

Installing MongoDB Community Version in Amazon EC2 Instance for Windows user

Prerequisite:

- Make sure you have set up MyIP in your instance's inbound security group.
- Open the PUTTY and connect to your EC2 instance.
- Run the following command to apply any available updates.

```
sudo yum update
```

```
ec2-user@ip-172-31-16-53:~$ sudo yum update
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.7 kB 00:00:00
Resolving Dependencies
--> Running transaction check
--> Package chrony.x86_64 0:3.2-1.amzn2.0.5 will be updated
--> Package chrony.x86_64 0:3.5.1-1.amzn2.0.1 will be an update
--> Processing Dependency: libnettle.so.4()(64bit) for package: chrony-3.5.1-1.amzn2.0.1.x86_64
--> Package cloud-init.noarch 0:19.3-3.amzn2 will be updated
--> Package cloud-init.noarch 0:19.3-4.amzn2 will be an update
--> Package pll-kit.x86_64 0:0.23.21-2.amzn2.0.1 will be updated
--> Package pll-kit.x86_64 0:0.23.22-1.amzn2.0.1 will be an update
--> Package pll-kit-trust.x86_64 0:0.23.21-2.amzn2.0.1 will be updated
--> Package pll-kit-trust.x86_64 0:0.23.22-1.amzn2.0.1 will be an update
--> Package tzdata.noarch 0:2020a-1.amzn2 will be updated
--> Package tzdata.noarch 0:2020d-2.amzn2 will be an update
--> Running transaction check
--> Package nettle.x86_64 0:2.7.1-8.amzn2.0.2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package Arch Version Repository Size
=====
Updating:
chrony x86_64 3.5.1-1.amzn2.0.1 amzn2-core 258 k
cloud-init noarch 19.3-4.amzn2 amzn2-core 924 k
pll-kit x86_64 0.23.22-1.amzn2.0.1 amzn2-core 321 k
pll-kit-trust x86_64 0.23.22-1.amzn2.0.1 amzn2-core 130 k
```

Once you hit enter;after some time,terminal will ask - "Is this ok [y/d/N]"

You need to type **y**

```
upGrad - 2.4 M
Total download size: 2.4 M
Is this ok [y/d/N]:
```

- In the next step, create a `/etc/yum.repos.d/mongodb-org-4.4.repo` file .
This will ensure that you can install MongoDB directly using yum:

Command :- `sudo vi /etc/yum.repos.d/mongodb-org-4.4.repo`

```
ec2-user@ip-172-31-16-53:~
Using username "ec2-user".
Authenticating with public key "imported-openssh-key"

  ____  |  ____  |
 _  _/  |  ____  | /   Amazon Linux 2 AMI
|  _ \|  |  ____  |
|  _ \|  |  ____  |

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-16-53 ~]$ sudo vi /etc/yum.repos.d/mongodb-org-4.4.repo
```

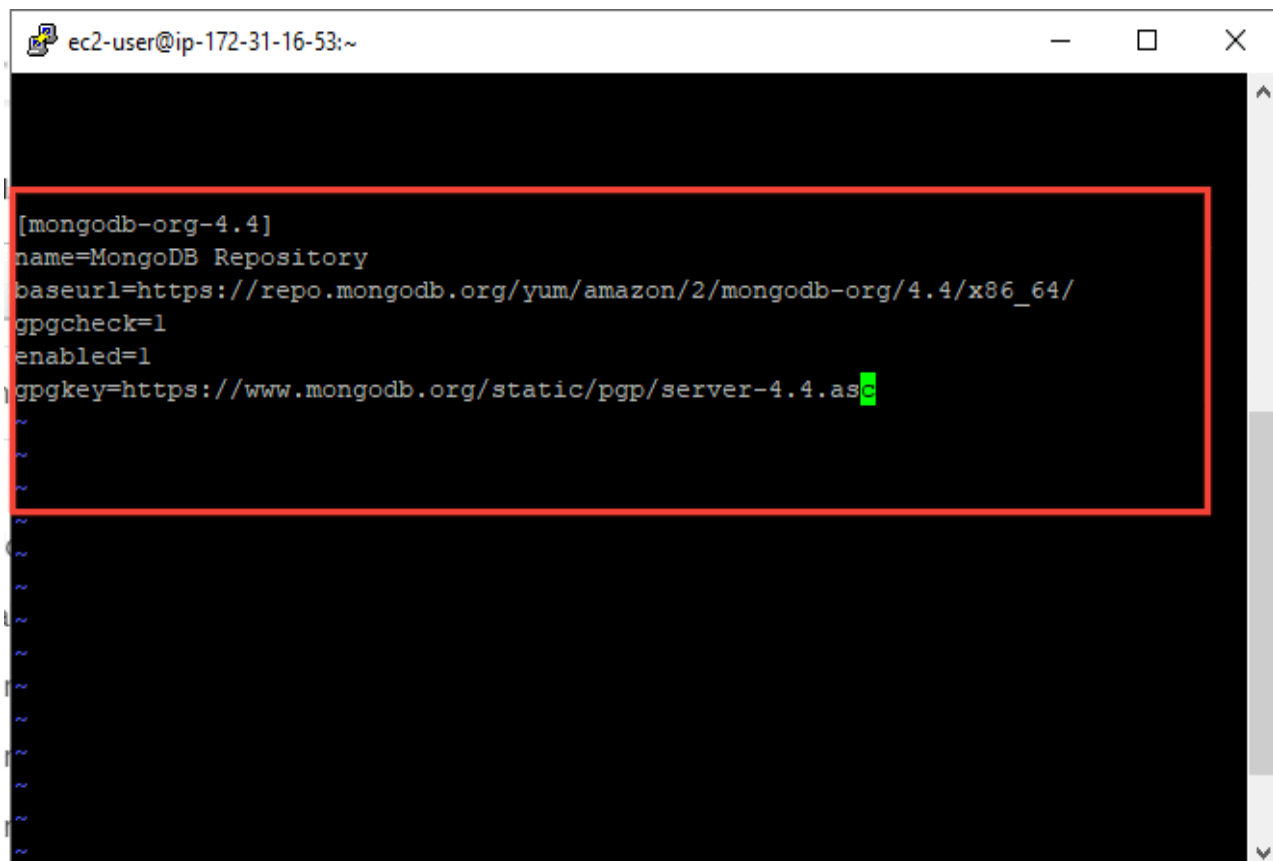
Hit “Enter” and to enter the editing mode, press **i** on the keyboard.

