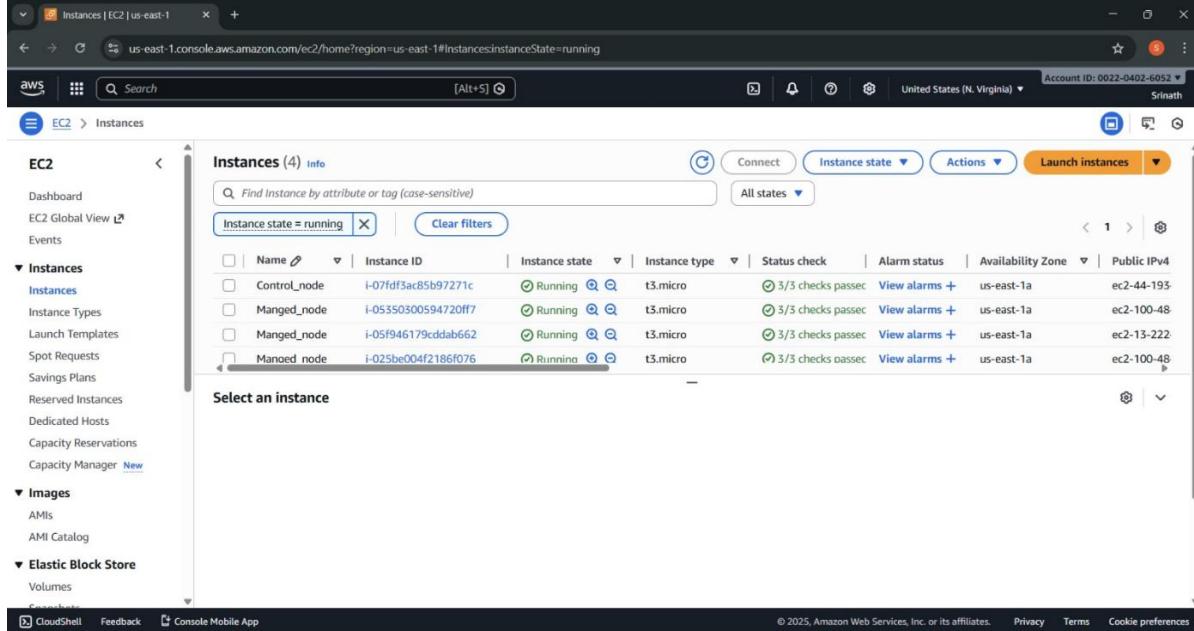


TASK - 25

Adhoc commands

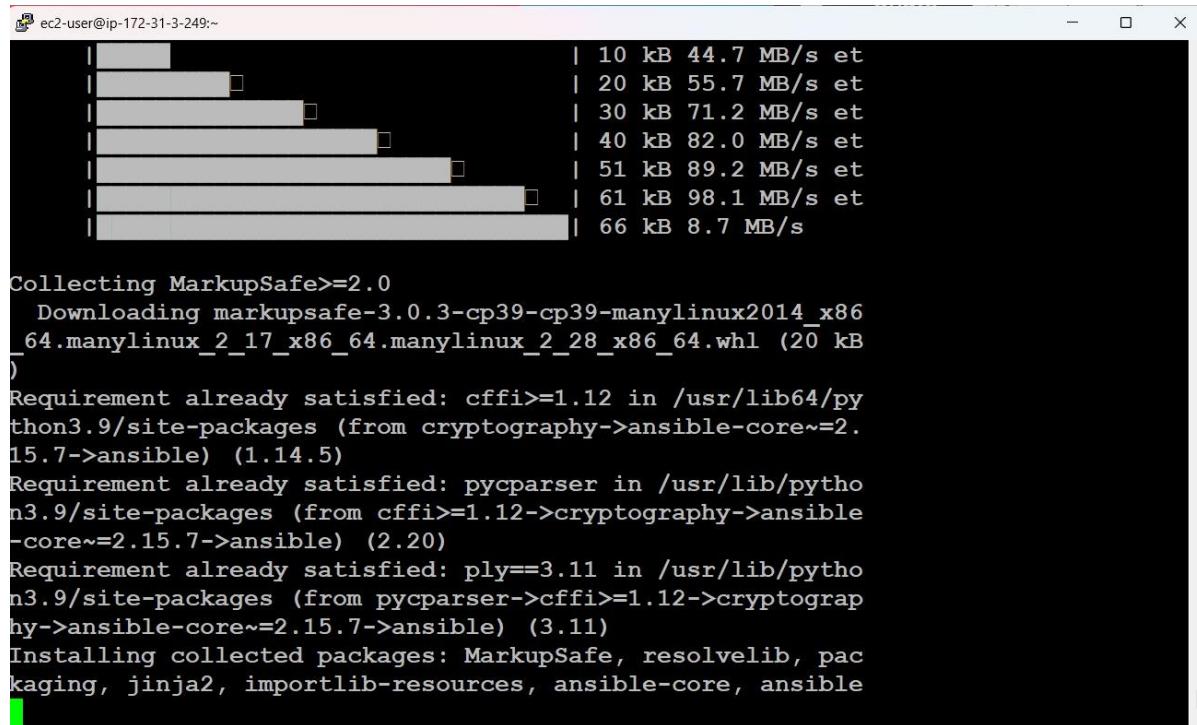
Create instances and installing python by using user data



