

Ansible

- Install ansible
- ✓ sudo apt-get update
- ✓ sudo apt-get upgrade -y
- ✓ sudo apt install software-properties-common
- ✓ sudo add-apt-repository --yes --update ppa:ansible/ansible
- ✓ sudo apt install ansible -y
- Create a test Playbook

Is important to note that in this case, ansible is being used to configure the localhost so it's important to add the local value into connection parameter (Line 6)

```
test.yaml
1  ---
2  - hosts: all
3    become: true
4    become_method: sudo
5    hosts: localhost
6    connection: local
7    tasks:
8      - name: "Show Network Interfaces"
9        command: ifconfig
10       register: details
11      - name: 'Get Interfaces details'
12        debug:
13          msg: "{{ details.stdout }}"
```

- Execute test.yaml playbook
- ✓ ansible-playbook test.yaml --ask-become-pass

```
cris@DESKTOP-PM304DL:~/ansible_workspace$ ansible-playbook test.yaml --ask-become-pass
SUDO password:
[WARNING]: While constructing a mapping from /home/cris/ansible_workspace/test.yaml, line 2, column 3, found a duplicate dict
key (hosts). Using last defined value only.

PLAY [localhost] *****

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

TASK [Show Network Interfaces] *****
changed: [localhost]

TASK [Get Interfaces details] *****
ok: [localhost] => {
  "msg": "eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500\n      inet 172.27.182.21 netmask 255.255.240.0 broad
cast 172.27.191.255\n      inet6 fe80::215:5dff:fe04:57d9 prefixlen 64 scopeid 0x20<link>\n      ether 00:15:5d:04:57:d9
txqueuelen 1000 (Ethernet)\n      RX packets 13 bytes 1951 (1.9 KB)\n      RX errors 0 dropped 0 overruns 0 frame 0\n
      TX packets 13 bytes 986 (986.0 B)\n      TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0\n\nlo: flags=73<UP,
LOOPBACK,RUNNING> mtu 65536\n      inet 127.0.0.1 netmask 255.0.0.0\n      inet6 ::1 prefixlen 128 scopeid 0x10<host>\n
      loop txqueuelen 1000 (Local Loopback)\n      RX packets 0 bytes 0 (0.0 B)\n      RX errors 0 dropped 0 overruns
0 frame 0\n      TX packets 0 bytes 0 (0.0 B)\n      TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0"
}

PLAY RECAP *****
localhost                : ok=3    changed=1    unreachable=0    failed=0
```

- Create a Playbook for installing and configuring Apache2

```
config_apache.yml
1  ---
2  - hosts: all
3    become: true
4    become_method: sudo
5    connection: local
6    tasks:
7      - name: "Update packages and upgrade"
8        apt:
9          update_cache: true
10         upgrade: dist
11         force_apt_get: true
12      - name: "Install Apache server"
13        apt:
14          name: apache2
15          state: latest
16      - name: "Create document root"
17        file:
18          path: "/var/www/html"
19          state: directory
20          owner: "www-data"
21          mode: 0755
22      - name: "Enable Apache on Firewall"
23        ufw:
24          rule: allow
25          port: 80
26          proto: tcp
27      - name: "restart apache2 service"
28        service:
29          name: apache2
30          state: restarted
```

- Execute the playbook

✓ ansible-playbook config_apache.yml

```
cris@DESKTOP-PM304DL:~/ansible_workspace$ ansible-playbook config_apache.yml

PLAY [all] *****

TASK [Gathering Facts] *****
ok: [172.27.180.84]

TASK [Update packages and upgrade] *****
changed: [172.27.180.84]

TASK [Install Apache server] *****
ok: [172.27.180.84]

TASK [Create document root] *****
ok: [172.27.180.84]


TASK [Enable Apache on Firewall] *****
ok: [172.27.180.84]

TASK [restart apache2 service] *****
changed: [172.27.180.84]

PLAY RECAP *****
172.27.180.84 : ok=6 changed=2 unreachable=0 failed=0
```

- Check if the service is running using the web browser

localhost:80



Apache2 Ubuntu Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in [/usr/share/doc/apache2/README.Debian.gz](#)**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|   |-- ports.conf
|-- mods-enabled
|   |-- *.load
|   |-- *.conf
|-- conf-enabled
|   |-- *.conf
|-- sites-enabled
|   |-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.