As soon as you do that , you would be able to see ‘~~INSERT’ in the bottom of the terminal.



- Copy paste the below command in the Putty terminal.

```
[mongodb-org-4.4]
name=MongoDB Repository
baseurl=https://repo.mongodb.org/yum/amazon/2/mongodb-org/4.4/x86_64/
gpgcheck=1
enabled=1
gpgkey=https://www.mongodb.org/static/pgp/server-4.4.asc
```



```
ec2-user@ip-172-31-16-53:~
[mongodb-org-4.4]
name=MongoDB Repository
baseurl=https://repo.mongodb.org/yum/amazon/2/mongodb-org/4.4/x86_64/
gpgcheck=1
enabled=1
gpgkey=https://www.mongodb.org/static/pgp/server-4.4.asc
~
~
~
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~
```

- To exit the vi editor-
 - a. Press **Escape** on your keyboard.
 - b. Type the **write-quit** command - **:wq!**
 - c. If you don't wish to save the changes, type **quit** command - **:q!**
 - d. Hit Enter

[illegible]

- To install the latest stable version of MongoDB, issue the following command:
`sudo yum install -y mongodb-org`

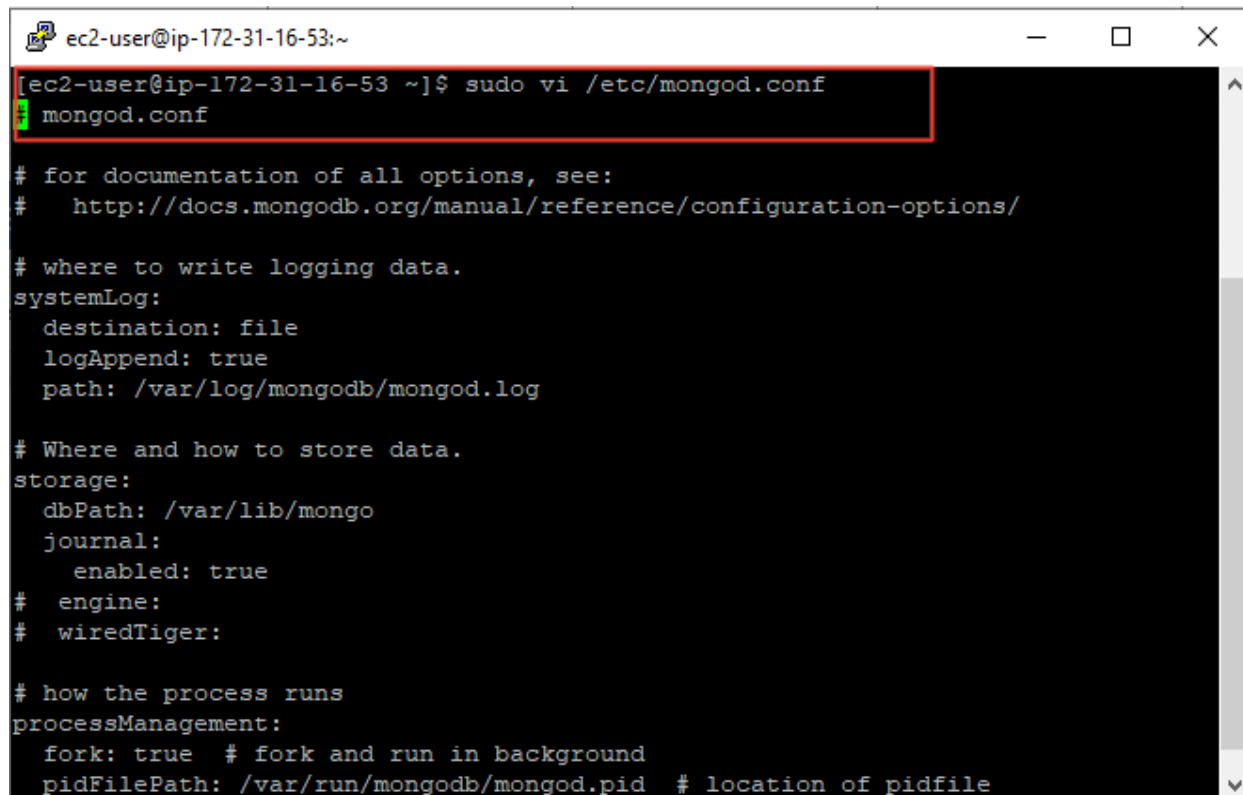
```
ec2-user@ip-172-31-16-53:~  
Using username "ec2-user".  
Authenticating with public key "imported-openssh-key"  
  
  _ | _ | _ )  
  _ | ( _ | _ /   Amazon Linux 2 AMI  
  __| \__| __|  
  
https://aws.amazon.com/amazon-linux-2/  
[ec2-user@ip-172-31-16-53 ~]$ sudo vi /etc/yum.repos.d/mongodb-org-4.4.repo  
[ec2-user@ip-172-31-16-53 ~]$ sudo yum install -y mongodb-org
```

