

Module 5: Ansible Assignment - 5

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:-

```
$ sudo vi /etc/ansible/hosts
```

```
Server@Ansible-Server:/home/Server/ansible$ sudo vi /etc/ansible/hosts
```

```
[test]  
172.31.41.112  
172.31.35.248
```

```
[prod]  
172.31.44.26  
172.31.42.136
```

```
[test]  
172.31.41.112  
172.31.35.248  
  
[prod]  
172.31.44.26  
172.31.42.136
```

```
$ cd /etc/ansible/roles
roles$ sudo ansible-galaxy init Server.test
roles$ sudo ansible-galaxy init Server.prod
```

```
Server@Ansible-Server:/home/Server/ansible/roles$ sudo ansible-galaxy init Server.test
- Role Server.test was created successfully
Server@Ansible-Server:/home/Server/ansible/roles$ sudo ansible-galaxy init Server.prod
- Role Server.prod was created successfully
Server@Ansible-Server:/home/Server/ansible/roles$ ls
Server.apache2  Server.nginx  Server.prod  Server.test  test
Server@Ansible-Server:/home/Server/ansible/roles$
```

```
$ cd Server.test/tasks/
$ sudo vi install.yml
```

```
Server@Ansible-Server:/home/Server/ansible/roles$ cd Server.test/tasks/
Server@Ansible-Server:/home/Server/ansible/roles/Server.test/tasks$ sudo vi install.yml
Server@Ansible-Server:/home/Server/ansible/roles/Server.test/tasks$
```

Press

```
---
- name: installing java
  apt: name=openjdk-11-jdk state=latest
```

```
---
- name: installing java on test
  apt: name=openjdk-11-jdk state=latest
```

```
$ sudo vi main.yml
```

```
Server@Ansible-Server:/home/Server/ansible/roles/Server.test/tasks$ sudo vi main.yml
```

Press I

```
---
- include_tasks: install.yml
:wq!
```

```
---
- include_tasks: install.yml
```

```
$ cd Server.prod/tasks/  
$ sudo vi install.yml
```

```
Server@Ansible-Server:/home/Server/ansible/roles$ cd Server.prod/tasks/  
Server@Ansible-Server:/home/Server/ansible/roles/Server.prod/tasks$ sudo vi install.yml
```

Press i

```
- name: installing mysql on prod  
  apt: name=mysql-server state=latest
```

```
---  
- name: installing mysql on prod  
  apt: name=mysql-server state=latest  
~
```

```
$ sudo vi main.yml
```

```
Server@Ansible-Server:/home/Server/ansible/roles/Server.prod/tasks$ sudo vi main.yml
```

Press I

```
---  
- include_tasks: install.yml  
:wq!
```

```
---  
- include_tasks: install.yml  
~
```

```
$ sudo vi play5.yml
```

```
Server@Ansible-Server:/home/Server/ansible/roles/Server.prod/tasks$ cd ../../..  
Server@Ansible-Server:/home/Server/ansible$ sudo vi play5.yml
```

Press I

```
---  
- name: installing apache2 on test group  
  hosts: test  
  become: true  
  roles:  
    - Server.test
```

```
- name: installing mysql on prod group  
  hosts: prod  
  become: true  
  roles:  
    - Server.prod
```

```
---  
- name: installing apache2 on test group  
  hosts: test  
  become: true  
  roles:  
    - Server.test  
  
- name: installing mysql on prod group  
  hosts: prod  
  become: true  
  roles:  
    - Server.prod
```

