

Assignment-13

EMR Connection for First Terminal

```
(base) sailavanyanarthu@Sailavanyas-Air ~ % cd downloads
(base) sailavanyanarthu@Sailavanyas-Air downloads % cd Assignment13
(base) sailavanyanarthu@Sailavanyas-Air Assignment13 % chmod 400 keypairAssign13.pem
(base) sailavanyanarthu@Sailavanyas-Air Assignment13 % ssh -i keypairAssign13.pem hadoop@ec2-18-220-130-139.us-east-2.compute.amazonaws.com
The authenticity of host 'ec2-18-220-130-139.us-east-2.compute.amazonaws.com (18.220.130.139)' can't be established.
ED25519 key fingerprint is SHA256:pz/FwkBoED50ZjWYx0uh3LZPVoRkmBTESXGT0TAlhs.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-18-220-130-139.us-east-2.compute.amazonaws.com' (ED25519) to the list of known hosts.
```

```
#-# Amazon Linux 2
~_/_#####\
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~~ \###\  
~~ \|/\ 
    V^' ^--> AL2 End of Life is 2025-06-30.

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      /-----> A newer version of Amazon Linux is available!

~~~~_\_/_____\_/_____
     _/m/'_____ Amazon Linux 2023, GA and supported until 2028-03-15.
                        https://aws.amazon.com/linux/amazon-linux-2023/
```

[illegible]

Step-B

[illegible]

Step-C

Init-Term

```
[[hadoop@ip-172-31-14-108 ~]$ sudo cp mongodb-org-4.2.repo /etc/yum.repos.d
[[hadoop@ip-172-31-14-108 ~]$ tar -xvf mongoex.tar
./._demo1.js
demo1.js
demo2.js
demo3.js
demo4.js
demo5.js
demo6.js
demo7.js
demo8.js
demo9.js
load.js
```

Step-D

```
[hadoop@ip-172-31-14-108 ~]$ sudo yum install -y mongodb-org-4.2.15 mongodb-org-server-4.2.15 mongodb-org-shell-4.2.15 mongodb-org-mongos-4.2.15 mongodb-org-tools-4.2.15
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                                | 3.4 kB 00:00:00
mongodb-org-4.2                           | 1.3 kB 00:00:00
mongodb-org-4.2/primary                    | 18 kB 00:00:00
-----
14 packages excluded due to repository priority protections
Resolving Dependencies
--> Running transaction check
--> Package mongodb-org.x86_64 0:4.2.15-1.amzn1 will be installed
--> Package mongodb-org-mongos.x86_64 0:4.2.15-1.amzn1 will be installed
--> Package mongodb-org-server.x86_64 0:4.2.15-1.amzn1 will be installed
--> Package mongodb-org-shell.x86_64 0:4.2.15-1.amzn1 will be installed
--> Package mongodb-org-tools.x86_64 0:4.2.15-1.amzn1 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                               Arch                               Version                               Repository                               Size
=====
Installing:
mongodb-org                           x86_64                             4.2.15-1.amzn1                       mongodb-org-4.2                           6.0 k
mongodb-org-mongos                    x86_64                             4.2.15-1.amzn1                       mongodb-org-4.2                           15 M
mongodb-org-server                    x86_64                             4.2.15-1.amzn1                       mongodb-org-4.2                           26 M
mongodb-org-shell                     x86_64                             4.2.15-1.amzn1                       mongodb-org-4.2                           17 M
mongodb-org-tools                     x86_64                             4.2.15-1.amzn1                       mongodb-org-4.2                           32 M
=====

