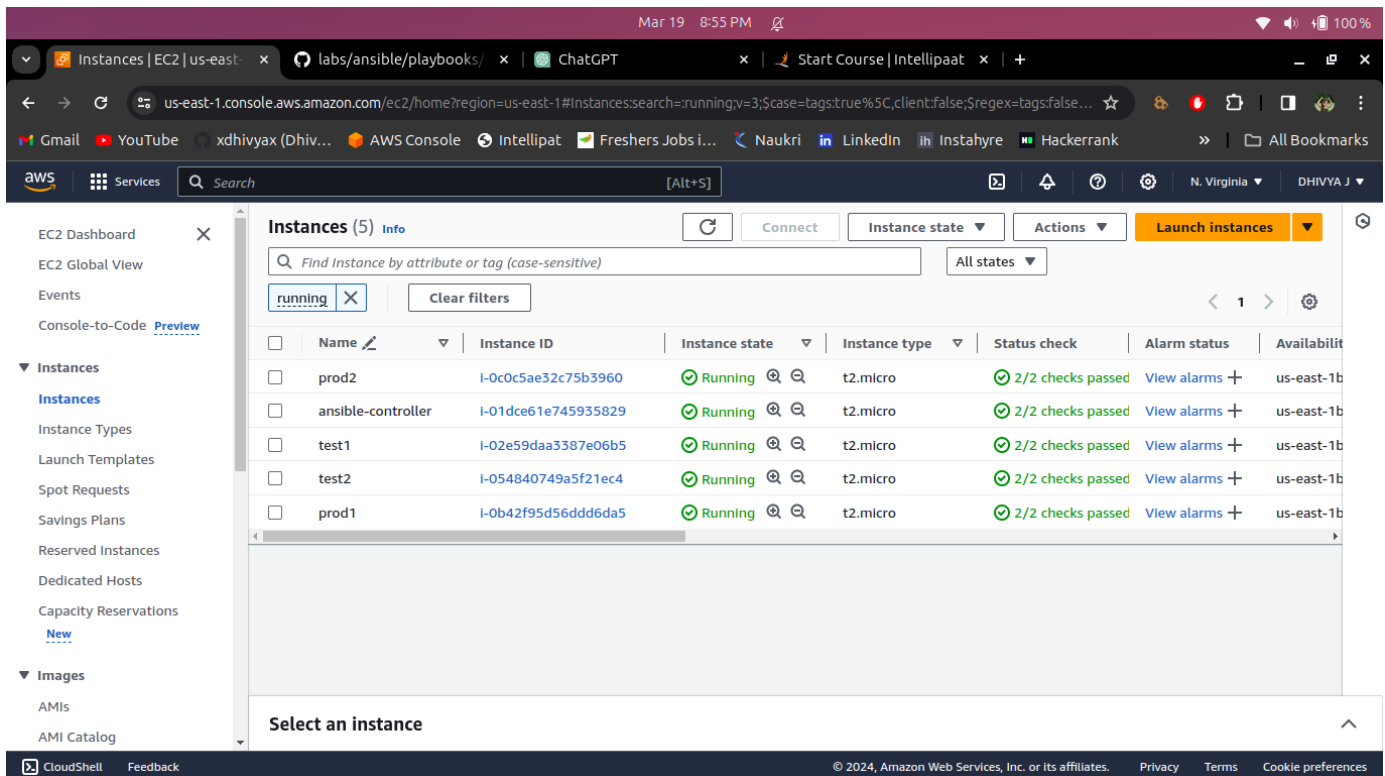


Module-6: Ansible Assignment - 5

You have been asked to:

- Create a new deployment of ansible cluster of 5 nodes
- Label 2 nodes as test and other 2 as prod
- Install java on test nodes
- Install mysql-server on prod nodes

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



The screenshot displays the AWS Management Console interface for the 'Instances' page in the 'us-east-1' region. The left sidebar shows navigation options like 'EC2 Dashboard', 'EC2 Global View', 'Events', and 'Instances'. The main content area shows a list of 5 running EC2 instances. A filter is applied to show only 'running' instances. The instances are:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
prod2	I-0c0c5ae32c75b3960	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b
ansible-controller	I-01dce61e745935829	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b
test1	I-02e59daa3387e06b5	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b
test2	I-054840749a5f21ec4	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b
prod1	I-0b42f95d56ddd6da5	Running	t2.micro	2/2 checks passed	View alarms	us-east-1b

