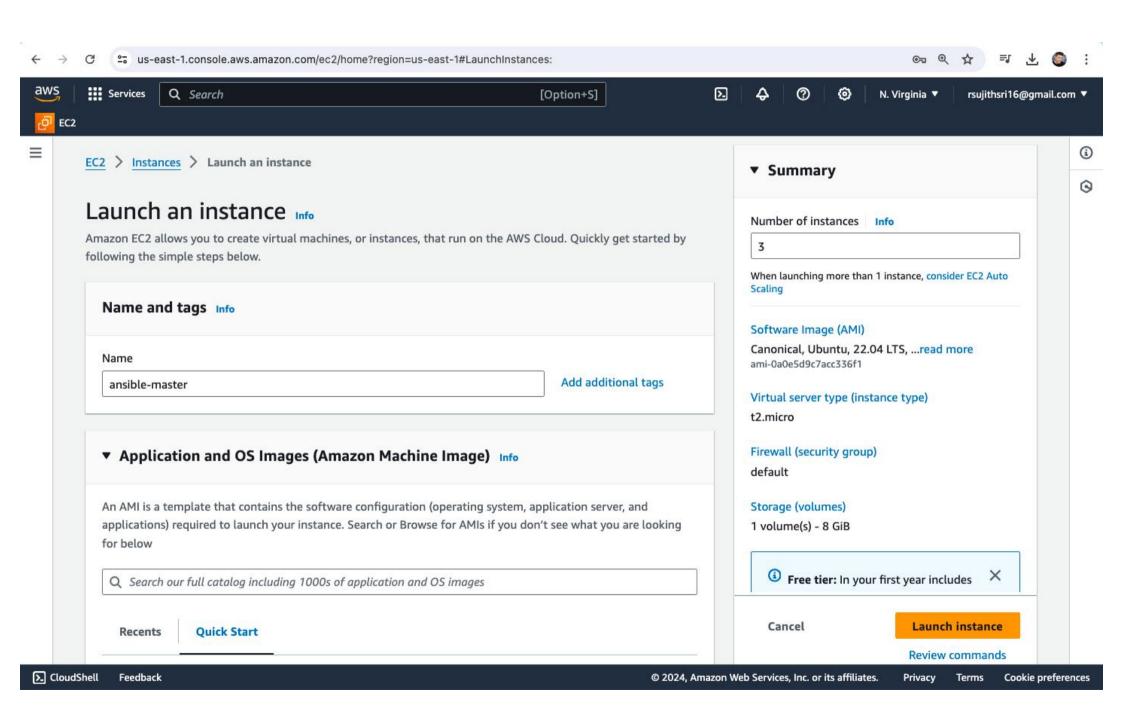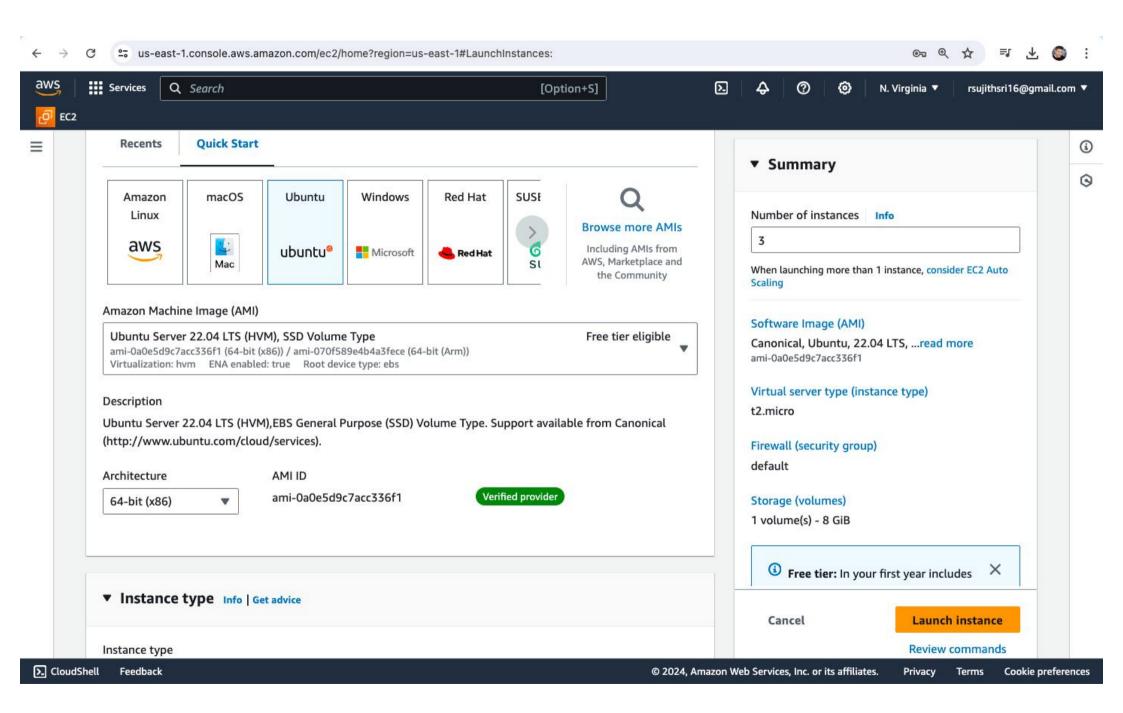# Module 