

## Create 3 ubuntu instances

Instances (1/3) [Info](#) Last updated less than a minute ago [Refresh](#) [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

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<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status
<input type="checkbox"/>	controller	i-02d7c9fb61a6fa5bf	Running	t2.micro	Initializing	<a href="#">View alarms +</a>
<input checked="" type="checkbox"/>	server1	i-04b64e3a3b6529cf7	Running	t2.micro	Initializing	<a href="#">View alarms +</a>
<input type="checkbox"/>	server2	i-05eedea3dbec7597	Running	t2.micro	2/2 checks passed	<a href="#">View alarms +</a>

## Connect to server1

Ubuntu machine default comes with python 3

But we need python 2

### Connect to instance [Info](#)

Connect to your instance i-04b64e3a3b6529cf7 (server1) using any of these options

[EC2 Instance Connect](#) [Session Manager](#) [SSH client](#) [EC2 serial console](#)

**Instance ID**

[i-04b64e3a3b6529cf7](#) (server1)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is mahi18.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.  
`chmod 400 "mah18.pem"`
4. Connect to your instance using its Public DNS:  
`ec2-3-110-103-61.ap-south-1.compute.amazonaws.com`

Example:

```
ssh -i "mah18.pem" ubuntu@ec2-3-110-103-61.ap-south-1.compute.amazonaws.com
```

```
Admin@DESKTOP-ASGG5M3 MINGW64 ~/Downloads
$ ssh -i "mah18.pem" ubuntu@ec2-3-110-103-61.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-3-110-103-61.ap-south-1.compute.amazonaws.com (3.110.103.61)' can't be established.
ED25519 key fingerprint is SHA256:P9CSSuQSFctJ91d1a009ZTMpN2z9dy5/yCYtLrtC17A.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-110-103-61.ap-south-1.compute.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-1021-aws x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:       https://ubuntu.com/pro
```

## Update apt repository

`sudo apt-get update`

## Install python2

`Sudo apt-get install -y python2.7 python-pip`

```
ubuntu@ip-172-31-5-200:~$ python2 --version
Python 2.7.18
ubuntu@ip-172-31-5-200:~$
```

Establish password less connection between controller and managing nodes(server1 and server2)

`sudo passwd ubuntu` (give password as ubuntu)

```
ubuntu@ip-172-31-5-200:~$ python2 --version
Python 2.7.18
ubuntu@ip-172-31-5-200:~$ sudo passwd ubuntu
New password:
Retype new password:
passwd: password updated successfully
ubuntu@ip-172-31-5-200:~$
```

`sudo vim /etc/ssh/sshd_config`

```
ubuntu@ip-172-31-5-200:~$ sudo vim /etc/ssh/sshd_config
ubuntu@ip-172-31-5-200:~$
```

```
# To disable tunneled clear text passwords, change to no here!
PasswordAuthentication yes
#PermitEmptyPasswords no
```

Change password authentication to yes

Save and quit

Restart the service

`sudo service ssh restart`

```
ubuntu@ip-172-31-5-200:~$ sudo service ssh restart
ubuntu@ip-172-31-5-200:~$
```

Exit

Same procedure to follow server 2

Now connected to controller

Update the repository

`sudo apt-get update`

Install python 2

Generate the keys

`ssh-keygen`

`ssh-keygen -t rsa -b 4096`

```

ubuntu@ip-172-31-4-180:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ubuntu/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ubuntu/.ssh/id_rsa
Your public key has been saved in /home/ubuntu/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:2JP4spY0poL2k7+1YTRtsiNsocxF7jwE7gkQFzsejqM ubuntu@ip-172-31-4-180
The key's randomart image is:
+---[RSA 3072]---+
| . o .
| o .
| . + .
| .+.O+ +..
| o.o. =o+So
| ..= O *.=.
| E. *.@.O.
| ...oo Bo+
| . .oo+o.
+-----[SHA256]-----+
ubuntu@ip-172-31-4-180:~$