Transaction Summary
-----
Install 5 Packages

Total download size: 89 M
Installed size: 252 M
Downloading packages:
warning: /mnt/var/cache/yum/x86_64/2/mongodb-org-4.2/packages/mongodb-org-4.2.15-1.amzn1.x86_64.rpm: Header V3 RSA/SHA1 Signature, key ID 058f8b6b: NOKEY
Public key for mongodb-org-4.2.15-1.amzn1.x86_64.rpm is not installed
(1/5): mongodb-org-4.2.15-1.amzn1.x86_64.rpm                                | 6.0 kB 00:00:00
(2/5): mongodb-org-mongos-4.2.15-1.amzn1.x86_64.rpm                       | 15 MB 00:00:00
(3/5): mongodb-org-server-4.2.15-1.amzn1.x86_64.rpm                       | 26 MB 00:00:00
(4/5): mongodb-org-shell-4.2.15-1.amzn1.x86_64.rpm                       | 17 MB 00:00:00
(5/5): mongodb-org-tools-4.2.15-1.amzn1.x86_64.rpm                       | 32 MB 00:00:00
-----
Total                                                                           78 MB/s | 89 MB 00:00:01
Retrieving key from https://www.mongodb.org/static/pgp/server-4.2.asc
Importing GPG key 0x058f8b6b:
Userid : "MongoDB 4.2 Release Signing Key <packaging@mongodb.com>"
Fingerprint: e162 f604 a20c df15 827f 718d 4b7c 549a 058f 8b6b
From : https://www.mongodb.org/static/pgp/server-4.2.asc
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : mongodb-org-shell-4.2.15-1.amzn1.x86_64                                1/5
Installing : mongodb-org-mongos-4.2.15-1.amzn1.x86_64                             2/5
Installing : mongodb-org-tools-4.2.15-1.amzn1.x86_64                             3/5
Installing : mongodb-org-server-4.2.15-1.amzn1.x86_64                             4/5
Installing : mongodb-org-4.2.15-1.amzn1.x86_64                                    5/5
Verifying : mongodb-org-4.2.15-1.amzn1.x86_64                                    1/5

Running transaction
Installing : mongodb-org-shell-4.2.15-1.amzn1.x86_64                                1/5
Installing : mongodb-org-mongos-4.2.15-1.amzn1.x86_64                             2/5
Installing : mongodb-org-tools-4.2.15-1.amzn1.x86_64                             3/5
Installing : mongodb-org-server-4.2.15-1.amzn1.x86_64                             4/5
Installing : mongodb-org-4.2.15-1.amzn1.x86_64                                    5/5
Verifying : mongodb-org-4.2.15-1.amzn1.x86_64                                    1/5
Verifying : mongodb-org-server-4.2.15-1.amzn1.x86_64                             2/5
Verifying : mongodb-org-tools-4.2.15-1.amzn1.x86_64                             3/5
Verifying : mongodb-org-mongos-4.2.15-1.amzn1.x86_64                             4/5
Verifying : mongodb-org-shell-4.2.15-1.amzn1.x86_64                             5/5

Installed:
mongodb-org.x86_64 0:4.2.15-1.amzn1 mongodb-org-mongos.x86_64 0:4.2.15-1.amzn1 mongodb-org-server.x86_64 0:4.2.15-1.amzn1 mongodb-org-shell.x86_64 0:4.2.15-1.amzn1 mongodb-org-tools.x86_64 0:4.2.15-1.amzn1

Complete!
[hadoop@ip-172-31-14-108 ~]$ sudo systemctl start mongod
[hadoop@ip-172-31-14-108 ~]$ █
```

Step-E
EMR Connection for Second Terminal - CLI-Term

```
((base) sailavanyanarthu@Sailavanyas-Air Assignment13 % chmod 400 keypairAssign13.pem
((base) sailavanyanarthu@Sailavanyas-Air Assignment13 % ssh -i keypairAssign13.pem hadoop@ec2-18-220-130-139.us-east-2.compute.amazonaws.com
Last login: Wed Dec 6 18:31:48 2023

      #_
    _\_\_ #####_
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  ~~~~  \####|
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  ~~~~ _/m/'

Amazon Linux 2

AL2 End of Life is 2025-06-30.

A newer version of Amazon Linux is available!

Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/
```

26 package(s) needed for security, out of 47 available
Run "sudo yum update" to apply all updates.

EEEEEEEEEEEEEEEEEEEE MMMMMMM MMMMMMM RRRRRRRRRRRRRR
E:::::::::::::::::E M:::MM M:::MM R::::::::::::R
EE::::::::EEEEEEEE::E M:::MM M:::MM R:::RRRRR:::R
E:::E EEEEE M:::MM M:::MM RR:::R R:::R
E:::E M:::MM M:::MM M:::MM R:::R R:::R
E:::EEEEEEEE M:::M M:::M M:::M R:::RRRRR:::R
E::::::::::::E M:::MM M:::MM M:::MM R:::::::::RR
E:::EEEEEEEE M:::MM M:::MM M:::MM R:::RRRRR:::R
E:::E M:::MM M:::M M:::M R:::R R:::R
E:::E EEEEE M:::MM MMM M:::MM R:::R R:::R
EE::::::::EEEEEEEE::E M:::MM M:::MM R:::R R:::R
E:::::::::::::::::E M:::MM M:::MM RR:::R R:::R
EEEEEEEEEEEEEEEEEEEE MMMMMMM MMMMMMM RRRRRRR RRRRRR

Step-G

