**[vagrant@controller ~]$ mkdir ansible-project**

**[vagrant@controller ~]$ cd ansible-project**

**[vagrant@controller ansible-project]$ touch hosts**

**[vagrant@controller ansible-project]$ touch playbook.yml**

**[vagrant@controller ansible-project]$ ls**

**hosts playbook.yml**

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 03:56:08 2025 from 10.0.2.2

[vagrant@controller ~]$ ansible --version

ansible 2.9.27

config file = /etc/ansible/ansible.cfg

configured module search path = [u'/home/vagrant/.ansible/plugins/modules', u'/usr/share/ansible/plugins/modules']

ansible python module location = /usr/lib/python2.7/site-packages/ansible

executable location = /usr/bin/ansible

python version = 2.7.5 (default, Apr 2 2020, 13:16:51) [GCC 4.8.5 20150623 (Red Hat 4.8.5-39)]

[vagrant@controller ~]$ ^C

[vagrant@controller ~]$ clear

[vagrant@controller ~]$ mkdir ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ touch hosts

[vagrant@controller ansible-project]$ touch playbook.yml

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ mkdir ansible-hosts

[vagrant@controller ansible-project]$ cd ansible-hosts

[vagrant@controller ansible-hosts]$ ls

[vagrant@controller ansible-hosts]$ cd..

-bash: cd..: command not found

[vagrant@controller ansible-hosts]$ cd

[vagrant@controller ~]$ ls

ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ ls

ansible-hosts hosts playbook.yml

[vagrant@controller ansible-project]$ rmdir ansible-hosts

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ cd

[vagrant@controller ~]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller>ls

'ls' is not recognized as an internal or external command,

operable program or batch file.

C:\vagrantproject1\ansible-controller>mkdir ansible-hosts

C:\vagrantproject1\ansible-controller>cd ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant init centos/7

A `Vagrantfile` has been placed in this directory. You are now

ready to `vagrant up` your first virtual environment! Please read

the comments in the Vagrantfile as well as documentation on

`vagrantup.com` for more information on using Vagrant.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant up

Bringing machine 'default' up with 'virtualbox' provider...

==> default: Importing base box 'centos/7'...

==> default: Matching MAC address for NAT networking...

==> default: Checking if box 'centos/7' version '2004.01' is up to date...

==> default: Setting the name of the VM: ansible-hosts\_default\_1744261988151\_85462

==> default: Fixed port collision for 22 => 2222. Now on port 2202.

==> default: Clearing any previously set network interfaces...

==> default: Preparing network interfaces based on configuration...

default: Adapter 1: nat

==> default: Forwarding ports...

default: 22 (guest) => 2202 (host) (adapter 1)

==> default: Booting VM...

==> default: Waiting for machine to boot. This may take a few minutes...

default: SSH address: 127.0.0.1:2202

default: SSH username: vagrant

default: SSH auth method: private key

default:

default: Vagrant insecure key detected. Vagrant will automatically replace

default: this with a newly generated keypair for better security.

default:

default: Inserting generated public key within guest...

default: Removing insecure key from the guest if it's present...

default: Key inserted! Disconnecting and reconnecting using new SSH key...

==> default: Machine booted and ready!

==> default: Checking for guest additions in VM...

default: No guest additions were detected on the base box for this VM! Guest

default: additions are required for forwarded ports, shared folders, host only

default: networking, and more. If SSH fails on this machine, please install

default: the guest additions and repackage the box to continue.

default:

default: This is not an error message; everything may continue to work properly,

default: in which case you may ignore this message.

==> default: Rsyncing folder: /cygdrive/c/vagrantproject1/ansible-controller/ansible-hosts/ => /vagrant

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

default running (virtualbox)

The VM is running. To stop this VM, you can run `vagrant halt` to

shut it down forcefully, or you can run `vagrant suspend` to simply

suspend the virtual machine. In either case, to restart it again,

simply run `vagrant up`.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant validate

Vagrantfile validated successfully.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant up

Bringing machine 'default' up with 'virtualbox' provider...

==> default: Checking if box 'centos/7' version '2004.01' is up to date...

==> default: Machine already provisioned. Run `vagrant provision` or use the `--provision`

==> default: flag to force provisioning. Provisioners marked to run always will still run.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant provision

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

default running (virtualbox)

The VM is running. To stop this VM, you can run `vagrant halt` to

shut it down forcefully, or you can run `vagrant suspend` to simply

suspend the virtual machine. In either case, to restart it again,

simply run `vagrant up`.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh web

The machine with the name 'web' was not found configured for

this Vagrant environment.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant validate

Vagrantfile validated successfully.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant up

Bringing machine 'web' up with 'virtualbox' provider...

Bringing machine 'db' up with 'virtualbox' provider...

==> web: Importing base box 'centos/7'...

==> web: Matching MAC address for NAT networking...

==> web: Checking if box 'centos/7' version '2004.01' is up to date...

==> web: Setting the name of the VM: ansible-hosts\_web\_1744262512635\_2686

==> web: Fixed port collision for 22 => 2222. Now on port 2203.

==> web: Clearing any previously set network interfaces...

==> web: Preparing network interfaces based on configuration...

web: Adapter 1: nat

web: Adapter 2: hostonly

==> web: Forwarding ports...

web: 80 (guest) => 8081 (host) (adapter 1)

web: 22 (guest) => 2203 (host) (adapter 1)

==> web: Booting VM...

==> web: Waiting for machine to boot. This may take a few minutes...

web: SSH address: 127.0.0.1:2203

web: SSH username: vagrant

web: SSH auth method: private key

web:

web: Vagrant insecure key detected. Vagrant will automatically replace

web: this with a newly generated keypair for better security.

web:

web: Inserting generated public key within guest...

web: Removing insecure key from the guest if it's present...

web: Key inserted! Disconnecting and reconnecting using new SSH key...

==> web: Machine booted and ready!

==> web: Checking for guest additions in VM...

web: No guest additions were detected on the base box for this VM! Guest

web: additions are required for forwarded ports, shared folders, host only

web: networking, and more. If SSH fails on this machine, please install

web: the guest additions and repackage the box to continue.

web:

web: This is not an error message; everything may continue to work properly,

web: in which case you may ignore this message.

==> web: Setting hostname...

==> web: Configuring and enabling network interfaces...

==> web: Rsyncing folder: /cygdrive/c/vagrantproject1/ansible-controller/ansible-hosts/ => /vagrant

==> db: Importing base box 'centos/7'...

==> db: Matching MAC address for NAT networking...

==> db: Checking if box 'centos/7' version '2004.01' is up to date...

==> db: Setting the name of the VM: ansible-hosts\_db\_1744262576936\_42840

==> db: Fixed port collision for 22 => 2222. Now on port 2204.

