

04.

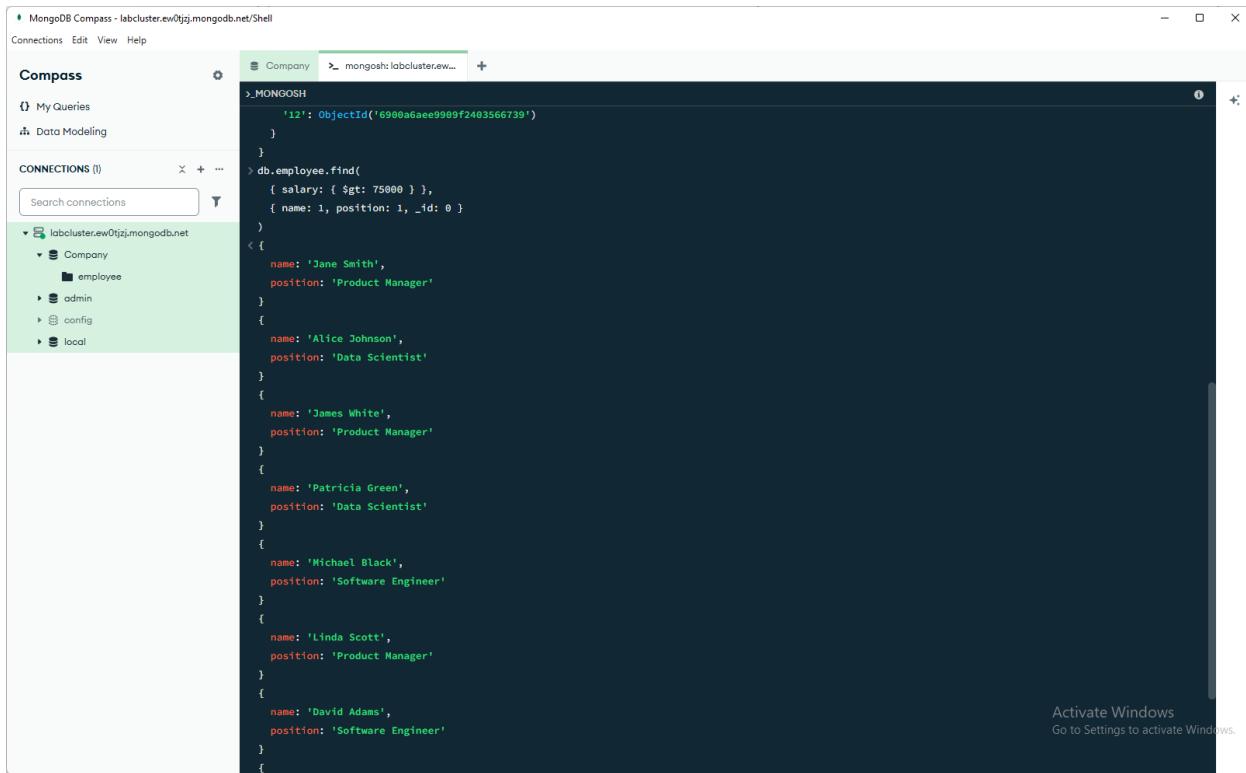
```
db.employee.insertMany([
  { name: "John Doe", position: "Software Engineer", salary: 70000, experience: 3 },
  { name: "Jane Smith", position: "Product Manager", salary: 80000, experience: 5 },
  { name: "Alice Johnson", position: "Data Scientist", salary: 90000, experience: 4 },
  { name: "Robert Brown", position: "Software Engineer", salary: 75000, experience: 2 },
  { name: "Mary Williams", position: "HR Manager", salary: 65000, experience: 6 },
  { name: "James White", position: "Product Manager", salary: 95000, experience: 4 },
  { name: "Patricia Green", position: "Data Scientist", salary: 85000, experience: 5 },
  { name: "Michael Black", position: "Software Engineer", salary: 98000, experience: 6 },
  { name: "Linda Scott", position: "Product Manager", salary: 93000, experience: 4 },
  { name: "David Adams", position: "Software Engineer", salary: 78000, experience: 4 },
  { name: "Susan Clark", position: "HR Manager", salary: 68000, experience: 3 },
  { name: "Mark Lee", position: "Senior Software Engineer", salary: 105000, experience: 8 },
  { name: "Emily King", position: "Product Manager", salary: 102000, experience: 7 }
])
```

```
mongosh: labcluster.ew0tjzj.mongodb.net/Shell
Connections Edit View Help
Compass
  My Queries
  Data Modeling
  CONNECTIONS (1)
    Search connections
  labcluster.ew0tjzj.mongodb.net
    Company
      employee
    admin
    config
    local
  MONGOSH
  use Company
  switched to db Company
  db.employee.insertMany([
    { name: "John Doe", position: "Software Engineer", salary: 70000, experience: 3 },
    { name: "Jane Smith", position: "Product Manager", salary: 80000, experience: 5 },
