Mongosh

```
PS C:\Users\SOMU> mongosh
Current Mongosh Log ID: 6647a28fc7afd57c9acdcdf5
Connecting to:          mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.2.6
Using MongoDB:          7.0.9
Using Mongosh:          2.2.6

For mongosh info see: https://docs.mongodb.com/mongodb-shell/


------
   The server generated these startup warnings when booting
   2024-05-17T18:41:13.630+05:30: Access control is not enabled for the database. Read and write access to data and configuration is
unrestricted
------
```

Show dbs

```
test> show dbs
admin          40.00 KiB
config        108.00 KiB
employees     112.00 KiB
local          40.00 KiB
test>
```

Use employees

```
test> use employees
switched to db employees
```

CREATE

Insert one data

```
employees> db.invetory.insertOne( {
... item: "canvas", qty: 100, tags: ["cotton"], size: { h: 28, ww: 35.5, uom: "cm" } }
... )
{
  acknowledged: true,
  insertedId: ObjectId('6647a569c7afd57c9acdcdf6')
}
employees>
```

Insert many data

```
employees> db.inventory.insertMany([
...     { item: "journal", qty: 25, tags: ["blank", "red"], size: { h: 14, w: 21, uom: "cm" } },
...     { item: "mat", 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: {
    '0': ObjectId('6647a6a34aa5766faecdcdf6'),
    '1': ObjectId('6647a6a34aa5766faecdcdf7'),
    '2': ObjectId('6647a6a34aa5766faecdcdf8')
  }
}
employees>
```

READ

Find All

```
employees> db.inventory.find( )
[
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfa'),
    item: 'journal',
    qty: 25,
    size: { h: 14, w: 21, uom: 'cm' },
    status: 'A'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfb'),
    item: 'notebook',
    qty: 50,
    size: { h: 8.5, w: 11, uom: 'in' },
    status: 'A'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfc'),
    item: 'paper',
    qty: 100,
    size: { h: 8.5, w: 11, uom: 'in' },
    status: 'D'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfd'),
    item: 'planner',
    qty: 75,
    size: { h: 22.85, w: 30, uom: 'cm' },
    status: 'D'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfe'),
    item: 'postcard',
    qty: 45,
    size: { h: 10, w: 15.25, uom: 'cm' },
    status: 'A'
  }
]
employees>
```

Specify Equality Condition

```
employees> db.inventory.find( { status: "D" } )
[
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfc'),
    item: 'paper',
    qty: 100,
    size: { h: 8.5, w: 11, uom: 'in' },
    status: 'D'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfd'),
    item: 'planner',
    qty: 75,
    size: { h: 22.85, w: 30, uom: 'cm' },
    status: 'D'
  }
]
employees>
```

Limit

```
employees> db.inventory.find().limit(1)
[
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf6'),
    item: 'journal',
    qty: 25,
    tags: [ 'blank', 'red' ],
    size: { h: 14, w: 21, uom: 'cm' }
  }
]
```

Skip

```
employees> db.inventory.find().skip(1)
[
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf7'),
    item: 'mat',
    qty: 85,
    tags: [ 'gray' ],
    size: { h: 27.9, w: 35.5, uom: 'cm' }
  },
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf8'),
    item: 'mousepad',
    qty: 25,
    tags: [ 'gel', 'blue' ],
    size: { h: 19, w: 22.85, uom: 'cm' }
  }
]
```

Specify Conditions Using Query Operators

```
employees> db.inventory.find( { status: { $in: [ "A", "D" ] } } )
[
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfa'),
    item: 'journal',
    qty: 25,
    size: { h: 14, w: 21, uom: 'cm' },
    status: 'A'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfb'),
    item: 'notebook',
    qty: 50,
    size: { h: 8.5, w: 11, uom: 'in' },
    status: 'A'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfc'),
    item: 'paper',
    qty: 100,
    size: { h: 8.5, w: 11, uom: 'in' },
    status: 'D'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfd'),
    item: 'planner',
    qty: 75,
    size: { h: 22.85, w: 30, uom: 'cm' },
    status: 'D'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfe'),
    item: 'postcard',
    qty: 45,
    size: { h: 10, w: 15.25, uom: 'cm' },
    status: 'A'
  }
]
employees>
```