5: Ansible Assignment - 3
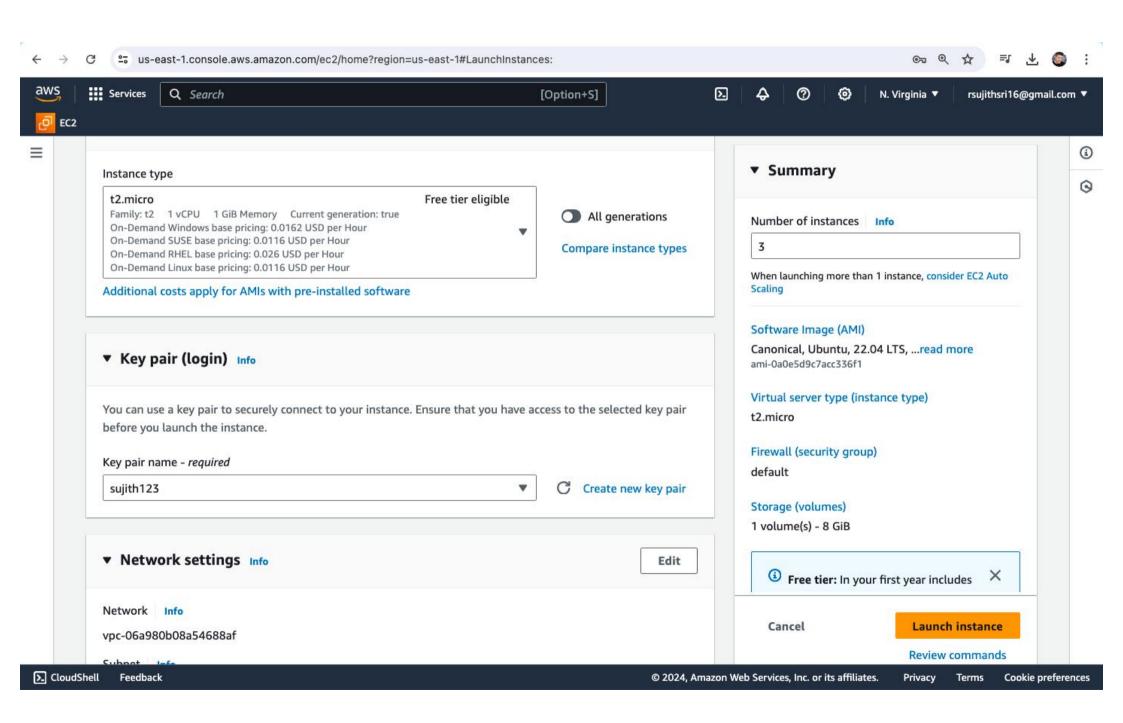
Tasks To Be Performed:

1. Create 2 Ansible roles
2. Install Apache2 on slave1 using one role and NGINX on slave2 using the other role
3. Above should be implemented using different Ansible roles

aws   ⠿ Services   Q Search   [Option+S]   ⌨   △   ⑦   ⚙   N. Virginia ▼   rsujithsri16@gmail.com ▼

EC2

EC2 > Instances > Launch an instance

Launch an instance Info

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 Info

Name

| ansible-master |

Add additional tags

▼ Application and OS Images (Amazon Machine Image) Info

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

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

Recents | **Quick Start**

▼ Summary

Number of instances   Info

| 3 |

When launching more than 1 instance, consider EC2 Auto Scaling

Software Image (AMI)
Canonical, Ubuntu, 22.04 LTS, ...read more
ami-0a0e5d9c7acc336f1

Virtual server type (instance type)
t2.micro

Firewall (security group)
default

Storage (volumes)
1 volume(s) - 8 GiB

ⓘ **Free tier:** In your first year includes ✕

Cancel   **Launch instance**

Review commands

Recents | **Quick Start**

Amazon Linux	macOS	Ubuntu	Windows	Red Hat	SUSE
aws	Mac	ubuntu	Microsoft	RedHat	SU

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type   Free tier eligible
ami-0a0e5d9c7acc336f1 (64-bit (x86)) / ami-070f589e4b4a3fece (64-bit (Arm))
Virtualization: hvm   ENA enabled: true   Root device type: ebs

Description

Ubuntu Server 22.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).

Architecture

64-bit (x86) ▼

AMI ID

ami-0a0e5d9c7acc336f1   **Verified provider**

▼ **Instance type** Info | Get advice

Instance type

▼ **Summary**

Number of instances   **Info**

3

When launching more than 1 instance, consider EC2 Auto Scaling

Software Image (AMI)

Canonical, Ubuntu, 22.04 LTS, ...read more
ami-0a0e5d9c7acc336f1

Virtual server type (instance type)

t2.micro

Firewall (security group)

default

Storage (volumes)

1 volume(s) - 8 GiB

ⓘ **Free tier:** In your first year includes ✕

Cancel   **Launch instance**

Review commands

aws | Services | Search [Option+S]

N. Virginia ▼ | rsujithsri16@gmail.com ▼

EC2

Instance type

t2.micro | Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.026 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour

⬤ All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

▼ **Key pair (login)** Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

sujith123 ▼ | C Create new key pair

▼ **Network settings** Info | Edit

Network Info

vpc-06a980b08a54688af

Subnet Info

▼ **Summary**

Number of instances | Info

3

When launching more than 1 instance, consider EC2 Auto Scaling

Software Image (AMI)
Canonical, Ubuntu, 22.04 LTS, ...read more
ami-0a0e5d9c7acc336f1

Virtual server type (instance type)
t2.micro

Firewall (security group)
default

Storage (volumes)
1 volume(s) - 8 GiB

ⓘ **Free tier:** In your first year includes ✕

Cancel | **Launch instance**

Review commands

CloudShell Feedback | © 2024, Amazon Web Services, Inc. or its affiliates. | Privacy Terms Cookie preferences

aws | Services | Search [Option+S] | N. Virginia ▾ | rsujithsri16@gmail.com ▾

EC2

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

○ Create security group | ● Select existing security group

Common security groups Info

Select security groups ▼

default sg-06d9c74e80448682b ✕
VPC: vpc-06a980b08a54688af

↻ Compare security group rules

Security groups that you add or remove here will be added to or removed from all your network interfaces.

▼ **Configure storage** Info   Advanced

1x [8] GiB [gp2 ▼] Root volume (Not encrypted)

ⓘ Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage   ✕

[Add new volume]

The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance

🕐 Click refresh to view backup information   ↻

▼ Summary

Number of instances Info

[3]

When launching more than 1 instance, consider EC2 Auto Scaling

Software Image (AMI)
Canonical, Ubuntu, 22.04 LTS, ...read more
ami-0a0e5d9c7acc336f1

Virtual server type (instance type)
t2.micro

Firewall (security group)
default

Storage (volumes)
1 volume(s) - 8 GiB

ⓘ **Free tier:** In your first year includes ✕

Cancel | [**Launch instance**]

Review commands

aws ::: Services Q Search [Option+S]

N. Virginia ▼ rsujithsri16@gmail.com ▼

EC2

EC2 > Instances > Launch an instance

⊘ **Success**
Successfully initiated launch of instances (i-0fbad4cbf956dadbb, i-000bf52dd2882dee6, i-02641b2d7dad090af)

▶ **Launch log**

Next Steps

Q *What would you like to do next with these instances, for example "create alarm" or "create backup"*

‹ **1** 2 3 4 5 6 ›

Create billing and free tier usage alerts

To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds.

Create billing alerts ☑

Connect to your instance

Once your instance is running, log into it from your local computer.

Learn more ☑

Connect an RDS database

Configure the connection between an EC2 instance and a database to allow traffic flow between them.

