MongoDB shell version v5.0.1
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("97737e66-4317-4a1b-a27b-bdde4d1caf45") }
MongoDB server version: 5.0.1
=====
Warning: the "mongo" shell has been superseded by "mongosh",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.
We recommend you begin using "mongosh".
For installation instructions, see
https://docs.mongodb.com/mongodb-shell/install/
=====
---
The server generated these startup warnings when booting:
  2022-04-05T08:55:48.577+05:30: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See http://dochub.
mongodb.org/core/prodnotes-filesystem
  2022-04-05T08:55:50.174+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unre
stricted
---
---
  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()
---
```

>Show dbs is used to see the databases consist in particular mongo

```
> show dbs
int19is100  0.000GB
int19is166  0.000GB
admin       0.000GB
config      0.000GB
local       0.000GB
test        0.000GB
```

>database will be created by the command

> use soni
switched to db soni

>command to check the current database.

> db
soni

```
> use soni
switched to db soni
> db
soni
```

Insert Command

>Command for inserting one value.

```
>db.employee.insertOne({Id:101,Name:"soni.a",Age:28,sex:"F",PhoneNo:9837791737,Place:"Bangalore"})
```

```
{
  "acknowledged" : true,
  "insertedId" : ObjectId("624bbc3ca0d049924c5006c9")
}
```

```
> db.employee.insertOne({Id:101,Name:"soni.a",Age:28,sex:"F",PhoneNo:9837791737,Place:"Bangalore"})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("624bbc3ca0d049924c5006c9")
}
```

>Command for inserting many values.

```
>db.employee.insertMany([{Id:101,Name:"Sonal.M",Age:27,sex:"F",PhoneNo:7637791737,Place:"Kolar"},{Id:102,Name:"Prathap.K",sex:"M",Phone:9874255456,Place:"Solur"},{Id:103,Name:"Sampreeth",Age:30,sex:"M",PhoneNo:6783327876,Place:"Mysore"}])
```

```
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("624bbe0ba0d049924c5006ca"),
    ObjectId("624bbe0ba0d049924c5006cb"),
    ObjectId("624bbe0ba0d049924c5006cc")
  ]
}
```

```
> db.employee.insertMany([{Id:101,Name:"Sonal.M",Age:27,sex:"F",PhoneNo:7637791737,Place:"Kolar"},{Id:102,Name:"Prathap.K",sex:"M",Phone:9874255456,Place:"Solur"},{Id:103,Name:"Sampreeth",Age:30,sex:"M",PhoneNo:6783327876,Place:"Mysore"}])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("624bbe0ba0d049924c5006ca"),
    ObjectId("624bbe0ba0d049924c5006cb"),
    ObjectId("624bbe0ba0d049924c5006cc")
  ]
}
```

>Command used to show values in table.

```
> db.employee.find().pretty()
{
  "_id" : ObjectId("624bb9eaefbd491e01b44290"),
  "Id" : 101,
  "Name" : "Soni",
  "Place" : "Bangalore",
  "Age" : 21,
  "Sex" : "F",
  "Branch" : "ISE"
}
{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
  "sex" : "F",
  "PhoneNo" : 9837791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Kolar"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Solur"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 30,
```

```
"sex" : "M",
"PhoneNo" : 6783327876,
"Place" : "Mysore"
}
```

```
> db.employee.find().pretty()
{
  "_id" : ObjectId("624bb9eaefbd491e01b44290"),
  "Id" : 101,
  "Name" : "Soni",
  "Place" : "Bangalore",
  "Age" : 21,
  "Sex" : "F",
  "Branch" : "ISE"
}
{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
  "sex" : "F",
  "PhoneNo" : 9837791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Kolar"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Solur"
}
```

```
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 30,
  "sex" : "M",
  "PhoneNo" : 6783327876,
  "Place" : "Mysore"
}
```

>Show Collection command used to show table name

```
> show collections
employee
```

```
> show collections
employee
```

Update Operation

>Command to update one value using set

```
> db.employee.updateOne({Id:103},{ $set:{Age:27}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
```

Output

```
> db.employee.find().pretty()
{
  "_id" : ObjectId("624bb9eaefbd491e01b44290"),
  "Id" : 101,
  "Name" : "Soni",
  "Place" : "Bangalore",
  "Age" : 21,
  "Sex" : "F",
  "Branch" : "ISE"
}
{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
  "sex" : "F",
  "PhoneNo" : 9837791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Kolar"
}
```

```

}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Solur"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 27,
  "sex" : "M",
  "PhoneNo" : 6783327876,
  "Place" : "Mysore"
}

```

```

> db.employee.updateOne({Id:103},{ $set:{Age:27}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.employee.find().pretty()
{
  "_id" : ObjectId("624bb9eaefbd491e01b44290"),
  "Id" : 101,
  "Name" : "Soni",
  "Place" : "Bangalore",
  "Age" : 21,
  "Sex" : "F",
  "Branch" : "ISE"
}
{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
  "sex" : "F",
  "PhoneNo" : 9837791737,
  "Place" : "Bangalore"
}

```

```
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Kolar"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Solur"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 27,
  "sex" : "M",
  "PhoneNo" : 6783327876,
  "Place" : "Mysore"
}
```

>Command used to update many values using set.

