

# EXPERIMENT 11

## AIM: INSTALLING AND SETUP ANSIBLE SERVER AND NODES

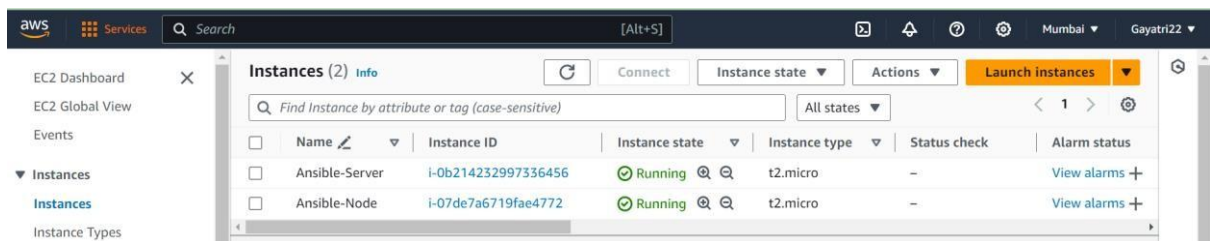
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SAP ID: 500090959

Roll No: R2142210118

BATCH : 1(NON HONS.)

1. Create 2 AWS linux EC2 instances.



2. Install ansible in Server machine.

```
complete.  
[root@ip-172-31-5-249 ec2-user]# ansible --version  
ansible 2.9.27
```

3. Add private ip of Node machine in list of known hosts in `/etc/ansible/hosts` file.

```
# - Groups of hosts are delimited by [header] elements  
# - You can enter hostnames or ip addresses  
# - A hostname/ip can be a member of multiple groups  
  
# Ex 1: Ungrouped hosts, specify before any group headers.  
[upes]  
172.31.5.113  
## green.example.com  
## blue.example.com  
## 192.168.100.1  
## 192.168.100.10  
  
# Ex 2: A collection of hosts belonging to the 'webservers' group  
## [webservers]  
## alpha.example.org  
## beta.example.org  
## 192.168.1.100  
## 192.168.1.110  
-- INSERT --
```

i-03c26553f4fe38a35 (Ansible-Server)

PublicIPs: 65.2.79.47 PrivateIPs: 172.31.5.249

4. adduser ansible in both server and node machine.

```
[root@ip-172-31-5-249 ec2-user]# vi /etc/ansible/hosts
[root@ip-172-31-5-249 ec2-user]# adduser ansible
[root@ip-172-31-5-249 ec2-user]# passwd ansible
Changing password for user ansible.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@ip-172-31-5-249 ec2-user]#
```

i-03c26553f4fe38a35 (Ansible-Server)

PublicIPs: 65.2.79.47 PrivateIPs: 172.31.5.249

```
[ec2-user@ip-172-31-5-113 ~]$ sudo su
[root@ip-172-31-5-113 ec2-user]# adduser ansible
[root@ip-172-31-5-113 ec2-user]# passwd ansible
Changing password for user ansible.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@ip-172-31-5-113 ec2-user]#
```

i-046f5254e32cc5213 (Ansible-Node)

PublicIPs: 13.127.24.24 PrivateIPs: 172.31.5.113

5. we have to generate a key pair and copy that into node machine.

```
[ansible@ip-172-31-5-113 ~]$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ansible/.ssh/id_rsa):
Created directory '/home/ansible/.ssh'.
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:qyD3kEBVG34x6+4adgmPAWaFsskMJQEBtT0Ef7UDnRE ansible@ip-172-31-5-113.ap-south-1.compute.internal
```

```
[ansible@ip-172-31-5-113 ~]$ ls -a
. .. .bash_logout .bash_profile .bashrc .ssh
```

```
[ansible@ip-172-31-5-249 .ssh]$ ssh-copy-id ansible@172.31.5.113
/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
ansible@172.31.5.113's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'ansible@172.31.5.113'"
and check to make sure that only the key(s) you wanted were added.
```

6. key has been successfully added, now we can go into node machine through server only by ssh-ing into it's private ip.

```
Last login: Sun Apr 21 08:52:29 2024
```

```

#_
~\  #####_      Amazon Linux 2
~~\  #####\
~~\  \###|      AL2 End of Life is 2025-06-30.
~~\  \#/
~~\  V~' ' '->
~~~
~~~.  _/  _/  _/
~~~/_/_'/_/  _/
    /m/'_/_/

```

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/>

```
[ansible@ip-172-31-5-113 ~]$
```

i-03c26553f4fe38a35 (Ansible-Server)

PublicIPs: 65.2.79.47 PrivateIPs: 172.31.5.249

## EXPERIMENT 12

### AIM: ANSIBLE COMMANDS AND PLAYBOOKS:

---

1. Check list of hosts.

