

## **Assignment 01 – Ansible**

- Deploy three (3) Virtual Machines
- Configure Ansible server on **VM 1** to deploy a webserver to **VM2** and **VM3** on port 8080 that displays the message: “Hello World from SJSU”
- Include in the Ansible playbook, plays to **deploy** and **un-deploy** all the webserver resources
- Due 9/12 (Sunday) at 11:59PM
- Submit a Word document via Canvas, with screenshots showing your work, and all ansible code/scripts via GitHub.

### **GitHub**

**repo:**

[https://github.com/poojashreeNS/Assignments/tree/main/HW%231\\_Ansible/HW%231\\_By\\_Avinash](https://github.com/poojashreeNS/Assignments/tree/main/HW%231_Ansible/HW%231_By_Avinash)

**Deploy 3 Virtual Machine running Ubuntu OS using *Multipass Lightweight Virtual Manager*(<https://multipass.run> ).**

***The best part of multipass is, it takes just a few minutes to install and run VMs compared to Virtual Box.***

### COMMAND:

```
multipass launch -c <<no.of.cores>> -m <<memory>> -d <<disk storage>> - n <<name of the instance>>
```

```
[avinash@avinashs-mbp ~ % multipass launch -c2 -m 1G -d 10G -n "VM1"
Launched: VM1
[avinash@avinashs-mbp ~ % multipass launch -c 2 -m 1G -d 10G -n "VM2"
Launched: VM2
[avinash@avinashs-mbp ~ % multipass launch -c 2 -m 1G -d 10G -n "VM3"
Launched: VM3
```

### Check the Status of Virtual machine using multipass list command

```
[avinash@avinashs-mbp ~ % multipass list
Name          State        IPv4           Image
VM1          Running      192.168.64.8   Ubuntu 20.04 LTS
VM2          Running      192.168.64.9   Ubuntu 20.04 LTS
VM3          Running      192.168.64.10  Ubuntu 20.04 LTS
```

### Configure Ansible server on VM1

**Login to VM1. IP Address: 192.168.64.8**

---

```
[ubuntu@VM1:~$ hostname
VM1
[ubuntu@VM1:~$ hostname -I
192.168.64.8
ubuntu@VM1:~$
```

