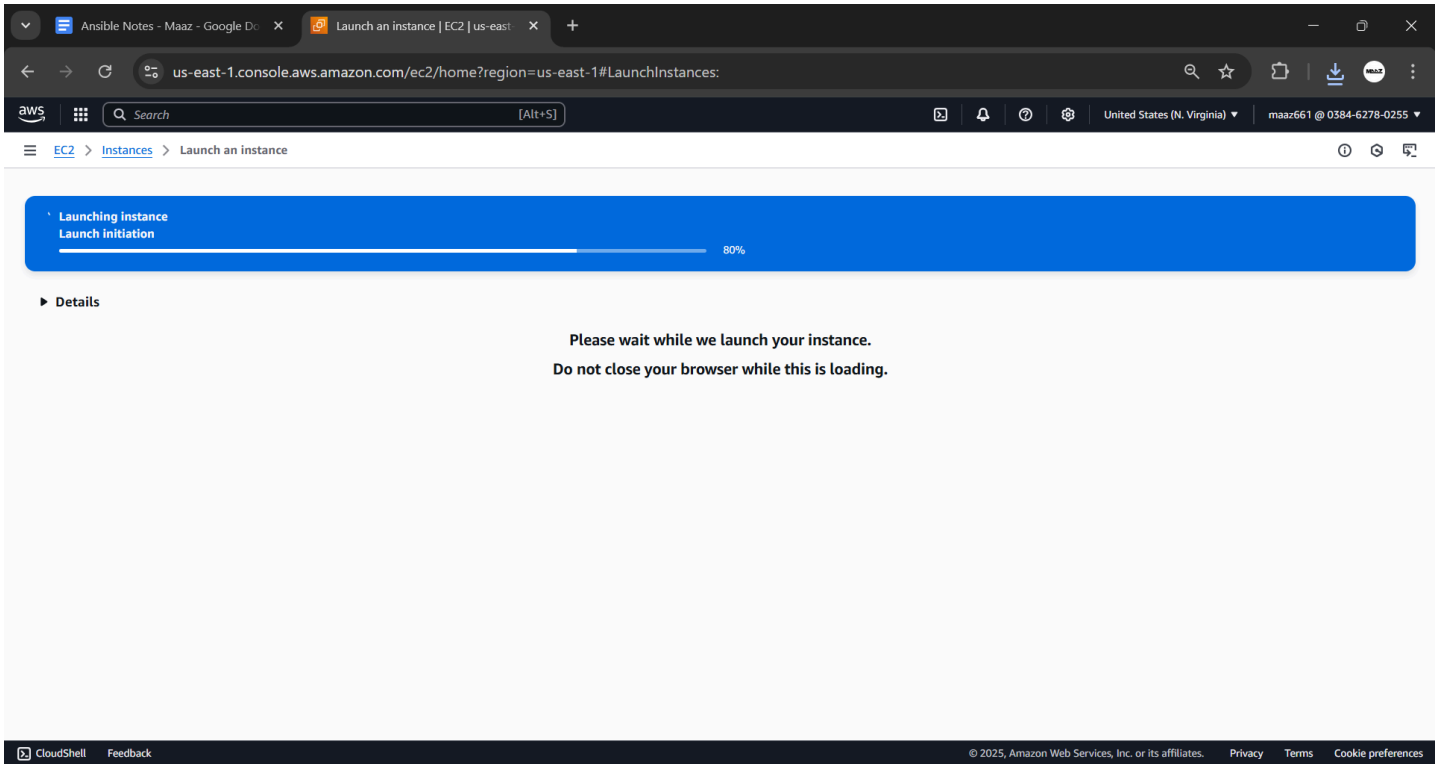
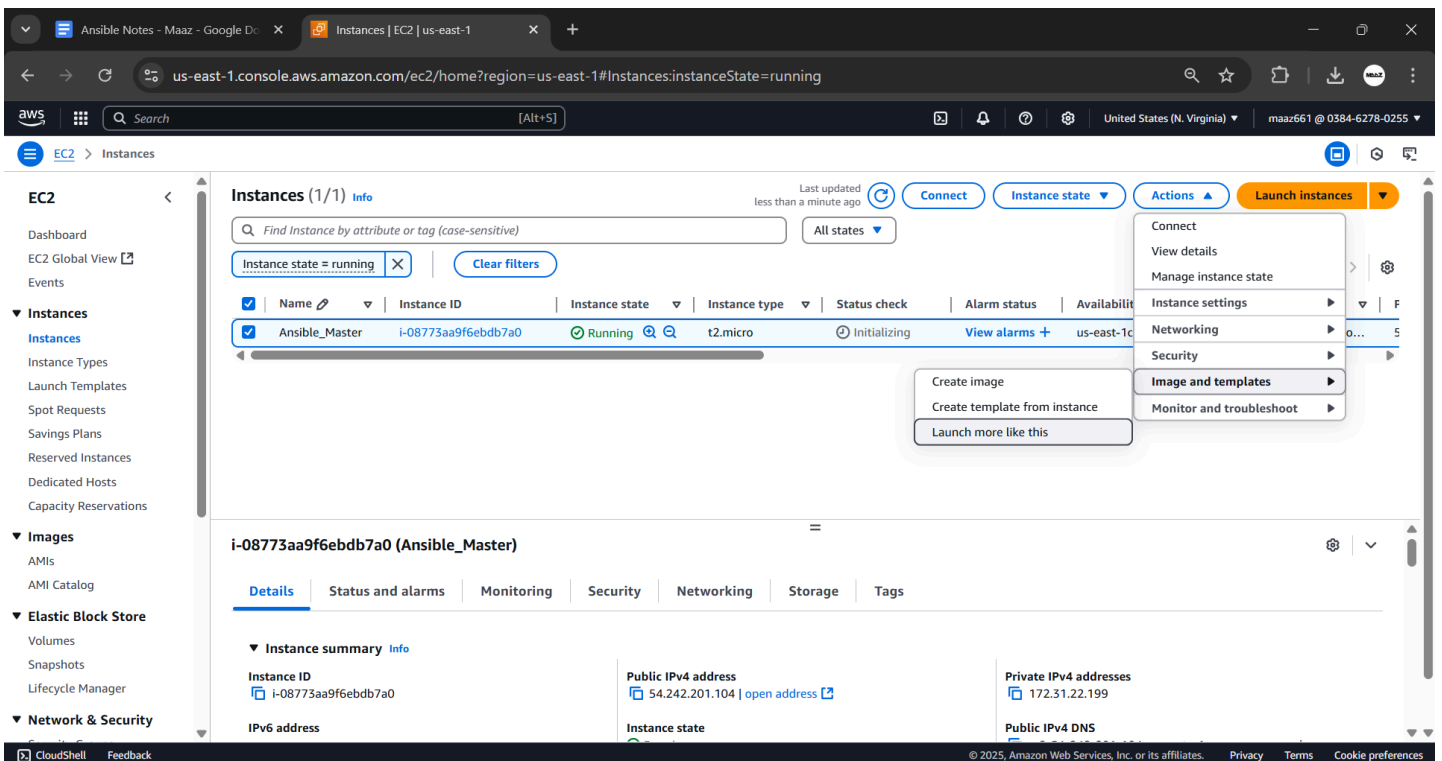


