**Exercise 1: basic cookbook, recipe+template:**

<https://learn.chef.io/tutorials/learn-the-basics/>

Holy recipe trinity: Resources, actions, attributes

**Exercise 2: manage-a-node/ubuntu/hosted tutorial:**

[https://learn.chef.io/tutorials/manage-a-node/ubuntu/hosted/](https://learn.chef.io/tutorials/manage-a-node/ubuntu/hosted/%20)

Holy chef trinity: Workstation, chef server, nodes

**On the wstation, install Chef DK, git, vim and openssh (you can skip vim if you're into nano):**

﻿su (if you're not root yet)

wget https://packages.chef.io/files/stable/chefdk/1.1.16/ubuntu/14.04/chefdk\_1.1.16-1\_amd64.deb && dpkg -i chefdk\*.deb && apt-get install –y git vim openssh-server openssh-client

**You can now run Chef Solo (-z for local, meaning you can run a recipe locally – exercise 1):**

chef-client –z somerecipe.rb

**Hosted Chef (sign up, create an organization and (optional) download starter kit):**

<https://manage.chef.io/signup/> <https://www.mailinator.com>

<https://manage.chef.io/login>

**Download starter kit from server, what we really want is the .chef directory and the files in it**. **Place the chef-repo in ~.**

**From the hosted Chef organization, download and place in** ~/chef-repo/.chef**:   
1. key (.pem file) for the hosted Chef organization, and   
2. knife.rb (knife settings file)   
or download starter kit from server, in it is a .chef directory with the two files**

﻿**Test connection to the server:**

knife ssl check

**Clone the learn\_chef\_apache2 cookbook, then upload it to the server**

cd ~/chef-repo/cookbooks && git clone https://github.com/learn-chef/learn\_chef\_apache2.git

knife cookbook upload learn\_chef\_apache2

**On the node (in our case, the wstation):**

﻿open ports 22, 80 and 443 or take down firewalls

**bootstrap a node from a Wstation, to register it on the server and install chef-client on it:**

﻿knife bootstrap localhost --ssh-user root -P sisma --sudo --use-sudo-password --N node1 --run-list 'recipe[learn\_chef\_httpd]'

**Now you can run commands on the node. sudo chef-client on a node starts the run-list, running the cbooks specified in the list with updated ones that are on the server, and running them on the node:**

knife ssh 'name:node1-centos' 'sudo chef-client' --ssh-user root --ssh-password sisma --attribute ipaddress

**Edit the cookbook (template for some html file, and metadata for Minor version change), upload again to the server and run it:**

vim cookbooks/learn\_chef\_apache2/templates/index.html.erb

vim cookbooks/learn\_chef\_apache2/metadata.rb

knife cookbook upload learn\_chef\_apache2

knife ssh 'name:node1' 'sudo chef-client' --ssh-user root --ssh-password sisma --attribute ipaddress

**Berks (dependency resolver), roles (pirates with parrots) and periodical updates:**

vim Berksfile

berks install

berks upload

mkdir roles

vim roles/web.json

knife role from file roles/web.json

﻿

knife node run\_list set node1 "role[web]"

knife ssh 'role:web' 'sudo chef-client' --ssh-user root --ssh-password sisma --attribute ipaddress

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**Other sources:**

**just-enough-ruby-for-chef:**

<https://github.com/jhotta/chef-fundamentals-ja/blob/master/slides/just-enough-ruby-for-chef/01_slide.md>

**Ruby basics:**

<https://docs.chef.io/ruby.html>

**recipe DSL (advanced):**

<https://docs.chef.io/dsl_recipe.html>

**knife.rb config:**

<https://docs.chef.io/config_rb_knife.html>

**knife vsphere plugin:**

<https://github.com/chef-partners/knife-vsphere>

**Plugins (community):**

<https://docs.chef.io/plugin_community.html>

**Test Kitchen:**

Installing this on a virtual machine isn't guaranteed to work. Possible deprecations:

https://learn.chef.io/tutorials/learn-the-basics/ubuntu/virtualbox/set-up-a-machine-to-manage/#step3

**wget https://releases.hashicorp.com/vagrant/1.9.1/vagrant\_1.9.1\_x86\_64.deb | dpkg -i vagr\*.deb && dpkg -i vagrant\_1.9.1\_x86\_64.deb**

**wget http://download.virtualbox.org/virtualbox/5.1.14/virtualbox-5.1\_5.1.14-112924~Ubuntu~trusty\_amd64.deb && dpkg -r virt\*.deb**

**(install ruby >= 2.0** [**https://www.brightbox.com/blog/2015/01/05/ruby-2-2-0-packages-for-ubuntu/**](https://www.brightbox.com/blog/2015/01/05/ruby-2-2-0-packages-for-ubuntu/) **)**

**vagrant box add bento/ubuntu-14.04 --provider=virtualbox**

**or vagrant up greenalto/ubuntu-14.04-chefdk --provider virtualbox**

<https://learn.chef.io/tutorials/local-development/ubuntu/virtualbox/apply-a-cookbook>

**Roles and Environments:**

[**https://www.digitalocean.com/community/tutorials/how-to-use-roles-and-environments-in-chef-to-control-server-configurations**](https://www.digitalocean.com/community/tutorials/how-to-use-roles-and-environments-in-chef-to-control-server-configurations)

**Data bags:**

**https://blog.chef.io/2014/07/10/managing-users-and-ssh-keys-in-a-hybrid-world/**

[**http://www.slideshare.net/chef-software/week-4-35709568**](http://www.slideshare.net/chef-software/week-4-35709568)

[**https://docs.chef.io/knife\_data\_bag.html**](https://docs.chef.io/knife_data_bag.html)

**Attributes, e.g:** [**https://github.com/3ofcoins/chef-cookbook-hostname/blob/develop/attributes/default.rb**](https://github.com/3ofcoins/chef-cookbook-hostname/blob/develop/attributes/default.rb)

[**https://docs.chef.io/dsl\_recipe.html#data-bag**](https://docs.chef.io/dsl_recipe.html#data-bag)

[**https://github.com/Vanders/knife-databag-version**](https://github.com/Vanders/knife-databag-version)

**Chef Vault:**

<https://blog.chef.io/2016/01/21/chef-vault-what-is-it-and-what-can-it-do-for-you/>

<https://github.com/RallySoftware-cookbooks/chef-tutorials/blob/master/advanced/sensitive.md>

**Cookstyle:**

[**https://github.com/chef/cookstyle/blob/master/README.md**](https://github.com/chef/cookstyle/blob/master/README.md)

export EDITOR=$(which vim)