

1. Install VM
2. Install all updates -
`sudo apt update`
`Sudo apt install software-properties-common`
3. Install Ansible
`Sudo apt install ansible`
`Ansible -version`
4. Install SSH
`Sudo apt install ssh`
`Sudo apt install sshpass`
5. Create SSH key-value pair

```
Your identification has been saved in id_ubuntucore
Your public key has been saved in id_ubuntucore.pub
The key fingerprint is:
SHA256:5MqPtd3s+eRYjr19MdMvpya42xwr6IxESKdiPn0XeQY meghana@meghana-ubuntu-VM
The key's randomart image is:
+---[RSA 3072]-----+
|
|  .
| o o E
| o S o .
| o + o o +.
| o.= .. =. o =
| o.O.*oo+=.%o.+
| ..oo=.+=@+B=o
+---[SHA256]-----+
```

6. Connect to SSH

```
meghana@meghana-ubuntu-VM:~$ ssh meghana@meghana-ubuntu-VM
meghana@meghana-ubuntu-vm's password:
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-27-generic aarch64)

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

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

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

Last login: Sat Mar 30 19:50:52 2024 from 127.0.0.1
```

or

```
meghana@meghana-ubuntu-VM: ~/.ssh$ ssh -i ~/.ssh/id_ubuntucore meghana@meghana-ubuntu-VM
The authenticity of host 'meghana-ubuntu-vm (127.0.1.1)' can't be established.
ED25519 key fingerprint is SHA256:6Le57J+pxi7deTrR3eo4T6LmA3D3lS9Ndhq6PVWrGGs.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'meghana-ubuntu-vm' (ED25519) to the list of known hosts.
meghana@meghana-ubuntu-vm's password:
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-27-generic aarch64)

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

Expanded Security Maintenance for Applications is not enabled.

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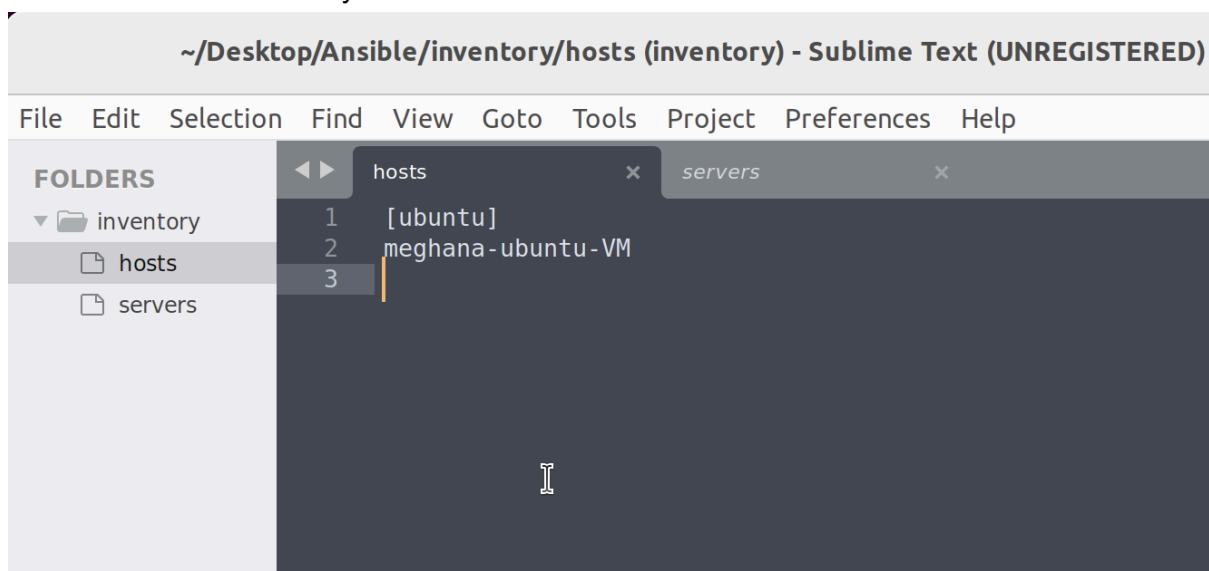
8 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

meghana@meghana-ubuntu-VM:~$
```

7. Create an inventory -



8. Command with inventory -

```
ansible -i ~/Desktop/Ansible/inventory/hosts ubuntu -m ping -user  
meghana -ask-pass
```

