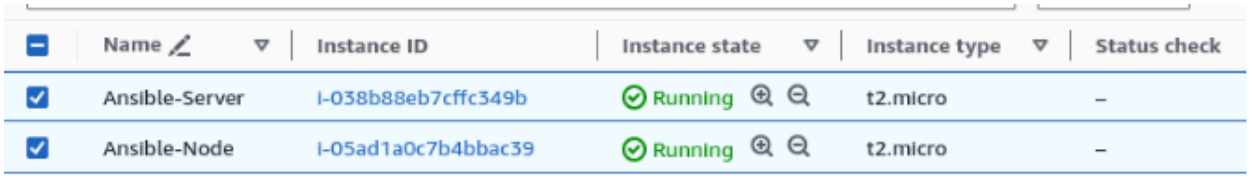
Lab Exercise 11 – Configure Ansible Setup in Linux

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]#
```

```
root@ip-172-31-11-127:/home/ec2-user
[root@ip-172-31-11-127 ec2-user]# ansible --version
ansible 2.9.27
  config file = /etc/ansible/ansible.cfg
  configured module search path = [u'/root/.ansible/plugins/modules', u'/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python2.7/site-packages/ansible
  executable location = /bin/ansible
  python version = 2.7.18 (default, Dec 18 2023, 22:08:43) [GCC 7.3.1 20180712 (Red Hat 7.3.1-17)]
[root@ip-172-31-11-127 ec2-user]#
```

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

```
root@ip-172-31-11-127:/home/ec2-user
[root@ip-172-31-11-127 ec2-user]# ansible --version
ansible 2.9.27
  config file = /etc/ansible/ansible.cfg
  configured module search path = [u'/root/.ansible/plugins/modules', u'/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python2.7/site-packages/ansible
  executable location = /bin/ansible
  python version = 2.7.18 (default, Dec 18 2023, 22:08:43) [GCC 7.3.1 20180712 (Red Hat 7.3.1-17)]
[root@ip-172-31-11-127 ec2-user]# vi /etc/ansible/hosts
[root@ip-172-31-11-127 ec2-user]#
```

```
# Here's another example of host ranges, this time there are no
# leading 0s:

## db-[99:101]-node.example.com

[upes]
172.31.5.83
~
~
~
```

4. Create super user in both the machines

```
root@ip-172-31-11-127:/home/ansible
[root@ip-172-31-11-127 ansible]# passwd ansible
Changing password for user ansible.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@ip-172-31-11-127 ansible]#
```

```
root@ip-172-31-5-83:/home/ansible
[root@ip-172-31-5-83 ansible]# passwd ansiblenode
Changing password for user ansiblenode.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@ip-172-31-5-83 ansible]#
```

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]#
```

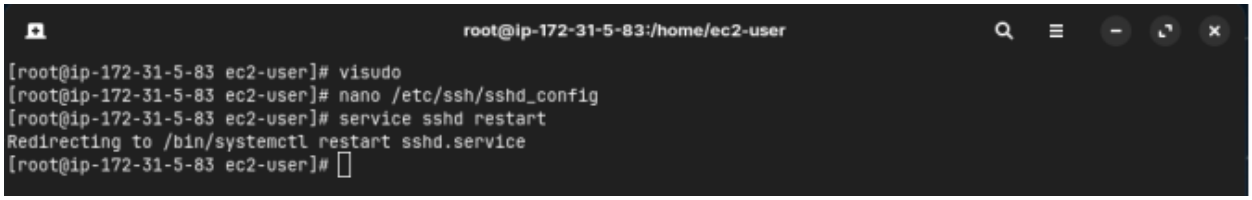
```
#LogLevel INFO

# Authentication:

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

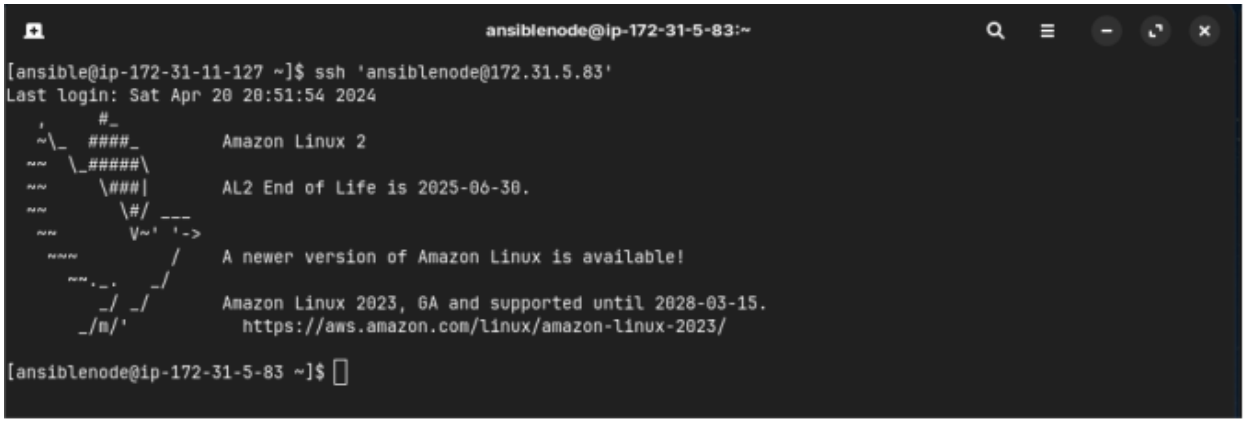
```
# Don't read the user's ~/.rhosts and ~/.shosts files
#IgnoreRhosts yes

# 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


ansiblenode@ip-172-31-5-83:~
[ansible@ip-172-31-11-127 ~]$ ssh 'ansiblenode@172.31.5.83'
Last login: Sat Apr 20 20:51:54 2024
Amazon Linux 2
AL2 End of Life is 2025-06-30.
A newer version of Amazon Linux is available!
Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/
[ansiblenode@ip-172-31-5-83 ~]$