==> db: Clearing any previously set network interfaces...

==> db: Preparing network interfaces based on configuration...

db: Adapter 1: nat

db: Adapter 2: hostonly

==> db: Forwarding ports...

db: 80 (guest) => 8082 (host) (adapter 1)

db: 22 (guest) => 2204 (host) (adapter 1)

==> db: Booting VM...

==> db: Waiting for machine to boot. This may take a few minutes...

db: SSH address: 127.0.0.1:2204

db: SSH username: vagrant

db: SSH auth method: private key

db: Warning: Connection reset. Retrying...

db: Warning: Connection aborted. Retrying...

db: Warning: Connection aborted. Retrying...

db: Warning: Connection reset. Retrying...

db: Warning: Connection aborted. Retrying...

db: Warning: Connection reset. Retrying...

db:

db: Vagrant insecure key detected. Vagrant will automatically replace

db: this with a newly generated keypair for better security.

db:

db: Inserting generated public key within guest...

db: Removing insecure key from the guest if it's present...

db: Key inserted! Disconnecting and reconnecting using new SSH key...

==> db: Machine booted and ready!

==> db: Checking for guest additions in VM...

db: No guest additions were detected on the base box for this VM! Guest

db: additions are required for forwarded ports, shared folders, host only

db: networking, and more. If SSH fails on this machine, please install

db: the guest additions and repackage the box to continue.

db:

db: This is not an error message; everything may continue to work properly,

db: in which case you may ignore this message.

==> db: Setting hostname...

==> db: Configuring and enabling network interfaces...

==> db: Rsyncing folder: /cygdrive/c/vagrantproject1/ansible-controller/ansible-hosts/ => /vagrant

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh web

[vagrant@web ~]$ ip addr

1: lo: <LOOPBACK,UP,LOWER\_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000

link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00

inet 127.0.0.1/8 scope host lo

valid\_lft forever preferred\_lft forever

inet6 ::1/128 scope host

valid\_lft forever preferred\_lft forever

2: eth0: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 52:54:00:4d:77:d3 brd ff:ff:ff:ff:ff:ff

inet 10.0.2.15/24 brd 10.0.2.255 scope global noprefixroute dynamic eth0

valid\_lft 86256sec preferred\_lft 86256sec

inet6 fd00::5054:ff:fe4d:77d3/64 scope global mngtmpaddr noprefixroute dynamic

valid\_lft 86243sec preferred\_lft 14243sec

inet6 fe80::5054:ff:fe4d:77d3/64 scope link noprefixroute

valid\_lft forever preferred\_lft forever

3: eth1: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 08:00:27:ee:c7:86 brd ff:ff:ff:ff:ff:ff

inet 192.168.33.10/24 brd 192.168.33.255 scope global noprefixroute eth1

valid\_lft forever preferred\_lft forever

inet6 fe80::a00:27ff:feee:c786/64 scope link

valid\_lft forever preferred\_lft forever

[vagrant@web ~]$ cd ~/.ssh/

[vagrant@web .ssh]$ ls

authorized\_keys

[vagrant@web .ssh]$ ls

authorized\_keys

[vagrant@web .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh db

[vagrant@db ~]$ ip addr

1: lo: <LOOPBACK,UP,LOWER\_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000

link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00

inet 127.0.0.1/8 scope host lo

valid\_lft forever preferred\_lft forever

inet6 ::1/128 scope host

valid\_lft forever preferred\_lft forever

2: eth0: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 52:54:00:4d:77:d3 brd ff:ff:ff:ff:ff:ff

inet 10.0.2.15/24 brd 10.0.2.255 scope global noprefixroute dynamic eth0

valid\_lft 86158sec preferred\_lft 86158sec

inet6 fd00::5054:ff:fe4d:77d3/64 scope global mngtmpaddr noprefixroute dynamic

valid\_lft 86326sec preferred\_lft 14326sec

inet6 fe80::5054:ff:fe4d:77d3/64 scope link noprefixroute

valid\_lft forever preferred\_lft forever

3: eth1: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 08:00:27:5b:c1:02 brd ff:ff:ff:ff:ff:ff

inet 192.168.33.11/24 brd 192.168.33.255 scope global noprefixroute eth1

valid\_lft forever preferred\_lft forever

inet6 fe80::a00:27ff:fe5b:c102/64 scope link

valid\_lft forever preferred\_lft forever

[vagrant@db ~]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>cd

C:\vagrantproject1\ansible-controller\ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>cd..

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 04:15:48 2025 from 10.0.2.2

[vagrant@controller ~]$ ls

ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ ssh-keygen

Generating public/private rsa key pair.

Enter file in which to save the key (/home/vagrant/.ssh/id\_rsa): ^C

[vagrant@controller ansible-project]$ ssh-keygen

Generating public/private rsa key pair.

Enter file in which to save the key (/home/vagrant/.ssh/id\_rsa):

/home/vagrant/.ssh/id\_rsa already exists.

Overwrite (y/n)? n

[vagrant@controller ansible-project]$ ssh-copy-id vagrant@192.168.33.10

/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/vagrant/.ssh/id\_rsa.pub"

The authenticity of host '192.168.33.10 (192.168.33.10)' can't be established.

ECDSA key fingerprint is SHA256:gBLCBXT0wAeAt8ONZfdQTz7GHYwxvrR9S0LYSIexsAI.

ECDSA key fingerprint is MD5:87:50:d0:a0:04:9a:c3:57:1a:e8:9e:80:05:75:d0:84.

Are you sure you want to continue connecting (yes/no)? yes

/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed

/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys

Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

[vagrant@controller ansible-project]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller>cd ansible hosts

The system cannot find the path specified.

C:\vagrantproject1\ansible-controller>cd ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh web

Last login: Thu Apr 10 05:24:36 2025 from 10.0.2.2

[vagrant@web ~]$ cat /etc/resolv.conf

# Generated by NetworkManager

search lan

nameserver 10.0.2.3

[vagrant@web ~]$ sudo vi /etc/resolv.conf

[vagrant@web ~]$ ping google.com

PING google.com (142.250.207.238) 56(84) bytes of data.