## Install Ansible in VM1

### COMMAND:

```
sudo add-apt-repository --yes --update ppa:ansible/ansible
sudo apt install ansible
```

```
[ubuntu@VM1:~$ sudo add-apt-repository --yes --update ppa:ansible/ansible
Get:1 http://ppa.launchpad.net/ansible/ubuntu focal InRelease [18.0 kB]
Hit:2 http://ports.ubuntu.com/ubuntu-ports focal InRelease [101 kB]
Get:3 http://ports.ubuntu.com/ubuntu-ports focal-updates InRelease [114 kB]
Get:4 http://ppa.launchpad.net/ansible/ubuntu focal-backports InRelease [101 kB]
Get:5 http://ports.ubuntu.com/ubuntu-ports focal-security InRelease [114 kB]
Get:6 http://ppa.launchpad.net/ansible/ubuntu focal/main arm64 Packages [632 B]
Get:7 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 Packages [8458 kB]
Get:8 http://ppa.launchpad.net/ansible/ubuntu focal/main Translation-en [472 B]
Get:9 http://ports.ubuntu.com/ubuntu-ports focal/universe Translation-en [5124 kB]
Get:10 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 c-n-f Metadata [256 kB]
Get:11 http://ports.ubuntu.com/ubuntu-ports focal/multiverse arm64 Packages [114 kB]
Get:12 http://ports.ubuntu.com/ubuntu-ports focal/multiverse arm64 c-n-f Metadata [100 kB]
Get:13 http://ports.ubuntu.com/ubuntu-ports focal/multiverse arm64 c-n-f Metadata [8924 B]
Get:14 http://ports.ubuntu.com/ubuntu-ports focal-updates/main arm64 Packages [871 kB]
Get:15 http://ports.ubuntu.com/ubuntu-ports focal-updates/main arm64 c-n-f Metadata [13.6 kB]
Get:16 http://ports.ubuntu.com/ubuntu-ports focal-updates/universe arm64 Packages [798 kB]
Get:17 http://ports.ubuntu.com/ubuntu-ports focal-updates/universe Translation-en [179 kB]
Get:18 http://ports.ubuntu.com/ubuntu-ports focal-updates/universe arm64 c-n-f Metadata [16.9 kB]
Get:19 http://ports.ubuntu.com/ubuntu-ports focal-updates/multiverse arm64 Packages [7720 B]
Get:20 http://ports.ubuntu.com/ubuntu-ports focal-updates/multiverse Translation-en [6776 B]
Get:21 http://ports.ubuntu.com/ubuntu-ports focal-updates/multiverse arm64 c-n-f Metadata [352 B]
Get:22 http://ports.ubuntu.com/ubuntu-ports focal-backports/main arm64 Packages [2572 B]
Get:23 http://ports.ubuntu.com/ubuntu-ports focal-backports/main arm64 c-n-f Metadata [100 B]
Get:24 http://ports.ubuntu.com/ubuntu-ports focal-backports/restricted arm64 c-n-f Metadata [400 B]
Get:25 http://ports.ubuntu.com/ubuntu-ports focal-backports/universe arm64 Packages [5816 B]
Get:26 http://ports.ubuntu.com/ubuntu-ports focal-backports/universe Translation-en [2068 B]
Get:27 http://ports.ubuntu.com/ubuntu-ports focal-backports/universe arm64 c-n-f Metadata [288 B]
Get:28 http://ports.ubuntu.com/ubuntu-ports focal-backports/multiverse arm64 c-n-f Metadata [116 B]
Get:29 http://ports.ubuntu.com/ubuntu-ports focal-backports/multiverse arm64 c-n-f Metadata [116 B]
Get:30 http://ports.ubuntu.com/ubuntu-ports focal-security/main arm64 Packages [555 kB]
Get:31 http://ports.ubuntu.com/ubuntu-ports focal-security/restricted Translation-en [53.7 kB]
Get:32 http://ports.ubuntu.com/ubuntu-ports focal-security/universe arm64 Packages [582 kB]
Get:33 http://ports.ubuntu.com/ubuntu-ports focal-security/universe Translation-en [103 kB]
Get:34 http://ports.ubuntu.com/ubuntu-ports focal-security/universe arm64 c-n-f Metadata [10.3 kB]
Get:35 http://ports.ubuntu.com/ubuntu-ports focal-security/multiverse arm64 Packages [3052 B]
Get:36 http://ports.ubuntu.com/ubuntu-ports focal-security/multiverse Translation-en [4948 B]
Get:37 http://ports.ubuntu.com/ubuntu-ports focal-security/multiverse arm64 c-n-f Metadata [116 B]
Fetched 17.6 Mb in 8s (2305 kB/s)
Reading package lists... Done
```

```
[ubuntu@VM1:~$ sudo apt install ansible
Reading package lists...
Building dependency tree
Reading configuration files...
The following additional packages will be installed:
  ieee-data python3-argcomplete python3-crypto python3-dnspython python3-jmepath python3-kerberos python3-libcloud python3-lockfile python3-netaddr python3-ntlm-auth python3-requests-kerberos
  python3-requests-ntlm python3-selinux python3-wlrm python3-xmldict
Suggested packages:
  curl libcurl3 libcurl3-dev libcurl3-gnutls libcurl3-gnutls-dev libcurl3-gnutls-doc libcurl3-gnutls-openssl libcurl3-gnutls-openssl-dev libcurl3-gnutls-openssl-doc
  curl libcurl3 libcurl3-dev libcurl3-gnutls libcurl3-gnutls-dev libcurl3-gnutls-doc libcurl3-gnutls-openssl libcurl3-gnutls-openssl-dev libcurl3-gnutls-openssl-doc
The following NEW packages will be installed:
  ansible ieee-data python3-argcomplete python3-crypto python3-dnspython python3-jmepath python3-kerberos python3-libcloud python3-lockfile python3-netaddr python3-ntlm-auth python3-requests-kerberos
  python3-requests-ntlm python3-selinux python3-wlrm python3-xmldict
0 upgraded, 0 newly installed, 0 to remove and 1 not upgraded.
Need to get 9430 kB of archives.
After this operation, 90.1 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ports.ubuntu.com/ubuntu-ports focal/main arm64 python3-crypto arm64 2.6.1-1ubuntu2 [237 kB]
Get:2 http://ports.ubuntu.com/ubuntu-ports focal/main arm64 dnspython arm64 1.16.0-1ubuntu1 [89.1 kB]
Get:3 http://ports.ubuntu.com/ubuntu-ports focal/main arm64 ieee-data all 28188085.1 [1589 kB]
Get:4 http://ports.ubuntu.com/ubuntu-ports focal/main arm64 netaddr all 0.7.19-3 [235 kB]
Get:5 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 ansible all 2.9.4+dfsg-1 [5794 kB]
Get:6 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 python3-argcomplete arm64 1.1.1-1.1ubuntu1 [27.2 kB]
Get:7 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 python3-jmepath arm64 0.9.4-4 [21.3 kB]
Get:8 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 python3-kerberos arm64 1.1.1-1.1ubuntu1 [21.8 kB]
Get:9 http://ports.ubuntu.com/ubuntu-ports focal/main arm64 python3-lockfile all 1:10.12.2-2ubuntu2 [14.6 kB]
Get:10 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 python3-libcloud all 2.8.0-1 [1493 kB]
Get:11 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 requests all 2.22.0-1 [103 kB]
Get:12 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 requests-kerberos all 0.12.0-2 [11.9 kB]
Get:13 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 requests-ntlm all 1.1.0-1 [6804 B]
Get:14 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 python3-selinux arm64 3.8-1ubuntu1 [127 kB]
Get:15 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 python3-xmldict all 0.12.0-1 [12.6 kB]
Get:16 http://ports.ubuntu.com/ubuntu-ports focal/universe arm64 python3-wlrm all 0.3.0-2 [21.7 kB]
Fetched 9430 kB in 2s (4217 kB/s)
Selecting previously unselected package python3-crypto.
(Reading database... 64244 files and directories currently installed.)
Preparing to unpack .../01-python3-crypto_2.6.1-1ubuntu2_arm64.deb ...
Unpacking python3-crypto (2.6.1-1ubuntu2) ...
Selecting previously unselected package python3-dnspython.
Preparing to unpack .../01-python3-dnspython_1.16.0-1ubuntu1_all.deb ...
Unpacking python3-dnspython (1.16.0-1ubuntu1) ...
Selecting previously unselected package ieee-data.
Preparing to unpack .../02-ieee-data_28188085.1_all.deb ...
Unpacking ieee-data (28188085.1) ...
Selecting previously unselected package python3-netaddr.
Preparing to unpack .../03-python3-netaddr_0.7.19-3_all.deb ...
Unpacking python3-netaddr (0.7.19-3) ...
Selecting previously unselected package ansible.
Preparing to unpack .../04-ansible_2.9.4+dfsg-1_all.deb ...
Unpacking ansible (2.9.4+dfsg-1) ...
Selecting previously unselected package python3-argcomplete.
Preparing to unpack .../05-python3-argcomplete_1.8.1-1.1ubuntu1_all.deb ...
Unpacking python3-argcomplete (1.8.1-1.1ubuntu1) ...
Selecting previously unselected package python3-jmepath.
Preparing to unpack .../06-python3-jmepath_0.9.4-2_all.deb ...
Unpacking python3-jmepath (0.9.4-2) ...
Selecting previously unselected package python3-kerberos.
Preparing to unpack .../07-python3-kerberos_1.1.14-3.1ubuntu1_arm64.deb ...
Unpacking python3-kerberos (1.1.14-3.1ubuntu1) ...
Selecting previously unselected package python3-lockfile.
Preparing to unpack .../08-python3-lockfile_1.10.12.2-2ubuntu2_all.deb ...
Unpacking python3-lockfile (1.10.12.2-2ubuntu2) ...
Selecting previously unselected package python3-libcloud.
Preparing to unpack .../09-python3-libcloud_2.8.0-1_all.deb ...
```