    { name: "Alice Johnson", position: "Data Scientist", salary: 90000, experience: 4 },
    { name: "Robert Brown", position: "Software Engineer", salary: 75000, experience: 2 },
    { name: "Mary Williams", position: "HR Manager", salary: 65000, experience: 6 },
    { name: "James White", position: "Product Manager", salary: 95000, experience: 4 },
    { name: "Patricia Green", position: "Data Scientist", salary: 85000, experience: 5 },
    { name: "Michael Black", position: "Software Engineer", salary: 98000, experience: 6 },
    { name: "Linda Scott", position: "Product Manager", salary: 93000, experience: 4 },
    { name: "David Adams", position: "Software Engineer", salary: 78000, experience: 4 },
    { name: "Susan Clark", position: "HR Manager", salary: 68000, experience: 3 },
    { name: "Mark Lee", position: "Senior Software Engineer", salary: 105000, experience: 8 },
    { name: "Emily King", position: "Product Manager", salary: 102000, experience: 7 }
  ])
  acknowledged: true,
  insertedIds: [
    {
      '_id': ObjectId('6900a6aee9909f240356672d'),
      '_id': ObjectId('6900a6aee9909f240356672e'),
      '_id': ObjectId('6900a6aee9909f240356672f'),
      '_id': ObjectId('6900a6aee9909f2403566730'),
      '_id': ObjectId('6900a6aee9909f2403566731'),
      '_id': ObjectId('6900a6aee9909f2403566732'),
      '_id': ObjectId('6900a6aee9909f2403566733'),
      '_id': ObjectId('6900a6aee9909f2403566734'),
      '_id': ObjectId('6900a6aee9909f2403566735'),
      '_id': ObjectId('6900a6aee9909f2403566736'),
      '_id': ObjectId('6900a6aee9909f2403566737'),
      '_id': ObjectId('6900a6aee9909f2403566738'),
      '_id': ObjectId('6900a6aee9909f2403566739')
    }
  ]
Atlas atlas-nomr19-shard-0 [primary] Company
```

