In this lab exercise you will use below hosts. Please note down some details about these hosts as given below :
student-node :- This host will act as an Ansible master node where you will create playbooks, inventory, roles etc and you will be running your playbooks from this host itself.
node01 :- This host will act as an Ansible client/remote host where you will setup/install some stuff using Ansible playbooks. Below are the SSH credentials for this host:
User: bob
Password: caleston123
node02 :- This host will also act as an Ansible client/remote host where you will setup/install some stuff using Ansible playbooks. Below are the SSH credentials for this host:
User: bob
Password: caleston123

Which of the following formats is the Ansible playbook written in? – yaml

How many tasks are there under Setup apache Ansible play? 2

```
---
- name: Setup apache
  hosts: webserver
  tasks:
    - name: install httpd
      yum:
        name: httpd
        state: installed
    - name: Start service
      service:
        name: httpd
        state: started

- name: Setup tomcat
  hosts: appserver
  tasks:
    - name: install httpd
      yum:
        name: tomcat
        state: installed
    - name: Start service
      service:
        name: tomcat
        state: started
```

If we use the following inventory, on which hosts will Ansible install the httpd package using the given playbook? – web1 and web2

```
[webserver]
web1
web2
[appserver]
```

app1
app2
app3

```
---
- name: Setup apache
  hosts: webserver
  tasks:
    - name: install httpd
      yum:
        name: httpd
        state: installed

- name: Setup tomcat
  hosts: appserver
  tasks:
    - name: install httpd
      yum:
        name: tomcat
        state: installed
```

Which of the following commands can you use to run an Ansible playbook named install.yaml?
ansible-playbook install.yaml

Update the name of the play in /home/bob/playbooks/playbook.yaml playbook to Execute a date command on localhost.

```
[bob@student-node playbooks]$ cat playbook.yaml
---

- name: 'Execute a date command on localhost'
  hosts: localhost
  become: yes
  tasks:
    - name: 'Execute a date command'
      command: date

[bob@student-node playbooks]$ ansible-playbook -i inventory playbook.yaml

PLAY [Execute a date command on localhost] ************************************************************

TASK [Gathering Facts] ********************************************************************************
ok: [localhost]

TASK [Execute a date command] *************************************************************************
changed: [localhost]

PLAY RECAP ********************************************************************************************
localhost                  : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

Update the playbook /home/bob/playbooks/playbook.yaml to add a task name Task to display hosts file for the existing task.

```
[bob@student-node playbooks]$ vi playbook.yaml
[bob@student-node playbooks]$ cat playbook.yaml
---
- name: 'Execute a command to display hosts file on localhost'
  hosts: localhost
  become: yes
  tasks:
          - name: 'Task to display hosts file'
            command: 'cat /etc/hosts'
[bob@student-node playbooks]$
```

We have reset the playbook /home/bob/playbooks/playbook.yaml, now update it to add another task. The new task must execute the command cat /etc/resolv.conf and set its name to Task to display nameservers.

```
[bob@student-node playbooks]$ cat playbook.yaml
---
- name: 'Execute two commands on localhost'
  hosts: localhost
  become: yes
  tasks:
    - name: 'Execute a date command'
      command: date
    - name: 'Task to display nameservers'
      command: cat /etc/resolv.conf
[bob@student-node playbooks]$
```

So far, we have been running all tasks on localhost. We would now like to run these tasks on node01, this host is already defined in /home/bob/playbooks/inventory file. Update the playbook /home/bob/playbooks/playbook.yaml to run the tasks on the node01 host

```
[bob@student-node playbooks]$ cat inventory
node01 ansible_host=node01 ansible_ssh_pass=caleston123
node02 ansible_host=node02 ansible_ssh_pass=caleston123
[web_nodes]
node01
node02

[bob@student-node playbooks]$ cat playbook.yaml
---
- name: 'Execute two commands on node01'
  hosts: node01
  become: yes
  tasks:
    - name: 'Execute a date command'
      command: date
    - name: 'Task to display hosts file'
      command: 'cat /etc/hosts'
[bob@student-node playbooks]$
```

Refer to the /home/bob/playbooks/inventory file. We would like to run the /home/bob/playbooks/playbook.yaml on all servers defined under web_nodes group.
Note: Use the group name in playbook as defined in the inventory file.

```
[bob@student-node playbooks]$ vi playbook.yaml
[bob@student-node playbooks]$ cat playbook.yaml
---
- name: 'Execute two commands on web_nodes'
  hosts: web_nodes
  become: yes
  tasks:
    - name: 'Execute a date command'
      command: date
    - name: 'Task to display hosts file'
      command: 'cat /etc/hosts'
[bob@student-node playbooks]$
```

Update the /home/bob/playbooks/playbook.yaml to add a new play named Execute a command on node02, and a task under it to execute cat /etc/hosts command on node02 host, name the task Task to display hosts file on node02.
Refer to the given inventory file.

```
[bob@student-node playbooks]$ cat playbook.yaml
---
- name: 'Execute two commands on node01'
  hosts: node01
  become: yes
  tasks:
    - name: 'Execute a date command'
      command: date
    - name: 'Task to display hosts file on node01'
      command: 'cat /etc/hosts'
- name: 'Execute a command on node02'
  hosts: node02
  become: yes
  tasks:
     - name: 'Task to display hosts file on node02'
       command: 'cat /etc/hosts'
[bob@student-node playbooks]$
```