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=1 ttl=255 time=78.0 ms

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=2 ttl=255 time=75.7 ms

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=3 ttl=255 time=78.2 ms

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=4 ttl=255 time=70.6 ms

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=5 ttl=255 time=76.6 ms

^C

--- google.com ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4010ms

rtt min/avg/max/mdev = 70.684/75.885/78.294/2.784 ms

[vagrant@web ~]$ sudo vi /etc/yum.repos.d/CentOS-Base.repo

[vagrant@web ~]$ sudo yum clean all

Loaded plugins: fastestmirror

Cleaning repos: base extras updates

[vagrant@web ~]$ sudo yum install epel-release -y

Loaded plugins: fastestmirror

Determining fastest mirrors

base | 3.6 kB 00:00:00

extras | 2.9 kB 00:00:00

updates | 2.9 kB 00:00:00

(1/4): extras/primary\_db | 253 kB 00:00:12

(2/4): base/group\_gz | 153 kB 00:00:12

(3/4): base/primary\_db | 6.1 MB 00:00:14

(4/4): updates/primary\_db | 27 MB 00:00:21

Resolving Dependencies

--> Running transaction check

---> Package epel-release.noarch 0:7-11 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

============================================================================================================================================================

Package Arch Version Repository Size

============================================================================================================================================================

Installing:

epel-release noarch 7-11 extras 15 k

Transaction Summary

============================================================================================================================================================

Install 1 Package

Total download size: 15 k

Installed size: 24 k

Downloading packages:

warning: /var/cache/yum/x86\_64/7/extras/packages/epel-release-7-11.noarch.rpm: Header V3 RSA/SHA256 Signature, key ID f4a80eb5: NOKEY| 0 B --:--:-- ETA

Public key for epel-release-7-11.noarch.rpm is not installed

epel-release-7-11.noarch.rpm | 15 kB 00:00:11

Retrieving key from file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Importing GPG key 0xF4A80EB5:

Userid : "CentOS-7 Key (CentOS 7 Official Signing Key) <security@centos.org>"

Fingerprint: 6341 ab27 53d7 8a78 a7c2 7bb1 24c6 a8a7 f4a8 0eb5

Package : centos-release-7-8.2003.0.el7.centos.x86\_64 (@anaconda)

From : /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : epel-release-7-11.noarch 1/1

Verifying : epel-release-7-11.noarch 1/1

Installed:

epel-release.noarch 0:7-11

Complete!

[vagrant@web ~]$ sudo vi /etc/NetworkManager/NetworkManager.conf

[vagrant@web ~]$ sudo systemctl restart NetworkManager

[vagrant@web ~]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh db

Last login: Thu Apr 10 05:27:52 2025 from 10.0.2.2

[vagrant@db ~]$ cat /etc/resolv.conf

# Generated by NetworkManager

search lan

nameserver 10.0.2.3

[vagrant@db ~]$ sudo vi /etc/resolv.conf

[vagrant@db ~]$ ping google.com

PING google.com (142.250.193.78) 56(84) bytes of data.

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=1 ttl=255 time=103 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=2 ttl=255 time=101 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=3 ttl=255 time=96.4 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=4 ttl=255 time=93.9 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=5 ttl=255 time=93.3 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=6 ttl=255 time=85.3 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=7 ttl=255 time=88.4 ms

^C

--- google.com ping statistics ---

7 packets transmitted, 7 received, 0% packet loss, time 6014ms

rtt min/avg/max/mdev = 85.395/94.593/103.450/5.962 ms

[vagrant@db ~]$ sudo vi /etc/yum.repos.d/CentOS-Base.repo

[vagrant@db ~]$ sudo yum clean all

Loaded plugins: fastestmirror

Cleaning repos: base extras updates

[vagrant@db ~]$ sudo yum install epel-release -y

Loaded plugins: fastestmirror

Determining fastest mirrors

base | 3.6 kB 00:00:00

extras | 2.9 kB 00:00:00

updates | 2.9 kB 00:00:00

(1/4): extras/primary\_db | 253 kB 00:00:11

(2/4): base/primary\_db | 6.1 MB 00:00:15

(3/4): base/group\_gz | 153 kB 00:00:17

(4/4): updates/primary\_db | 27 MB 00:00:20

Resolving Dependencies

--> Running transaction check

---> Package epel-release.noarch 0:7-11 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

============================================================================================================================================================

Package Arch Version Repository Size

============================================================================================================================================================

Installing:

epel-release noarch 7-11 extras 15 k

Transaction Summary

============================================================================================================================================================

Install 1 Package

Total download size: 15 k

Installed size: 24 k

Downloading packages:

warning: /var/cache/yum/x86\_64/7/extras/packages/epel-release-7-11.noarch.rpm: Header V3 RSA/SHA256 Signature, key ID f4a80eb5: NOKEY| 0 B --:--:-- ETA

Public key for epel-release-7-11.noarch.rpm is not installed

epel-release-7-11.noarch.rpm | 15 kB 00:00:11

Retrieving key from file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Importing GPG key 0xF4A80EB5:

Userid : "CentOS-7 Key (CentOS 7 Official Signing Key) <security@centos.org>"

Fingerprint: 6341 ab27 53d7 8a78 a7c2 7bb1 24c6 a8a7 f4a8 0eb5

Package : centos-release-7-8.2003.0.el7.centos.x86\_64 (@anaconda)

From : /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : epel-release-7-11.noarch 1/1

Verifying : epel-release-7-11.noarch 1/1

Installed:

epel-release.noarch 0:7-11

Complete!

[vagrant@db ~]$ sudo vi /etc/NetworkManager/NetworkManager.conf

[vagrant@db ~]$ sudo systemctl restart NetworkManager

[vagrant@db ~]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>cd

C:\vagrantproject1\ansible-controller\ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>cd..

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 05:29:22 2025 from 10.0.2.2

[vagrant@controller ~]$ ls

ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ cd..

-bash: cd..: command not found

[vagrant@controller ansible-project]$ cd

[vagrant@controller ~]$ cd ~/.ssh/

[vagrant@controller .ssh]$ ssh-copy-id vagrant@192.168.33.10

/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/vagrant/.ssh/id\_rsa.pub"

/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed

/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys

Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

[vagrant@controller .ssh]$ ssh vagrant@192.168.33.10

Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

[vagrant@controller .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 06:08:53 2025 from 10.0.2.2

[vagrant@controller ~]$ cd ~/.ssh/

[vagrant@controller .ssh]$ ls

authorized\_keys id\_rsa id\_rsa.pub known\_hosts

[vagrant@controller .ssh]$ cat id\_rsa.pub

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQC0rQV37WV7bpDNAS7Mr10s6sEbwib6k++JtFEAjYKpJelfZGikGyPfj3cu/IKqVSDTciyYdvJM5+fF4suMNHyljZcwQfjVlyJWQVhML7OM/eeqmKCba97p0LowfDzcinb7s4beWVZAnfKiA1MPRCAJys4B3VDJYNvjZj6uFfufGHLV3qndD+Z8ZRrs9M/OxMnRKOF2Wmq3G68l0tZR785+hFa/OKFmoKjKHFqR1gdI45kW4qzArVzchETAT0Q05lodEHWMmrF1W4t3nyMrKBxr23iWrZLvCqcVMVgjhhrJwwhSi3xIwW8QUZSo1mkPK7lQRzMInVtosVszadmkbVIT vagrant@controller

[vagrant@controller .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller>cd host-machines

The system cannot find the path specified.