05.

```
db.employee.find()
```

```
{ salary: { $gt: 75000 } },  
{ name: 1, position: 1, _id: 0 }  
)
```



The screenshot shows the MongoDB Compass interface. On the left, the 'Connections' sidebar lists 'labcluster.ew0tjj.mongodb.net' with its databases: Company, admin, config, and local. The main area is the 'Shell' tab, which contains the following MongoDB query:

```
>_MONGOSH  
    '12': ObjectId('6900a6aee9909f2403566739')  
}  
> db.employee.find(  
    { salary: { $gt: 75000 } },  
    { name: 1, position: 1, _id: 0 }  
)  
< {  
    name: 'Jane Smith',  
    position: 'Product Manager'  
}  
{  
    name: 'Alice Johnson',  
    position: 'Data Scientist'  
}  
{  
    name: 'James White',  
    position: 'Product Manager'  
}  
{  
    name: 'Patricia Green',  
    position: 'Data Scientist'  
}  
{  
    name: 'Michael Black',  
    position: 'Software Engineer'  
}  
{  
    name: 'Linda Scott',  
    position: 'Product Manager'  
}  
{  
    name: 'David Adams',  
    position: 'Software Engineer'  
}
```

A watermark for 'Activate Windows Go to Settings to activate Windows.' is visible in the bottom right corner.

