School of Computer Science

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

DEHRADUN, UTTARAKHAND

System Monitoring and Configuration Management

Lab File

(2024)

for

6th Semester

Submitted To:

Dr. Hitesh Kumar Sharma

Submitted By:

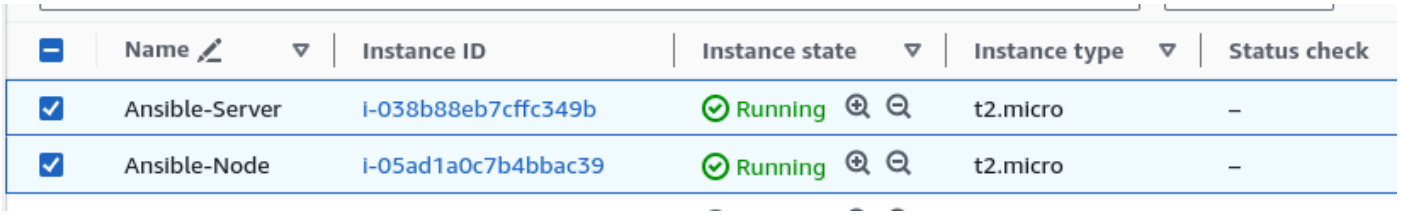
Kanishka
B. Tech. CSE
DevOps
Sap id- 500091377
Batch 1
R2142210393

LAB EXERCISE 11

Aim- Configure Ansible Setup In Linux

Steps

1. Create two Amazon Linux t2.micro instance - Ansible Server & Node



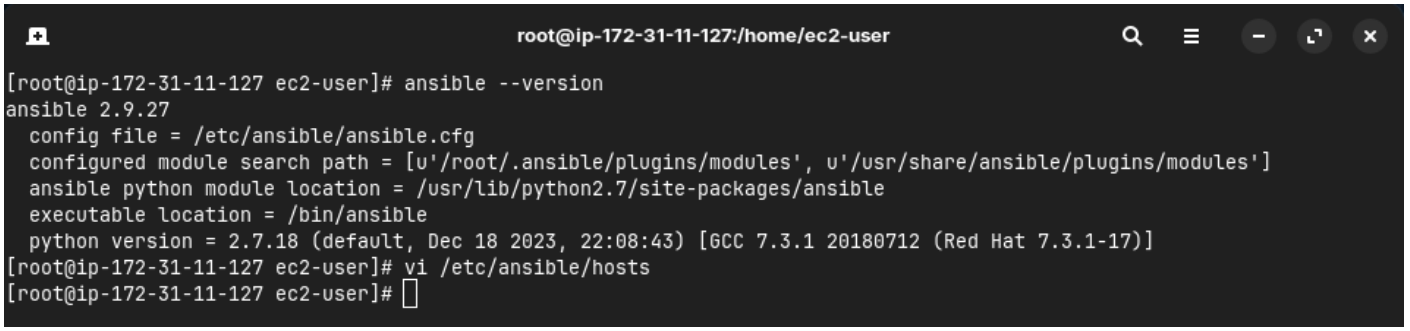
Name	Instance ID	Instance state	Instance type	Status check
Ansible-Server	i-038b88eb7cffc349b	Running	t2.micro	–
Ansible-Node	i-05ad1a0c7b4bbac39	Running	t2.micro	–