```

Controller machine open

**vim .ssh/id\_rsa.pub**

```

ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQGC2e11Eb8j9N56h2QIcfca3ce+o0II+er+YIjhVFW4ZKpUV
OX3tZbFY2eOPic8YB3d2gJQWHQIa+43e0/grfseFC301DPJUIovxNwLbxRkxqzKxSGZ8dGx1wFA
XzpUNmX7OB4+jWOauTqqoDDgsb+QwwcDumnsYsmFW43DZu7rFRXCo9rex1X5w1O2oOHea/YY0FXN
Hu9BnQwwq6juICmxCwe1paaIG/lk4n+ByzxjrwRIjv7ZhNrYYoNJ3n/hI15g4vIped5BskQmTdnG
UCJXZwpd9rrvYNPa0fe6733ERSKbaH3PYZ1rCDqe0Ki jXGdD7Q5y4uXQdkeU/cCzrDaqvi6fu90E
eqP1kMg2m6qbipHLJ0YCK5MsasYhmbtfUnrNeOTELEDUzhe5Qdc1Mf9mLCh5gMBEKq/amdjoMN4
+fJQM2pBHUSZlTWQ4lGzjTCOQWXLl1tgw4L7mwuT4fm/bxfriNE/9S4sb3tWBUJEVfxawZwDxD1I
5MIHHnYv7+E= ubuntu@ip-172-31-4-180

```

Exit

**Connect to server1**

**Vim .ssh/authorized\_keys** --> paste the above key

Exit

Connect to controller machine

ssh -v ubuntu@server1 ip address

Same procedure for server 2 (copy paste the keys)

Connect to controller

Install the ansible

**sudo apt-get install software-properties-common**

```
ubuntu@ip-172-31-4-180:~$ sudo apt-get install software-properties-common
Reading package lists... Done
```

```
sudo apt-add-repository ppa:ansible/ansible
```

```
0 upgraded, 0 newly installed, 0 to remove and 13 not upgraded.
ubuntu@ip-172-31-4-180:~$ sudo apt-add-repository ppa:ansible/ansible
Repository: 'deb https://ppa.launchpadcontent.net/ansible/ansible/ubuntu/ jam
```

```
sudo apt-get update
```

```
sudo apt-get install -y ansible
```

```
ubuntu@ip-172-31-4-180:~$ sudo apt-get install -y ansible
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```

write the ip addresses of managing nodes in the inventory file

```
cd /etc/ansible
```

```
$ls
```

```
sudo vim hosts (copy paste server1 and 2 ip addresses)
```

Adhoc commands: it works based on modules

Command module:

Find out the freespace in the managing nodes

```
ansible all -i /etc/ansible/hosts -m command -a 'free'
```

```
ubuntu@ip-172-31-4-180:/$ ansible all -i /etc/ansible/hosts -m command -a 'free'
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but future installation of another Python interpreter could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more information.
172.31.5.200 | CHANGED | rc=0 >>
Mem:      980376      197000      109892      872      673484      613784
Swap:      0            0            0
[WARNING]: Platform linux on host 172.31.7.139 is using the discovered Python interpreter at /usr/bin/python3.10, but future installation of another Python interpreter could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more information.
172.31.7.139 | CHANGED | rc=0 >>
Mem:      980380      192760      144280      872      643340      616880
Swap:      0            0            0
ubuntu@ip-172-31-4-180:/$
```

Create files in server1 and 2 from controller

```
ansible all -i /etc/ansible/hosts -m command -a 'touch f1 f2 f3'
```

```
ubuntu@ip-172-31-4-180:/$ ansible all -i/etc/ansible/hosts -m command -a 'touch f1 f2 f3'
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/py
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendic
172.31.5.200 | CHANGED | rc=0 >>

[WARNING]: Platform linux on host 172.31.7.139 is using the discovered Python interpreter at /usr/bin/py
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendic
172.31.7.139 | CHANGED | rc=0 >>
```

To check files are created or not

Ssh 172.31.5.200

\$ls

```
ubuntu@ip-172-31-4-180:/$ ssh 172.31.5.200
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-1021-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Wed Jan 22 15:27:28 UTC 2025

System load:  0.08               Processes:           102
Usage of /:   28.4% of 7.57GB    Users logged in:    0
Memory usage: 24%               IPv4 address for eth0: 172.31.5.200
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

13 updates can be applied immediately.
13 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

6 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

New release '24.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Wed Jan 22 15:26:15 2025 from 172.31.4.180
ubuntu@ip-172-31-5-200:~$ ls
f1 f2 f3 file1 file2 file3
ubuntu@ip-172-31-5-200:~$
```

Apt: to install/uninstall any software

Go to controller

Install git in all server

ansible all -m apt -a 'name=git state=present' -b