At the bottom of the console, there is a 'Select an instance' dialog box.

```
Mar 19 8:00 PM 82%
ubuntu@ansible-controller: ~
ubuntu@ansible-controller:~$ ansible --version
ansible [core 2.16.4]
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['/home/ubuntu/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  ansible collection location = /home/ubuntu/.ansible/collections:/usr/share/ansible/collections
  executable location = /usr/bin/ansible
  python version = 3.10.12 (main, Nov 20 2023, 15:14:05) [GCC 11.4.0] (/usr/bin/python3)
  jinja version = 3.0.3
  libyaml = True
ubuntu@ansible-controller:~$
```

```
Mar 19 8:17 PM 91%
ubuntu@test1: ~
ubuntu@test1:~/.ssh$ cd
ubuntu@test1:~$ java
Command 'java' not found, but can be installed with:
sudo apt install openjdk-11-jre-headless # version 11.0.20.1+1-0ubuntu1~22.04, or
sudo apt install default-jre # version 2:1.11-72build2
sudo apt install openjdk-17-jre-headless # version 17.0.8.1+1-us1-0ubuntu1~22.04
sudo apt install openjdk-18-jre-headless # version 18.0.2+9-2~22.04
sudo apt install openjdk-19-jre-headless # version 19.0.2+7-0ubuntu3~22.04
sudo apt install openjdk-8-jre-headless # version 8u382-ga-1~22.04.1
ubuntu@test1:~$
```

```
Mar 19 8:18 PM 91%
ubuntu@test2: ~
ubuntu@ansible-controller: ~ x ubuntu@test1: ~ x ubuntu@test2: ~ x ubuntu@prod1: ~ x ubuntu@prod2: ~
ubuntu@test2:~$ java
Command 'java' not found, but can be installed with:
sudo apt install openjdk-11-jre-headless # version 11.0.20.1+1-0ubuntu1~22.04, or
sudo apt install default-jre # version 2:1.11-72build2
sudo apt install openjdk-17-jre-headless # version 17.0.8.1+1-us1-0ubuntu1~22.04
sudo apt install openjdk-18-jre-headless # version 18.0.2+9-2~22.04
sudo apt install openjdk-19-jre-headless # version 19.0.2+7-0ubuntu3~22.04
sudo apt install openjdk-8-jre-headless # version 8u382-ga-1-22.04.1
ubuntu@test2:~$
```

```
Mar 19 8:18 PM 92%
ubuntu@prod1: ~
ubuntu@ansible-controller: ~ x ubuntu@test1: ~ x ubuntu@test2: ~ x ubuntu@prod1: ~ x ubuntu@prod2: ~
ubuntu@prod1:~$ mysql
Command 'mysql' not found, but can be installed with:
sudo apt install mysql-client-core-8.0 # version 8.0.35-0ubuntu0.22.04.1, or
sudo apt install mariadb-client-core-10.6 # version 1:10.6.12-0ubuntu0.22.04.1
ubuntu@prod1:~$
```

```
Mar 19 8:18 PM 92%
ubuntu@prod2: ~
ubuntu@ansible-controller: ~ x ubuntu@test1: ~ x ubuntu@test2: ~ x ubuntu@prod1: ~ x ubuntu@prod2: ~ x
ubuntu@prod2:~$ mysql
Command 'mysql' not found, but can be installed with:
sudo apt install mysql-client-core-8.0 # version 8.0.35-0ubuntu0.22.04.1, or
sudo apt install mariadb-client-core-10.6 # version 1:10.6.12-0ubuntu0.22.04.1
ubuntu@prod2:~$
```

```
Mar 19 8:53 PM 98%
ubuntu@ansible-controller: ~
ubuntu@ansible-controller: ~ x ubuntu@test1: ~ x ubuntu@test2: ~ x ubuntu@prod1: ~ x ubuntu@prod2: ~ x
[test]
3.83.207.113
44.211.124.199
[prod]
34.230.44.184
34.227.152.23

[test:vars]
ansible_user=ubuntu
ansible_ssh_private_key_file=/home/ubuntu/.ssh/id_rsa
[prod:vars]
ansible_user=ubuntu
ansible_ssh_private_key_file=/home/ubuntu/.ssh/id_rsa
...
...
...
"myinv" 13L, 243B 11,1 All
```



```
Mar 19 8:49 PM
ubuntu@ansible-controller: ~
name: install java
hosts: test
become: yes
roles:
  - java
"java.yaml" 5L, 71B
5,7 All
```

```
Mar 19 8:38 PM
ubuntu@ansible-controller: ~
ubuntu@ansible-controller:~$ ls
ansible.cfg  hosts  java.yaml  myinv  mysql.yaml  roles
ubuntu@ansible-controller:~$ ansible-playbook -i myinv java.yaml

PLAY [install java] *****

TASK [Gathering Facts] *****
ok: [3.83.207.113]
ok: [44.211.124.199]

TASK [java : run apt-get update] *****
changed: [44.211.124.199]
changed: [3.83.207.113]

TASK [java : install java] *****
ok: [44.211.124.199]
changed: [3.83.207.113]

PLAY RECAP *****
