Assignment 9 :: Deploy Ansible on One of EC2 instance and write a playbook to install httpd server and host website on two ansible hosts

Step 1 :: Create three EC2 instances and name it as below

1. Ansible\_Control\_Node
2. Ansible\_Manage\_Node\_1
3. Ansible\_Manage\_Node\_2

Graphical user interface, text, application

Description automatically generated

Step 2 :: Install Ansible in Ansible\_Control\_Node

Update the rhel repo to latest

# yum update -y

Text

Description automatically generated

Install Ansible using EPEL Repository

# wget <https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm>

Text

Description automatically generated

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

Text

Description automatically generated

# yum update -y

Text

Description automatically generated

# yum install python python-devel python-pip openssl ansible -y

Text

Description automatically generated

# amazon-linux-extras install ansible2

Graphical user interface, text, application

Description automatically generated

# ansible --version

A screenshot of a computer

Description automatically generated

Step 3 :: Configuring Ansible in all nodes

# useradd ansadmin

# passwd ansadmin

Text

Description automatically generated

# visudo

Add below line

ansadmin ALL=(ALL) NOPASSWD: ALL

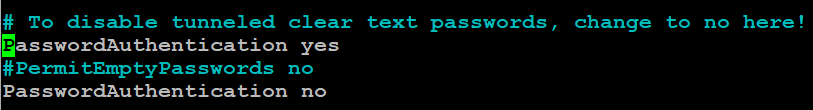
Text

Description automatically generated

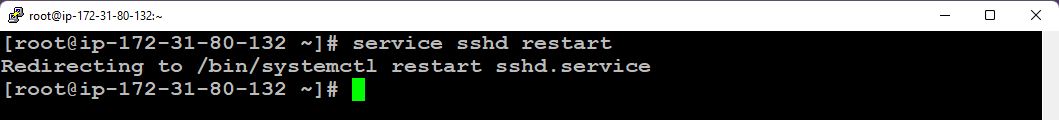
# vi /etc/ssh/sshd\_config

Uncomment the below line

“PasswordAuthentication yes”



# service sshd restart



Step 4 :: Setup PasswordLess login to all the Manage Nodes from Control node via ansadmin user

# su - ansadmin

$ ssh-keygen

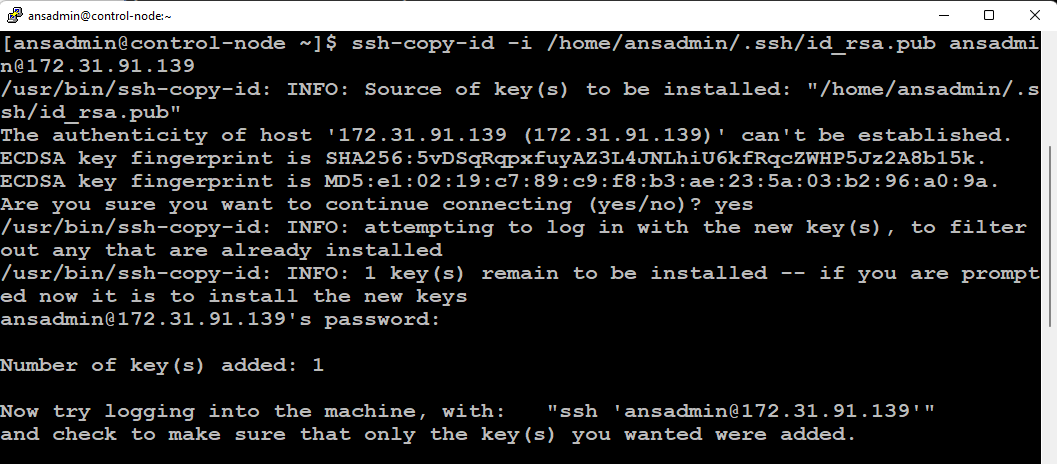
Text

Description automatically generated

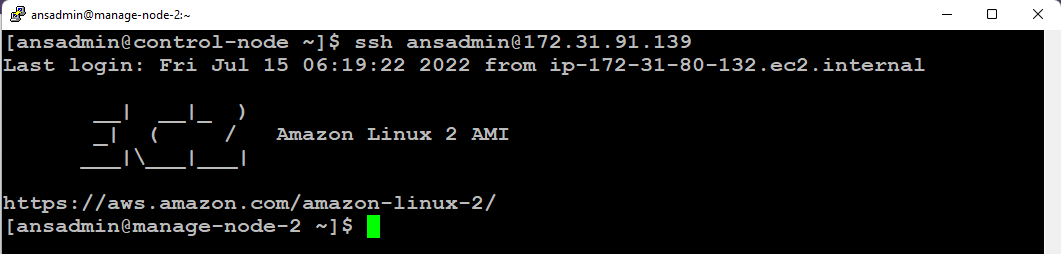
Copy the public key to Manage Nodes

$ ssh-copy-id -i /home/ansadmin/.ssh/id\_rsa.pub [ansadmin@172.31.83.149](mailto:ansadmin@172.31.83.149)