- Once finished, “completed” message should be displayed.

```
ec2-user@ip-172-31-16-53:~  
Installing : mongodb-org-shell-4.4.3-1.amzn2.x86_64 3/9  
Installing : cyrus-sasl-2.1.26-23.amzn2.x86_64 4/9  
Installing : mongodb-database-tools-100.2.1-1.x86_64 5/9  
Installing : mongodb-org-database-tools-extra-4.4.3-1.amzn2.x86_64 6/9  
Installing : mongodb-org-tools-4.4.3-1.amzn2.x86_64 7/9  
Installing : mongodb-org-server-4.4.3-1.amzn2.x86_64 8/9  
Created symlink from /etc/systemd/system/multi-user.target.wants/mongod.service  
to /usr/lib/systemd/system/mongod.service.  
Installing : mongodb-org-4.4.3-1.amzn2.x86_64 9/9  
Verifying : mongodb-org-4.4.3-1.amzn2.x86_64 1/9  
Verifying : mongodb-org-server-4.4.3-1.amzn2.x86_64 2/9  
Verifying : mongodb-org-database-tools-extra-4.4.3-1.amzn2.x86_64 3/9  
Verifying : cyrus-sasl-2.1.26-23.amzn2.x86_64 4/9  
Verifying : mongodb-org-shell-4.4.3-1.amzn2.x86_64 5/9  
Verifying : mongodb-org-tools-4.4.3-1.amzn2.x86_64 6/9  
Verifying : cyrus-sasl-gssapi-2.1.26-23.amzn2.x86_64 7/9  
Verifying : mongodb-database-tools-100.2.1-1.x86_64 8/9  
Verifying : mongodb-org-mongos-4.4.3-1.amzn2.x86_64 9/9  
Installed:  
  mongodb-org.x86_64 0:4.4.3-1.amzn2  
Dependency Installed:  
  cyrus-sasl.x86_64 0:2.1.26-23.amzn2  
  cyrus-sasl-gssapi.x86_64 0:2.1.26-23.amzn2  
  mongodb-database-tools.x86_64 0:100.2.1-1  
  mongodb-org-database-tools-extra.x86_64 0:4.4.3-1.amzn2  
  mongodb-org-mongos.x86_64 0:4.4.3-1.amzn2  
  mongodb-org-server.x86_64 0:4.4.3-1.amzn2  
  mongodb-org-shell.x86_64 0:4.4.3-1.amzn2  
  mongodb-org-tools.x86_64 0:4.4.3-1.amzn2  
Complete!  
[ec2-user@ip-172-31-16-53 ~]$
```

- To connect to this MongoDB instance from anywhere, you need to modify the config file. This will open MongoDB port [27017] for all IPs

Command for modifying config files- `sudo vi /etc/mongod.conf`

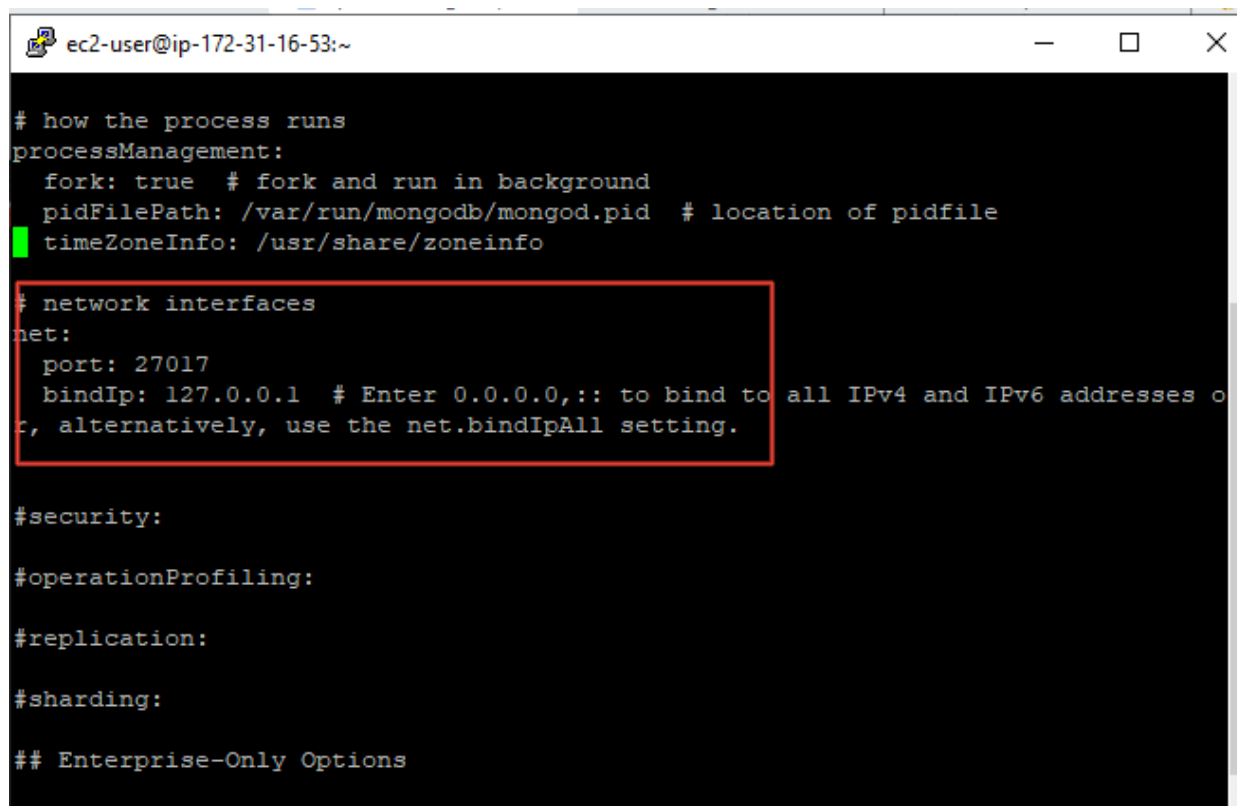


```
ec2-user@ip-172-31-16-53:~  
[ec2-user@ip-172-31-16-53 ~]$ sudo vi /etc/mongod.conf  
mongod.conf  
  
# for documentation of all options, see:  
#   http://docs.mongodb.org/manual/reference/configuration-options/  
  
# where to write logging data.  
systemLog:  
  destination: file  
  logAppend: true  
  path: /var/log/mongodb/mongod.log  
  
# Where and how to store data.  
storage:  
  dbPath: /var/lib/mongo  
  journal:  
    enabled: true  
# engine:  
# wiredTiger:  
  
# how the process runs  
processManagement:  
  fork: true # fork and run in background  
  pidFilePath: /var/run/mongodb/mongod.pid # location of pidfile
```

