**Chef server setup on AWS Instance:**

Steps to be followed:

1. Get installation file from chef website as per your OS like Linux/Ubuntu/Centos.

<https://downloads.chef.io/chef-server/>

1. Connect to chef server instance of aws through putty.
2. Need to install wget if not already available.

sudo apt install wget

**Run below commands to install chef server:**

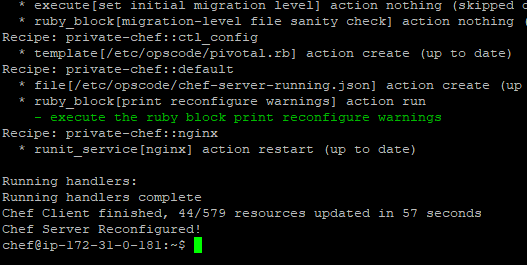
sudo wget [https://packages.chef.io/files/stable/chef-server/12.19.31/ubuntu/18.04/chef-server- core\_12.19.31-1\_amd64.deb](https://packages.chef.io/files/stable/chef-server/12.19.31/ubuntu/18.04/chef-server-%20%20core_12.19.31-1_amd64.deb)

sudo dpkg –i chef-server-core\_12.19.31-1\_amd64.deb

rm -rf chef-server-core\_12.19.31-1\_amd64.deb

sudo chef-server-ctl reconfigure

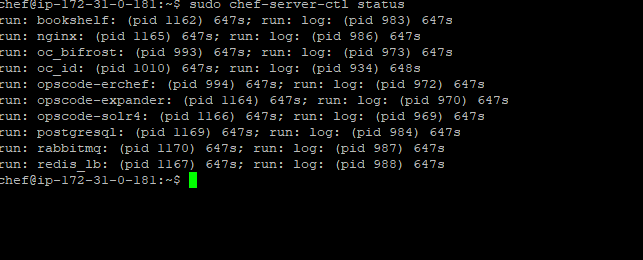
Below output will appear:



Check the status of chef server configured or not

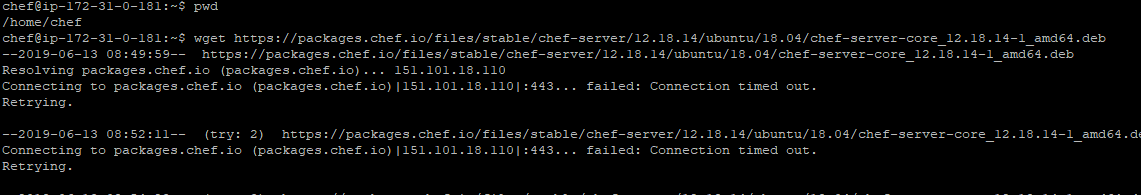
sudo chef-server-ctl status

If configured properly you will see below output:-



NOTE:-If port no 443 is not open in aws instance then chef server installation file will not upload on instance .For that we have change the inbound rule as to open 443 port.

Below error will come:



OR

We can upload downloaded file to aws chef server instance using programmatic access of S3 bucket

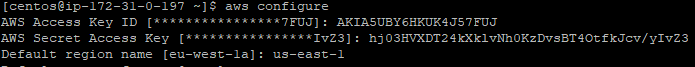
1. Upload the downloaded file and licence file into S3 bucket.

<https://docs.aws.amazon.com/AmazonS3/latest/user-guide/upload-objects.html>

1. Copying of installation file from S3 to EC2 instance:
2. Install awscli:

*sudo yum install awscli*

1. Obtain AWS S3 credentials for the user account. Go to Identity and Access Management at <https://console.aws.amazon.com/iam/home>. Select your username, go to 'User Actions', and then go to 'Manage Access Keys' and create and download new access key.
2. Run *aws configure* and enter credentials. For region, use 'us-east-1’.



1. Check that you have access to s3 bucket with *aws s3 ls*
2. Copy entire directory. I recommend using sync rather than cp. Note this part tends to hang sometimes, so just ctrl+c and run it again. By sync, the process will resume.

*aws s3 sync s3://cheffile /home/chef*

Where cheffile is S3 bucket name and /home/centos is the path where jar file should be copied.