# Ansible Server Setup on AWS



## Launching Ansible Master and 3 Server nodes



Ansible Notes - Maaz - Google D...Launch an instance | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:instanceId=i-08773aa9f6ebdb7a0

Search[Alt+S]

United States (N. Virginia)maaz661 @ 0384-6278-0255

EC2 > Instances > Launch an instance

The Volume initialization rate setting of the source instance has not been automatically included. If Volume initialization rate is required, you must manually enable it.

### Launch an instance

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Name

Ansible\_Master

Add additional tags

Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

AMI from catalog

Recents

Quick Start

Name

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

Verified providerFree tier eligible

Description

Ubuntu Server 24.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Summary

Number of instances

3

When launching more than 1 instance, consider EC2 Auto Scaling

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd64...read more

ami-084568db4383264d4

Virtual server type (instance type)

t2.micro

Firewall (security group)

launch-wizard-1

Storage (volumes)

1 volume(s) - 8 GiB

Free tier:

In your first year of opening an AWS account, you get 750 hours per month of t2.micro instance usage (or t3.micro where t2.micro isn't available) when used with free tier AMIs, 750 hours

Cancel

Launch instance

Preview code

CloudShellFeedback

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Ansible Notes - Maaz - Google D...Instances | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3;\$case=tags:true%5C,client:false;\$regex=tags:false%5C,client:false

Search[Alt+S]

United States (N. Virginia)maaz661 @ 0384-6278-0255

EC2 > Instances

EC2

Dashboard

EC2 Global View

Events

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Network & Security

Instances (1/4)

Find Instance by attribute or tag (case-sensitive)

All states

Last updated 1 minute ago

Connect

Instance state

Actions

Launch instances

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
<input type="checkbox"/>	Ansible_Server_3	i-0df20559a711fb562	Running	t2.micro	Initializing	View alarms +	us-east-1c	ec2-54-242-239-164.co.
<input type="checkbox"/>	Ansible_Server_2	i-09e182818705671f5	Running	t2.micro	Initializing	View alarms +	us-east-1c	ec2-34-229-18-43.com..
<input type="checkbox"/>	Ansible_Server_1	i-0bdb9913f2d291a73	Running	t2.micro	Initializing	View alarms +	us-east-1c	ec2-50-16-130-238.co...
<input checked="" type="checkbox"/>	Ansible_Master	i-08773aa9f6ebdb7a0	Running	t2.micro	2/2 checks passc	View alarms +	us-east-1c	ec2-54-242-201-104.co.

i-08773aa9f6ebdb7a0 (Ansible\_Master)

Details

Status and alarms

Monitoring

Security

Networking

Storage

Tags

Instance summary

Instance ID

i-08773aa9f6ebdb7a0

Public IPv4 address

54.242.201.104 | open address

Private IPv4 addresses

172.31.22.199

Instance state

Running

Public IPv4 DNS

ec2-54-242-201-104.compute-1.amazonaws.com | open address

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us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&iinstanceId=i-08773aa9f6ebdb7a0&...

aws [Alt+S] United States (N. Virginia) maa661 @ 0384-6278-0255

```
ubuntu@ip-172-31-22-199:~$
```

i-08773aa9f6ebdb7a0 (Ansible\_Master)

PublicIPs: 54.242.201.104 PrivateIPs: 172.31.22.199

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## Commands

sudo apt update -y

sudo apt install ansible -y

us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&iinstanceId=i-08773aa9f6ebdb7a0&...

