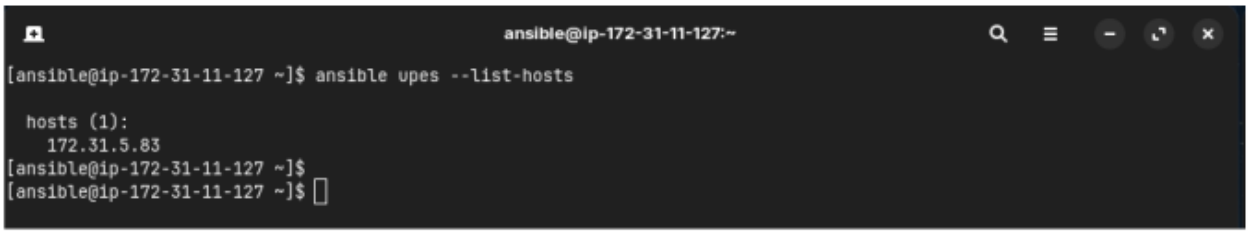
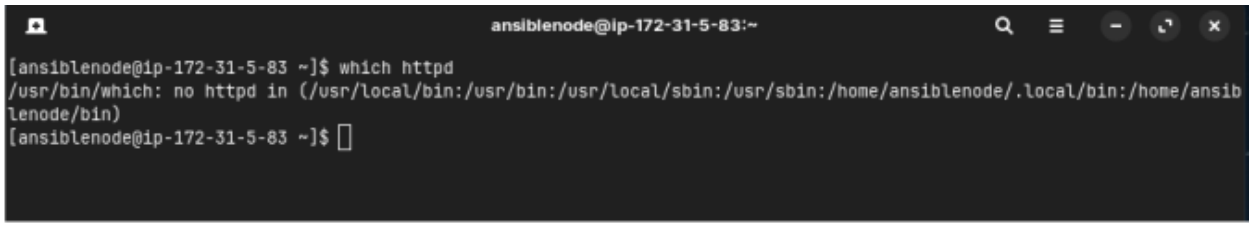
Lab Exercise 12 – Create Run Ansible Playbooks

Steps

1. Repeat the steps in Experiment 11 to create the initial setup
2. Test adhoc commands



3. Install Apache server on node server using adhoc command

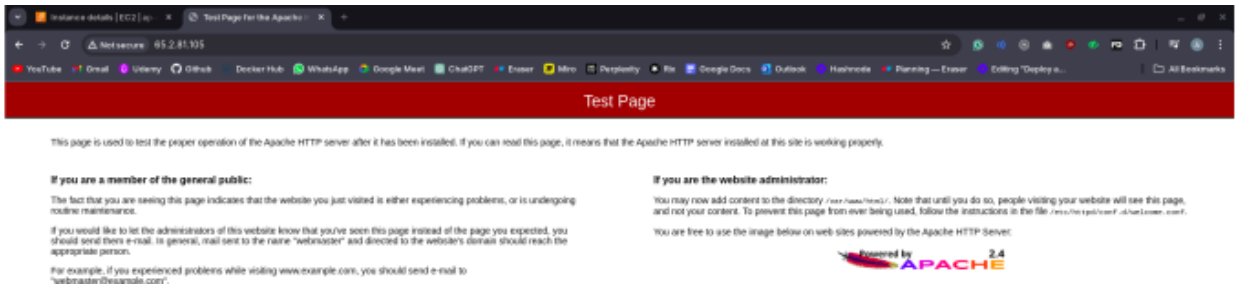


```
[ansible@ip-172-31-11-127 .ssh]$ ansible upes --list-hosts
  hosts (1):
    172.31.5.83
[ansible@ip-172-31-11-127 .ssh]$ ansible upes -a "sudo yum install httpd -y"
[WARNING]: Consider using 'become', 'become_method', and 'become_user' rather than running sudo
[WARNING]: Platform linux on host 172.31.5.83 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.
172.31.5.83 | CHANGED | rc=0 >>
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.58-1.amzn2 will be installed
--> Processing Dependency: httpd-filesystem = 2.4.58-1.amzn2 for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: httpd-tools = 2.4.58-1.amzn2 for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.58-1.amzn2.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.58-1.amzn2.x86_64
--> Running transaction check
---> Package apr.x86_64 0:1.7.2-1.amzn2 will be installed
---> Package apr-util.x86_64 0:1.6.3-1.amzn2.0.1 will be installed
--> Processing Dependency: apr-util-bdb(x86-64) = 1.6.3-1.amzn2.0.1 for package: apr-util-1.6.3-1.amzn2.0.1.x86_64
---> Package generic-logos-httpd.noarch 0:18.0.0-4.amzn2 will be installed
---> Package httpd-filesystem.noarch 0:2.4.58-1.amzn2 will be installed
---> Package httpd-tools.x86_64 0:2.4.58-1.amzn2 will be installed
---> Package mailcap.noarch 0:2.1.41-2.amzn2 will be installed
---> Package mod_http2.x86_64 0:1.15.19-1.amzn2.0.1 will be installed
--> Running transaction check
---> Package apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1 will be installed
--> Finished Dependency Resolution
```

```
ansible@ip-172-31-5-83:~

[ansible@ip-172-31-5-83 ~]$ which httpd
/usr/sbin/httpd
[ansible@ip-172-31-5-83 ~]$
```