For example: aws s3 sync s3://name of bucket where file present /destination folder

Run the following command to create an administrator:

Go to /home/chef

cd /home/chef

Using s3 bucket upload chef.pem file in chef server instance

**To create user**

sudo chef-server-ctl user-create USER\_NAME FIRST\_NAME LAST\_NAME EMAIL 'PASSWORD' --filename FILE\_NAME

*sudo chef-server-ctl user-create devops chef server deep.an.kumar@capgemini.com '123@capgimini' --filename /home/chef/chef.pem*

Username:devops

Password: 123@capgimini

**To create Organization**

sudo chef-server-ctl org-create short\_name 'full\_organization\_name' --association\_user user\_name --filename ORGANIZATION-validator.pem

*sudo chef-server-ctl org-create cg 'Capgemini Technology Services' --association\_user devops*

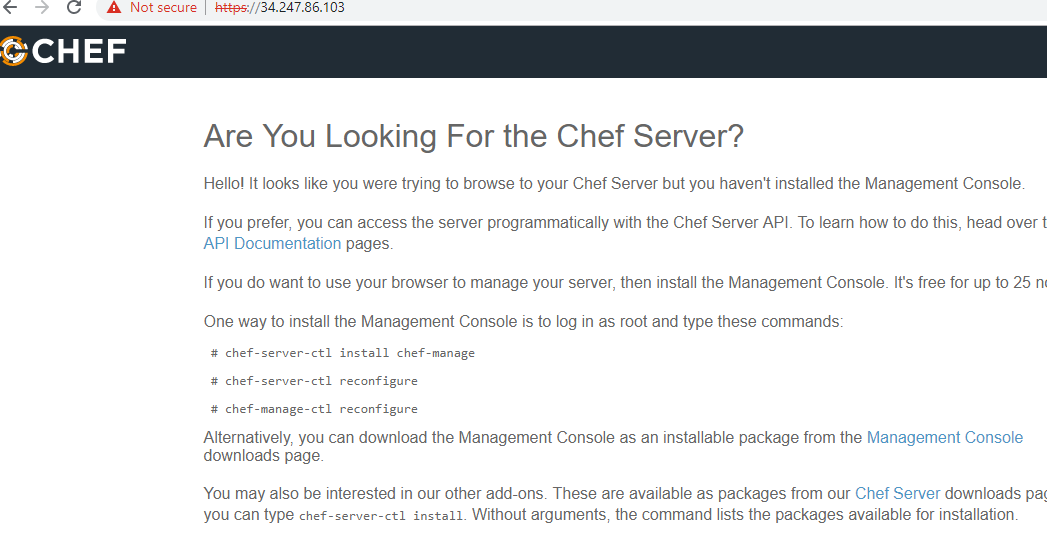
*--filename /home/chef/chef.pem*

Organization:cg

chef Server url:

<https://34.244.93.107:443>

Below are output:



To open with GUI Mode with user credentials we install Management Console in aws instance:

We need to run :

sudo chef-server-ctl chef-manage

sudo chef-server-ctl reconfigure

sudo chef-manage-ctl reconfigure

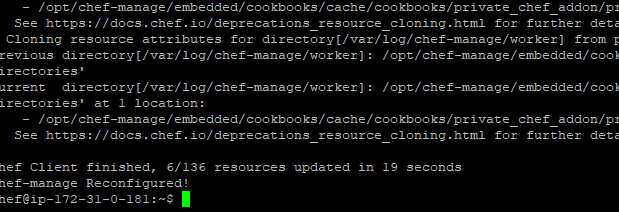
While running last sudo chef-manage-ctl reconfigure

We have to accept the license by inputting below in command line one after another

