

Ansible Task-5

1. Create fact.yml playbook that gathers facts using the setup module and then prints some of the gathered information: Cpu model, ip interfaces, fqdn and hostname, sda1 disk size, OS Family,Distro

```
---
- name: give some information
  hosts: prod
  tasks:
    - name: cpu model
      debug:
        msg: "{{ansible_facts['processor']}}"

    - name: ip interface
      debug:
        msg: "{{ansible_facts['default_ipv4']['interface']}}"

    - name: fqdn
      debug:
        msg: "{{ansible_facts['fqdn']}}"

    - name: hostname
      debug:
        msg: "{{ansible_facts['hostname']}}"

    - name: sda1 disk size
      debug:
        msg: "{{ansible_facts['devices']['nvme0n1']['partitions']['nvme0n1p1']['size']}}"

    - name: OS family
      debug:
        msg: "{{ansible_facts['os_family']}}"

    - name: distro
      debug:
        msg: "{{ansible_facts['distribution']}}"

[root@localhost ansible]# ansible-playbook fact.yml
PLAY [give some information] *****
TASK [Gathering Facts] *****
ok: [192.168.1.114]

TASK [cpu model] *****
ok: [192.168.1.114] => {
  "msg": {
    "processor": "AMD Ryzen 7 4700U with Radeon Graphics",
    "os_family": "Linux",
    "distribution": "Fedora"
  }
}

TASK [ip interface] *****
ok: [192.168.1.114] => {
  "msg": "ens160"
}

TASK [fqdn] *****
ok: [192.168.1.114] => {
  "msg": "nodes"
}

TASK [hostname] *****
ok: [192.168.1.114] => {
  "msg": "nodes"
}

TASK [sda1 disk size] *****
ok: [192.168.1.114] => {
  "msg": "600.00 MB"
}

TASK [OS family] *****
ok: [192.168.1.114] => {
  "msg": "Redhat"
}

TASK [distro] *****
ok: [192.168.1.114] => {
  "msg": "Redhat"
}

PLAY RECAP *****
192.168.1.114 : ok=8 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
```

2. Create file called real-info.txt in control node with lines : bios version: sda size: total memory: kernel version:

```
---
- name: task 2
  hosts: prod
  tasks:
    - name: real-info.txt
      copy:
        content: This is BIOS Version {{ansible_facts['bios_version']}}, This is SDA Size {{ansible_facts['devices']['nvme0n1']['partitions']['nvme0n1p1']['size']}}, This is Total Memory {{ansible_facts['memtotal_mb']}}, This is Kernel Version {{ansible_facts['kernel_version']}}
        dest: /home/real-info.txt

[root@localhost ansible]# ansible-playbook facts.yml
PLAY [task 2] *****
TASK [Gathering Facts] *****
ok: [192.168.1.114]

TASK [real-info.txt] *****
ok: [192.168.1.114]

PLAY RECAP *****
192.168.1.114 : ok=2 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

[root@localhost ansible]# ansible prod -m command -a "cat /home/real-info.txt"
192.168.1.114 | CHANGED | rc=0 >>
This is BIOS Version VMW201.00V.21005430.B64.2305221830, This is SDA Size 600.00 MB, This is Total Memory 1748, This is Kernel Version #1 SMP PREEMPT Tue Aug 2 10:02:12 EDT 2022
```

3. Create task1.yml for copy this file to all host /opt/report.txt and change this lines for every node with nodes real informations with nodes real informations

```
---
- name: copy report.txt
  hosts: prod
  tasks:
    - name: copy
      copy:
        src: report.txt
        dest: /opt/report.txt

    - name: real information
      copy:
        content: "{{ansible_facts['hostname']}}"
        dest: /opt/report.txt

[root@localhost ansible]# ansible-playbook task1.yml

PLAY [copy report.txt] *****
TASK [Gathering Facts] *****
ok: [192.168.1.114]
TASK [copy] *****
changed: [192.168.1.114]
TASK [real information] *****
changed: [192.168.1.114]
PLAY RECAP *****
192.168.1.114 : ok=3 changed=2 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

[root@localhost ansible]# ansible prod -m command -a "cat /opt/report.txt"
192.168.1.114 | CHANGED | rc=0 >>
node5
```

4. Write a playbook to gather network interface information from remote hosts and display the hostname and IP addresses.

```
---
- name: network interface information and ip address and hostname
  hosts: prod
  tasks:
    - name: network interface information
      debug:
        msg: "{{ansible_facts['default_ipv4']['interface']}}"

    - name: ip address
      debug:
        msg: "{{ansible_facts['default_ipv4']['address']}}"

    - name: hostname
      debug:
        msg: "{{ansible_facts['hostname']}}"

[root@localhost ansible]# ansible-playbook task2.yml

PLAY [network interface information and ip address and hostname] *****
TASK [Gathering Facts] *****
ok: [192.168.1.114]
TASK [network interface information] *****
ok: [192.168.1.114] => {
  "msg": "ens160"
}
TASK [ip address] *****
ok: [192.168.1.114] => {
  "msg": "192.168.1.114"
}
TASK [hostname] *****
ok: [192.168.1.114] => {
  "msg": "node5"
}
PLAY RECAP *****
192.168.1.114 : ok=4 changed=0 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
```

5. Create playbook for print inventory hostnames.

```
---  
- name: inventory hostname  
  hosts: prod  
  tasks:  
    - name: inventory hostname  
      debug:  
        var: inventory_hostname
```

```
[root@localhost ansible]# ansible-playbook task3.yml
```

```
PLAY [inventory hostname] *****  
TASK [Gathering Facts] *****  
ok: [192.168.1.114]  
TASK [inventory hostname] *****  
ok: [192.168.1.114] => {  
  "inventory_hostname": "192.168.1.114"  
}  
PLAY RECAP *****  
192.168.1.114 : ok=2  changed=0  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
```