

Chapter 02: Installing VirtualBox and Vagrant

```
Command Prompt
Microsoft Windows [Version 10.0.16299.19]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\IEUser>vagrant -v
Vagrant 2.0.4

C:\Users\IEUser>
```

```
rocket@mars: ~
rocket@mars:~$ vagrant -v
Vagrant 2.0.4
rocket@mars:~$
```

```
[~] sw_vers
ProductName:    Mac OS X
ProductVersion: 10.13.3
BuildVersion:  17D102
```

```
[~] sysctl hw.cpu64bit_capable
hw.cpu64bit_capable: 1
```

```
[[~] vagrant -v
Vagrant 2.0.4
[~]
```

Chapter 03: Command Line-Interface - Vagrant Commands

```
[~] vagrant box --help
Usage: vagrant box <subcommand> [<args>]

Available subcommands:
  add
  list
  outdated
  prune
  remove
  repackage
  update
```

```
[~] vagrant box add --help
Usage: vagrant box add [options] <name, url, or path>

Options:
  -c, --clean                Clean any temporary download files
  -f, --force                Overwrite an existing box if it exists
  --insecure                 Do not validate SSL certificates
  --cacert FILE              CA certificate for SSL download
  --capath DIR               CA certificate directory for SSL download
  --cert FILE                A client SSL cert, if needed
  --location-trusted        Trust 'Location' header from HTTP redirects
  and use the same credentials for subsequent urls as for the initial one
  --provider PROVIDER       Provider the box should satisfy
  --box-version VERSION     Constrain version of the added box

The box descriptor can be the name of a box on HashiCorp's Vagrant Cloud,
or a URL, or a local .box file, or a local .json file containing
the catalog metadata.

The options below only apply if you're adding a box file directly,
and not using a Vagrant server or a box structured like 'user/box':

  --checksum CHECKSUM       Checksum for the box
  --checksum-type TYPE      Checksum type (md5, sha1, sha256)
  --name BOX                 Name of the box
  -h, --help                Print this help
```

Chapter 04: Discovering Vagrant Boxes - Vagrant Cloud

```
[~] vagrant box add https://app.vagrantup.com/laravel/boxes/homestead
=> box: Loading metadata for box 'https://app.vagrantup.com/laravel/boxes/homestead'
This box can work with multiple providers! The providers that it can work with are listed below. Please review the list and choose the provider you will be working with.

1) hyperv
2) virtualbox
3) vmware_desktop
```

```
[~] vagrant box prune --dry-run
The following boxes will be kept...
bento/ubuntu-15.04      (virtualbox, 2.2.5)
laravel/homestead      (virtualbox, 5.1.0)
packer-test            (aws, 0)
packer-test-2         (aws, 0)
packer_amazon-ebs_aws (aws, 0)
puphpet/debian75-x64   (virtualbox, 20151201)
puphpet/ubuntu1404-x64 (virtualbox, 20151201)
ubuntu/trusty64        (virtualbox, 20160913.0.0)
ubuntu/xenial64        (virtualbox, 20180510.0.0)

Checking for older boxes...
Would remove laravel/homestead virtualbox 2.0.0
```





```
[~] vagrant box remove laravel/homestead --box-version 2.0.0
Removing box 'laravel/homestead' (v2.0.0) with provider 'virtualbox'...
```

```
[~] vagrant box remove packer-test
Removing box 'packer-test' (v0) with provider 'aws'...
```

Q

Provider any virtualbox vmware libvirt more ▾

Sort by Downloads Recently Created Recently Updated

Laravel				Q	
Provider	any virtualbox vmware libvirt more ▾	Sort by	Downloads	Recently Created	Recently Updated
	laravel/homestead 6.0.0 Official Laravel local development box.	hyperv parallels virtualbox vmware_desktop	Downloads 12,925,694	Released 20 days ago	
	laravel/homestead-7 0.2.1 Official Laravel local development box for PHP 7.0.	virtualbox vmware_desktop	Downloads 140,885	Released over 2 years ago	
	antoniofrignani/laravel-homestead-settler-32 0.1.1 A 32Bit version of laravel homestead box, without memcached	virtualbox	Downloads 22,952	Released almost 4 years ago	
	rmff/laravel-homestead-32bit 0.0.1 Laravel Homestead 32-Bit version	virtualbox	Downloads 10,148	Released over 2 years ago	

laravel / homestead Vagrant box

How to use this box with [Vagrant](#):

Vagrantfile [New](#)

```
Vagrant.configure("2") do |config|
  config.vm.box = "laravel/homestead"
end
```

v6.0.0 currently released version

This version was created 20 days ago.

<https://github.com/laravel/settler/releases/tag/v6.0.0>

3 providers for this version.

hyperv Hosted by Vagrant Cloud (1.26 GB)

vmware_desktop Hosted by Vagrant Cloud (1.38 GB)

virtualbox Hosted by Vagrant Cloud (1.38 GB)

laravel / homestead Vagrant box

How to use this box with [Vagrant](#):

Vagrantfile [New](#)

```
vagrant init laravel/homestead
vagrant up
```

```
[laravelbox] vagrant init laravel/homestead
=> vagrant: A new version of Vagrant is available: 2.1.1!
=> 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.
```

```
[laravelbox] ls
Vagrantfile _
```

```
Vagrantfile
1 | # -*- mode: ruby -*-
2 | # vi: set ft=ruby :
3 |
4 | # All Vagrant configuration is done below. The "2" in Vagrant
5 | # configures the configuration version (we support older styl
6 | # backwards compatibility). Please don't change it unless you
7 | # you're doing.
8 | Vagrant.configure("2") do |config|
9 |   # The most common configuration options are documented and
10 |   # For a complete reference, please see the online documenta
11 |   # https://docs.vagrantup.com.
12 |
13 |   # Every Vagrant development environment requires a box. You
14 |   # boxes at https://vagrantcloud.com/search.
15 |   config.vm.box = "laravel/homestead"
```

```
[laravelbox] vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
=> default: Box 'laravel/homestead' could not be found. Attempting to find and
install...
  default: Box Provider: virtualbox
  default: Box Version: >= 0
=> default: Loading metadata for box 'laravel/homestead'
  default: URL: https://vagrantcloud.com/laravel/homestead
=> default: Adding box 'laravel/homestead' (v6.0.0) for provider: virtualbox
  default: Downloading: https://vagrantcloud.com/laravel/boxes/homestead/versi
ons/6.0.0/providers/virtualbox.box
  default: Progress: 4% (Rate: 5228k/s, Estimated time remaining: 0:05:36)
```

```
=> default: Successfully added box 'laravel/homestead' (v6.0.0) for 'virtualbox
'!
=> default: Importing base box 'laravel/homestead'...
Progress: 40%
```

```
[laravelbox] vagrant ssh
Welcome to Ubuntu 18.04 LTS (GNU/Linux 4.15.0-20-generic x86_64)
```

```
vagrant@vagrant:~$ php -v
PHP 7.2.4-1+ubuntu18.04.1+deb.sury.org+1 (cli) (built: Apr  5 2018 08:55:11) ( N
TS )
Copyright (c) 1997-2018 The PHP Group
Zend Engine v3.2.0, Copyright (c) 1998-2018 Zend Technologies
```

```
[laravelbox] vagrant halt
=> default: Attempting graceful shutdown of VM...
```

```
[laravelbox] vagrant status
Current machine states:

default                poweroff (virtualbox)

The VM is powered off. To restart the VM, simply run `vagrant up`
```

```
[laravelbox] vagrant box list
laravel/homestead (virtualbox, 6.0.0)
ubuntu/trusty64   (virtualbox, 20160913.0.0)
ubuntu/xenial64   (virtualbox, 20180510.0.0)
```

Create a new Vagrant box

Name /

The name of your Vagrant box is used in tools, notifications, routing, and this UI. Short and simple is best.

