

## Module 5: Ansible Assignment - 5

### Tasks To Be Performed:

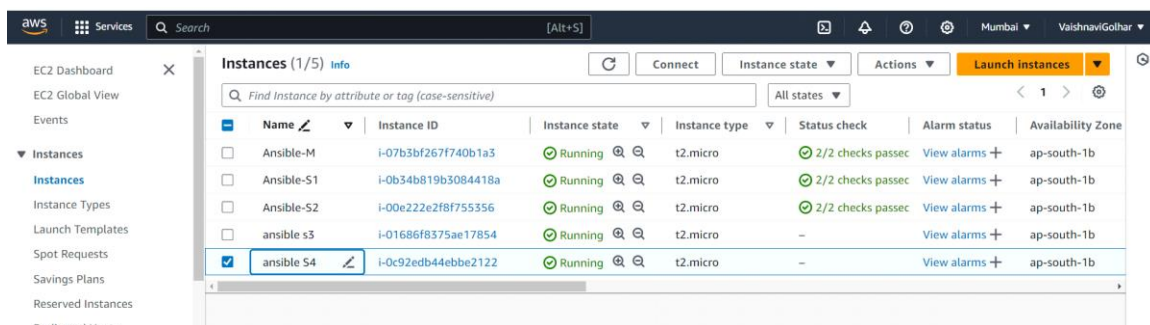
1. Create a new deployment of Ansible cluster of 5 nodes
2. Label 2 nodes as test and other 2 as prod
3. Install Java on test nodes
4. Install MySQL server on prod nodes

Use Ansible roles for the above and group the hosts under test and prod

### SOLUTION:

#### Step1: Create a new deployment of Ansible cluster of 5 nodes

Create five EC2 instances running Ubuntu. Ensure you have the necessary security group settings to allow SSH access between the instances.



**Step2: Install Ansible on your master node and set up passwordless SSH access to the other nodes.**

i-07b3bf267f740b1a3 (Ansible-M)  
PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31

i-01686f8375ae17854 (ansible s3)  
PublicIPs: 13.201.93.157 PrivateIPs: 172.31.11.165

i-0c92edb44ebbe2122 (ansible S4)  
PublicIPs: 13.233.104.132 PrivateIPs: 172.31.5.12

i-07b3bf267f740b1a3 (Ansible-M)

```
aws Services Search [Alt+S]
GNU nano 7.2 hosts *
[test]
Slave1 ansible_host=172.31.8.186
Slave2 ansible_host=172.31.9.136
[prod]
Slave3 ansible_host=172.31.11.165
Slave4 ansible_host=172.31.5.12
^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Loca
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^/ Go T
i-07b3bf267f740b1a3 (Ansible-M)
PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31
```

## Step 4: Create the Playbook

```
aws Services Search [Alt+S]
GNU nano 7.2 play5.yaml *
---
- name: executing task on test slaves
  become: yes
  hosts: test
  tasks:
    - name: installing java on slaves
      apt: name=openjdk-11-jdk state=latest
- name: executing task on prod slaves
  become: yes
  hosts: prod
  tasks:
    - name: installing mysql server on slaves
      apt: name=mysql-server state=latest

^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^_ Go To Line
```

i-07b3bf267f740b1a3 (Ansible-M)

PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31

```
ubuntu@ip-172-31-8-31:~$ cd /etc/ansible
ubuntu@ip-172-31-8-31:/etc/ansible$ ls
ansible.cfg  assignment2.sh  hosts  play.yaml  play2.yaml  play3.yaml  roles
ubuntu@ip-172-31-8-31:/etc/ansible$ sudo nano hosts
ubuntu@ip-172-31-8-31:/etc/ansible$ sudo nano play5.yaml
ubuntu@ip-172-31-8-31:/etc/ansible$ ansible-playbook play5.yaml --syntax-check
```

playbook: play5.yaml

```
ubuntu@ip-172-31-8-31:/etc/ansible$
```

i-07b3bf267f740b1a3 (Ansible-M)

PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31

## Step 5: Running the Playbook

```
ubuntu@ip-172-31-8-31:~$ cd /etc/ansible
ubuntu@ip-172-31-8-31:/etc/ansible$ ls
ansible.cfg  assignment2.sh  hosts  play.yaml  play2.yaml  play3.yaml  roles
ubuntu@ip-172-31-8-31:/etc/ansible$ sudo nano hosts
ubuntu@ip-172-31-8-31:/etc/ansible$ sudo nano play5.yaml
ubuntu@ip-172-31-8-31:/etc/ansible$ ansible-playbook play5.yaml --syntax-check
```

playbook: play5.yaml

```
ubuntu@ip-172-31-8-31:/etc/ansible$
```

i-07b3bf267f740b1a3 (Ansible-M)

PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31

```

ubuntu@ip-172-31-8-31:/etc/ansible$ ansible-playbook play5.yaml --check

PLAY [executing task on test slaves] *****

TASK [Gathering Facts] *****
ok: [Slave2]
ok: [Slave1]

TASK [installing java on slaves] *****
ok: [Slave1]
changed: [Slave2]

PLAY [executing task on prod slaves] *****

```

i-07b3bf267f740b1a3 (Ansible-M)

PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31

```

aws Services Search [Alt+S] Mumbai ValshnaviGolhar

ok: [Slave2]
ok: [Slave1]

TASK [installing java on slaves] *****
ok: [Slave1]
changed: [Slave2]

PLAY [executing task on prod slaves] *****

TASK [Gathering Facts] *****
ok: [Slave3]
ok: [Slave4]

TASK [installing mysql server on slaves] *****
changed: [Slave3]
changed: [Slave4]

PLAY RECAP *****
slave1      : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
slave2      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
slave3      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
slave4      : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-8-31:/etc/ansible$

```

i-07b3bf267f740b1a3 (Ansible-M)

PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31

```

ubuntu@ip-172-31-8-31:/etc/ansible$ ansible-playbook play5.yaml

PLAY [executing task on test slaves] *****

TASK [Gathering Facts] *****
ok: [Slave2]
ok: [Slave1]

TASK [installing java on slaves] *****
ok: [Slave1]
changed: [Slave2]

PLAY [executing task on prod slaves] *****

TASK [Gathering Facts] *****
ok: [Slave4]
ok: [Slave3]

TASK [installing mysql server on slaves] *****

```

i-07b3bf267f740b1a3 (Ansible-M)

PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31

```
AWS Services Search [Alt+S] Mumbai VaishnaviGolhar
ok: [Slave2]
ok: [Slave1]
TASK [installing java on slaves] *****
ok: [Slave1]
changed: [Slave2]
PLAY [executing task on prod slaves] *****
TASK [Gathering Facts] *****
ok: [Slave4]
ok: [Slave3]
TASK [installing mysql server on slaves] *****
changed: [Slave3]
changed: [Slave4]
PLAY RECAP *****
Slave1 : ok=2 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
Slave2 : ok=2 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
Slave3 : ok=2 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
Slave4 : ok=2 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
ubuntu@ip-172-31-8-31:/etc/ansible$
```

i-07b3bf267f740b1a3 (Ansible-M)

PublicIPs: 43.204.108.130 PrivateIPs: 172.31.8.31

## Step6 : Check on the Slaves

```
ubuntu@ip-172-31-8-186:/var/www/html$ cd
ubuntu@ip-172-31-8-186:~$ java --version
openjdk 11.0.23 2024-04-16
OpenJDK Runtime Environment (build 11.0.23+9-post-Ubuntu-lubuntul)
OpenJDK 64-Bit Server VM (build 11.0.23+9-post-Ubuntu-lubuntul, mixed mode, sharing)
ubuntu@ip-172-31-8-186:~$
```

i-0b34b819b3084418a (Ansible-S1)

PublicIPs: 65.2.78.174 PrivateIPs: 172.31.8.186

```
ubuntu@ip-172-31-9-136:~$ java --version
openjdk 11.0.23 2024-04-16
OpenJDK Runtime Environment (build 11.0.23+9-post-Ubuntu-lubuntul)
OpenJDK 64-Bit Server VM (build 11.0.23+9-post-Ubuntu-lubuntul, mixed mode, sharing)
ubuntu@ip-172-31-9-136:~$
```

i-00e222e2f8f755356 (Ansible-S2)

PublicIPs: 13.201.133.142 PrivateIPs: 172.31.9.136

```
ubuntu@ip-172-31-11-165:~$ mysql -V
mysql Ver 8.0.37-0ubuntu0.24.04.1 for Linux on x86_64 ((Ubuntu))
ubuntu@ip-172-31-11-165:~$
```

i-01686f8375ae17854 (ansible s3)

PublicIPs: 13.201.93.157 PrivateIPs: 172.31.11.165

```
ubuntu@ip-172-31-5-12:~$ mysql -V
mysql Ver 8.0.37-0ubuntu0.24.04.1 for Linux on x86_64 ((Ubuntu))
ubuntu@ip-172-31-5-12:~$
```

i-0c92edb44ebbe2122 (ansible S4)

PublicIPs: 13.233.104.132 PrivateIPs: 172.31.5.12

