

School of Computer Science
University of Petroleum and Energy Studies



System Provisioning &
Configuration Management

Lab File (6th Sem)

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DevOps B1

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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-172-31-15-101:~$ 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 dbbservers -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 dbbservers -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:~$
```