Visibility Private

Making a box private prevents users from accessing it unless given permission.

Private boxes require a paid Vagrant Cloud account. Changing the privacy of a box will affect your monthly cost. See [our pricing](#) for more information.

Short description

The short description is used to describe the box.

Create box

abraunton / alextest Vagrant box

Versions **New Version** Settings Access

New Box Version

Version

The version should be compatible with [RubyGems versioning](#).

Description

The version description functions as release notes. Include any important changes here.

Create version

v0.0.1 unreleased [Release...](#) [Edit](#)

This version was created less than a minute ago.
This is the first ever version

There are no providers for this version.

[Add a provider](#)

New Box Provider

Provider

Vagrant will need to know how to use this provider.

File Hosting Upload to Vagrant Cloud
 External URL

[Continue to upload](#)

```
[laravelbox] vagrant package --output alextest.box  
=> default: Exporting VM...  
=> default: Compressing package to: /Users/alexbraunton/Projects/laravelbox/alextest.box
```

Replace Provider File

Upload a new Vagrant box image to replace the currently hosted image for this provider. Replacing a box provider image does not cause Vagrant to re-download the image automatically.

Upload File alextest.box

Status Uploading 18.56/1531.00MB (1%)

My Vagrant Boxes



abraunton/alextest No released versions

This is a test box!

This box has no released versions. It will not be available from `vagrant box add`, nor will it show up in search results.

v0.0.1 unreleased [Release...](#) [Edit](#)

abraunton / alextest Vagrant box

Release Box Version

This version is unreleased. Upon releasing, it will be available to users from Vagrant.

[Release version](#)

Successfully released

```
[alextestbox] vagrant init abraunton/alextest --box-version 0.0.1
```

```
[alextestbox] vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
=> default: Box 'abraunton/alextest' could not be found. Attempting to find and
install...
    default: Box Provider: virtualbox
    default: Box Version: 0.0.1
=> default: Loading metadata for box 'abraunton/alextest'
    default: URL: https://vagrantcloud.com/abraunton/alextest
=> default: Adding box 'abraunton/alextest' (v0.0.1) for provider: virtualbox
    default: Downloading: https://vagrantcloud.com/abraunton/boxes/alextest/vers
ions/0.0.1/providers/virtualbox.box
    default: Progress: 3% (Rate: 5955k/s, Estimated time remaining: 0:05:16)
```

```
=> default: Successfully added box 'abraunton/alextest' (v0.0.1) for 'virtualbo
x'!
```

```
[alextestbox] vagrant ssh
Welcome to Ubuntu 18.04 LTS (GNU/Linux 4.15.0-20-generic x86_64)
```

Chapter 05: Configuring Vagrant Using a Vagrantfile

```
[~] mkdir vagrantfiletest
[~] cd vagrantfiletest
[vagrantfiletest] vagrant init
=> vagrant: A new version of Vagrant is available: 2.1.1!
=> 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.
[vagrantfiletest] ls
Vagrantfile
```

```
[vagrantfiletest] vagrant up
There is a syntax error in the following Vagrantfile. The syntax error
message is reproduced below for convenience:

/Users/alexbraunton/vagrantfiletest/Vagrantfile:24: syntax error, unexpected tID
ENTIFIER, expecting keyword_end
  # accessing "localhost:8080" will access port 80 on
    ^
```

```
[vagrantfiletest] vagrant validate
There is a syntax error in the following Vagrantfile. The syntax error
message is reproduced below for convenience:

/Users/alexbraunton/vagrantfiletest/Vagrantfile:24: syntax error, unexpected tIDENTIFIER, expecting keyword_end
  # accessing "localhost:8080" will access port 80 on
    ^
```

Vagrantfile

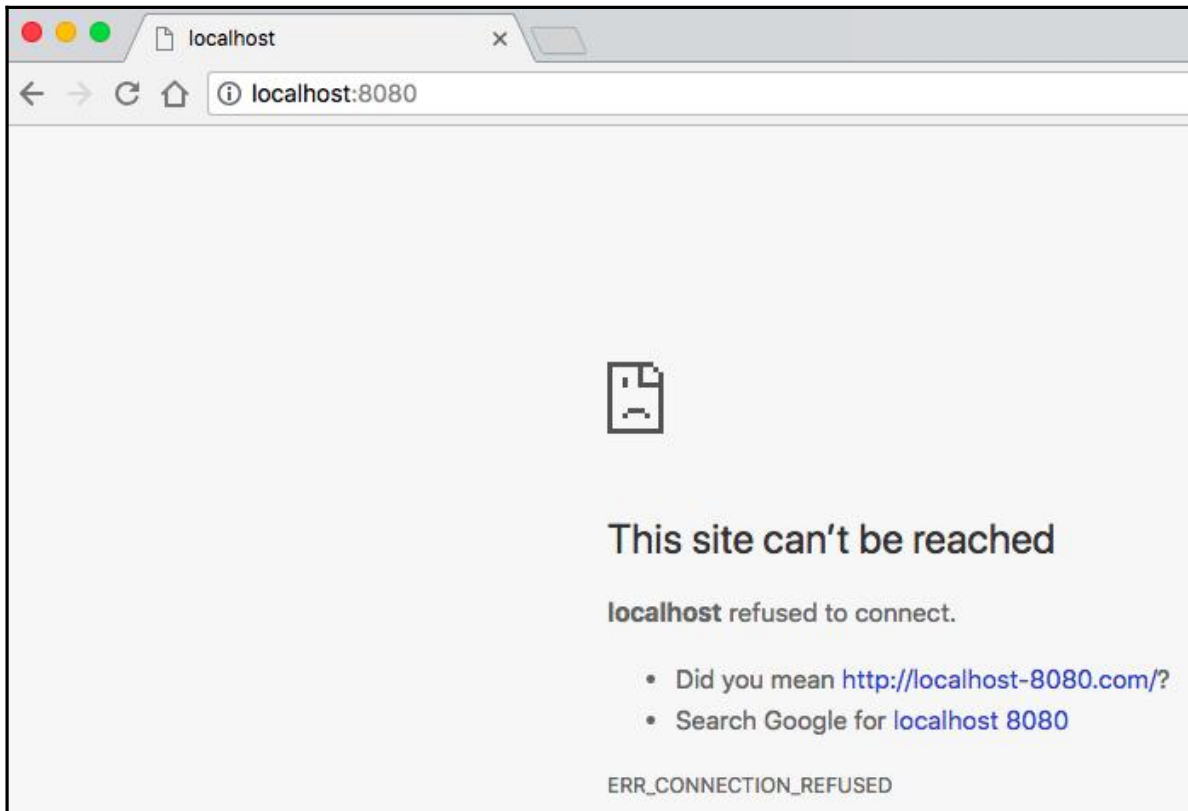
```
1 # -*- mode: ruby -*-
2 # vi: set ft=ruby :
3
4 # All Vagrant configuration is done below. The "2" in Vagrant.configure
5 # configures the configuration version (we support older styles for
6 # backwards compatibility). Please don't change it unless you know what
7 # you're doing.
8 Vagrant.configure("2") do |config|
9   # The most common configuration options are documented and commented below
10  # For a complete reference, please see the online documentation at
11  # https://docs.vagrantup.com.
12
13  # Every Vagrant development environment requires a box. You can search for
14  # boxes at https://vagrantcloud.com/search.
15  config.vm.box = "base"
16
17  # Disable automatic box update checking. If you disable this, then
18  # boxes will only be checked for updates when the user runs
19  # `vagrant box outdated`. This is not recommended.
20  # config.vm.box_check_update = false
21
22  # Create a forwarded port mapping which allows access to a specific port
23  # within the machine from a port on the host machine. In the example below
24  # accessing "localhost:8080" will access port 80 on the guest machine.
25  # NOTE: This will enable public access to the opened port
26  # config.vm.network "forwarded_port", guest: 80, host: 8080
```

```
[vagrantfiletest] vagrant validate
=> vagrant: A new version of Vagrant is available: 2.1.1!
=> vagrant: To upgrade visit: https://www.vagrantup.com/downloads.html
Vagrantfile validated successfully.
```