06.

```
db.employee.updateMany(  
    { position: "Software Engineer" },  
    { $inc: { salary: 5000 } }  
)
```

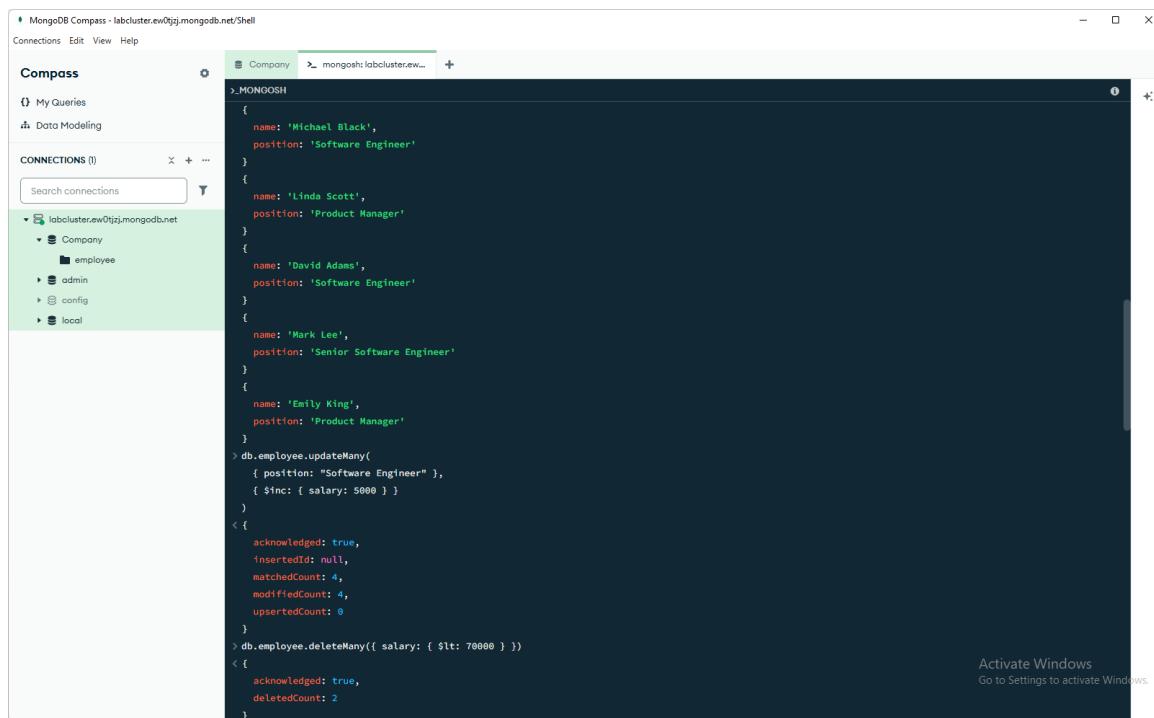
07.

```
db.employee.deleteMany({ salary: { $lt: 70000 } })
```

