Chef Essentials

Introduction

Course v2.1.0

CHEF™

Introduce Yourselves

Name

Current job role

Previous job roles/background

Experience with Chef and/or config management

Favorite Text Editor

CHEF

Expectations

You will leave this class with a basic understanding of Chef's core components, architecture, commonly used tools, and basic troubleshooting methods

You bring with you your own domain expertise and problems. Chef is a framework for solving those problems. Our job is to teach you how to express solutions to your problems with Chef.

Course Objectives

You will leave this class with a basic understanding of Chef's core components, architecture, and commonly used tools. After completing this course, you should be able to:

- Write Chef recipes with Chef Resources that model the desired state of a system
- Manage these recipes in cookbooks that you are able to apply to a system
- Test cookbooks with linting tools and Test Kitchen
- Add multiple nodes to be managed by a Chef Infra Server
- Manage the deployment of cookbooks to nodes with Policyfiles
- Manage user and group data with data bags

Agenda: Day 1

- Using Chef Resources
- Building Chef Cookbooks
- Using version control (git)
- Using Test Kitchen
- Collecting details about the system

Agenda: Day 2

- Managing data with templates
- Set up an Apache web server
- Install Chef Workstation and sign up for a Managed Chef account
- Policyfiles
- Communicate with a Chef Server
- Attribute Files and Dependencies
- Community cookbooks
- Manage multiple nodes

Agenda: Day 3

- Using Policyfiles to define roles
- Use Search within a recipe
- Set up chef-client to run as a service/task
- Data Bags
- Use policy_group to create environments
- Further Resources

Chef

Chef can automate how you build, deploy, and manage your infrastructure.

Chef can integrate with cloud-based platforms such as Azure and Amazon Elastic Compute Cloud to automatically provision and configure new machines.

Chef

Chef is a large set of tools that are able to be used on multiple platforms and in numerous configurations.

Learning Chef is like learning a language. You will learn the basic concepts very fast but it will take practice until you become comfortable.

A great way to learn Chef is to use Chef

Chef Fundamentals

Ask Me Anything: It is important that we answer your questions and set you on the path to find more.

Break It: If everything works the first time go back and make some changes. Break it!