**CHECK ANSIBLE VERSION AND CONFIGURE CONNECTIVITY.**

```
[ubuntu@VM1:~$ ansible --version
ansible 2.9.6
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['~/home/ubuntu/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  executable location = /usr/bin/ansible
  python version = 3.8.10 (default, Jun 2 2021, 10:49:15) [GCC 9.4.0]
[ubuntu@VM1:~$ ]
```

**Generate SSH Key for VM1 using either RSA OR ED25519 , add key to ssh agent and then add .Pub key of VM1 in VM2, VM3 under authorized\_keys using ssh-copy-id command or copy paste directly under authorized\_keys.**

```
[ubuntu@VM1:~$ ssh-keygen -t rsa
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:PaZL2GgkGHMjPElieHlFehT2sZahsD89cNKbhWQp8Bkk ubuntu@VM1
The key's randomart image is:
+---[RSA 3072]---+
| ==EBoBo
| + +=.0.@
| .oo.B & +
| . = * + =
| . * . S B
| = . = .
| .
+---[SHA256]---+
[ubuntu@VM1:~$ eval "$(ssh-agent -s)"
Agent pid 2760
[ubuntu@VM1:~$ ssh-add ~/ssh/id_rsa
Identity added: /home/ubuntu/.ssh/id_rsa (ubuntu@VM1)
ubuntu@VM1:~$ ]
```

**Try password-less connecting to VM2 & VM3 from VM1 using the added key.**

```
[ubuntu@VM1:~$ hostname -I
192.168.64.8
[ubuntu@VM1:~$ ssh ubuntu@192.168.64.9
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.4.0-81-generic aarch64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

 System information as of Mon Aug 30 09:16:01 PDT 2021

 System load: 0.07           Processes:          108
 Usage of /: 12.8% of 9.53GB   Users logged in:  0
 Memory usage: 20%           IPv4 address for enp0s2: 192.168.64.9
 Swap usage:  0%

 0 updates can be applied immediately.

Last login: Mon Aug 30 09:15:35 2021 from 192.168.64.8
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

[ubuntu@VM2:~$ hostname
VM2
[ubuntu@VM2:~$ hostname -I
192.168.64.9
[ubuntu@VM2:~$ exit
logout
Connection to 192.168.64.9 closed.
[ubuntu@VM1:~$ ssh ubuntu@192.168.64.10
The authenticity of host '192.168.64.10 ((192.168.64.10))' can't be established.
ECDSA key fingerprint is SHA256:jk2d3HSCze+Tlp+3XHQxxead2a/t2xwXFTHKIOM.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.64.10' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.4.0-81-generic aarch64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

 System information as of Mon Aug 30 09:16:27 PDT 2021

 System load: 0.0           Processes:          106
 Usage of /: 12.8% of 9.53GB   Users logged in:  0
 Memory usage: 20%           IPv4 address for enp0s2: 192.168.64.10
 Swap usage:  0%

 0 updates can be applied immediately.

Last login: Mon Aug 30 09:04:12 2021 from 192.168.64.1
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

[ubuntu@VM3:~$ hostname
VM3
[ubuntu@VM3:~$ hostname -I
192.168.64.10]
```

**Add Ansible hosts in VM1. The necessary IPs/hostname under:  
*/etc/ansible/hosts*.**

```
[WebServer]
VM2 ansible_host=192.168.64.9 ansible_user=ubuntu
VM3 ansible_host=192.168.64.10 ansible_user=ubuntu
```

**Check ping**

**COMMAND:**

***ansible -m ping <<hostnames>>***

```
[ubuntu@VM1:/etc/ansible$ ansible -m ping WebServer
VM2 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
VM3 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
```