$ ssh-copy-id -i /home/ansadmin/.ssh/id\_rsa.pub [ansadmin@172.31.91.139](mailto:ansadmin@172.31.91.139)



Test the PasswordLess login from control node to manage nodes



A screenshot of a computer

Description automatically generated with medium confidence

Step 5 :: Managing inventory file on Master

Add the below lines at end of file /etc/ansible/hosts

# vi /etc/ansible/hosts

172.31.91.139

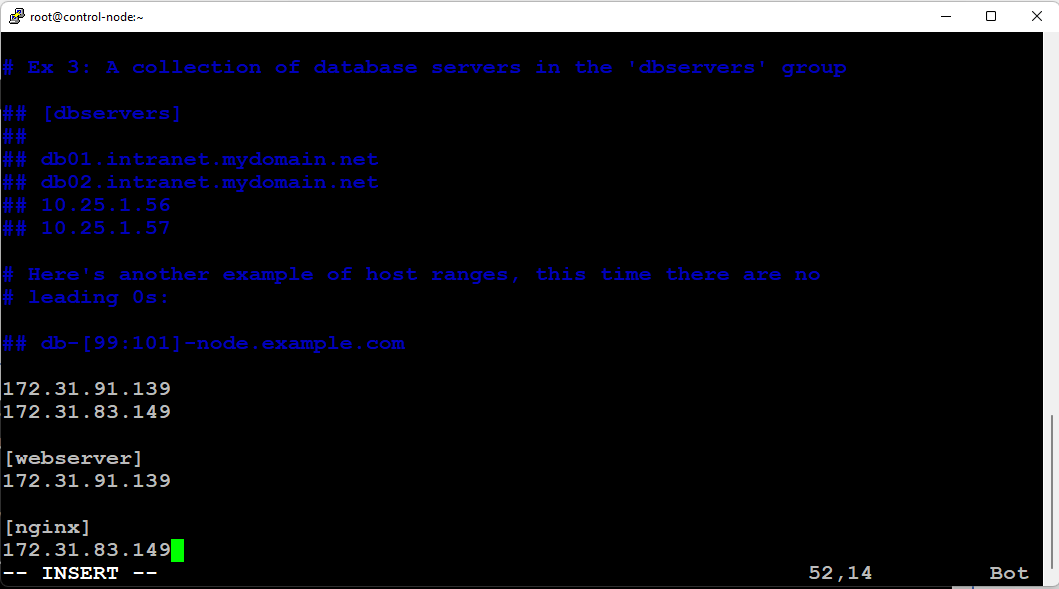
172.31.83.149

[webserver]

172.31.91.139

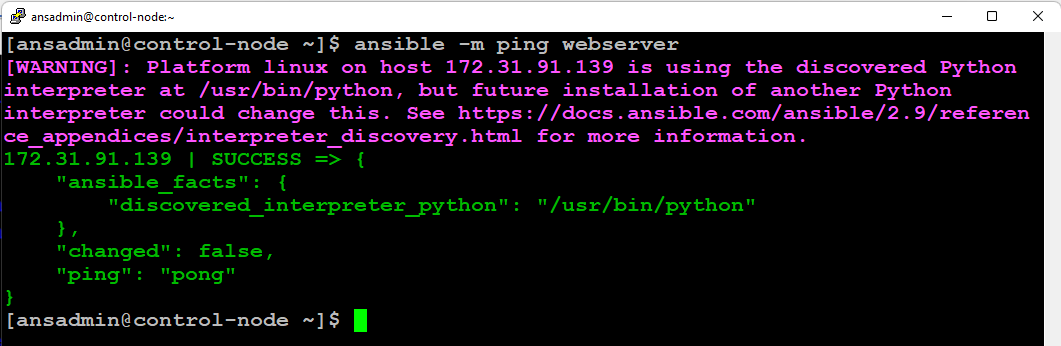
[nginx]