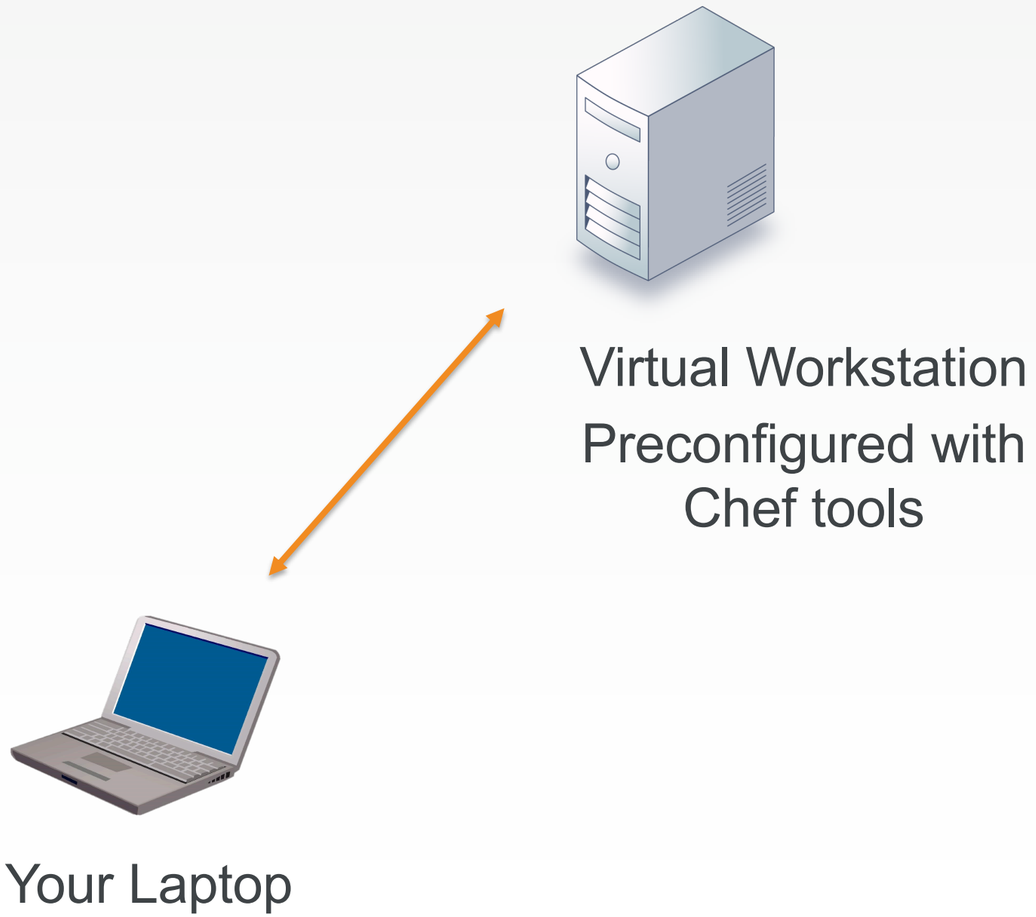
Chef Lab System Architecture

In this course you will use two different architectures:

1. Initially, you'll use a virtual workstation so you can start using Chef right away.
2. Later, you'll use a common production type of architecture that includes a Chef Server.