The screenshot shows the AWS EC2 Instances page with the following details:

- Instances (4) Info**: A search bar and filter buttons.
- Actions**: Buttons for Connect, Instance state, Actions, and Launch instances.
- Table Headers**: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, Public IPv4.
- Data Rows**: Four instances named Control_node, Manged_node, Manged_node, and Manedo node, all in the Running state, t3.micro instance type, and us-east-1a availability zone.
- Bottom Buttons**: Select an instance, CloudShell, Feedback, Console Mobile App.
- Page Footer**: © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences.

Installing ansible in control node



```
ec2-user@ip-172-31-3-249:~$ Collecting MarkupSafe>=2.0
  Downloading markupsafe-3.0.3-cp39-cp39-manylinux2014_x86_64.manylinux_2_17_x86_64.manylinux_2_28_x86_64.whl (20 kB)
Requirement already satisfied: cffi>=1.12 in /usr/lib64/python3.9/site-packages (from cryptography->ansible-core~=2.15.7->ansible) (1.14.5)
Requirement already satisfied: pycparser in /usr/lib/python3.9/site-packages (from cffi>=1.12->cryptography->ansible-core~=2.15.7->ansible) (2.20)
Requirement already satisfied: ply==3.11 in /usr/lib/python3.9/site-packages (from pycparser->cffi>=1.12->cryptography->ansible-core~=2.15.7->ansible) (3.11)
Installing collected packages: MarkupSafe, resolvelib, packaging, jinja2, importlib-resources, ansible-core, ansible

```

Then install the configuration files of ansible

```
[ec2-user@ip-172-31-3-249 ~]$ wget https://raw.githubusercontent.com/ansible/ansible/stable-2.11/examples/ansible.cfg
--2025-12-29 11:55:47-- https://raw.githubusercontent.com/ansible/ansible/stable-2.11/examples/ansible.cfg
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.109.1
33, 185.199.110.133, 185.199.111.133, ...
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|185.199.109.133|:443...
HTTP request sent, awaiting response... 200 OK
Length: 20353 (20K) [text/plain]
Saving to: 'ansible.cfg'

ansible.cfg      100%[=====] 19.88K --.-KB/s   in 0s

2025-12-29 11:55:48 (121 MB/s) - 'ansible.cfg' saved [20353/20353]

[ec2-user@ip-172-31-3-249 ~]$ ls
ansible.cfg
```

Create a inventory file and store the private ip of managed nodes

```
[ec2-user@ip-172-31-3-249 ~]$ nano inventory.txt
[ec2-user@ip-172-31-3-249 ~]$ ls
ansible.cfg  inventory.txt
```

After creating the inventory file and ping it using the below command

```
[ec2-user@ip-172-31-3-249 ~]$ ansible all -i inventory.txt -m ping
The authenticity of host '3.235.13.44 (3.235.13.44)' can't be established.
ED25519 key fingerprint is SHA256:41ep2UtldyALKof+vDLWvT3o7q2+lToB3ZsvCHkDmGU.
This key is not known by any other names
The authenticity of host '44.202.75.73 (44.202.75.73)' can't be established.
ED25519 key fingerprint is SHA256:3G9fpU/oKjfywbaFGjIL/Ho59Nh+mFyXPmnGBI2NMc8.
This key is not known by any other names
The authenticity of host '44.215.111.23 (44.215.111.23)' can't be established.
ED25519 key fingerprint is SHA256:4E9KDzbQffIkzoFlVtBjkQ8zQeg+LOS7dKAeGeRxBbY.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Please type 'yes', 'no' or the fingerprint: yes
Please type 'yes', 'no' or the fingerprint: yes
[WARNING]: Platform linux on host 3.235.13.44 is using the discovered Python
interpreter at /usr/bin/python3.9, but future installation of another Python
interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
3.235.13.44 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": false,
    "ping": "pong"
}

Please type 'yes', 'no' or the fingerprint: yes
Please type 'yes', 'no' or the fingerprint: yes
Please type 'yes', 'no' or the fingerprint: yes
```

```
[ec2-user@ip-172-31-3-249:~]$ ansible all -i inventory.txt -m ping
Please type 'yes', 'no' or the fingerprint: yes
Please type 'yes', 'no' or the fingerprint: yes
Please type 'yes', 'no' or the fingerprint: yes
yes[WARNING]: Platform linux on host 44.202.75.73 is using the discovered Python
interpreter at /usr/bin/python3.9, but future installation of another Python
interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
44.202.75.73 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": false,
    "ping": "pong"
}

[WARNING]: Platform linux on host 44.215.111.23 is using the discovered Python
interpreter at /usr/bin/python3.9, but future installation of another Python
interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
44.215.111.23 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": false,
    "ping": "pong"
}
```