**DEPLOY WEB SERVER:**

**Create an .yml file to deploy apache web server in VM2,VM3 on port 8080 via ansible.**

**REPO: [apache-deploy.yml](#)**

```
[ubuntu@VM1:~$ cat apache-deploy.yml
---
- hosts: WebServer
  become: true
  tasks:
    - name: install apache2
      apt: name=apache2 update_cache=yes state=latest

    - name: enabled mod_rewrite
      apache2_module: name=rewrite state=present
      notify:
        - restart apache2

    - name: apache2 listen on port 8080
      lineinfile: dest=/etc/apache2/ports.conf regexp="^Listen 80" line="Listen 8080" state=present
      notify:
        - restart apache2

    - name: add index.html file
      template:
        src: ./index.html
        dest: /var/www/html/index.html

    - name: apache2 virtualhost on port 8080
      lineinfile: dest=/etc/apache2/sites-available/000-default.conf regexp="^<VirtualHost *:80>" line="<VirtualHost *:8080>" state=present
      notify:
        - restart apache2

  handlers:
    - name: restart apache2
      service: name=apache2 state=restarted
ubuntu@VM1:~$ ]
```

***Logs and output:***

```
[ubuntu@VM1:~$ ansible-playbook apache-deploy.yml
PLAY [WebServer] ****
TASK [Gathering Facts] ****
ok: [VM3]
ok: [VM2]

TASK [install apache2] ****
ok: [VM3]
ok: [VM2]

TASK [enabled mod_rewrite] ****
ok: [VM2]
ok: [VM3]

TASK [apache2 listen on port 8080] ****
ok: [VM2]
ok: [VM3]

TASK [add index.html file] ****
changed: [VM3]
```



## ON PORT 8080

Hello World from SJSU



## ON PORT 8080

Hello World from SJSU

***Login to VM2 and VM3 and check whether apache is installed properly and files are present.***

**VM2:**

```
[ubuntu@VM2:~$ hostname
VM2
[ubuntu@VM2:~$ hostname -I
192.168.64.9
[ubuntu@VM2:~$ apache2 -v
Server version: Apache/2.4.41 (Ubuntu)
Server built:   2021-07-05T07:16:56
ubuntu@VM2:~$ ]
```

```
[ubuntu@VM2:~$ cat /var/www/html/index.html
<!DOCTYPE html>
<html>
<body>
<h1> <B><CENTER>ON PORT 8080</CENTER> </B> </h1>
<B> Hello World from SJSU </B>
</body>
</html>
[ubuntu@VM2:~$ cat /etc/apache2/sites-available/000-default.conf
<VirtualHost *:8080>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/html

    # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
    # error, crit, alert, emerg.
    # It is also possible to configure the loglevel for particular
    # modules, e.g.
    #LogLevel info ssl:warn

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

    # For most configuration files from conf-available/, which are
    # enabled or disabled at a global level, it is possible to
    # include a line for only one particular virtual host. For example the
    # following line enables the CGI configuration for this host only
    # after it has been globally disabled with "a2disconf".
    #Include conf-available/serve-cgi-bin.conf
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
[ubuntu@VM2:~$ cat /etc/apache2/ports.conf
# If you just change the port or add more ports here, you will likely also
# have to change the VirtualHost statement in
# /etc/apache2/sites-enabled/000-default.conf

Listen 8080

<IfModule ssl_module>
    Listen 443
</IfModule>

<IfModule mod_gnutls.c>
    Listen 443
</IfModule>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
```