172.31.83.149

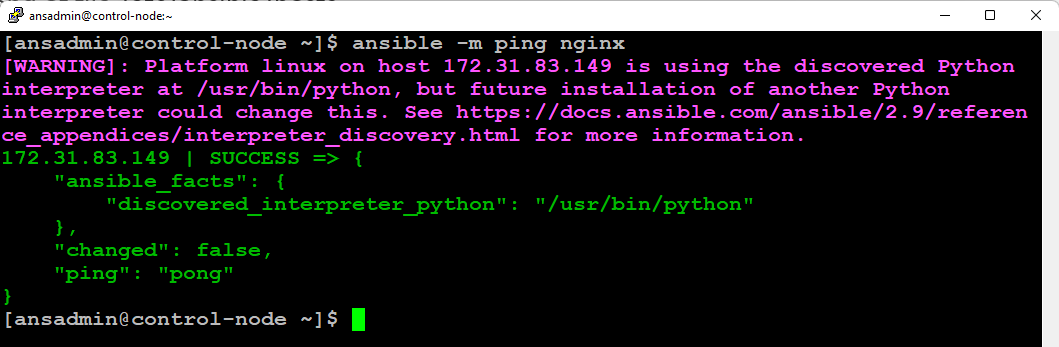


Perform Ping test from Control Node to Manage Nodes from ansadmin user

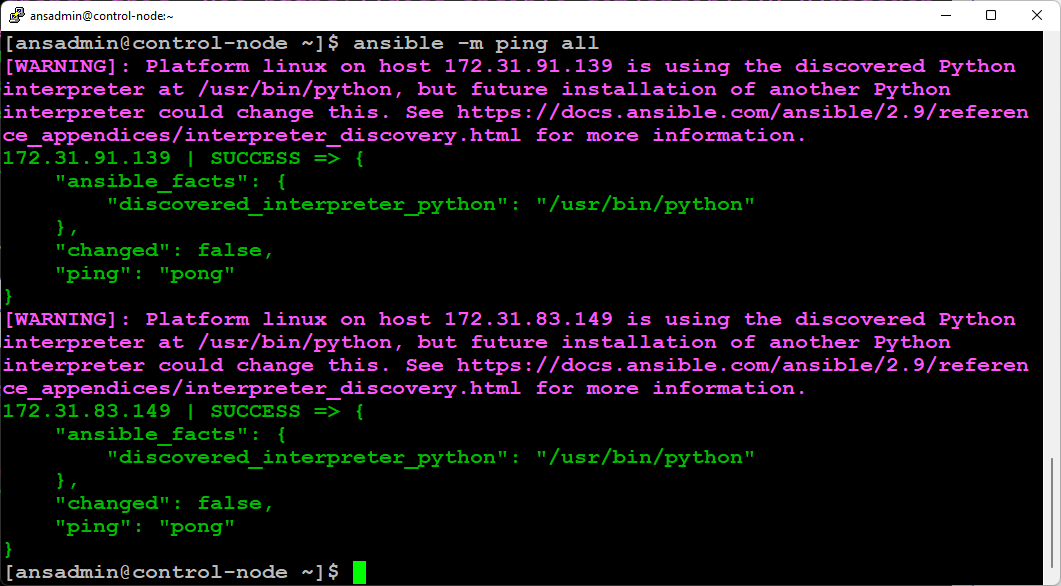
$ ansible -m ping webserver



$ ansible -m ping nginx



$ ansible -m ping all



Step 6 :: Write a playbook to install httpd and copy the index.html in manage node 1 (webserver) and install nginx in manage node 2 (nginx)

[ansadmin@control-node ~]$ cat hari\_playbook.yml

- name: Creating a Webserver

become: yes

remote\_user: ansadmin

hosts: webserver

tasks:

- name: install httpd package

yum:

name:

- httpd

state: present

- name: start service httpd

service:

name: httpd

state: started

enabled: yes

- name: create a directory

file:

path: /devweb

state: directory

mode: 02775

setype: httpd\_sys\_content\_t

- name: create file

file:

path: /devweb/index.html

state: touch

- name: copy the contents

copy:

content: "Welcome to Hariharan's WebServer page !!!\n"

dest: /devweb/index.html

- name: link a file

file:

src: /devweb

dest: /var/www/html/devweb

state: link

- name: Install nginx package in nginx server

become: yes

remote\_user: ansadmin

hosts: nginx

tasks:

- name: Get the EPEl repo

get\_url:

url: https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm

dest: /home/ansadmin/epel-release-latest-7.noarch.rpm

- name: install EPEL repo

yum:

name: /home/ansadmin/epel-release-latest-7.noarch.rpm

state: present

- name: install ngnix package

yum:

name:

- nginx

state: present

- name: start service nginx

service:

name: nginx

state: started

enabled: yes

[ansadmin@control-node ~]$

Run the playbook

$ ansible-playbook hari\_playbook.yml

A picture containing chart

Description automatically generated

**Result:**

Webpage is configured in webserver

Graphical user interface, text, application, chat or text message

Description automatically generated

Ngnix is successfully installed in nginx server

Graphical user interface

Description automatically generated with low confidence