

## ***// DBMSL B2 – 31139 (Durvesh)***

### ***//Comparison Operators***

```
>
db.employees2.insertMany([{name:'a',city:'vellore',salary:10000},{name:'b',city:'mumbai',salary:10000},{name:'c',city:'vellore',salary:100000},{name:'d',city:'mumbai',salary:30000},{name:'e',city:'delhi',salary:300000}])

{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("5f8fe04165e78575f2b130d2"),
    ObjectId("5f8fe04165e78575f2b130d3"),
    ObjectId("5f8fe04165e78575f2b130d4"),
    ObjectId("5f8fe04165e78575f2b130d5"),
    ObjectId("5f8fe04165e78575f2b130d6")
  ]
}

> db.employees2.find()

{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d3"), "name" : "b", "city" : "mumbai", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d5"), "name" : "d", "city" : "mumbai", "salary" : 30000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d6"), "name" : "e", "city" : "delhi", "salary" : 300000 }

>

> db.employees2.find({salary:{$eq:10000}})

{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d3"), "name" : "b", "city" : "mumbai", "salary" : 10000 }

> db.employees2.find({city:{$eq:'vellore'}})
```

```

{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
> db.employees2.find({salary:{$gte:100000}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d6"), "name" : "e", "city" : "delhi", "salary" : 300000 }
> db.employees2.find({city:{$in:['vellore','mumbai']}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d3"), "name" : "b", "city" : "mumbai", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d5"), "name" : "d", "city" : "mumbai", "salary" : 30000 }
> db.employees2.find({salary:{$lt:50000}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d3"), "name" : "b", "city" : "mumbai", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d5"), "name" : "d", "city" : "mumbai", "salary" : 30000 }
> db.employees2.find({city:{$ne:'delhi'}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d3"), "name" : "b", "city" : "mumbai", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d5"), "name" : "d", "city" : "mumbai", "salary" : 30000 }
> db.employees2.find({city:{$nin:['delhi','mumbai']}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
>

```

## // Logical Operators

```
>
db.employees.insertMany([{name:'jitendra',country:'india',salary:20000},{name:'jinesh',country:'india',salary:5000},{name:'dinesh',country:'india',salary:30000}])

{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("5f8fdb0865e78575f2b130cc"),
    ObjectId("5f8fdb0865e78575f2b130cd"),
    ObjectId("5f8fdb0865e78575f2b130ce")
  ]
}

>
db.employees.insertMany([{name:'dinanath',country:'USA',salary:2000000},{name:'jignesh',country:'UK',salary:509000},{name:'mark',country:'Kenya',salary:2000}])

{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("5f8fdb8665e78575f2b130cf"),
    ObjectId("5f8fdb8665e78575f2b130d0"),
    ObjectId("5f8fdb8665e78575f2b130d1")
  ]
}

> db.employees.find()

{ "_id" : ObjectId("5f8fdb0865e78575f2b130cc"), "name" : "jitendra", "country" : "india", "salary" : 20000 }

{ "_id" : ObjectId("5f8fdb0865e78575f2b130cd"), "name" : "jinesh", "country" : "india", "salary" : 5000 }

{ "_id" : ObjectId("5f8fdb0865e78575f2b130ce"), "name" : "dinesh", "country" : "india", "salary" : 30000 }
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130cf"), "name" : "dinanath", "country" : "USA", "salary" : 2000000 }
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d0"), "name" : "jignesh", "country" : "UK", "salary" : 509000 }
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d1"), "name" : "mark", "country" : "Kenya", "salary" : 2000 }
```

```
> db.employees.find({$and:[{salary:{$gt:10000}},{country:'india'}]})
```

```
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cc"), "name" : "jitendra", "country" : "india", "salary" : 20000 }
```

```
{ "_id" : ObjectId("5f8fdb0865e78575f2b130ce"), "name" : "dinesh", "country" : "india", "salary" : 30000 }
```

```
> db.employees.find({$or:[{salary:{$gt:20000}},{country:'india'}]})
```

```
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cc"), "name" : "jitendra", "country" : "india", "salary" : 20000 }
```

```
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cd"), "name" : "jinesh", "country" : "india", "salary" : 5000 }
```

```
{ "_id" : ObjectId("5f8fdb0865e78575f2b130ce"), "name" : "dinesh", "country" : "india", "salary" : 30000 }
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130cf"), "name" : "dinanath", "country" : "USA", "salary" : 2000000 }
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d0"), "name" : "jignesh", "country" : "UK", "salary" : 509000 }
```

```
> db.employees.find({$and:[{salary:{$gt:50000}},{country:{$not: {$eq:'india'}}]})
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130cf"), "name" : "dinanath", "country" : "USA", "salary" : 2000000 }
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d0"), "name" : "jignesh", "country" : "UK", "salary" : 509000 }
```

```
> db.employees.find({country:{$not: {$eq:'india'}}})
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130cf"), "name" : "dinanath", "country" : "USA", "salary" : 2000000 }
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d0"), "name" : "jignesh", "country" : "UK", "salary" : 509000 }
```

```
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d1"), "name" : "mark", "country" : "Kenya", "salary" : 2000 }
```