```
[ubuntu@ip-172-31-4-180:/$ ansible all -m apt -a 'name=git state=present' -b
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/in
172.31.5.200 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "cache_update_time": 1737554893,
  "cache_updated": false,
  "changed": false
}
[WARNING]: Platform linux on host 172.31.7.139 is using the discovered Python interpreter at /usr/bin/python3
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/in
172.31.7.139 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "cache_update_time": 1737555619,
  "cache_updated": false,
  "changed": false
}
```

## Git uninstall in all servers

```
ansible all -m apt -a 'name=git state=absent' -b
```

```
ubuntu@ip-172-31-4-180:/ $ ansible all -m apt --name=git state=absent' -b
[WARNING]: Platform linux on host 172.31.5.200 will use the discovered Python interpreter at /usr/bin/python3.10, but future installation of another version could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more info.
172.31.5.200 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.10"
    },
    "changed": true,
    "stderr": "",
    "stdout_lines": [],
    "stdout": "Reading package lists...\nBuilding dependency tree...\nReading state information...\nThe following packages were automatically installed by dpkg:\n git-man liblber-perl\nUse 'sudo apt autoremove' to remove them.\nThe following packages will be REMOVED:\n git ubuntu-server\n0 upgraded, 0 removed and 12 not upgraded.\nAfter this operation, 19.0 MB disk space will be freed.\nReading database ... \r(Reading database ... 5%\r(Reading database ... 15%\r(Reading database ... 20%\r(Reading database ... 25%\r(Reading database ... 30%\r(Reading database ... 35%\r(Reading database ... 40%\r(Reading database ... 45%\r(Reading database ... 50%\r(Reading database ... 55%\r(Reading database ... 60%\r(Reading database ... 65%\r(Reading database ... 70%\r(Reading database ... 75%\r(Reading database ... 80%\r(Reading database ... 85%\r(Reading database ... 90%\r(Reading database ... 95%\r(Reading database ... 100%\r(Reading database ...)\ndirectories currently installed.)\r\nRemoving ubuntu-server (1.481.4) ...\r\nRemoving git (1:2.34.1-1ubuntu1.11) ...\r\n\r\n",
    "stdout_lines": [
        "Reading package lists...",
        "Building dependency tree...",
        "Reading state information...",
        "\nThe following packages were automatically installed and are no longer required:",
        " git-man liblber-perl",
        "\nUse 'sudo apt autoremove' to remove them.",
        "\nThe following packages will be REMOVED:",
        " git ubuntu-server"
    ]
}
```

## Install tomcat

```
ansible all -m apt -a 'name=tomcat8 state=present update_cache=yes' -b
(use tomcat9 )
```

```
[ubuntu@ip-172-31-4-180:~]$ ansible all -m apt --name=tomcat8 state=present update_cache=yes -b
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but future installation of another Python in
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more information.
172.31.7.139 | FAILED! => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.10"
    },
    "changed": false,
    "msg": "No package matching 'tomcat8' is available"
}
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but future installation of another Python in
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more information.
172.31.5.200 | FAILED! => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.10"
    },
    "changed": false,
    "msg": "No package matching 'tomcat8' is available"
}
ubuntu@ip-172-31-4-180:~/$ ansible all -m apt -a 'name=tomcat9 state=present update_cache=yes' -b
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but future installation of another Python in
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more information.
172.31.5.200 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.10"
    },
    "cache_update_time": 1737560819,
    "cache_updated": true,
    "changed": true,
    "stderr": ""
  }
  "stderr_lines": [
    "Reading package lists...\\nBuilding dependency tree...\\nReading state information...\\n\nThe following packages were automatically installed and are
quired: git-man liberror-perl\nUse 'sudo apt autoremove' to remove them.\\n\nThe following additional packages will be installed:\\n  alsa-topology-conf alsa-u
tificates-java default-jre-headless\\n  java-common libapt1 libasound2 libasound2-data libavahi-client3\\n  libavahi-common-data libavahi-common3 libcups2 libec
-java\\n  libgraphite2-3 libharfbuzz0b liblcms2-2 libpcsc-lite libtncative-1\\n  libtomcat9-java openjdk-11-jre-headless tomcat9-common\\nsuggested packages:
basound2-plugins alsa-utils cups-common liblcms2-util pcscd\\n  libnss-mdns fonts-dejavu-extra fonts-ipafont-gothic fonts-ipafont-mincho\\n  fonts-wyner-microha
e fonts-wyner-thin fonts-wyner-zen\\n  tomcat9-examples tomcat9-user\\n\nThe following NEW packages will be installed:\\n  alsa-topology-conf alsa-un
ates-java default-jre-headless\\n  java-common libapt1 libasound2 libasound2-data libavahi-client3\\n  libavahi-common-data libavahi-common3 libcups2 libelc
ps2\\n  libgraphite2-3 libharfbuzz0b liblcms2-2 libpcsc-lite libtncative-1\\n  libtomcat9-java openjdk-11-jre-headless tomcat9-common\\n0 upgraded, 22 newly
```

FILE: it is used to create a files and folders in managing nodes

