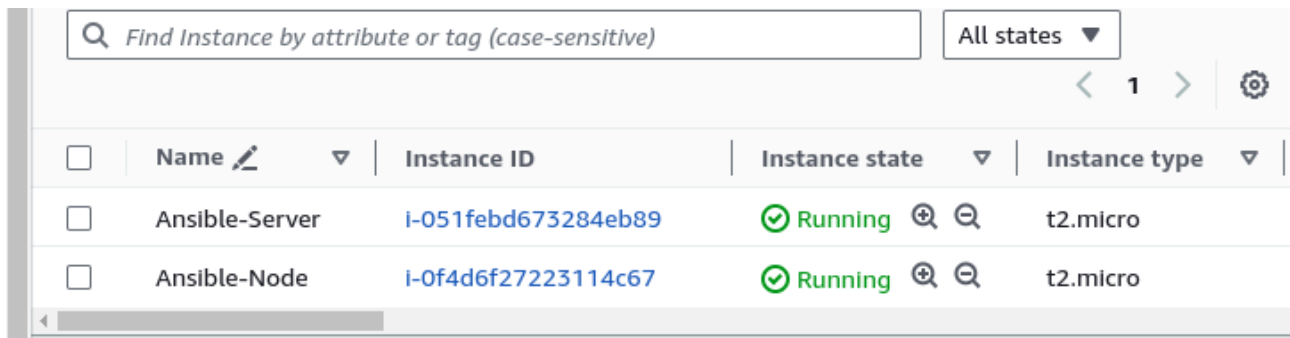


Experiment 11 : Configure Ansible Setup in Linux

Steps :

1. Create two Linux based t2.micro instances – Ansible Server and Ansible Node

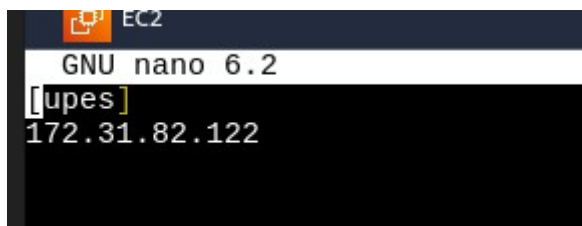


	Name	Instance ID	Instance state	Instance type
<input type="checkbox"/>	Ansible-Server	i-051febd673284eb89	Running	t2.micro
<input type="checkbox"/>	Ansible-Node	i-0f4d6f27223114c67	Running	t2.micro

2. Install Ansible on Ansible Server.

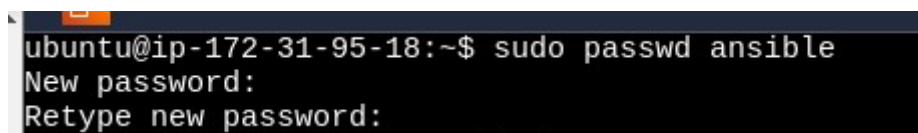
```
ubuntu@ip-172-31-95-18:~$ sudo apt-get install ansible
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  ieee-data python3-argcomplete python3-dnspython python3-jmespath python3-kerberos
  python3-libcloud python3-lockfile python3-netaddr python3-ntlm-auth python3-packagi
  python3-pycryptodome python3-requests-kerberos python3-requests-ntlm python3-reques
  python3-selinux python3-simplejson python3-winrm python3-xlrd python3-xlsxwriter
Suggested packages:
  cowsay sshpass python3-sniffio python3-trio python-lockfile-doc ipython3 python-net
The following NEW packages will be installed:
  ansible ieee-data python3-argcomplete python3-dnspython python3-jmespath python3-ke
  python3-libcloud python3-lockfile python3-netaddr python3-ntlm-auth python3-packagi
  python3-pycryptodome python3-requests-kerberos python3-requests-ntlm python3-reques
  python3-selinux python3-simplejson python3-winrm python3-xlrd python3-xlsxwriter
0 upgraded, 19 newly installed, 0 to remove and 52 not upgraded.
Need to get 22.9 MB of archives.
After this operation, 243 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

3. Add private IP of node to ansible server's inventory file. (create playbook.yaml file is host file is not found).



```
EC2
GNU nano 6.2
[upes]
172.31.82.122
```

4. Create super users in both machines



```
ubuntu@ip-172-31-95-18:~$ sudo passwd ansible
New password:
Retype new password:
```

```
ubuntu@ip-172-31-82-122:~$ sudo adduser ansiblenode
Adding user `ansiblenode' ...
Adding new group `ansiblenode' (1001) ...
Adding new user `ansiblenode' (1001) with group `ansiblenode' .
Creating home directory `/home/ansiblenode' ...
Copying files from `/etc/skel'
```

5. Give Root Privileges to both users.

```
# User privilege specification
root    ALL=(ALL:ALL) ALL
ansible ALL=(ALL) NOPASSWD: ALL

# Members of the admin group may gain root privileges
%admin  ALL=(ALL) ALL

# Allow members of group sudo to execute any command
%sudo  ALL=(ALL:ALL) ALL
```

```
# Cmnd alias specification

# User privilege specification
root    ALL=(ALL:ALL) ALL
ansiblenode ALL=(ALL) NOPASSWD: ALL

# Members of the admin group may gain root privileges
```

6. Edit the ssh_config file in the node server

```
ssh/ ssh/
ubuntu@ip-172-31-82-122:~$ nano /etc/ssh/sshd_config
ubuntu@ip-172-31-82-122:~$
```

```
#SyslogFacility AUTH
#LogLevel INFO
```

```
# Authentication:
```

```
#LoginGraceTime 2m
PermitRootLogin yes
#StrictModes yes
#MaxAuthTries 6
```

```
# Don't read the user's ~/.rhosts and
```

```
#IgnoreRhosts yes

# To disable tunneled clear text passwords
PasswordAuthentication yes
#PermitEmptyPasswords no
```

```
# Change to yes to enable challenge-response authentication
# some PAM modules and threads)
```

```
ubuntu@ip-172-31-82-122:~$ service sshd restart
==== AUTHENTICATING FOR org.freedesktop.systemd1.manage-units ====
Authentication is required to restart 'ssh.service'.
Authenticating as: Ubuntu (ubuntu)
Password:
```

7. Generate Key pair in Ansible Server and Copy the key to nodeserver

```
ubuntu@ip-172-31-95-18:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ubuntu/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ubuntu/.ssh/id_rsa
Your public key has been saved in /home/ubuntu/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:3e0Jwh9rYXpkjXw00Yagpvm0UBk1xDL/C7c3W5QG2d4 ubuntu@ip-172-31-95-18
The key's randomart image is:
+---[RSA 3072]-----+
|      o+      |
|    o... + .  |
|   .+ o o o * |
|  o.+ o = O o |
| o o.S + / E  |
| . .oo X B .  |
| . .o.o. * o  |
| . . o o+    |
| . . .o      |
+---[SHA256]-----+
ubuntu@ip-172-31-95-18:~$ ssh-copy-id ansiblenode@172.31.82.122
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/ubuntu/.ssh/id_rsa.pub"
The authenticity of host '172.31.82.122 (172.31.82.122)' can't be established.
ED25519 key fingerprint is SHA256:otufJHa38aK0fbKK5352bADpus+AKx0vV7+NE4e+xg.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install all the new keys
```

8. Connect to node from ansible server

```
ubuntu@ip-172-31-95-18:~$ ssh 'ansiblenode@172.31.82.122'
Linux ip-172-31-82-122 6.5.0-1014-aws #14~22.04.1-Ubuntu SMP Thu Fe
_64 x86_64 GNU/Linux
ansiblenode@172.31.82.122:
```