C:\vagrantproject1\ansible-controller>cd ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh

This command requires a specific VM name to target in a multi-VM environment.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh web

Last login: Thu Apr 10 05:47:18 2025 from 10.0.2.2

[vagrant@web ~]$ ls

[vagrant@web ~]$ cd ~/.ssh/

[vagrant@web .ssh]$ ls

authorized\_keys

[vagrant@web .ssh]$ cat authorized\_keys

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIKw4Z5m5gL6oz+p200zM0KesEe0+nBxigQ6SLyErcszl vagrant

[vagrant@web .ssh]$ vi authorized\_keys

[vagrant@web .ssh]$ cat authorized\_keys

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQC0rQV37WV7bpDNAS7Mr10s6sEbwib6k++JtFEAjYKpJelfZGikGyPfj3cu/IKqVSDTciyYdvJM5+fF4suMNHyljZcwQfjVlyJWQVhML7OM/eeqmKCba97p0LowfDzcinb7s4beWVZAnfKiA1MPRCAJys4B3VDJYNvjZj6uFfufGHLV3qndD+Z8ZRrs9M/OxMnRKOF2Wmq3G68l0tZR785+hFa/OKFmoKjKHFqR1gdI45kW4qzArVzchETAT0Q05lodEHWMmrF1W4t3nyMrKBxr23iWrZLvCqcVMVgjhhrJwwhSi3xIwW8QUZSo1mkPK7lQRzMInVtosVszadmkbVIT vagrant@controller

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIKw4Z5m5gL6oz+p200zM0KesEe0+nBxigQ6SLyErcszl vagrant

[vagrant@web .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh db

Last login: Thu Apr 10 06:00:48 2025 from 10.0.2.2

[vagrant@db ~]$ ls

[vagrant@db ~]$ cd ~/.ssh

[vagrant@db .ssh]$ cd ~/.ssh/

[vagrant@db .ssh]$ ls

authorized\_keys

[vagrant@db .ssh]$ cat authorized\_keys

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIMdcAIcDs73nJteg8g889nKzCn8fQbWLWoYo6I9G59N7 vagrant

[vagrant@db .ssh]$ vi authorized\_keys

[vagrant@db .ssh]$ cat authorized\_keys

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQC0rQV37WV7bpDNAS7Mr10s6sEbwib6k++JtFEAjYKpJelfZGikGyPfj3cu/IKqVSDTciyYdvJM5+fF4suMNHyljZcwQfjVlyJWQVhML7OM/eeqmKCba97p0LowfDzcinb7s4beWVZAnfKiA1MPRCAJys4B3VDJYNvjZj6uFfufGHLV3qndD+Z8ZRrs9M/OxMnRKOF2Wmq3G68l0tZR785+hFa/OKFmoKjKHFqR1gdI45kW4qzArVzchETAT0Q05lodEHWMmrF1W4t3nyMrKBxr23iWrZLvCqcVMVgjhhrJwwhSi3xIwW8QUZSo1mkPK7lQRzMInVtosVszadmkbVIT vagrant@controller

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIMdcAIcDs73nJteg8g889nKzCn8fQbWLWoYo6I9G59N7 vagrant

[vagrant@db .ssh]$ vagrant status

-bash: vagrant: command not found

[vagrant@db .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>ssh vagrant@192.168.33.10

The authenticity of host '192.168.33.10 (192.168.33.10)' can't be established.

ED25519 key fingerprint is SHA256:ohQrqh2j9MRqaniVakH6H13yw3GNK9r1ofu5CvAQqUQ.

This key is not known by any other names.

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes

Warning: Permanently added '192.168.33.10' (ED25519) to the list of known hosts.

vagrant@192.168.33.10: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

C:\vagrantproject1\ansible-controller\ansible-hosts>ssh vagrant@192.168.33.10

vagrant@192.168.33.10: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

C:\vagrantproject1\ansible-controller\ansible-hosts>ssh vagrant@192.168.33.11

The authenticity of host '192.168.33.11 (192.168.33.11)' can't be established.

ED25519 key fingerprint is SHA256:NoSm9OtGtzAEo6UK1qFTnVdChYKzDQKRSUudFLhAKog.

This key is not known by any other names.

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes

Warning: Permanently added '192.168.33.11' (ED25519) to the list of known hosts.

vagrant@192.168.33.11: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh

This command requires a specific VM name to target in a multi-VM environment.

C:\vagrantproject1\ansible-controller\ansible-hosts>ls

'ls' is not recognized as an internal or external command,

operable program or batch file.

C:\vagrantproject1\ansible-controller\ansible-hosts>cd..

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 06:16:14 2025 from 10.0.2.2

[vagrant@controller ~]$ ls

ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ vi hosts

[vagrant@controller ansible-project]$ cat hosts

[webservers]

192.168.33.10

[dbservers]

192.168.33.11

[vagrant@controller ansible-project]$ ansible all -m ping -i hosts

The authenticity of host '192.168.33.11 (192.168.33.11)' can't be established.

ECDSA key fingerprint is SHA256:pfcKwVI9dkFhwPPyWIs6nFsMjpWJJPYDUjpX1Hz01qw.

ECDSA key fingerprint is MD5:f5:75:45:55:12:13:e5:8f:ca:c9:08:de:e5:48:05:2e.

Are you sure you want to continue connecting (yes/no)? 192.168.33.10 | SUCCESS => {

"ansible\_facts": {

"discovered\_interpreter\_python": "/usr/bin/python"

},

"changed": false,

"ping": "pong"

}

yes

192.168.33.11 | SUCCESS => {

"ansible\_facts": {

"discovered\_interpreter\_python": "/usr/bin/python"

},

"changed": false,

"ping": "pong"

}

[vagrant@controller ansible-project]$ ansible all -m ping -i hosts

192.168.33.10 | SUCCESS => {

"ansible\_facts": {

"discovered\_interpreter\_python": "/usr/bin/python"

},

"changed": false,

"ping": "pong"

}

192.168.33.11 | SUCCESS => {

"ansible\_facts": {

"discovered\_interpreter\_python": "/usr/bin/python"

},

"changed": false,

"ping": "pong"

}

[vagrant@controller ansible-project]$ C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 03:56:08 2025 from 10.0.2.2

[vagrant@controller ~]$ ansible --version

ansible 2.9.27

config file = /etc/ansible/ansible.cfg

configured module search path = [u'/home/vagrant/.ansible/plugins/modules', u'/usr/share/ansible/plugins/modules']

ansible python module location = /usr/lib/python2.7/site-packages/ansible

executable location = /usr/bin/ansible

python version = 2.7.5 (default, Apr 2 2020, 13:16:51) [GCC 4.8.5 20150623 (Red Hat 4.8.5-39)]

[vagrant@controller ~]$ ^C

[vagrant@controller ~]$ clear

[vagrant@controller ~]$ mkdir ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ touch hosts

[vagrant@controller ansible-project]$ touch playbook.yml

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ mkdir ansible-hosts

[vagrant@controller ansible-project]$ cd ansible-hosts

[vagrant@controller ansible-hosts]$ ls

[vagrant@controller ansible-hosts]$ cd..