- Hit “Enter” and to enter the editing mode, press **i** on the keyboard. As soon as you do that , you would be able to see ‘~~INSERT’ in the bottom of the terminal.

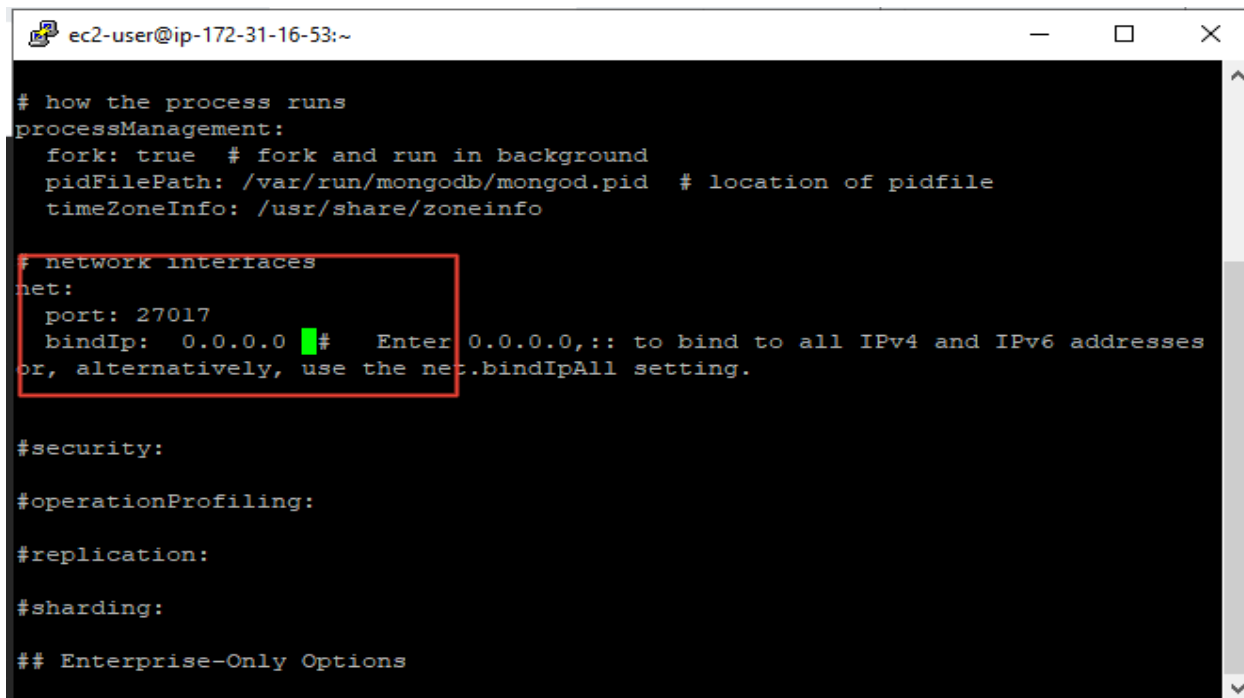


- Scroll down and come to **bindIp** in **network interfaces**

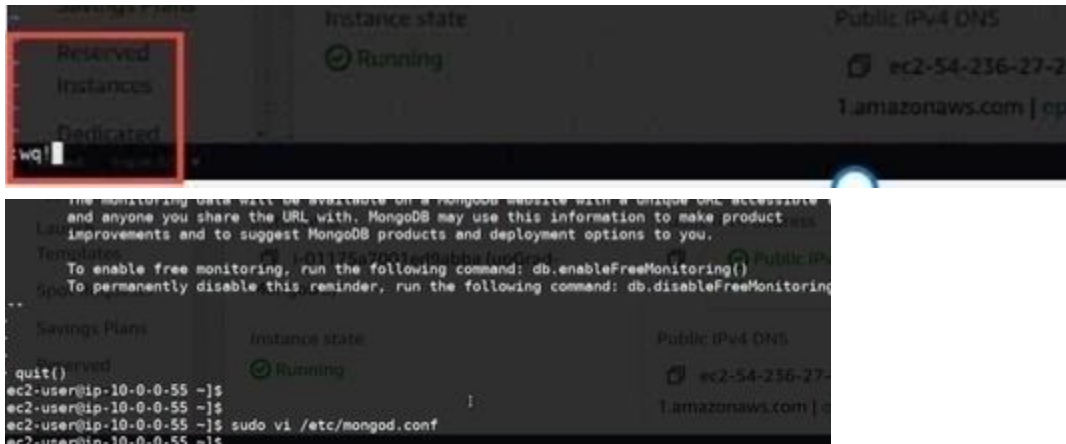


```
ec2-user@ip-172-31-16-53:~  
  
# how the process runs  
processManagement:  
  fork: true # fork and run in background  
  pidFilePath: /var/run/mongodb/mongod.pid # location of pidfile  
  timeZoneInfo: /usr/share/zoneinfo  
  
# network interfaces  
net:  
  port: 27017  
  bindIp: 127.0.0.1 # Enter 0.0.0.0,:: to bind to all IPv4 and IPv6 addresses o  
r, alternatively, use the net.bindIpAll setting.  
  
#security:  
  
#operationProfiling:  
  
#replication:  
  
#sharding:  
  
## Enterprise-Only Options
```


- Change the **bindIp** address from **127.0.0.1** to **0.0.0.0** .To exit the vi editor-
 - Press **Escape** on your keyboard.
 - Type the **write-quit** command - **:wq!**
 - If you don't wish to save the changes, type **quit** command - **:q!**
 - Hit Enter



```
ec2-user@ip-172-31-16-53:~  
  
# how the process runs  
processManagement:  
  fork: true # fork and run in background  
