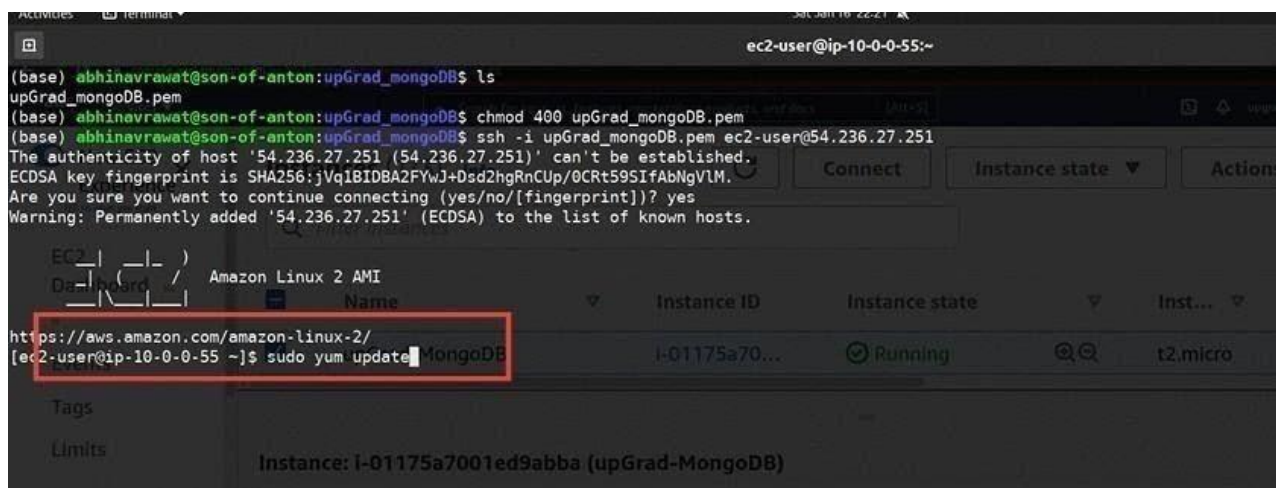


## Installing MongoDB Community Version in Amazon EC2 Instance for Linux/Mac user

### Prerequisite:

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

```
sudo yum update
```



The screenshot shows a terminal window with the following commands and output:

```
(base) abhinavrawat@son-of-anton:upGrad_mongoDB$ ls
upGrad_mongoDB.pem
(base) abhinavrawat@son-of-anton:upGrad_mongoDB$ chmod 400 upGrad_mongoDB.pem
(base) abhinavrawat@son-of-anton:upGrad_mongoDB$ ssh -i upGrad_mongoDB.pem ec2-user@54.236.27.251
The authenticity of host '54.236.27.251 (54.236.27.251)' can't be established.
ECDSA key fingerprint is SHA256:jVqIBIDBA2FYwJ+Dsd2hgRnCUp/0CRt59SI fAbNgVLM.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '54.236.27.251' (ECDSA) to the list of known hosts.

EC2 | ( )
Dashboard / Amazon Linux 2 AMI
Name Instance ID Instance state Inst...
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-0-55 ~]$ sudo yum update MongoDB
```

The AWS Management Console shows the instance details for 'upGrad-MongoDB' (Instance ID: i-01175a7001ed9abba) in a 'Running' state.