-bash: cd..: command not found

[vagrant@controller ansible-hosts]$ cd

[vagrant@controller ~]$ ls

ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ ls

ansible-hosts hosts playbook.yml

[vagrant@controller ansible-project]$ rmdir ansible-hosts

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ cd

[vagrant@controller ~]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller>ls

'ls' is not recognized as an internal or external command,

operable program or batch file.

C:\vagrantproject1\ansible-controller>mkdir ansible-hosts

C:\vagrantproject1\ansible-controller>cd ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant init centos/7

A `Vagrantfile` has been placed in this directory. You are now

ready to `vagrant up` your first virtual environment! Please read

the comments in the Vagrantfile as well as documentation on

`vagrantup.com` for more information on using Vagrant.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant up

Bringing machine 'default' up with 'virtualbox' provider...

==> default: Importing base box 'centos/7'...

==> default: Matching MAC address for NAT networking...

==> default: Checking if box 'centos/7' version '2004.01' is up to date...

==> default: Setting the name of the VM: ansible-hosts\_default\_1744261988151\_85462

==> default: Fixed port collision for 22 => 2222. Now on port 2202.

==> default: Clearing any previously set network interfaces...

==> default: Preparing network interfaces based on configuration...

default: Adapter 1: nat

==> default: Forwarding ports...

default: 22 (guest) => 2202 (host) (adapter 1)

==> default: Booting VM...

==> default: Waiting for machine to boot. This may take a few minutes...

default: SSH address: 127.0.0.1:2202

default: SSH username: vagrant

default: SSH auth method: private key

default:

default: Vagrant insecure key detected. Vagrant will automatically replace

default: this with a newly generated keypair for better security.

default:

default: Inserting generated public key within guest...

default: Removing insecure key from the guest if it's present...

default: Key inserted! Disconnecting and reconnecting using new SSH key...

==> default: Machine booted and ready!

==> default: Checking for guest additions in VM...

default: No guest additions were detected on the base box for this VM! Guest

default: additions are required for forwarded ports, shared folders, host only

default: networking, and more. If SSH fails on this machine, please install

default: the guest additions and repackage the box to continue.

default:

default: This is not an error message; everything may continue to work properly,

default: in which case you may ignore this message.

==> default: Rsyncing folder: /cygdrive/c/vagrantproject1/ansible-controller/ansible-hosts/ => /vagrant

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

default running (virtualbox)

The VM is running. To stop this VM, you can run `vagrant halt` to

shut it down forcefully, or you can run `vagrant suspend` to simply

suspend the virtual machine. In either case, to restart it again,

simply run `vagrant up`.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant validate

Vagrantfile validated successfully.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant up

Bringing machine 'default' up with 'virtualbox' provider...

==> default: Checking if box 'centos/7' version '2004.01' is up to date...

==> default: Machine already provisioned. Run `vagrant provision` or use the `--provision`

==> default: flag to force provisioning. Provisioners marked to run always will still run.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant provision

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

default running (virtualbox)

The VM is running. To stop this VM, you can run `vagrant halt` to

shut it down forcefully, or you can run `vagrant suspend` to simply

suspend the virtual machine. In either case, to restart it again,

simply run `vagrant up`.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh web

The machine with the name 'web' was not found configured for

this Vagrant environment.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant validate

Vagrantfile validated successfully.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant up

Bringing machine 'web' up with 'virtualbox' provider...

Bringing machine 'db' up with 'virtualbox' provider...

==> web: Importing base box 'centos/7'...

==> web: Matching MAC address for NAT networking...

==> web: Checking if box 'centos/7' version '2004.01' is up to date...

==> web: Setting the name of the VM: ansible-hosts\_web\_1744262512635\_2686

==> web: Fixed port collision for 22 => 2222. Now on port 2203.

==> web: Clearing any previously set network interfaces...

==> web: Preparing network interfaces based on configuration...

web: Adapter 1: nat

web: Adapter 2: hostonly

==> web: Forwarding ports...

web: 80 (guest) => 8081 (host) (adapter 1)

web: 22 (guest) => 2203 (host) (adapter 1)

==> web: Booting VM...

==> web: Waiting for machine to boot. This may take a few minutes...

web: SSH address: 127.0.0.1:2203

web: SSH username: vagrant

web: SSH auth method: private key

web:

web: Vagrant insecure key detected. Vagrant will automatically replace

web: this with a newly generated keypair for better security.

web:

web: Inserting generated public key within guest...

web: Removing insecure key from the guest if it's present...

web: Key inserted! Disconnecting and reconnecting using new SSH key...

==> web: Machine booted and ready!

==> web: Checking for guest additions in VM...

web: No guest additions were detected on the base box for this VM! Guest

web: additions are required for forwarded ports, shared folders, host only

web: networking, and more. If SSH fails on this machine, please install

web: the guest additions and repackage the box to continue.

web:

web: This is not an error message; everything may continue to work properly,

web: in which case you may ignore this message.

==> web: Setting hostname...

==> web: Configuring and enabling network interfaces...

==> web: Rsyncing folder: /cygdrive/c/vagrantproject1/ansible-controller/ansible-hosts/ => /vagrant

==> db: Importing base box 'centos/7'...

==> db: Matching MAC address for NAT networking...

==> db: Checking if box 'centos/7' version '2004.01' is up to date...

==> db: Setting the name of the VM: ansible-hosts\_db\_1744262576936\_42840

==> db: Fixed port collision for 22 => 2222. Now on port 2204.

==> db: Clearing any previously set network interfaces...

==> db: Preparing network interfaces based on configuration...

db: Adapter 1: nat

db: Adapter 2: hostonly

==> db: Forwarding ports...

db: 80 (guest) => 8082 (host) (adapter 1)

db: 22 (guest) => 2204 (host) (adapter 1)

==> db: Booting VM...

