Cookbook to create the new user

Creating users in chef node

Who is user?

-user is the one who can utilize the system resources(system resources like RAM, HDD and other)

Target: Create a user in chefnode

information need to create a user

username: dbuser

password: <encryptedpassword>

groupname : <groupname>

home: /home/<username>

shell: /bin/bash

What is password structure ?

-it is divided into 3 layers of the following password structure

$encrypt_type$salt_name$actual_pass

Firstlayer = $encrypt_type

Second Layer =$salt_name

Third Layer=$actual_pass

1//JGtToA$MA68azyJjze2i32fMYK341

$encrypt_type=6 types of sha1

- md5(encryption)=1
- crc=2
- sha256=5
- sha512=6
- $salt_name=$kgh556 (random unique number where system is generated)
- $actual_pass=$8md5nvef985

MD5 is a type of algorithm that is known as a cryptographic hash algorithm. MD5 produces a hash value in a hexadecimal format. This competes with other designs where hash functions take in a certain piece of data, and change it to provide a key or value that can be used in place of the original value.

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To see the encrypted password of users

[root@localhost~]# cat /etc/shadow | grep admin

How to generate a encrypted password?

syntax: openssl passwd -<type> -salt <saltname> <actual_passwd>

ex:[root@localhost~]# openssl passwd -1 -salt batman dbuser

Note: BATMAN (Benchmarking of Asymmetric Tools on Multiple Architectures, Non-Interactively) is a program to collect measurements of public-key systems.

<saltname>

Password salting is a form of password encryption that involves appending a password to a given username and then hashing the new string of characters. This is usually done via an MD5 hashing algorithm. Password-salting is most commonly found within Linux operating systems, and it is generally considered a more secure password encryption model than any of the models used within the various Microsoft distributions.

Create a Cookbook dbuser

(Workstation)

1. [root@ip-10-7-1-56 cookbooks]#chef generate cookbook dbuser

   (login to chefnode and create a encrypted password for the user)

   [root@ip-10-7-1-56 cookbooks]#

   openssl passwd -1 -salt batman dbuser

   output:

   1batman$LojyXoiWCodvGjjfi2Td51

Create the cookbook

[root@ip-10-7-1-56 cookbooks]#chef generate cookbook dbuser

2. Write a recipe to create a group and user is assigned to that group

[root@ip-10-7-1-56 cookbooks]#vi default.rb

```
group 'dbGroup' do
  action :create
end
user 'dbuser' do
  password '$1$batman$LojyXoiWCodvGjjfi2Td51'
  group 'dbGroup'
  shell '/bin/bash'
  home '/home/dbuser'
  manage_home true
  action :create
end
```

3. test the cookbook

[root@ip-10-7-1-56 cookbooks]# chef exec ruby -c dbuser/recipes/default.rb

4. Upload the cookbook

[root@ip-10-7-1-56 cookbooks]#knife cookbook upload dbuser

5. create a json file "chefnodes.json"

[root@ip-10-7-1-56 cookbooks]#vim chefnodes.json

```
{
  "name" : "chefnodes",
  "chef_environment" : "_default",
  "normal" : {
          "tags" : [

          ]
  },
  "policy_name" : null,
  "policy_group":null,
  "run_list": [
          "recipe[file_test]",
          "recipe[web_server]",
          "recipe[cron_test]",
          "recipe[attribute_test]",
          "recipe[template_test]",
           "recipe[dbuser]"
```

```
 ]
}
```

[OR]

Add the cookbook to the the run_list

C:\chefclassroom\chef-starter\chef-repo\cookbooks> knife node edit KNITNode1

```
{
  "name": "KNITNode1",
 "chef_environment": "_default",
 "normal": {
  "tags": [

 ]
},
 "policy_name": null,
 "policy_group": null,
 "run_list": [
 "role[webserver]",
 "recipe[httpd]",
 "recipe[cron_test]",
"recipe[attribute_test]",
"recipe[dbuser]"
]
}
```

6. Check the node list

[root@ip-10-7-1-56 cookbooks]# knife node list

Add the recipe to the node

[root@ip-10-7-1-56 cookbooks]#

knife node run_list add NewNode "recipe[dbuser]"

Upload the cookbook

[root@ip-10-7-1-56 cookbooks]# knife cookbook upload dbuser

7. Open the chef node and run the command #chef-client

[root@ip-10-7-1-132 home]# chef-client

it will create a group and user with the name "dbuser"

you can login with 'chefUser1' and password '1batman$mTuVhgzD0tOuigO9tAMqT1'

To check the password of the particular user

$ cat /etc/shadow | grep dbuser

Note:check the cookbooks information onthe following path

/var/chef/cache

Cookbook Steps:

1. Create a Cookbook
2. Write a Recipe
3. Test a cookbook
4. upload cookbook to Server
5. update node run_list
6. execute chef-client on the node