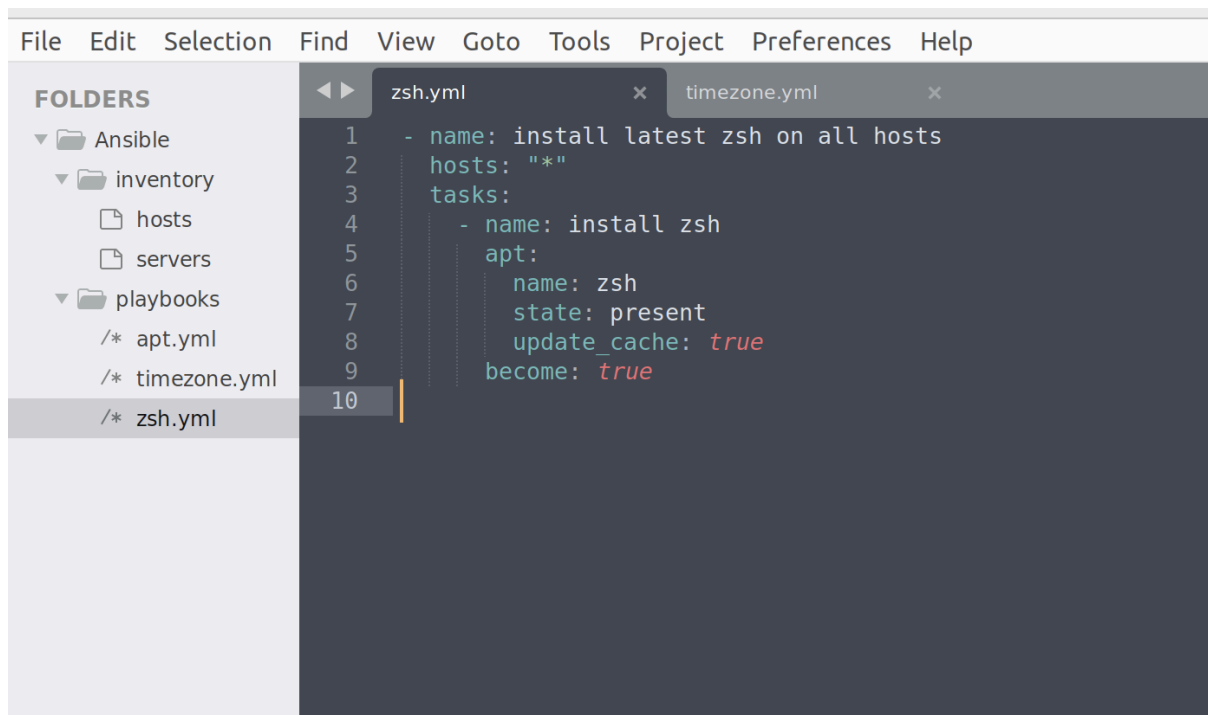
```
    "unreachable": true  
  }  
meghana@meghana-ubuntu-VM:~$ ansible -i ~/Desktop/Ansible/inventory/hosts ubuntu -m ping --user m  
eghana --ask-pass  
SSH password:  
meghana-ubuntu-VM | SUCCESS => {  
  "ansible_facts": {  
    "discovered_interpreter_python": "/usr/bin/python3"  
  },  
  "changed": false,  
  "ping": "pong"  
}  
meghana@meghana-ubuntu-VM:~$
```

9. Create an APT playbook

10. Command with playbook

```
meghana@meghana-ubuntu-VM:~$ ansible-playbook ~/Desktop/Ansible/playbooks/apt.yml --user meghana  
--ask-pass --ask-become-pass -i ~/Desktop/Ansible/inventory/hosts  
SSH password:  
BECOME password[defaults to SSH password]:  
  
PLAY [*] *****  
  
TASK [Gathering Facts] *****  
ok: [meghana-ubuntu-VM]  
  
TASK [apt] *****  
ok: [meghana-ubuntu-VM]  
  
PLAY RECAP *****  
meghana-ubuntu-VM : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescu  
ed=0    ignored=0  
meghana@meghana-ubuntu-VM:~$
```

