

Lab:2

Start Vagrant

\$ vagrant up

```
vagrant@ubuntu-xenial:~$ vagrant up
C:\Users\hp\vm1>vagrant up
==> vagrant: A new version of Vagrant is available: 2.2.14 (installed version: 2.2.10)!
==> vagrant: To upgrade visit: https://www.vagrantup.com/downloads.html

Bringing machine 'default' up with 'virtualbox' provider...
==> default: Checking if box 'ubuntu/xenial64' version '20210106.0.0' is up to date...
==> default: A newer version of the box 'ubuntu/xenial64' for provider 'virtualbox' is
==> default: available! You currently have version '20210106.0.0'. The latest is version
==> default: '20210127.0.0'. Run 'vagrant box update' to update.
==> default: Clearing any previously set forwarded ports...
==> default: Clearing any previously set network interfaces...
==> default: Preparing network interfaces based on configuration...
==> default: Adapter 1: nat
==> default: Forwarding ports...
==> default: 22 (guest) => 2222 (host) (adapter 1)
==> default: Running 'pre-boot' VM customizations...
==> default: Booting VM...
==> default: Waiting for machine to boot. This may take a few minutes...
==> default: SSH address: 127.0.0.1:2222
==> default: SSH username: vagrant
==> default: SSH auth method: private key
==> default: Machine booted and ready!
==> default: Checking for guest additions in VM...
==> default: The guest additions on this VM do not match the installed version of
==> default: VirtualBox! In most cases this is fine, but in rare cases it can
==> default: prevent things such as shared folders from working properly. If you see
==> default: shared folder errors, please make sure the guest additions within the
==> default: virtual machine match the version of VirtualBox you have installed on
==> default: your host and reload your VM.
==> default: Guest Additions Version: 5.1.38
==> default: VirtualBox Version: 6.1
==> default: Mounting shared folders...
==> default: /vagrant => c:/Users/hp/vm1
==> 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:\Users\hp\vm1>vagrant ssh
Welcome to Ubuntu 16.04.7 LTS (GNU/Linux 4.4.0-198-generic x86_64)

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

\$ vagrant ssh

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

14 packages can be updated.
12 of these updates are security updates.
To see these additional updates run: apt list --upgradable

New release '18.04.5 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

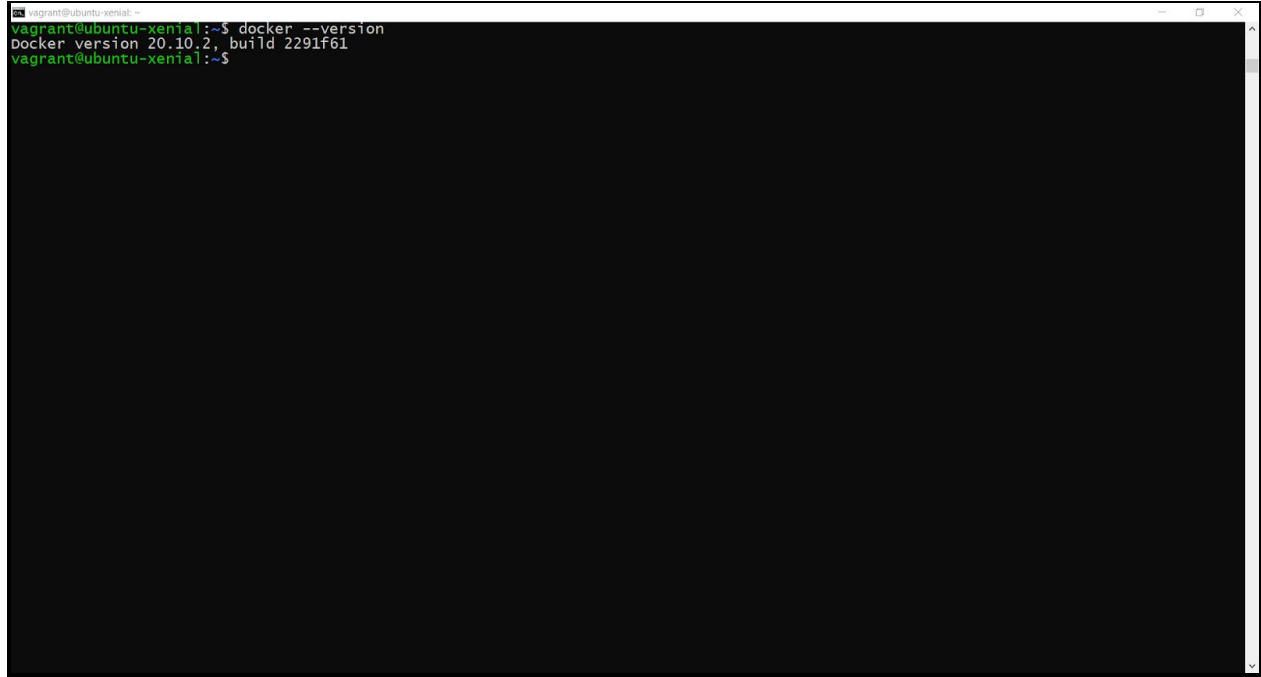
vagrant@ubuntu-xenial:~$ ls
vagrant@ubuntu-xenial:~$ docker --version
```

