Devops for CI role

Optional steps

Download Chefdk

https://packages.chef.io/files/stable/chefdk/3.0.36/mac\_os\_x/10.11/chefdk-3.0.36-1.dmg

install Ruby rvm

install optional gems in your workstation

$ rvm list

=\* ruby-2.4.4 [ x86\_64 ]

# gem install chef-dk kitchen-docker test-kitchen foodcritic kitchen-inspec berkshelf rake

Devloper role

create chef cookbook deployment

# chef generate cookbook testapp

vi testapp/recipe/default.rb

package 'httpd' do

action :install

end

1. create local test environment for initial test, but this can be accomplished from any build tool, in our case we are using Travis-Ci.org
2. before testing any code you need to create test kitchen configuration in your local workstation.
3. I am creating centos-7 env in docker.
4. In the testapp root location

# vi .kitchen.yml or use any IDE to create this file.

This file is created the chef generate command with default settings and vagrant.

Create as below for initial testing.

|  |
| --- |
| ---  driver:  name: docker  use\_sudo: false  provisioner:  name: chef\_zero  # You may wish to disable always updating cookbooks in CI or other testing environments.  # For example:  # always\_update\_cookbooks: <%= !ENV['CI'] %>  always\_update\_cookbooks: true  verifier:  name: inspec  platforms:  - name: centos-7  driver\_plugin: docker  driver:  use\_sudo: false  image: centos:7  suites:  - name: default  run\_list:  - recipe[testapp::default]  verifier:  inspec\_tests:  - test/integration/default  attributes: |

1. # kitchen create
2. # kitchen list
3. # kitchen converge

if this command successful then run

1. # kitchen destroy to remove the setting

at point your initial test code is ready for server deployment.

You can install this code in any build tool test env for testing.

1. Check-in this code in gitrepo (this need live demo)
2. Login to travis ci and sync your newly created repo.
3. To build the code create .travis.yml (you need to progress line by line with below code to make the understanding how docker build works).

|  |
| --- |
| 1. sudo: required 2. addons: 3. apt: 4. sources: 5. - chef-stable-precise 6. packages: 7. - chefdk 8. install: echo "skip bundle install" 9. services: 10. - docker 11. env: 12. matrix: 13. - CHEF\_VERSION=latest LANGUAGE=ruby OS=centos-7 15. language: ruby 16. before\_script: 17. - eval "$(/opt/chefdk/bin/chef shell-init bash)" 18. - /opt/chefdk/bin/chef gem install kitchen-docker test-kitchen foodcritic kitchen-inspec berkshelf rake 19. script: 20. - /opt/chefdk/bin/chef --version 21. - /opt/chefdk/bin/foodcritic . 22. - /opt/chefdk/bin/kitchen create 23. - /opt/chefdk/bin/kitchen converge 24. - /opt/chefdk/bin/kitchen destroy |

This is very initial code and enable webhook to automate the build.

The code check-in into master branch now we can alter and add our chef cookbook recipe for further testing.

Create new git branch feature/testapp2-1

And follow the code below.

|  |
| --- |
| package 'httpd' do  action :install  end  service 'httpd' do  action [ :enable, :start ]  end  cookbook\_file "/var/www/html/index.html" do  source "index.html"  mode "0644"  end |

Top of cookbook foler

mkdir files

cd files

echo "Installed and Setup Using Chef" > index.html

Reference:

How to authorzed travis ci in githib

https://www.youtube.com/watch?v=FEXY1ZP-sBs