Date:3/6/2017

Task:
step1:
Using Chef Install Apache
Step 2:
Enable Apache on boot
Step 3:
Deploy our code on Apache
Step 4:
Verify

#Installing httpd
```
package 'httpd' do
   action :install
End
```

#Remove httpd
```
package 'httpd' do
   action :remove
end
```

#Starting & enabling httpd
```
service 'httpd' do
   action [:enable,:start]
End
```

#Create index.html on apache
```
File '/var/www/html/index.html' do
   Content '<h1>Chef Rocks</h1>'
End
```

To change the version of cookbook
Metadata.rb

To uninstall apache

Sudo yum remove httpd

Custom Recipes: chef run list multiple recipes

Breaking recipes Default rb into multiple rb
install_apache.rb
enable_apache.rb
deploy_code.rb

-- Updating a run list of a node

Knife node run_list set 'node1'
'recipe[myapache::install_apache],recipe[myapache::enable_apache],recipe[myapache::deploy_code]'

Note:
In runlist the order of recipes are important

How to remove a run list?

Term:
Converging 3 resources - executing the resources

Recipe Dependencies:

One recipe dependent on another recipe.

Include_recipe 'install_apache'
Service 'httpd' do
Action [:enable,:start]
End

How to test cookbooks?
-- Create .kitchen.yml
kitchen driver create kitchen-name vagrant
Here vagrant - to create vm on top of it converge the cookbook

-- Where we have kitchen.yml it is under cookbook .
--
**   kitchen converge**
Kitchen login // to verify

Serverspec: Framework for Unit Testing

-- To Test resources of cookbook

-- httpd installed or not

Serverspec.org site

Dependency management:

-- community cookbooks

-- transitive dependency

Eg: To install java and tomcat using chef

   We can write our own code otherwise there are community cookbooks available in chef

   Supermarket just use them as dependency.

Berkshelf

-- As a configuration file.

Eg: install maven

We can mention in berksfile directly

And also in metadata.rb

depends 'maven', '~> 4.0.1'

Integration with chef:

1) Chef developers push latest cookbook changes to GIT
2) Latest modifications in the GIT triggers a job in jenkins
      - this job uploads the cookbooks to chef server
      - It calls chef-client on chef nodes

  --   Jenkins wants use knife command for interacting with chef server

-- We need to install chef development kit on jenkins m/c

Steps:

Goto Download chefDk

Install ChefDk in CentOS

Rpm -ivh rpm file

Copy the rpm URL:

Step -1:
Sudo wget

Step 3:
-- Create job in jenkins under this workspace create .chef foloder knife .rb
**   And username.pem**

var/lib/jenkins

Push chef code to git repo
Should not upload .chef it have password
Should not upload in open area.

Attributes:
Node Specific data

Ohai:

-- Its is a tool.
-- Install on node
-- Ohai is installed on the chef node when it is bootstraped.
-- Collect node specific information
-- node deatils,software details.
-- which collects hardware specifi data,software specific data.
-- ohai collect the attributes in the form of JSON
--

commands:
ohai
ohai | grep "platform"
ohai | grep "hostname"
ohai | grep "ipaddress"

Use:
make recipe generic
case default []

Using Node attributes in the recipe

```
package_name='apach2'
Case node['platform_family']
  When 'rhel' then(optinal)
Then
package_name='httpd'
Else
package_name='apache2'
End
Package package_name do
Action :install
End
```

Custom Attributes:
We can define custom attributes