After hitting enter, terminal will ask - “Is this ok [y/d/N]”

You need to type **y**



```
upgraded 3 packages
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`

```
Dependency Installed: MongoDB) copied
  nettle.x86_64 0:2.7.1-8.amzn2.0.2
Updated:
  Savings Plans
  Instance state
  chronty.x86_64 0:3.5.1-1.amzn2.0.1 cloud-init.noarch 0:19.3-4.amzn2
  tzdata.noarch 0:2020d-2.amzn2 Running
Instances
Complete!
[ec2-user@ip-10-0-0-55 ~]$ sudo vi /etc/yum.repos.d/mongodb-org-4.4.repo
[ec2-user@ip-10-0-0-55 ~]$
```

Public IPv4 DNS  
p11-kit.x86\_64 0:0.23.22-1  
ec2-54-236-27-251.compu  
1.amazonaws.com | open address

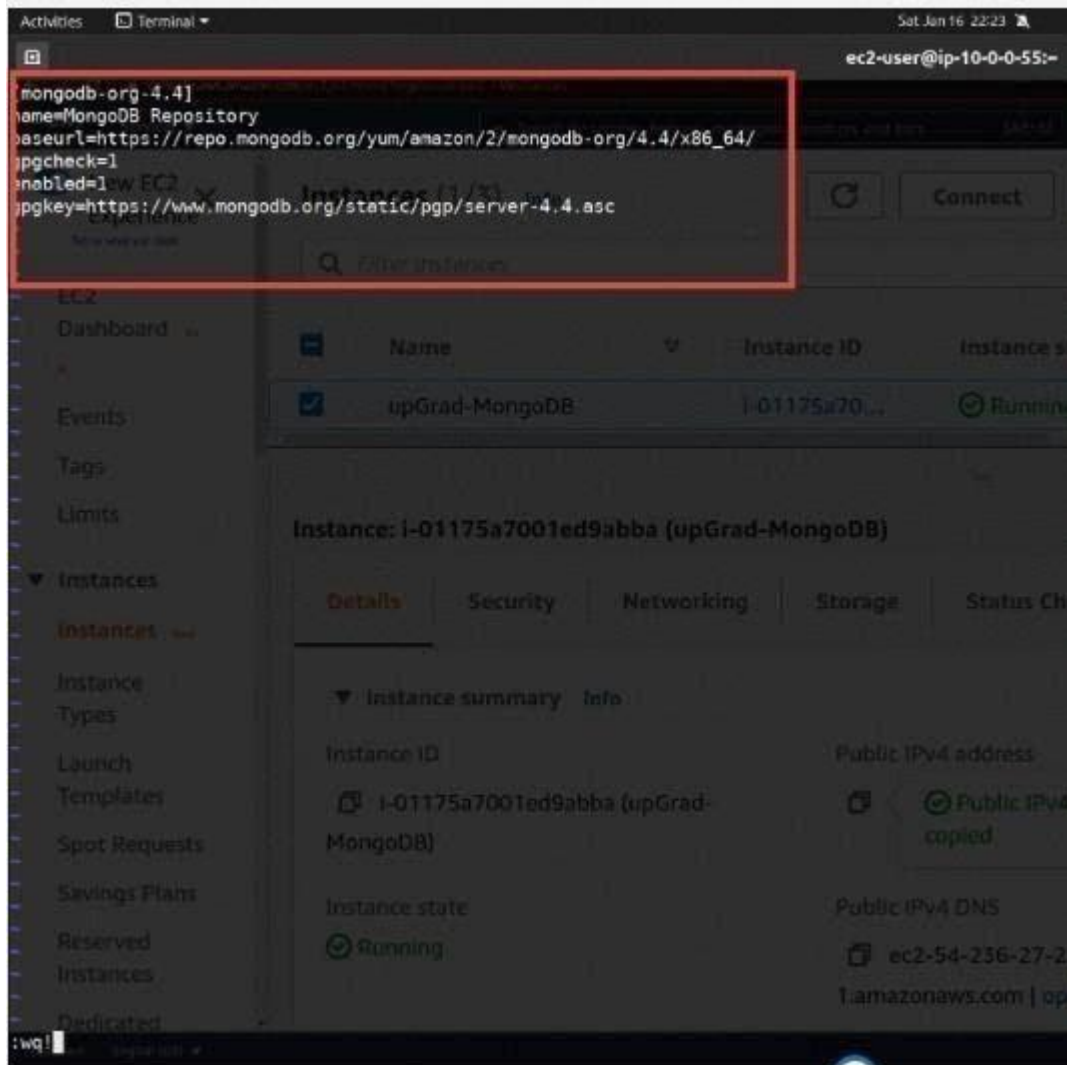
- Hit “Enter” and to enter the editing mode, press **i** on the keyboard.

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

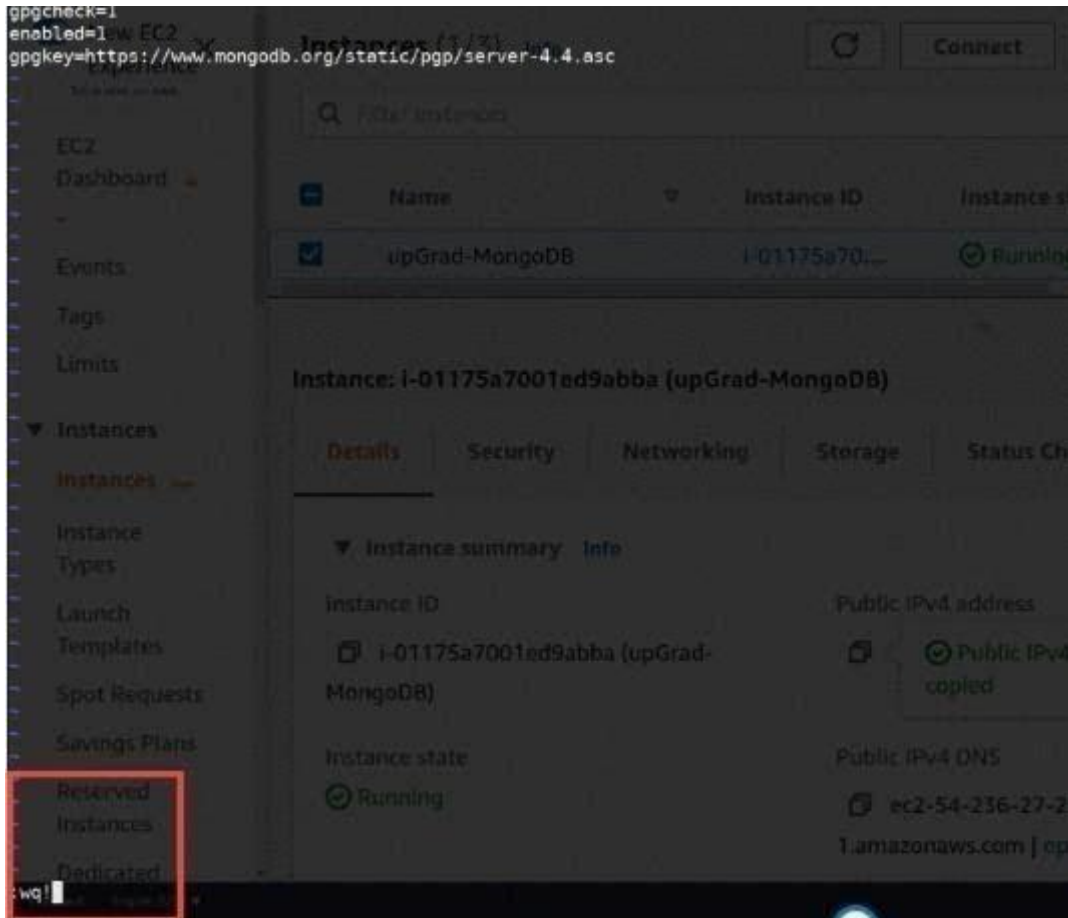


- Copy paste the below command in the terminal.

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



- 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



- To install the latest stable version of MongoDB, issue the following command:

```
sudo yum install -y mongodb-org
```

```
Verifying : p11-kit-0.23.21-2.amzn2.0.1.x86_64
Verifying : chrony-3.2-1.amzn2.0.5.x86_64
Verifying : cloud-init-19.3-3.amzn2.noarch
Dependency Installed:
  nettle.x86_64 0:2.7.1-8.amzn2.0.2
Updated:
  Savings Plans
  Instance state
  chrony.x86_64 0:3.5.1-1.amzn2.0.1
  tzdata.noarch 0:2020d-2.amzn2
  Instances
Complete!
[ec2-user@ip-10-0-0-55 ~]$ sudo vi /etc/yum.repos.d/mongodb-org-4.4.repo
[ec2-user@ip-10-0-0-55 ~]$ sudo yum install -y mongodb-org
```

Public IPv4 address

Public IPv4 address copied

Public IPv4 DNS

p11-kit.x86\_64 0:0.23.22-1.amzn2.0.1

ec2-54-236-27-251.compute-1.amazonaws.com | open address

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

```

Total Experience
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Updating : p11-kit-0.23.22-1.amzn2.0.1.x86_64
Installing : nettle-2.7.1-8.amzn2.0.2.x86_64
Updating : chrony-3.5.1-1.amzn2.0.1.x86_64
Updating : p11-kit-trust-0.23.22-1.amzn2.0.1.x86_64
Updating : tzdata-2020d-2.amzn2.noarch-MongoDB
Updating : cloud-init-19.3-4.amzn2.noarch
Cleanup : p11-kit-trust-0.23.21-2.amzn2.0.1.x86_64
Cleanup : tzdata-2020a-1.amzn2.noarch
Cleanup : cloud-init-19.3-3.amzn2.noarch
Cleanup : p11-kit-0.23.21-2.amzn2.0.1.x86_64
Cleanup : chrony-3.2-1.amzn2.0.5.x86_64
Verifying : p11-kit-trust-0.23.22-1.amzn2.0.1.x86_64
Verifying : nettle-2.7.1-8.amzn2.0.2.x86_64
Verifying : p11-kit-0.23.22-1.amzn2.0.1.x86_64
Verifying : cloud-init-19.3-4.amzn2.noarch
Verifying : tzdata-2020d-2.amzn2.noarch
Verifying : chrony-3.5.1-1.amzn2.0.1.x86_64
Verifying : tzdata-2020a-1.amzn2.noarch
Verifying : p11-kit-trust-0.23.21-2.amzn2.0.1.x86_64
Verifying : p11-kit-0.23.21-2.amzn2.0.1.x86_64
Verifying : chrony-3.2-1.amzn2.0.5.x86_64
Verifying : cloud-init-19.3-3.amzn2.noarch

Dependency Installed:
  MongoDB
  nettle.x86_64 0:2.7.1-8.amzn2.0.2

Updated:
  chrony.x86_64 0:3.5.1-1.amzn2.0.1
  tzdata.noarch 0:2020d-2.amzn2

Complete!
[ec2-user@ip-10-0-0-55 ~]$ sudo vi /etc/yum.repos.d/mongodb-org-4.4.repo
[ec2-user@ip-10-0-0-55 ~]$

```

- 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`

```
https://docs.mongodb.com/
Questions? Try the MongoDB Developer Community Forums
https://community.mongodb.com

The server generated these startup warnings when booting:
2021-01-16T16:55:09.784+00:00: Access control is not enabled for the database. Read and write access to dat
...
Enable MongoDB's free cloud-based monitoring service, which will then receive and display
metrics about your deployment (disk utilization, CPU, operation statistics, etc).