4. Start the httpd service using ansible

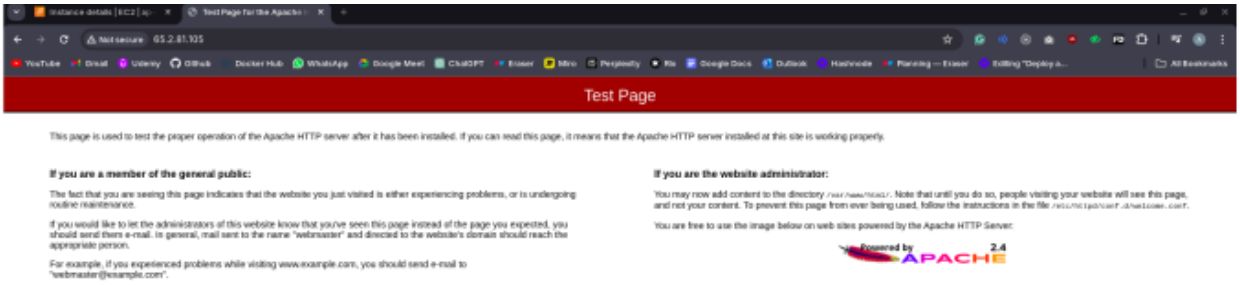
```
[ansible@ip-172-31-11-127 .ssh]$ ansible upes -a "sudo systemctl start httpd"
[WARNING]: Consider using 'become', 'become_method', and 'become_user' rather than running sudo
[WARNING]: Platform linux on host 172.31.5.83 is using the discovered Python interpreter at /usr/bin/python, but
future installation of another Python interpreter could change this. See
https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.5.83 | CHANGED | rc=0 >>

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



5. Remove ansbile and then reinstall using ansible playbook

```
[ansible@ip-172-31-11-127 .ssh]$ ansible upes -a "sudo yum remove httpd -y"
[WARNING]: Consider using 'become', 'become_method', and 'become_user' rather than running sudo
[WARNING]: Platform linux on host 172.31.5.83 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.
172.31.5.83 | CHANGED | rc=0 >>
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.58-1.amzn2 will be erased
--> Processing Dependency: httpd-mmn = 20120211x8664 for package: mod_http2-1.15.19-1.amzn2.0.1.x86_64
--> Running transaction check
---> Package mod_http2.x86_64 0:1.15.19-1.amzn2.0.1 will be erased
--> Finished Dependency Resolution

Dependencies Resolved
```

```
ansible@ip-172-31-11-127:~/.ssh

[ansible@ip-172-31-11-127 .ssh]$ cat pb1.yml
- hosts: upes
  user: ansible
  become: yes
  connection: ssh
  vars:
    pkgname: httpd
    currstatus: present
  tasks:
    - name: Install HTTPD
      yum:
        name: '{{ pkgname }}'
        state: '{{ currstatus }}'

    - name: Start HTTPD service
      service:
        name: httpd
        state: started

[ansible@ip-172-31-11-127 .ssh]$ ansible-playbook pb1.yml

PLAY [upes] ********************************************************************************************************

TASK [Gathering Facts] *********************************************************************************************
[WARNING]: Platform linux on host 172.31.5.83 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: [172.31.5.83]

TASK [Install HTTPD] ***********************************************************************************************
ok: [172.31.5.83]

TASK [Start HTTPD service] *****************************************************************************************
changed: [172.31.5.83]

PLAY RECAP *********************************************************************************************************
172.31.5.83                : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

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



6. Testing other playbooks

```
[ansible@ip-172-31-11-127 .ssh]$ nano pb2.yml
[ansible@ip-172-31-11-127 .ssh]$ cat pb2.yml
---
- hosts: upes
  user: ansible
  become: yes
  connection: ssh
  tasks:
    - name: Debian Family
      command: apt-get install apache2 -y
      when: ansible_os_family == "Debian"
    - name: RedHat Family
      command: yum install httpd -y
      when: ansible_os_family == "RedHat"
[ansible@ip-172-31-11-127 .ssh]$ ansible-playbook pb2.yml

PLAY [upes] ********************************************************************************************************************

TASK [Gathering Facts] *********************************************************************************************************
[WARNING]: Platform linux on host 172.31.5.83 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: [172.31.5.83]

TASK [Debian Family] ***********************************************************************************************************
skipping: [172.31.5.83]

TASK [RedHat Family] ***********************************************************************************************************
[WARNING]: Consider using the yum module rather than running 'yum'.  If you need to use command because yum is
insufficient you can add 'warn: false' to this command task or set 'command_warnings=False' in ansible.cfg to get rid
of this message.
changed: [172.31.5.83]

PLAY RECAP *********************************************************************************************************************
172.31.5.83                : ok=2    changed=1    unreachable=0    failed=0    skipped=1    rescued=0    ignored=0

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