15. INSTALLATION OF JENKINS

- Create ec2 instance with ubntu and in security settings add inbound rules add new item with port 8080

```
sudo apt update
sudo apt install openjdk-21-jdk -y
java -version
```

- Add Jenkins Debian Packages - https://pkg.jenkins.io/debian/

```
sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
  https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key

echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
  https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
  /etc/apt/sources.list.d/jenkins.list > /dev/null

sudo apt-get update
sudo apt-get install fontconfig openjdk-21-jre
sudo apt-get install jenkins

sudo systemctl start jenkins
sudo systemctl enable jenkins
sudo systemctl status jenkins
```

- Open public ip address with port to open jenkins :8080

14. INSTALLATION OF SELENIUM

```
sudo apt update
sudo apt upgrade
sudo apt install python3
sudo apt install python3-pip
sudo apt install python3-selenium
pip3 show selenium
```

13. INSTALLATION OF GRADLE

```
sudo apt update
sudo apt install openjdk-21-jdk -y
sudo apt install gradle
gradle -v
```

12. INSTALLATION OF GIT

sudo apt update

sudo apt install git -y

git –version

11. INSTALLATION OF KUBERNETS

sudo apt update

sudo apt install docker.io

sudo snap install kubeadm --classic

sudo snap install kubelet --classic

sudo snap install kubectl –classic

kubeadm

kubeadm version

10. INSTALLATION OF DOCKER

sudo apt update

sudo apt install docker.io

docker –version

sudo usermod -aG docker $USER

sudo docker ps

sudo docker images

8. INSTALLATION OF ANSIBLE

sudo apt update

sudo apt install ansible

ansible –version

9. CREATE ROLES IN ANSIBLE

sudo apt update

sudo apt install ansible

ansible –version

mkdir mydirectory

cd mydirectory

ansible-galaxy init myrole

cd myrole

cd tasks

nano myplaybook.yml

- **paste below code in editor**

```
---
- name: My First Playbook
  hosts: localhost
  tasks:
    - name: Print Hello World
      debug:
        msg: "Hello, World!"
```

ansible-playbook myplaybook.yml

6. Dynamic configuring network and Hostname resolution

sudo apt install netplan.io

netplan –version

which netplan

cd /etc/netplan/

sudo nano 50-cloud-init.yml

sudo netplan apply

sudo nano /etc/hosts

hostname

sudo systemctl enable ssh

sudo systemctl start ssh

sudo systemctl stop ssh

sudo systemctl status ssh

sudo apt install apache2

5. INSTALLATION OF LINUX COMMANDS

sudo apt update

sudo apt install python3

sudo apt install python3-pip

nano filename.py (write code)

python3 filename.py (output)