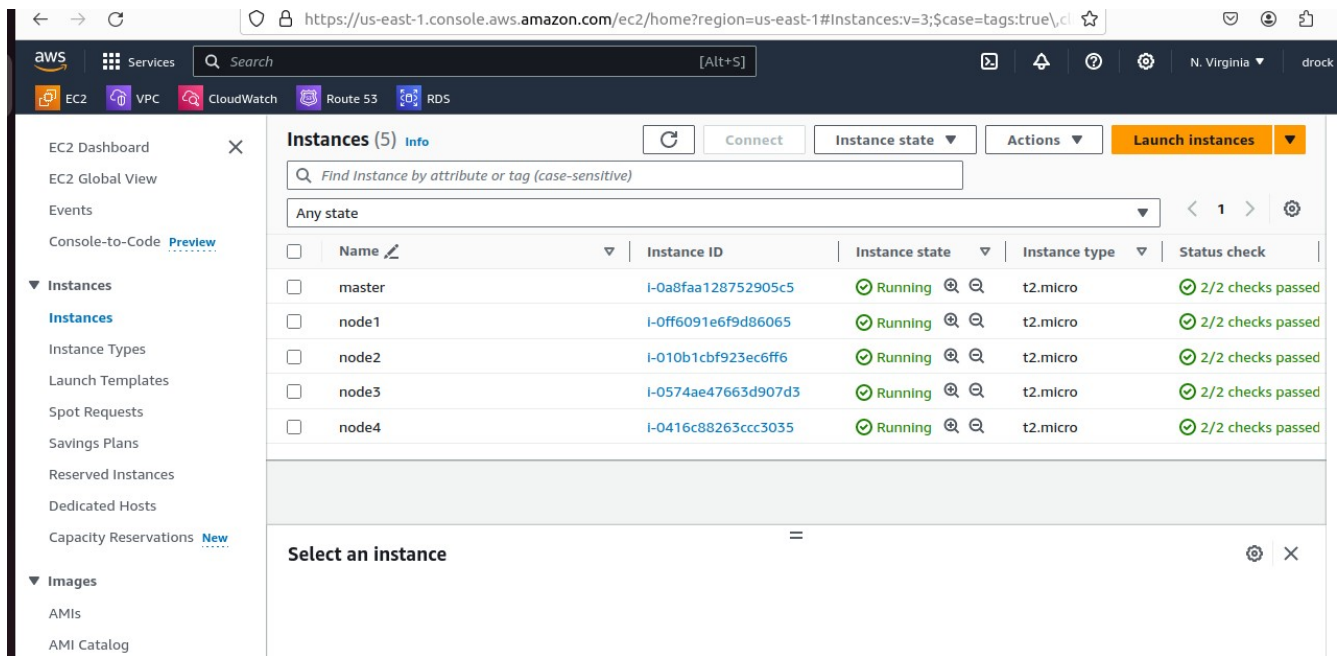


1. Create a new deployment of Ansible cluster of 5 nodes
  2. Label 2 nodes as test and other 2 as prod
  3. Install Java on test nodes
  4. Install MySQL server on prod nodes
- Use Ansible roles for the above and group the hosts under test and prod.



## CREATE INVENTORY FILE

```
sudo nano /etc/ansible/hosts
```

```
[test]
```

```
test-node1 ansible_host=54.161.135.205
```

```
test-node2 ansible_host=54.211.200.169
```