Chapter 06: Networking in Vagrant

```
Vagrantfile
1 # -*- mode: ruby -*-
2 # vi: set ft=ruby :
3
4 Vagrant.configure("2") do |config|
5
6   config.vm.box = "ubuntu/xenial64"
7
8   config.vm.provision "shell", inline: <<-SHELL
9     apt-get update
10    apt-get install -y nginx
11  SHELL
12 end
```

```
[vagrant-networking] vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
=> default: Importing base box 'ubuntu/xenial64'...
```



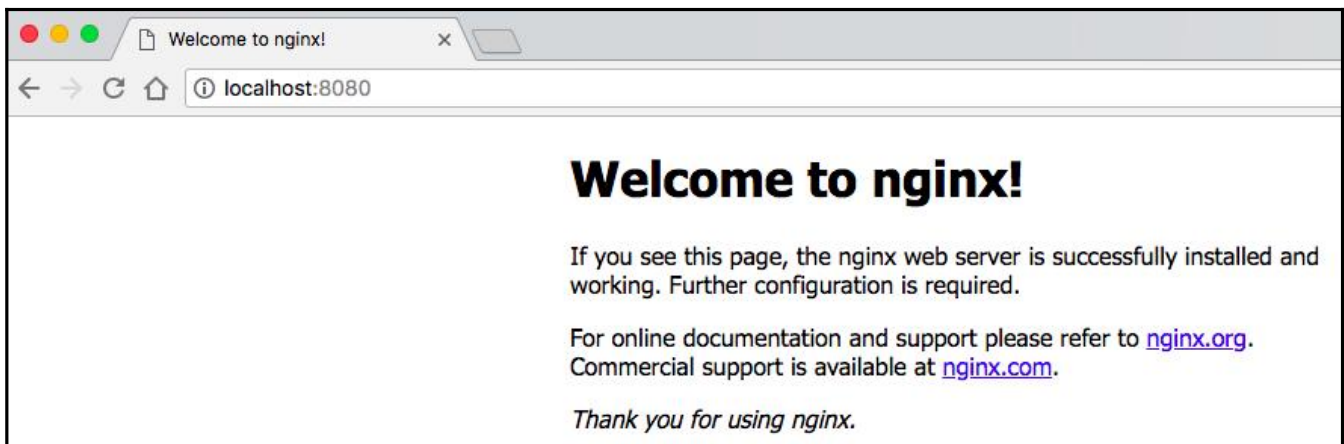
```
vagrant@ubuntu-xenial:~$ curl localhost
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
  body {
    width: 35em;
    margin: 0 auto;
    font-family: Tahoma, Verdana, Arial, sans-serif;
  }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
```

```
Vagrantfile
1 # -*- mode: ruby -*-
2 # vi: set ft=ruby :
3
4 Vagrant.configure("2") do |config|
5
6   config.vm.box = "ubuntu/xenial64"
7
8   config.vm.network "forwarded_port", guest: 80, host: 8080
9
10  config.vm.provision "shell", inline: <<-SHELL
11    apt-get update
12    apt-get install -y nginx
13  SHELL
14 end
```

```
[vagrant-networking] vagrant reload --provision
=> default: Attempting graceful shutdown of VM...
=> default: Checking if box 'ubuntu/xenial64' is up to date...
=> default: A newer version of the box 'ubuntu/xenial64' for provider 'virtualb
ox' is
=> default: available! You currently have version '20180510.0.0'. The latest is
version
=> default: '20180622.0.0'. 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: 80 (guest) => 8080 (host) (adapter 1)
default: 22 (guest) => 2222 (host) (adapter 1)
```