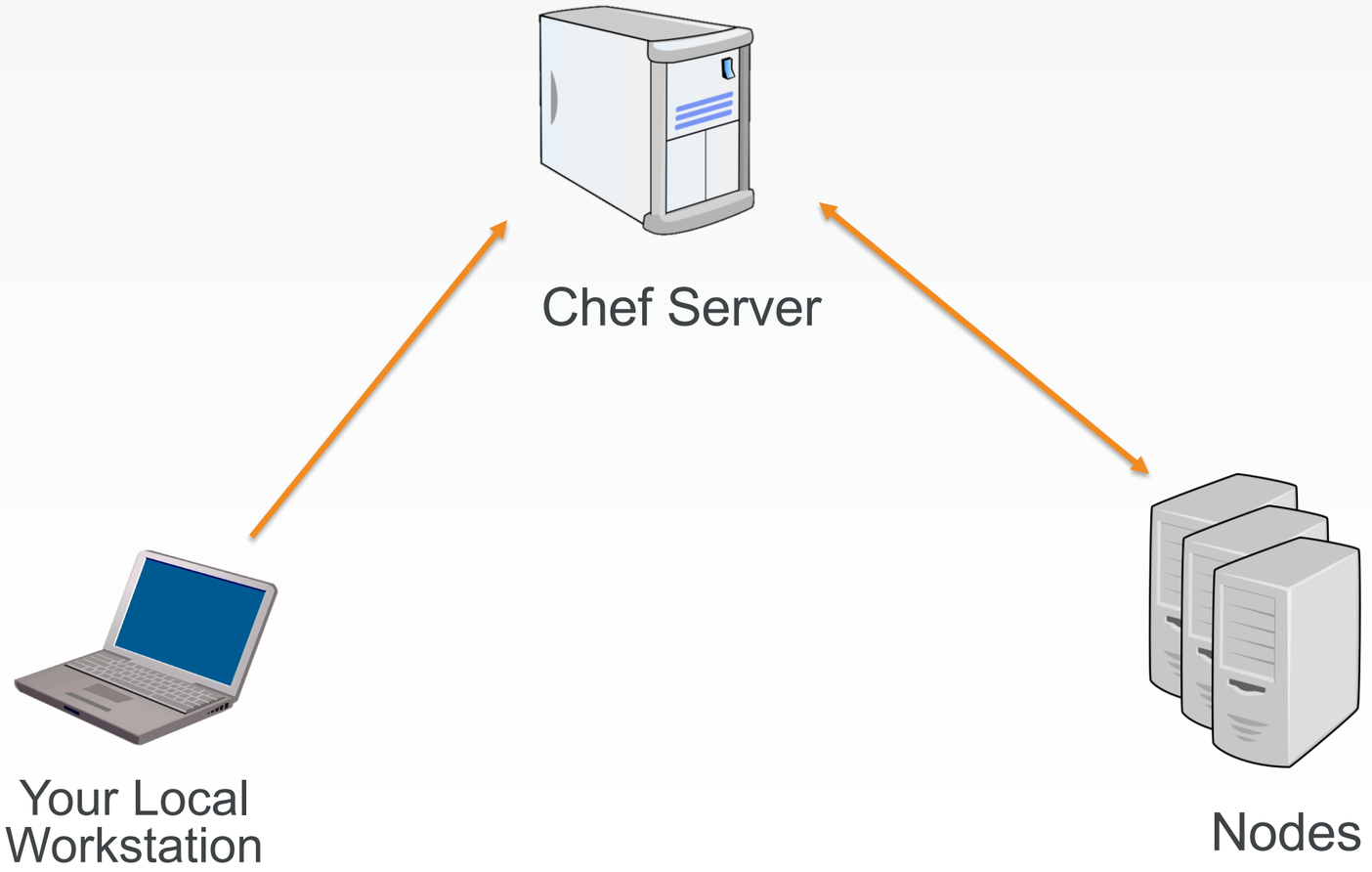
Chef Lab System Architecture

Architecture 1



Chef Lab System Architecture

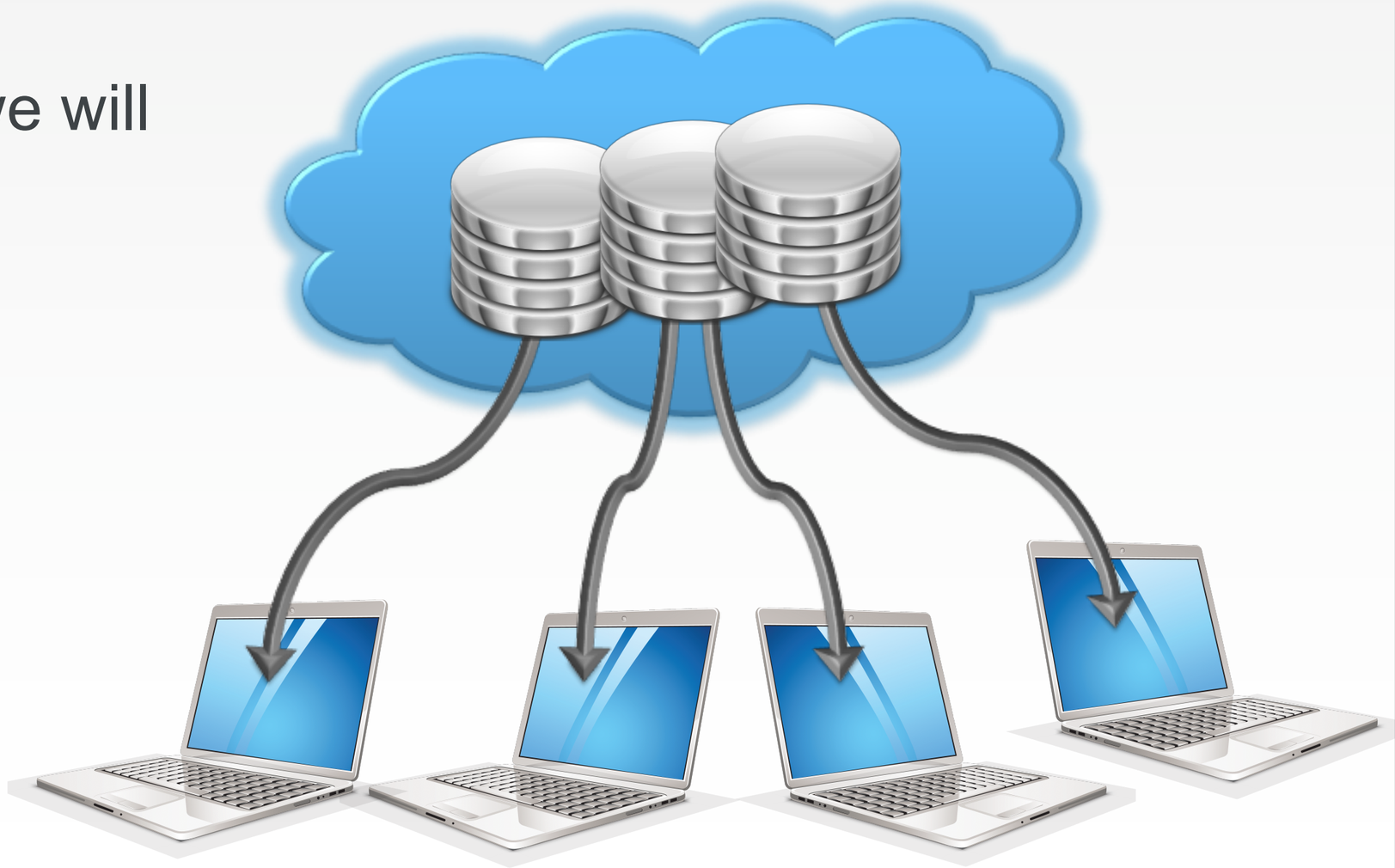
Architecture 2



CHEF

Getting a Workstation

Around the end of Day 1, we will have an Install Fest.



CHEF

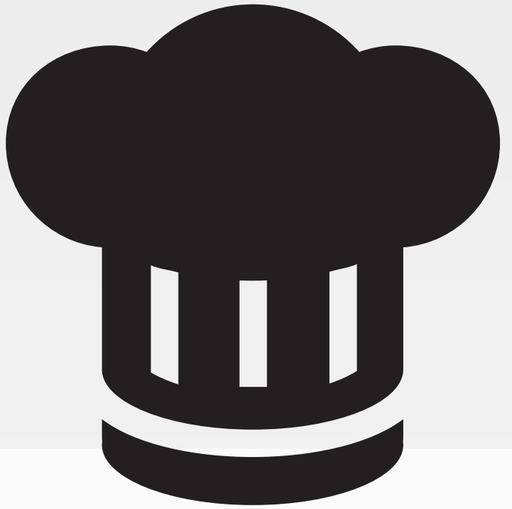
Hands-on Legend

- GL or Group Lab: All participants and the instructor do this task together with the instructor often leading the way and explaining things as we proceed.

- Lab: You perform this task on your own.

LAB

Group Lab:
Pre-built Workstation



We will provide for you a workstation with all the tools installed.

OBJECTIVE:

- ❑ Login to the Remote Workstation

CHEF™

Login to the Workstation