Docker Installation

- `sudo apt install apt-transport-https ca-certificates curl software-properties-common`
- `curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -`
- `sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu bionic test"`
- `sudo apt update`
- `sudo apt install docker-ce`

Check the Docker Version

```
$ docker --version
```

A terminal window with a black background and green text. The window title is 'vagrant@ubuntu-xenial: ~'. The prompt is 'vagrant@ubuntu-xenial:~\$'. The command entered is 'docker --version'. The output is 'Docker version 20.10.2, build 2291f61'. The prompt returns to 'vagrant@ubuntu-xenial:~\$'.

```
vagrant@ubuntu-xenial:~$ docker --version
Docker version 20.10.2, build 2291f61
vagrant@ubuntu-xenial:~$
```

```
$ docker run -it -v myvol2:/mnt alpine
```

```
vagrant@ubuntu-xenial:~$ docker run -it -v myvol2:/mnt alpine
/# ls
bin    dev    etc    home   lib    media  mnt    opt    proc   root   run    sbin   srv    sys    tmp    usr    var
/# cd /mnt
/mnt # touch a.txt
/mnt # touch b.txt
/mnt # exit
vagrant@ubuntu-xenial:~$ docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED       STATUS      PORTS      NAMES
vagrant@ubuntu-xenial:~$ docker run -it -v myvol2:/mnt alpine
/# ls
bin    dev    etc    home   lib    media  mnt    opt    proc   root   run    sbin   srv    sys    tmp    usr    var
/# cd /mnt/
/mnt # ls
a.txt  b.txt
/mnt #
```

```
$ docker volume ls
```

```
$ docker volume inspect myvol2
```

```
$ sudo ls [File Name]
```

```
vagrant@ubuntu-xenial:~$ docker volume ls
DRIVER      VOLUME NAME
local      myvol2
vagrant@ubuntu-xenial:~$ docker volume inspect myvol2
[
  {
    "CreatedAt": "2021-02-01T09:27:30Z",
    "Driver": "local",
    "Labels": null,
    "Mountpoint": "/var/lib/docker/volumes/myvol2/_data",
    "Name": "myvol2",
    "Options": null,
    "Scope": "local"
  }
]
vagrant@ubuntu-xenial:~$ sudo ls /var/lib/docker/volumes/myvol2/_data
a.txt  b.txt
vagrant@ubuntu-xenial:~$
```

Run Ubuntu Container with Same volume

```
a.txt b.txt
vagrant@ubuntu-xenial:~$ docker run -it -v myvol2:/mnt ubuntu
unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
83ee3a23efb7: Pull complete
db98fc6f11f0: Pull complete
f611acd52c6c: Pull complete
Digest: sha256:703218c0465075f4425e58fac086e09e1de5c340b12976ab9eb8ad26615c3715
Status: Downloaded newer image for ubuntu:latest
root@82f7e79cbbea:/# ls
bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var
root@82f7e79cbbea:/# cd mnt
root@82f7e79cbbea:/mnt# ls
a.txt b.txt
root@82f7e79cbbea:/mnt# touch c.txt
root@82f7e79cbbea:/mnt# touch d.txt
root@82f7e79cbbea:/mnt# ls
a.txt b.txt c.txt d.txt
root@82f7e79cbbea:/mnt#
```

Check the Volume which contain all the files make by both containers

```

vagrant@ubuntu-xenial:~$ sudo ls /var/lib/docker/volumes/myvol2/_data
a.txt b.txt c.txt d.txt
vagrant@ubuntu-xenial:~$
```