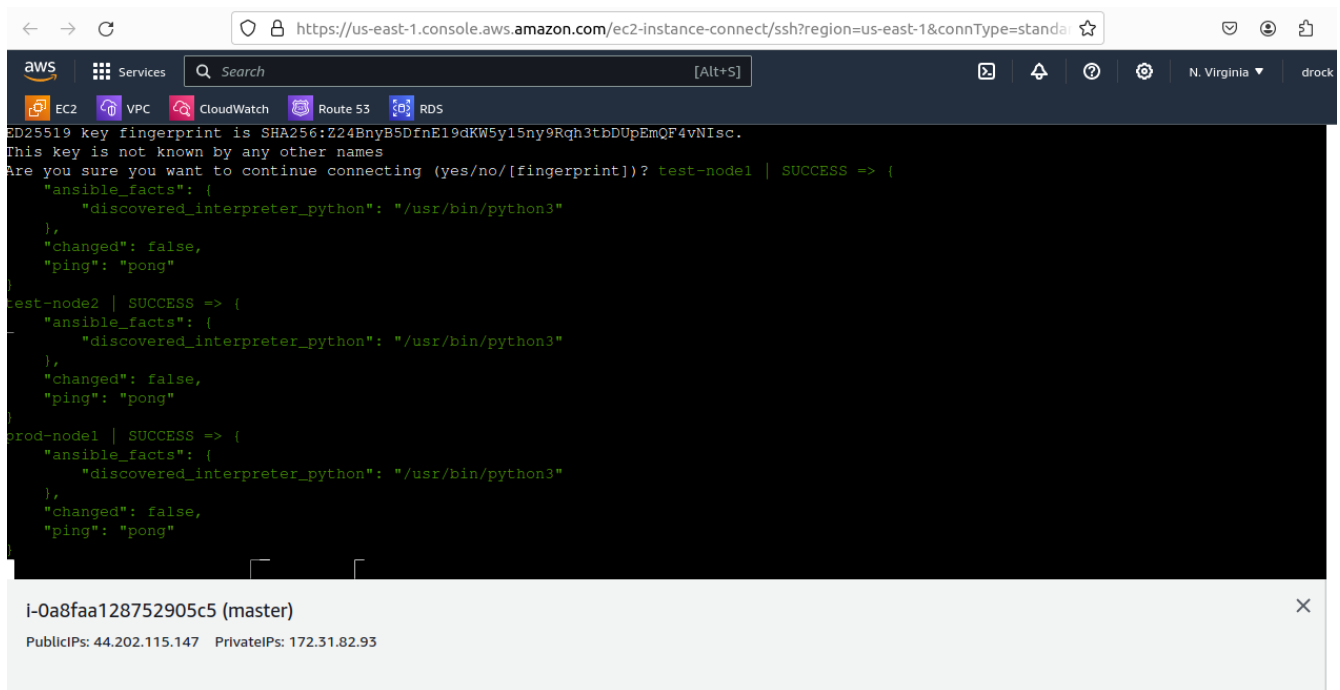
```
[prod]
```

```
prod-node1 ansible_host=54.166.156.212
```

```
prod-node2 ansible_host=3.92.45.111
```

## PING ALL THE HOSTS

```
ansible -m ping all
```



```
ED25519 key fingerprint is SHA256:Z24BnyB5DfnE19dKW5y15ny9Rqh3tbDUpEmQF4vNIsc.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? test-node1 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
test-node2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
prod-node1 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}

i-0a8faa128752905c5 (master)
PublicIPs: 44.202.115.147  PrivateIPs: 172.31.82.93
```

## ROLES CREATIONS

```
to see the full traceback, use -vvv
ubuntu@ip-172-31-82-93:/etc/ansible/roles$ sudo ansible-galaxy init java_install
- Role java_install was created successfully
ubuntu@ip-172-31-82-93:/etc/ansible/roles$ sudo ansible-galaxy init mysql_install
- Role mysql_install was created successfully
```

## CREATE THE 2 ROLES

/etc/ansible/roles

```
sudo ansible-galaxy init java_install
sudo ansible-galaxy init mysql_install
```

.....  
ROLE1

```
mkdir -p roles/java_install/tasks
```

(mkdir -p roles/java\_install/tasks..... is used to create the directory structure for an Ansible role. )

sudo nano roles/java\_install/tasks/main.yml..... (to edit the main.yml file inside the tasks directory.)

OR

```
cd /etc/ansible/roles/java_install/tasks
```

# Edit the main.yml file

```
sudo nano main.yml
```

```
.....
```

```
---
```

```
- name: Install Java
  become: yes
  apt:
    name: openjdk-11-jdk
    state: present
```

```
.....
```

## ROLE2

```
mkdir -p roles/mysql_install/tasks .....
sudo nano roles/mysql_install/tasks/main.yml
```

OR

```
cd /etc/ansible/roles/mysql_install/tasks
sudo nano main.yml
```

```
---
```

```
- name: Install MySQL Server
  become: yes
  apt:
    name: mysql-server
    state: present
```

```
.....
```

Create the service.yml Playbook:

```
cd /etc/ansible/roles
sudo nano service.yml
```

```
---
```

```
- name: Install Services
  hosts: all
  become: yes
  roles:
    - role: java_install
    - role: mysql_install
```

```
cd /etc/ansible/roles
ansible-playbook service.yml
```

```
ubuntu@ip-172-31-82-93:~$ sudo nano /etc/ansible/roles
ubuntu@ip-172-31-82-93:~$ cd /etc/ansible/roles
ubuntu@ip-172-31-82-93:/etc/ansible/roles$ ansible-playbook service.yml

PLAY [Install Services] *****

TASK [Gathering Facts] *****
ok: [prod-node3]
ok: [test-node2]
ok: [test-node1]
ok: [prod-node4]

PLAY RECAP *****
prod-node3      : ok=1    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
prod-node4      : ok=1    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
test-node1      : ok=1    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
test-node2      : ok=1    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-82-93:/etc/ansible/roles$
```