  pidFilePath: /var/run/mongodb/mongod.pid # location of pidfile  
  timeZoneInfo: /usr/share/zoneinfo  
  
# network interfaces  
net:  
  port: 27017  
  bindIp: 0.0.0.0 # Enter 0.0.0.0, :: to bind to all IPv4 and IPv6 addresses  
or, alternatively, use the net.bindIpAll setting.  
  
#security:  
  
#operationProfiling:  
  
#replication:  
  
#sharding:  
  
## Enterprise-Only Options
```



- Now go to your AWS instance and select your instance . Go to **Security Groups** and click on the **Security Group** name.

upGrad-Mon... i-099beba194aac7220 Running t2.micro 2/2 checks ... No alarms

Instance: i-099beba194aac7220 (upGrad-MongoDB)

Details **Security** Networking Storage Status checks Monitoring Tags

▼ Security details

IAM Role	Owner ID	Launch time
-	911268508883	Fri Feb 05 2021 12:03:11 GMT+05: Standard Time)

Security groups

sg-0c8923349f7cb2cba (mongo-db-security-

upGrad-Mon... i-099beba194aac7220 Running t2.micro 2/2 checks ... No

▼ Security details

IAM Role	Owner ID	Launch time
-	911268508883	Thu Feb 04 2021 18:39:0 Standard Time)

Security groups

sg-0c8923349f7cb2cba (mongo-db-security-group)

▼ Inbound rules

- Select **Inbound rules** and click on **Edit inbound rules**.