aws [Alt+S] United States (N. Virginia) maa661 @ 0384-6278-0255

```
ubuntu@ip-172-31-22-199:~$ sudo apt install ansible
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  ansible-core python3-argcomplete python3-dnspython python3-kerberos python3-libcloud python3-lockfile python3-ntlm-auth python3-passlib python3-requests-ntlm python3-resolvlib
  python3-selinux python3-simplejson python3-winrm python3-xmltodict
Suggested packages:
  cowsay sshpass python3-trio python3-aiouic python3-h2 python3-httpx python3-httpcore python-lockfile-doc
The following NEW packages will be installed:
  ansible ansible-core python3-argcomplete python3-dnspython python3-kerberos python3-libcloud python3-lockfile python3-ntlm-auth python3-passlib python3-requests-ntlm
  python3-resolvlib python3-selinux python3-simplejson python3-winrm python3-xmltodict
0 upgraded, 15 newly installed, 0 to remove and 82 not upgraded.
Need to get 19.5 MB of archives.
After this operation, 315 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 python3-resolvlib all 1.0.1-1 [25.7 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 python3-dnspython all 2.6.1-1ubuntu1 [163 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 ansible-core all 2.16.3-0ubuntu2 [1280 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 ansible all 9.2.0+dfsg-0ubuntu5 [16.4 MB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 python3-argcomplete all 3.1.4-1ubuntu0.1 [33.8 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 python3-kerberos amd64 1.1.14-3.1build9 [21.2 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 python3-lockfile all 1:0.12.2-3 [13.7 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 python3-simplejson amd64 3.19.2-1build2 [54.5 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 python3-libcloud all 3.4.1-5 [751 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 python3-ntlm-auth all 1.5.0-1 [21.3 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 python3-requests-ntlm all 1.1.0-3 [6308 B]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 python3-selinux amd64 3.5-2ubuntu2.1 [165 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 python3-xmltodict all 0.13.0-1 [13.4 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 python3-winrm all 0.4.3-2 [31.9 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 python3-passlib all 1.7.4-4 [476 kB]
Fetched 19.5 MB in 0s (73.1 MB/s)
```

i-08773aa9f6ebdb7a0 (Ansible\_Master)

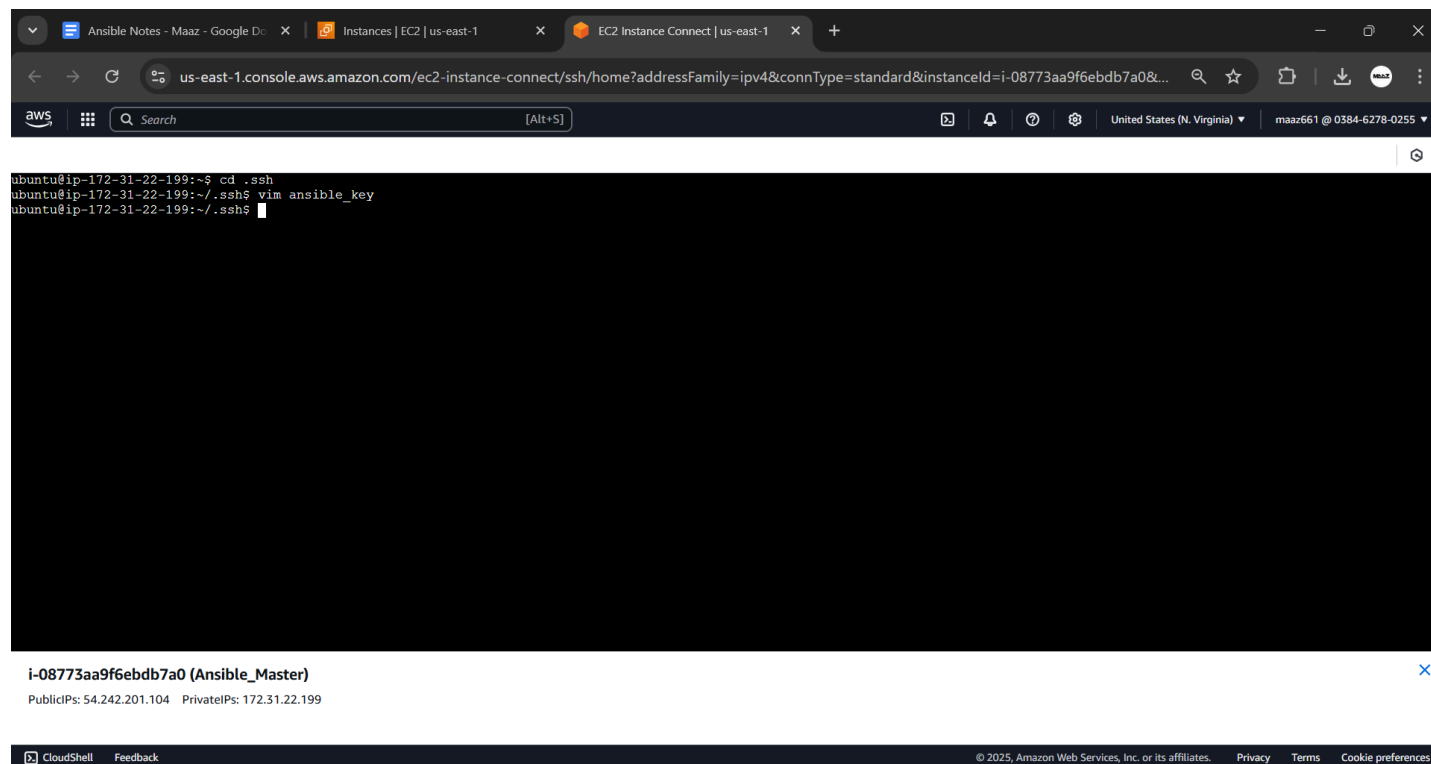
PublicIPs: 54.242.201.104 PrivateIPs: 172.31.22.199