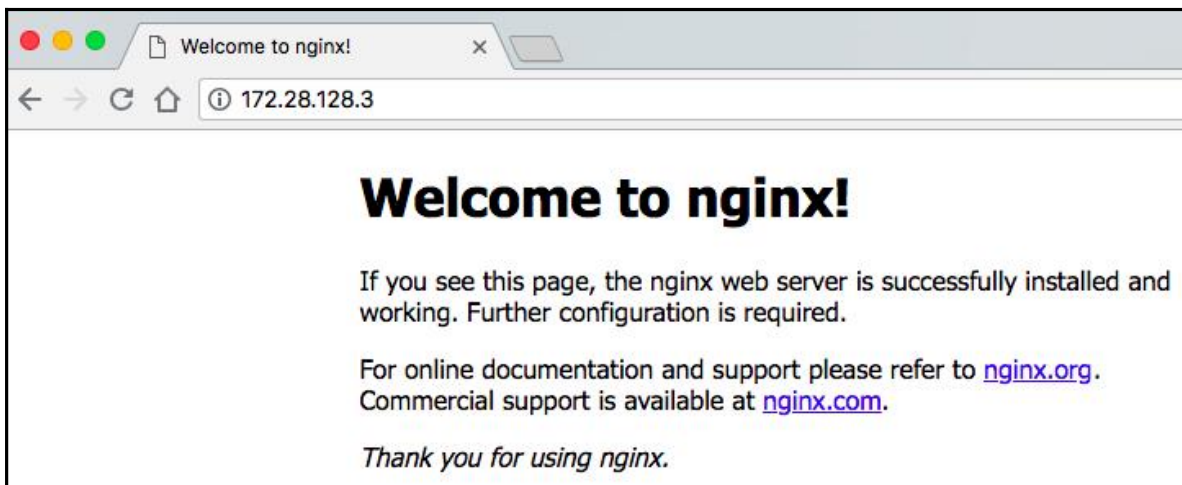


```
=> default: Clearing any previously set forwarded ports...
=> default: Clearing any previously set network interfaces...
=> default: Preparing network interfaces based on configuration...
default: Adapter 1: nat
default: Adapter 2: hostonly
```



```
vagrant@ubuntu-xenial:~$ ifconfig
enp0s3  Link encap:Ethernet  HWaddr 02:41:7b:83:f1:96
        inet addr:10.0.2.15  Bcast:10.0.2.255  Mask:255.255.255.0
        inet6 addr: fe80::41:7bff:fe83:f196/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:982 errors:0 dropped:0 overruns:0 frame:0
        TX packets:573 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:386087 (386.0 KB)  TX bytes:73933 (73.9 KB)

enp0s8  Link encap:Ethernet  HWaddr 08:00:27:16:6e:1a
        inet addr:172.28.128.3  Bcast:172.28.128.255  Mask:255.255.255.0
        inet6 addr: fe80::a00:27ff:fe16:6e1a/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:2 errors:0 dropped:0 overruns:0 frame:0
        TX packets:10 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:1180 (1.1 KB)  TX bytes:1332 (1.3 KB)
```





```
vagrant@ubuntu-xenial:~$ ifconfig
enp0s3  Link encap:Ethernet  HWaddr 02:41:7b:83:f1:96
        inet addr:10.0.2.15  Bcast:10.0.2.255  Mask:255.255.255.0
        inet6 addr: fe80::41:7bff:fe83:f196/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:1213  errors:0  dropped:0  overruns:0  frame:0
        TX packets:745  errors:0  dropped:0  overruns:0  carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:420984 (420.9 KB)  TX bytes:91167 (91.1 KB)

enp0s8  Link encap:Ethernet  HWaddr 08:00:27:74:8d:fe
        inet addr:10.10.10.10  Bcast:10.10.10.255  Mask:255.255.255.0
        inet6 addr: fe80::a00:27ff:fe74:8dfe/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:20  errors:0  dropped:0  overruns:0  frame:0
        TX packets:28  errors:0  dropped:0  overruns:0  carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:1524 (1.5 KB)  TX bytes:1848 (1.8 KB)
```

```
=> default: Clearing any previously set forwarded ports...
=> default: Clearing any previously set network interfaces...
=> default: Available bridged network interfaces:
1) en0: Wi-Fi (AirPort)
2) en1: Thunderbolt 1
3) p2p0
4) awdl0
5) bridge0
=> default: When choosing an interface, it is usually the one that is
=> default: being used to connect to the internet.
default: Which interface should the network bridge to? █
```

```
=> default: Clearing any previously set forwarded ports...
=> default: Clearing any previously set network interfaces...
=> default: Available bridged network interfaces:
1) en0: Wi-Fi (AirPort)
2) en1: Thunderbolt 1
3) p2p0
4) awdl0
5) bridge0
=> default: When choosing an interface, it is usually the one that is
=> default: being used to connect to the internet.
default: Which interface should the network bridge to? █
```

Chapter 07: Multi-Machine

```
lb1: Starting Provision: lb1
```

```
web2: Provision web2 complete
```



```
[multi-machine] vagrant ssh  
This command requires a specific VM name to target in a multi-VM environment.
```

```
[multi-machine] vagrant ssh lb1  
Welcome to Ubuntu 16.04.4 LTS (GNU/Linux 4.4.0-124-generic x86_64)
```

```
[multi-machine] vagrant halt  
=> web2: Attempting graceful shutdown of VM...  
=> web1: Attempting graceful shutdown of VM...  
=> lb1: Attempting graceful shutdown of VM...
```

```
[multi-machine] vagrant destroy -f  
=> web2: Destroying VM and associated drives...  
=> web1: Destroying VM and associated drives...  
=> lb1: Destroying VM and associated drives...
```

```
vagrant@ubuntu-xenial:~$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
```



A screenshot of a web browser window titled 'phpinfo()'. The address bar shows '10.0.0.50/test.php'. The main content area displays the PHP version '7.0.30-0ubuntu0.16.04.1' in a purple box. Below this is a table with system information:

System	Linux ubuntu-xenia
Server API	FPM/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/7.0/fpm



A screenshot of a web browser window titled '10.0.0.50/test.php'. The address bar shows '10.0.0.50/test.php'. The main content area displays the text 'This text is from MySQL'.

Chapter 08: Exploring Vagrant Plugins and Syncing Files

```
[vagrant-plugins-sync] vagrant plugin list
vagrant-hostsupdater (1.1.1.160)
```

```
Bundler, the underlying system Vagrant uses to install plugins,
reported an error. The error is shown below. These errors are usually
caused by misconfigured plugin installations or transient network
issues. The error from Bundler is:
```

```
No such file or directory @ rb_sysopen - /test-plugin/testplugin.gem
```

```
[vagrant-plugins-sync] vagrant plugin install testmyplugintest
Installing the 'testmyplugintest' plugin. This can take a few minutes...
Bundler, the underlying system Vagrant uses to install plugins,
reported an error. The error is shown below. These errors are usually
caused by misconfigured plugin installations or transient network
issues. The error from Bundler is:

Unable to resolve dependency: user requested 'testmyplugintest (> 0)'
```

vagrant-hostsupdater 1.1.1.160

Enables Vagrant to update hosts file on the host machine

411,701

DOWNLOADS

```
[vagrant-plugins-sync] vagrant plugin install vagrant-hostsupdater
Installing the 'vagrant-hostsupdater' plugin. This can take a few minutes...
Fetching: vagrant-hostsupdater-1.1.1.160.gem (100%)
Installed the plugin 'vagrant-hostsupdater (1.1.1.160)'
```

```
[vagrant-plugins-sync] vagrant plugin list
vagrant-hostsupdater (1.1.1.160)
```

```
=> default: [vagrant-hostsupdater] Checking for host entries
=> default: [vagrant-hostsupdater] Writing the following entries to (/etc/hosts
)
=> default: [vagrant-hostsupdater] 192.168.100.23 vagrant.dev # VAGRANT: 9b
a6ee973a0cc55ce8fb75000d95a1dd (default) / 12b6d3ad-5975-41a6-9d43-0f0822a0d5a5
=> default: [vagrant-hostsupdater] This operation requires administrative acces
s. You may skip it by manually adding equivalent entries to the hosts file.
Password:␣
```

```
##
# Host Database
#
# localhost is used to configure the loopback interface
# when the system is booting. Do not change this entry.
##
127.0.0.1    localhost
255.255.255.255 broadcasthost
::1        localhost
```

```
=> default: Setting hostname...
```

```
##
# Host Database
#
# localhost is used to configure the loopback interface
# when the system is booting. Do not change this entry.
##
127.0.0.1    localhost
255.255.255.255 broadcasthost
::1        localhost
192.168.100.23 vagrant.dev # VAGRANT: 9ba6ee973a0cc55ce8fb75000d95a1dd
```

```
[vagrant-plugins-sync] curl vagrant.dev
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
  body {
    width: 35em;
    margin: 0 auto;
    font-family: Tahoma, Verdana, Arial, sans-serif;
  }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
```

```
[vagrant-plugins-sync] ping -c 4 vagrant.dev
PING vagrant.dev (192.168.100.23): 56 data bytes
64 bytes from 192.168.100.23: icmp_seq=0 ttl=64 time=0.398 ms
64 bytes from 192.168.100.23: icmp_seq=1 ttl=64 time=0.495 ms
64 bytes from 192.168.100.23: icmp_seq=2 ttl=64 time=0.708 ms
64 bytes from 192.168.100.23: icmp_seq=3 ttl=64 time=0.546 ms

--- vagrant.dev ping statistics ---
4 packets transmitted, 4 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 0.398/0.537/0.708/0.112 ms
```

