Creating Chef Cookbook

1. create a simple cookbook to install and configure an Apache web server.

2. Log into your Chef workstation, go to your ~/chef-repo/cookbooks directory.

    [root@chefworkstation cookbooks]#

3. Create the cookbook called “httpd“

    [root@chefworkstation cookbooks]# chef generate cookbook httpd

4. Once cookbook is created and then checkin into that directory

    [root@chefworkstation cookbooks]# cd httpd

5. Recipe

    A recipe consists of a series of resources which defines the state of a particular service or an application. A recipe is not limited just to manage services.

    It can also be used to execute the commands, user management, much more.

    Change the directory to recipes

6. Now need to write the recipe code to install the apache server in node machines

    Open the "default.rb" file and add the following code:

package 'httpd' do

action :install

end

package – Defines package resource

httpd - Name of the package which we are installing

action:install - action for the resource "package", i.e "httpd"

When this recipe runs on the node the Chef will check whether the Apache is installed, if it is, it will skip this resource and go to the next resource.

7. Manage Apache Service

make the Apache service to start automatically at the system startup and also the service should be up and running.

add the following code into recipe i.e default.rb file

service 'httpd' do

action [:enable, :start]

end

8. Add the index.html

make directory name "files" under httpd directory

C:\chef-starter\chef-repo\cookbooks\httpd\>mkdir files

create index.html file

C:\chef-starter\chef-repo\cookbooks\httpd\files>

index.html

<add some html code in this file>

following to be added in default.rb file

```
cookbook_file "/var/www/html/index.html" do
        source "index.html"
mode "0644"
end
```

cookbook_file – Resource to transfer files from a sub-directory of httpd/files to a mentioned path located on a chef node.

source – Specify the name of the source file. Files are normally found in COOK_BOOKS/files

mode – Sets the permissions for the file.

9. Test the cookbook before upload it into chefserver

[root@chefworkstation cookbooks]# chef exec ruby -c httpd/recipes/default.rb

10. Once recipe is ready, then we need to upload your cookbook to chef server

before upload the cookbook into chef-server, need to add this cookbook to the node.

[root@chefworkstation httpd]# knife node run_list add CNode1 "recipe[httpd]"

CNode1:

run_list: recipe[httpd]

11. Upload the cookbook into Chef Server (which is in the cloud)

[root@chefworkstation httpd]# knife cookbook upload httpd

Uploading httpd [0.1.0]

Uploaded 1 cookbook.

Now, connect to the chef server https://manage.chef.io/ and under the policy tab cookbook 'httpd' will be reflect it.

12. open your chef server (on the web) and check cookbook apache is uploaded or not

13. now login to your chef Node machine

[root@localhost] #chef-client

Note: Chef Node machine , connects to **chef Server(cloud)** and download the cookbook into the chef node using **pull method.** After that it install the cookbook and configure accordingly

14. After Executing the cookbook successfully, then check the Apache server status

[root@localhost] #systemctl status httpd