==> db: Waiting for machine to boot. This may take a few minutes...

db: SSH address: 127.0.0.1:2204

db: SSH username: vagrant

db: SSH auth method: private key

db: Warning: Connection reset. Retrying...

db: Warning: Connection aborted. Retrying...

db: Warning: Connection aborted. Retrying...

db: Warning: Connection reset. Retrying...

db: Warning: Connection aborted. Retrying...

db: Warning: Connection reset. Retrying...

db:

db: Vagrant insecure key detected. Vagrant will automatically replace

db: this with a newly generated keypair for better security.

db:

db: Inserting generated public key within guest...

db: Removing insecure key from the guest if it's present...

db: Key inserted! Disconnecting and reconnecting using new SSH key...

==> db: Machine booted and ready!

==> db: Checking for guest additions in VM...

db: No guest additions were detected on the base box for this VM! Guest

db: additions are required for forwarded ports, shared folders, host only

db: networking, and more. If SSH fails on this machine, please install

db: the guest additions and repackage the box to continue.

db:

db: This is not an error message; everything may continue to work properly,

db: in which case you may ignore this message.

==> db: Setting hostname...

==> db: Configuring and enabling network interfaces...

==> db: Rsyncing folder: /cygdrive/c/vagrantproject1/ansible-controller/ansible-hosts/ => /vagrant

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh web

[vagrant@web ~]$ ip addr

1: lo: <LOOPBACK,UP,LOWER\_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000

link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00

inet 127.0.0.1/8 scope host lo

valid\_lft forever preferred\_lft forever

inet6 ::1/128 scope host

valid\_lft forever preferred\_lft forever

2: eth0: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 52:54:00:4d:77:d3 brd ff:ff:ff:ff:ff:ff

inet 10.0.2.15/24 brd 10.0.2.255 scope global noprefixroute dynamic eth0

valid\_lft 86256sec preferred\_lft 86256sec

inet6 fd00::5054:ff:fe4d:77d3/64 scope global mngtmpaddr noprefixroute dynamic

valid\_lft 86243sec preferred\_lft 14243sec

inet6 fe80::5054:ff:fe4d:77d3/64 scope link noprefixroute

valid\_lft forever preferred\_lft forever

3: eth1: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 08:00:27:ee:c7:86 brd ff:ff:ff:ff:ff:ff

inet 192.168.33.10/24 brd 192.168.33.255 scope global noprefixroute eth1

valid\_lft forever preferred\_lft forever

inet6 fe80::a00:27ff:feee:c786/64 scope link

valid\_lft forever preferred\_lft forever

[vagrant@web ~]$ cd ~/.ssh/

[vagrant@web .ssh]$ ls

authorized\_keys

[vagrant@web .ssh]$ ls

authorized\_keys

[vagrant@web .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh db

[vagrant@db ~]$ ip addr

1: lo: <LOOPBACK,UP,LOWER\_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000

link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00

inet 127.0.0.1/8 scope host lo

valid\_lft forever preferred\_lft forever

inet6 ::1/128 scope host

valid\_lft forever preferred\_lft forever

2: eth0: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 52:54:00:4d:77:d3 brd ff:ff:ff:ff:ff:ff

inet 10.0.2.15/24 brd 10.0.2.255 scope global noprefixroute dynamic eth0

valid\_lft 86158sec preferred\_lft 86158sec

inet6 fd00::5054:ff:fe4d:77d3/64 scope global mngtmpaddr noprefixroute dynamic

valid\_lft 86326sec preferred\_lft 14326sec

inet6 fe80::5054:ff:fe4d:77d3/64 scope link noprefixroute

valid\_lft forever preferred\_lft forever

3: eth1: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP group default qlen 1000

link/ether 08:00:27:5b:c1:02 brd ff:ff:ff:ff:ff:ff

inet 192.168.33.11/24 brd 192.168.33.255 scope global noprefixroute eth1

valid\_lft forever preferred\_lft forever

inet6 fe80::a00:27ff:fe5b:c102/64 scope link

valid\_lft forever preferred\_lft forever

[vagrant@db ~]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>cd

C:\vagrantproject1\ansible-controller\ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>cd..

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 04:15:48 2025 from 10.0.2.2

[vagrant@controller ~]$ ls

ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ ssh-keygen

Generating public/private rsa key pair.

Enter file in which to save the key (/home/vagrant/.ssh/id\_rsa): ^C

[vagrant@controller ansible-project]$ ssh-keygen

Generating public/private rsa key pair.

Enter file in which to save the key (/home/vagrant/.ssh/id\_rsa):

/home/vagrant/.ssh/id\_rsa already exists.

Overwrite (y/n)? n

[vagrant@controller ansible-project]$ ssh-copy-id vagrant@192.168.33.10

/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/vagrant/.ssh/id\_rsa.pub"

The authenticity of host '192.168.33.10 (192.168.33.10)' can't be established.

ECDSA key fingerprint is SHA256:gBLCBXT0wAeAt8ONZfdQTz7GHYwxvrR9S0LYSIexsAI.

ECDSA key fingerprint is MD5:87:50:d0:a0:04:9a:c3:57:1a:e8:9e:80:05:75:d0:84.

Are you sure you want to continue connecting (yes/no)? yes

/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed

/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys

Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

[vagrant@controller ansible-project]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller>cd ansible hosts

The system cannot find the path specified.

C:\vagrantproject1\ansible-controller>cd ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh web

Last login: Thu Apr 10 05:24:36 2025 from 10.0.2.2

[vagrant@web ~]$ cat /etc/resolv.conf

# Generated by NetworkManager

search lan

nameserver 10.0.2.3

[vagrant@web ~]$ sudo vi /etc/resolv.conf

[vagrant@web ~]$ ping google.com

PING google.com (142.250.207.238) 56(84) bytes of data.

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=1 ttl=255 time=78.0 ms

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=2 ttl=255 time=75.7 ms

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=3 ttl=255 time=78.2 ms

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=4 ttl=255 time=70.6 ms

64 bytes from del12s11-in-f14.1e100.net (142.250.207.238): icmp\_seq=5 ttl=255 time=76.6 ms

^C

--- google.com ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4010ms

rtt min/avg/max/mdev = 70.684/75.885/78.294/2.784 ms

[vagrant@web ~]$ sudo vi /etc/yum.repos.d/CentOS-Base.repo

[vagrant@web ~]$ sudo yum clean all

Loaded plugins: fastestmirror

Cleaning repos: base extras updates

[vagrant@web ~]$ sudo yum install epel-release -y

Loaded plugins: fastestmirror

Determining fastest mirrors

base | 3.6 kB 00:00:00

extras | 2.9 kB 00:00:00

updates | 2.9 kB 00:00:00

(1/4): extras/primary\_db | 253 kB 00:00:12

(2/4): base/group\_gz | 153 kB 00:00:12

(3/4): base/primary\_db | 6.1 MB 00:00:14

(4/4): updates/primary\_db | 27 MB 00:00:21

Resolving Dependencies

--> Running transaction check

---> Package epel-release.noarch 0:7-11 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

