



Welcome to Chef Intermediate

## Introduce Yourself

Name

Current job role

Previous job roles / Background

Experience with Chef

Favorite Text Editor

Before we start let me introduce myself. Then I would like it if everyone had a chance to introduce themselves.

Instructor Note: Often times with larger, in-person groups I prefer to have the individuals perform this introduction one-on-one. Having people leave their desks and greet as many people as they can during the time allotted. I often feel this works better as it removes the pressure from the single individual to introduce themselves in a way that is presenting themselves and not actually greeting people. When Online, I create a pre-defined order, announce that order, and then invite a person to speak, thank them when they are done.

## Expectations

You will leave this class with the ability to extend the components of Cookbooks.

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.

The goal of this training is to teach you techniques that will help you extend the functionality of your cookbooks. We also want to share the thought process on why and how to best employ these techniques.

Chef is built on top of Ruby. This means you have the power of a programming language at your disposal and we will have to keep a tight focus on the challenges and exercises presented in this content. During and throughout the content we will have discussion where we may have additional time to talk about many different topics but in this interest of time and popular opinion we may need to leave those discussions.

During the introductions you learned about the other individuals here in the course with you. They may have shared similar problems and domains. During the time that we are here respectfully reach out to them so that you can continue the conversation, grow each others' knowledge, and become better professionals.

## Expectations

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

**Break It:** If everything works the first time go back and make some changes. Explore! Discovering the boundaries will help you when you continue on your journey.

All throughout this training I strongly encourage you to ask questions whenever you do not understand a topic, an acronym, concept, or software. By asking a question you better your learning and often times better the learning of those with you in this training. Asking questions is a sign of curiosity that we want to encourage and foster while we are here together.

This curiosity can also be employed by exploring the boundaries of the tools you are using and the language you are writing. The exercises and the labs we will perform will often lead you through examples that work from the beginning to the end. When you develop solutions it is rare that something works from the start all the way to the end. Errors and issues come up from typos or the incorrect usage of a command of the programming language. When you fall off the path it can often be hard to find your way back. Here, if you find yourself always on the correct path explore what happens when you step off of it, what you see, the error messages you are presented with, the new results you might find.

## Group Exercises, Labs, and Discussion

This course is designed to be hands on. You will run lots of commands, write lots of code, and express your understanding.

- **Group Exercises:** All participants and the instructor will work through the content together. The instructor will often lead the way and explain things as we proceed.
- **Lab:** You will be asked to perform the task on your own or in groups.
- **Discussion:** As a group we will talk about the concepts introduced and the work that we have completed.

The content of this training has been designed in a way to emphasize this hands-on approach to the content. Together, we will perform exercises together that accomplish an understood objective. After that is done you will often emphasize an activity by performing a lab. The lab is designed to challenge your understanding and retention of the previously accomplished exercises. You can work through this labs on your own or in groups. After completing the labs we will all come together again to review the exercise. Finally, we will end each section with a discussion about the topics that we introduced. These discussions will often ask you to share your opinions, recent experiences, or previous experiences within this domain.

## Day 1

- Introduction
- Why Write Tests? Why is that Hard?
- Writing a Test First
- Refactoring Cookbooks with Tests
- Faster Feedback with Unit Testing
- Testing Resources in Recipes
- Refactoring to Attributes
- Refactoring to Multiple Platforms

## Day 2

- Approaches to Extending Resources
- Why Use Custom Resources
- Creating a Custom Resource
- Refining a Custom Resource
- Ohai
- Ohai Plugins
- Creating an Ohai Plugin
- Tuning Ohai

This is the outline of the events for this training. Please take a moment to review this list to ensure that the topics listed here meet your expectations. Take a moment to note which topics are of most interest to you. Also note which topics are not present here on this list. We will discuss your thoughts at the end of the section.

# EXERCISE



## Pre-built Workstation

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

### **Objective:**

- ☐ Login to the Remote Workstation

As I mentioned there is a lot work planned for the day. To ensure we focus on the concepts we introduce and not on troubleshooting systems we are providing you a workstation with the necessary tools installed to get started right away.

**Instructor Note:** At the end of the training it is often a good idea to offer your services to help individuals install necessary software or troubleshoot their systems.

## 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 ~]$
```

I will provide you with the address, username and password of the workstation. With that information you will need to use the SSH tool that you have installed to connect that workstation.

This demonstrates how you might connect to the remote machine using your terminal or command-prompt if you have access to the application ssh. This may be different based on your operating system.



# EXERCISE



## Pre-built Workstation

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

### **Objective:**

- ✓ Login to the Remote Workstation

Now that you are connected to that workstation we have taken care of all the necessary work to get started with the training.

# DISCUSSION



## Discussion

What topics are you most interested in learning?

What topics are missing that you want to learn about?

Let us end with a discussion about the following topics.

**Instructor Note:** With large groups I often find it better to have individuals turn to the individuals around them, form groups of whatever size they feel comfortable, and have them take turns asking and answering the questions. When all the groups are done I then open the discussion up to the entire group allowing each group or individuals to share their answers.

# DISCUSSION



## Q&A

What questions can we answer for you?

Before we continue let us stop for a moment answer any questions that anyone might have at this time.

