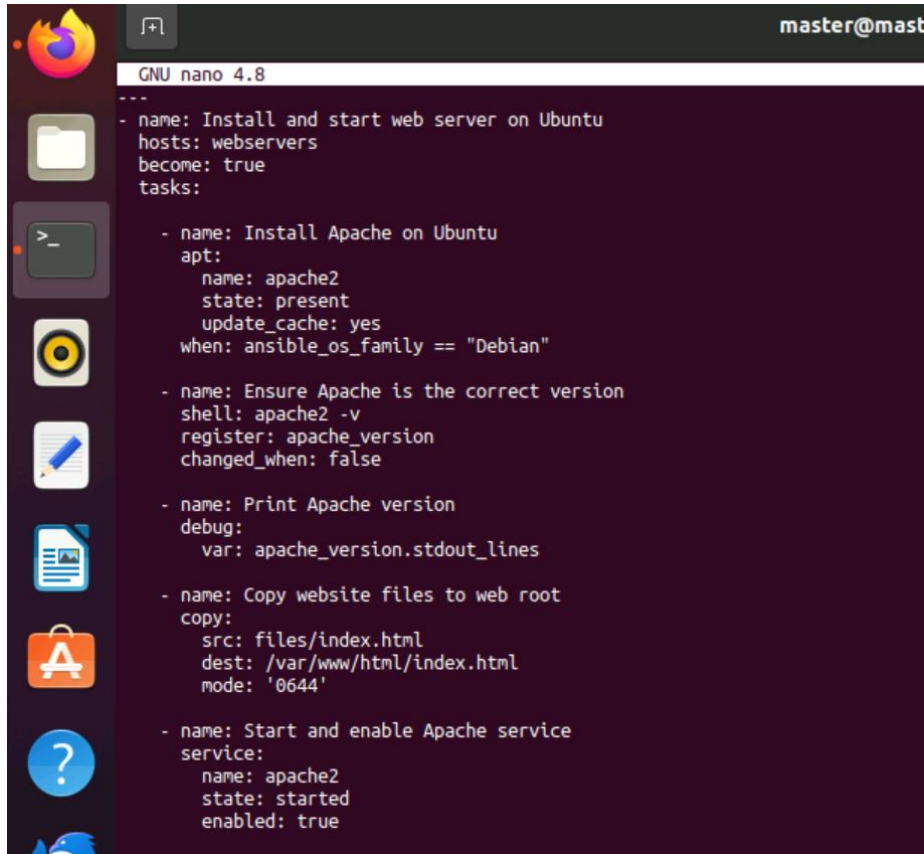


Q_5:

This is the playbook I have written

A screenshot of a terminal window showing an Ansible playbook in the nano 4.8 editor. The terminal title bar shows 'master@mast'. The playbook is written in YAML and includes tasks for installing and starting a web server on Ubuntu, installing Apache, ensuring the correct version, printing the version, copying website files, and starting the Apache service.

```
GNU nano 4.8
---
- name: Install and start web server on Ubuntu
  hosts: webservers
  become: true
  tasks:
    - name: Install Apache on Ubuntu
      apt:
        name: apache2
        state: present
        update_cache: yes
        when: ansible_os_family == "Debian"

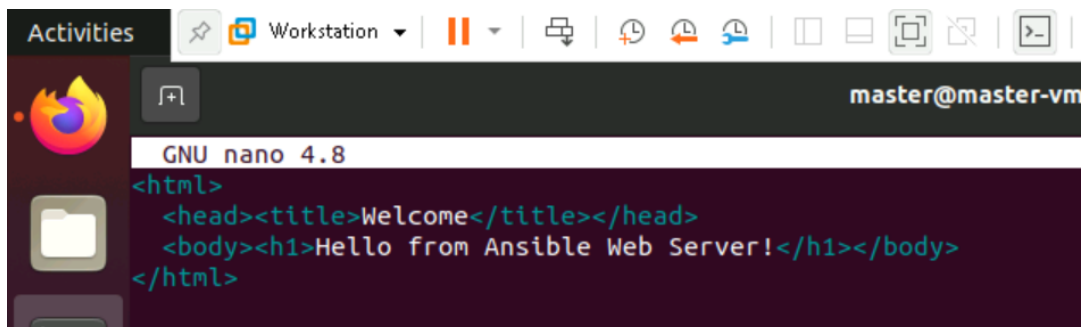
    - name: Ensure Apache is the correct version
      shell: apache2 -v
      register: apache_version
      changed_when: false

    - name: Print Apache version
      debug:
        var: apache_version.stdout_lines

    - name: Copy website files to web root
      copy:
        src: files/index.html
        dest: /var/www/html/index.html
        mode: '0644'

    - name: Start and enable Apache service
      service:
        name: apache2
        state: started
        enabled: true
```

This is the file that displays on the server:

A screenshot of a terminal window showing an HTML file in the nano 4.8 editor. The terminal title bar shows 'master@master-vm'. The HTML file contains a simple welcome message.

```
Activities Workstation | | | | | | | | | |
GNU nano 4.8
<html>
  <head><title>Welcome</title></head>
  <body><h1>Hello from Ansible Web Server!</h1></body>
</html>
```

OUTPUT:

```
master@master-vm:~/Desktop/exan/project1$ ansible-playbook -i hosts.ini site.yml --ask-become-pass
BECOME password:

PLAY [Install and start web server on Ubuntu] *****

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

TASK [Install Apache on Ubuntu] *****
[WARNING]: Skipping plugin (/usr/lib/python3/dist-packages/ansible/plugins/filter/core.py) as it seems to be invalid: cannot import
name 'environmentfilter' from 'jinja2.filters' (/usr/local/lib/python3.8/dist-packages/jinja2/filters.py)
[WARNING]: Skipping plugin (/usr/lib/python3/dist-packages/ansible/plugins/filter/mathstuff.py) as it seems to be invalid: cannot
import name 'environmentfilter' from 'jinja2.filters' (/usr/local/lib/python3.8/dist-packages/jinja2/filters.py)
ok: [worker1]

TASK [Ensure Apache is the correct version] *****
ok: [worker1]

TASK [Print Apache version] *****
[WARNING]: Skipping plugin (/usr/lib/python3/dist-packages/ansible/plugins/filter/core.py) as it seems to be invalid: cannot import
name 'environmentfilter' from 'jinja2.filters' (/usr/local/lib/python3.8/dist-packages/jinja2/filters.py)
[WARNING]: Skipping plugin (/usr/lib/python3/dist-packages/ansible/plugins/filter/mathstuff.py) as it seems to be invalid: cannot
import name 'environmentfilter' from 'jinja2.filters' (/usr/local/lib/python3.8/dist-packages/jinja2/filters.py)
ok: [worker1] => {
  "apache_version.stdout_lines": [
    "Server version: Apache/2.4.41 (Ubuntu)",
    "Server built:   2025-04-02T16:34:29"
  ]
}

TASK [Copy website files to web root] *****
ok: [worker1]

TASK [Start and enable Apache service] *****
[WARNING]: Skipping plugin (/usr/lib/python3/dist-packages/ansible/plugins/filter/core.py) as it seems to be invalid: cannot import
name 'environmentfilter' from 'jinja2.filters' (/usr/local/lib/python3.8/dist-packages/jinja2/filters.py)
[WARNING]: Skipping plugin (/usr/lib/python3/dist-packages/ansible/plugins/filter/mathstuff.py) as it seems to be invalid: cannot
```

Step4: Access the webpage in <http://192.168.147.129/index.html>

