

Chef Infrastructure Automation Cookbook Second Edition

Recognizing the pretension ways to acquire this books **Chef Infrastructure Automation Cookbook Second Edition** is additionally useful. You have remained in right site to begin getting this info. get the Chef Infrastructure Automation Cookbook Second Edition colleague that we come up with the money for here and check out the link.

You could buy guide Chef Infrastructure Automation Cookbook Second Edition or get it as soon as feasible. You could speedily download this Chef Infrastructure Automation Cookbook Second Edition after getting deal. So, when you require the book swiftly, you can straight get it. Its therefore no question simple and appropriately fats, isnt it? You have to favor to in this tune

97 Things Every Cloud Engineer Should Know - Emily Freeman
2020-12-04

If you create, manage, operate, or configure systems running in the cloud, you're a cloud engineer—even if you work as a system administrator, software developer, data scientist, or site reliability engineer. With this book, professionals from around the world provide valuable insight into today's cloud engineering role. These concise articles explore the entire cloud computing experience, including fundamentals, architecture, and migration. You'll delve into security and compliance, operations and reliability, and software development. And examine networking, organizational culture, and more. You're sure to find 1, 2, or 97 things that inspire you to dig deeper and expand your own career. "Three Keys to Making the Right Multicloud Decisions," Brendan O'Leary "Serverless Bad Practices," Manases Jesus Galindo Bello "Failing a Cloud Migration," Lee Atchison "Treat Your Cloud Environment as If It Were On Premises," Iyana Garry "What Is Toil, and Why Are SREs Obsessed with It?", Zachary Nickens "Lean QA: The QA Evolving in the DevOps World," Theresa Neate "How Economies of Scale Work in the Cloud," Jon Moore "The Cloud Is Not About the Cloud," Ken Corless "Data Gravity: The Importance of Data Management in the Cloud," Geoff Hughes "Even in the Cloud, the Network Is the

Foundation," David Murray "Cloud Engineering Is About Culture, Not Containers," Holly Cummins

Practical Network Automation - Abhishek Ratan 2018-12-26

Network automation is the process of efficiently automating the management and functionality of networks. Through practical use-cases and examples, this book introduces you to the popular tools such as Python, Ansible, Chef and more, that are used to automate a network.

UNIX and Linux System Administration Handbook - Evi Nemeth
2017-09-14

"As an author, editor, and publisher, I never paid much attention to the competition—except in a few cases. This is one of those cases. The UNIX System Administration Handbook is one of the few books we ever measured ourselves against." —Tim O'Reilly, founder of O'Reilly Media
"This edition is for those whose systems live in the cloud or in virtualized data centers; those whose administrative work largely takes the form of automation and configuration source code; those who collaborate closely with developers, network engineers, compliance officers, and all the other worker bees who inhabit the modern hive." —Paul Vixie, Internet Hall of Fame-recognized innovator and founder of ISC and Farsight Security
"This book is fun and functional as a desktop reference. If you use UNIX and Linux systems, you need this book in your short-reach

library. It covers a bit of the systems' history but doesn't bloviate. It's just straight-forward information delivered in a colorful and memorable fashion." —Jason A. Nunnelley UNIX® and Linux® System Administration Handbook, Fifth Edition, is today's definitive guide to installing, configuring, and maintaining any UNIX or Linux system, including systems that supply core Internet and cloud infrastructure. Updated for new distributions and cloud environments, this comprehensive guide covers best practices for every facet of system administration, including storage management, network design and administration, security, web hosting, automation, configuration management, performance analysis, virtualization, DNS, security, and the management of IT service organizations. The authors—world-class, hands-on technologists—offer indispensable new coverage of cloud platforms, the DevOps philosophy, continuous deployment, containerization, monitoring, and many other essential topics. Whatever your role in running systems and networks built on UNIX or Linux, this conversational, well-written guide will improve your efficiency and help solve your knottiest problems.