Then install httpd

ansible all -i inventory.txt -m yum -a "name=httpd state=present" -b

```
[ec2-user@ip-172-31-3-249 ~]$ ansible all -i inventory.txt -m
yum -a "name=httpd state=present" -b
[WARNING]: Platform linux on host 44.215.111.23 is using the discovered Python
interpreter at /usr/bin/python3.9, but future installation of another Python
interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
44.215.111.23 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": true,
    "msg": "",
    "rc": 0,
    "results": [
        "Installed: mailcap-2.1.49-3.amzn2023.0.3.noarch",
        "Installed: apr-1.7.5-1.amzn2023.0.4.x86_64",
        "Installed: httpd-core-2.4.65-1.amzn2023.0.2.x86_64",
        "Installed: apr-util-1.6.3-1.amzn2023.0.2.x86_64",
        "Installed: httpd-tools-2.4.65-1.amzn2023.0.2.x86_64",
        "Installed: mod_lua-2.4.65-1.amzn2023.0.2.x86_64",
        "Installed: apr-util-lmdb-1.6.3-1.amzn2023.0.2.x86_64",
        "Installed: libbrotli-1.0.9-4.amzn2023.0.2.x86_64",
    ]
}
```

```

ec2-user@ip-172-31-3-249:~
},
"changed": true,
"msg": "",
"rc": 0,
"results": [
    "Installed: mailcap-2.1.49-3.amzn2023.0.3.noarch",
    "Installed: apr-1.7.5-1.amzn2023.0.4.x86_64",
    "Installed: httpd-core-2.4.65-1.amzn2023.0.2.x86_64",
    "Installed: apr-util-1.6.3-1.amzn2023.0.2.x86_64",
    "Installed: httpd-tools-2.4.65-1.amzn2023.0.2.x86_64",
    "Installed: mod_lua-2.4.65-1.amzn2023.0.2.x86_64",
    "Installed: apr-util-lmdb-1.6.3-1.amzn2023.0.2.x86_64",
    "Installed: libbrotli-1.0.9-4.amzn2023.0.2.x86_64",
    "Installed: httpd-filesystem-2.4.65-1.amzn2023.0.2.noarch",
    "Installed: mod_http2-2.0.27-1.amzn2023.0.3.x86_64",
    "Installed: apr-util-openssl-1.6.3-1.amzn2023.0.2.x86_64",
    "Installed: generic-logos-htpd-18.0.0-12.amzn2023.0.3.noarch",
    "Installed: httpd-2.4.65-1.amzn2023.0.2.x86_64"
]
}
[WARNING]: Platform linux on host 44.202.75.73 is using the discovered Python interpreter at /usr/bin/python3.9, but future installation of another Python interpreter could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.15/reference_appendices/interpreter_discovery.html for more information.
44.202.75.73 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": true,
    "msg": "",
    "rc": 0,
    "results": [