```
ansible all -m file -a 'name=/tmp/file0 state=touch'
```

```
ubuntu@ip-172-31-4-180:~$ ansible all -m file -a 'name=/tmp/file0 state=touch'
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but future install
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.ht
172.31.5.200 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "changed": true,
  "dest": "/tmp/file0",
  "gid": 1000,
  "group": "ubuntu",
  "mode": "0664",
  "owner": "ubuntu",
  "size": 0,
  "state": "file",
  "uid": 1000
}
[WARNING]: Platform linux on host 172.31.7.139 is using the discovered Python interpreter at /usr/bin/python3.10, but future install
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.ht
172.31.7.139 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "changed": true,
  "dest": "/tmp/file0",
  "gid": 1000,
  "group": "ubuntu",
  "mode": "0664",
  "owner": "ubuntu",
  "size": 0,
  "state": "file",
  "uid": 1000
}
```

```
ansible all -m file -a 'name=/tmp/dir1 state=directory'
```

```
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but future install
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.ht
172.31.5.200 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "changed": true,
  "gid": 1000,
  "group": "ubuntu",
  "mode": "0775",
  "owner": "ubuntu",
  "path": "/tmp/dir1",
  "size": 4096,
  "state": "directory",
  "uid": 1000
}
[WARNING]: Platform linux on host 172.31.7.139 is using the discovered Python interpreter at /usr/bin/python3.10, but future install
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.ht
172.31.7.139 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "changed": true,
  "gid": 1000,
  "group": "ubuntu",
  "mode": "0775",
  "owner": "ubuntu",
  "path": "/tmp/dir1",
  "size": 4096,
  "state": "directory",
  "uid": 1000
}
```

To check

\$ssh privateip of server1

Cd /tmp

Ls

```
ubuntu@ip-172-31-5-200:~$ cd /tmp
ubuntu@ip-172-31-5-200:/tmp$ ls
dir1          systemd-private-e229ce244ce14db08ddd12dc0bad6dac-chrorny.service-69oAFx
file0         systemd-private-e229ce244ce14db08ddd12dc0bad6dac-systemd-logind.service-GrZrrK
hsperrdata_root systemd-private-e229ce244ce14db08ddd12dc0bad6dac-systemd-resolved.service-QkgXgi
snap-private-tmp systemd-private-e229ce244ce14db08ddd12dc0bad6dac-tomcat9.service-gvAFTb
ubuntu@ip-172-31-5-200:/tmp$
```

Remove the file or directory

```
Ansible all -m file -a 'name=/tmp/file0 state=absent'
```

```

connection to 172.31.7.139 closed.
ubuntu@ip-172-31-4-180:~$ ansible all -m file -a 'name=/tmp/file0 state=absent'
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter
172.31.5.200 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "changed": true,
  "path": "/tmp/file0",
  "state": "absent"
}
[WARNING]: Platform linux on host 172.31.7.139 is using the discovered Python interpreter at /usr/bin/python3.10, but
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter
172.31.7.139 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "changed": true,
  "path": "/tmp/file0",
  "state": "absent"
}
ubuntu@ip-172-31-4-180:~$

```

Copy: used to copy the file from controller to managing nodes

Change the permissions of file

Ansible all -m copy -a 'src=one.c dest=/etc/' -b

Ansible all -m copy -a 'src=one.c dest=/etc mode=777' b