Cloud Native Infrastructure - Justin Garrison 2017-10-25

Cloud native infrastructure is more than servers, network, and storage in the cloud—it is as much about operational hygiene as it is about elasticity and scalability. In this book, you'll learn practices, patterns, and requirements for creating infrastructure that meets your needs, capable of managing the full life cycle of cloud native applications. Justin Garrison and Kris Nova reveal hard-earned lessons on architecting infrastructure from companies such as Google, Amazon, and Netflix. They draw inspiration from projects adopted by the Cloud Native Computing Foundation (CNCF), and provide examples of patterns seen in existing tools such as Kubernetes. With this book, you will: Understand why cloud native infrastructure is necessary to effectively run cloud native applications Use guidelines to decide when—and if—your business should adopt cloud native practices Learn patterns for deploying and managing infrastructure and applications Design tests to prove that your infrastructure works as intended, even in a variety of edge cases Learn

how to secure infrastructure with policy as code

Site Reliability Engineering - Niall Richard Murphy 2016-03-23

The overwhelming majority of a software system's lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE's day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use

NGINX Cookbook - Derek DeJonghe 2020-10-28

NGINX is one of the most widely used web servers available today, in part because of its capabilities as a load balancer and reverse proxy server for HTTP and other network protocols. This cookbook provides easy-to-follow examples to real-world problems in application delivery. The practical recipes will help you set up and use either the open source or commercial offering to solve problems in various use cases. For professionals who understand modern web architectures, such as n-tier or microservice designs, and common web protocols including TCP and HTTP, these recipes provide proven solutions for security, software load balancing, and monitoring and maintaining NGINX's application delivery platform. You'll also explore advanced features of both NGINX and NGINX Plus, the free and licensed versions of this server. You'll find recipes for: High-performance load balancing with HTTP, TCP, and UDP

Securing access through encrypted traffic, secure links, HTTP authentication subrequests, and more Deploying NGINX to Google Cloud, AWS, and Azure cloud computing services Setting up and configuring NGINX Controller Installing and configuring the NGINX Plus App Protect module Enabling WAF through Controller ADC

Software-Defined Data Infrastructure Essentials - Greg Schulz
2017-06-14

Software-Defined Data Infrastructures Essentials provides fundamental coverage of physical, cloud, converged, and virtual server storage I/O networking technologies, trends, tools, techniques, and tradecraft skills. From webscale, software-defined, containers, database, key-value store, cloud, and enterprise to small or medium-size business, the book is filled with techniques, and tips to help develop or refine your server storage I/O hardware, software, and services skills. Whether you are new to data infrastructures or a seasoned pro, you will find this comprehensive reference indispensable for gaining as well as expanding experience with technologies, tools, techniques, and trends. We had a front row seat watching Greg present live in our education workshop seminar sessions for ITC professionals in the Netherlands material that is in this book. We recommend this amazing book to expand your converged and data infrastructure knowledge from beginners to industry veterans. —Gert and Frank Brouwer, Brouwer Storage Consultancy Software-Defined Data Infrastructures Essentials provides the foundational building blocks to improve your craft in several areas including applications, clouds, legacy, and more. IT professionals, as well as sales professionals and support personnel, stand to gain a great deal by reading this book.—Mark McSherry, Oracle Regional Sales Manager Looking to expand your data infrastructure IQ? From CIOS to operations, sales to engineering, this book is a comprehensive reference, a must read for IT infrastructure professionals, beginners to seasoned experts.—Tom Becchetti, Advisory Systems Engineer Greg Schulz has provided a complete ‘toolkit’ for storage management along with the background and framework for the storage or data infrastructure professional or those aspiring to become one.—Greg Brunton, Experienced Storage and