```
[hadoop@ip-172-31-14-108 ~]$ mongo
MongoDB shell version v4.2.15
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("e73f6824-18e8-4814-826e-9cea33d21661") }
MongoDB server version: 4.2.15
Welcome to the MongoDB shell.
For interactive help, type "help".
For more comprehensive documentation, see
  https://docs.mongodb.com/
Questions? Try the MongoDB Developer Community Forums
  https://community.mongodb.com
Server has startup warnings:
2023-12-06T18:35:04.882+0000 I CONTROL [initandlisten]
2023-12-06T18:35:04.882+0000 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2023-12-06T18:35:04.882+0000 I CONTROL [initandlisten] **           Read and write access to data and configuration is unrestricted.
2023-12-06T18:35:04.882+0000 I CONTROL [initandlisten]
---
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()
---
```

```
> use assignment;
```

```
[> use assignment;
switched to db assignment
```

```
> load('./load.js');
true
> db.unicorns.find();
{ "_id" : ObjectId("6570c00c38f1aa4336602054"), "name" : "Horny", "dob" : ISODate("1992-03-13T07:47:00Z"), "loves" : [ "carrot", "papaya" ], "weight" : 600, "gender" : "m", "vampires" : 63 }
{ "_id" : ObjectId("6570c00c38f1aa4336602055"), "name" : "Aurora", "dob" : ISODate("1991-01-24T13:00:00Z"), "loves" : [ "carrot", "grape" ], "weight" : 450, "gender" : "f", "vampires" : 43 }
{ "_id" : ObjectId("6570c00c38f1aa4336602056"), "name" : "Unicrom", "dob" : ISODate("1973-02-09T22:10:00Z"), "loves" : [ "energon", "redbull" ], "weight" : 984, "gender" : "m", "vampires" : 182 }
{ "_id" : ObjectId("6570c00c38f1aa4336602057"), "name" : "Rooooooodles", "dob" : ISODate("1979-08-18T18:44:00Z"), "loves" : [ "apple" ], "weight" : 575, "gender" : "m", "vampires" : 99 }
{ "_id" : ObjectId("6570c00c38f1aa4336602058"), "name" : "Solnara", "dob" : ISODate("1985-07-04T02:01:00Z"), "loves" : [ "apple", "carrot", "chocolate" ], "weight" : 590, "gender" : "f", "vampires" : 80 }
{ "_id" : ObjectId("6570c00c38f1aa4336602059"), "name" : "Ayna", "dob" : ISODate("1998-03-07T08:30:00Z"), "loves" : [ "strawberry", "lemon" ], "weight" : 733, "gender" : "f", "vampires" : 40 }
{ "_id" : ObjectId("6570c00c38f1aa433660205a"), "name" : "Kenny", "dob" : ISODate("1997-07-01T10:42:00Z"), "loves" : [ "grape", "lemon" ], "weight" : 690, "gender" : "m", "vampires" : 39 }
{ "_id" : ObjectId("6570c00c38f1aa433660205b"), "name" : "Raleigh", "dob" : ISODate("2005-05-03T00:57:00Z"), "loves" : [ "apple", "sugar" ], "weight" : 421, "gender" : "m", "vampires" : 2 }
{ "_id" : ObjectId("6570c00c38f1aa433660205c"), "name" : "Leia", "dob" : ISODate("2001-10-08T14:53:00Z"), "loves" : [ "apple", "watermelon" ], "weight" : 601, "gender" : "f", "vampires" : 33 }
{ "_id" : ObjectId("6570c00c38f1aa433660205d"), "name" : "Pilot", "dob" : ISODate("1997-03-01T05:03:00Z"), "loves" : [ "apple", "watermelon" ], "weight" : 650, "gender" : "m", "vampires" : 54 }
{ "_id" : ObjectId("6570c00c38f1aa433660205e"), "name" : "Nimue", "dob" : ISODate("1999-12-20T16:15:00Z"), "loves" : [ "grape", "carrot" ], "weight" : 540, "gender" : "f" }
{ "_id" : ObjectId("6570c00c38f1aa433660205f"), "name" : "Dunx", "dob" : ISODate("1976-07-18T18:18:00Z"), "loves" : [ "grape", "watermelon" ], "weight" : 704, "gender" : "m", "vampires" : 165 }
```