## LAB 04

EC/2021/006

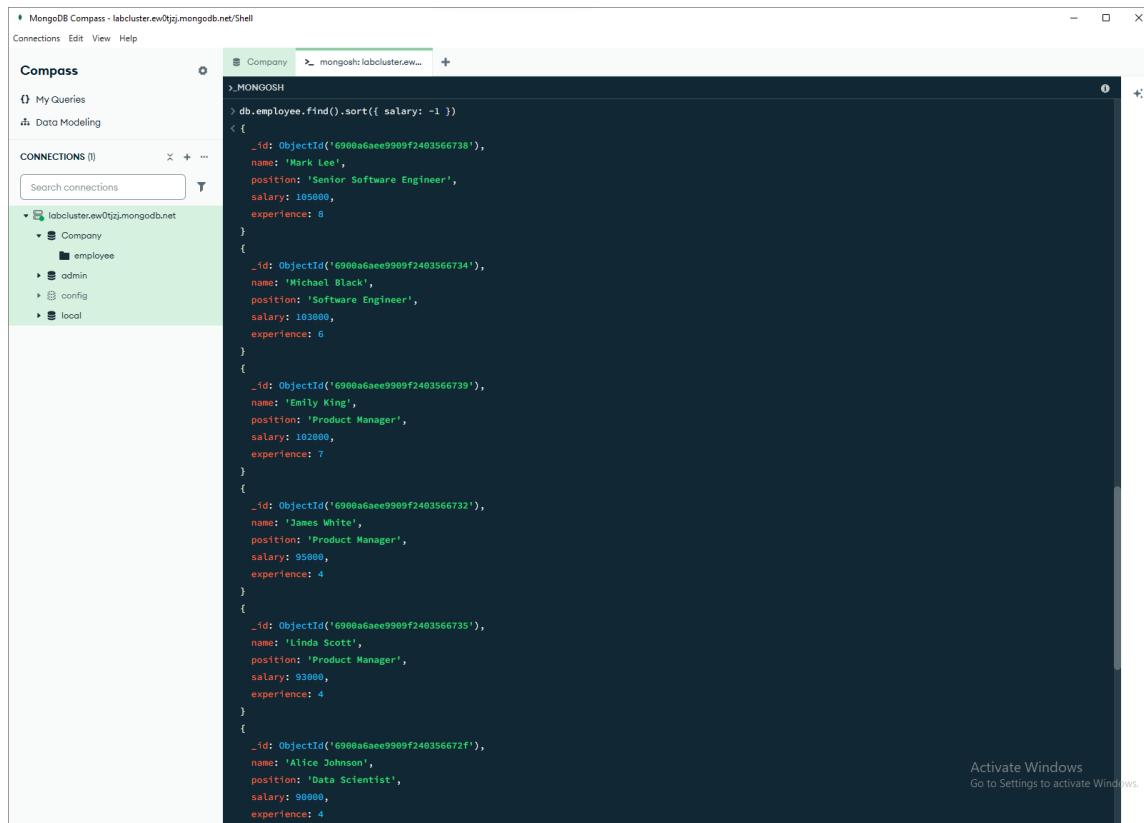
W.K.G.K Jayawardana



```
MongoDB Compass - labcluster.ew0tjj.mongodb.net/Shell
Connections Edit View Help
Compass
My Queries
Data Modeling
CONNECTIONS (1)
Search connections
labcluster.ew0tjj.mongodb.net
Company
employee
admin
config
local
Company
> .MONGOSH
{
  {
    name: 'Michael Black',
    position: 'Software Engineer'
  }
  {
    name: 'Linda Scott',
    position: 'Product Manager'
  }
  {
    name: 'David Adams',
    position: 'Software Engineer'
  }
  {
    name: 'Mark Lee',
    position: 'Senior Software Engineer'
  }
  {
    name: 'Emily King',
    position: 'Product Manager'
  }
}
> db.employee.updateMany(
  { position: "Software Engineer" },
  { $inc: { salary: 5000 } }
)
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 4,
  modifiedCount: 4,
  upsertedCount: 0
}
> db.employee.deleteMany({ salary: { $lt: 70000 } })
< {
  acknowledged: true,
  deletedCount: 2
}
```

08.

