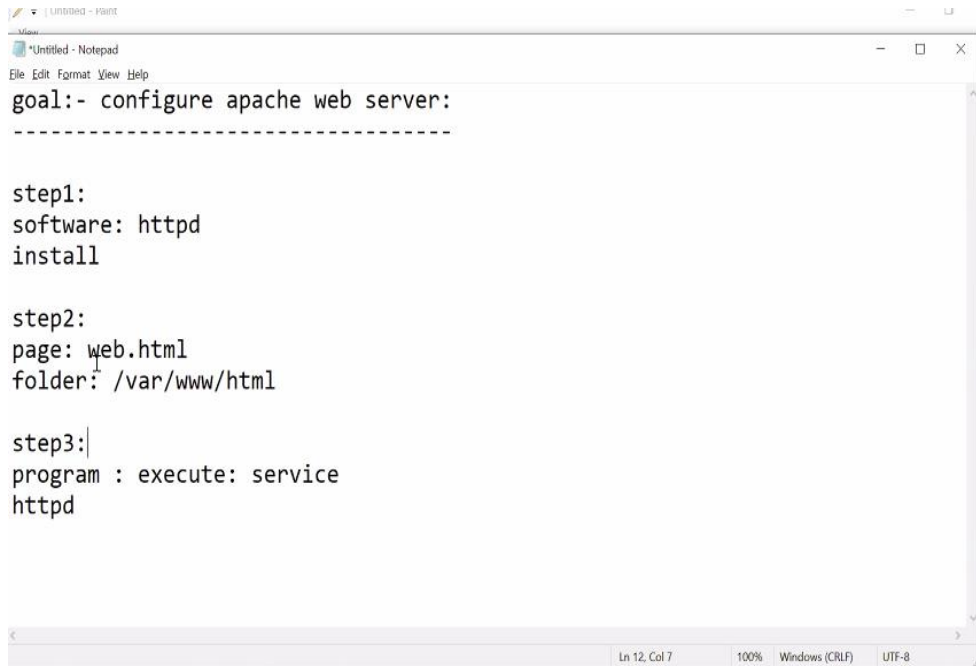


AIM: To configure Apache Web Server with Ansible.

1. Create a goal and step by step process:



```
goal:- configure apache web server:
-----

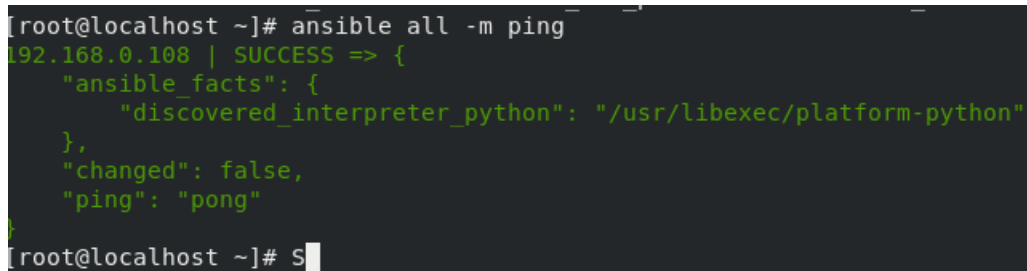
step1:
software: httpd
install

step2:
page: web.html
folder: /var/www/html

step3:
program : execute: service
httpd
```

2. Installing httpd in TN via ansible

a. Checking the networking with TN.



```
[root@localhost ~]# ansible all -m ping
192.168.0.108 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/libexec/platform-python"
  },
  "changed": false,
  "ping": "pong"
}
[root@localhost ~]# S
```

b.

AIM: To configure Apache Web Server with Ansible.

```
[root@localhost ~]# ansible all -m package -a "name=httpd state=present"
192.168.0.108 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/libexec/platform-python"
  },
  "changed": false,
  "msg": "Nothing to do",
  "rc": 0,
  "results": []
}
```

By chance, httpd package was already there in TN:

```
[root@localhost html]# systemctl stop firewalld
[root@localhost html]# rpm -q httpd
httpd-2.4.37-10.module+el8+2764+7127e69e.x86_64
[root@localhost html]#
```

“changed”: false => software is already there, and the message will come in green colour, else in yellow. This is also known as Current State.

