Assignment-2   Marks: 30

Create 2 new ansible nodes as per below specifications

IP	Host name	OS
192.168.56.10	puneet-node-1	ubuntu 18.04
192.168.56.20	puneet-node-2	ubuntu 18.04

Create a single playbook to install

- apache2 on 192.168.56.10 with default webpage puneet.html with the contents "Welcome Puneet to the world of Apache with Ansible" with handlers and notify.
- nginx on 192.168.56.20

```
Vagrant.configure("2") do |config|
 config.vm.define "v", primary: true do |v|
    v.vm.box = "bento/ubuntu-18.04"
    v.vm.hostname = 'lakshmi-node1'
    v.vm.network :private_network, ip: "192.168.56.10"

    v.vm.provider :virtualbox do |v|
      v.customize ["modifyvm", :id, "--name", "lakshmi-node1"]
      v.customize ["modifyvm", :id, "--memory", 1024]
      v.customize ["modifyvm", :id, "--cpus", 1]
    end
 end
end
```

```
Vagrant.configure("2") do |config|
  config.vm.define "v", primary: true do |v|
    v.vm.box = "bento/ubuntu-18.04"
    v.vm.hostname = 'lakshmi-node2'
    v.vm.network :private_network, ip: "192.168.56.20"

    v.vm.provider :virtualbox do |v|
      v.customize ["modifyvm", :id, "--name", "lakshmi-node2"]
      v.customize ["modifyvm", :id, "--memory", 1024]
      v.customize ["modifyvm", :id, "--cpus", 1]
    end
  end
end
nd
```

```
root@ansible-master:~/.ssh# ssh-copy-id vagrant@lakshmi-node1
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/root/.ssh/id_rsa.pub"
The authenticity of host 'lakshmi-node1 (192.168.56.10)' can't be established.
ECDSA key fingerprint is SHA256:S8skWuZUWby5A9neBWzEZlO20b6+Bf86kWzduvMz6/E.
Are you sure you want to continue connecting (yes/no)? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out an
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted nov
vagrant@lakshmi-node1's password:

Number of key(s) added: 1

Now try logging into the machine, with:   "ssh 'vagrant@lakshmi-node1'"
and check to make sure that only the key(s) you wanted were added
```

```
root@ansible-master:~/.ssh# ssh-copy-id vagrant@lakshmi-node2
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/root/.ssh
The authenticity of host 'lakshmi-node2 (192.168.56.20)' can't be establi
ECDSA key fingerprint is SHA256:S8skWuZUWby5A9neBWzEZlO20b6+Bf86kWzduvMz6
Are you sure you want to continue connecting (yes/no)? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are
vagrant@lakshmi-node2's password:

Number of key(s) added: 1

Now try logging into the machine, with:   "ssh 'vagrant@lakshmi-node2'"
and check to make sure that only the key(s) you wanted were added.
```

```
root@ansible-master:~/.ssh# cd ..
root@ansible-master:~# ssh vagrant@lakshmi-node2
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 4.15.0-147-generic x86_64)

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

  System information as of Sat Sep 11 10:00:58 UTC 2021

  System load:  0.0                Processes:           92
  Usage of /:   2.5% of 61.80GB    Users logged in:     1
  Memory usage: 10%                IP address for eth0: 10.0.2.15
  Swap usage:   0%                 IP address for eth1: 192.168.56.20


This system is built by the Bento project by Chef Software
More information can be found at https://github.com/chef/bento
Last login: Sat Sep 11 09:53:24 2021 from 10.0.2.2
vagrant@lakshmi-node2:~$
```

```
root@ansible-master:~# ssh vagrant@lakshmi-node1
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 4.15.0-147-generic x86_64)

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

  System information as of Sat Sep 11 10:03:49 UTC 2021

  System load:  0.0                Processes:             92
  Usage of /:   2.5% of 61.80GB    Users logged in:       1
  Memory usage: 10%                IP address for eth0: 10.0.2.15
  Swap usage:   0%                 IP address for eth1: 192.168.56.10


This system is built by the Bento project by Chef Software
More information can be found at https://github.com/chef/bento
Last login: Sat Sep 11 09:53:25 2021 from 10.0.2.2
vagrant@lakshmi-node1:~$
```

```
## 192.168.1.110
[dev]
lakshmi-node1 ansible_ssh_user=vagrant
[test]
lakshmi-node2 ansible_ssh_user=vagrant
```

```
192.168.56.101     ansible-node1
192.168.56.103     ansible-node2
3.109.59.196       ec2
192.168.56.102     tomcat
192.168.56.10      lakshmi-node1
192.168.56.20      lakshmi-node2
```

```
root@ansible-master:~/ansible_code# ansible-playbook sampleplaybook.yml
```

```yaml
---

- hosts : dev
  become: true
  name: sampleplaybook
  tasks:
    - name: Install Apache
      apt:
          name: apache2
          state: latest
      notify: host static  webpage
  handlers:
    - name: host static webpage
      script: lakshmi.sh

- hosts : test
  become: true
  name: sampleplaybook
  tasks:
    - name: Install Nginx
      apt:
          name: nginx
          state: latest
```

```sh
#!/bin/sh

tee /var/www/html/1.html << _EOF_
<html>
<head>
    <title>
    Hello
    </title>
</head>

<body>
  <h1><b>Welcome lakshmi to the world of Apache with Ansible</b></h1>
</body>
</html>
_EOF_
```

```
TASK [Gathering Facts] *****************************************
DEPRECATION WARNING]: Distribution Ubuntu 18.04 on host lakshmi-no
future Ansible release will default to using the discovered platfo
more information. This feature will be removed in version 2.12. De
ok: [lakshmi-node1]

TASK [Install Apache] *****************************************
[WARNING]: Updating cache and auto-installing missing dependency:
changed: [lakshmi-node1]

TASK [add website page] *****************************************
changed: [lakshmi-node1]
```
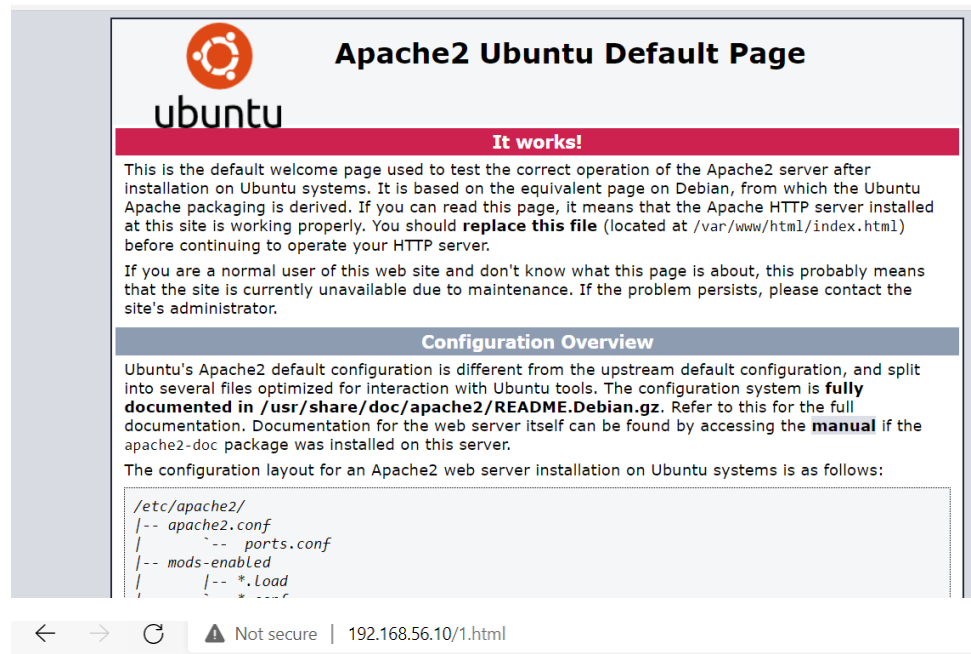
```
TASK [Install Nginx] ****************************************************************
changed: [lakshmi-node2]

PLAY RECAP **************************************************************************
ec2            : ok=0    changed=0    unreachable=1    failed=0    skipped=0    rescued=0    ignored=0
lakshmi-node1  : ok=3    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
lakshmi-node2  : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

192.168.56.10

Apache2 Ubuntu Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at /var/www/html/index.html) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the apache2-doc package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|       `--  ports.conf
|-- mods-enabled
|       |-- *.load
```

← → ⟳ ⚠ Not secure | 192.168.56.10/1.html

Welcome lakshmi to the world of Apache with Ansible

Not secure | 192.168.56.20

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.