Data Management Professional

Getting Started with Terraform - Kirill Shirinkin 2017-07-31

Build, Manage and Improve your infrastructure effortlessly. About This Book An up-to-date and comprehensive resource on Terraform that lets you quickly and efficiently launch your infrastructure Learn how to implement your infrastructure as code and make secure, effective changes to your infrastructure Learn to build multi-cloud fault-tolerant systems and simplify the management and orchestration of even the largest scale and most complex cloud infrastructures Who This Book Is For This book is for developers and operators who already have some exposure to working with infrastructure but want to improve their workflow and introduce infrastructure as a code practice. Knowledge of essential Amazon Web Services components (EC2, VPC, IAM) would help contextualize the examples provided. Basic understanding of Jenkins and Shell scripts will be helpful for the chapters on the production usage of Terraform. What You Will Learn Understand what Infrastructure as Code (IaC) means and why it matters Install, configure, and deploy Terraform Take full control of your infrastructure in the form of code Manage complete infrastructure, starting with a single server and scaling beyond any limits Discover a great set of production-ready practices to manage infrastructure Set up CI/CD pipelines to test and deliver Terraform stacks Construct templates to simplify more complex provisioning tasks In Detail Terraform is a tool used to efficiently build, configure, and improve the production infrastructure. It can manage the existing infrastructure as well as create custom in-house solutions. This book shows you when and how to implement infrastructure as a code practices with Terraform. It covers everything necessary to set up the complete management of infrastructure with Terraform, starting with the basics of using providers and resources. It is a comprehensive guide that begins with very small infrastructure templates and takes you all the way to managing complex systems, all using concrete examples that evolve over the course of the book. The book ends with the complete workflow of managing a production infrastructure as code—this is achieved with the help of version control and continuous integration. The readers will also

learn how to combine multiple providers in a single template and manage different code bases with many complex modules. It focuses on how to set up continuous integration for the infrastructure code. The readers will be able to use Terraform to build, change, and combine infrastructure safely and efficiently. Style and approach This book will help and guide you to implement Terraform in your infrastructure. The readers will start by working on very small infrastructure templates and then slowly move on to manage complex systems, all by using concrete examples that will evolve during the course of the book.

Infrastructure as Code - Kief Morris 2020-12-08

Six years ago, Infrastructure as Code was a new concept. Today, as even banks and other conservative organizations plan moves to the cloud, development teams for companies worldwide are attempting to build large infrastructure codebases. With this practical book, Kief Morris of ThoughtWorks shows you how to effectively use principles, practices, and patterns pioneered by DevOps teams to manage cloud-age infrastructure. Ideal for system administrators, infrastructure engineers, software developers, team leads, and architects, this updated edition demonstrates how you can exploit cloud and automation technology to make changes easily, safely, quickly, and responsibly. You'll learn how to define everything as code and apply software design and engineering practices to build your system from small, loosely coupled pieces. This book covers: Foundations: Use Infrastructure as Code to drive continuous change and raise the bar of operational quality, using tools and technologies to build cloud-based platforms Working with infrastructure stacks: Learn how to define, provision, test, and continuously deliver changes to infrastructure resources Working with servers and other platforms: Use patterns to design provisioning and configuration of servers and clusters Working with large systems and teams: Learn workflows, governance, and architectural patterns to create and manage infrastructure elements

Chef Infrastructure Automation Cookbook - Second Edition -

Matthias Marschall 2015-05-29

This book is for system engineers and administrators who have a

fundamental understanding of information management systems and infrastructure. It helps if you've already played around with Chef; however, this book covers all the important topics you will need to know. If you don't want to dig through a whole book before you can get started, this book is for you, as it features a set of independent recipes you can try out immediately.

Effective DevOps - Jennifer Davis 2016-05-30

Some companies think that adopting devops means bringing in specialists or a host of new tools. With this practical guide, you'll learn why devops is a professional and cultural movement that calls for change from inside your organization. Authors Ryn Daniels and Jennifer Davis provide several approaches for improving collaboration within teams, creating affinity among teams, promoting efficient tool usage in your company, and scaling up what works throughout your organization's inflection points. Devops stresses iterative efforts to break down information silos, monitor relationships, and repair misunderstandings that arise between and within teams in your organization. By applying the actionable strategies in this book, you can make sustainable changes in your environment regardless of your level within your organization. Explore the foundations of devops and learn the four pillars of effective devops Encourage collaboration to help individuals work together and build durable and long-lasting relationships Create affinity among teams while balancing differing goals or metrics Accelerate cultural direction by selecting tools and workflows that complement your organization Troubleshoot common problems and misunderstandings that can arise throughout the organizational lifecycle Learn from case studies from organizations and individuals to help inform your own devops journey