3.83.207.113      : ok=3    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
44.211.124.199  : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ansible-controller:~$
```

```
Mar 19 8:38 PM 97%
ubuntu@test1: ~
ubuntu@ansible-controller: ~ x ubuntu@test1: ~ x ubuntu@test2: ~/.ssh x ubuntu@prod1: ~/.ssh x ubuntu@prod2: ~/.ssh x
ubuntu@test1:~$ java --version
openjdk 11.0.22 2024-01-16
OpenJDK Runtime Environment (build 11.0.22+7-post-Ubuntu-0ubuntu222.04.1)
OpenJDK 64-Bit Server VM (build 11.0.22+7-post-Ubuntu-0ubuntu222.04.1, mixed mode, sharing)
ubuntu@test1:~$
```

```
Mar 19 8:39 PM 97%
ubuntu@test2: ~
ubuntu@ansible-controller: ~ x ubuntu@test1: ~ x ubuntu@test2: ~ x ubuntu@prod1: ~/.ssh x ubuntu@prod2: ~/.ssh x
ubuntu@test2:~$ java --version
openjdk 11.0.22 2024-01-16
OpenJDK Runtime Environment (build 11.0.22+7-post-Ubuntu-0ubuntu222.04.1)
OpenJDK 64-Bit Server VM (build 11.0.22+7-post-Ubuntu-0ubuntu222.04.1, mixed mode, sharing)
ubuntu@test2:~$
```

```
Mar 19 8:51 PM
ubuntu@ansible-controller: ~/roles/mysql/tasks

- name: run apt-get update
  apt:
    update_cache: yes
- name: install mysql
  apt:
    name: mysql-server
    state: present
- name: start service
  systemd:
    name: mysql
    state: restarted

"main.yaml" 12L, 198B 12,0-1 All
```

```
Mar 19 8:52 PM
ubuntu@ansible-controller: ~

- name: install mysql
  hosts: prod
  become: yes
  roles:
    - mysql

"mysql.yaml" 6L, 72B 5,11 All
```



```
Mar 19 8:43 PM
ubuntu@ansible-controller: ~
ubuntu@ansible-controller:~/roles/mysql/tasks$ cd
ubuntu@ansible-controller:~$ ansible-playbook -i myinv mysql.yaml

PLAY [install mysql] *****

TASK [Gathering Facts] *****
ok: [34.227.152.23]
ok: [34.230.44.184]

TASK [mysql : run apt-get update] *****
changed: [34.230.44.184]
changed: [34.227.152.23]

TASK [mysql : install mysql] *****
changed: [34.230.44.184]
changed: [34.227.152.23]

TASK [mysql : start service] *****
changed: [34.230.44.184]
changed: [34.227.152.23]

PLAY RECAP *****
34.227.152.23      : ok=4    changed=3    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
34.230.44.184    : ok=4    changed=3    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ansible-controller:~$
```

```
Mar 19 8:44 PM
ubuntu@prod1: ~
ubuntu@ansible-controller: ~
ubuntu@test1: ~
ubuntu@test2: ~
ubuntu@prod1: ~
ubuntu@prod2: ~/.ssh
ubuntu@prod1:~$ sudo systemctl status mysql
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2024-03-19 15:13:48 UTC; 1min 0s ago
     Process: 3107 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
    Main PID: 3116 (mysqld)
      Status: "Server is operational"
     Tasks: 37 (limit: 1121)
    Memory: 392.0M
       CPU: 1.280s
    CGroup: /system.slice/mysql.service
            └─3116 /usr/sbin/mysqld

Mar 19 15:13:47 prod1 systemd[1]: Stopped MySQL Community Server.
Mar 19 15:13:47 prod1 systemd[1]: mysql.service: Consumed 1.117s CPU time.
Mar 19 15:13:47 prod1 systemd[1]: Starting MySQL Community Server...
Mar 19 15:13:48 prod1 systemd[1]: Started MySQL Community Server.
ubuntu@prod1:~$
```

```
Mar 19 8:45 PM 98 %
ubuntu@prod2: ~
ubuntu@prod2:~$ sudo systemctl status mysql
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2024-03-19 15:13:49 UTC; 2min 3s ago
     Process: 3076 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
    Main PID: 3085 (mysqld)
      Status: "Server is operational"
     Tasks: 37 (limit: 1121)
    Memory: 392.2M
       CPU: 1.566s
    CGroup: /system.slice/mysql.service
            └─3085 /usr/sbin/mysqld

Mar 19 15:13:47 prod2 systemd[1]: Stopped MySQL Community Server.
Mar 19 15:13:47 prod2 systemd[1]: mysql.service: Consumed 1.105s CPU time.
Mar 19 15:13:47 prod2 systemd[1]: Starting MySQL Community Server...
Mar 19 15:13:49 prod2 systemd[1]: Started MySQL Community Server.
ubuntu@prod2:~$
```