## // Outputs

```
C:\WINDOWS\system32\cmd.exe - mongo

or with --bind_ip_all to bind to all interfaces. If this behavior is desired, start the server with --bind_ip 127.0.0.1 to disable this warning
...
...
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()
...
> db.employees.insertMany([({name:'jitendra',country:'india',salary:20000},{name:'jinesh',country:'india',salary:5000},{name:'dinesh',country:'india',salary:30000})])
{
  "acknowledged": true,
  "insertedIds": [
    ObjectId("5f8fdb0865e78575f2b130cc"),
    ObjectId("5f8fdb0865e78575f2b130cd"),
    ObjectId("5f8fdb0865e78575f2b130ce")
  ]
}
> db.employees.insertMany([({name:'dinanath',country:'USA',salary:2000000},{name:'jignesh',country:'UK',salary:509000},{name:'mark',country:'Kenya',salary:2000})])
{
  "acknowledged": true,
  "insertedIds": [
    ObjectId("5f8fdb8665e78575f2b130cf"),
    ObjectId("5f8fdb8665e78575f2b130d0"),
    ObjectId("5f8fdb8665e78575f2b130d1")
  ]
}
> db.employees.find()
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cc"), "name" : "jitendra", "country" : "india", "salary" : 20000 }
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cd"), "name" : "jinesh", "country" : "india", "salary" : 5000 }
{ "_id" : ObjectId("5f8fdb0865e78575f2b130ce"), "name" : "dinesh", "country" : "india", "salary" : 30000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130cf"), "name" : "dinanath", "country" : "USA", "salary" : 2000000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d0"), "name" : "jignesh", "country" : "UK", "salary" : 509000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d1"), "name" : "mark", "country" : "Kenya", "salary" : 2000 }
> db.employees.find({$and:[{salary:{$gt:10000}}, {country:'india'}]})
uncaught exception: SyntaxError: expected property name, got ':'
#(shell):1:25
> db.employees.find({$and:[{salary:{$gt:10000}}, {country:'india'}]})
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cc"), "name" : "jitendra", "country" : "india", "salary" : 20000 }
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cd"), "name" : "jinesh", "country" : "india", "salary" : 5000 }
{ "_id" : ObjectId("5f8fdb0865e78575f2b130ce"), "name" : "dinesh", "country" : "india", "salary" : 30000 }
> db.employees.find({$or:[{salary:{$gt:200000}}, {country:'india'}]})
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cc"), "name" : "jitendra", "country" : "india", "salary" : 20000 }
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cd"), "name" : "jinesh", "country" : "india", "salary" : 5000 }
{ "_id" : ObjectId("5f8fdb0865e78575f2b130ce"), "name" : "dinesh", "country" : "india", "salary" : 30000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130cf"), "name" : "dinanath", "country" : "USA", "salary" : 2000000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d0"), "name" : "jignesh", "country" : "UK", "salary" : 509000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d1"), "name" : "mark", "country" : "Kenya", "salary" : 2000 }
```

```
C:\WINDOWS\system32\cmd.exe - mongo

