



System Provisioning and Configuration Module Lab

Working with Hosts and Groups

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Lab Exercise 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

```
[ec2-user@ip-172-31-3-184 ~]$ ansible all --list-hosts
hosts (3):
  172.31.2.18
  172.31.1.82
  localhost
[ec2-user@ip-172-31-3-184 ~]$
```

i-01aece664b34b6423 (ANSIBLE-SERVER)

PublicIPs: 13.203.86.113 PrivateIPs: 172.31.3.184

Step 2: Create a file on the host

2.1 Use the following command to list the contents of the current working directory:

ansible 172.31.3.184 -a "ls"

```
-bash: 2.1ansible: command not found
[ec2-user@ip-172-31-3-184 ~]$ ansible 172.31.3.184 -a "ls"
[WARNING]: Could not match supplied host pattern, ignoring: 172.31.3.184
[WARNING]: No hosts matched, nothing to do
[ec2-user@ip-172-31-3-184 ~]$ ansible 172.31.2.18 -a "ls"
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter
could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED | rc=0 >>
[ec2-user@ip-172-31-3-184 ~]$ ansible 172.31.1.83 -a "ls"
```

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 172.31.3.184 -a "touch file1"

```
[ec2-user@ip-172-31-3-184 ~]$ ansible 172.31.2.18 -a "ls"
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter
could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED | rc=0 >>
file1
[ec2-user@ip-172-31-3-184 ~]$ ansible 172.31.2.18 -m file -a "path=file1 state=touch"
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter
could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": true,
  "dest": "file1",
  "gid": 1001,
  "group": "devops",
  "mode": "0664",
  "owner": "devops",
  "size": 0,
  "state": "file",
  "uid": 1001
}
[ec2-user@ip-172-31-3-184 ~]$
```

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"

```
[ec2-user@ip-172-31-3-184 ~]$ ansible 172.31.2.18 -m file -a "path=file1 state=absent"
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter
could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "path": "file1",
  "state": "absent"
}
[ec2-user@ip-172-31-3-184 ~]$
```

i-01aace664b34b6423 (ANSIBLE-SERVER)

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 spcm -a "touch Ansible_learners"

```
[ec2-user@ip-172-31-3-184 ~]$ sudo vi /etc/ansible/hosts
[ec2-user@ip-172-31-3-184 ~]$ ansible spcm -a "touch Ansible_learners"
[WARNING]: Consider using the file module with state=touch rather than running 'touch'. If you need to use command because file is insufficient you can add 'warn: false' to this command task or set 'command_warnings=False' in ansible.cfg to get rid of this message.
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | CHANGED | rc=0 >>

[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED | rc=0 >>

[ec2-user@ip-172-31-3-184 ~]$
```

i-01aece664b34b6423 (ANSIBLE-SERVER)
PublicIPs: 13.203.86.113 PrivateIPs: 172.31.3.184

4.2 Use the following command to list the contents of the current working directory of all the hosts present in the group:

ansible spcm -a "ls"

```
Ansible learners
[ec2-user@ip-172-31-3-184 ~]$ ansible spcm -a "ls -la"
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | CHANGED | rc=0 >>
total 16
drwx----- 4 ec2-user ec2-user 147 Apr 26 19:44 .
drwxr-xr-x 5 root root 51 Apr 26 17:53 ..
drwx----- 4 ec2-user ec2-user 27 Apr 26 17:17 .ansible
-rw-rw-r-- 1 ec2-user ec2-user 0 Apr 26 19:47 Ansible_learners
-rw----- 1 ec2-user ec2-user 339 Apr 26 19:11 .bash_history
-rw-r--r-- 1 ec2-user ec2-user 18 Jul 15 2020 .bash_logout
-rw-r--r-- 1 ec2-user ec2-user 193 Jul 15 2020 .bash_profile
-rw-r--r-- 1 ec2-user ec2-user 231 Jul 15 2020 .bashrc
drwx----- 2 ec2-user ec2-user 80 Apr 26 17:13 .ssh
-rw-r--r-- 1 root root 0 Apr 25 09:00 sudo
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED | rc=0 >>
```

i-01aece664b34b6423 (ANSIBLE-SERVER)

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

ansible spcm -a "rm Ansible_learners"

```
drwx----- 2 devops devops 29 Apr 25 09:18 .ssh
[ec2-user@ip-172-31-3-184 ~]$ ansible spcm -a "rm Ansible_learners"
[WARNING]: Consider using the file module with state=absent rather than running 'rm'. If you need to use command because file is insufficient you can add 'warn: false' to this command task or set 'command_warnings=False' in ansible.cfg to get rid of this message.
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | CHANGED | rc=0 >>

[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED | rc=0 >>

[ec2-user@ip-172-31-3-184 ~]$
```