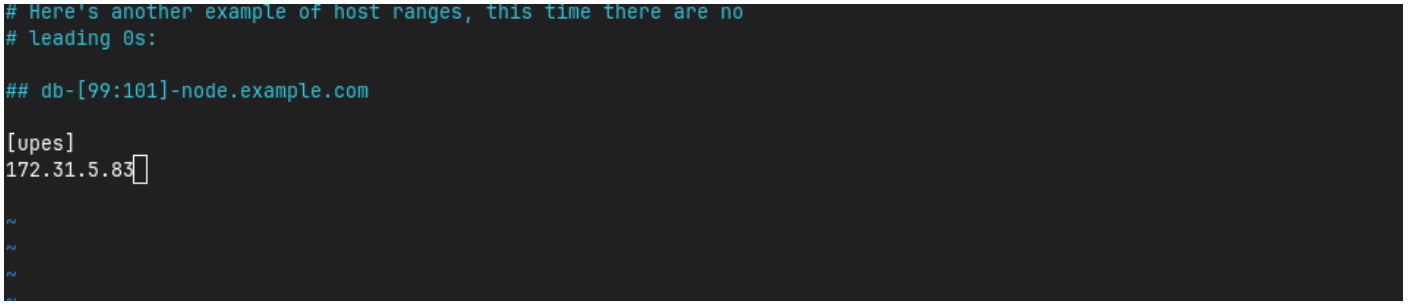
2. Install ansible on Ansible Server

```
[ec2-user@ip-172-31-11-127 ~]$ sudo su
[root@ip-172-31-11-127 ec2-user]# ls
ansible.sh  epel-release-latest-7.noarch.rpm
[root@ip-172-31-11-127 ec2-user]# cat ansible.sh
wget https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm

yum install  epel-release-latest-7.noarch.rpm

yum update -y

yum install git python python-pip openssl -y

yum install ansible
[root@ip-172-31-11-127 ec2-user]# ./ansible.sh
--2024-04-20 20:19:47--  https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm
Resolving dl.fedoraproject.org (dl.fedoraproject.org)... 38.145.60.22, 38.145.60.23, 38.145.60.24
Connecting to dl.fedoraproject.org (dl.fedoraproject.org)|38.145.60.22|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 15608 (15K) [application/x-rpm]
Saving to: 'epel-release-latest-7.noarch.rpm.1'

100%[======================================================================>] 15,608      58.6KB/s   in 0.3s
```

```
--------------------------------------------------------------------------------------------------------------------------------
Total                                                                                5.0 MB/s |  17 MB  00:00:03
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : python2-httplib2-0.18.1-3.el7.noarch                                                                       1/4
  Installing : sshpass-1.06-1.el7.x86_64                                                                                  2/4
  Installing : python-paramiko-2.1.1-0.10.el7.noarch                                                                      3/4
  Installing : ansible-2.9.27-1.el7.noarch                                                                                4/4
  Verifying  : python-paramiko-2.1.1-0.10.el7.noarch                                                                      1/4
  Verifying  : sshpass-1.06-1.el7.x86_64                                                                                  2/4
  Verifying  : python2-httplib2-0.18.1-3.el7.noarch                                                                       3/4
  Verifying  : ansible-2.9.27-1.el7.noarch                                                                                4/4

Installed:
  ansible.noarch 0:2.9.27-1.el7

Dependency Installed:
  python-paramiko.noarch 0:2.1.1-0.10.el7    python2-httplib2.noarch 0:0.18.1-3.el7    sshpass.x86_64 0:1.06-1.el7

Complete!
[root@ip-172-31-11-127 ec2-user]#
```

3. Add Private IP of node to the Ansible server's inventory file





4. Create super user in both the machines

5. Give sudo user permissions to both users

```
##      user    MACHINE=COMMANDS
##
## The COMMANDS section may have other options added to it.
##
## Allow root to run any commands anywhere
root    ALL=(ALL)       ALL
ansible ALL=(ALL)     NOPASSWD: ALL

## Allows members of the 'sys' group to run networking, softwar
## service management apps and more.
# %sys ALL = NETWORKING, SOFTWARE, SERVICES, STORAGE, DELEGATIN
```

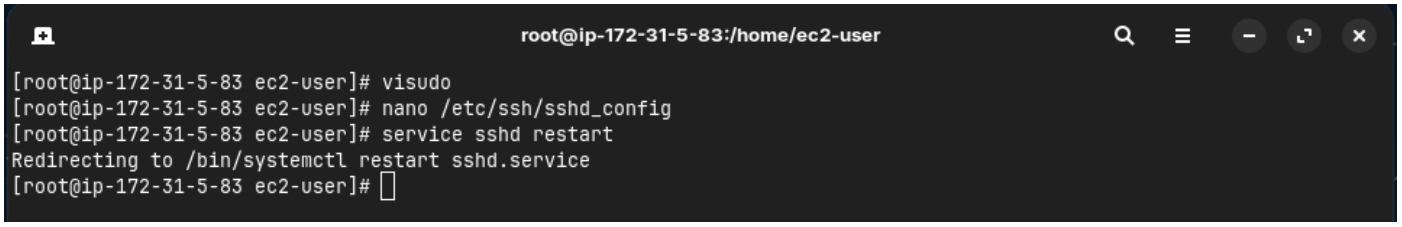
```
## The COMMANDS section may have other options added to it.
##
## Allow root to run any commands anywhere
root    ALL=(ALL)       ALL
ansiblenode ALL=(ALL)     NOPASSWD: ALL

## Allows members of the 'sys' group to run networking, sof
## service management apps and more.
# %sys ALL = NETWORKING, SOFTWARE, SERVICES, STORAGE, DELEG
```

6. Edit the sshd_config file in the node server

```
root@ip-172-31-5-83:/home/ec2-user
[root@ip-172-31-5-83 ec2-user]# visudo
[root@ip-172-31-5-83 ec2-user]# nano /etc/ssh/sshd_config
[root@ip-172-31-5-83 ec2-user]#
```

```
#LogLevel INFO

# Authentication:

#LoginGraceTime 2m
PermitRootLogin yes
#StrictModes yes
```

```
# Don't read the user's ~/.rhosts and ~/.shosts files
#IgnoreRhosts yes

# To disable tunneled clear text passwords, change to no here!
PasswordAuthentication yes
#PermitEmptyPasswords no
#PasswordAuthentication no
```



7. Generate key pair in Ansible server and copy the key to node server

8. Connect to node server from ansible server