# DEVOPS

## Installation & Configuration Guide – Module 6/7



edureka!



Version 2.0

# Software Requirements

The following are required for running the practicals and assignments

→ Ubuntu 14.04+
→ JDK 7+
→ Tomcat 7+
→ Chef 12
→ Salt OpenStack
→ Ansible

# Installing Chef Server Standalone

→ You will need to designate one machine as the chef server, one box for the workstation and at least one client
→ You can use server and workstation on a single box (not recommended

To install Chef server 12:

→ Download the package from http://downloads.chef.io/chef-server/
→ Upload the package to the machine that will run the Chef server, and then record its location on the file system. The rest of these steps assume this location is in the /tmp directory
→ Install the Chef server package on the server, using the name of the package provided by Chef. For Red Hat and CentOS 6:
  » $ rpm -Uvh /tmp/chef-server-core-<version>.rpm
→ For Ubuntu:
  » $ dpkg -i /tmp/chef-server-core-<version>.deb
→ After a few minutes, the Chef server will be installed.
→ Run the following to start all of the services:
  » $ chef-server-ctl reconfigure
→ Because the Chef server is composed of many different services that work together to create a functioning system, this step may take a few minutes to complete.
→ Run the following command to create an administrator:

» $ chef-server-ctl user-create USER_NAME FIRST_NAME LAST_NAME EMAIL 'PASSWORD' --filename FILE_NAME

→ An RSA private key is generated automatically. This is the user's private key and should be saved to a safe location. The --filename option will save the RSA private key to a specified path

For example:

» $ chef-server-ctl user-create stevedanno Steve Danno steved@chef.io 'abc123' --filename /path/to/stevedanno.pem

→ Run the following command to create an organization:

» $ chef-server-ctl org-create short_name 'full_organization_name' --association_user user_name --filename ORGANIZATION-validator.pem

→ The name must begin with a lower-case letter or digit, may only contain lower-case letters, digits, hyphens, and underscores, and must be between 1 and 255 characters. For example: 4thcoffee

→ The full name must begin with a non-white space character and must be between 1 and 1023 characters. For example: 'Fourth Coffee, Inc.'

→ The --association_user option will associate the user_name with the admins security group on the Chef server

→ An RSA private key is generated automatically. This is the chef-validator key and should be saved to a safe location. The --filename option will save the RSA private key to a specified path. E.g.

» $ chef-server-ctl org-create 4thcoffee 'Fourth Coffee, Inc.' --association_user stevedanno --filename /path/to/4thcoffee-validator.pem

→ Enable additional features of the Chef server! The packages may be downloaded directly as part of the installation process or they may be first downloaded to a local directory, and then installed

# Installing Chef Client (Windows)

→ Download MSI from here: https://downloads.chef.io/chef-client/windows/

→ Double click the installer and follow instructions on screen

→ Installation for other OS is similar

# Installing & Configuring Chef Workstation (*xes)

→ Run the following command
  - » curl -L https://www.opscode.com/chef/install.sh | sudo bash

→ Create a chef-repo directory structure
  - » Cd ~
  - » Git clone https://github.com/opscode/chef-repo.git
  - » Mkdir -p ~/chef-repo/.chef

→ Login to web ui of chef, login as admin

→ Click on clients->chef-validator

→ Edit this client and regenerate the private key

→ Copy the private key to ~/chef-repo/.chef/client-validator.pem

→ Repeat for user admin

→ Configure knife
  - » Knife configure –initial
  - » Enter all config information and store under knife.rb

# Installing Ansible on Ubuntu 14.04

→ Enter following commands
  - » Sudo apt-get update
  - » Sudo apt-get install software-properties-common
  - » Sudo apt-add-repository ppa:ansible/ansible
  - » Sudo apt-get update
  - » Sudo apt-get install ansible

→ Additionally, you need to set up SSH (if not already entered) and add ansisble to your hosts file. For more information, see here for a detailed step by step on configuring Ansible

Notes on installing SALT:

Add the repository key. On Ubuntu 14, the command is:

wget -O - https://repo.saltstack.com/apt/ubuntu/14.04/amd64/latest/SALTSTACK-GPG-KEY.pub | sudo apt-key add -

Add lines to /etc/apt/sources.list

deb http://repo.saltstack.com/apt/ubuntu/14.04/amd64/latest trusty main

(or simply add the repository as below and follow same steps as for Ansible
sudo add-apt-repository ppa:saltstack/salt)

Run apt-get update

Then run the following commands

- apt-get install salt-master
- apt-get install salt-minion
- apt-get install salt-ssh
- apt-get install salt-syndic
- apt-get install salt-cloud