Task1

 Write your first playbook file

 Stop gather_facts and update cache

```
root@ip-10-2-0-220:~/lab1# cat ansible.cfg
[defaults]
inventory = ./inventory
private_key_file = /root/ansible.pem
remote_user = ubuntu

[privilege_escalation]
become_ask_pass = true
become = true
root@ip-10-2-0-220:~/lab1#
```

```
root@ip-10-2-0-220:~/lab1# cat inventory
[servers]
10.2.0.67
```

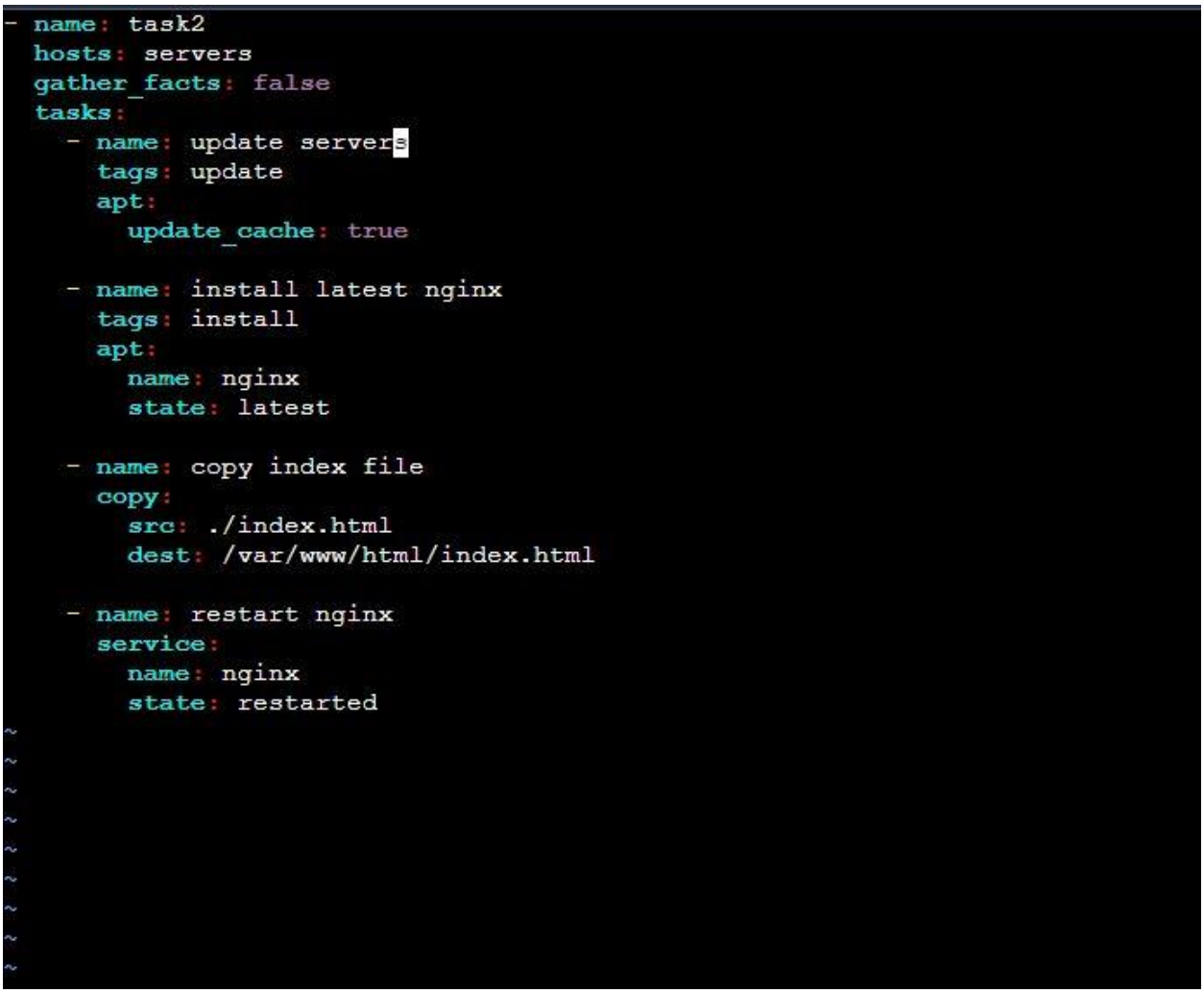
```
- name: create-task1
  hosts: servers
  gather_facts: false
  tasks:

    #apt update
    - name: update servers
      tags: update
      apt:
        update_cache: true
~
~
~
~
~
~
~
~
```

```
root@ip-10-2-0-220:~/lab1# vim inventory
root@ip-10-2-0-220:~/lab1# vim ansible.cfg
root@ip-10-2-0-220:~/lab1# ansible-playbook create-task.yaml
BECOME password:

PLAY [create-task1] ***********************************************************************************************************************************

TASK [update servers] *********************************************************************************************************************************
The authenticity of host '10.2.0.67 (10.2.0.67)' can't be established.
ED25519 key fingerprint is SHA256:hSVBj5fYinLBMwEYQRWUPwNaTeoCy2VfLdEtc/s/xnk.
This host key is known by the following other names/addresses:
    ~/.ssh/known_hosts:3: [hashed name]
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
changed: [10.2.0.67]

PLAY RECAP ********************************************************************************************************************************************
10.2.0.67                  : ok=1    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

root@ip-10-2-0-220:~/lab1#
```