Connect an RDS database ☑

Create a new RDS database ☑

Learn more ☑

Create EBS snapshot policy

Create a policy that automates the creation, retention, and deletion of EBS snapshots

Create EBS snapshot policy ☑

aws Services Q Search   [Option+S]   N. Virginia ▼   rsujithsri16@gmail.com ▼

EC2

Connect to your instance i-000bf52dd2882dee6 (ansible-master) using any of these options

| **EC2 Instance Connect** | Session Manager | SSH client | EC2 serial console |

⚠ **All ports are open to all IPv4 addresses in your security group**
All ports are currently open to all IPv4 addresses, indicated by **All** and **0.0.0.0/0** in the inbound rule in
your security group. For increased security, consider restricting access to only the EC2 Instance Connect
service IP addresses for your Region: 18.206.107.24/29. Learn more.

Instance ID
☐ i-000bf52dd2882dee6 (ansible-master)

Connection Type

| ● **Connect using EC2 Instance Connect** | ○ **Connect using EC2 Instance Connect Endpoint** |
| Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address. | Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint. |

Public IP address
☐ 3.85.86.205

Username
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username,
ubuntu.

Q ubuntu   ✕

⚠ **All ports are open to all IPv4 addresses in your security group**
All ports are currently open to all IPv4 addresses, indicated by **All** and **0.0.0.0/0** in the inbound rule in
your security group. For increased security, consider restricting access to only the EC2 Instance Connect
service IP addresses for your Region: 18.206.107.24/29. Learn more.

Instance ID
⬚ i-02641b2d7dad090af (ansible-01)

Connection Type

● **Connect using EC2 Instance Connect**	○ **Connect using EC2 Instance Connect Endpoint**
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.	Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IP address
⬚ 54.208.34.181

Username
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ubuntu.

Q ubuntu   ✕

ⓘ **Note:** In most cases, the default username, ubuntu, is correct. However, read your AMI usage instructions
to check if the AMI owner has changed the default AMI username.

Cancel   **Connect**

aws Services Q Search [Option+S]

N. Virginia ▼ rsujithsri16@gmail.com ▼

EC2

EC2 Instance Connect | Session Manager | SSH client | EC2 serial console

> ⚠ **All ports are open to all IPv4 addresses in your security group**
> All ports are currently open to all IPv4 addresses, indicated by **All** and **0.0.0.0/0** in the inbound rule in your security group. For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 18.206.107.24/29. Learn more.

Instance ID

🗐 i-0fbad4cbf956dadbb (ansible-02)

Connection Type

● **Connect using EC2 Instance Connect**
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.

○ **Connect using EC2 Instance Connect Endpoint**
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IP address

🗐 3.92.50.57

Username
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ubuntu.

🔍 ubuntu ✕

> ⓘ **Note:** In most cases, the default username, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

aws ⠿ Services 🔍 Search   [Option+S]   ⊡ 🔔 ⑦ ⚙ N. Virginia ▼   rsujithsri16@gmail.com ▼

⬚ EC2

```
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-172-31-90-102:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1855 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [334 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [17.7 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [2188 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [375 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [604 B]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1108 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [258 kB]
```

i-081c2fec4f46d3fff (ansible-master)   ✕

PublicIPs: 3.91.145.88   PrivateIPs: 172.31.90.102

← → C ⚇ us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard&instanceId=i-081c2fec4f46d3fff&osUser=ubuntu&sshPort=... ⊕ ☆

aws   ⠿ Services   Q Search   [Option+S]   ⌨   △   ⑦   ⊙   N. Virginia ▼   rsujithsri16@gmail.com ▼