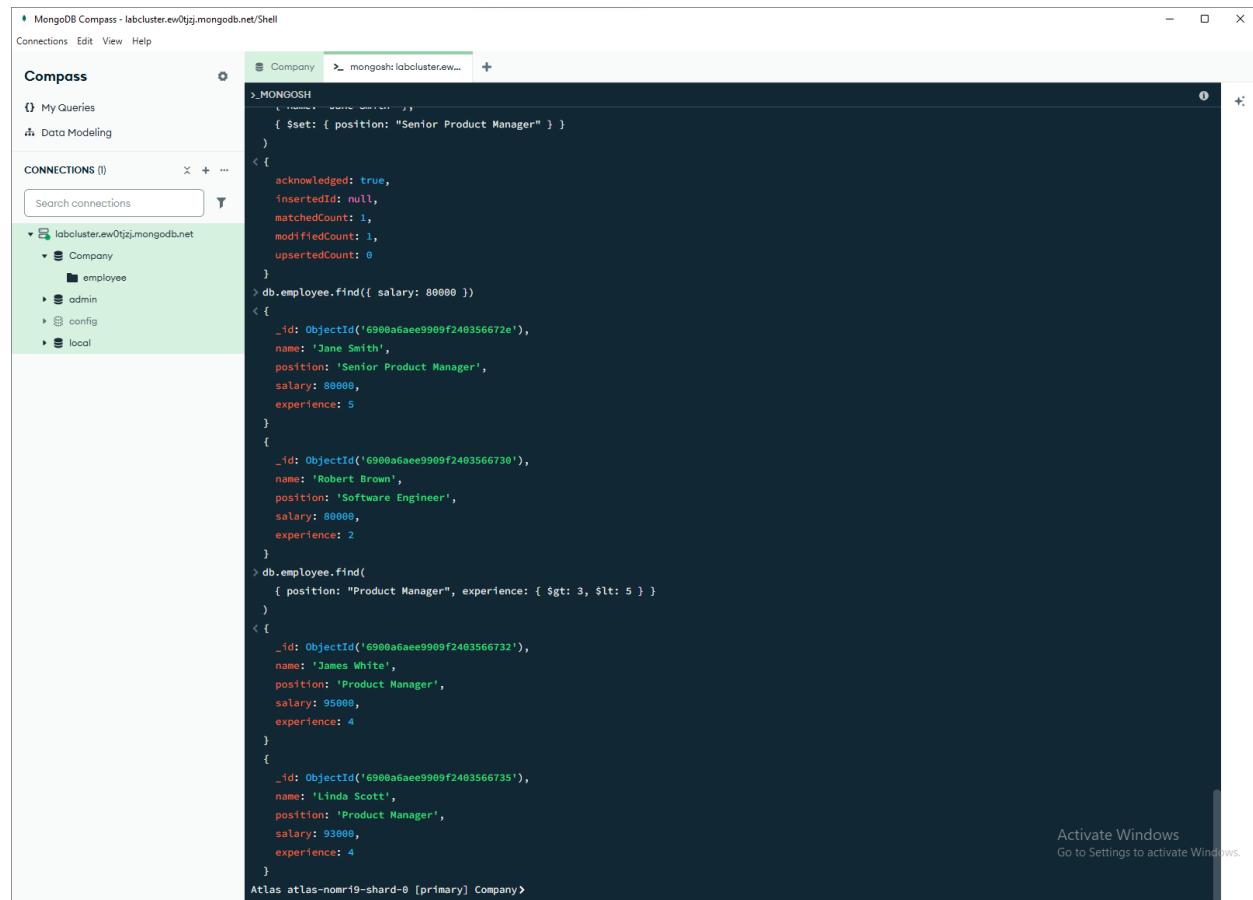
db.employee.find().sort({ salary: -1 })



```
MongoDB Compass - labcluster.ew0tjj.mongodb.net/Shell
Connections Edit View Help
Compass
My Queries
Data Modeling
CONNECTIONS (1)
Search connections
labcluster.ew0tjj.mongodb.net
Company
employee
admin
config
local
Company
> .MONGOSH
> db.employee.find().sort({ salary: -1 })
< [
  {
    _id: ObjectId('6900a6ae9900f2403566738'),
    name: 'Mark Lee',
    position: 'Senior Software Engineer',
    salary: 105000,
    experience: 8
  }
  {
    _id: ObjectId('6900a6ae9900f2403566734'),
    name: 'Michael Black',
    position: 'Software Engineer',
    salary: 103000,
    experience: 6
  }
  {
    _id: ObjectId('6900a6ae9900f2403566739'),
    name: 'Emily King',
    position: 'Product Manager',
    salary: 102000,
    experience: 7
  }
  {
    _id: ObjectId('6900a6ae9900f2403566732'),
    name: 'James White',
    position: 'Product Manager',
    salary: 95000,
    experience: 4
  }
  {
    _id: ObjectId('6900a6ae9900f2403566735'),
    name: 'Linda Scott',
    position: 'Product Manager',
    salary: 93000,
    experience: 4
  }
  {
    _id: ObjectId('6900a6ae9900f240356672f'),
    name: 'Alice Johnson',
    position: 'Data Scientist',
    salary: 90000,
    experience: 4
  }
]
```