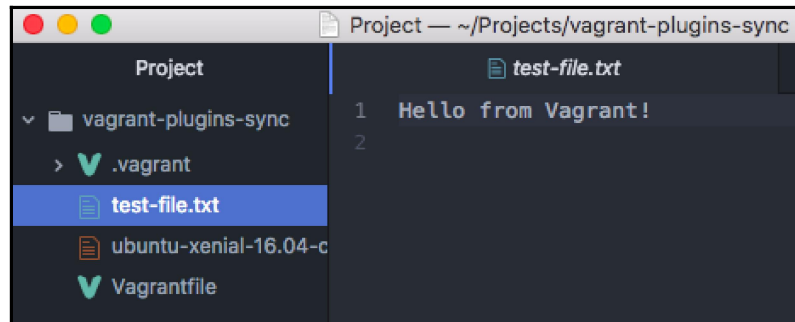
```
[vagrant-plugins-sync] vagrant halt
=> default: Attempting graceful shutdown of VM..
=> default: [vagrant-hostsupdater] Removing hosts
Password:
```

```
[vagrant-plugins-sync] vagrant plugin uninstall vagrant-hostsupdater
Uninstalling the 'vagrant-hostsupdater' plugin...
Successfully uninstalled vagrant-hostsupdater-1.1.1.160
```

```
[vagrant-plugins-sync] vagrant plugin list
No plugins installed.
```

```
=> default: Mounting shared folders...
default: /home/vagrant/files => /Users/alexbraunton/Projects/vagrant-plugins-sync
```

```
vagrant@ubuntu-xenial:~$ ls
files
```



Chapter 09: Shell Scripts - Provisioning

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

```
There are errors in the configuration of this machine. Please fix  
the following errors and try again:
```

```
File provisioner:
```

```
* File upload source file /Users/alexbraunton/Projects/vagrant-provisioning/secret.env  
must exist
```

```
==> default: Running provisioner: file...
```

```
vagrant@ubuntu-xenial:~$ ls  
secret.env
```

```
==> default: Running provisioner: file...
```

```
vagrant@ubuntu-xenial:~$ ls  
newsecretfolder  
vagrant@ubuntu-xenial:~$ ls newsecretfolder/  
secret.env
```

```
==> default: Running provisioner: shell...  
default: Running: inline script  
default: this is a test
```

```
==> default: Running provisioner: shell...  
default: Running: inline script  
default: this is a test
```

Chapter 10: Ansible - Using Ansible to Provision a Vagrant Box

```
[vagrant-ansible] pip -v  
zsh: command not found: pip
```

```
[vagrant-ansible] sudo easy_install pip  
Password:  
Searching for pip  
Reading https://pypi.python.org/simple/pip/  
Best match: pip 18.0
```

```
[vagrant-ansible] sudo pip install ansible  
Password:
```

```
[vagrant-ansible] ansible --version  
ansible 2.6.3
```

```
=> default: Running provisioner: ansible_local...  
`playbook` does not exist on the guest: /vagrant/vagrant_playbook.yml
```

```
=> default: Running provisioner: ansible_local...  
default: Installing Ansible...
```

```
default: Running ansible-playbook...
```

```
PLAY [all] *****  
  
TASK [Gathering Facts] *****  
ok: [default]  
  
TASK [ensure nginx is at the latest version] *****  
changed: [default]  
  
TASK [start nginx] *****  
ok: [default]  
  
PLAY RECAP *****  
default : ok=3    changed=1    unreachable=0    failed=0
```



```
=> default: Running provisioner: ansible_local...
   default: Installing Ansible...
```

```
default: Installing pip... (for Ansible installation)
Vagrant has automatically selected the compatibility mode '2.0'
according to the Ansible version installed (2.6.3).

Alternatively, the compatibility mode can be specified in your Vagrantfile:
https://www.vagrantup.com/docs/provisioning/ansible_common.html#compatibility_mode
```

```
default: Running ansible-playbook...
```

```
PLAY [all] *****

TASK [Gathering Facts] *****
ok: [default]

TASK [ensure nginx is at the latest version] *****
changed: [default]

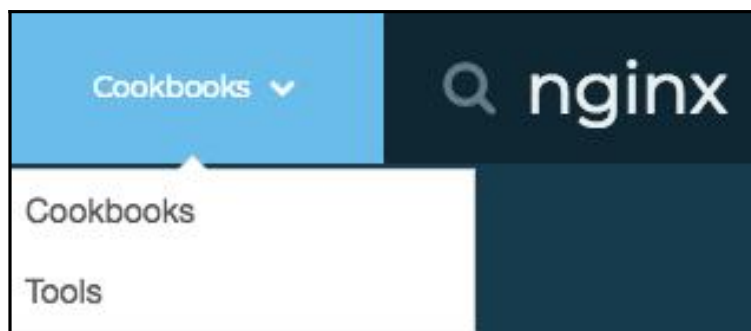
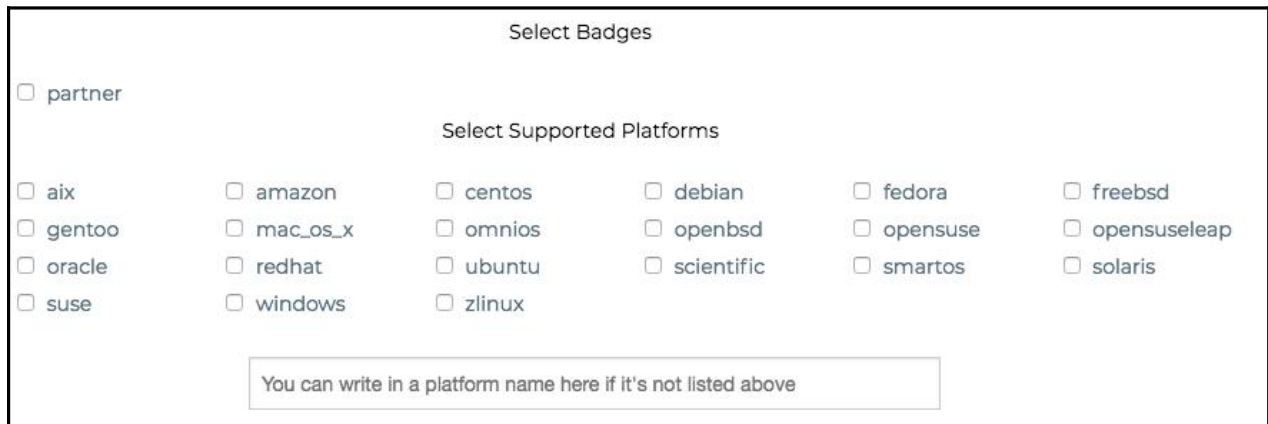
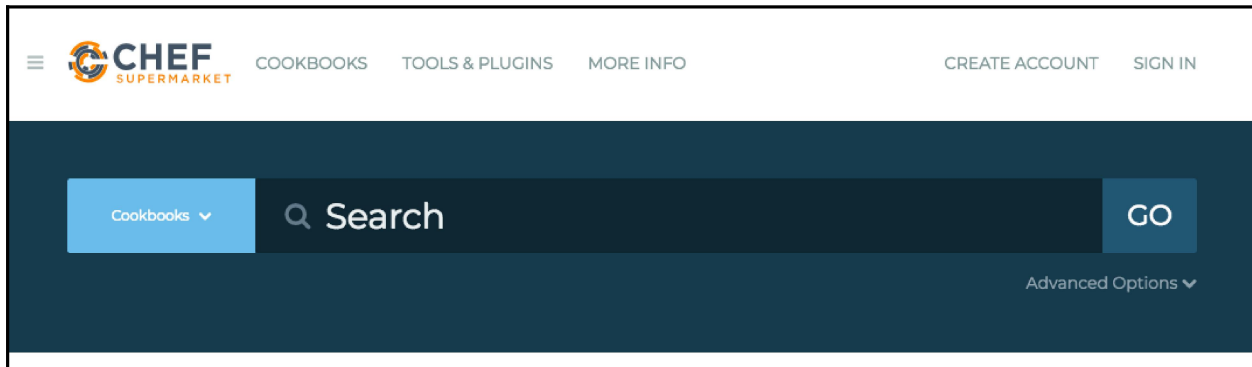
TASK [start nginx] *****
ok: [default]

PLAY RECAP *****
default : ok=3    changed=1    unreachable=0    failed=0
```



```
vagrant@ubuntu-xenial:~$ ansible --version  
ansible 2.6.3
```