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cd .ssh

## Creating file named Ansible\_key and enter the Private key downloaded from AWS.

vim ansible\_key



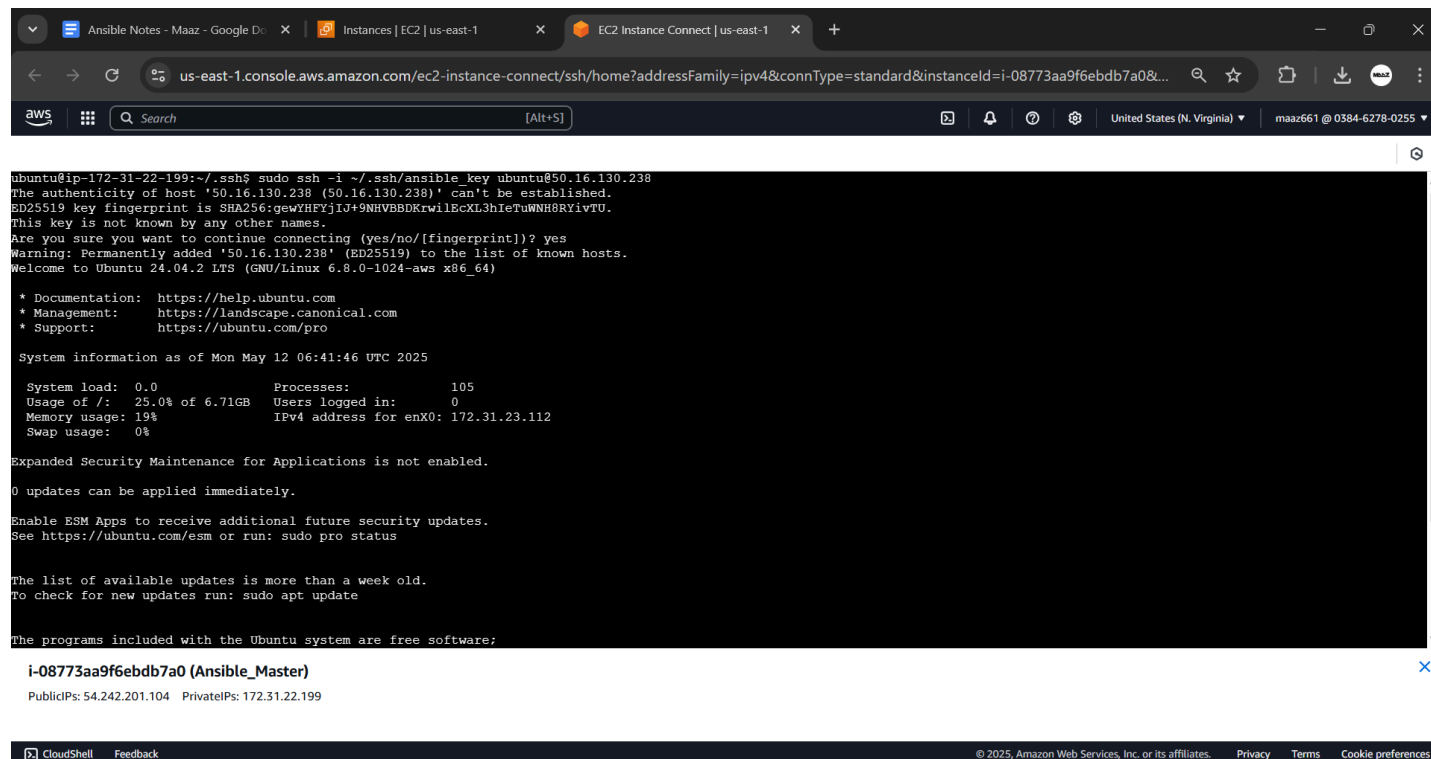
The screenshot shows the AWS CloudShell interface. The terminal window displays the following commands and output:

```
ubuntu@ip-172-31-22-199:~$ cd ~/.ssh
ubuntu@ip-172-31-22-199:~/.ssh$ vim ansible_key
ubuntu@ip-172-31-22-199:~/.ssh$
```

Below the terminal, the instance details for **i-08773aa9f6ebdb7a0 (Ansible\_Master)** are shown, including Public IP: 54.242.201.104 and Private IP: 172.31.22.199.

## Connecting server 1

sudo ssh -i ~/.ssh/ansible\_key ubuntu@50.16.130.238



The screenshot shows the AWS CloudShell interface with the terminal window displaying the output of the connection command:

```
ubuntu@ip-172-31-22-199:~/.ssh$ sudo ssh -i ~/.ssh/ansible_key ubuntu@50.16.130.238
The authenticity of host '50.16.130.238 (50.16.130.238)' can't be established.
ED25519 key fingerprint is SHA256:geWVHFj1J+9NHVBBDKrw1EcXL3h1erUWNH0RYivTU.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '50.16.130.238' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1024-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Mon May 12 06:41:46 UTC 2025

System load:  0.0          Processes:      105
Usage of /:   25.0% of 6.71GB   Users logged in:  0
Memory usage: 19%          IPv4 address for enX0: 172.31.23.112
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
```

Below the terminal, the instance details for **i-08773aa9f6ebdb7a0 (Ansible\_Master)** are shown, including Public IP: 54.242.201.104 and Private IP: 172.31.22.199.