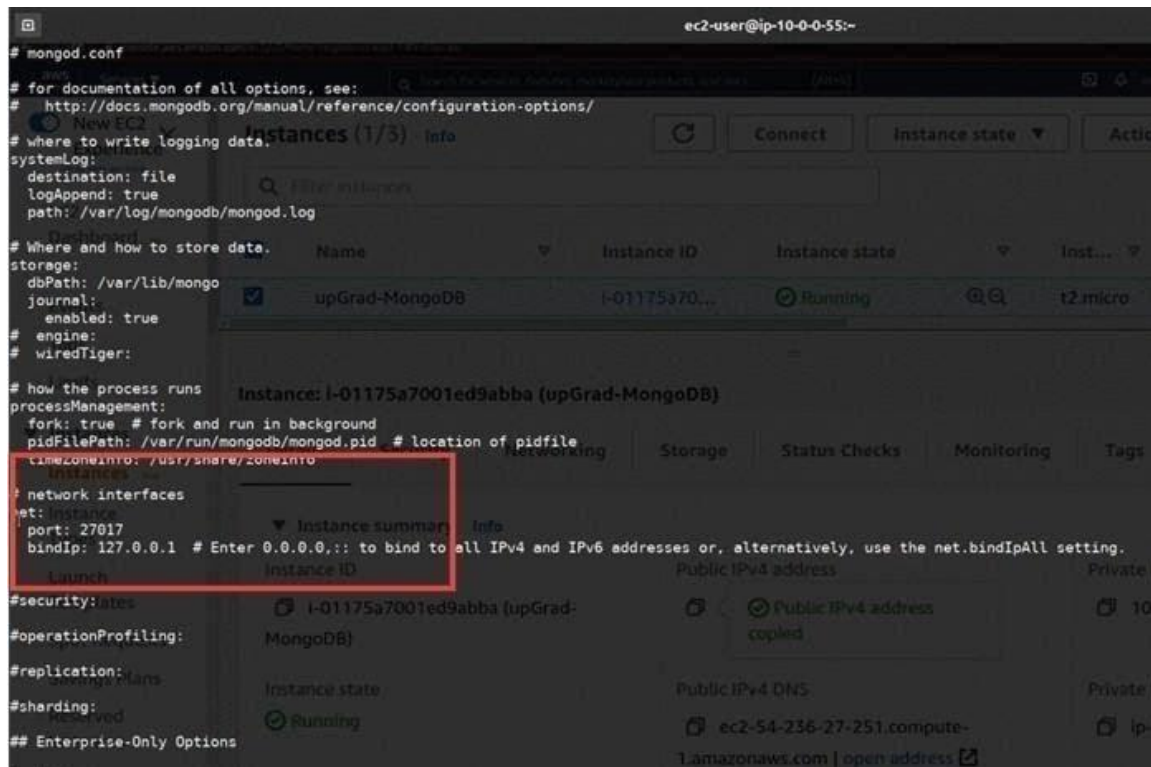
The monitoring data will be available on a MongoDB website with a unique URL accessible to you
and anyone you share the URL with. MongoDB may use this information to make product
improvements and to suggest MongoDB products and deployment options to you.
To enable free monitoring, run the following command: db.enableFreeMonitoring()
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()