sg-0c8923349f7cb2cba - mongo-db-security-group

Actions ▼

Details

Security group name

🔗 mongo-db-security-group

Security group ID

🔗 sg-0c8923349f7cb2cba

Description

🔗 This is for the mongoDB server

VPC ID

🔗 vpc-0746afceb9aaaa6ee 🔗

Owner

🔗 911268508883

Inbound rules count

2 Permission entries

Outbound rules count

1 Permission entry

Inbound rules

Outbound rules

Tags

Inbound rules

Edit inbound rules

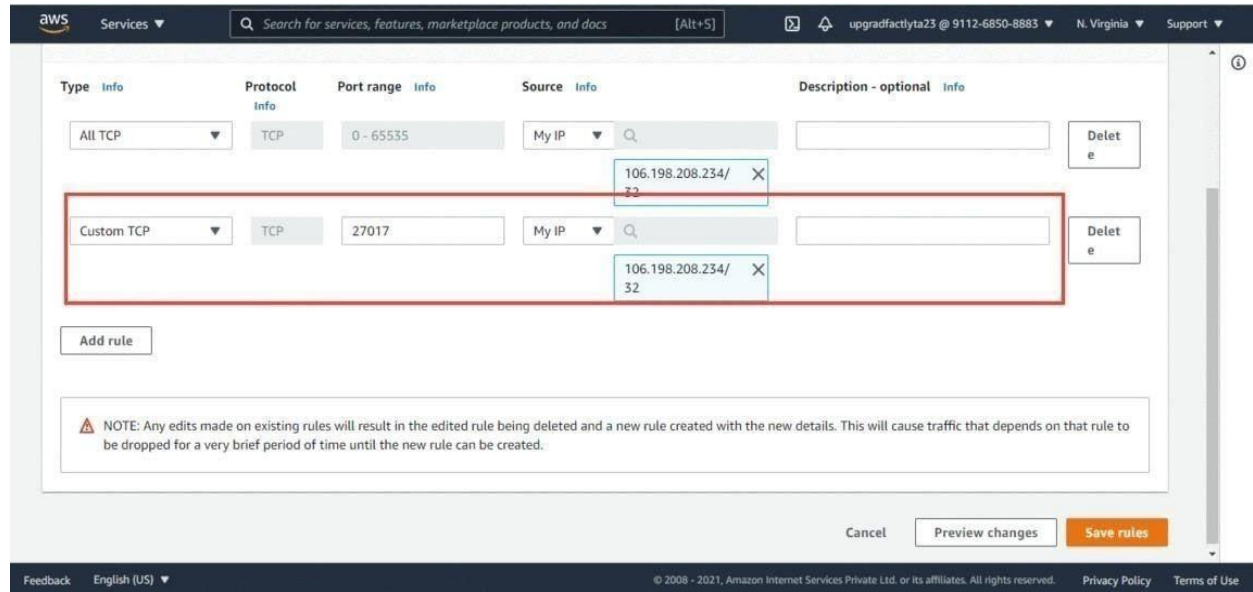
Type	Protocol	Port range	Source	Description - optional
All TCP	TCP	0 - 65535	132.154.85.133/32	-

- Click on Add Rules and input below details-

Type- Custom TCP

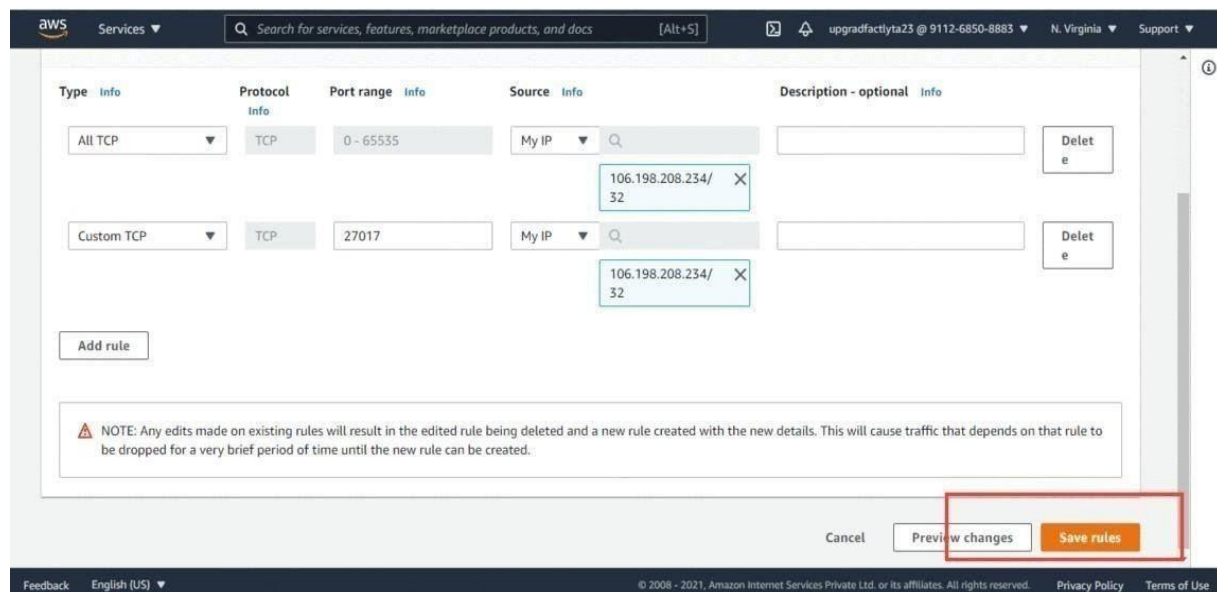
Port Range- 27017

Source - My IP (Select it from the drop down)



The screenshot shows the AWS IAM console 'Add rule' dialog. The dialog is divided into columns: Type, Protocol, Port range, Source, and Description. The 'Custom TCP' rule is highlighted with a red box. The 'Add rule' button is at the bottom left. A note at the bottom states: 'NOTE: Any edits made on existing rules will result in the edited rule being deleted and a new rule created with the new details. This will cause traffic that depends on that rule to be dropped for a very brief period of time until the new rule can be created.'