09.

```
db.employee.find(  
  { position: "Product Manager", experience: { $gt: 3, $lt: 5 } }  
)
```



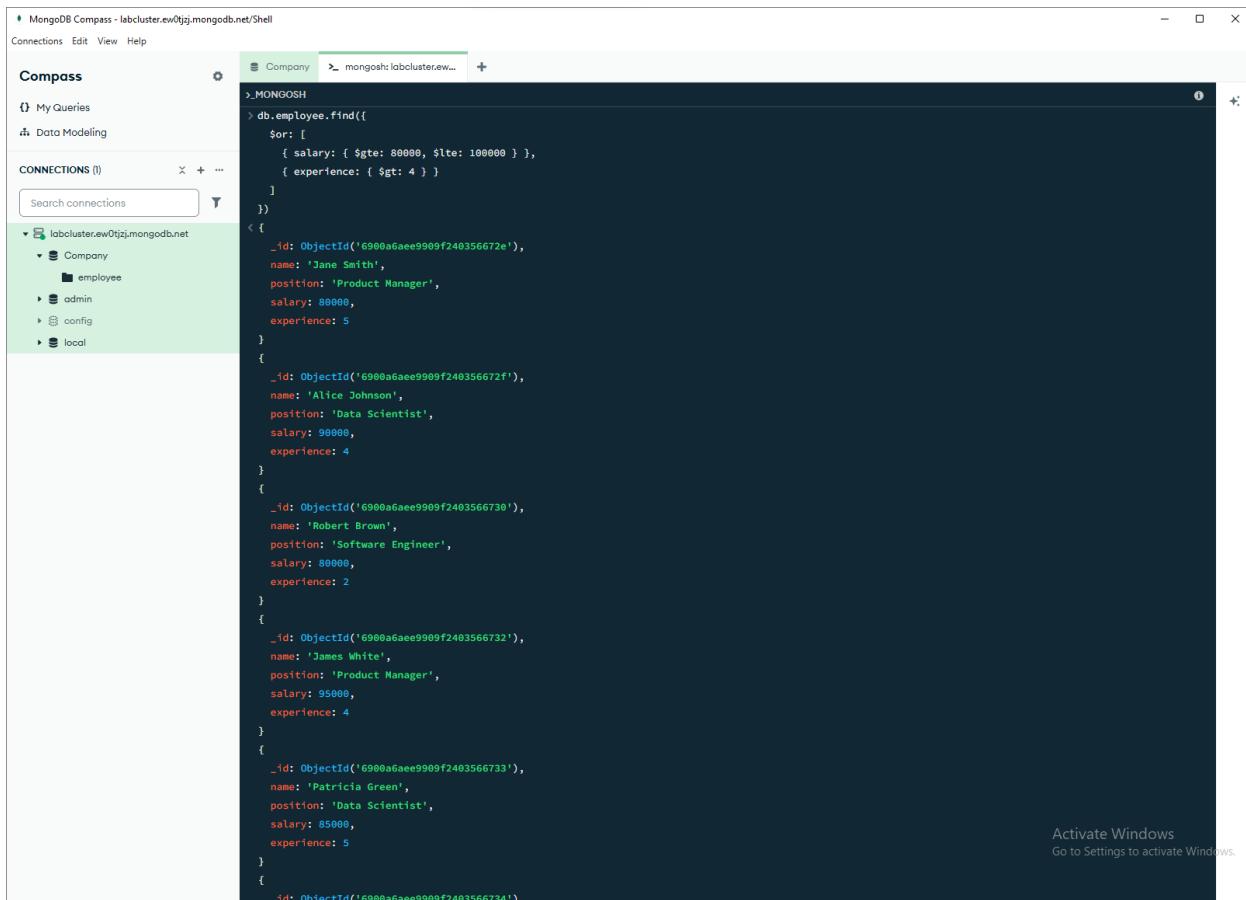
The screenshot shows the MongoDB Compass interface. On the left, the sidebar displays the connection 'labcluster.ew0tjj.mongodb.net' and the database 'Company'. The main pane shows the results of a MongoDB query. The query is:

```
> db.employee.find({ position: "Product Manager", experience: { $gt: 3, $lt: 5 } })
```

```
At the bottom of the results pane, it says 'Atlas atlas-nomr19-shard-0 [primary] Company>'.
```