> quit()
[ec2-user@ip-10-0-0-55 ~]$
[ec2-user@ip-10-0-0-55 ~]$
[ec2-user@ip-10-0-0-55 ~]$ sudo vi /etc/mongod.conf
```

- 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.



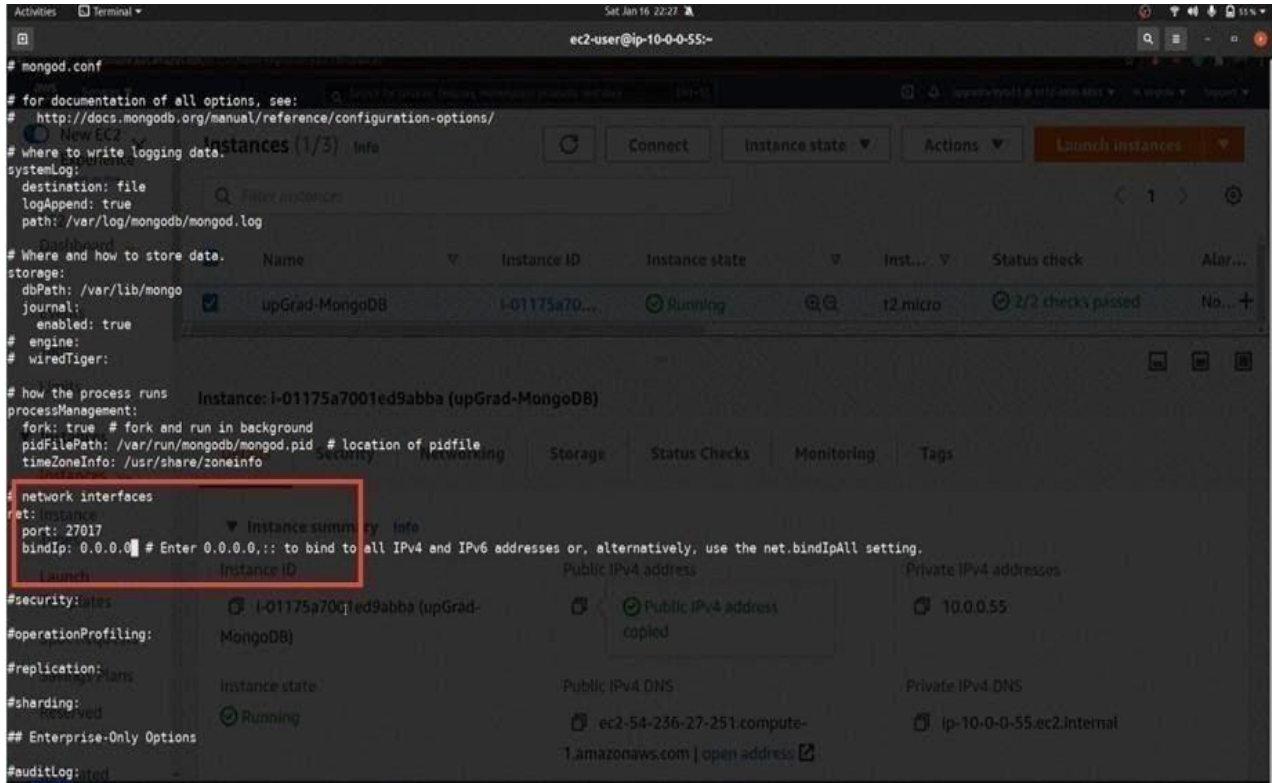
- Scroll down and come to **bindIp** in **network interfaces**



The screenshot shows the AWS Management Console for an Amazon EC2 instance named 'upGrad-MongoDB'. The instance is in a 'Running' state. The 'network interfaces' section is highlighted with a red box, showing the 'bindIp' field set to '127.0.0.1'. The instance is named 'upGrad-MongoDB' and is in a 'Running' state. The 'network interfaces' section is highlighted with a red box, showing the 'bindIp' field set to '127.0.0.1'. The instance is named 'upGrad-MongoDB' and is in a 'Running' state.



- Change the **bindIp** address from **127.0.0.1** to **0.0.0.0** .



The screenshot shows the AWS Management Console interface for a MongoDB instance named 'upGrad-MongoDB'. The instance is in a 'Running' state. The configuration page is displayed, showing various settings. A red box highlights the 'network interfaces' section, specifically the 'bindIp' field, which is set to '0.0.0.0'. The text next to it says: '# Enter 0.0.0.0,:: to bind to all IPv4 and IPv6 addresses or, alternatively, use the net.bindIpAll setting.'

Instances (1/3) Info

Name	Instance ID	Instance state	Inst...	Status check	Alar...
upGrad-MongoDB	i-01175a70...	Running	t2.micro	2/2 checks passed	No...

Instance: i-01175a7001ed9abba (upGrad-MongoDB)

Instance summary Info

Instance ID: i-01175a7001ed9abba (upGrad-MongoDB)

Public IPv4 address: 10.0.0.55

Private IPv4 addresses: 10.0.0.55

Public IPv4 DNS: ec2-54-236-27-251.compute-1.amazonaws.com | open address

Private IPv4 DNS: ip-10-0-0-55.ec2.internal

bindIp: 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**