```

Then start httpd

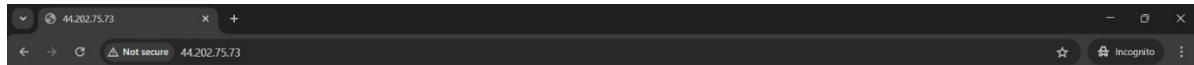
ansible all -i inventory.txt -m service -a "name=httpd state=started" -b

```

[ec2-user@ip-172-31-3-249 ~]$ ansible all -i inventory.txt -m service -a "name=httpd state=started" -b
[WARNING]: Platform linux on host 3.235.13.44 is using the discovered Python interpreter at /usr/bin/python3.9, but future
installation of another Python interpreter could change the meaning of that path. See https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
3.235.13.44 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": true,
    "name": "httpd",
    "state": "started",
    "status": {
        "AccessSELinuxContext": "system u:object_r:httpd_unit_file_t:s0",
        "ActiveEnterTimestampMonotonic": "0",
        "ActiveExitTimestampMonotonic": "0",
        "ActiveState": "inactive",
        "After": "systemd-tmpfiles-setup.service systemd-journald.socket nss-lookup.target system.slice network.target sysinit.target r
emote-fs.target -mount tmp.mount httpd-init.service basic.target",
        "AllowIsolate": "no",
        "AssertResult": "no",
        "AssertTimestampMonotonic": "0",
        "Before": "shutdown.target",
        "BlockIOAccounting": "no",
        "BlockIOWeight": "[not set]",
        "CPUAccounting": "yes",

```

Output:



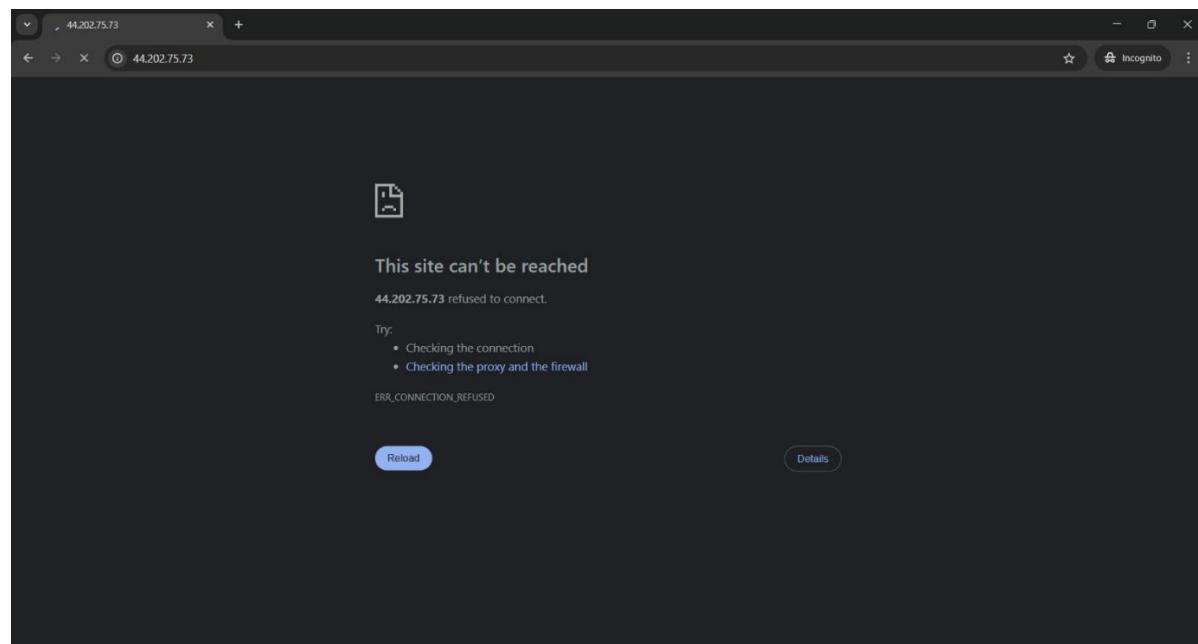
It works!

To stop the apache:

```
ansible all -i inventory.txt -m service -a "name=httpd state=stopped" -b
```

```
[ec2-user@ip-172-31-3-249 ~]$ ansible all -i inventory.txt -m serv
ice -a "name=httpd state=stopped" -b
[WARNING]: Platform linux on host 44.202.75.73 is using the discovered Python
interpreter at /usr/bin/python3.9, but future installation of another Python
interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
44.202.75.73 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": true,
    "name": "httpd",
    "state": "stopped",
    "status": {
        "AccessSELinuxContext": "system u:object_r:httpd_unit_file_t:s0",
        "ActiveEnterTimestamp": "Mon 2025-12-29 12:11:14 UTC",
        "ActiveEnterTimestampMonotonic": "1315040047",
        "ActiveExitTimestampMonotonic": "0",
        "ActiveState": "active",
        "After": "httpd-init.service basic.target remote-fs.target nss-lookup.target sysinit.target system.slice systemd-journald.socke
t -.mount tmp.mount systemd-tmpfiles-setup.service network.target",
        "AllowIsolate": "no",
        "AssertResult": "yes",
    }
}
```

Output:



History of command used for installing and stopping the httpd

```
[ec2-user@ip-172-31-3-249 ~]$ history
1 python3 --version
2 pip install ansible
3 wget https://raw.githubusercontent.com/ansible/ansible/stab
le-2.11/examples/ansible.cfg
4 ls
5 nano inventory.txt
6 ls
7 ansible all -i inventory.txt -m ping
8 ansible all -i inventory.txt -m ping
9 ansible all -i inventory.txt -m yum -a "name=httpd state=pr
esent" -b
```

```

43 ansible all -i inventory.txt -m service -a "name=httd state
=started" -b
44 ansible all -i inventory.txt -m service -a "name=httpd stat
e=started" -b
45 ansible all -i inventory.txt -m service -a "name=httpd stat
e=stopped" -b
46 history

```

NGINX:

ansible all -i inventory.txt -m yum -a "name=nginx state=present" -b

```
[ec2-user@ip-172-31-3-249 ~]$ ansible all -i inventory.txt -m yum
-a "name=nginx state=present" -b
[WARNING]: Platform linux on host 44.202.75.73 is using the discovered Python
interpreter at /usr/bin/python3.9, but future installation of another Python
interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
44.202.75.73 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": true,
    "msg": "",
    "rc": 0,
    "results": [
        "Installed: nginx-filesystem-1:1.28.0-1.amzn2023.0.2.noarch",
        "Installed: nginx-mimetypes-2.1.49-3.amzn2023.0.3.noarch",
        "Installed: nginx-1:1.28.0-1.amzn2023.0.2.x86_64",
        "Installed: libunwind-1.4.0-5.amzn2023.0.3.x86_64",
        "Installed: nginx-core-1:1.28.0-1.amzn2023.0.2.x86_64",
        "Installed: gperftools-libs-2.9.1-1.amzn2023.0.3.x86_64"
    ]
}
```

```
3.235.13.44 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": true,
    "msg": "",
    "rc": 0,
    "results": [
        "Installed: nginx-filesystem-1:1.28.0-1.amzn2023.0.2.noarch",
        "Installed: nginx-mimetypes-2.1.49-3.amzn2023.0.3.noarch",
        "Installed: nginx-1:1.28.0-1.amzn2023.0.2.x86_64",
        "Installed: libunwind-1.4.0-5.amzn2023.0.3.x86_64",
        "Installed: nginx-core-1:1.28.0-1.amzn2023.0.2.x86_64",
        "Installed: gperftools-libs-2.9.1-1.amzn2023.0.3.x86_64"
    ]
}
[WARNING]: Platform linux on host 44.215.111.23 is using the discovered Python
interpreter at /usr/bin/python3.9, but future installation of another Python
interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
44.215.111.23 | CHANGED => (
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": true,
    "msg": "",
    "rc": 0,
    "results": [
        "Installed: nginx-filesystem-1:1.28.0-1.amzn2023.0.2.noarch",
        "Installed: nginx-mimetypes-2.1.49-3.amzn2023.0.3.noarch",
        "Installed: nginx-1:1.28.0-1.amzn2023.0.2.x86_64",
        "Installed: libunwind-1.4.0-5.amzn2023.0.3.x86_64",
        "Installed: nginx-core-1:1.28.0-1.amzn2023.0.2.x86_64",
        "Installed: gperftools-libs-2.9.1-1.amzn2023.0.3.x86_64"
    ]
)
```

To start the installed nginx:

ansible all -i inventory.txt -m service -a "name=nginx state=started" -b

```
[ec2-user@ip-172-31-3-249 ~]$ ansible all -i inventory.txt -m service -a "name=nginx state=started" -b
[WARNING]: Platform linux on host 44.215.111.23 is using the discovered Python interpreter at /usr/bin/python3.9, but future
installation of another Python interpreter could change the meaning of that path. See https://docs.ansible.com/ansible-
core/2.15/reference_appendices/interpreter_discovery.html for more information.
44.215.111.23 | CHANGED => (
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.9"
    },
    "changed": true,
    "name": "nginx",
    "state": "started",
    "status": {
        "AccessSELinuxContext": "system_u:object_r:httpd_unit_file_t:s0",
        "ActiveEnterTimestampMonotonic": "0",
        "ActiveExitTimestampMonotonic": "0",
        "ActiveState": "inactive",
        "After": "systemd-tmpfiles-setup.service basic.target systemd-journald.socket system.slice remote-fs.target -.mount sysinit.tar
get network-online.target tmp.mount nss-lookup.target",
        "Before": "httpd.service"
    }
}
```

Output:

