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Topic:- Setup Vagrant

Playing with Vagrant

- Installing Vagrant

To install Vagrant on your Ubuntu system, follow these steps:

- ❖ We need to install VirtualBox first which will work as a hypervisor from below link:
<https://www.virtualbox.org/wiki/Downloads>
- ❖ Now, we will install vagrant from the below link:
<https://www.vagrantup.com/downloads.html>
- ❖ Verify the vagrant installation
`$ vagrant --version`

```
issu@Devashishs-MacBook-Air ~ % vagrant --version  
Vagrant 2.2.10  
issu@Devashishs-MacBook-Air ~ % cd /Users/issu/Desktop/Docker_Vagrant
```

- Creating basic vagrant box using VirtualBox virtualization

- ❖ Create the project directory and switch to it with:
`mkdir ~/VM_2`
`cd ~/VM_2`

Note:- In my case folder name is "VM_2".

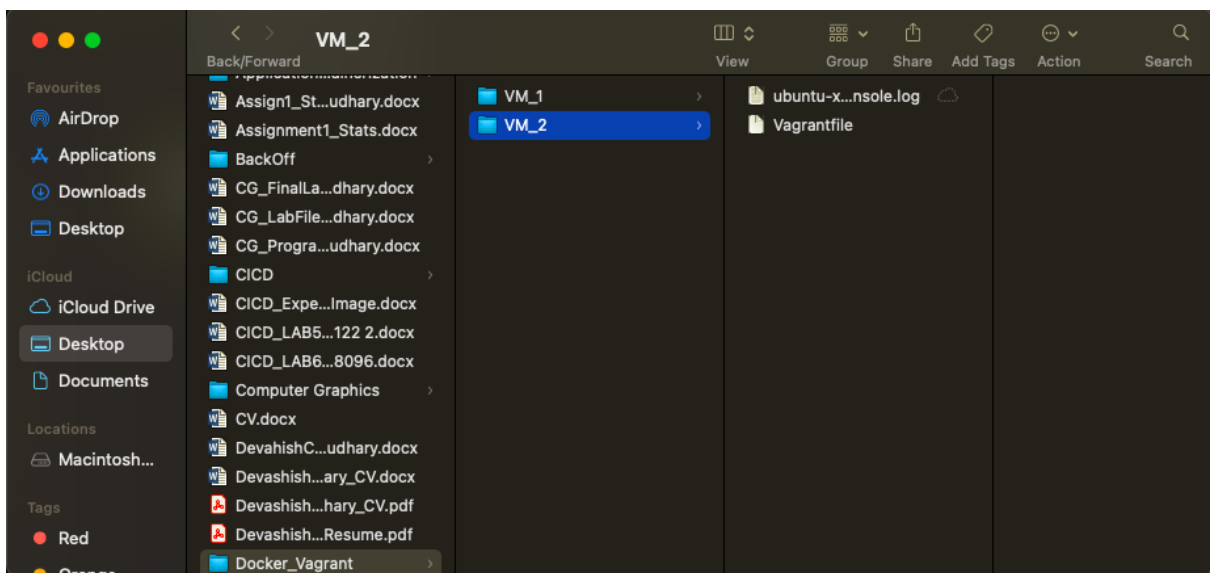
- ❖ The next step is to initialize a new Vagrant file using the vagrant init
`$ vagrant init`

```

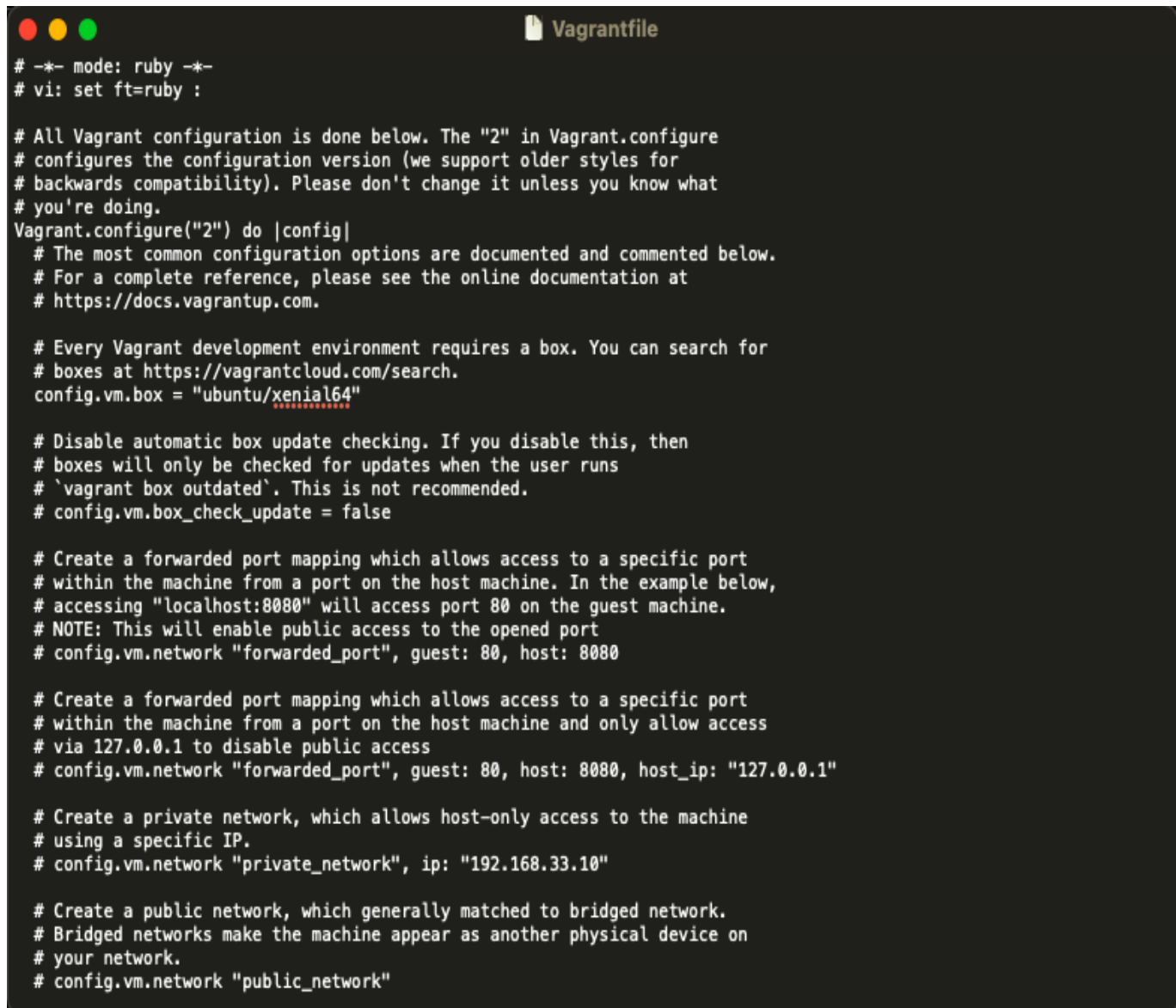
[issu@Devashishs-MacBook-Air ~ % vagrant --version
Vagrant 2.2.10
[issu@Devashishs-MacBook-Air ~ % cd /Users/issu/Desktop/Docker_Vagrant
[issu@Devashishs-MacBook-Air Docker_Vagrant % mkdir VM_2
[issu@Devashishs-MacBook-Air Docker_Vagrant % cd vm_2
[issu@Devashishs-MacBook-Air vm_2 % cd ..
[issu@Devashishs-MacBook-Air Docker_Vagrant % cd VM_2
[issu@Devashishs-MacBook-Air VM_2 % vagrant init
==> 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

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.

```



- ❖ You can open the Vagrant file, read the comments and make adjustments according to your needs.

A screenshot of a code editor window titled "Vagrantfile". The editor has a dark background with light-colored text. The code is a Vagrantfile configuration for a Ruby VM. It includes comments explaining the configuration steps, such as setting the mode to ruby, configuring the Vagrant version, and setting up network and box options. The code is as follows:

```
# -*- mode: ruby -*-
# vi: set ft=ruby :

# All Vagrant configuration is done below. The "2" in Vagrant.configure
# configures the configuration version (we support older styles for
# backwards compatibility). Please don't change it unless you know what
# you're doing.
Vagrant.configure("2") do |config|
  # The most common configuration options are documented and commented below.
  # For a complete reference, please see the online documentation at
  # https://docs.vagrantup.com.

  # Every Vagrant development environment requires a box. You can search for
  # boxes at https://vagrantcloud.com/search.
  config.vm.box = "ubuntu/xenial64"

  # Disable automatic box update checking. If you disable this, then
  # boxes will only be checked for updates when the user runs
  # `vagrant box outdated`. This is not recommended.
  # config.vm.box_check_update = false

  # Create a forwarded port mapping which allows access to a specific port
  # within the machine from a port on the host machine. In the example below,
  # accessing "localhost:8080" will access port 80 on the guest machine.
  # NOTE: This will enable public access to the opened port
  # config.vm.network "forwarded_port", guest: 80, host: 8080

  # Create a forwarded port mapping which allows access to a specific port
  # within the machine from a port on the host machine and only allow access
  # via 127.0.0.1 to disable public access
  # config.vm.network "forwarded_port", guest: 80, host: 8080, host_ip: "127.0.0.1"

  # Create a private network, which allows host-only access to the machine
  # using a specific IP.
  # config.vm.network "private_network", ip: "192.168.33.10"

  # Create a public network, which generally matched to bridged network.
  # Bridged networks make the machine appear as another physical device on
  # your network.
  # config.vm.network "public_network"
```

❖ Now we can run the vagrant

```
$ Vagrant up
```

```
VM_2 — vagrant@ubuntu-xenial: ~ — ssh - vagrant ssh — 101x43
isshu@Devashishs-MacBook-Air VM_2 % vagrant up
[Bringing machine 'default' up with 'virtualbox' provider...]
==> default: Importing base box 'ubuntu/xenial64'...
==> default: Matching MAC address for NAT networking...
==> default: Checking if box 'ubuntu/xenial64' version '20201102.0.0' is up to date...
==> default: A newer version of the box 'ubuntu/xenial64' for provider 'virtualbox' is
==> default: available! You currently have version '20201102.0.0'. The latest is version
==> default: '20210106.0.0'. Run `vagrant box update` to update.
==> default: Setting the name of the VM: VM_2_default_1610359035850_19000
==> 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: Warning: Connection reset. Retrying...
default: Warning: Remote connection disconnect. Retrying...
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: 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:
default: Guest Additions Version: 5.1.38
default: VirtualBox Version: 6.1
==> default: Mounting shared folders...
default: /vagrant => /Users/isshu/Desktop/Docker_Vagrant/VM_2
```