\$ ansible-playbook play5.yml --syntax-check

```
Server@Ansible-Server:/home/Server/ansible$ ansible-playbook play5.yml --syntax-check  
playbook: play5.yml  
Server@Ansible-Server:/home/Server/ansible$
```

```
$ ansible-playbook play5.yml --check
```

```
Server@Ansible-Server:/home/Server/ansible$ ansible-playbook play5.yml --check

PLAY [installing apache2 on test group] *****
*****
**

TASK [Gathering Facts] *****
*****
**
ok: [172.31.42.136]
ok: [172.31.44.26]

TASK [Server.test : include_tasks] *****
*****
**
included: /home/Server/ansible/roles/Server.test/tasks/install.yml for 172.31.44.26,
172.31.42.136

TASK [Server.test : installing java on test] *****
*****
**
changed: [172.31.44.26]
changed: [172.31.42.136]

PLAY [installing mysql on prod group] *****
*****
**
```

```
changed: [172.31.42.136]

PLAY [installing mysql on prod group] *****
*****
**

TASK [Gathering Facts] *****
*****
**
ok: [172.31.41.112]
ok: [172.31.35.248]

TASK [Server.prod : include_tasks] *****
*****
**
included: /home/Server/ansible/roles/Server.prod/tasks/install.yml for 172.31.41.112,
172.31.35.248

TASK [Server.prod : installing mysql on prod] *****
*****
**
changed: [172.31.41.112]
changed: [172.31.35.248]

PLAY RECAP *****
*****
172.31.35.248 : ok=3 changed=1 unreachable=0 failed=0 skippe
d=0 rescued=0 ignored=0
```

```

TASK [Server.prod : installing mysql on prod] *****
*****
**
changed: [172.31.41.112]
changed: [172.31.35.248]

PLAY RECAP *****
*****
**
172.31.35.248      : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0
172.31.41.112     : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0
172.31.42.136     : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0
172.31.44.26      : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0

```

\$ ansible-playbook play5.yml

```

Server@Ansible-Server:/home/Server/ansible$ ansible-playbook play5.yml

PLAY [installing apache2 on test group] *****
*****
**

TASK [Gathering Facts] *****
*****
**
ok: [172.31.41.112]
ok: [172.31.35.248]

TASK [Server.test : include_tasks] *****
*****
**
included: /home/Server/ansible/roles/Server.test/tasks/install.yml for 172.31.41.112,
172.31.35.248

TASK [Server.test : installing java on test] *****
*****
**
changed: [172.31.41.112]
changed: [172.31.35.248]

PLAY [installing mysql on prod group] *****

```



```
PLAY [installing mysql on prod group] *****
*****
**

TASK [Gathering Facts] *****
*****
**
ok: [172.31.44.26]
ok: [172.31.42.136]

TASK [Server.prod : include_tasks] *****
*****
**
included: /home/Server/ansible/roles/Server.prod/tasks/install.yml for 172.31.44.26,
172.31.42.136

TASK [Server.prod : installing mysql on prod] *****
*****
**
changed: [172.31.44.26]
changed: [172.31.42.136]

PLAY RECAP *****
*****
**
172.31.35.248      : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0
172.31.41.112     : ok=3    changed=1    unreachable=0    failed=0    skippe
```

```
PLAY RECAP *****
*****
**
172.31.35.248      : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0
172.31.41.112     : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0
172.31.42.136     : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0
172.31.44.26      : ok=3    changed=1    unreachable=0    failed=0    skippe
d=0    rescued=0    ignored=0
```

\$ java --version

```
Server@Ansible-Node1:/home/Server$ java --version
openjdk 11.0.20 2023-07-18
OpenJDK Runtime Environment (build 11.0.20+8-post-Ubuntu-1ubuntu122.04)
OpenJDK 64-Bit Server VM (build 11.0.20+8-post-Ubuntu-1ubuntu122.04, mixed mode, sharing)
```

```
Server@Ansible-Node2:/home/Server$ java --version
openjdk 11.0.20 2023-07-18
OpenJDK Runtime Environment (build 11.0.20+8-post-Ubuntu-1ubuntu122.04)
OpenJDK 64-Bit Server VM (build 11.0.20+8-post-Ubuntu-1ubuntu122.04, mixed mode, sharing)
Server@Ansible-Node2:/home/Server$
```

\$ mysql --version

```
Server@ip-172-31-44-26:/home/Server$ mysql --version
mysql Ver 8.0.34-0ubuntu0.22.04.1 for Linux on x86_64 ((Ubuntu))
```

```
Server@ip-172-31-42-136:/home/Server$ mysql --version  
mysql Ver 8.0.34-0ubuntu0.22.04.1 for Linux on x86_64 ((Ubuntu))
```