# Creating Inventory File

```
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-08773aa9f6ebdb7a0&...

Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-23-112:~$ cat /etc/ansible/hosts
cat: /etc/ansible/hosts: No such file or directory
ubuntu@ip-172-31-23-112:~$ mkdir ansible
ubuntu@ip-172-31-23-112:~$ ls
ansible
ubuntu@ip-172-31-23-112:~$ cd ansible/
ubuntu@ip-172-31-23-112:~/ansible$ vim hosts
ubuntu@ip-172-31-23-112:~/ansible$

i-08773aa9f6ebdb7a0 (Ansible_Master)
PublicIps: 54.242.201.104 PrivateIps: 172.31.22.199

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```

[servers]  
server1 ansible\_host=3.83.113.23  
server2 ansible\_host=52.90.36.160  
server3 ansible\_host=18.204.203.37

[all:vars]  
ansible\_python\_interpretor=/usr/bin/python3

```
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-08773aa9f6ebdb7a0&...

[servers]
server1 ansible_host=50.16.130.238
server2 ansible_host=34.229.18.43
server3 ansible_host=54.242.239.164

[all:vars]
ansible_python_interpretor=/usr/bin/python3

-- INSERT --

8, 44 All

i-08773aa9f6ebdb7a0 (Ansible_Master)
PublicIps: 54.242.201.104 PrivateIps: 172.31.22.199

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```

sudo apt install ansible-core  
ansible-inventory --list -y -i /home/ubuntu/ansible/hosts

```
← → ↻ 🔍 us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&iinstanceId=i-08773aa9f6ebdb7a0&...
aws 🔍 Search [Alt+S] 📧 🔔 ⚙️ United States (N. Virginia) maa:661 @ 0384-6278-0255 ▼

Setting up ansible-core (2.16.3-0ubuntu2) ...
Setting up python3-libcloud (3.4.1-5) ...
Setting up python3-winnm (0.4.3-2) ...
Setting up ansible (9.2.0+dfsg-0ubuntu5) ...
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-23-112:~/ansible$ ansible-inventory --list -y -i /home/ubuntu/ansible/hosts
all:
  children:
    servers:
      hosts:
        server1:
          ansible_host: 50.16.130.238
          ansible_python_interpreter: /usr/bin/python3
        server2:
          ansible_host: 34.229.18.43
          ansible_python_interpreter: /usr/bin/python3
        server3:
          ansible_host: 54.242.239.164
          ansible_python_interpreter: /usr/bin/python3
ubuntu@ip-172-31-23-112:~/ansible$
```

i-08773aa9f6ebdb7a0 (Ansible\_Master)

PublicIPs: 54.242.201.104 PrivateIPs: 172.31.22.199

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ansible all -m ping -i /home/ubuntu/ansible/hosts

```
← → ↻ 🔍 us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&iinstanceId=i-08773aa9f6ebdb7a0&...
aws 🔍 Search [Alt+S] 📧 🔔 ⚙️ United States (N. Virginia) maa:661 @ 0384-6278-0255 ▼

server1 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: Warning: Permanently added '50.16.130.238' (ED25519) to the list of known hosts.\r\nubuntu@50.16.130.238: Permission denied (publickey).",
  "unreachable": true
}
C [ERROR]: User interrupted execution
ubuntu@ip-172-31-23-112:~/ansible$ ansible all -m ping -i /home/ubuntu/ansible/hosts --private-key ~/.ssh/ansible_key
The authenticity of host '34.229.18.43 (34.229.18.43)' can't be established.
ED25519 key fingerprint is SHA256:q1UvqL5AjtTstd48j/QMrmgCiseFRZGR+HmB/9NRbk.
This key is not known by any other names.
The authenticity of host '54.242.239.164 (54.242.239.164)' can't be established.
ED25519 key fingerprint is SHA256:zNmLvbC6IePmTb5sNvcVma8GQLNCQbACIgp6jjp0soo.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? server1 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: no such identity: /home/ubuntu/.ssh/ansible_key: No such file or directory\r\nubuntu@50.16.130.238: Permission denied (publickey).",
  "unreachable": true
}

server2 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: Host key verification failed.",
  "unreachable": true
}

server3 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: Host key verification failed.",
  "unreachable": true
}
ubuntu@ip-172-31-23-112:~/ansible$
```

i-08773aa9f6ebdb7a0 (Ansible\_Master)