q

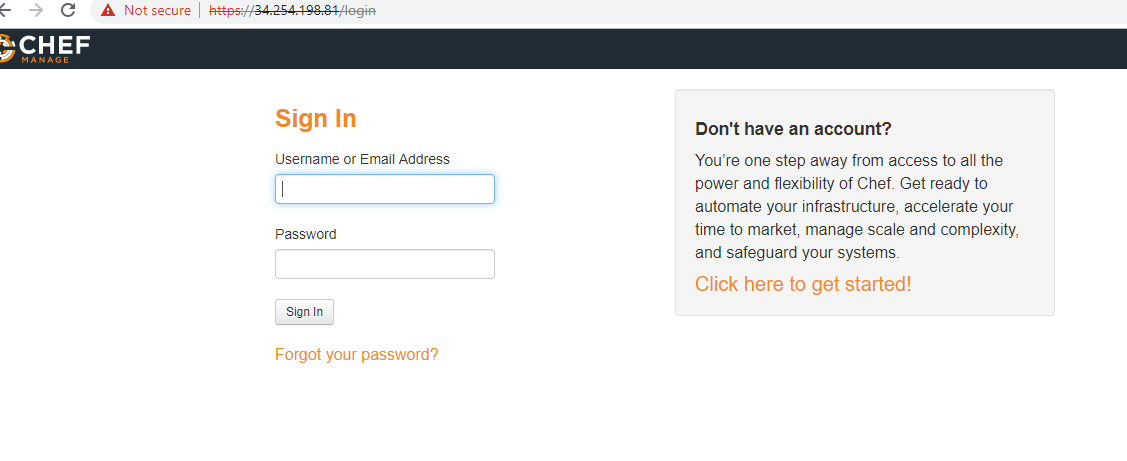
yes

Below output will come:

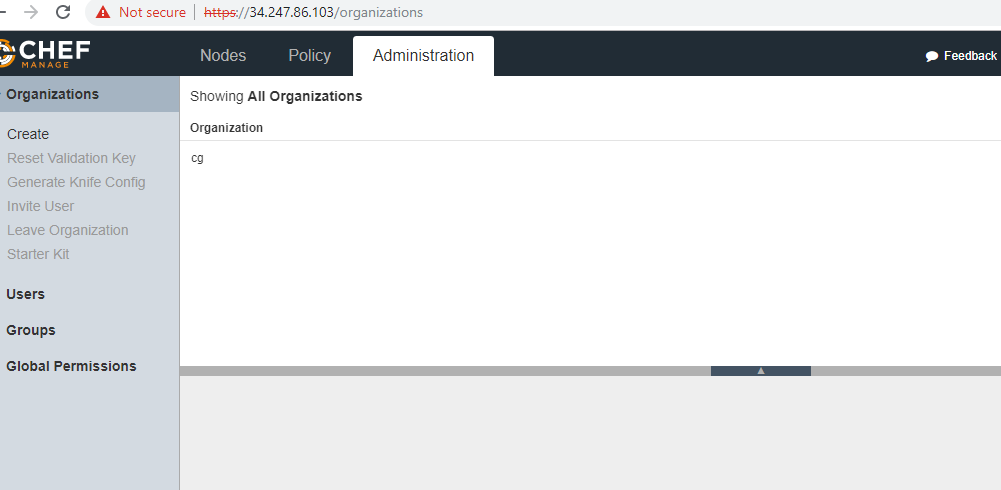


Now open the below URL in browser to login to chef & provide credentials:

<https://34.254.198.81:443>



**Chef Home Page :**



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**Interaction of workstation & ChefServer**

**Steps to followed:**

1. Get the cookbook files
2. Go to cd /home/chef/chef-repo/cookbooks

run following command:

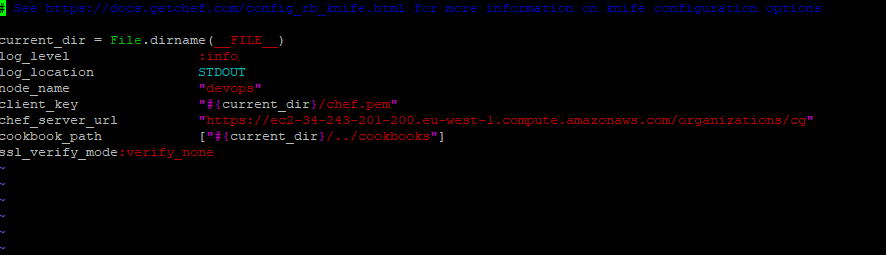
*sudo knife cookbook site download learn\_chef\_httpd*

*tar -xvf learn\_chef\_httpd-0.2.0.tar.gz*

1. Go to cd /home/chef/chef-repo/.chef

We have .pem & knife.rb file on that specified directory

We do change on knife.rb file based on our requirements:



1. If connection is not established with workstation & chef server,due to ssl

certification comes from private ip of chef server instance instead of public ip address of chef server.

