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": [
        "0",
        "AuthenticAMD",
        "AMD Ryzen 7 4700U with Radeon Graphics",
        "1",
        "AuthenticAMD",
        "AMD Ryzen 7 4700U with Radeon Graphics"
    ]
}

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

TASK [fqdn] ********************************************************************************************************************************************************************************************
ok: [192.168.1.114] => {
    "msg": "node5"
}

TASK [hostname] ****************************************************************************************************************************************************************************************
ok: [192.168.1.114] => {
    "msg": "node5"
}

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.21805430.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

```yaml
---
- 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.

```yaml
---
- 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
```