

Lesson 02 Demo 02

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

```
syedsharwan@ip-172-31-44-85:~$ ansible all --list-hosts
hosts (3):
  172.31.44.85
  172.31.5.76
  172.31.28.129
syedsharwan@ip-172-31-44-85:~$
```

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"

```
syedsharvesh@ip-172-31-44-85:~$ ansible 172.31.44.85 -a "ls"
172.31.44.85 | CHANGED | rc=0 >>
Desktop
Documents
Downloads
Music
Pictures
Public
Templates
Videos
file1
thinclient drives
```

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

2.2 Use the following command to create a file named **file1** on the host:

ansible 172.31.44.85 -a "touch file1"

```
syedsharvesh@ip-172-31-44-85:~$ ansible 172.31.44.85 -a "touch file1"
The authenticity of host '172.31.44.85 (172.31.44.85)' can't be established.
ED25519 key fingerprint is SHA256:TNj5v1UthviNPSVB0jksCbix6ZZ50sYDtj3nEEarjA.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:1: [hashed name]
  ~/.ssh/known_hosts:4: [hashed name]
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
172.31.44.85 | CHANGED | rc=0 >>
```

Step 3: Remove the file from the host

3.1 Now, run the following command to remove the file from the host:

ansible 172.31.44.85 -a "rm file1"

```
syedsharvesh@ip-172-31-44-85:~$ ansible 172.31.44.85 -a "rm file1"
172.31.44.85 | CHANGED | rc=0 >>

syedsharvesh@ip-172-31-44-85:~$ █
```

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"

```
syedsharozsimpl@ip-172-31-44-85:~$ ansible dbservers -a "touch Ansible_learners"
```

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"

```
syedsharozsimpl@ip-172-31-44-85:~$ ansible dbservers -a "ls"
```

```
[DEPRECATION WARNING]: Distribution Ubuntu 20.04 on host localhost should use /usr/bin/python3, but is using /usr/bin/python for backward compatibility with prior Ansible releases. A future Ansible release will default to using the discovered platform python for this host. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information. This feature will be removed in version 2.12. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.
localhost | CHANGED | rc=0 >>
Ansible_learners
Desktop
Documents
Downloads
Music
Pictures
Public
Simplilearn
Templates
Videos
thinclient drives
[DEPRECATION WARNING]: Distribution Ubuntu 16.04 on host 172.31.18.193 should use /usr/bin/python3, but is using /usr/bin/python for backward compatibility with prior Ansible releases. A future Ansible release will default to using the discovered platform python for this host. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information. This feature will be removed in version 2.12. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.
172.31.18.193 | CHANGED | rc=0 >>
Ansible_learners
Desktop
Devops
Simplilearn
Simplilearn Devops
```

4.3 Run the following command to remove the file on both hosts using the group:

ansible dbservers -a "rm Ansible_learners"

```
syedsharozsimpl@ip-172-31-44-85:~$ ansible dbservers -a "rm Ansible_learners"
```

Step 5: Update the hosts using the group

5.1 Run the following command to update the hosts using the group:

ansible dbservers -a "sudo apt-get update"

```
@ip-172-31-28-129:~$ ansible dbservers -a "sudo apt-get update"
[WARNING]: Consider using 'become', 'become_method', and 'become_user' rather than running sudo
[DEPRECATION WARNING]: Distribution Ubuntu 16.04 on host 172.31.18.193 should use /usr/bin/python3, but is using /usr/bin/python for backward
compatibility with prior Ansible releases. A future Ansible release will default to using the discovered platform python for this host. See
https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information. This feature will be removed in version
2.12. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.
172.31.18.193 | CHANGED | rc=0 >>
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Get:4 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Hit:5 http://dl.google.com/linux/chrome/deb stable InRelease
Ign:6 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:7 https://pkg.jenkins.io/debian-stable binary/ Release
Hit:8 http://repo.zabbix.com/zabbix/3.0/ubuntu trusty InRelease
Hit:9 http://ppa.launchpad.net/ansible/ansible/ubuntu xenial InRelease
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [2,049 kB]
Hit:11 https://deb.nodesource.com/node_14.x xenial InRelease
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/main amd64 DEP-11 Metadata [327 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/universe amd64 DEP-11 Metadata [281 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 DEP-11 Metadata [5,956 B]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-backports/main amd64 DEP-11 Metadata [3,332 B]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-backports/universe amd64 DEP-11 Metadata [6,608 B]
Hit:17 http://ppa.launchpad.net/deadsnakes/ppa/ubuntu xenial InRelease
Get:18 http://security.ubuntu.com/ubuntu xenial-security/main amd64 DEP-11 Metadata [93.6 kB]
Get:19 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 DEP-11 Metadata [130 kB]
Get:20 http://security.ubuntu.com/ubuntu xenial-security/multiverse amd64 DEP-11 Metadata [2,464 B]
Hit:22 http://ppa.launchpad.net/remmina-ppa-team/remmina-next-daily/ubuntu xenial InRelease
Fetched 3,224 kB in 0s (4,200 kB/s)
Reading package lists...W: http://repo.zabbix.com/zabbix/3.0/ubuntu/dists/trusty/InRelease: Signature by key FBABD5FB20255ECAB22EE194D13D58E479EA5ED4
uses weak digest algorithm (SHA1)
```

By following these steps, you have successfully worked with hosts both individually and in the group for streamlined management and deployment across your network infrastructure.