PublicIPs: 54.242.201.104 PrivateIPs: 172.31.22.199

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## Resolving errors

C:\Users\maaz>scp -i C:\Users\maaz\Downloads\Ansible-key.pem

C:\Users\maaz\Downloads\Ansible-key.pem ubuntu@50.16.130.238:~/.ssh/ansible\_key

C:\Users\maaz>ssh -i C:\Users\maaz\Downloads\Ansible-key.pem ubuntu@50.16.130.238

```
Command Prompt
C:\Users\maaz>scp -i C:\Users\maaz\Downloads\Ansible-key.pem C:\Users\maaz\Downloads\Ansible-key.pem ubuntu@3.83.113.23:~/.ssh/ansible_key
The authenticity of host '3.83.113.23 (3.83.113.23)' can't be established.
ED25519 key fingerprint is SHA256:Pph9ucoCiwR0/DhMJWixK8CYUgJYjhWkuZ04WQcc.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])?
Please type 'yes', 'no' or the fingerprint:
Warning: Permanently added '3.83.113.23' (ED25519) to the list of known hosts.
Ansible-key.pem
100% 1674 7.1KB/s 00:00

C:\Users\maaz>ssh -i C:\Users\maaz\Downloads\Ansible-key.pem ubuntu@3.83.113.23
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1024-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Sun May 18 06:54:04 UTC 2025

System load:  0.0          Processes:    107
Usage of /:   37.2% of 6.71GB Users logged in: 1
Memory usage: 29%         IPv4 address for enx0: 172.31.82.156
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

87 updates can be applied immediately.
45 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Sun May 18 06:26:43 2025 from 44.211.194.15
ubuntu@ip-172-31-82-156:~$
```

## Giving file permissions

chmod 700 ~/.ssh

chmod 600 ~/.ssh/ansible\_key

ansible all -m ping -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible\_key

ansible-inventory --list -y -i /home/ubuntu/ansible/hosts

The screenshot shows the AWS Management Console interface for an EC2 Instance Connect session. The browser tabs include 'Ansible Notes - Maaz - Google D...', 'Instances | EC2 | us-east-1', and 'EC2 Instance Connect | us-east-1'. The address bar shows the URL: 'us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-08773aa9f6ebdb7a0&...'. The terminal window displays the following output:

```
server2 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: Host key verification failed.",
  "unreachable": true
}

server3 | UNREACHABLE! => {
  "changed": false,
  "msg": "Failed to connect to the host via ssh: Host key verification failed.",
  "unreachable": true
}

ubuntu@ip-172-31-23-112:~/ansible$ ansible-inventory --list -y
[WARNING]: No inventory was parsed, only implicit localhost is available
{}

ubuntu@ip-172-31-23-112:~/ansible$ pwd
/home/ubuntu/ansible

ubuntu@ip-172-31-23-112:~/ansible$ ansible-inventory --list -y -i /home/ubuntu/ansible/hosts
all:
  children:
    servers:
      hosts:
        server1:
          ansible_host: 50.16.130.238
          ansible_python_interpreter: /usr/bin/python3
        server2:
          ansible_host: 34.229.18.43
          ansible_python_interpreter: /usr/bin/python3
        server3:
          ansible_host: 54.242.239.164
          ansible_python_interpreter: /usr/bin/python3
ubuntu@ip-172-31-23-112:~/ansible$
```

Below the terminal output, the instance details for 'i-08773aa9f6ebdb7a0 (Ansible\_Master)' are shown, including Public IPs: 54.242.201.104 and Private IPs: 172.31.22.199.

## Command used when server 2 and 3 were unable to connect

ssh-keyscan -H 34.229.18.43 54.242.239.164 >> ~/.ssh/known\_hosts

ansible all -m ping -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible\_key

Ansible Notes - Maaz - Google D...Instances | EC2 | us-east-1EC2 Instance Connect | us-east-1SSH Key Issuesus-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-08773aa9f6ebdb7a0&osUse...United States (N. Virginia)maaz661 @ 0384-6278-0255

```
# 34.229.18.43:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 54.242.239.164:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 54.242.239.164:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 34.229.18.43:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 34.229.18.43:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 34.229.18.43:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 54.242.239.164:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 54.242.239.164:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 54.242.239.164:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
# 54.242.239.164:22 SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.8
ubuntu@ip-172-31-23-112:~/.ssh$ ansible all -m ping -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
server1 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
server3 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
server2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
ubuntu@ip-172-31-23-112:~/.ssh$
```

i-08773aa9f6ebdb7a0 (Ansible\_Master)

PublicIPs: 54.242.201.104 PrivateIPs: 172.31.22.199

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Memory Usage

ansible all -a "free -h" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible\_key

Ansible Notes - Maaz - Google D...Instances | EC2 | us-east-1EC2 Instance Connect | us-east-1SSH Key Issuesus-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-08773aa9f6ebdb7a0&osUse...United States (N. Virginia)maaz661 @ 0384-6278-0255

```
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
server2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
ubuntu@ip-172-31-23-112:~/.ssh$ cd ..
ubuntu@ip-172-31-23-112:~$ ansible all -a "free -h" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
[WARNING]: Unable to parse /home/ubuntu/home/ubuntu/ansible/hosts as an inventory source
[WARNING]: No inventory was parsed, only implicit localhost is available
[WARNING]: provided hosts list is empty, only localhost is available. Note that the implicit localhost does not match 'all'
ubuntu@ip-172-31-23-112:~$ ^C
ubuntu@ip-172-31-23-112:~$ ansible all -a "free -h" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
server3 | CHANGED | rc=0 >>
Mem:      957Mi      331Mi      374Mi      892Ki      405Mi      626Mi
Swap:      0B          0B          0B
server2 | CHANGED | rc=0 >>
Mem:      957Mi      339Mi      366Mi      888Ki      405Mi      618Mi
Swap:      0B          0B          0B
server1 | CHANGED | rc=0 >>
Mem:      957Mi      454Mi      107Mi      1.0Mi      581Mi      502Mi
Swap:      0B          0B          0B
ubuntu@ip-172-31-23-112:~$
```

i-08773aa9f6ebdb7a0 (Ansible\_Master)

PublicIPs: 54.242.201.104 PrivateIPs: 172.31.22.199

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System Uptime & system Information

```
ansible all -a "uptime" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
ansible all -a "uname -a" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
```

Ansible Notes - Maaz - Google Do

Instances | EC2 | us-east-1

EC2 Instance Connect | us-east-1

SSH Key Issues

us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-08773aa9f6ebdb7a0&osUse...

