Chef\_InSpec

1 Get the ChefDK

sudo wget <https://packages.chef.io/files/stable/chefdk/3.7.23/ubuntu/18.04/chefdk_3.7.23-1_amd64.deb>

2 Install ChefDk

sudo dpkg -i chefdk\_3.7.23-1\_amd64.deb

3 Set the path /opt/chefdk/embedded

echo 'eval "$(chef shell-init bash)"' >> ~/.bash\_profile

4 Source the fileto set correct path

source $HOME/.bash\_profile

5 Get the chef version

chef -v

6 List the tools

installed with Chefdk

ls /opt/chefdk/bin

Machine generated alternative text:
saving to: 
chefdk_3.7 . 
2020-10-25 
' chefdk_3.7 .23-1_amd64. deb 
23-1_amd64 
84.92M 
(128 MB/s) - 
' chefdk_3.7 .23-1_amd64. deb ' 
128MB/s 
in 0.7s 
saved [89050222/89050222 
ubuntu@ip-172-31-45-180:-S sudo dpkg -i chefdk_3.7 .23-1_amd64. deb 
selecting previ ously unselected package chefdk. 
(Reading database . 
57083 files and di rectories currently installed.) 
preparing to unpack chefdk_3.7 .23-1_amd64. deb 
unpacking chefdk (3.7 . 23-1) 
setting up chefdk (3.7 . 23-1) 
Thank you for installing Chef Development Kit! 
ubuntu@ip-172-31-45-180:-S echo 'eval "S(chef shell-init bash) " ' 
ubuntu@ip-172-31-45-180:-S source SHOME/. bash_profile 
ubuntu@ip-172-31-45-180:-S chef -v 
Chef Development Kit version: 3.7.23 
chef-client version: 14.10.9 
>> 
-/. bash_profi le 
delivery version: master (64f556d5ebfd7bac2cOb3cc2c53669688b3ea4b5) 
berks version: 7.0.7 
kitchen version: 1.24. O 
inspec version: 3.4.1 
ubuntu@i p-172 
berks 
chef 
chef-apply 
chef-cl i ent 
chef-resource-inspector 
chef-run 
chef-shel 1 
ubuntu@i p-172 
-31-45-180 . 
-31-45-180 : -s 
• -S Is /opt/chefdk/bin 
chef-solo 
chef-vault 
cookstyl e 
dco 
del i very 
foodcritic 
7 nspec 
kitchen 
knife 
ohai 
pri nt_executi on_envi ronment 
push-apply 
pushy-cl i ent 
pushy-servi ce-manager 

