System Provisioning and

Configuration Management Lab

Submitted to:

Dr. Hitesh Kumar

Sharma

Submitted by:
Saumya Sehgal
500105655
R2142220635
Devops B2(NH)

EXPERIMENT 4

Lab Exercise: Executing Ansible Modules

Objective: To demonstrate the use of the Ansible module for server configuration and management

Tools required: Linux terminal

Prerequisites: None

Steps to be followed:

1. Use Ansible modules for server configuration

Step 1: Use Ansible modules for server configuration

1.1 Run the following command using the **setup** module to collect and display detailed system information about the servers: **ansible -m setup dbbservers**

```
ubuntu@ip-172-31-7-36: ~
ubuntu@ip-172-31-7-36:~$ ansible -m setup dbbservers
65.2.4.161 | SUCCESS => {
    "ansible_facts": {
        "ansible_all_ipv4_addresses": [
            "172.31.7.36"
        ],
        "ansible_all_ipv6_addresses": [
            "fe80::8bc:44ff:fec6:3399"
        ],
        "ansible_apparmor": {
            "status": "enabled"
        },
        "ansible_architecture": "x86_64",
        "ansible_bios_date": "08/24/2006",
        "ansible_bios_vendor": "Xen",
        "ansible_bios_version": "4.11.amazon",
        "ansible_board_asset_tag": "NA",
        "ansible_board_name": "NA",
        "ansible_board_serial": "NA",
        "ansible_board_vendor": "NA",
        "ansible_board_version": "NA",
        "ansible_chassis_asset_tag": "NA",
        "ansible_chassis_serial": "NA",
        "ansible_chassis_vendor": "Xen",
        "ansible_chassis_version": "NA",
        "ansible_cmdline": {
            "BOOT_IMAGE": "/vmlinuz-6.8.0-1024-aws",
            "console": "ttyS0",
            "nvme_core.io_timeout": "4294967295",
            "panic": "-1",
            "ro": true,
            "root": "PARTUUID=a8ef6bc6-0748-47d7-a4a8-b126c21ff84c"
        },
        "ansible_date_time": {
            "date": "2025-04-25",
            "day": "25",
            "epoch": "1745544753",
            "epoch_int": "1745544753",
            "hour": "01",
            "iso8601": "2025-04-25T01:32:33Z",
            "iso8601_basic": "20250425T013233725219",
            "iso8601_basic_short": "20250425T013233",
            "iso8601_micro": "2025-04-25T01:32:33.725219Z",
```

1.2 Run the following command using the **shell** module to retrieve server hostnames:

ansible dbbservers -m shell -a 'hostname'

```
ubuntu@ip-172-31-7-36:~$ ansible dbbservers -m shell -a 'hostname'
65.2.4.161 | CHANGED | rc=0 >>
ip-172-31-7-36
172.31.7.36 | CHANGED | rc=0 >>
ip-172-31-7-36
localhost | CHANGED | rc=0 >>
ip-172-31-7-36
ubuntu@ip-172-31-7-36:~$ |
```

1.3 Run the following command using the **apt** module to install Git on servers:

ansible dbbservers -m apt -a 'name=git state=present update_cache=true' --become

```
ubuntu@ip-172-31-7-36:~$ ansible dbbservers -m apt -a 'name=git state=present update_cache=true' --become
localhost | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "cache_update_time": 1745545101,
    "cache_updated": true,
    "changed": false
}
65.2.4.161 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "cache_update_time": 1745545103,
    "cache_updated": true,
    "changed": false
}
172.31.7.36 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "cache_update_time": 1745545105,
    "cache_updated": true,
    "changed": false
}
ubuntu@ip-172-31-7-36:~$
```