```

ubuntu@ip-172-31-4-180:~$ ansible all -m copy -a 'src=one.c dest=/etc/bin' -b
[WARNING]: Platform linux on host 172.31.7.139 is using the discovered Python interpreter at /usr/bin/python3.10, but
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter
172.31.7.139 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "changed": true,
  "checksum": "e93dfd38b39a1e3c4dc514152d8369eab5185008",
  "dest": "/etc/bin",
  "gid": 0,
  "group": "root",
  "md5sum": "22919e57c6dcf1ff48ac50e784f44880",
  "mode": "0644",
  "owner": "root",
  "size": 19,
  "src": "/home/ubuntu/.ansible/tmp/ansible-tmp-1737596093.963129-4613-148927094141469/.source",
  "state": "file",
  "uid": 0
}
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but
could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter
172.31.5.200 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.10"
  },
  "changed": true,
  "checksum": "e93dfd38b39a1e3c4dc514152d8369eab5185008",
  "dest": "/etc/bin",
  "gid": 0,
  "group": "root",
  "md5sum": "22919e57c6dcf1ff48ac50e784f44880",
  "mode": "0644",
  "owner": "root",
  "size": 19,
  "src": "/home/ubuntu/.ansible/tmp/ansible-tmp-1737596093.9483118-4612-92635510350175/.source",
  "state": "file",
  "uid": 0
}

```

Fetch: used to copy the file from manager to controller

ansible all -i /path/to/hosts -m fetch -a

'src=/etc/tomcat9/server.xml dest=/tmp' -b



```
ubuntu@ip-172-31-4-180:~$ ansible all -m fetch -a 'src=/etc/tomcat9/server.xml dest=/tmp' -b
172.31.7.139 | CHANGED => {
  "changed": true,
  "checksum": "d7d0f628d36bcc704253fe07d835df9ec87ae4fc",
  "dest": "/tmp/172.31.7.139/etc/tomcat9/server.xml",
  "md5sum": "a82e8ddb35de83190fb8e51e0e5d2b33",
  "remote_checksum": "d7d0f628d36bcc704253fe07d835df9ec87ae4fc",
  "remote_md5sum": null
}
172.31.5.200 | CHANGED => {
  "changed": true,
  "checksum": "d7d0f628d36bcc704253fe07d835df9ec87ae4fc",
  "dest": "/tmp/172.31.5.200/etc/tomcat9/server.xml",
  "md5sum": "a82e8ddb35de83190fb8e51e0e5d2b33",
  "remote_checksum": "d7d0f628d36bcc704253fe07d835df9ec87ae4fc",
  "remote_md5sum": null
}
ubuntu@ip-172-31-4-180:~$ |
```

To check server.xml file but here we cant see but we see the two ip addresses

```
ubuntu@ip-172-31-4-180:~$ cd /tmp
ubuntu@ip-172-31-4-180:/tmp$ ls
172.31.5.200 snap-private-tmp
172.31.7.139 systemd-private-a3f7e0f3daa141
ubuntu@ip-172-31-4-180:/tmp$ cd 172.31.5.200
ubuntu@ip-172-31-4-180:/tmp/172.31.5.200$ ls
etc
ubuntu@ip-172-31-4-180:/tmp/172.31.5.200$ cd etc
ubuntu@ip-172-31-4-180:/tmp/172.31.5.200/etc$ ls
tomcat9
ubuntu@ip-172-31-4-180:/tmp/172.31.5.200/etc$ cd tomcat9
ubuntu@ip-172-31-4-180:/tmp/172.31.5.200/etc/tomcat9$ ls
server.xml
ubuntu@ip-172-31-4-180:/tmp/172.31.5.200/etc/tomcat9$ |
```

Git:

Ansible all -m git -a 'rep=https://github.com/.git dest=/tmp/mygit' -b

Service:

Used to start and stop and restart the services

Ansible all -m service -a 'name=tomcat9 state=stopped' -b

Started and restarted



Replace: is used to change the port no of servers

From controller connected to managing node

\$ssh ip address of server1

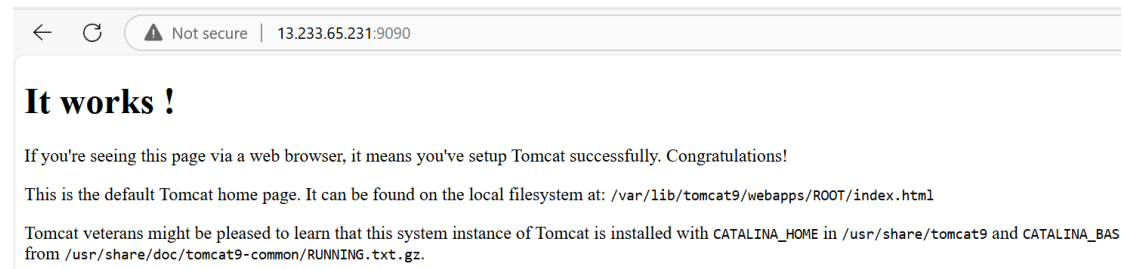
\$cd /etc/tomcat9/

\$ls

\$sudo cat server.xml

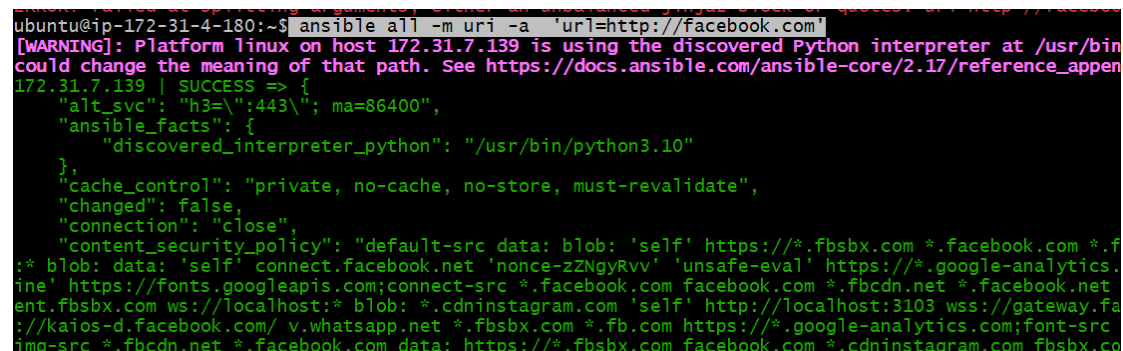


To check take the server1 publicip:9090



Uri: I want to check facebook is reachable or not in all managing nodes

