

Experiment No. 1.4

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Branch: **MCA - CCD**

Semester: **IV**

Subject Name: **CI/CD Pipelines**

UID: **22MCC20039**

Section/Group: **MCD-1/ Grp A**

Date of Performance: **02nd Feb 24**

Subject Code: **22CAP-781**

1. Aim/Overview of the practical:

- Create a Playbook for installing NGINX server on YOUR UID_1 node.
- Create a Playbook for installing HTTP server on YOUR UID_2 node.
- Check whether both are installed on the nodes or not by checking their versions..

2. Code for practical:

A)

- Open AWS account and connect to ansible_master instance.
- Create a YAML file for playbook to install NGINX on 22MCC20039_1 server.

```
---
- name: Install Nginx
  hosts: 22MCC20039_1
  become: yes
  tasks:
    - name: Remove Nginx if installed
      package:
        name: nginx
        state: absent

    - name: Install Nginx
      package:
        name: nginx
        state: present
```

- Run command file to install nginx.

ansible-playbook -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key filePlaybook.yml

```
ubuntu@ip-172-31-18-171:~$ ansible-playbook -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key filePlaybook.yml

PLAY [Install Nginx] *****

TASK [Gathering Facts] *****
ok: [22MCC20039_1]

TASK [Remove Nginx if installed] *****
changed: [22MCC20039_1]

TASK [Install Nginx] *****
changed: [22MCC20039_1]

PLAY [Install HTTPD] *****

TASK [Gathering Facts] *****
ok: [22MCC20039_2]

TASK [Remove HTTPD (Apache) if installed] *****
changed: [22MCC20039_2]

TASK [Install HTTPD (Apache)] *****
changed: [22MCC20039_2]

PLAY RECAP *****
22MCC20039_1      : ok=3    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
22MCC20039_2      : ok=3    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

B)

- Create a YAML file for playbook to install NGINX on 22MCC20039_2 server.

```
---
- name: Install HTTPD (Apache)
  hosts: 22MCC20039_2
  become: yes
  tasks:
    - name: Remove HTTPD if installed
      package:
        name: apache2
        state: absent

    - name: Install HTTPD (Apache)
      package:
        name: apache2
        state: present
```

- Run command file to install nginx.

```
ansible-playbook -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key filePlaybook.yml
```

C)

- Switch to server1 using command and check version

```
sudo ssh -I ~/.ssh.ansible_key ubuntu@<IPAddress>
```

```
ubuntu@ip-172-31-18-171:~$ sudo ssh -i ~/.ssh/ansible_key ubuntu@51.21.150.208
The authenticity of host '51.21.150.208 (51.21.150.208)' can't be established.
ED25519 key fingerprint is SHA256:UEIqlPwqtsdErOT/pOINAchqars8WgCaQFj3su18Pk.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:4: [hashed name]
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '51.21.150.208' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1017-aws x86_64)

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

System information as of Sun Feb  4 20:22:01 UTC 2024

System load:  0.16015625      Processes:            104
Usage of /:   24.1% of 7.57GB  Users logged in:     0
Memory usage: 25%             IPv4 address for ens5: 172.31.21.76
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Sun Feb  4 19:57:24 2024 from 13.48.67.67
ubuntu@ip-172-31-21-76:~$ nginx -v
nginx version: nginx/1.18.0 (Ubuntu)
```

- Run command `nginx -v`
- On second server run command `apache2 -v`

```
ubuntu@ip-172-31-29-136:~$ apache2 -v
Server version: Apache/2.4.52 (Ubuntu)
Server built:   2023-10-26T13:44:44
ubuntu@ip-172-31-29-136:~$
```

***** THE END *****