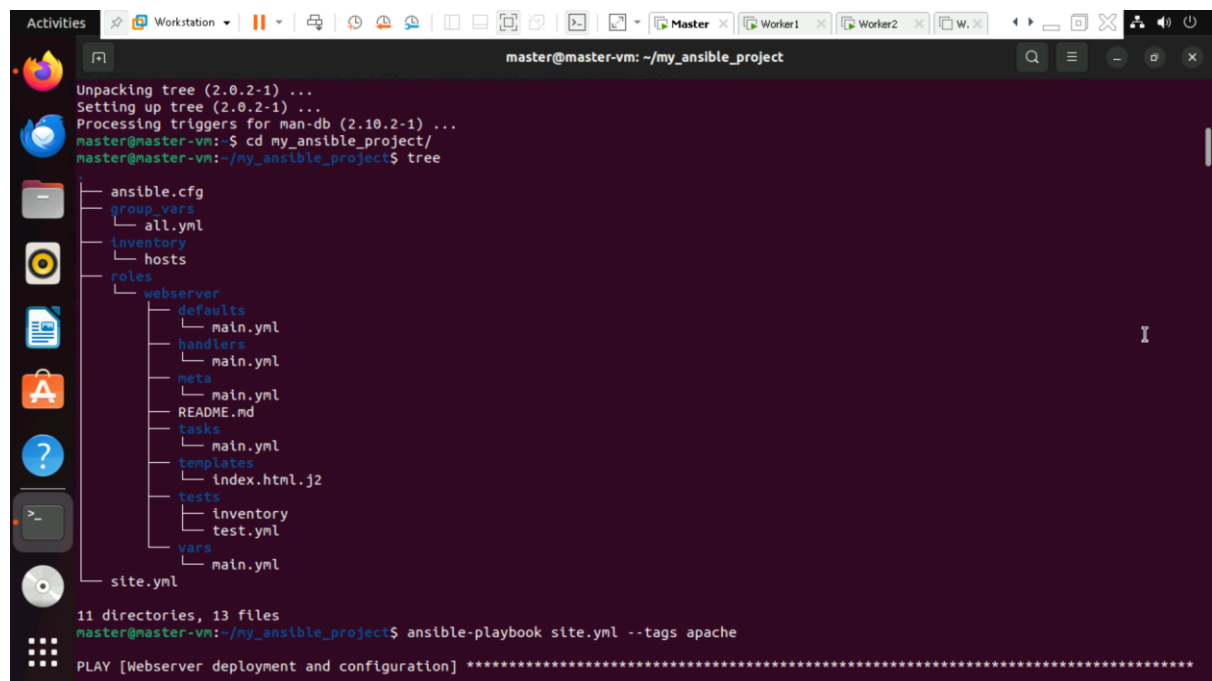


## Q4 ANSIBLE ABDUL SAMIM

Directory structure-

```
master@master-vm:~$ mkdir my_ansible_project
cd my_ansible_project
master@master-vm:~/my_ansible_project$ touch ansible.cfg
nano ansible.cfg
master@master-vm:~/my_ansible_project$ mkdir -p inventory
touch inventory/hosts
nano inventory/hosts
master@master-vm:~/my_ansible_project$ touch site.yml
nano site.yml
master@master-vm:~/my_ansible_project$ ansible-galaxy init roles/webserver
- Role roles/webserver was created successfully
master@master-vm:~/my_ansible_project$ nano roles/webserver/tasks/main.yml
master@master-vm:~/my_ansible_project$ nano roles/webserver/handlers/main.yml
master@master-vm:~/my_ansible_project$ mkdir -p roles/webserver/templates
nano roles/webserver/templates/index.html.j2
master@master-vm:~/my_ansible_project$ mkdir -p roles/webserver/defaults
touch roles/webserver/defaults/main.yml
master@master-vm:~/my_ansible_project$ mkdir -p group_vars
touch group_vars/all.yml
nano group_vars/all.yml
```



```
master@master-vm:~/my_ansible_project$ tree
.
├── ansible.cfg
├── group_vars
│   └── all.yml
├── inventory
│   └── hosts
├── roles
│   └── webserver
│       ├── defaults
│       │   └── main.yml
│       ├── handlers
│       │   └── main.yml
│       ├── meta
│       │   └── main.yml
│       ├── README.md
│       ├── tasks
│       │   └── main.yml
│       ├── templates
│       │   └── index.html.j2
│       ├── tests
│       │   ├── inventory
│       │   └── test.yml
│       └── vars
│           └── main.yml
└── site.yml

11 directories, 13 files
master@master-vm:~/my_ansible_project$ ansible-playbook site.yml --tags apache
PLAY [Webserver deployment and configuration] *****
```

Site.yml playbook

```
master@master-vm: ~/my_ansible_project
GNU nano 6.2 site.yml
---
name: Webserver deployment and configuration
hosts: webserver
become: yes
vars:
  env: stag
roles:
  - webserver
```

## Q4 ANSIBLE ABDUL SAMIM

Main.yml ansible roles

```
master@master-vm: ~/my_ansible_project/roles/webserver/tasks
GNU nano 6.2 main.yml
---
- name: Install Apache
  apt:
    name: apache2
    state: present
  become: yes
  tags: apache

- name: Copy homepage using Jinja2 template
  template:
    src: index.html.j2
    dest: /var/www/html/index.html
  become: yes
  tags: apache

- name: Start and enable Apache
  service:
    name: apache2
    state: started
    enabled: yes
  become: yes
  tags: apache
```

Host file (inventory)

```
master@master-vm: ~/my_ansible_project/inventory
GNU nano 6.2 hosts
[webserver]
master ansible_host=192.168.153.128 ansible_user=master
worker1 ansible_host=192.168.153.131 ansible_user=worker1
worker2 ansible_host=192.168.153.133 ansible_user=worker2
```

Apply playbook

```
master@master-vm:~/my_ansible_project$ ansible-playbook site.yml --ask-become-pass
BECOME password:

PLAY [Webserver deployment and configuration] *****

TASK [Gathering Facts] *****
ok: [worker2]
ok: [master]
ok: [worker1]

TASK [webserver : Install Apache] *****
ok: [worker2]
ok: [worker1]
changed: [master]

TASK [webserver : Copy homepage using Jinja2 template] *****
changed: [worker2]
changed: [worker1]
changed: [master]

TASK [webserver : Start and enable Apache] *****
ok: [worker2]
ok: [master]
ok: [worker1]

PLAY RECAP *****
master                : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
worker1               : ok=4    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
worker2               : ok=4    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

## Q4 ANSIBLE ABDUL SAMIM

Check if apache is working in all the nodes

```
master@master-vm:~/my_ansible_project$ curl http://192.168.153.128
curl http://192.168.153.131
curl http://192.168.153.133
<html>
<head></head>
<body>
  <h1>Welcome to master in stag environment!</h1>
</body>
</html>
<html>
<head></head>
<body>
  <h1>Welcome to worker1 in stag environment!</h1>
</body>
</html>
<html>
<head></head>
<body>
  <h1>Welcome to worker2 in stag environment!</h1>
</body>
</html>
```