- ❖ To ssh into the virtual machine simply run:

```
$ Vagrant ssh
```

```
isshu@Devashishs-MacBook-Air VM_2 % vagrant ssh
Welcome to Ubuntu 16.04.7 LTS (GNU/Linux 4.4.0-193-generic x86_64)

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

0 packages can be updated.
0 updates are security updates.

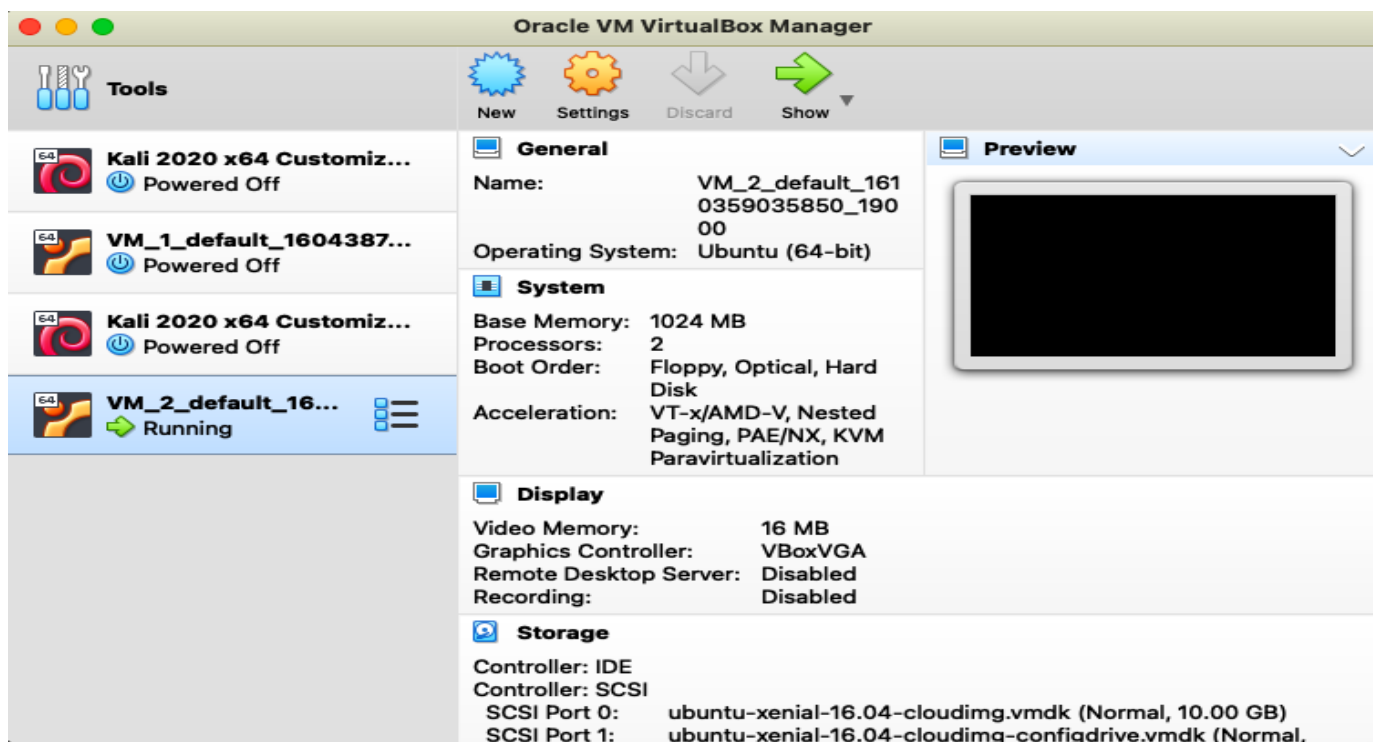
New release '18.04.5 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

-----
WARNING! Your environment specifies an invalid locale.
The unknown environment variables are:
LC_CTYPE=UTF-8 LC_ALL=
This can affect your user experience significantly, including the
ability to manage packages. You may install the locales by running:

    sudo apt-get install language-pack-UTF-8
    or
    sudo locale-gen UTF-8

To see all available language packs, run:
apt-cache search "^language-pack-[a-z][a-z]$"
To disable this message for all users, run:
sudo touch /var/lib/cloud/instance/locale-check.skip
-----

vagrant@ubuntu-xenial:~$
```



- ❖ You can stop the virtual machine with the following command:
`$ Vagrant halt`

```
[vagrant@ubuntu-xenial:~$ logout
Connection to 127.0.0.1 closed.
[isshu@Devashishs-MacBook-Air VM_2 % vagrant halt
==> default: Attempting graceful shutdown of VM...
isshu@Devashishs-MacBook-Air VM_2 %
```