⬚ EC2

```
Adding deb entry to /etc/apt/sources.list.d/ansible-ubuntu-ansible-jammy.list
Adding disabled deb-src entry to /etc/apt/sources.list.d/ansible-ubuntu-ansible-jammy.list
Adding key to /etc/apt/trusted.gpg.d/ansible-ubuntu-ansible.gpg with fingerprint 6125E2A8C77F2818FB7BD15B93C4A3FD7BB9C367
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:5 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy InRelease [18.0 kB]
Get:6 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy/main amd64 Packages [1120 B]
Get:7 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy/main Translation-en [752 B]
Fetched 19.9 kB in 1s (19.1 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-90-102:~$ 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-jmespath python3-kerberos python3-nacl python3-ntlm-auth python3-packaging python3-paramiko
  python3-requests-kerberos python3-requests-ntlm python3-resolvelib python3-winrm python3-xmltodict sshpass
Suggested packages:
  python-nacl-doc python3-gssapi python3-invoke
The following NEW packages will be installed:
  ansible ansible-core python3-jmespath python3-kerberos python3-nacl python3-ntlm-auth python3-packaging python3-paramiko
  python3-requests-kerberos python3-requests-ntlm python3-resolvelib python3-winrm python3-xmltodict sshpass
0 upgraded, 14 newly installed, 0 to remove and 19 not upgraded.
Need to get 18.4 MB of archives.
After this operation, 202 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 jammy/main amd64 python3-packaging all 21.3-1 [30.7 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-resolvelib all 0.8.1-1 [23.6 kB]
```

i-081c2fec4f46d3fff (ansible-master)   ✕

PublicIPs: 3.91.145.88   PrivateIPs: 172.31.90.102

aws   Services   Q Search   [Option+S]   N. Virginia ▾   rsujithsri16@gmail.com ▾

EC2

```
    o +  B +.*|
     =.o=oO. =|
    .o+ooB=o++|
    ..+==+=o.o+|
+----[SHA256]-----+
ubuntu@ip-172-31-90-102:~$ sudo cat /home/ubuntu/.ssh/id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABgQDJ0HShiHHFM9ni05CN7UrlTXDZCymn3eUhPvWhjhkXFnCBP18Q9DaxNwZaD1zq01yy06sT9LdIHzaEwpkw3yT7vrIaB4l5jWhRbta
E+cff8pKNs/Oa1fx7eRvzHJx316Ou6sow9CRgb19BtJwwIV1LjQBehBek1aF49fg+hWnQMbvXZCyaqrqzcZTUYbaZa6fz5lViG/0F+czp122ddcqDWX2J+1L7LXuD+AFjYS5a+IQypF
nAZgSmouKIoNDcnxJdlb/9/OypoY3EzzI+e5NMoLsPUySDeVShxMLop+va3B0JKmRKiIN0Q+A3o5kawBQGCih0VY7WD1i9cA4Eks3yHSDI0KNCyWafVPw9RaRLIFFGvkG1dQk3EMYkY
LWs02+vyjjs4Py42nPpaxVvPjmoVa6VwXP55CM3MmPgucx6VvValPZO18QuqBg1Kb/svhbZYtGn144ypvOtNHGsGM9IR4A8dqmkiwqnCe79SK15f3KQY03Nrn+jz9Nfl3oKuiM= ubu
ntu@ip-172-31-90-102
ubuntu@ip-172-31-90-102:~$ cd /etc/ansible
ubuntu@ip-172-31-90-102:/etc/ansible$ ls
ansible.cfg  hosts   roles
ubuntu@ip-172-31-90-102:/etc/ansible$ cd hosts
-bash: cd: hosts: Not a directory
ubuntu@ip-172-31-90-102:/etc/ansible$ sudo nano hosts
ubuntu@ip-172-31-90-102:/etc/ansible$ ansible -m ping all
The authenticity of host '172.31.86.224 (172.31.86.224)' can't be established.
ED25519 key fingerprint is SHA256:yJ2ebQaeKpldlJfZaJmxAqA4OjyEQuxytMCdzDv4poc.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
172.31.86.224 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
ubuntu@ip-172-31-90-102:/etc/ansible$ sudo nano hosts
```