Specify AND Conditions

```
employees> db.inventory.find( {status: "A",qty: { $lt : 30 }} )
[
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfa'),
    item: 'journal',
    qty: 25,
    size: { h: 14, w: 21, uom: 'cm' },
    status: 'A'
  }
]
employees>
```

Specify OR Conditions

syntax - `{ $or: [ { status: 'A' }, { qty: { $lt: 30 } } ] }`

```
employees> db.inventory.find( {status: "A",qty: { $lt : 30 }} )
[
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfa'),
    item: 'journal',
    qty: 25,
    size: { h: 14, w: 21, uom: 'cm' },
    status: 'A'
  }
]
employees>
```

Specify AND as well as OR Conditions

```
employees> db.inventory.find( {
...        status: "A",
...        $or: [ { qty: { $lt: 30 } }, { item: /^p/ } ]
... } )
[
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfa'),
    item: 'journal',
    qty: 25,
    size: { h: 14, w: 21, uom: 'cm' },
    status: 'A'
  },
  {
    _id: ObjectId('6647aa2f4aa5766faecdcdfe'),
    item: 'postcard',
    qty: 45,
    size: { h: 10, w: 15.25, uom: 'cm' },
    status: 'A'
  }
]
employees>
```

UPDATE

Update a Single Document

```
employees> db.inventory.updateOne(
...     { item: "paper" },
...     {
...         $set: { "size.uom": "cm", status: "P" },
...         $currentDate: { lastModified: true }
...     }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
employees>
```

Update Multiple Documents

```
employees> db.inventory.updateMany(
...     { "qty": { $lt: 50 } },
...     {
...         $set: { "size.uom": "in", status: "P" },
...         $currentDate: { lastModified: true }
...     }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 3,
  upsertedCount: 0
}
employees>
```

Replace a Document

```
employees> db.inventory.replaceOne(
...     { item: "paper" },
...     { item: "paper", instock: [ { warehouse: "A", qty: 60 }, { warehouse: "B", qty: 40 } ] }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

DELETE

Delete All Documents

```
employees> db.inventory.deleteMany({})
{ acknowledged: true, deletedCount: 10 }
employees>
```

Delete All Documents that Match a Condition

```
employees> db.inventory.deleteMany({status: "A"})
{ acknowledged: true, deletedCount: 2 }
employees>
```

Delete Only One Document that Matches a Condition

```
employees> db.inventory.deleteOne( { status: "D" } )
{ acknowledged: true, deletedCount: 1 }
employees>
```

Remove

```
employees> db.inventory.remove({qty: {$gt: 65}})
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete, or bulkWrite.
{ acknowledged: true, deletedCount: 1 }
employees>
```

Other Functions

Sort Increasing Order

```
employees> db.inventory.find().sort({qty: 1})
[
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf6'),
    item: 'journal',
    qty: 25,
    tags: [ 'blank', 'red' ],
    size: { h: 14, w: 21, uom: 'cm' }
  },
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf8'),
    item: 'mousepad',
    qty: 25,
    tags: [ 'gel', 'blue' ],
    size: { h: 19, w: 22.85, uom: 'cm' }
  },
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf7'),
    item: 'mat',
    qty: 85,
    tags: [ 'gray' ],
    size: { h: 27.9, w: 35.5, uom: 'cm' }
  }
]
employees>
```

Sort Decreasing order

```
employees> db.inventory.find().sort({qty: -1})
[
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf7'),
    item: 'mat',
    qty: 85,
    tags: [ 'gray' ],
    size: { h: 27.9, w: 35.5, uom: 'cm' }
  },
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf6'),
    item: 'journal',
    qty: 25,
    tags: [ 'blank', 'red' ],
    size: { h: 14, w: 21, uom: 'cm' }
  },
  {
    _id: ObjectId('664993e7f2d69c3861cdcdf8'),
    item: 'mousepad',
    qty: 25,
    tags: [ 'gel', 'blue' ],
    size: { h: 19, w: 22.85, uom: 'cm' }
  }
]
employees>
```