

## Manage Infrastructure using Chef

### Configuration Management - Assignment 1 [Chef]

#### **Note(s):**

1. To complete this assignment, you need to create an account on <https://manage.chef.io/>

#### **Task 1 (Get a Chef Server (Hosted Chef account))**

1. Login to <https://manage.chef.io/> and create a new account.
2. Once you confirm the email, login to <https://manage.chef.io/> and explore your "Chef Organization".

#### **Task 2 (Configure a Chef Workstation)**

1. Access your hosted chef account and download "Chef Starter Kit"
2. Create a new VM (local or on any Cloud) and copy the starter kit on this VM.  
This machine will be configured as your Chef Workstation.
3. unzip starter kit under user's home folder.
4. Install "Chef Development Kit" on workstation (as per the OS flavor)
5. go inside chef-repo directory and run following command:

```
command: knife client list
```



*Note(s): If you see a single output without any error message that means the workstation configuration is completed successfully.*

## Task 3 (Bootstrap a Chef Node)

1. Create a new VM (local or on any cloud). Configure its hostname as "node-a".
2. bootstrap this node to your chef ecosystem, using knife bootstrap command.
3. Check if you are able see this node via the following command on your workstation:

```
Command: knife node list
```

4. Check if you can see this node listed under nodes on your chef Web UI.

## Task 4 (Recipes and Cookbooks)

1. Write a recipe to install git, tree, and zip on a chef node. The recipe should be tested on both Ubuntu and CentOS flavours.
2. Write a recipe to create a file `"/tmp/test1"` using a string. File should be created only if `"/tmp/file-x"` is not present. Test this recipe in both conditions when file-x is present and when it's absent.
3. Write a recipe to install "ntp" package only on systems running CentOS
4. Write a recipe to manage Nginx web server in such a way that Nginx service is reloaded every time a change is pushed to its configuration file (`/etc/nginx/nginx.conf`).

*Hint: use notifies and subscribes notifications*