```
> db.employee.updateMany({},{$set:{Place:"Bangalore"}})
{ "acknowledged" : true, "matchedCount" : 5, "modifiedCount" : 3 }
```

Output

```
> db.employee.find().pretty()
"_id" : ObjectId("624bb9eaefbd491e01b44290"),
"Id" : 101,
"Name" : "Soni",
"Place" : "Bangalore",
"Age" : 21,
"Sex" : "F",
"Branch" : "ISE"
}
{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
```

```

"sex" : "F",
"PhoneNo" : 9837791737,
"Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 27,
  "sex" : "M",
  "PhoneNo" : 6783327876,
  "Place" : "Bangalore"
}

```

```

> db.employee.updateMany({},{$set:{Place:"Bangalore"}})
{ "acknowledged" : true, "matchedCount" : 5, "modifiedCount" : 3 }
> db.employee.find().pretty()
{
  "_id" : ObjectId("624bb9eaefbd491e01b44290"),
  "Id" : 101,
  "Name" : "Soni",
  "Place" : "Bangalore",
  "Age" : 21,
  "Sex" : "F",
  "Branch" : "ISE"
}

```



```

{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
  "sex" : "F",
  "PhoneNo" : 9837791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 27,
  "sex" : "M",
  "PhoneNo" : 6783327876,
  "Place" : "Bangalore"
}

```

>Command to update using unset.

```

> db.employee.updateOne({Id:101},{ $unset:{Branch:"ISE"}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

```

Output

```

> db.employee.find().pretty()
{
  "_id" : ObjectId("624bb9eaeffd491e01b44290"),
  "Id" : 101,
  "Name" : "Soni",
  "Place" : "Bangalore",

```

```
"Age" : 21,  
"Sex" : "F"  
}  
{  
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),  
  "Id" : 101,  
  "Name" : "soni.a",  
  "Age" : 28,  
  "sex" : "F",  
  "PhoneNo" : 9837791737,  
  "Place" : "Bangalore"  
}  
{  
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),  
  "Id" : 101,  
  "Name" : "Sonal.M",  
  "Age" : 27,  
  "sex" : "F",  
  "PhoneNo" : 7637791737,  
  "Place" : "Bangalore"  
}  
{  
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),  
  "Id" : 102,  
  "Name" : "Prathap.K",  
  "sex" : "M",  
  "Phone" : 9874255456,  
  "Place" : "Bangalore"  
}  
{  
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),  
  "Id" : 103,  
  "Name" : "Sampreeth",  
  "Age" : 27,  
  "sex" : "M",  
  "PhoneNo" : 6783327876,  
  "Place" : "Bangalore"  
}
```

```

> db.employee.updateOne({Id:101},{ $unset:{Branch:"ISE"}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.employee.find().pretty()
{
  "_id" : ObjectId("624bb9eaefbd491e01b44290"),
  "Id" : 101,
  "Name" : "Soni",
  "Place" : "Bangalore",
  "Age" : 21,
  "Sex" : "F"
}
{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
  "sex" : "F",
  "PhoneNo" : 9837791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Bangalore"
}

```

```

{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 27,
  "sex" : "M",
  "PhoneNo" : 6783327876,
  "Place" : "Bangalore"
}

```

Delete Operation

>Command to delete value

```
> db.employee.deleteOne({Name:"Soni"})
{ "acknowledged" : true, "deletedCount" : 1 }
```

Output

```
> db.employee.find().pretty()
{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
  "sex" : "F",
  "PhoneNo" : 9837791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 27,
  "sex" : "M",
  "PhoneNo" : 6783327876,
```

```
"Place" : "Bangalore"
}
```

```
> db.employee.deleteOne({Name:"Soni"})
{ "acknowledged" : true, "deletedCount" : 1 }
> db.employee.find().pretty()
{
  "_id" : ObjectId("624bbc3ca0d049924c5006c9"),
  "Id" : 101,
  "Name" : "soni.a",
  "Age" : 28,
  "sex" : "F",
  "PhoneNo" : 9837791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006ca"),
  "Id" : 101,
  "Name" : "Sonal.M",
  "Age" : 27,
  "sex" : "F",
  "PhoneNo" : 7637791737,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cb"),
  "Id" : 102,
  "Name" : "Prathap.K",
  "sex" : "M",
  "Phone" : 9874255456,
  "Place" : "Bangalore"
}
{
  "_id" : ObjectId("624bbe0ba0d049924c5006cc"),
  "Id" : 103,
  "Name" : "Sampreeth",
  "Age" : 27,
  "sex" : "M",
  "PhoneNo" : 6783327876,
  "Place" : "Bangalore"
}
```

