System Provisioning and

Configuration Management Lab

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EXPERIMENT 2

Lab Exercise: Working With Hosts and Groups

Objective: To work with hosts both individually and in groups for streamlined management and deployment across your network infrastructure

Tools required: Ubuntu OS

Prerequisites: You need to have Ansible, and the nodes connected with it installed to proceed with this demo. Refer Demo 1 of Lesson 3.

Steps to be followed:

1. List the hosts present in your host file

2. Create a file on the host

3. Remove the file from the host

4. Create and remove the file on the hosts using the group

5. Update the hosts using the group

Step 1: List the hosts present in your host file

1.1 Use the following command to list the hosts in your inventory file:
   ansible all --list-hosts

```
ubuntu@ip-172-31-15-82:~$ ansible all --list-hosts
  hosts (3):
    localhost
    65.0.183.70
    172.31.15.82
```

Note: The host list might change as per your system.

Step 2: Create a file on the host

2.1 Use the following command to list the contents of the current working directory:
   ansible 172.31.44.85 -a "ls"

```
ubuntu@ip-172-31-15-82:~$ ansible 172.31.15.82 -a "ls"
172.31.15.82 | CHANGED | rc=0 >>
```

2.2 Use the following command to create a file named **file1** on the host:
   ansible 13.126.129.191 -a "touch file1"

Note: You can create the file on any other host as per your host list.

```
ubuntu@ip-172-31-15-82:~$ ansible 172.31.15.82 -a "touch file1"
172.31.15.82 | CHANGED | rc=0 >>

ubuntu@ip-172-31-15-82:~$ ansible 172.31.15.82 -a "ls"
172.31.15.82 | CHANGED | rc=0 >>
file1
```

Step 3: Remove the file from the host

3.1   Now, run the following command to remove the file from the host:
   ansible 13.126.129.191 -a "rm file1"

```
ubuntu@ip-172-31-15-82:~$ ansible 172.31.15.82 -a "rm file1"
172.31.15.82 | CHANGED | rc=0 >>

ubuntu@ip-172-31-15-82:~$ ansible 172.31.15.82 -a "ls"
172.31.15.82 | CHANGED | rc=0 >>
```

Step 4: Create and remove the file on the hosts using the group

4.1   Run the following command to create a new file on both the hosts using the group:
   ansible dbservers -a "touch Ansible_learners"

```
ubuntu@ip-172-31-15-82:~$ ansible dbbservers -a "touch Ansible_learners"
172.31.15.82 | CHANGED | rc=0 >>

65.0.183.70 | CHANGED | rc=0 >>

localhost | CHANGED | rc=0 >>
```

4.2 Use the following command to list the contents of the current working directory of all the hosts present in the group:
   ansible dbservers -a "ls"

```
ubuntu@ip-172-31-15-82:~$ ansible dbbservers -a "ls"
65.0.183.70 | CHANGED | rc=0 >>
Ansible_learners
localhost | CHANGED | rc=0 >>
Ansible_learners
172.31.15.82 | CHANGED | rc=0 >>
Ansible_learners
```

4.3   Run the following command to remove the file on both hosts using the group:
ansible dbservers -a "rm Ansible_learners"

```
ubuntu@ip-172-31-15-82:~$ ansible dbbservers -a 'sh -c "touch ~/Ansible_learners && ls -l ~/Ansible_learners"'
localhost | CHANGED | rc=0 >>
-rw-rw-r-- 1 ubuntu ubuntu 0 Apr 25 00:50 /home/ubuntu/Ansible_learners
172.31.15.82 | CHANGED | rc=0 >>
-rw-rw-r-- 1 ubuntu ubuntu 0 Apr 25 00:50 /home/ubuntu/Ansible_learners
65.0.183.70 | CHANGED | rc=0 >>
-rw-rw-r-- 1 ubuntu ubuntu 0 Apr 25 00:50 /home/ubuntu/Ansible_learners
ubuntu@ip-172-31-15-82:~$ ansible dbbservers -a 'sh -c "rm ~/Ansible_learners && echo removed"'
172.31.15.82 | CHANGED | rc=0 >>
removed
localhost | FAILED | rc=1 >>
rm: cannot remove '/home/ubuntu/Ansible_learners': No such file or directorynon-zero return code
65.0.183.70 | FAILED | rc=1 >>
rm: cannot remove '/home/ubuntu/Ansible_learners': No such file or directorynon-zero return code
ubuntu@ip-172-31-15-82:~$
```

This command should remove the Ansible_learners from each hosts, the likely issue causing the error here is that the file was created but then got removed or wiped by some other process, user action, or even reboot scripts.