i-081c2fec4f46d3fff (ansible-master)   ✕
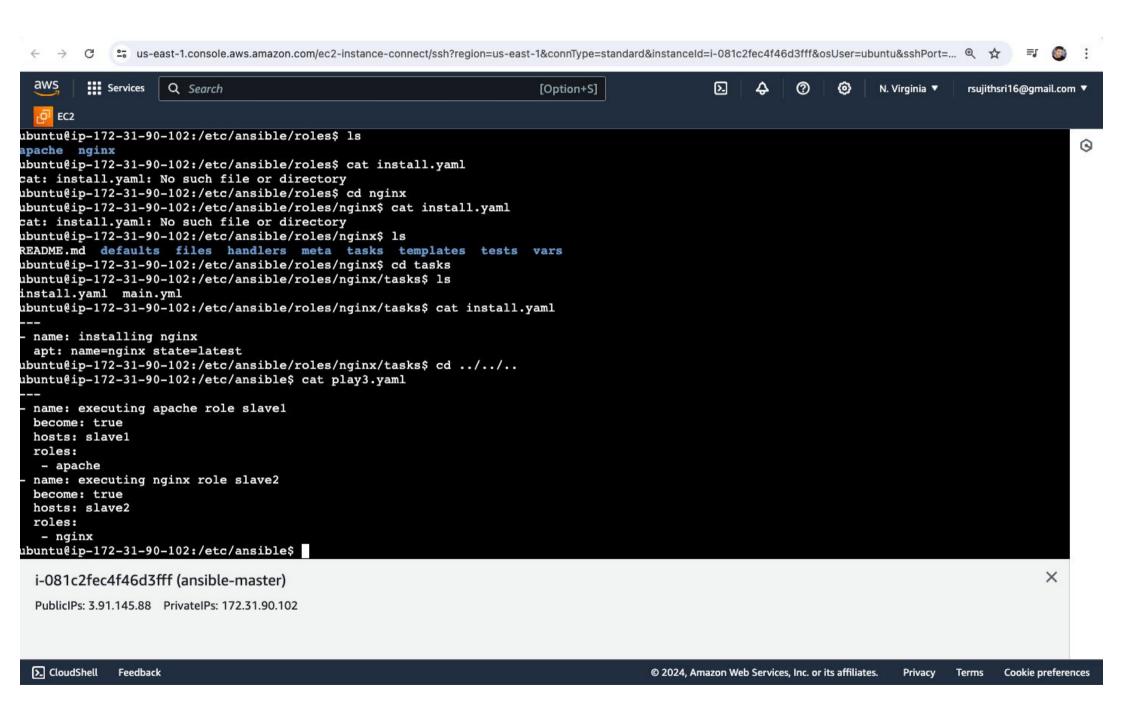
PublicIPs: 3.91.145.88   PrivateIPs: 172.31.90.102

aws | Services | Q Search [Option+S] | N. Virginia ▼ | rsujithsri16@gmail.com ▼

EC2

```
ntu@ip-172-31-90-102
ubuntu@ip-172-31-90-102:~$ cd /etc/ansible
ubuntu@ip-172-31-90-102:/etc/ansible$ ls
ansible.cfg  hosts  roles
ubuntu@ip-172-31-90-102:/etc/ansible$ cd hosts
-bash: cd: hosts: Not a directory
ubuntu@ip-172-31-90-102:/etc/ansible$ sudo nano hosts
ubuntu@ip-172-31-90-102:/etc/ansible$ ansible -m ping all
The authenticity of host '172.31.86.224 (172.31.86.224)' can't be established.
ED25519 key fingerprint is SHA256:yJ2ebQaeKpldlJfZaJmxAqA4OjyEQuxytMCdzDv4poc.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
172.31.86.224 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}

ubuntu@ip-172-31-90-102:/etc/ansible$ sudo nano hosts
ubuntu@ip-172-31-90-102:/etc/ansible$ ansible -m ping all
The authenticity of host '172.31.95.99 (172.31.95.99)' can't be established.
ED25519 key fingerprint is SHA256:JnHvx8YK9vf8N/mNyq8rGLg5xHpwyaTmTXNQObRPdhY.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? 172.31.86.224 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
```

i-081c2fec4f46d3fff (ansible-master)   ✕

PublicIPs: 3.91.145.88   PrivateIPs: 172.31.90.102

```
ubuntu@ip-172-31-90-102:/etc/ansible$ ls
ansible.cfg  hosts  roles
ubuntu@ip-172-31-90-102:/etc/ansible$ cd roles
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ ls
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ sudo ansible-galaxy init apache
- Role apache was created successfully
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ sudo ansible-galaxy init nginx
- Role nginx was created successfully
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ ls
apache  nginx
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ cd apache
ubuntu@ip-172-31-90-102:/etc/ansible/roles/apache$ ls
README.md  defaults  files  handlers  meta  tasks  templates  tests  vars
ubuntu@ip-172-31-90-102:/etc/ansible/roles/apache$ cd tasks
ubuntu@ip-172-31-90-102:/etc/ansible/roles/apache/tasks$ ls
main.yml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/apache/tasks$ sudo nano install.yaml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/apache/tasks$ ls
install.yaml  main.yml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/apache/tasks$ sudo nano main.yml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/apache/tasks$ cd ../..
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ cd nginx
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx$ ls
README.md  defaults  files  handlers  meta  tasks  templates  tests  vars
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx$ cd tasks
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ ls
main.yml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ sudo nano install.yaml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ sudo nano main.yml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ cd ../..
```

i-081c2fec4f46d3fff (ansible-master)   ✕

PublicIPs: 3.91.145.88   PrivateIPs: 172.31.90.102

aws   Services   Q Search   [Option+S]   N. Virginia ▼   rsujithsri16@gmail.com ▼

