System Provisioning and Configuration Management LAB

SUBMITTED TO

Dr. Hitesh Kumar Sharma

SUBMITTED BY

Siddharth Agarwal

500107594

R2142220663

Btech CSE DevOps B1

Lab Exercise 04

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 dbservers

```
ubuntu@ip-172-31-15-101:~$ ansible -m setup dbbservers
localhost | SUCCESS => {
    "ansible_facts": {
        "ansible_all_ipv4_addresses": [
            "172.31.15.101"
        ],
        "ansible_all_ipv6_addresses": [
            "fe80::875:d2ff:fee7:1351"
        ],
        "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": "2025-04-11",
            "day": "11",
            "epoch": "1744375351",
            "epoch_int": "1744375351",
```

1.2 Run the following command using the **shell** module to retrieve server hostnames:
ansible dbservers -m shell -a 'hostname'

```
ubuntu@ip-172-31-15-101:~$ ansible dbbservers -m shell -a 'hostname'
localhost | CHANGED | rc=0 >>
ip-172-31-15-101
3.110.151.86 | CHANGED | rc=0 >>
ip-172-31-7-107
13.126.129.191 | CHANGED | rc=0 >>
ip-172-31-1-7
ubuntu@ip-172-31-15-101:~$
```

1.3 Run the following command using the **apt** module to install Git on servers:
ansible dbservers -m yum -a 'name=git state=present' - - become

```
ubuntu@ip-172-31-15-101:~$ ansible dbbservers -m apt -a 'name=git state=present update_cache=true' --become
13.126.129.191 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "cache_update_time": 1744375486,
    "cache_updated": true,
    "changed": false
}
localhost | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "cache_update_time": 1744375486,
    "cache_updated": true,
    "changed": false
}
3.110.151.86 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "cache_update_time": 1744375486,
    "cache_updated": true,
    "changed": false
}
ubuntu@ip-172-31-15-101:~$
```