11. Create a playbook to install zshell on all servers



12. Command the playbook in ansible terminal

```
ansible-playbook ~/Desktop/Ansible/playbooks/zsh.yml --user
meghana --ask-pass --ask-become-pass -i
~/Desktop/Ansible/inventory/hosts
```

```
meghana@meghana-ubuntu-VM:~$ ansible-playbook ~/Desktop/Ansible/playbooks/zs
h.yml --user meghana --ask-pass --ask-become-pass -i ~/Desktop/Ansible/inven
tory/hosts
SSH password:
BECOME password[defaults to SSH password]:

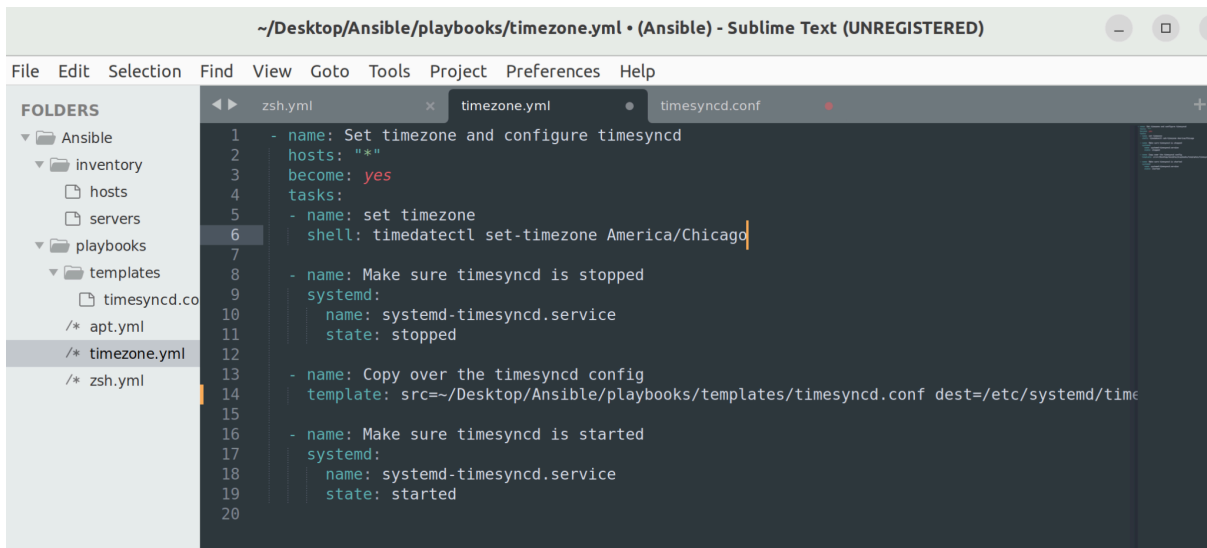
PLAY [install latest zsh on all hosts] *****
****

TASK [Gathering Facts] *****
****
ok: [meghana-ubuntu-VM]

TASK [install zsh] *****
****
changed: [meghana-ubuntu-VM]

PLAY RECAP *****
****
meghana-ubuntu-VM : ok=2    changed=1    unreachable=0    failed=0
skipped=0    rescued=0    ignored=0
```

13. Create a playbook to change timezone of servers using ansible



14. Command the playbook

```
ansible-playbook ~/Desktop/Ansible/playbooks/timezone.yml
--user meghana --ask-pass --ask-become-pass -i
~/Desktop/Ansible/inventory/hosts
```

```
meghana@meghana-ubuntu-VM:~$ ansible-playbook ~/Desktop/Ansible/playbooks/timezone.yml --user meghana --ask-pass
--ask-become-pass -i ~/Desktop/Ansible/inventory/hosts
SSH password:
BECOME password[defaults to SSH password]:

PLAY [Set timezone and configure timesyncd] *****

TASK [Gathering Facts] *****
ok: [meghana-ubuntu-VM]

TASK [set timezone] *****
changed: [meghana-ubuntu-VM]

TASK [Make sure timesyncd is stopped] *****
changed: [meghana-ubuntu-VM]

TASK [Copy over the timesyncd config] *****
ok: [meghana-ubuntu-VM]

TASK [Make sure timesyncd is started] *****
changed: [meghana-ubuntu-VM]

PLAY RECAP *****
meghana-ubuntu-VM : ok=5  changed=3  unreachable=0  failed=0  skipped=0  rescued=0  ignored=
0
```

15. Check if timezone has changed

Current time -

```
ghana-ubuntu-VM:~$ date  
06:21:04 PM EDT 2024
```

After running playbook -

```
ghana-ubuntu-VM:~$ date  
05:22:50 PM CDT 2024
```