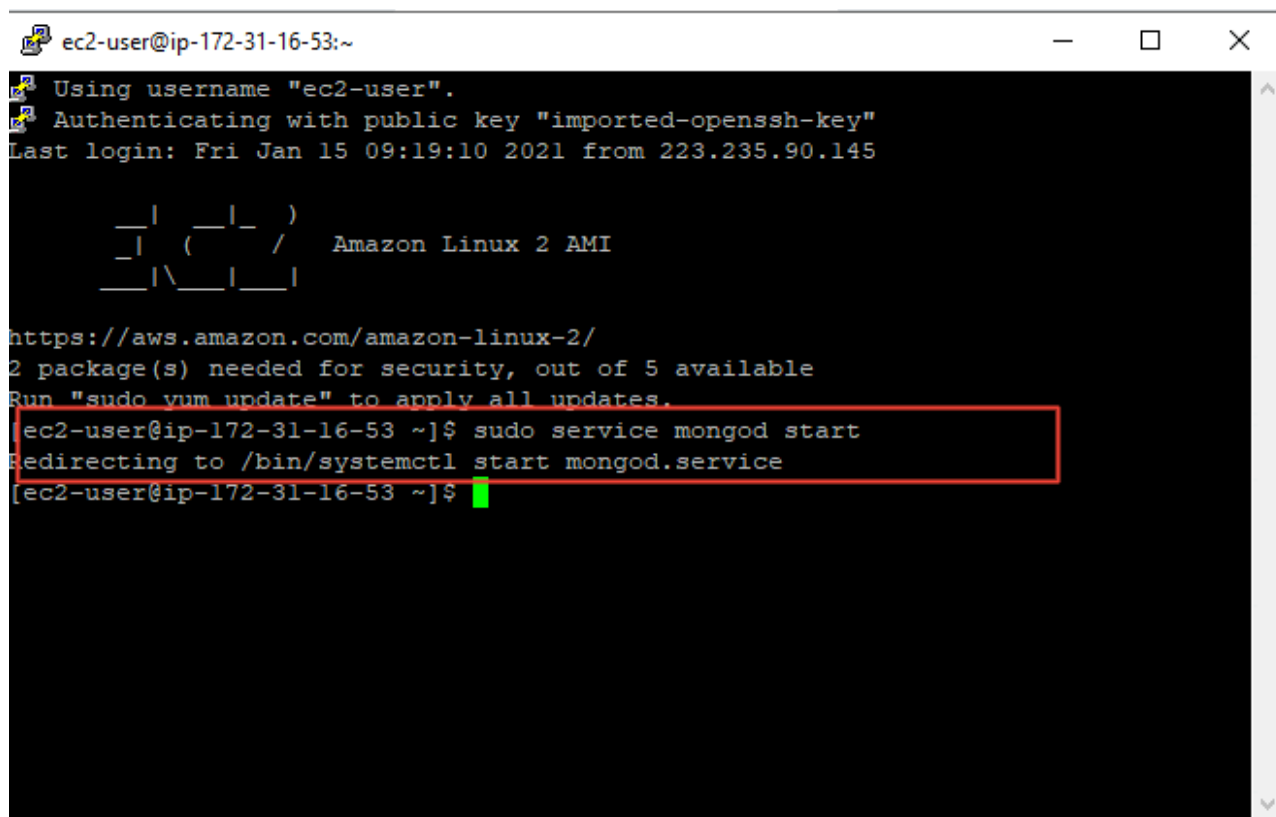
11. Click on **Save rules**



The screenshot shows the AWS IAM console 'Add rule' dialog. The 'Save rules' button is highlighted with a red box. The dialog is divided into columns: Type, Protocol, Port range, Source, and Description. The 'Custom TCP' rule is highlighted with a red box. The 'Add rule' button is at the bottom left. A note at the bottom states: 'NOTE: Any edits made on existing rules will result in the edited rule being deleted and a new rule created with the new details. This will cause traffic that depends on that rule to be dropped for a very brief period of time until the new rule can be created.'

- MongoDB is installed in your EC2 instance, Mongo ports have also been opened, now you can start your mongo server using the below command.

```
sudo service mongod start
```



```
ec2-user@ip-172-31-16-53:~  
Using username "ec2-user".  
Authenticating with public key "imported-openssh-key"  
Last login: Fri Jan 15 09:19:10 2021 from 223.235.90.145  
  
  _ | _ | _ )  
  _ | ( _ | /  Amazon Linux 2 AMI  
  _ | \ _ | _ |  
  
https://aws.amazon.com/amazon-linux-2/  
2 package(s) needed for security, out of 5 available  
Run "sudo yum update" to apply all updates.  
[ec2-user@ip-172-31-16-53 ~]$ sudo service mongod start  
Redirecting to /bin/systemctl start mongod.service  
[ec2-user@ip-172-31-16-53 ~]$
```

- To access the mongo shell, enter below command.

`mongo`

```
ec2-user@ip-172-31-16-53:~  
Redirecting to /bin/systemctl start mongod.service  
ec2-user@ip-172-31-16-53 ~]$ mongo  
MongoDB shell version v4.4.3  
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb  
Implicit session: session { "id" : UUID("8869a8f0-059f-4873-902b-6e447db0cc55")  
}  
MongoDB server version: 4.4.3  
---  
The server generated these startup warnings when booting:  
  2021-01-15T09:32:49.718+00:00: Access control is not enabled for the dat  
abase. Read and write access to data and configuration is unrestricted  
---  
---  
  Enable MongoDB's free cloud-based monitoring service, which will then re  
ceive and display  
  metrics about your deployment (disk utilization, CPU, operation statisti  
cs, 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 m  
ake product  
  improvements and to suggest MongoDB products and deployment options to y  
ou.  
  
  To enable free monitoring, run the following command: db.enableFreeMonit  
oring()  
  To permanently disable this reminder, run the following command: db.disa  
bleFreeMonitoring()  
---
```

- Now you are ready to write your MongoDB commands.