Chapter 11: Chef - Using Chef to Provision a Vagrant Box



Cookbooks GO

Advanced Options

43 Cookbooks Sort by Most Followed Recently Updated

nginx 8.1.5 100% Updated July 23, 2018

Installs and configures nginx

```
cookbook 'nginx', '~> 8.1.5'
```

SUPPORTED PLATFORMS 742 FOLLOWERS [Follow](#)

nginx (57) Versions 8.1.5 [Follow](#) 742

Installs and configures nginx

Berkshelf Policyfile Knife

```
cookbook 'nginx', '~> 8.1.5'
```

README Dependencies Changelog Quality 100%

nginx Cookbook

cookbook v8.1.5 build failing

Installs nginx from package OR source code and sets up configuration handling similar to Debian's Apache2 scripts.

Requirements

chef
Chef Software

DETAILS

[View Source](#) [View Issues](#)

UPDATED JULY 23, 2018
Created on October 25, 2009

PLATFORMS

LICENSE
Apache-2.0

[Download Cookbook](#)

X Mac OS X/macOS

Mac OS X/macOS 10.13

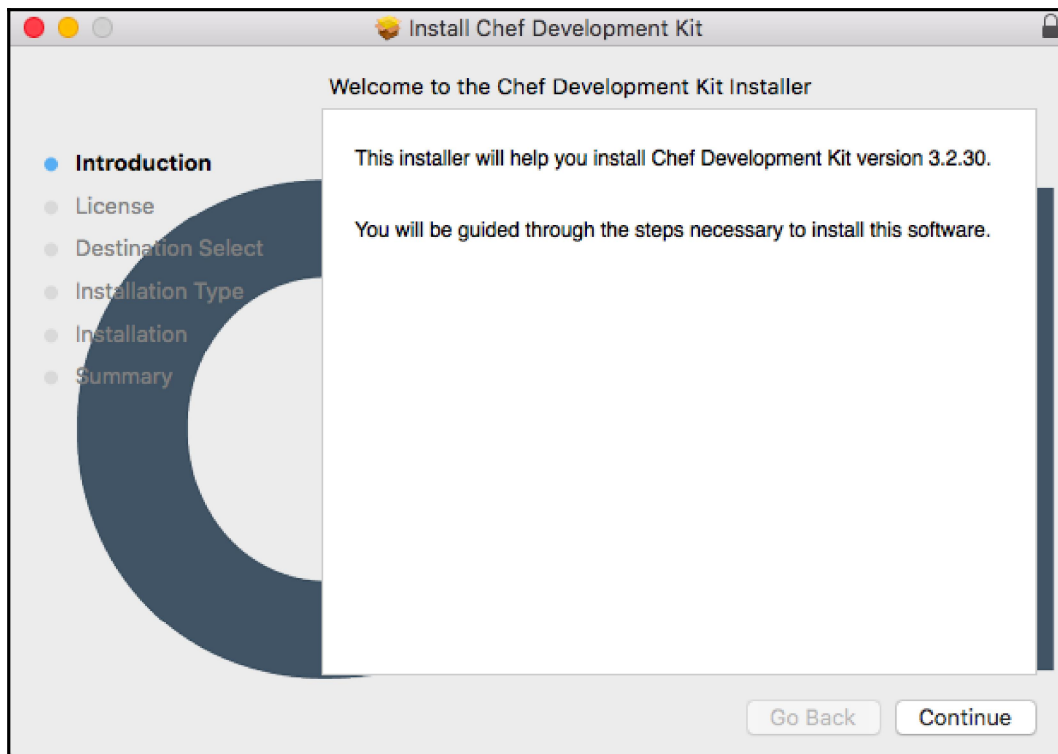
[License Information](#)

Architecture: **x86_64**

SHA256: 42d1dc1e879ce3ae33f8d6c92914a7f3050ded3ea8e8285fc1b7df3a22f184db

URL: https://packages.chef.io/files/stable/chefdk/3.2.30/mac_os_x/10.13/chefdk-3.2.30-1.dmg

Download

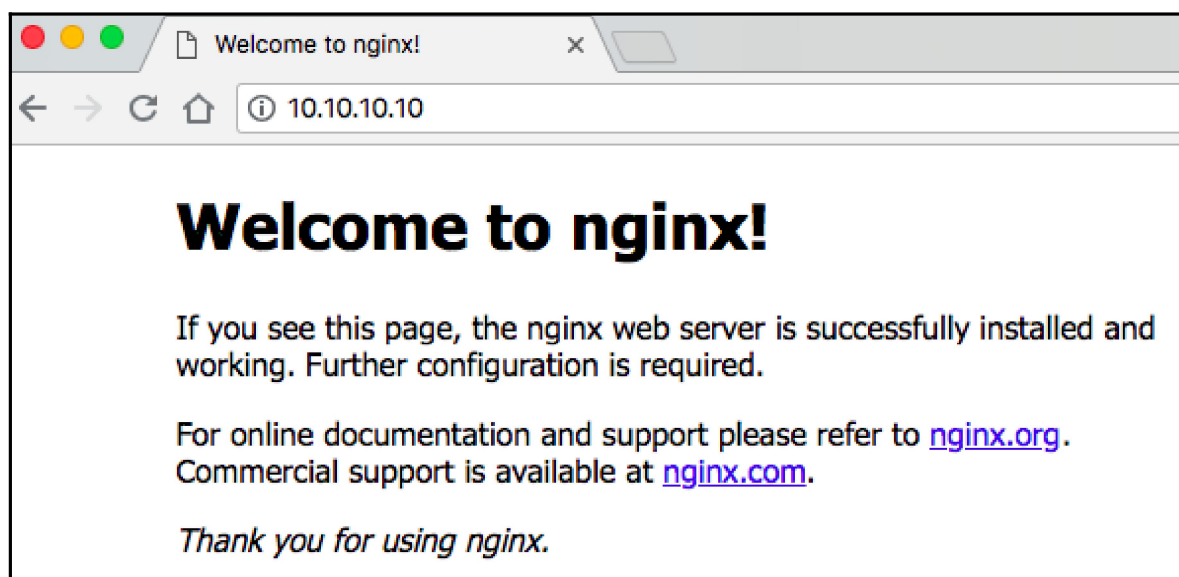


```
[vagrant-chef] chef -v
Chef Development Kit Version: 3.2.30
chef-client version: 14.4.56
delivery version: master (6862f27aba89109a9630f0b6c6798efec56b4efe)
berks version: 7.0.6
kitchen version: 1.23.2
inspec version: 2.2.70
```