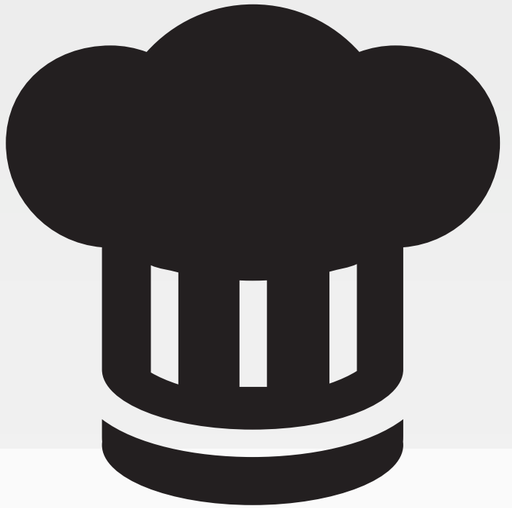
```
> ssh IPADDRESS -l USERNAME
```

```
The authenticity of host '54.209.164.144 (54.209.164.144)' can't
be established.RSA key fingerprint is
SHA256:tKoTsPbn6ER9BLThZqntXTxIYem3zV/iTQWvhLrBIBQ.Are you sure
you want to continue connecting (yes/no)? yes
chef@54.209.164.144's password: PASSWORD
chef@ip-172-31-15-97 ~]$
```

CHEF

LAB

Group Lab:
Pre-built Workstation



We will provide for you a workstation with all the tools installed.

OBJECTIVE:

- ✓ Login to the Remote Workstation

CHEF™

Getting a Workstation

The chef user has been granted password-less sudoers access

The following software is installed on the remote workstation:

- Chef DK
- Docker
- kitchen-docker gem

CHEF™