Terraform Cookbook - Mikael Krief 2020-10-15

Discover how to manage and scale your infrastructure using Infrastructure as Code (IaC) with Terraform Key Features Get up and running with the latest version of Terraform, v0.13 Design and manage infrastructure that can be shared, tested, modified, provisioned, and deployed Work through practical recipes to achieve zero-downtime deployment and scale your infrastructure effectively Book Description

HashiCorp Configuration Language (HCL) has changed how we define and provision a data center infrastructure with the launch of Terraform—one of the most popular and powerful products for building Infrastructure as Code. This practical guide will show you how to leverage HashiCorp's Terraform tool to manage a complex infrastructure with ease. Starting with recipes for setting up the environment, this book will gradually guide you in configuring, provisioning, collaborating, and building a multi-environment architecture. Unlike other books, you'll also be able to explore recipes with real-world examples to provision your Azure infrastructure with Terraform. Once you've covered topics such as Azure Template, Azure CLI, Terraform configuration, and Terragrunt, you'll delve into manual and automated testing with Terraform configurations. The next set of chapters will show you how to manage a balanced and efficient infrastructure and create reusable infrastructure with Terraform modules. Finally, you'll explore the latest DevOps trends such as continuous integration and continuous delivery (CI/CD) and zero-downtime deployments. By the end of this book, you'll have developed the skills you need to get the most value out of Terraform and manage your infrastructure effectively. What you will learn

- Understand how to install Terraform for local development
- Get to grips with writing Terraform configuration for infrastructure provisioning
- Use Terraform for advanced infrastructure use cases
- Understand how to write and use Terraform modules
- Discover how to use Terraform for Azure infrastructure provisioning
- Become well-versed in testing Terraform configuration
- Execute Terraform configuration in CI/CD pipelines
- Explore how to use Terraform Cloud

Who this book is for This book is for developers, operators, and DevOps engineers looking to improve their workflow and use Infrastructure as Code. Experience with Microsoft Azure, Jenkins, shell scripting, and DevOps practices is required to get the most out of this Terraform book.

Test-Driven Infrastructure with Chef - Stephen Nelson-Smith 2013-10-11
Since Test-Driven Infrastructure with Chef first appeared in mid-2011, infrastructure testing has begun to flourish in the web ops world. In this revised and expanded edition, author Stephen Nelson-Smith brings you

up to date on this rapidly evolving discipline, including the philosophy driving it and a growing array of tools. You'll get a hands-on introduction to the Chef framework, and a recommended toolchain and workflow for developing your own test-driven production infrastructure. Several exercises and examples throughout the book help you gain experience with Chef and the entire infrastructure-testing ecosystem. Learn how this test-first approach provides increased security, code quality, and peace of mind. Explore the underpinning philosophy that infrastructure can and should be treated as code

- Become familiar with the MASCOT approach to test-driven infrastructure
- Understand the basics of test-driven and behavior-driven development for managing change
- Dive into Chef fundamentals by building an infrastructure with real examples
- Discover how Chef works with tools such as Virtualbox and Vagrant
- Get a deeper understanding of Chef by learning Ruby language basics
- Learn the tools and workflow necessary to conduct unit, integration, and acceptance tests

Learning DevOps - Mikael Krief 2019-10-25

Simplify your DevOps roles with DevOps tools and techniques

- Key Features
- Learn to utilize business resources effectively to increase productivity and collaboration
- Leverage the ultimate open source DevOps tools to achieve continuous integration and continuous delivery (CI/CD)
- Ensure faster time-to-market by reducing overall lead time and deployment downtime