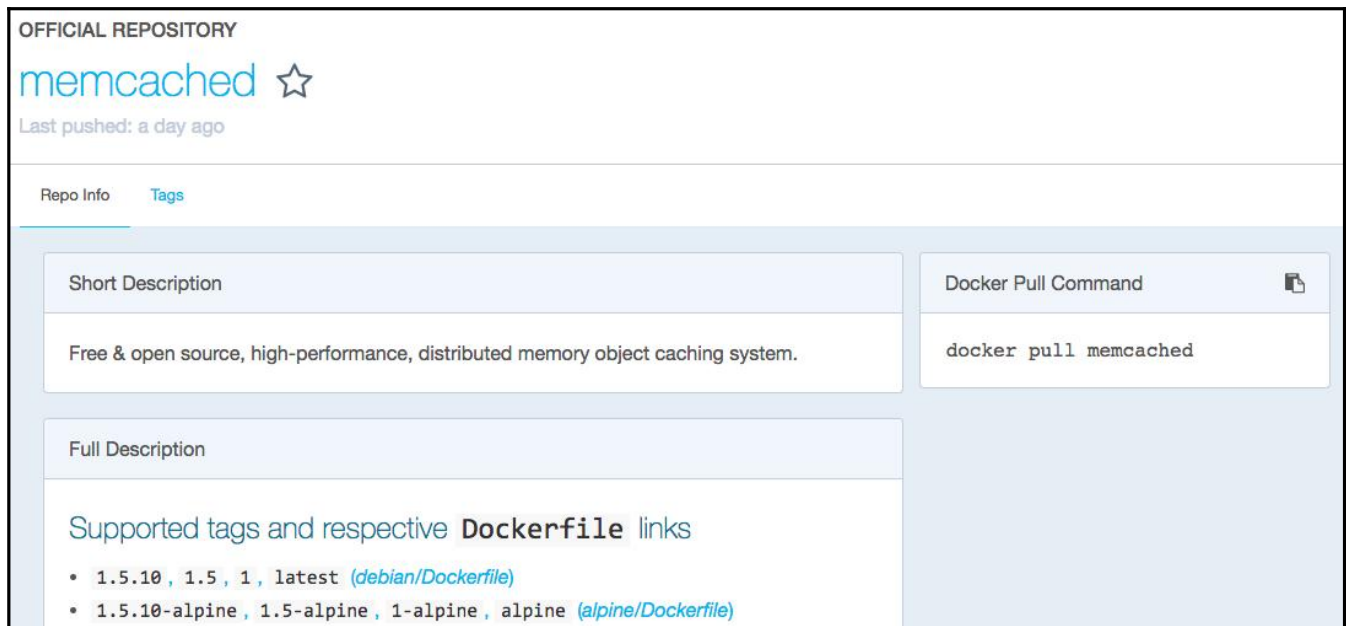
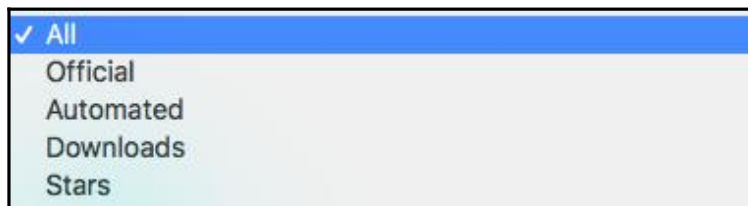
```
[vagrant-chef] ls
Vagrantfile cookbooks
[vagrant-chef] ls cookbooks
nginx
```



```
=> default: Running provisioner: chef_solo...
    default: Installing Chef (latest)...
=> default: Generating chef JSON and uploading...
=> default: Running chef-solo...
=> default: [2018-09-10T22:04:23+00:00] INFO: Started chef-zero at chefzero://localhost:1 with repository at /tmp/vagrant-chef/67a6d709eb65f4596491f85f27e65cc3, /tmp/vagrant-chef
=> default:   One version per cookbook
=> default: Starting Chef Client, version 14.4.56
=> default: [2018-09-10T22:04:23+00:00] INFO: *** Chef 14.4.56 ***
```



Chapter 12: Docker - Using Docker with Vagrant



```
[vagrant-docker] docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
802b00ed6f79: Pull complete
e9d0e0ea682b: Pull complete
d8b7092b9221: Pull complete
Digest: sha256:24a0c4b4a4c0eb97a1aabb8e29f18e917d05abfe1b7a7c07857230879ce7d3d3
Status: Downloaded newer image for nginx:latest
```

```
[vagrant-docker] docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
nginx	latest	06144b287844	9 days ago	109MB