Search [Alt+S]

United States (N. Virginia) maa:661 @ 0384-6278-0255

```
ubuntu@ip-172-31-23-112:~$ ansible all -a "free -h" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
[WARNING]: Unable to parse /home/ubuntu/home/ubuntu/ansible/hosts as an inventory source
[WARNING]: No inventory was parsed, only implicit localhost is available
[WARNING]: provided hosts list is empty, only localhost is available. Note that the implicit localhost does not match 'all'
ubuntu@ip-172-31-23-112:~$ ansible all -a "free -h" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
server3 | CHANGED | rc=0 >>
Mem:          957Mi       331Mi       374Mi       892Ki       405Mi       626Mi
Swap:         0B           0B           0B
server2 | CHANGED | rc=0 >>
Mem:          957Mi       339Mi       366Mi       888Ki       405Mi       618Mi
Swap:         0B           0B           0B
server1 | CHANGED | rc=0 >>
Mem:          957Mi       454Mi       107Mi       1.0Mi       581Mi       502Mi
Swap:         0B           0B           0B
ubuntu@ip-172-31-23-112:~$ ansible all -a "uptime" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
server3 | CHANGED | rc=0 >>
08:06:35 up 1:41, 1 user, load average: 0.00, 0.00, 0.00
server2 | CHANGED | rc=0 >>
08:06:35 up 1:41, 1 user, load average: 0.00, 0.00, 0.00
server1 | CHANGED | rc=0 >>
08:06:35 up 1:41, 3 users, load average: 0.08, 0.02, 0.01
ubuntu@ip-172-31-23-112:~$ ansible all -a "uname -a" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
server3 | CHANGED | rc=0 >>
Linux ip-172-31-19-105 6.8.0-1024-aws #26-Ubuntu SMP Tue Feb 18 17:22:37 UTC 2025 x86_64 x86_64 x86_64 GNU/Linux
server2 | CHANGED | rc=0 >>
Linux ip-172-31-23-236 6.8.0-1024-aws #26-Ubuntu SMP Tue Feb 18 17:22:37 UTC 2025 x86_64 x86_64 x86_64 GNU/Linux
server1 | CHANGED | rc=0 >>
Linux ip-172-31-23-112 6.8.0-1024-aws #26-Ubuntu SMP Tue Feb 18 17:22:37 UTC 2025 x86_64 x86_64 x86_64 GNU/Linux
```

i-08773aa9f6ebdb7a0 (Ansible\_Master)

PublicIPs: 54.242.201.104 PrivateIPs: 172.31.22.199

Disk usage

```
ansible all -a "df -h" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
```

Ansible Notes - Maaz - Google Do

Instances | EC2 | us-east-1

EC2 Instance Connect | us-east-1

SSH Key Issues

us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-08773aa9f6ebdb7a0&osUse...

Search [Alt+S]

United States (N. Virginia) maa:661 @ 0384-6278-0255

```
ubuntu@ip-172-31-23-112:~$ ansible all -a "df -h" -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
server1 | CHANGED | rc=0 >>
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  2.6G  4.2G  38% /
tmpfs            479M  160K  479M   1% /dev/shm
tmpfs            192M  900K  191M   1% /run
tmpfs            5.0M   0  5.0M   0% /run/lock
/dev/xvda16     881M   79M  741M  10% /boot
/dev/xvda15     105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
server3 | CHANGED | rc=0 >>
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.8G  5.0G  26% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  880K  191M   1% /run
tmpfs            5.0M   0  5.0M   0% /run/lock
/dev/xvda16     881M   79M  741M  10% /boot
/dev/xvda15     105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
server2 | CHANGED | rc=0 >>
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.8G  5.0G  26% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  876K  191M   1% /run
tmpfs            5.0M   0  5.0M   0% /run/lock
/dev/xvda16     881M   79M  741M  10% /boot
/dev/xvda15     105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
ubuntu@ip-172-31-23-112:~$
ubuntu@ip-172-31-23-112:~$
ubuntu@ip-172-31-23-112:~$
ubuntu@ip-172-31-23-112:~$
```

i-08773aa9f6ebdb7a0 (Ansible\_Master)

PublicIPs: 54.242.201.104 PrivateIPs: 172.31.22.199

Successfully initiated stopping of i-08773aa9f6ebdb7a0,i-0bdb9913f2d291a73,i-09e182818705671f5,i-0df20559a711fb562

Instances (4/4) Info

Find Instance by attribute or tag (case-sensitive) All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Ansible_Server_3	i-0df20559a711fb562	Stopped	t2.micro	-	View alarms +	us-east-1c	-
Ansible_Server_2	i-09e182818705671f5	Stopped	t2.micro	-	View alarms +	us-east-1c	-
Ansible_Server_1	i-0bdb9913f2d291a73	Stopped	t2.micro	-	View alarms +	us-east-1c	-
Ansible_Master	i-08773aa9f6ebdb7a0	Stopped	t2.micro	-	View alarms +	us-east-1c	-