```
$ ansible all -m uri -a 'url=http://facebook.com'
```



Status code =200 means output green color  
Invalid url get status cod -1

Palybook:

Adhoc ommands are capable of working only on one module.  
Playbook is combination of plays  
Each play is designed to do some activity on the managing nodes  
Main advantage is reusability .  
Playbooks are created using yaml file

Example:  
Playbook to configure tomcat9.

First uninstall tomact9

```
ansible all -m apt -a 'name=tomcat9 state=absent purge=yes' -b
$vim playbook1.yml
```

```
---
- name: Configure tomcat9
  hosts: all
  tasks:
    - name: install tomcat9
      apt:
        name: tomcat9
```

```

    state: present
- name: change the port no
  replace:
    regexp: 9090
    replace: 7070
    path: /etc/tomcat9/server.xml
...

```

```

---
- name: Configure tomcat9
  hosts: all
  tasks:
    - name: Install tomcat9
      apt:
        name: tomcat9
        state: present
    - name: Change port no of tomcat 8080 to 9090
      replace:
        regexp: 8080
        replace: 9090
        path: /etc/tomcat9/server.xml
...

```

Check syntax command

```
ansible-playbook playbook1.yml --syntax-check
```

```

ubuntu@ip-172-31-4-180:~$ vim playbook1.yml
ubuntu@ip-172-31-4-180:~$ ansible-playbook playbook1.yml --syntax-check

playbook: playbook1.yml
ubuntu@ip-172-31-4-180:~$

```

Run command

```

ubuntu@ip-172-31-4-180:~$ ansible-playbook playbook1.yml --syntax-check

playbook: playbook1.yml
ubuntu@ip-172-31-4-180:~$ vim playbook1.yml
ubuntu@ip-172-31-4-180:~$ ansible-playbook playbook1.yml --syntax-check

playbook: playbook1.yml
ubuntu@ip-172-31-4-180:~$ ansible-playbook playbook1.yml -b

PLAY [Configure tomcat9] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 172.31.7.139 is using the discovered Python interpreter at /usr/bin/python3.10, but future installation of another Python interpreter could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.7.139]
[WARNING]: Platform linux on host 172.31.5.200 is using the discovered Python interpreter at /usr/bin/python3.10, but future installation of another Python interpreter could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more information.
ok: [172.31.5.200]

TASK [Install tomcat9] *****
ok: [172.31.7.139]
ok: [172.31.5.200]

TASK [Change port no of tomcat 8080 to 9090] *****
ok: [172.31.7.139]
ok: [172.31.5.200]

PLAY RECAP *****
172.31.5.200      : ok=3    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
172.31.7.139     : ok=3    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

```