10.

```
db.employee.find({  
  $or: [  
    { salary: { $gte: 80000, $lte: 100000 } },  
    { experience: { $gt: 4 } }  
  ]  
})
```



The screenshot shows the MongoDB Compass interface. On the left, the 'Connections' sidebar lists 'labccluster.ew0tjj.mongodb.net' with its databases: Company, admin, config, and local. The 'Company' database is selected. In the main panel, a query is being run against the 'employee' collection:

```
_MONGOSH
> db.employee.find({
  $or: [
    { salary: { $gte: 80000, $lte: 100000 } },
    { experience: { $gt: 4 } }
  ]
})
```

The results show five documents, each representing an employee with their name, position, salary, and experience:

- Jane Smith**: Product Manager, salary 80000, experience 5
- Alice Johnson**: Data Scientist, salary 90000, experience 4
- Robert Brown**: Software Engineer, salary 80000, experience 2
- James White**: Product Manager, salary 95000, experience 4
- Patricia Green**: Data Scientist, salary 85000, experience 5

At the bottom right of the interface, there is a watermark: 'Activate Windows Go to Settings to activate Windows.'

11.

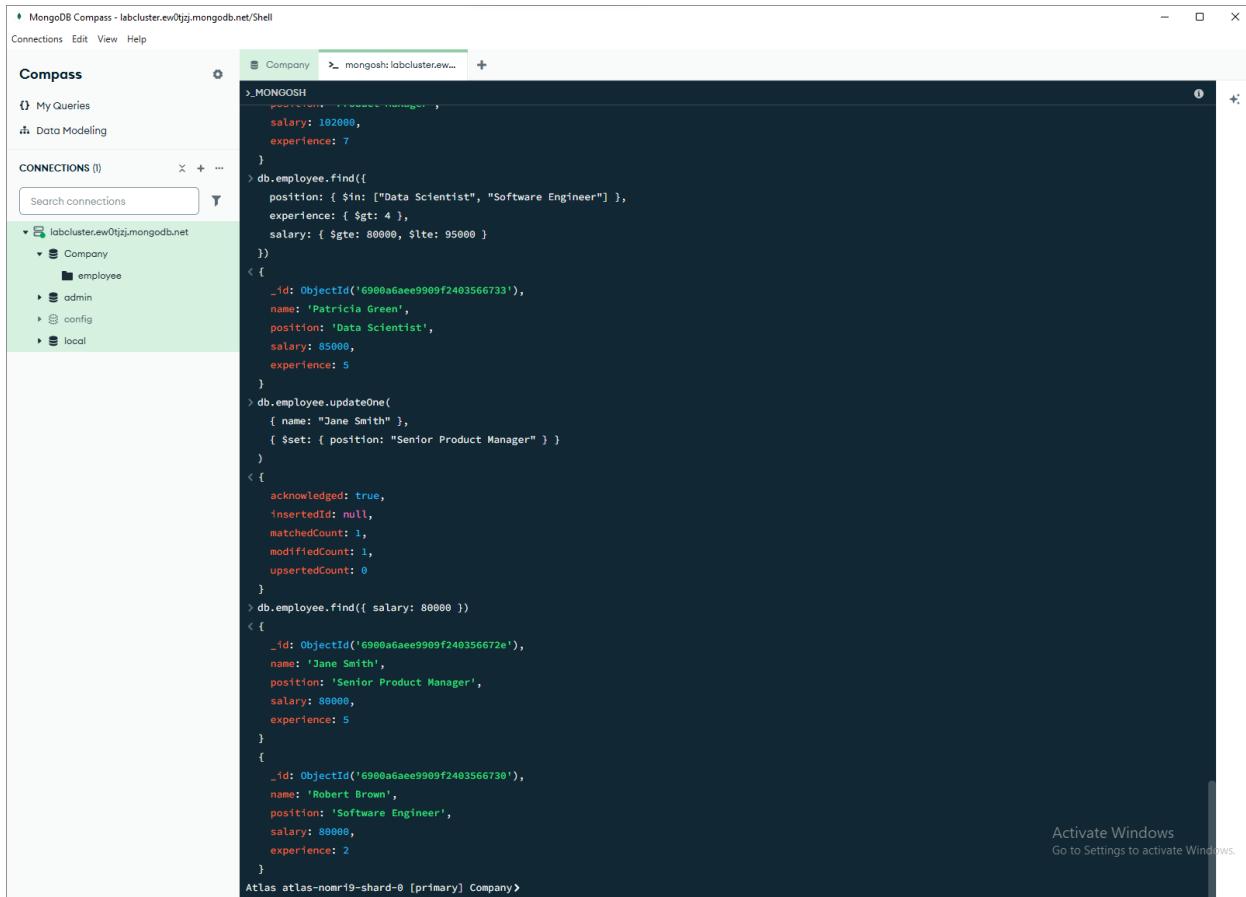
```
db.employee.find({
  position: { $in: ["Data Scientist", "Software Engineer"] },
  experience: { $gt: 4 },
  salary: { $gte: 80000, $lte: 95000 }
})
```

12.

```
db.employee.updateOne(
  { name: "Jane Smith" },
  { $set: { position: "Senior Product Manager" } }
)
```

13.

db.employee.find({ salary: 80000 })



The screenshot shows the MongoDB Compass interface. On the left, the 'Connections' sidebar lists 'labcluster.ew0tjj.mongodb.net' with its 'Company' database selected. The main pane displays the results of the MongoDB shell command:

```
> db.employee.find({  
    salary: 80000  
})  
< [  
  {  
    _id: ObjectId('6900a6aee9909f2403566733'),  
    name: 'Patricia Green',  
    position: 'Data Scientist',  
    salary: 85000,  
    experience: 5  
  },  
  {  
    _id: ObjectId('6900a6aee9909f240356672e'),  
    name: 'Jane Smith',  
    position: 'Senior Product Manager',  
    salary: 80000,  
    experience: 5  
  },  
  {  
    _id: ObjectId('6900a6aee9909f2403566730'),  
    name: 'Robert Brown',  
    position: 'Software Engineer',  
    salary: 80000,  
    experience: 2  
}  
]
```

At the bottom right of the interface, there is a watermark: "Activate Windows Go to Settings to activate Windows."