Task2

- Explore some built-in modules like: (apt, dnf, package, service, command, copy, user, group, lineinfile, authorized_key, etc.) ansible-builtin modules
- Update cache
- Install latest nginx
- Copy index.html from controller to host 1
- Restart nginx service
- Can you see your index.html file when you hit host 1 on port 80

```
root@ip-10-2-0-220:~/lab1# ansible-playbook task2.yaml
BECOME password:

PLAY [task2] ******************************************************************************************************************************************

TASK [update servers] *********************************************************************************************************************************
changed: [10.2.0.67]

TASK [install latest nginx] ***************************************************************************************************************************
ok: [10.2.0.67]

TASK [copy index file] ********************************************************************************************************************************
ok: [10.2.0.67]

TASK [restart nginx] **********************************************************************************************************************************
changed: [10.2.0.67]

PLAY RECAP ********************************************************************************************************************************************
10.2.0.67                  : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

root@ip-10-2-0-220:~/lab1# curl 10.2.0.67
<h1> Hello, This Message is deployed From Ansible </h1>
root@ip-10-2-0-220:~/lab1#
```



```
- name: task2
  hosts: servers
  gather_facts: false
  tasks:
    - name: update servers
      tags: update
      apt:
        update_cache: true

    - name: install latest nginx
      tags: install
      apt:
        name: nginx
        state: latest

    - name: copy index file
      copy:
        src: ./index.html
        dest: /var/www/html/index.html

    - name: restart nginx
      service:
        name: nginx
        state: restarted
~
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~
```

Task3

- Write simple playbook file
- Add two tasks (apt update – apt install nginx)
- Add tags to first task: update
- Add tags to second task: install
- Run only the (apt update) task
- Example: ansible-playbook my-playbook.yml --tags update
- Add one task with “tags: always” and run the previous command again

```
root@ip-10-2-0-220:~/lab1# ansible-playbook task2.yaml --tags update
BECOME password:

PLAY [task2] ***********************************************************************************************************************************************

TASK [update servers] **************************************************************************************************************************************
changed: [10.2.0.67]

PLAY RECAP *************************************************************************************************************************************************
10.2.0.67                  : ok=1    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

root@ip-10-2-0-220:~/lab1#
```

```yaml
- name: task2
  hosts: servers
  gather_facts: false
  tasks:
    - name: update servers
      tags: update
      apt:
        update_cache: true

    - name: install latest nginx
      tags: install
      apt:
        name: nginx
        state: latest

    - name: copy index file
      copy:
        src: ./index.html
        dest: /var/www/html/index.html

    - name: restart nginx
      service:
        name: nginx
        state: restarted
~
~
~
~
~
~
~
~
~
~
```

Task4

Define these variables (package_name, package_version)

 on playbook level

 on inventory level

 on command line level Use apt module with the package name and version from your variable

```
root@ip-10-2-0-220:~/lab1# ansible-playbook task4.yaml
BECOME password:

PLAY [task4] ***********************************************************************************************************************************************

TASK [update servers] **************************************************************************************************************************************
changed: [10.2.0.67]

TASK [Ensure the package "nginx" is not installed] *********************************************************************************************************
changed: [10.2.0.67]

TASK [install "nginx=1.18.0-6ubuntu14.4"] ******************************************************************************************************************
changed: [10.2.0.67]

TASK [copy index file] *************************************************************************************************************************************
ok: [10.2.0.67]

TASK [restart nginx] ***************************************************************************************************************************************
changed: [10.2.0.67]

PLAY RECAP *************************************************************************************************************************************************
10.2.0.67                  : ok=5    changed=4    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

root@ip-10-2-0-220:~/lab1# curl 10.2.0.67
<h1> Hello, This Message is deployed From Ansible </h1>
root@ip-10-2-0-220:~/lab1#
```

```yaml
- name: task4
  hosts: servers
  gather_facts: false
  tags: task4
  vars:
    package_name: nginx
    package_state: present
    package_version: 1.18.0-6ubuntu14.4
  tasks:

    - name: update servers
      apt:
        update_cache: true

    - name: Ensure the package "{{ package_name }}" is not installed
      package:
        name: "{{ package_name }}"
        state: absent

    - name: install "{{ package_name }}={{ package_version }}"
      package:
        name: "{{ package_name }}={{ package_version }}"
        state: "{{ package_state }}"
      become: yes

    - name: copy index file
      tags: always
      copy:
        src: ./index.html
        dest: /var/www/html/index.html

    - name: restart nginx
      service:
        name: nginx
        state: restarted
~
~
"task4.yaml" 35L, 796B
```