AGENDA

- > What is a Vagrant ?
- > Vagrant Architecture
- > Vagrant Resources
- > Vagrant Basic commands
- Vagrant Advanced commands



>What is a Vagrant?

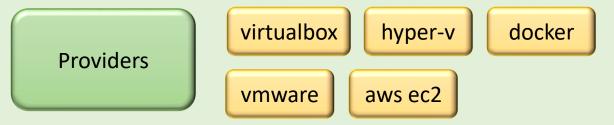
- > Vagrant is an open-source software product for building and maintaining portable virtual software development environments; e.g., for VirtualBox, KVM, Hyper-V, Docker containers, VMware, and AWS.
- > It tries to simplify the software configuration management of virtualizations in order to increase development productivity.
- > Vagrant is written in the Ruby language



> Vagrant Architecture



Provisioners are tools that allow users to customize the configuration of virtual environments.

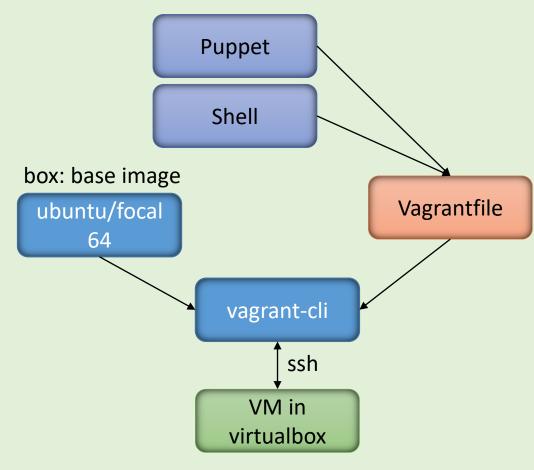


Providers are the services that Vagrant uses to set up and create virtual environments.

Vagrantfile

Machine and software requirements are written in a file called "Vagrantfile" to execute necessary steps in order to create a development-ready box.

> Sample Workflow



- > Vagrant Resources
- > Installation: https://youtu.be/Ae-K0EqWTXo
- > Vagrant Demo: https://github.com/santhosh2r2/SanthoshMeetsTech/tree /main/04_Quick%20start%20-%20Vagrant



- > Vagrant Getting Started: https://learn.hashicorp.com/collections/vagrant/getting-started
- > Vagrant Docs: https://www.vagrantup.com/docs
- > Vagrant Boxes: https://app.vagrantup.com/boxes/search



- >Vagrant basic commands
- > Vagrant box add ubuntu/focal64
- > vagrant init
- > vagrant up/halt/suspend
- > vagrant ssh
- > vagrant destroy
- > vagrant reload --provision

```
#!/usr/bin/env bash

apt-get update
apt-get install -y apache2
if ! [ -L /var/www ]; then
  rm -rf /var/www
  ln -fs /vagrant /var/www
fi
```

bootstrap.sh

```
Vagrant.configure("2") do |config|
  config.vm.box = "ubuntu/focal64"
  config.vm.provision :shell, path: "bootstrap.sh"
  config.vm.network :forwarded_port, guest: 80, host: 4567
end
```

Vagrantfile: provision, network

> Vagrant advanced commands

- > Create a free vagrant cloud account
- > vagrant package --output box-name.box
- > vagrant cloud auth login
 > username/password
- > vagrant cloud publish organizationname/box-name version provider PROVIDER-FILE --description "First release" --version-description "with mongodb and redis" --release

```
$ vagrant package --output santhosh_ubuntu.box
==> default: Exporting VM...
==> default: Compressing package to:
C:/Users/basdemo/Desktop/test-vagrant/santhosh_ubuntu.box
```

```
$ vagrant cloud publish santhosh2r2/ubuntuFocal64_with_mongodb_redis 1.0.0
virtualbox santhosh_ubuntu.box
You are about to publish a box on Vagrant Cloud with the following options:
santhosh2r2/ubuntuFocal64_with_mongodb_redis: (v1.0.0) for provider
'virtualbox'
Do you wish to continue? [y/N]y
Saving box information...
Uploading provider with file C:/Users/basdemo/Desktop/test-
vagrant/santhosh_ubuntu.box
Complete! Published santhosh2r2/ubuntuFocal64_with_mongodb_redis
                 santhosh2r2/ubuntuFocal64_with_mongodb_redis
Box:
Description:
Private:
Created:
                 2021-01-02T16:36:52.039+01:00
Updated:
                 2021-01-02T16:36:52.039+01:00
Current Version: N/A
                 1.0.0
Versions:
Downloads:
```

>Key Takeaways