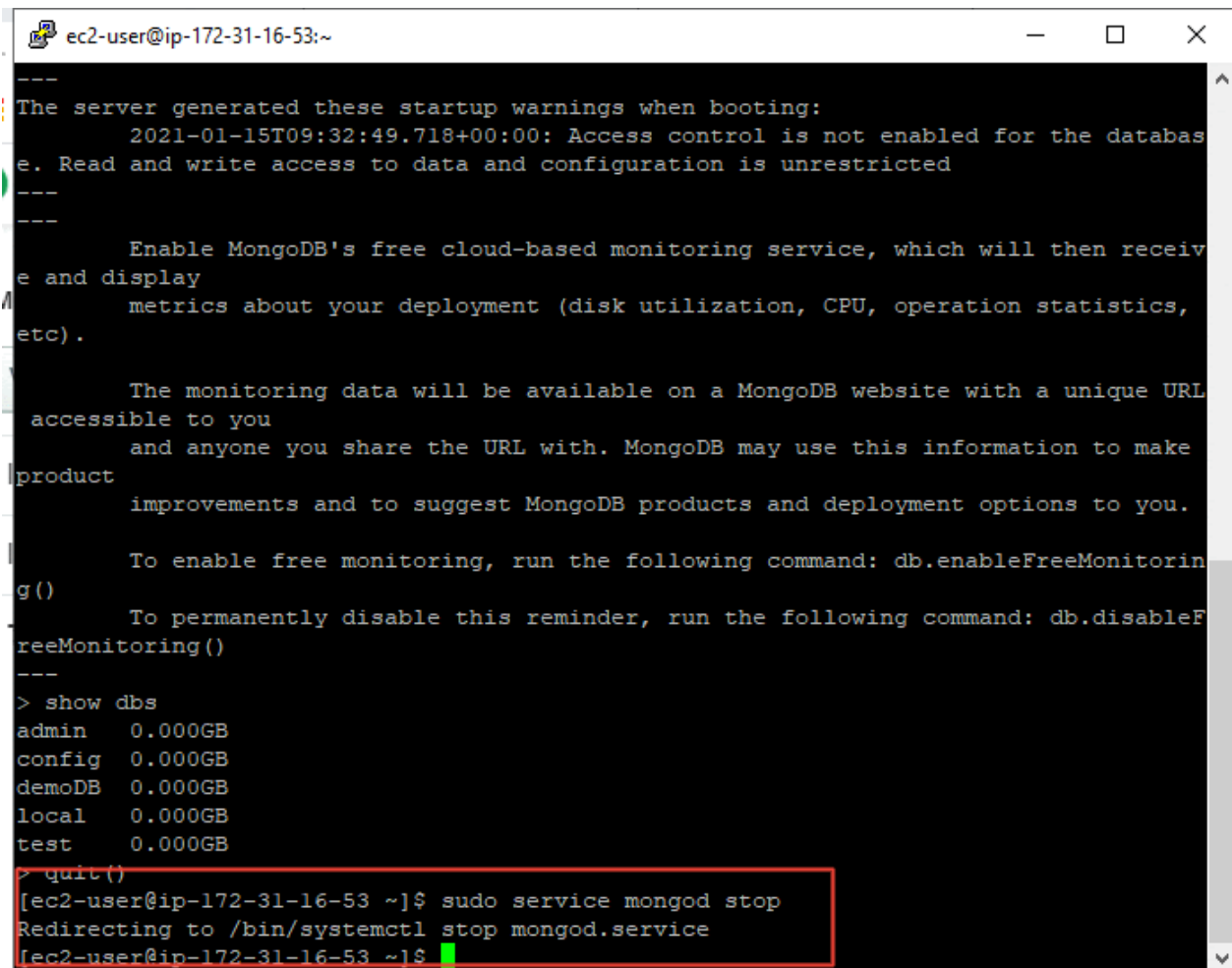
```
ec2-user@ip-172-31-16-53:~  
MongoDB server version: 4.4.3  
---  
The server generated these startup warnings when booting:  
  2021-01-15T09:32:49.718+00:00: Access control is not enabled for the dat  
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ou.  
  
  To enable free monitoring, run the following command: db.enableFreeMonit  
oring()  
  To permanently disable this reminder, run the following command: db.disa  
bleFreeMonitoring()  
---  
> use demoDB  
switched to db demoDB  
> db.createCollection("learners_profiles")  
{ "ok" : 1 }  
> show collections  
learners_profile  
learners_profiles  
>
```


- To come out of the mongo shell the command is- `quit()` or use the `<Ctrl-C>` shortcut.

```
ec2-user@ip-172-31-16-53:~  
---  
The server generated these startup warnings when booting:  
  2021-01-15T09:32:49.718+00:00: Access control is not enabled for the database.  
  Read and write access to data and configuration is unrestricted  
---  
---  
  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  
admin    0.000GB  
config   0.000GB  
demoDB   0.000GB  
local    0.000GB  
test     0.000GB  
> quit()  
[ec2-user@ip-172-31-16-53 ~]$ sudo service mongod stop  
Redirecting to /bin/systemctl stop mongod.service  
[ec2-user@ip-172-31-16-53 ~]$
```

- To stop the mongod server, the command is-

```
sudo service mongod stop
```



```
ec2-user@ip-172-31-16-53:~  
---  
The server generated these startup warnings when booting:  
  2021-01-15T09:32:49.718+00:00: Access control is not enabled for the database.  
  e. Read and write access to data and configuration is unrestricted  
---  
---  
  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  
admin    0.000GB  
config   0.000GB  
demoDB   0.000GB  
local    0.000GB  
test     0.000GB  
  
> quit()  
[ec2-user@ip-172-31-16-53 ~]$ sudo service mongod stop  
Redirecting to /bin/systemctl stop mongod.service  
[ec2-user@ip-172-31-16-53 ~]$
```

Refer to [standard documentation](#) of MongoDB Community, in case you are stuck somewhere