```
[vagrant-docker] docker run nginx
```

```
[vagrant-docker] docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
3a4ba61f6312	nginx	"nginx -g 'daemon of..."	4 minutes ago	Up 4 minutes	80/tcp	sleepy_dijkstra

```
[vagrant-docker] docker stop sleepy_dijkstra
sleepy_dijkstra
[vagrant-docker] docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
3a4ba61f6312	nginx	"nginx -g 'daemon of..."	10 minutes ago	Exited (0) 3 seconds ago		sleepy_dijkstra

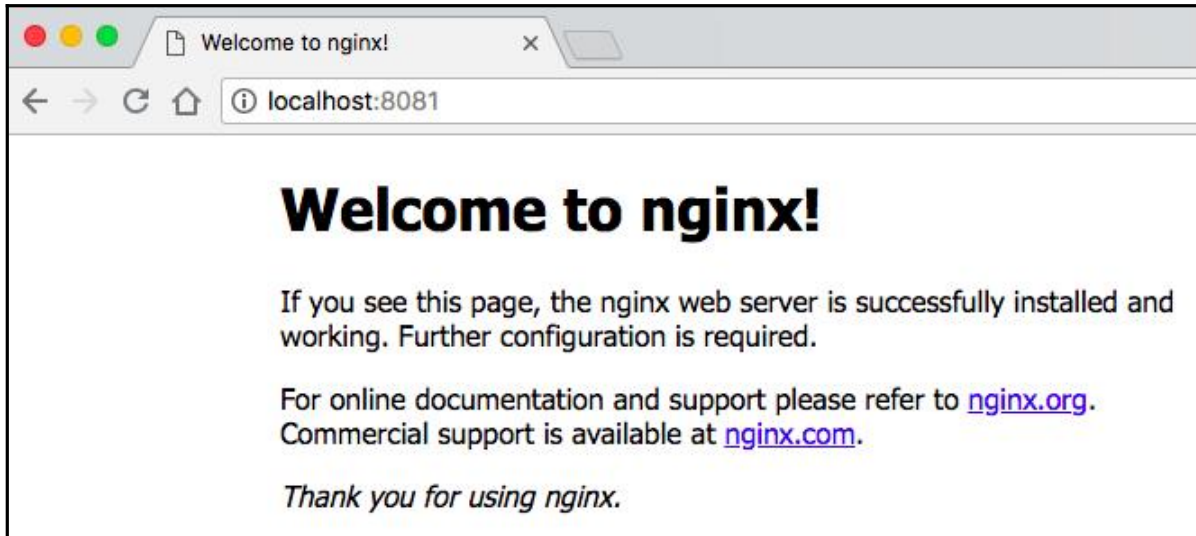
```
[vagrant-docker] docker start sleepy_dijkstra
sleepy_dijkstra
[vagrant-docker] docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
3a4ba61f6312	nginx	"nginx -g 'daemon of..."	10 minutes ago	Up 4 seconds	80/tcp	sleepy_dijkstra

```
[vagrant-docker] docker search ubuntu
```

NAME	DESCRIPTION	STARS	OFFICIAL
ubuntu	Ubuntu is a Debian-based Linux operating sys...	8385	[OK]
dorowu/ubuntu-desktop-lxde-vnc	Ubuntu with openssh-server and NoVNC	218	
rastasheep/ubuntu-sshd	Dockerized SSH service, built on top of offi...	170	
consol/ubuntu-xfce-vnc	Ubuntu container with "headless" VNC session...	129	
ansible/ubuntu14.04-ansible	Ubuntu 14.04 LTS with ansible	95	
ubuntu-upstart	Upstart is an event-based replacement for th...	89	[OK]
neurodebian	NeuroDebian provides neuroscience research s...	54	[OK]
1and1internet/ubuntu-16-nginx-php-phpmyadmin-mysql-5	ubuntu-16-nginx-php-phpmyadmin-mysql-5	44	
ubuntu-debootstrap	debootstrap --variant=minbase --components=m...	39	[OK]

```
=> default: Running provisioner: docker...
    default: Installing Docker onto machine...
=> default: Starting Docker containers...
=> default: -- Container: nginx
```



```
vagrant@ubuntu-xenial:~$ docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
3461d25b3069	nginx	"nginx -g 'daemon of..."	49 seconds ago	Up 49 seconds	0.0.0.0:80->80/tcp	nginx

Chapter 13: Puppet - Using Puppet to Provision a Vagrant Box

```
⇒ default: Running provisioner: puppet...  
The `puppet` binary appears not to be in the PATH of the guest. This  
could be because the PATH is not properly setup or perhaps Puppet is not  
installed on this guest. Puppet provisioning can not continue without  
Puppet properly installed.
```

```
⇒ default: Running provisioner: shell...  
default: Running: inline script
```

```
⇒ default: Running provisioner: puppet...  
⇒ default: Running Puppet with nginx.pp...  
⇒ default: Notice: Compiled catalog for ubuntu-xenial.home in environment prod  
uction in 0.60 seconds  
⇒ default: Notice: /Stage[main]/Main/Package[nginx]/ensure: ensure changed 'pu  
rged' to 'present'  
⇒ default: Notice: Finished catalog run in 5.67 seconds
```



```
vagrant@ubuntu-xenial:~$ puppet help
```

```
Usage: puppet <subcommand> [options] <action> [options]
```

```
Available subcommands:
```

agent	The puppet agent daemon
apply	Apply Puppet manifests locally
ca	Local Puppet Certificate Authority management.

```
==> puppetmaster: Running provisioner: shell...
puppetmaster: Running: inline script
puppetmaster: 10.10.10.11 master.example.com
puppetmaster: 10.10.10.12 node.example.com
```

```
puppetmaster: *
puppetmaster: autosign = true
puppetmaster: certname=master.example.com
puppetmaster: [agent]
puppetmaster: certname=node.example.com
puppetmaster: exec { 'apt-get update': path => '/usr/bin' } package { nginx: ensure => installed } s
ervice { nginx: require => Package[nginx], ensure => running, enable => true }
puppetmaster: Synchronizing state of puppetserver.service with SysV init with /lib/systemd/systemd-s
ysv-install...
puppetmaster: Executing /lib/systemd/systemd-sysv-install enable puppetserver
```

```
==> pnode: Running provisioner: puppet_server...
==> pnode: Running Puppet agent...
==> pnode: Info: Creating a new SSL key for nginxplease
==> pnode: Info: Caching certificate for ca
==> pnode: Info: csr_attributes file loading from /etc/puppet/csr_attributes.yaml
==> pnode: Info: Creating a new SSL certificate request for nginxplease
==> pnode: Info: Certificate Request fingerprint (SHA256): DD:3A:33:B1:7D:61:5E:38:87:62:73:0C:83:23:E4:
AF:7B:0C:14:14:A4:B3:80:4C:9E:A2:D8:B4:B0:85:BC:D5
==> pnode: Info: Caching certificate for nginxplease
==> pnode: Info: Caching certificate_revocation_list for ca
==> pnode: Info: Caching certificate for ca
```

```
==> pnode: Info: Retrieving pluginfacts
==> pnode: Info: Retrieving plugin
==> pnode: Info: Caching catalog for nginxplease
==> pnode: Info: Applying configuration version '1537564189'
==> pnode: Notice: /Stage[main]/Main/Package[nginx]/ensure: ensure changed 'purged' to 'present'
==> pnode: Notice: /Stage[main]/Main/Exec[apt-get update]/returns: executed successfully
==> pnode: Info: Creating state file /var/lib/puppet/state/state.yaml
==> pnode: Notice: Finished catalog run in 7.14 seconds
```



```
[vagrant-puppet-agent] vagrant status
Current machine states:

puppetmaster    running (virtualbox)
pnode           running (virtualbox)
```

```
vagrant@ubuntu-xenial:~$ puppetserver --version
puppetserver version: 2.8.1
```

```
vagrant@ubuntu-xenial:~$ puppet --version
3.8.5
```

Chapter 14: Salt - Using Salt to Provision a Vagrant Box

```
default: /srv/salt => /Users/alexbraunton/Projects/vagrant-salt/roots
```

```
=> default: Running provisioner: salt...
Copying salt minion config to vm.
Checking if salt-minion is installed
salt-minion was not found.
Checking if salt-call is installed
salt-call was not found.
Bootstrapping Salt... (this may take a while)
Salt successfully configured and installed!
run_overstate set to false. Not running state.overstate.
Calling state.highstate... (this may take a while)
orchestrate is nil. Not running state.orchestrate.
```

