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CHEF FOUNDATIONS - OFFICIAL CHEF TRAINING

Course Code: 5328

Learn the skills to automate every step of your IT workflow and streamline huge portions of your software delivery process.

Get started with Chef by taking official Chef automation training. This two-day instructor-led course that covers all the basics. You'll learn what it means to turn infrastructure into code so that you can automate the configuration, deployment, and management of your servers. You'll also learn about Chef architecture and the set of tools included in the Chef Development Kit (ChefDK). Finally, we'll show you how to test your infrastructure code so that you can deploy with confidence. Each of the core units includes hands-on exercises that will give you confidence in your new skills. At the end of the course, you'll come away with a repo and the skills to start automating your own infrastructure.

What You'll Learn

- Use Chef Resources to define the state of your system
- Write and use Chef recipes and cookbooks
- Automate testing of cookbooks
- Manage multiple nodes with Chef Server
- Create Organizations
- Bootstrap nodes
- Assign Roles to nodes
- Deploy nodes to environments
- Enable Chef's search features with your automation
- Create acceptance and production environments

Who Needs to Attend

- IT Managers and Leaders
- Developers and Application Teams
- System Administrators
- IT Operations Staff
- Release Engineers
- Configuration Managers
- Anyone involved with IT infrastructure
- ScrumMasters

- Software Managers and Team Leads

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CLASSROOM LIVE	$2,350 CAD	2 Day

Classroom Live Outline

1. Chef Introduction

- Overview and expectations for the class
- The Chef Lab System Architecture

Group lab: Pre-built workstation

2. Using Chef Resources

- Using Chef to install packages on your virtual workstation
- Using the chef-client command
- Creating a basic Chef recipe file
- Defining Chef Resources
- Test and repair

Lab: The 'file' resource

3. Building Cookbooks

- Modify a recipe
- Collaboration and version control
- Generating a Chef cookbook
- Defining a Chef recipe that sets up a web server
- Group exercise: Version Control

Lab: Set up Git

Lab: Setting up web servers

4. Chef client

- Locally applying multiple cookbooks' recipes with chef-client
- Applying a run list
- Including a recipe from within another recipe

Lab: Update the apache Cookbook

5. Testing Cookbooks

- Using Test Kitchen to verify your recipes converge on a virtual instance
- Reading the ServerSpec documentation
- Writing and execute tests
- Where do tests live?

Group exercise: Test configuration

Lab: Converge the kitchen

Lab: Commit your work

Lab: Testing Apache

6. Details About a System

- Managing large numbers of servers
- Capturing details about a system
- Using the node object within a recipe
- Using Ruby's string interpolation
- Updating the version of a cookbook

Lab: Update the Cookbook version

Lab: Node Details in the Webserver

Lab: Commit your work

7. Desired State and Data

- Cleaner recipes
- When to use a template resource
- Creating a template file
- Using ERB tags to display node data in a template
- Defining a template resource
- Using kitchen test on the "apache" cookbook
- Using chef-client to apply the "apache" cookbook's "default" recipe
- Updating the "apache" cookbook's version for this patch=
- Committing the changes

Lab: Update the version

8. Local Workstation Installation

- Installing ChefDK on your laptop
- Executing commands to ensure everything is installed
- Installing a local editor like Atom

Lab: You will run the following commands and report their versions: $chef, $chef-client, $knife, $ohai, $berks, $kitchen, $foodcritic, $rubocop

9. The Chef Server

- Connecting to a Chef Server

- Managing Additional systems
- Managing User traffic
- Uploading cookbooks to a Chef Server
- Bootstrapping a node
- Managing a node via a Chef Server
- Hosted Chef

Lab: Uploading cookbooks and managing cookbook dependencies

10. Community Cookbooks

- Find cookbooks on the Chef supermarket
- Create a wrapper cookbook
- Example: load balancer
- Amazon EC2 instances
- Replace the existing default values
- Upload a cookbook to Chef Server
- Bootstrap a new node that runs the cookbook

Discussion: Can your teams benefit from the supermarket?

11. Managing Multiple Nodes

- Managing user traffic
- Bootstrapping and updating the run_list
- Running chef-client on a node
- Appending values to an attribute within a recipe
- Versioning cookbooks and uploading to Chef Server

Lab: Another new node

Lab: Test and update the load balancer

Lab: Run $berks install

Lab: Converging the cookbook

12. Roles

- Assigning, defining, and configuring
- The 'knife' role
- Verifying roles
- Roles for everyone

Lab: Define a web role

13. Search

- Update a Cookbook to Dynamically Use Nodes with the Web Role
- Describe the query syntax used in search
- Build a search into your recipe code
- Create a Ruby Array and Ruby Hash
- Update the myhaproxy wrapper cookbook

Lab: Updating, load balancing, uploading and running the new search-capable

cookbook

14. Environments

- Keeping your infrastructure current
- Creating a production environment
- Creating an acceptance environment
- Deploying a node to an environment
- Updating a search query to be more exact

Lab: Set new nodes to production

Lab: Acceptance environment

Lab: Create a new environment file

15. Course wrap and further resources

- Beyond essentials
- Valuable reading
- Events and online resources
- Customizing Chef

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PRIVATE GROUP TRAINING	2 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

Date created: 8/31/2025 9:56:40 AM