EXPERIMENT – 11

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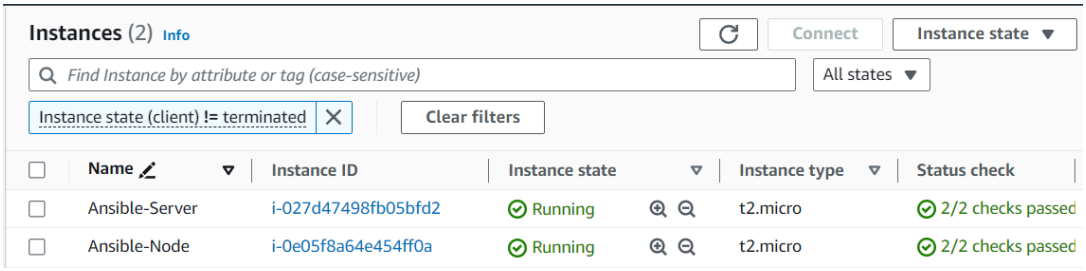
Batch – 2 [DevOps Non-Hons]
SAP ID- 500092140
Subject – System Provisioning and Configuration Management Lab

Aim: Configure Ansible Setup in Linux.

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



2. Install ansible on Ansible Server

```
[ec2-user@ip-172-31-32-128 ~]$ sudo su
[root@ip-172-31-32-128 ec2-user]# wget https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm
--2024-04-26 09:15:14--  https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm
Resolving dl.fedoraproject.org (dl.fedoraproject.org)... 38.145.60.24, 38.145.60.22, 38.145.60.23
Connecting to dl.fedoraproject.org (dl.fedoraproject.org)|38.145.60.24|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 15608 (15K) [application/x-rpm]
Saving to: 'epel-release-latest-7.noarch.rpm'

100%[==========================================================================================================================

2024-04-26 09:15:15 (58.6 KB/s) - 'epel-release-latest-7.noarch.rpm' saved [15608/15608]

[root@ip-172-31-32-128 ec2-user]# yum install  epel-release-latest-7.noarch.rpm
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Examining epel-release-latest-7.noarch.rpm: epel-release-7-14.noarch
Marking epel-release-latest-7.noarch.rpm to be installed
Resolving Dependencies
--> Running transaction check
---> Package epel-release.noarch 0:7-14 will be installed
--> Finished Dependency Resolution
amzn2-core/2/x86_64

Dependencies Resolved

[root@ip-172-31-32-128 ec2-user]# ls
epel-release-latest-7.noarch.rpm
[root@ip-172-31-32-128 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-172-31-32-128 ec2-user]#
```

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

```
# Ex 1: Ungrouped hosts, specify before any group headers.
[upes]
172.31.32.73

# green.example.com
## blue.example.com
## 192.168.100.1
## 192.168.100.10
```

4. Create super user in both the machines

```
[root@ip-172-31-32-128 ec2-user]# adduser Ansible
[root@ip-172-31-32-128 ec2-user]# passwd Ansible
Changing password for user Ansible.
New password:
BAD PASSWORD: The password contains the user name in some form
Retype new password:
passwd: all authentication tokens updated successfully.
[root@ip-172-31-32-128 ec2-user]#
```

```
[root@ip-172-31-32-73 ec2-user]# adduser Ansible
[root@ip-172-31-32-73 ec2-user]# passwd Ansible
Changing password for user Ansible.
New password:
BAD PASSWORD: The password contains the user name in some form
Retype new password:
Sorry, passwords do not match.
New password:
BAD PASSWORD: The password contains the user name in some form
Retype new password:
passwd: all authentication tokens updated successfully.
[root@ip-172-31-32-73 ec2-user]#
```

i-0e05f8a64e454ff0a (Ansible-Node)

PublicIPs: 65.0.169.25 PrivateIPs: 172.31.32.73

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

```
ansible@ip-172-31-11-127:~
[ansible@ip-172-31-11-127 ~]$ ssh-key
-bash: ssh-key: command not found
[ansible@ip-172-31-11-127 ~]$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ansible/.ssh/id_rsa):
/home/ansible/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ansible/.ssh/id_rsa.
Your public key has been saved in /home/ansible/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:WciCBF7n9Wn5bE6bw5SX67C7unBGgD+qUFrBy2Zf0XI ansible@ip-172-31-11-127.ap-south-1.compute.internal
The key's randomart image is:
+---[RSA 2048]----+
|  ..o . .        |
| . + + + + o     |
|  . + + * E      |
|   . o o O o . . |
|    B   S . B o  |
|   * . o o * + . |
|  o   o . o B .  |
|   . .   +   =   |
|    .     oo+o.  |
+----[SHA256]-----+
[ansible@ip-172-31-11-127 ~]$ ssh-copy-id ansiblenode@172.31.5.83
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/ansible/.ssh/id_rsa.pub"
/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 the new keys
ansiblenode@172.31.5.83's password:

Number of key(s) added: 1

Now try logging into the machine, with:   "ssh 'ansiblenode@172.31.5.83'"
and check to make sure that only the key(s) you wanted were added.

[ansible@ip-172-31-11-127 ~]$
```

8.Connect to node server from ansible server