4 instances selected

Monitoring

Alarm recommendations

CPU utilization (%)

Network in (bytes)

Network out (bytes)

Network packets in (count)

## Making Playbooks

ansible-inventory --list -y -i /home/ubuntu/ansible/hosts

ansible all -m ping -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible\_key

```

ansible_python_interpreter: /usr/bin/python3
server2:
  ansible_host: 34.238.233.180
  ansible_python_interpreter: /usr/bin/python3
server3:
  ansible_host: 3.85.50.76
  ansible_python_interpreter: /usr/bin/python3
ubuntu@ip-172-31-82-156:~$ ansible all -m ping -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
server3 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
server2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
server1 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
ubuntu@ip-172-31-82-156:~$ ^C
ubuntu@ip-172-31-82-156:~$ cd ansible/
ubuntu@ip-172-31-82-156:~/ansible$

i-01d16c034cd62dace (ansible_master)
PublicIPs: 3.80.194.251 PrivateIPs: 172.31.89.213

```

aws

Search

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United States (N. Virginia)maaz661 @ 0384-6278-0255

```
ansible_python_interpreter: /usr/bin/python3
server3:
  ansible_host: 3.85.50.76
  ansible_python_interpreter: /usr/bin/python3
ubuntu@ip-172-31-82-156:~$ ansible all -m ping -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
server3 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
server2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
server1 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
ubuntu@ip-172-31-82-156:~$ ^C
ubuntu@ip-172-31-82-156:~$ cd ansible/
ubuntu@ip-172-31-82-156:~/ansible$ mkdir playbooks
ubuntu@ip-172-31-82-156:~/ansible$ cd playbooks/
ubuntu@ip-172-31-82-156:~/ansible/playbooks$ ls
ubuntu@ip-172-31-82-156:~/ansible/playbooks$ vim create_file.yml
```

i-01d16c034cd62dace (ansible\_master)  
PublicIPs: 3.80.194.251 PrivateIPs: 172.31.89.213

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## YML file to create a file named “maaz.txt” on all 3 servers

---

- name: This playbook will create a file
- hosts: all
- become: true
- tasks:
  - name: Create a file
  - file:
    - path: /home/ubuntu/maaz.txt
    - state: touch

ansible-playbook create\_file.yml -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible\_key

aws

Search

[Alt+S]

United States (N. Virginia)maaz661 @ 0384-6278-0255

```
ubuntu@ip-172-31-82-156:~$ ^C
ubuntu@ip-172-31-82-156:~$ cd ansible/
ubuntu@ip-172-31-82-156:~/ansible$ mkdir playbooks
ubuntu@ip-172-31-82-156:~/ansible$ cd playbooks/
ubuntu@ip-172-31-82-156:~/ansible/playbooks$ ls
ubuntu@ip-172-31-82-156:~/ansible/playbooks$ vim create_file.yml
ubuntu@ip-172-31-82-156:~/ansible/playbooks$ ansible-playbook create_file.yml -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
ERROR: the playbook: create_file.yml could not be found
ubuntu@ip-172-31-82-156:~/ansible/playbooks$ ansible-playbook create_file.yml -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key

PLAY [This playbook will create a file] *****

TASK [Gathering Facts] *****
ok: [server2]
ok: [server3]
ok: [server1]

TASK [Create a file] *****
changed: [server2]
changed: [server3]
changed: [server1]

PLAY RECAP *****
server1      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
server2      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
server3      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
ubuntu@ip-172-31-82-156:~/ansible/playbooks$
```

i-01d16c034cd62dace (ansible\_master)  
PublicIPs: 3.80.194.251 PrivateIPs: 172.31.89.213

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## Master server:

```
ubuntu@ip-172-31-82-156:~/ansible/playbooks$ ansible-playbook create_file.yml -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key

PLAY [This playbook will create a file] *****

TASK [Gathering Facts] *****
ok: [server2]
ok: [server3]
ok: [server1]

TASK [Create a file] *****
changed: [server2]
changed: [server3]
changed: [server1]

PLAY RECAP *****
server1      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
server2      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
server3      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

i-01d16c034cd62dace (ansible\_master)

PublicIPs: 3.80.194.251 PrivateIPs: 172.31.89.213

Testing to see whether file named “**maaz.txt**” is created or not on server 1,2 & 3

## Server 1:

```
ubuntu@ip-172-31-82-156:~$ ls
ansible  maaz.txt
ubuntu@ip-172-31-82-156:~$
```

i-04cb1b6ebb05a37e3 (ansible\_server\_1)

PublicIPs: 44.212.74.91 PrivateIPs: 172.31.82.156

## Server 2:

```
ubuntu@ip-172-31-83-69:~$ ls
maaz.txt
ubuntu@ip-172-31-83-69:~$
```

i-08a8f3e1a269903a0 (ansible\_server\_2)

PublicIPs: 34.238.233.180 PrivateIPs: 172.31.83.69

## Server 3:

```
ubuntu@ip-172-31-85-66:~$ ls
maaz.txt
ubuntu@ip-172-31-85-66:~$
```

i-0a84ed80be587463a (ansible\_server\_3)

PublicIPs: 3.85.50.76 PrivateIPs: 172.31.85.66