Book Description The implementation of DevOps processes requires the efficient use of various tools, and the choice of these tools is crucial for the sustainability of projects and collaboration between development (Dev) and operations (Ops). This book presents the different patterns and tools that you can use to provision and configure an infrastructure in the cloud. You'll begin by understanding DevOps culture, the application of DevOps in cloud infrastructure, provisioning with Terraform, configuration with Ansible, and image building with Packer. You'll then be taken through source code versioning with Git and the construction of a DevOps CI/CD pipeline using Jenkins, GitLab CI, and Azure Pipelines. This DevOps handbook will also guide you in containerizing and deploying your applications with Docker and

Kubernetes. You'll learn how to reduce deployment downtime with blue-green deployment and the feature flags technique, and study DevOps practices for open source projects. Finally, you'll grasp some best practices for reducing the overall application lead time to ensure faster time to market. By the end of this book, you'll have built a solid foundation in DevOps, and developed the skills necessary to enhance a traditional software delivery process using modern software delivery tools and techniques

What you will learn

- Become well versed with DevOps culture and its practices
- Use Terraform and Packer for cloud infrastructure provisioning
- Implement Ansible for infrastructure configuration
- Use basic Git commands and understand the Git flow process
- Build a DevOps pipeline with Jenkins, Azure Pipelines, and GitLab CI
- Containerize your applications with Docker and Kubernetes
- Check application quality with SonarQube and Postman
- Protect DevOps processes and applications using DevSecOps tools

Who this book is for

If you are a developer or a system administrator interested in understanding continuous integration, continuous delivery, and containerization with DevOps tools and techniques, this book is for you.

Performance Testing with JMeter - Second Edition - Bayo Erinle
2015-04-24

This book is great for developers, quality assurance engineers, testers, and test managers new to Apache JMeter, or those who are looking to get a good grounding in how to effectively use and become proficient with JMeter. No prior testing experience is required.

Microsoft Azure Essentials - Fundamentals of Azure - Michael Collier
2015-01-29

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. The first ebook in the series, Microsoft Azure Essentials: Fundamentals of Azure, introduces developers and IT professionals to the wide range of capabilities in Azure. The authors - both Microsoft MVPs in Azure - present both conceptual and how-to content for key areas, including:

- Azure Websites and Azure Cloud Services
- Azure Virtual Machines
- Azure Storage
- Azure Virtual Networks
- Databases
- Azure Active Directory

Management tools Business scenarios Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the "Microsoft Azure Essentials" series.

A Practical Guide to Continuous Delivery - Eberhard Wolff 2017-02-24

Using Continuous Delivery, you can bring software into production more rapidly, with greater reliability. A Practical Guide to Continuous Delivery is a 100% practical guide to building Continuous Delivery pipelines that automate rollouts, improve reproducibility, and dramatically reduce risk. Eberhard Wolff introduces a proven Continuous Delivery technology stack, including Docker, Chef, Vagrant, Jenkins, Graphite, the ELK stack, JBehave, and Gatling. He guides you through applying these technologies throughout build, continuous integration, load testing, acceptance testing, and monitoring. Wolff's start-to-finish example projects offer the basis for your own experimentation, pilot programs, and full-fledged deployments. A Practical Guide to Continuous Delivery is for everyone who wants to introduce Continuous Delivery, with or without DevOps. For managers, it introduces core processes, requirements, benefits, and technical consequences. Developers, administrators, and architects will gain essential skills for implementing and managing pipelines, and for integrating Continuous Delivery smoothly into software architectures and IT organizations. Understand the problems that Continuous Delivery solves, and how it solves them

- Establish an infrastructure for maximum software automation
- Leverage virtualization and Platform as a Service (PAAS) cloud solutions
- Implement build automation and continuous integration with Gradle, Maven, and Jenkins
- Perform static code reviews with SonarQube and repositories to store build artifacts
- Establish automated GUI and textual acceptance testing with behavior-driven design
- Ensure appropriate performance via capacity testing
- Check new features and problems with exploratory testing
- Minimize risk throughout automated production software rollouts
- Gather and analyze metrics and logs with Elasticsearch, Logstash, Kibana (ELK), and Graphite
- Manage the introduction of Continuous Delivery into your enterprise
- Architect software to facilitate Continuous Delivery of new capabilities

The Packer Book - James Turnbull 2017-07-31

Introductory book designed for SysAdmins, Operations staff, Developers and DevOps who are interested in building images using the open source tool Packer.