```
[ansible@ip-172-31-5-249 .ssh]$ ansibleupes --list-hosts
hosts (1):
    172.31.5.113
```

2. Install httpd.

**Via Adhoc commands:**

Check in node

```
[ansible@ip-172-31-5-113 ~]$ which httpd
/usr/bin/which: no httpd in (/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin:/home/ansible/.local/bin:/home/ansible/bin)
```

Install on server using adhoc commands

```
[ansible@ip-172-31-5-249 .ssh]$ ansibleupes -a "sudo yum install httpd -y"
```

Installed:

httpd.x86\_64 0:2.4.58-1.amzn2

Dependency Installed:

apr.x86\_64 0:1.7.2-1.amzn2

apr-util.x86\_64 0:1.6.3-1.amzn2.0.1

apr-util-bdb.x86\_64 0:1.6.3-1.amzn2.0.1

generic-logos-httpd.noarch 0:18.0.0-4.amzn2

httpd-filesystem.noarch 0:2.4.58-1.amzn2

httpd-tools.x86\_64 0:2.4.58-1.amzn2

mailcap.noarch 0:2.1.41-2.amzn2

mod\_http2.x86\_64 0:1.15.19-1.amzn2.0.1

Complete!

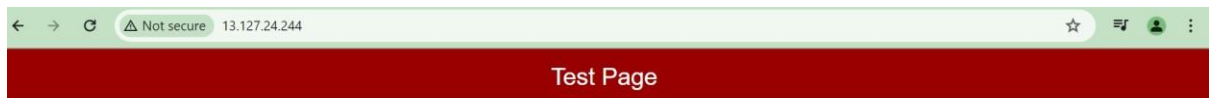
```
[ansible@ip-172-31-5-249 .ssh]$
```

i-03c26553f4fe38a35 (Ansible-Server)

Now check on node machine.

```
[ansible@ip-172-31-5-113 ~]$ which httpd
/usr/sbin/httpd
```

3.Put public ip of node on browser and see apache web page.



This page is used to test the proper operation of the Apache HTTP server after it has been installed. If you can read this page, it means that the Apache HTTP server installed at this site is working properly.

#### If you are a member of the general public:

The fact that you are seeing this page indicates that the website you just visited is either experiencing problems, or is undergoing routine maintenance.

If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.

For example, if you experienced problems while visiting [www.example.com](http://www.example.com), you should send e-mail to "webmaster@example.com".

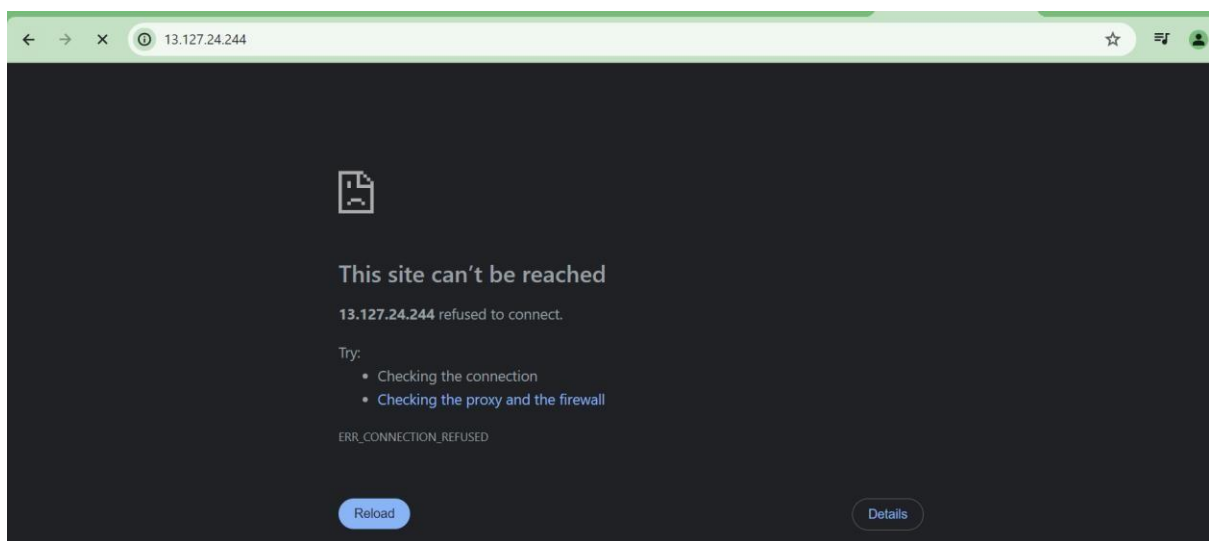
#### If you are the website administrator:

You may now add content to the directory `/var/www/html/`. Note that until you do so, people visiting your website will see this page, and not your content. To prevent this page from ever being used, follow the instructions in the file `/etc/httpd/conf.d/welcome.conf`.

You are free to use the image below on web sites powered by the Apache HTTP Server:



```
complete:
[ansible@ip-172-31-5-249 .ssh]$ ansible upes -a "sudo yum remove httpd -y"
```



## 4.Via playbook

```
[ansible@ip-172-31-5-249 .ssh]$ vi pb1.yml
[ansible@ip-172-31-5-249 .ssh]$ ansible-playbook pb1.yml

PLAY [upes] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 172.31.5.113 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.5.113]

TASK [Un-Install HTTPD] *****
ok: [172.31.5.113]

PLAY RECAP *****
172.31.5.113 : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

## Sample playbook

```
---
-   hosts: upes    user: ansible
become: yes    connection: ssh    vars:
    pkgname: httpd
currstatus: absent    tasks:
-   name: Un-Install HTTPD
action: yum name='{{pkgname}}'
state='{{currstatus}}'
```