TASK 2: HOW TO CREATE A SIMPLE INSPEC TEST

1 Clone the repository

git clone <https://github.com/AnjuMeleth/DevOpsMasterInSpec.git>

2 Create a file hello.txt. Make sure you are in 2\_hello folder

chef-apply hello.rb

3 Create a hello\_spec.rb file

vi hello\_spec.rb

4 Run the test

inspec exec hello\_spec.rb

Machine generated alternative text:
bundler 1.10) 
WARN : Clearing out unresolved specs . 
Please report a bug if this causes problems. 
profile: tests from hello_spec.rb (tests from hello_spec. rb) 
version: (not specifi ed) 
Target: local : // 
x welcome: File hello. txt 
x File hello. txt content should match 
expected nil to match "Welcome to Chef" 
"Welcome to Chef" 
profile summary: O successful controls, 1 control fai lure, 
Test summary: O successful , 
1 failure, O skipped 
ubuntu@ip-172-31-45-180:-/DevopsMasterInspec/2_he110S Is 
hello.rb hel lo_spec. rb 
ubuntu@ip-172-31-45-180:-/DevopsMasterInspec/2_he110S Is 
hello.rb hel lo_spec. rb 
O controls skipped 
ubuntu@ip-172-31-45-180:-/DevopsMasterInspec/2_he110S chef-apply hello. rb 
Recipe: (chef-apply cookbook) : : (chef-apply reci pe) 
* fileChe110.txt] action create 
- create new file hello. txt 
- update content in file hello. txt from none to 40a30c 
- hello. txt 
2020-10-25 507666599 +0000 
+++ . /. chef-he11020201025-1949-116dmpo.txt 2020-10-25 +00( 
-1 +1,2 
+wel come to Chef 
ubuntu@ip-172-31-45-180:-/DevopsMasterInspec/2_he110S inspec exec hello_spec. rb 
WARN : unresolved specs during Gem: : specification . reset: 
bundler 1.10) 
WARN : Clearing out unresolved specs . 
Please report a bug if this causes problems. 
profile: tests from hello_spec.rb (tests from hello_spec. rb) 
version: (not specifi ed) 
Target: local : // 
welcome: File hello. txt 
File hello. txt content should match "Welcome to Chef" 
profile summary: 1 successful control, O control failures, O controls skipped 
Test summary: 1 successful, O failures, O skipped 
ubuntu@ip-172-31-45-180:-/DevopsMasterInspec/2_he110S 

Task 3:

TASK 3: HOW TO CREATE AN INSPEC TEST

1. Verify if the apache2 service is up and running sudo service apache

2 status which apache2 2 Go to folder 3\_apache and view the inspec file vi apache\_test.rb

3 Run the test

inspec exec apache\_test.rb

TASK 4:HOW TO DEVELOP INSPEC TEST WITH INSPEC SHELL

1 Initialise inspec shell

inspec shell

2 Run a test describe service('apache2') do

it { should be\_running }

end

3 Exit inspec shell exit

Machine generated alternative text:
'rofile summary: 1 successful control, O control failures, O controls skipped 
rest summary: 1 successful, O failures, O skipped 
inspec shell 
MARN: unresolved specs during Gem: : specification . reset: 
bundler 1.10) 
MARN: Clearing out unresolved specs . 
'lease report a bug if this causes problems . 
Mel come to the interactive Inspec Shell 
ro find out how to use it, type: 
help 
(ou are currently running on: 
Name : 
Fami lies : 
Re I ease : 
Arch : 
ubuntu 
debian, linux, 
18 . 04 
x86_64 
um x, 
os 
do 
I nspec> 
I nspec> 
I nspec> 
I nspec> 
*'ersnon: 
service apache2 
x should be running 
describe servi ce(' apache2 ') 
describe service(' apache2') do 
it { should be _ running } 
end 
'rofile: inspec-shell 
(not specified) 
expected that •service apache? is running 
rest summary: O successful, 1 failure, O skipped 
I nspec> 

TASK 5: HOW TO CREATE INFRASTRUCTURE WITH TDD

1 Develop Chef recipe that installs nginx in a TDD way

2 Run the single test first , see it fail, then code see the test pass

Machine generated alternative text:
ubuntu@ip-172-31-45-180. 
# cookbook: : 
ngnnx 
# Recipe: : 
default 
# copyright: : 2020, The Authors, 
package 'nginx' 
do 
action : install 
end 
All Rights Reserved. 

TASK 6:HOW TO ESTABLISH PASSWORD LESS CONNECTIVITY WITH A REMOTE SERVER

1 Install Filezilla client.

Go to Edit -> Setting -> SFTP ->

Add Keyfile

Give the IP address of the server

where InSpec installed and port22 , username ubuntu.

Then transfer the pem file to ubuntu folder

2 Stop all firewall

sudo service ufw stop

3 Start ssh

sudo service ssh start

4 Add the

ssh details eval `ssh-agent -s`

sudo chmod 400

JenkinsMumbai.pem

ssh-add JenkinsMumbai.pem

5 Access the slave system from master

ssh ubuntu@<IP address>

TASK 7:HOW TO RUN INSPEC TEST IN A REMOTE SERVER

1 Go to folder 3\_apache

2 Run the test on remote server

inspec exec -t ssh://ubuntu@ apache\_test.rb