Hands-On DevOps with Vagrant - Alex Braunton 2018-10-17

Use Vagrant to easily build complete development environments Key Features Implement DevOps with Vagrant effectively Integrate Vagrant with different tools such as Puppet, Chef, and Docker Manage infrastructure with a practical approach Book Description Hands-On DevOps with Vagrant teaches you how to use Vagrant as a powerful DevOps tool and gives an overview of how it fits into the DevOps landscape. You will learn how to install VirtualBox and Vagrant in Windows, macOS, and Linux. You will then move on to understanding Vagrant commands, discovering its boxes and Vagrant Cloud. After getting to grips with the basics, the next set of chapters helps you to understand how to configure Vagrant, along with networking. You will explore multimachine, followed by studying how to create multiple environments and the communication between them. In addition to this, you will cover concepts such as Vagrant plugins and file syncing. The last set of chapters provides insights into provisioning shell scripts, also guiding you in how to use Vagrant with configuration management tools such as Chef, Ansible, Docker, Puppet, and Salt. By the end of this book, you will have grasped Vagrant's features and how to use them for your benefit with the help of tips and tricks. What you will learn Explore what development features Vagrant offers Install Vagrant and VirtualBox on Windows, macOS and Linux Harness the power of Vagrant to create powerful development environments Utilize DevOps tools such as Docker, Chef, and Puppet Understand everything about Vagrant, including networking, plugins, and provisioning Use the Vagrant Cloud to install and manage Vagrant boxes Who this book is for Hands-On DevOps with Vagrant is for you if you are a system administrator, DevOps engineer, DevOps architect, or any stakeholder working with DevOps and wanting to explore Vagrant. Experience in system administration is needed to enjoy this book.

Infrastructure as Code, Patterns and Practices - Rosemary Wang

2022-09-20

Use Infrastructure as Code (IaC) to automate, test, and streamline infrastructure for business-critical systems. In *Infrastructure as Code, Patterns and Practices* you will learn how to: Optimize infrastructure for modularity and isolate dependencies Test infrastructure configuration Mitigate, troubleshoot, and isolate failed infrastructure changes Collaborate across teams on infrastructure development Update infrastructure with minimal downtime using blue-green deployments Scale infrastructure systems supporting multiple business units Use patterns for provisioning tools, configuration management, and image building Deliver secure infrastructure configuration to production *Infrastructure as Code, Patterns and Practices* teaches you to automate infrastructure by applying changes in a codified manner. You'll learn how to create, test, and deploy infrastructure components in a way that's easy to scale and share across an entire organization. The book is full of flexible automation techniques that work whether you're managing your personal projects or making live network changes across a large enterprise. A system administrator or infrastructure engineer will learn essential software development practices for managing IaC, while developers will benefit from in-depth coverage of assembling infrastructure as part of DevOps culture. While the patterns and techniques are tool agnostic, you'll appreciate the easy-to-follow examples in Python and Terraform. About the technology *Infrastructure as Code* is a set of practices and processes for provisioning and maintaining infrastructure using scripts, configuration, or programming languages. With IaC in place, it's easy to test components, implement features, and scale with minimal downtime. Best of all, since IaC follows good development practices, you can make system-wide changes with just a few code commits! About the book *Infrastructure as Code, Patterns and Practices* teaches flexible techniques for building resilient, scalable infrastructure, including structuring and sharing modules, migrating legacy systems, and more. Learn to build networks, load balancers, and firewalls using Python and Terraform, and confidently update infrastructure while your software is running. You'll appreciate the