Go to cd root/etc/hosts

by defaults will be:

*127.0.0.1 localhost*

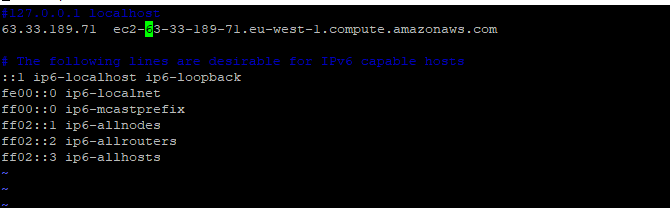
Comment by default hosts file using #:

*#127.0.0.1 localhost*

**Changes** to our public ip address with public dns name of server:

*63.33.189.71 ec2-63-33-189-71.eu-west-1.compute.amazonaws.com*

Below is changed hosts file:

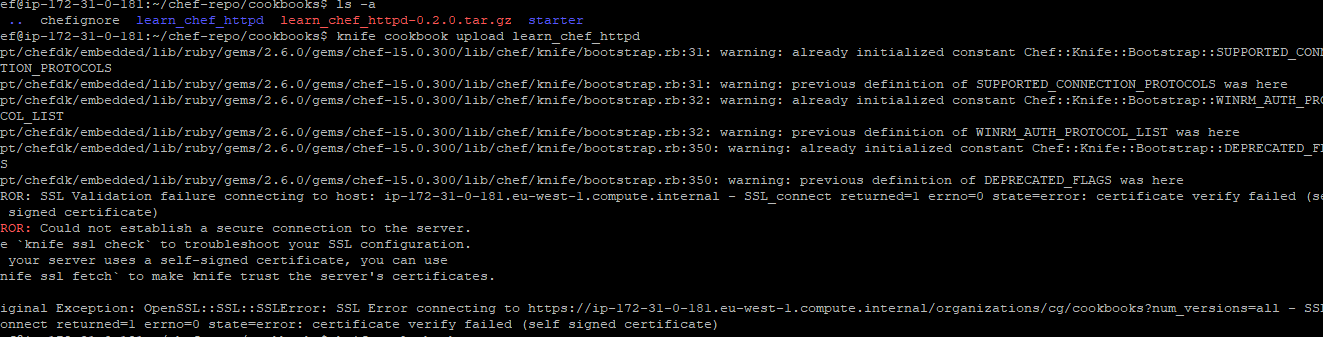


1. Now we will go to cd /home/chef/chef-repo/cookbooks

Run following command to upload cookbook on chef server:

*knife cookbook upload learn\_chef\_httpd*

1. When We start to upload cookbook on server than show error as:



1. Then,we run the command as :

*knife ssl fetch*

This command will fetch ssl certification.

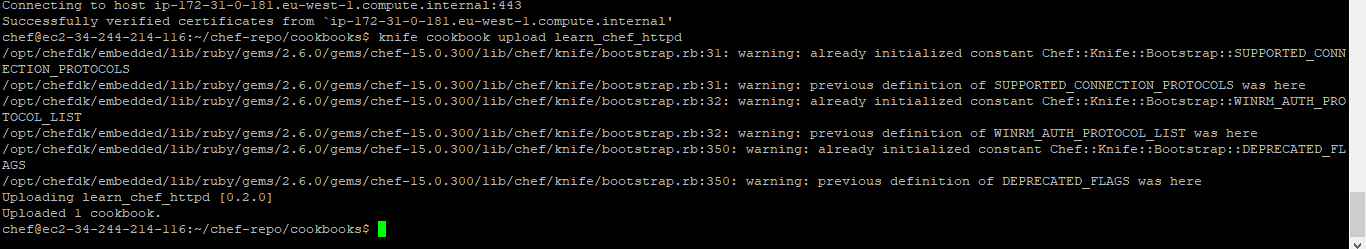
We can check certification fetched or not by:

*knife ssl check*

1. Now again try to upload cookbook on chef server

*knife cookbook upload learn\_chef\_httpd*

Below screen show as uploaded cookbook:



1. Nowwe can see uploaded cookbook on chef server

**Below is screen for cookbook:**