Else:

```
[root@localhost ~]# ansible all -m package -a "name=httpd state=present"
192.168.0.162 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/libexec/platform-python"
  },
  "changed": true,
  "msg": "",
  "rc": 0,
  "results": [
    "Installed: httpd-tools-2.4.37-10.module+el8+2764+7127e69e.x86_64",
    "Installed: apr-util-openssl-1.6.1-6.el8.x86_64",
    "Installed: httpd-2.4.37-10.module+el8+2764+7127e69e.x86_64",
    "Installed: mod_http2-1.11.3-1.module+el8+2443+605475b7.x86_64",
    "Installed: httpd-fsfilesystem-2.4.37-10.module+el8+2764+7127e69e.noarch",
    "Installed: apr-1.6.3-9.el8.x86_64",
    "Installed: redhat-logos-httpd-80.7-1.el8.noarch",
    "Installed: apr-util-1.6.1-6.el8.x86_64",
    "Installed: apr-util-bdb-1.6.1-6.el8.x86_64"
  ]
}
[root@localhost ~]#
```

“changed”: true => package httpd was not present in CN, so Ansible installed it.

This is also known as Desired State. And this also implies that Ansible works on the concept of Idempotence.

NOTE: if something comes up in red colour, then some error is there in command.

3. **Vim web.html :** Making a html file in CN: web.html having the text “ well done user”

AIM: To configure Apache Web Server with Ansible.

a. Checking in TN: cd /var/www/html : web.html is not present

```
[root@localhost ~]# cd /var/www/html
[root@localhost html]# ls
add.html    date.hm    drun.html  jack.html  my.html
client.html date.html  in.html    lw.html
```

b. Sending the file from CN

```
[root@localhost ~]# ansible all -m copy -a "src=web.html dest=/var/www/html"
192.168.0.108 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/libexec/platform-python"
  },
  "changed": true,
  "checksum": "977ce08fca2b3c94dfbb5c5395fc1cfaa7279ddb",
  "dest": "/var/www/html/web.html",
  "gid": 0,
  "group": "root",
  "md5sum": "fa20b7281ec0207b4f62272461f10c6e",
  "mode": "0644",
  "owner": "root",
  "secontext": "system_u:object_r:httpd_sys_content_t:s0",
  "size": 16,
  "src": "/root/.ansible/tmp/ansible-tmp-1604595214.421097-3709-223463737314104/source",
  "state": "file",
  "uid": 0
}
```

c. Checking again in CN:

```
[root@localhost html]# ls
add.html    date.hm    drun.html  jack.html  my.html
client.html date.html  in.html    lw.html    web.html
```

4. Starting the httpd:

```
[root@localhost ~]# ansible all -m service -a "name=httpd state=started"
192.168.0.108 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/libexec/platform-python"
  },
  "changed": true,
  "name": "httpd",
  "state": "started",
  "status": {
    "ActiveEnterTimestampMonotonic": "0",
    "ActiveExitTimestampMonotonic": "0",
    "ActiveState": "inactive",
    "After": "network.target system.slice systemd-tmpfiles-setup.service -mount sysinit.target nss-lookup.target httpd-init.service remote-fs.target systemd-journald.socket basic.target tmp.mount",

```

AIM: To configure Apache Web Server with Ansible.

Checking in TN:

```
root@localhost html]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: enabled)
   Active: active (running) since Thu 2020-11-05 22:26:32 IST; 41s ago
     Docs: man:httpd.service(8)
  Main PID: 4932 (httpd)
    Status: "Running, listening on: port 80"
     Tasks: 213 (limit: 11516)
    Memory: 21.3M
    CGroup: /system.slice/httpd.service
            └─4932 /usr/sbin/httpd -DFOREGROUND
              └─4933 /usr/sbin/httpd -DFOREGROUND
                └─4934 /usr/sbin/httpd -DFOREGROUND
                  └─4935 /usr/sbin/httpd -DFOREGROUND
                    └─4936 /usr/sbin/httpd -DFOREGROUND

Nov 05 22:26:30 localhost.localdomain systemd[1]: Starting The Apache HTTP Server:
Nov 05 22:26:32 localhost.localdomain httpd[4932]: AH00558: httpd: Could not re
Nov 05 22:26:32 localhost.localdomain httpd[4932]: Server configured, listening
Nov 05 22:26:32 localhost.localdomain systemd[1]: Started The Apache HTTP Server
lines 1-19/19 (END)
```

Successfully configured.

