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Sign up

DevOps training with Chef

3 days (21 hours)

Presentation

Our Chef training course will teach you how to make your infrastructure flexible, versionable, testable and easily deployable.

Chef is a DevOps tool used by leading tech companies such as Facebook, Google and Amazon. Ideal for implementing continuous integration within your development processes, it is a major technology for automating and configuring the management of your cloud infrastructure.

We'll teach you how to guarantee the scalability, complexity and security of your servers and services, particularly for containerized applications. You'll also learn about DevOps principles and culture, whether in terms of development, workflow or management.

In a nutshell, you'll discover how to automate your configurations, deployments and application scalability, by mastering all the subtleties of Chef technology.

As with all our training courses, our Chef training will introduce you to the latest stable version (Chef v17.x).

Objectives

- Introduction to DevOps culture
- Architecture Chef
- Chef's ecosystem and tools
- Automate infrastructure tasks with Chef

Target audience

Developers, Architects, System Administrators

Prerequisites

Basic knowledge of a Unix system (terminal skills).

DevOps with Chef training program

Day 1

Introduction to DevOps

- History of DevOps to date
- DevOps principles: Culture, Automation, Measurement, Sharing
- DevOps objectives
- The DevOps ecosystem
- Introduction to tools
- The impact of DevOps
- Infrastructure and Agile Sysadmin
- Implementation example: "The Three Ways" by Gene Kim

Introduction to Chef

- Chef's Ruby syntax
- Chef Server - Hosted / On-Premises
- Chef-Solo
- Introduction to the various Chef plug-ins
- Integration examples: at Facebook

Installing the Chef environment

- Le Chef-DK
- The knife command
- Chef Starter Kit: initial Chef deposit
- Organizations
- Practical: Deploying a new server via Chef

Day 2

Chef server architecture

- Introduction to nodes and clients
- Bootstrap Chef Server with Chef Solo

- Introduction to resources and cookbooks
- Introduction to roles and environments
- Chef Server context
- Configurati

on run list

- Setting up a Chef Server environment and organizations
- Creating an initial Chef deposit
- Versioning the Chef repository
- TP: Organizing a Chef depot

Creating a cookbook

- The default recipe
- Chef Server synchronization
- Recipe application
- Idempotence

The main concepts

- Resources
- Attributes (Setting, Basic, Priority, Include_Recipe, Precedence, Debugging)
- Templates
- Data Bags (Local-users, Encrypted and chef-vault)
- Roles (Web Server, Search, Cookbook)
- Environments

Day 3

Searching in Chef

- Introducing Ohai
- Search with Knife
- Recipe search Application

deployment

- Resource deploy
- Capistrano

Plugins and

container

- Main Community Plugins

- Example of use
- Chef-container and

Docker Automated testing

- Test-Kitchen (Integration testing) - Vagrant, VirtualBox, YAML
- Chef Zero, Serverspec
- ChefSpec (Unit testing)
- Foodcritic (lint)

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.