```
# 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

#security:
  #systemLog:
  #authentication:
  #authorization:

#operationProfiling:

#replication:

#sharding:

## Enterprise-Only Options

#auditLog:
:wq!
```

```
The monitoring data will be available on a MongoDB website with a unique URL accessible
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()

Savings Plans Instance state Public IPv4 DNS
quit() rved Running ec2-54-236-27-
ec2-user@ip-10-0-0-55 ~]$
ec2-user@ip-10-0-0-55 ~]$
ec2-user@ip-10-0-0-55 ~]$ sudo vi /etc/mongod.conf
ec2-user@ip-10-0-0-55 ~]$
```

- 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

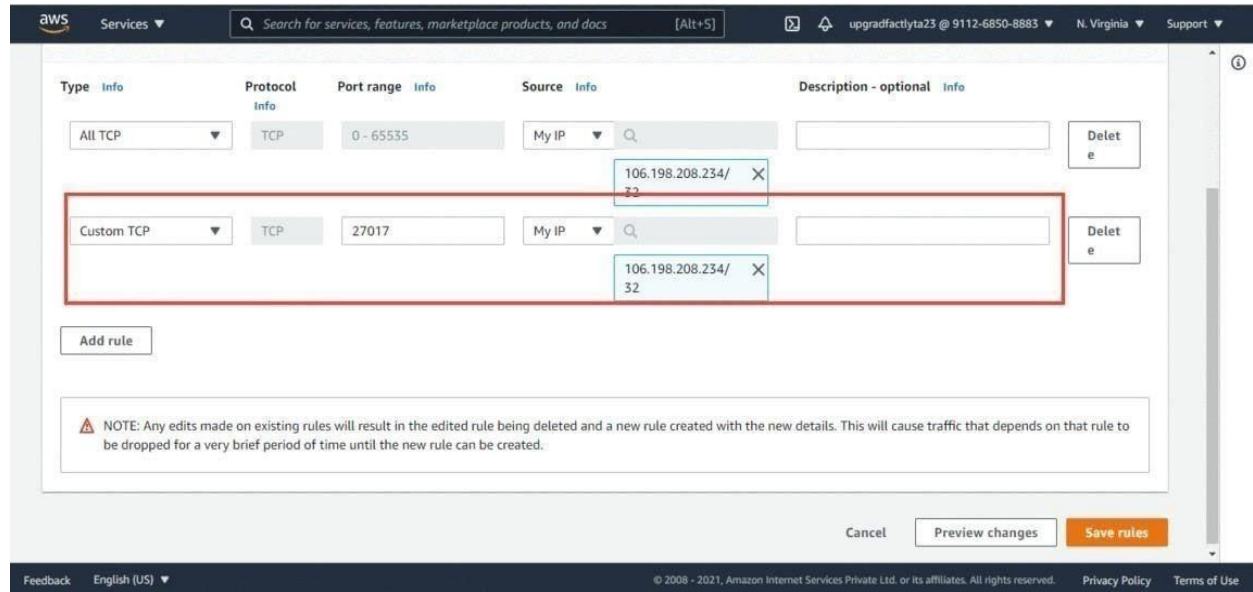
Type	Protocol	Port range	Source	Description - optional
All TCP	TCP	0 - 65535	132.154.85.133/32	-

- Click on Add Rules and input below details-

**Type-** Custom TCP

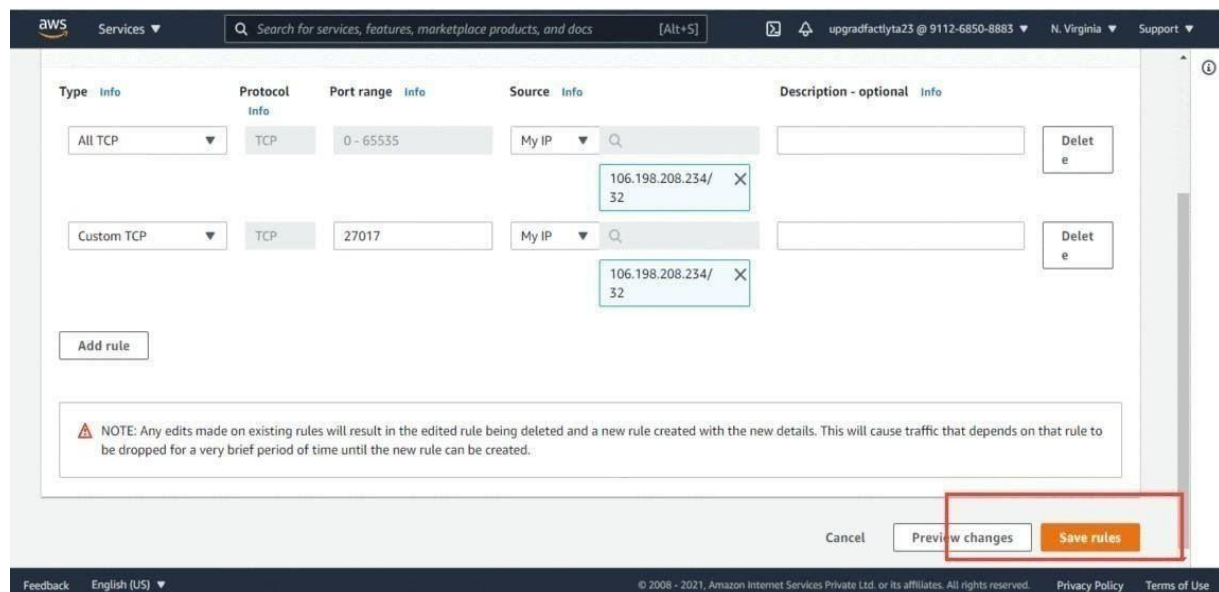
**Port Range-** 27017

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



The screenshot shows the AWS IAM console interface for adding a new rule. The 'Type' is set to 'Custom TCP', the 'Protocol' is 'TCP', and the 'Port range' is '27017'. The 'Source' is set to 'My IP'. A red box highlights the rule configuration area. Below the rule configuration, there is a note: "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." At the bottom right, there are buttons for 'Cancel', 'Preview changes', and 'Save rules'.

- Click on **Save rules**



The screenshot shows the same AWS IAM console interface as the previous one, but with a red box highlighting the 'Save rules' button at the bottom right. The rule configuration remains the same: 'Custom TCP' type, 'TCP' protocol, '27017' port range, and 'My IP' source.





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

```
Redirecting to /bin/systemctl start mongod.service
[ec2-user@ip-10-0-0-55 ~]$ mongo
MongoDB shell version v4.4.3
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("da0b16bb-29f7-4fae-b5d7-e0ea4b5b2f80") }
MongoDB server version: 4.4.3
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
... Instances ...
The server generated these startup warnings when booting:
inst2021-01-16T16:55:09.784+00:00: Access control is not enabled for the database. Read and write
... Types
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()
... Reserved ...
> Instances
> quit()
```

- To stop the mongod server, the command is-

`sudo service mongod stop`

```
Activities Terminal Sat Jan 16 22:39
[ec2-user@ip-10-0-0-55 ~]$ sudo service mongod stop
Redirecting to /bin/systemctl stop mongod.service
[ec2-user@ip-10-0-0-55 ~]$
```

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