**VM3:**

```
[ubuntu@VM3:~$ hostname
VM3
[ubuntu@VM3:~$ hostname -I
192.168.64.10
[ubuntu@VM3:~$ apache2 -v
Server version: Apache/2.4.41 (Ubuntu)
Server built:   2021-07-05T07:16:56
ubuntu@VM3:~$ █

[ubuntu@VM3:~$ cat /etc/apache2/sites-available/000-default.conf
<VirtualHost *:8080>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/html

    # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
    # error, crit, alert, emerg.
    # It is also possible to configure the loglevel for particular
    # modules, e.g.
    #LogLevel info ssl:warn

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

    # For most configuration files from conf-available/, which are
    # enabled or disabled at a global level, it is possible to
    # include a line for only one particular virtual host. For example the
    # following line enables the CGI configuration for this host only
    # after it has been globally disabled with "a2disconf".
    #Include conf-available/serve-cgi-bin.conf
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
[ubuntu@VM3:~$ cat /etc/apache2/ports.conf
# If you just change the port or add more ports here, you will likely also
# have to change the VirtualHost statement in
# /etc/apache2/sites-enabled/000-default.conf

Listen 8080

<IfModule ssl_module>
    Listen 443
</IfModule>

<IfModule mod_gnutls.c>
    Listen 443
</IfModule>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
[ubuntu@VM3:~$ cat /var/www/html/index.html
<!DOCTYPE html>
<html>
<body>
<h1> <B><CENTER>ON PORT 8080</CENTER> </B> </h1>
<B> Hello World from SJSU </B>
</body>
</html>
█
```

## **UNDEPLOY WEB SERVER:**

**Create an .yml file to un-deploy apache web server in VM2,VM3 on port 8080 via ansible.**

### **REPO: [apache-undeploy.yml](#)**

```
[ubuntu@VM1:~$ cat apache-undeploy.yml
---
hosts: WebServer
become: true
tasks:
  - name: "1. Stop service"
    tags: stop_apache
    service:
      name: apache2
      state: stopped
  - name: "2. Uninstall HTTPD/Apache"
    tags: uninstall_apache
    yum:
      name: apache2
      autoremove: yes
      purge: yes
      state: absent
  -
```

### **Logs and output:**

```
[ubuntu@VM1:~$ ansible-playbook apache-undeploy.yml
PLAY [WebServer] ****
TASK [Gathering Facts] ****
ok: [VM3]
ok: [VM2]

TASK [1. Stop service] ****
ok: [VM3]
ok: [VM2]

TASK [2. Uninstall HTTPD/Apache] ****
changed: [VM2]
changed: [VM3]

PLAY RECAP ****
VM2              : ok=3   changed=1   unreachable=0   failed=0   skipped=0   rescued=0   ignored=0
VM3              : ok=3   changed=1   unreachable=0   failed=0   skipped=0   rescued=0   ignored=0
```



***Check if Apache is uninstalled and dependent files are Purged.***

**VM2 & VM3:**

```
[ubuntu@VM2:~$ hostname
VM2
[ubuntu@VM2:~$ hostname -I
192.168.64.9
[ubuntu@VM2:~$ apache2 -v
```

Command 'apache2' not found, but can be installed with:

```
sudo apt install apache2-bin
```

```
ubuntu@VM2:~$ █
```

---

```
ubuntu@VM2:~$ hostname
VM2
ubuntu@VM2:~$ hostname -I
192.168.64.9
ubuntu@VM2:~$ cat /etc/apache2/sites-available/000-default.conf
cat: /etc/apache2/sites-available/000-default.conf: No such file or directory
ubuntu@VM2:~$ cd /etc/apache2/
-bash: cd: /etc/apache2/: No such file or directory
ubuntu@VM2:~$ █
```

---

```
[ubuntu@VM3:~$ cat /etc/apache2/sites-available/000-default.conf
cat: /etc/apache2/sites-available/000-default.conf: No such file or directory
[ubuntu@VM3:~$ cd /etc/apache2/
-bash: cd: /etc/apache2/: No such file or directory
ubuntu@VM3:~$ █
```

### **References:**

[https://www.bogotobogo.com/DevOps/Ansible/Ansible\\_SettingUp\\_Webservers\\_Apache.php](https://www.bogotobogo.com/DevOps/Ansible/Ansible_SettingUp_Webservers_Apache.php)

[ansible-intro-\(ahb\).pdf](#)

<https://multipass.run>