> db.employees.find({$and:[{salary:{$gt:500000}}, {country:{ $eq: 'india' }}]})
{ "_id" : ObjectId("5f8fdb8665e78575f2b130cf"), "name" : "dinanath", "country" : "USA", "salary" : 2000000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d0"), "name" : "jignesh", "country" : "UK", "salary" : 509000 }
> db.employees.find({country:{ $eq: 'india' }})
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cc"), "name" : "jitendra", "country" : "india", "salary" : 20000 }
{ "_id" : ObjectId("5f8fdb0865e78575f2b130cd"), "name" : "jinesh", "country" : "india", "salary" : 5000 }
{ "_id" : ObjectId("5f8fdb0865e78575f2b130ce"), "name" : "dinesh", "country" : "india", "salary" : 30000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130cf"), "name" : "dinanath", "country" : "USA", "salary" : 2000000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d0"), "name" : "jignesh", "country" : "UK", "salary" : 509000 }
{ "_id" : ObjectId("5f8fdb8665e78575f2b130d1"), "name" : "mark", "country" : "Kenya", "salary" : 2000 }
> db.employees2.insertMany([({name:'a',city:'vellore',salary:10000},{name:'b',city:'mumbai',salary:10000},{name:'c',city:'vellore',salary:100000},{name:'d',city:'mumbai',salary:30000},{name:'e',city:'delhi',salary:300000})])
uncaught exception: SyntaxError: unexpected token ':'
#(shell):1:220
> db.employees2.insertMany([({name:'a',city:'vellore',salary:10000},{name:'b',city:'mumbai',salary:10000},{name:'c',city:'vellore',salary:100000},{name:'d',city:'mumbai',salary:30000},{name:'e',city:'delhi',salary:300000})])
{
  "acknowledged": true,
  "insertedIds": [
    ObjectId("5f8fe04165e78575f2b130d2"),
    ObjectId("5f8fe04165e78575f2b130d3"),
    ObjectId("5f8fe04165e78575f2b130d4"),
    ObjectId("5f8fe04165e78575f2b130d5"),
    ObjectId("5f8fe04165e78575f2b130d6")
  ]
}
> db.employees2.find({salary:{$eq:100000}})
uncaught exception: SyntaxError: missing ) after argument list
#(shell):1:25
> db.employees2.find({salary:{$eq:100000}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d3"), "name" : "b", "city" : "mumbai", "salary" : 10000 }
> db.employees2.find({city:{ $eq: 'vellore' }})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
> db.employees2.find({salary:{$gte:100000}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d6"), "name" : "e", "city" : "delhi", "salary" : 300000 }
> db.employees2.find({city:{ $in: ['vellore', 'mumbai' ]}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d3"), "name" : "b", "city" : "mumbai", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d5"), "name" : "d", "city" : "mumbai", "salary" : 30000 }
> db.employees2.find({city:{ $ne: 'delhi' }})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d3"), "name" : "b", "city" : "mumbai", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d5"), "name" : "d", "city" : "mumbai", "salary" : 30000 }
> db.employees2.find({city:{ $in: ['delhi', 'mumbai' ]}})
{ "_id" : ObjectId("5f8fe04165e78575f2b130d2"), "name" : "a", "city" : "vellore", "salary" : 10000 }
{ "_id" : ObjectId("5f8fe04165e78575f2b130d4"), "name" : "c", "city" : "vellore", "salary" : 100000 }
```