

# **Chef Configuration Management**

### **Audience Course Chef Configuration Management**

The course Chef Configuration Management is intended for system administrators and devops engineers who want to automate system administration and application deployment with Chef.

#### **Prerequisites Course Chef Configuration Management**

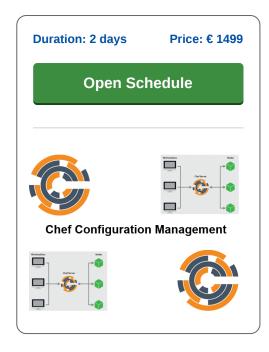
General experience with system management in an IT infrastructure and knowledge of the basic principles of the Ruby script language is beneficial for the understanding.

#### **Realization Training Chef Configuration Management**

The subject matter is discussed on the basis of presentation slides and demos. The theory is interchanged with exercises. The course material is in English. Course times are from 9.30 to 16.30.

#### **Certification Chef Configuration Management**

After successful completion of the course the participants receive an official certificate Chef Configuration Management.



## **Content Course Chef Configuration Management**

In the course Chef Configuration Management participants learn the open source Chef configuration management technology that is used to manage an infrastructure with physical or virtual servers. Chef uses Ruby to create recipes and cookbooks that automate manual and repetitive infrastructure management tasks. In DevOps Chef is used to deploy and manage servers and applications both locally and in the cloud.

#### **Chef Architecture**

The course starts with a discussion of the components and topology of Chef and the basics of how Chef can be integrated with Cloud platforms. The Ruby Domain Specific Language (DSL) is also discussed here.

#### **Nodes and Roles**

Subsequently, the different types of nodes that Chef knows are discussed, such as Physical Nodes, Cloud Nodes, Virtual Nodes and Network Nodes. The roles of Chef Workstation, Chef Server and Chef Client are also explained and the Ohai tool is treated.

#### **Building Blocks**

Part of the program of the course are also the building blocks of Chef such as Recipes, Cookbooks, Packages, Services, Files and Templates. And Users and Groups and the use of Resources with their Attributes are discussed.

#### **Chef Cookbooks**

Then the Chef Cookbooks are treated in more details. Attention is paid to the development of Recipes, the use of various attribute files, the use of libraries and the role of template variables.

A number of advanced applications of Chef are also discussed, such as the use of Custom Extensions, securing Data Bags, encryption of data and the storage of keys on nodes.

#### **Cloud Integration**

Finally the course ends by explaining how Chef can be used in combination with Cloud platforms such as AWS and Azure.



# **Modules Course Chef Configuration Management**

Module 1 : Chef Intro	Module 2 : Chef Nodes	Module 3 : Building Blocks
What is Chef?	Physical Nodes	Recipes
Managing Infrastructure	Cloud Nodes	Cookbooks
Deployment Automation	Virtual Nodes	Packages and Services
Chef Components	Network Nodes	Users and Groups
Chef Topology	Chef Workstation	Default Structure
Cloud Integration	Chef Server	Resources
Chef and AWS	Chef Client	Attributes
Chef and AZure	Ohai Tool	Files
Installing Chef	Command Line Use	Templates
Ruby DSL Language	ChefDK	Metadata.rb
Ruby Gems	KitchenCl	Data Bags
Module 4 : Using Cookbooks	Module 5 : Advanced Chef	Module 6 : Chef and the Cloud
3		
Multiple Attribute Files	Custom Extensions	AWS EC2 Bootstrapping
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Multiple Attribute Files Developing Recipes	Custom Extensions Cross Platform Cookbooks	AWS EC2 Bootstrapping Provisioning EC2 Instances
Multiple Attribute Files Developing Recipes Libraries	Custom Extensions Cross Platform Cookbooks Building Resources	AWS EC2 Bootstrapping Provisioning EC2 Instances knife-EC2 Plugin
Multiple Attribute Files Developing Recipes Libraries Using Metadata	Custom Extensions Cross Platform Cookbooks Building Resources Modifying Resources	AWS EC2 Bootstrapping Provisioning EC2 Instances knife-EC2 Plugin Configuration Options
Multiple Attribute Files Developing Recipes Libraries Using Metadata Computed Configurations	Custom Extensions Cross Platform Cookbooks Building Resources Modifying Resources Securing Data Bags	AWS EC2 Bootstrapping Provisioning EC2 Instances knife-EC2 Plugin Configuration Options Configuring Database Host
Multiple Attribute Files Developing Recipes Libraries Using Metadata Computed Configurations Template Resource	Custom Extensions Cross Platform Cookbooks Building Resources Modifying Resources Securing Data Bags Encrypting Data	AWS EC2 Bootstrapping Provisioning EC2 Instances knife-EC2 Plugin Configuration Options Configuring Database Host Configuring Web Server
Multiple Attribute Files Developing Recipes Libraries Using Metadata Computed Configurations Template Resource Template Variables	Custom Extensions Cross Platform Cookbooks Building Resources Modifying Resources Securing Data Bags Encrypting Data Querying Data	AWS EC2 Bootstrapping Provisioning EC2 Instances knife-EC2 Plugin Configuration Options Configuring Database Host Configuring Web Server Chef Azure VM Extensions
Multiple Attribute Files Developing Recipes Libraries Using Metadata Computed Configurations Template Resource Template Variables chef Command	Custom Extensions Cross Platform Cookbooks Building Resources Modifying Resources Securing Data Bags Encrypting Data Querying Data Storing Keys on Nodes	AWS EC2 Bootstrapping Provisioning EC2 Instances knife-EC2 Plugin Configuration Options Configuring Database Host Configuring Web Server Chef Azure VM Extensions Azure Key Vault ARM