

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.

1. Create a new deployment of Ansible cluster of 5 nodes

Instances (5/5) Info		Last updated 6 minutes ago	Connect	Instance state ▾	Actions ▾	Launch instances
		All states ▾				
Instance state = running X		Clear filters				
✓	Name ↴	Instance ID	Instance state	Instance type	Status check	Alarm status
<input checked="" type="checkbox"/>	ansible-master	i-0C2a560f1804185dd	Running Q Q	t2.micro	2/2 Checks passed View alarms +	ap-southeast-1
<input checked="" type="checkbox"/>	test-1	i-007bfc0128461ad0b	Running Q Q	t2.micro	Initializing View alarms +	ap-southeast-1
<input checked="" type="checkbox"/>	test-2	i-0a853b3db13a16c27	Running Q Q	t2.micro	Initializing View alarms +	ap-southeast-1
<input checked="" type="checkbox"/>	prod-1	i-0326927fbcae0aab	Running Q Q	t2.micro	Initializing View alarms +	ap-southeast-1
<input checked="" type="checkbox"/>	prod-2	i-0a2143f52fde98cc2	Running Q Q	t2.micro	Initializing View alarms +	ap-southeast-1

5 instances selected

2. Label 2 nodes as test and other 2 as prod

```
GNU nano 7.2
[test]
172.31.3.193
172.31.13.11
[prod]
172.31.11.211
172.31.11.43
```

3. Install Java on test nodes

```
ubuntu@ip-172-31-11-69:/etc/ansible/roles$ sudo -R
- Role mysql was created successfully
ubuntu@ip-172-31-11-69:/etc/ansible/roles$ ls
apache-role java mysql nginx-role
ubuntu@ip-172-31-11-69:/etc/ansible/roles$
```

```
GNU nano 7.2
- name: Install Java
  apt: name=openjdk-17-jdk state=latest
```

```
#SPDX-License-Identifier: MIT-0
---
# tasks file for java
- include_tasks: installjava.yaml
```

GNU nano 7.2

```
name: Install MySQL
apt: name=mysql-server state=present
```

```
#SPDX-License-Identifier: MIT-0
---
```

```
# tasks file for mysql
- include_tasks: installmysql.yaml
```

Playbook file(YAML)

```
GNU nano 7.2
---
- name: Execute Java role on test nodes
  hosts: test
  become: true
  roles:
    - java

- name: Execute MySQL role on prod nodes
  hosts: prod
  become: true
  roles:
    - mysql
```

```

72.31.11.211 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.12"
    },
    "changed": false,
    "ping": "pong"
}

[WARNING]: Host '172.31.11.43' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
72.31.11.43 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.12"
    },
    "changed": false,
    "ping": "pong"
}

[WARNING]: Host '172.31.13.11' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
72.31.13.11 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.12"
    },
    "changed": false,
    "ping": "pong"
}

[WARNING]: Host '172.31.3.193' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
72.31.3.193 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.12"
    },
    "changed": false,
    "ping": "pong"
}

i-0c2a560f1804185dd (ansible-master)
PublicIPs: 43.204.107.107 PrivateIPs: 172.31.11.69

```

```

playbook: play5.yaml
ubuntu@ip-172-31-11-69:/etc/ansible$ ansible-playbook play5.yaml

PLAY [Execute Java role on test nodes] ****
TASK [Gathering Facts] ****
[WARNING]: Host '172.31.13.11' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.13.11]
[WARNING]: Host '172.31.3.193' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.3.193]

TASK [java : include_tasks] ****
Included: /etc/ansible/roles/java/tasks/installjava.yaml for 172.31.3.193, 172.31.13.11

TASK [java : Install Java] ****
changed: [172.31.3.193]
changed: [172.31.13.11]

PLAY [Execute MySQL role on prod nodes] ****
TASK [Gathering Facts] ****
[WARNING]: Host '172.31.11.211' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.11.211]
[WARNING]: Host '172.31.11.43' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.11.43]

i-0c2a560f1804185dd (ansible-master)
PublicIPs: 43.204.107.107 PrivateIPs: 172.31.11.69

```

```

TASK [java : Install Java] ****
changed: [172.31.3.193]
changed: [172.31.13.11]

PLAY [Execute MySQL role on prod nodes] ****
TASK [Gathering Facts] ****
[WARNING]: Host '172.31.11.211' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.11.211]
[WARNING]: Host '172.31.11.43' is using the discovered Python interpreter at '/usr/bin/python3.12', but future installation of another Python interpreter could cause a different interpreter to be discovered. See https://docs.ansible.com/ansible-core/2.19/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.11.43]

TASK [mysql : include_tasks] ****
Included: /etc/ansible/roles/mysql/tasks/installmysql.yaml for 172.31.11.211, 172.31.11.43

TASK [mysql : Install MySQL] ****
changed: [172.31.11.211]
changed: [172.31.11.43]

PLAY RECAP ****
172.31.11.211      : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
172.31.11.43      : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
172.31.13.11      : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
172.31.3.193      : ok=3    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-11-69:/etc/ansible$ 
i-0c2a560f1804185dd (ansible-master)
PublicIPs: 43.204.107.107 PrivateIPs: 172.31.11.69

```

```
ubuntu@ip-172-31-3-193:~$ .ssh$ cd ..  
ubuntu@ip-172-31-3-193:~$ java -version  
openjdk version "17.0.16" 2025-07-15  
OpenJDK Runtime Environment (build 17.0.16+8-Ubuntu-0ubuntu124.04.1)  
OpenJDK 64-Bit Server VM (build 17.0.16+8-Ubuntu-0ubuntu124.04.1, mixed mode, sharing)  
ubuntu@ip-172-31-3-193:~$ █
```

i-007bfc0128461ad0b (test-1)

PublicIPs: 65.0.177.241 PrivateIPs: 172.31.3.193

```
ubuntu@ip-172-31-13-11:~/ssh$ cd ..  
ubuntu@ip-172-31-13-11:~$ java -version  
openjdk version "17.0.16" 2025-07-15  
OpenJDK Runtime Environment (build 17.0.16+8-Ubuntu-0ubuntu124.04.1)  
OpenJDK 64-Bit Server VM (build 17.0.16+8-Ubuntu-0ubuntu124.04.1, mixed mode, sharing)  
ubuntu@ip-172-31-13-11:~$ █
```

i-0a853b3db13a16c27 (test-2)

PublicIPs: 13.232.74.45 PrivateIPs: 172.31.13.11

```
ubuntu@ip-172-31-11-211:~$ mysql -V
mysql Ver 8.0.43-0ubuntu0.24.04.2 for Linux on x86_64 ((Ubuntu))
ubuntu@ip-172-31-11-211:~$ █
```

i-0326927fbcae0daab (prod-1)

PublicIPs: 13.232.82.109 PrivateIPs: 172.31.11.211

```
ubuntu@ip-172-31-11-43:~$ mysql -V
mysql Ver 8.0.43-0ubuntu0.24.04.2 for Linux on x86_64 ((Ubuntu))
ubuntu@ip-172-31-11-43:~$ █
```

i-0a2143f52fde98cc2 (prod-2)

PublicIPs: 65.0.124.108 PrivateIPs: 172.31.11.43