```
[> load('./demo1.js');
true
```

Exercise-1

```
db.unicorns.find({weight:{$lt:500}})
```

```
> db.unicorns.find({weight:{$lt:500}})
{ "_id" : ObjectId("6570c00c38f1aa4336602055"), "name" : "Aurora", "dob" : ISODate("1991-01-24T13:00:00Z"), "loves" : [ "carrot", "grape" ], "weight" : 450, "gender" : "f", "vampires" : 43 }
{ "_id" : ObjectId("6570c00c38f1aa433660205b"), "name" : "Raleigh", "dob" : ISODate("2005-05-03T00:57:00Z"), "loves" : [ "apple", "sugar" ], "weight" : 421, "gender" : "m", "vampires" : 2 }
```

Exercise-2

db.unicorns.find({loves:"apple"})

```
> db.unicorns.find({loves:"apple"})
{ "_id" : ObjectId("6570c00c38f1aa4336602057"), "name" : "Rooodoodles", "dob" : ISODate("1979-08-18T18:44:00Z"), "loves" : [ "apple" ], "weight" : 575, "gender" : "m", "vampires" : 99 }
{ "_id" : ObjectId("6570c00c38f1aa4336602058"), "name" : "Solnara", "dob" : ISODate("1985-07-04T02:01:00Z"), "loves" : [ "apple", "carrot", "chocolate" ], "weight" : 550, "gender" : "f", "vampires" : 80 }
{ "_id" : ObjectId("6570c00c38f1aa433660205b"), "name" : "Raleigh", "dob" : ISODate("2005-05-03T00:57:00Z"), "loves" : [ "apple", "sugar" ], "weight" : 421, "gender" : "m", "vampires" : 2 }
{ "_id" : ObjectId("6570c00c38f1aa433660205c"), "name" : "Leia", "dob" : ISODate("2001-10-08T14:53:00Z"), "loves" : [ "apple", "watermelon" ], "weight" : 601, "gender" : "f", "vampires" : 33 }
{ "_id" : ObjectId("6570c00c38f1aa433660205d"), "name" : "Pilot", "dob" : ISODate("1997-03-01T05:03:00Z"), "loves" : [ "apple", "watermelon" ], "weight" : 650, "gender" : "m", "vampires" : 54 }
```

Exercise-3

db.unicorns.insertOne({name:"Malini", dob:"2008-03-11", loves:["pears",
"grapes"], weight:450, gender:"F", vampires:23, horns:1})
db.unicorns.find({name:"Malini"})

```
> db.unicorns.insertOne({name:"Malini",dob:"2008-03-11",loves:["pears","grapes"],weight:450,gender:"F",vampires:23,horns:1})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("6570c11a38f1aa4336602061")
}
> db.unicorns.find({name:"Malini"})
{ "_id" : ObjectId("6570c11a38f1aa4336602061"), "name" : "Malini", "dob" : "2008-03-11", "loves" : [ "pears", "grapes" ], "weight" : 450, "gender" : "F", "vampires" : 23, "horns" : 1 }
```

Exercise-4

db.unicorns.updateOne({name:"Malini"}, {\$set:{loves:["pears", "grapes",
"apricots"]}})
db.unicorns.find({name:"Malini"})

```
> db.unicorns.updateOne({name:"Malini"},{$set:{loves:["pears","grapes","apricots"]}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.unicorns.find({name:"Malini"})
{ "_id" : ObjectId("6570c11a38f1aa4336602061"), "name" : "Malini", "dob" : "2008-03-11", "loves" : [ "pears", "grapes", "apricots" ], "weight" : 450, "gender" : "F", "vampires" : 23, "horns" : 1 }
```

Exercise-5

db.unicorns.deleteMany({weight:{\$gt:600}})
db.unicorns.find({weight:{\$gt:600}})

```
[> db.unicorns.deleteMany({weight:{$gt:600}})
{ "acknowledged" : true, "deletedCount" : 6 }
[> db.unicorns.find({weight:{$gt:600}})
> █
```

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