============================================================================================================================================================

Package Arch Version Repository Size

============================================================================================================================================================

Installing:

epel-release noarch 7-11 extras 15 k

Transaction Summary

============================================================================================================================================================

Install 1 Package

Total download size: 15 k

Installed size: 24 k

Downloading packages:

warning: /var/cache/yum/x86\_64/7/extras/packages/epel-release-7-11.noarch.rpm: Header V3 RSA/SHA256 Signature, key ID f4a80eb5: NOKEY| 0 B --:--:-- ETA

Public key for epel-release-7-11.noarch.rpm is not installed

epel-release-7-11.noarch.rpm | 15 kB 00:00:11

Retrieving key from file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Importing GPG key 0xF4A80EB5:

Userid : "CentOS-7 Key (CentOS 7 Official Signing Key) <security@centos.org>"

Fingerprint: 6341 ab27 53d7 8a78 a7c2 7bb1 24c6 a8a7 f4a8 0eb5

Package : centos-release-7-8.2003.0.el7.centos.x86\_64 (@anaconda)

From : /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : epel-release-7-11.noarch 1/1

Verifying : epel-release-7-11.noarch 1/1

Installed:

epel-release.noarch 0:7-11

Complete!

[vagrant@web ~]$ sudo vi /etc/NetworkManager/NetworkManager.conf

[vagrant@web ~]$ sudo systemctl restart NetworkManager

[vagrant@web ~]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh db

Last login: Thu Apr 10 05:27:52 2025 from 10.0.2.2

[vagrant@db ~]$ cat /etc/resolv.conf

# Generated by NetworkManager

search lan

nameserver 10.0.2.3

[vagrant@db ~]$ sudo vi /etc/resolv.conf

[vagrant@db ~]$ ping google.com

PING google.com (142.250.193.78) 56(84) bytes of data.

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=1 ttl=255 time=103 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=2 ttl=255 time=101 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=3 ttl=255 time=96.4 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=4 ttl=255 time=93.9 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=5 ttl=255 time=93.3 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=6 ttl=255 time=85.3 ms

64 bytes from del11s16-in-f14.1e100.net (142.250.193.78): icmp\_seq=7 ttl=255 time=88.4 ms

^C

--- google.com ping statistics ---

7 packets transmitted, 7 received, 0% packet loss, time 6014ms

rtt min/avg/max/mdev = 85.395/94.593/103.450/5.962 ms

[vagrant@db ~]$ sudo vi /etc/yum.repos.d/CentOS-Base.repo

[vagrant@db ~]$ sudo yum clean all

Loaded plugins: fastestmirror

Cleaning repos: base extras updates

[vagrant@db ~]$ sudo yum install epel-release -y

Loaded plugins: fastestmirror

Determining fastest mirrors

base | 3.6 kB 00:00:00

extras | 2.9 kB 00:00:00

updates | 2.9 kB 00:00:00

(1/4): extras/primary\_db | 253 kB 00:00:11

(2/4): base/primary\_db | 6.1 MB 00:00:15

(3/4): base/group\_gz | 153 kB 00:00:17

(4/4): updates/primary\_db | 27 MB 00:00:20

Resolving Dependencies

--> Running transaction check

---> Package epel-release.noarch 0:7-11 will be installed

--> Finished Dependency Resolution

Dependencies Resolved

============================================================================================================================================================

Package Arch Version Repository Size

============================================================================================================================================================

Installing:

epel-release noarch 7-11 extras 15 k

Transaction Summary

============================================================================================================================================================

Install 1 Package

Total download size: 15 k

Installed size: 24 k

Downloading packages:

warning: /var/cache/yum/x86\_64/7/extras/packages/epel-release-7-11.noarch.rpm: Header V3 RSA/SHA256 Signature, key ID f4a80eb5: NOKEY| 0 B --:--:-- ETA

Public key for epel-release-7-11.noarch.rpm is not installed

epel-release-7-11.noarch.rpm | 15 kB 00:00:11

Retrieving key from file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Importing GPG key 0xF4A80EB5:

Userid : "CentOS-7 Key (CentOS 7 Official Signing Key) <security@centos.org>"

Fingerprint: 6341 ab27 53d7 8a78 a7c2 7bb1 24c6 a8a7 f4a8 0eb5

Package : centos-release-7-8.2003.0.el7.centos.x86\_64 (@anaconda)

From : /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : epel-release-7-11.noarch 1/1

Verifying : epel-release-7-11.noarch 1/1

Installed:

epel-release.noarch 0:7-11

Complete!

[vagrant@db ~]$ sudo vi /etc/NetworkManager/NetworkManager.conf

[vagrant@db ~]$ sudo systemctl restart NetworkManager

[vagrant@db ~]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>cd

C:\vagrantproject1\ansible-controller\ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>cd..

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 05:29:22 2025 from 10.0.2.2

[vagrant@controller ~]$ ls

ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ cd..

-bash: cd..: command not found

[vagrant@controller ansible-project]$ cd

[vagrant@controller ~]$ cd ~/.ssh/

[vagrant@controller .ssh]$ ssh-copy-id vagrant@192.168.33.10

/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/vagrant/.ssh/id\_rsa.pub"

/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed

/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys

Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

[vagrant@controller .ssh]$ ssh vagrant@192.168.33.10

Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

[vagrant@controller .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 06:08:53 2025 from 10.0.2.2

[vagrant@controller ~]$ cd ~/.ssh/

[vagrant@controller .ssh]$ ls

authorized\_keys id\_rsa id\_rsa.pub known\_hosts

[vagrant@controller .ssh]$ cat id\_rsa.pub

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQC0rQV37WV7bpDNAS7Mr10s6sEbwib6k++JtFEAjYKpJelfZGikGyPfj3cu/IKqVSDTciyYdvJM5+fF4suMNHyljZcwQfjVlyJWQVhML7OM/eeqmKCba97p0LowfDzcinb7s4beWVZAnfKiA1MPRCAJys4B3VDJYNvjZj6uFfufGHLV3qndD+Z8ZRrs9M/OxMnRKOF2Wmq3G68l0tZR785+hFa/OKFmoKjKHFqR1gdI45kW4qzArVzchETAT0Q05lodEHWMmrF1W4t3nyMrKBxr23iWrZLvCqcVMVgjhhrJwwhSi3xIwW8QUZSo1mkPK7lQRzMInVtosVszadmkbVIT vagrant@controller

[vagrant@controller .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller>cd host-machines

The system cannot find the path specified.