EC2

```
playbook: play3.yaml
ubuntu@ip-172-31-90-102:/etc/ansible$ ansible-playbook play3.yaml --check

PLAY [executing apache role slave1] ***********************************************

TASK [Gathering Facts] ************************************************************
ok: [172.31.86.224]

TASK [apache : include_tasks] *****************************************************
included: /etc/ansible/roles/apache/tasks/install.yaml for 172.31.86.224

TASK [apache : installing apache2] ************************************************
changed: [172.31.86.224]

PLAY [executing nginx role slave2] ************************************************

TASK [Gathering Facts] ************************************************************
ok: [172.31.95.99]

TASK [nginx : include_tasks] ******************************************************
included: /etc/ansible/roles/nginx/tasks/install.yaml for 172.31.95.99

TASK [nginx : installing nginx] ***************************************************
changed: [172.31.95.99]

PLAY RECAP ************************************************************************
172.31.86.224              : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
172.31.95.99               : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-90-102:/etc/ansible$
```

i-081c2fec4f46d3fff (ansible-master)   ✕

PublicIPs: 3.91.145.88   PrivateIPs: 172.31.90.102

aws **::: Services** Q Search [Option+S] N. Virginia ▼ rsujithsri16@gmail.com ▼

EC2

```
ok: [172.31.95.99]

TASK [nginx : include_tasks] *********************************************************************
included: /etc/ansible/roles/nginx/tasks/install.yaml for 172.31.95.99

TASK [nginx : installing nginx] ******************************************************************
changed: [172.31.95.99]

PLAY RECAP ***************************************************************************************
172.31.86.224              : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
172.31.95.99               : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-90-102:/etc/ansible$ cd roles
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ ls
apache   nginx
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ cat install.yaml
cat: install.yaml: No such file or directory
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ cd nginx
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx$ cat install.yaml
cat: install.yaml: No such file or directory
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx$ ls
README.md   defaults   files   handlers   meta   tasks   templates   tests   vars
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx$ cd tasks
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ ls
install.yaml   main.yml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ cat install.yaml
---
- name: installing nginx
  apt: name=nginx state=latest
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$
```

i-081c2fec4f46d3fff (ansible-master) ✕

PublicIPs: 3.91.145.88   PrivateIPs: 172.31.90.102

aws   ::: Services   Q Search   [Option+S]   ⌘   △   ⑦   ⚙   N. Virginia ▼   rsujithsri16@gmail.com ▼

EC2

```
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ ls
apache  nginx
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ cat install.yaml
cat: install.yaml: No such file or directory
ubuntu@ip-172-31-90-102:/etc/ansible/roles$ cd nginx
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx$ cat install.yaml
cat: install.yaml: No such file or directory
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx$ ls
README.md  defaults  files  handlers  meta  tasks  templates  tests  vars
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx$ cd tasks
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ ls
install.yaml  main.yml
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ cat install.yaml
---
- name: installing nginx
  apt: name=nginx state=latest
ubuntu@ip-172-31-90-102:/etc/ansible/roles/nginx/tasks$ cd ../../..
ubuntu@ip-172-31-90-102:/etc/ansible$ cat play3.yaml
---
- name: executing apache role slave1
  become: true
  hosts: slave1
  roles:
   - apache
- name: executing nginx role slave2
  become: true
  hosts: slave2
  roles:
   - nginx
ubuntu@ip-172-31-90-102:/etc/ansible$
```

i-081c2fec4f46d3fff (ansible-master)   ✕

PublicIPs: 3.91.145.88   PrivateIPs: 172.31.90.102

Apache2 Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at /var/www/html/index.html) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the apache2–doc package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|        `--  ports.conf
|-- mods-enabled
|        |-- *.load
|        `-- *.conf
|-- conf-enabled
|        `-- *.conf
|-- sites-enabled
|        `-- *.conf
```

- apache2.conf is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.

- ports.conf is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.