C:\vagrantproject1\ansible-controller>cd ansible-hosts

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh

This command requires a specific VM name to target in a multi-VM environment.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh web

Last login: Thu Apr 10 05:47:18 2025 from 10.0.2.2

[vagrant@web ~]$ ls

[vagrant@web ~]$ cd ~/.ssh/

[vagrant@web .ssh]$ ls

authorized\_keys

[vagrant@web .ssh]$ cat authorized\_keys

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIKw4Z5m5gL6oz+p200zM0KesEe0+nBxigQ6SLyErcszl vagrant

[vagrant@web .ssh]$ vi authorized\_keys

[vagrant@web .ssh]$ cat authorized\_keys

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQC0rQV37WV7bpDNAS7Mr10s6sEbwib6k++JtFEAjYKpJelfZGikGyPfj3cu/IKqVSDTciyYdvJM5+fF4suMNHyljZcwQfjVlyJWQVhML7OM/eeqmKCba97p0LowfDzcinb7s4beWVZAnfKiA1MPRCAJys4B3VDJYNvjZj6uFfufGHLV3qndD+Z8ZRrs9M/OxMnRKOF2Wmq3G68l0tZR785+hFa/OKFmoKjKHFqR1gdI45kW4qzArVzchETAT0Q05lodEHWMmrF1W4t3nyMrKBxr23iWrZLvCqcVMVgjhhrJwwhSi3xIwW8QUZSo1mkPK7lQRzMInVtosVszadmkbVIT vagrant@controller

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIKw4Z5m5gL6oz+p200zM0KesEe0+nBxigQ6SLyErcszl vagrant

[vagrant@web .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh db

Last login: Thu Apr 10 06:00:48 2025 from 10.0.2.2

[vagrant@db ~]$ ls

[vagrant@db ~]$ cd ~/.ssh

[vagrant@db .ssh]$ cd ~/.ssh/

[vagrant@db .ssh]$ ls

authorized\_keys

[vagrant@db .ssh]$ cat authorized\_keys

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIMdcAIcDs73nJteg8g889nKzCn8fQbWLWoYo6I9G59N7 vagrant

[vagrant@db .ssh]$ vi authorized\_keys

[vagrant@db .ssh]$ cat authorized\_keys

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQC0rQV37WV7bpDNAS7Mr10s6sEbwib6k++JtFEAjYKpJelfZGikGyPfj3cu/IKqVSDTciyYdvJM5+fF4suMNHyljZcwQfjVlyJWQVhML7OM/eeqmKCba97p0LowfDzcinb7s4beWVZAnfKiA1MPRCAJys4B3VDJYNvjZj6uFfufGHLV3qndD+Z8ZRrs9M/OxMnRKOF2Wmq3G68l0tZR785+hFa/OKFmoKjKHFqR1gdI45kW4qzArVzchETAT0Q05lodEHWMmrF1W4t3nyMrKBxr23iWrZLvCqcVMVgjhhrJwwhSi3xIwW8QUZSo1mkPK7lQRzMInVtosVszadmkbVIT vagrant@controller

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIMdcAIcDs73nJteg8g889nKzCn8fQbWLWoYo6I9G59N7 vagrant

[vagrant@db .ssh]$ vagrant status

-bash: vagrant: command not found

[vagrant@db .ssh]$ exit

logout

Connection to 127.0.0.1 closed.

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant status

Current machine states:

web running (virtualbox)

db running (virtualbox)

This environment represents multiple VMs. The VMs are all listed

above with their current state. For more information about a specific

VM, run `vagrant status NAME`.

C:\vagrantproject1\ansible-controller\ansible-hosts>ssh vagrant@192.168.33.10

The authenticity of host '192.168.33.10 (192.168.33.10)' can't be established.

ED25519 key fingerprint is SHA256:ohQrqh2j9MRqaniVakH6H13yw3GNK9r1ofu5CvAQqUQ.

This key is not known by any other names.

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes

Warning: Permanently added '192.168.33.10' (ED25519) to the list of known hosts.

vagrant@192.168.33.10: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

C:\vagrantproject1\ansible-controller\ansible-hosts>ssh vagrant@192.168.33.10

vagrant@192.168.33.10: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

C:\vagrantproject1\ansible-controller\ansible-hosts>ssh vagrant@192.168.33.11

The authenticity of host '192.168.33.11 (192.168.33.11)' can't be established.

ED25519 key fingerprint is SHA256:NoSm9OtGtzAEo6UK1qFTnVdChYKzDQKRSUudFLhAKog.

This key is not known by any other names.

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes

Warning: Permanently added '192.168.33.11' (ED25519) to the list of known hosts.

vagrant@192.168.33.11: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

C:\vagrantproject1\ansible-controller\ansible-hosts>vagrant ssh

This command requires a specific VM name to target in a multi-VM environment.

C:\vagrantproject1\ansible-controller\ansible-hosts>ls

'ls' is not recognized as an internal or external command,

operable program or batch file.

C:\vagrantproject1\ansible-controller\ansible-hosts>cd..

C:\vagrantproject1\ansible-controller>vagrant ssh

Last login: Thu Apr 10 06:16:14 2025 from 10.0.2.2

[vagrant@controller ~]$ ls

ansible-project

[vagrant@controller ~]$ cd ansible-project

[vagrant@controller ansible-project]$ ls

hosts playbook.yml

[vagrant@controller ansible-project]$ vi hosts

[vagrant@controller ansible-project]$ cat hosts

[webservers]

192.168.33.10

[dbservers]

192.168.33.11

[vagrant@controller ansible-project]$ ansible all -m ping -i hosts

The authenticity of host '192.168.33.11 (192.168.33.11)' can't be established.

ECDSA key fingerprint is SHA256:pfcKwVI9dkFhwPPyWIs6nFsMjpWJJPYDUjpX1Hz01qw.

ECDSA key fingerprint is MD5:f5:75:45:55:12:13:e5:8f:ca:c9:08:de:e5:48:05:2e.

Are you sure you want to continue connecting (yes/no)? 192.168.33.10 | SUCCESS => {

"ansible\_facts": {

"discovered\_interpreter\_python": "/usr/bin/python"

},

"changed": false,

"ping": "pong"

}

yes

192.168.33.11 | SUCCESS => {

"ansible\_facts": {

"discovered\_interpreter\_python": "/usr/bin/python"

},

"changed": false,

"ping": "pong"

}

[vagrant@controller ansible-project]$ ansible all -m ping -i hosts

192.168.33.10 | SUCCESS => {

"ansible\_facts": {

"discovered\_interpreter\_python": "/usr/bin/python"

},

"changed": false,

"ping": "pong"

}

192.168.33.11 | SUCCESS => {

"ansible\_facts": {

"discovered\_interpreter\_python": "/usr/bin/python"

},

"changed": false,

"ping": "pong"

}

[vagrant@controller ansible-project]$