expert advice on team collaboration strategies to avoid instability, improve security, and manage costs. What's inside Optimize infrastructure for modularity and isolate dependencies Mitigate, troubleshoot, and isolate failed infrastructure changes Update infrastructure with minimal downtime using blue-green deployments Use patterns for provisioning tools, configuration management, and image building About the reader For infrastructure or software engineers familiar with Python, provisioning tools, and public cloud providers. About the author Rosemary Wang is an educator, contributor, writer, and speaker. She has worked on many infrastructure as code projects, and open source tools such as Terraform, Vault, and Kubernetes. Table of Contents PART 1 FIRST STEPS 1 Introducing infrastructure as code 2 Writing infrastructure as code 3 Patterns for infrastructure modules 4 Patterns for infrastructure dependencies PART 2 SCALING WITH YOUR TEAM 5 Structuring and sharing modules 6 Testing 7 Continuous delivery and branching models 8 Security and compliance PART 3 MANAGING PRODUCTION COMPLEXITY 9 Making changes 10 Refactoring 11 Fixing failures 12 Cost of cloud computing 13 Managing tools

Learning Chef - Mischa Taylor 2014-11-06

Get a hands-on introduction to the Chef, the configuration management tool for solving operations issues in enterprises large and small. Ideal for developers and sysadmins new to configuration management, this guide shows you to automate the packaging and delivery of applications in your infrastructure. You'll be able to build (or rebuild) your infrastructure's application stack in minutes or hours, rather than days or weeks. After teaching you how to write Ruby-based Chef code, this book walks you through different Chef tools and configuration management concepts in each chapter, using detailed examples throughout. All you need to get started is command-line experience and familiarity with basic system administration. Configure your Chef development environment and start writing recipes Create Chef cookbooks with recipes for each part of your infrastructure Use Test Kitchen to manage sandbox testing environments Manage single nodes with Chef client, and multiple nodes with Chef

Server Use data bags for storing shared global data between nodes Simulate production Chef Server environments with Chef Zero Classify different types of services in your infrastructure with roles Model life stages of your application, including development, testing, staging, and production

Chef Infrastructure Automation Cookbook - Second Edition - Matthias Marschall 2015-05-29

This book is for system engineers and administrators who have a fundamental understanding of information management systems and infrastructure. It helps if you've already played around with Chef; however, this book covers all the important topics you will need to know. If you don't want to dig through a whole book before you can get started, this book is for you, as it features a set of independent recipes you can try out immediately.

Test-Driven Infrastructure with Chef - Stephen Nelson-Smith 2013-10-11

Since Test-Driven Infrastructure with Chef first appeared in mid-2011, infrastructure testing has begun to flourish in the web ops world. In this revised and expanded edition, author Stephen Nelson-Smith brings you up to date on this rapidly evolving discipline, including the philosophy driving it and a growing array of tools. You'll get a hands-on introduction to the Chef framework, and a recommended toolchain and workflow for developing your own test-driven production infrastructure. Several exercises and examples throughout the book help you gain experience with Chef and the entire infrastructure-testing ecosystem. Learn how this test-first approach provides increased security, code quality, and peace of mind. Explore the underpinning philosophy that infrastructure can and should be treated as code Become familiar with the MASCOT approach to test-driven infrastructure Understand the basics of test-driven and behavior-driven development for managing change Dive into Chef fundamentals by building an infrastructure with real examples Discover how Chef works with tools such as Virtualbox and Vagrant Get a deeper understanding of Chef by learning Ruby language basics Learn the tools and workflow necessary to conduct unit, integration, and

acceptance tests

Creating Development Environments with Vagrant - Second Edition - Michael Peacock 2015-03-12

If you are a developer who wants to have your development environment accurately reflect your live servers to tackle the ever-increasing complexity of web and software projects, this book is most certainly intended for you! It's assumed that you know the basics of Linux systems in the context of web-based projects.

Infrastructure as Code (IAC) Cookbook - Stephane Jourdan 2017-02-17

Over 90 practical, actionable recipes to automate, test, and manage your infrastructure quickly and effectively About This Book Bring down your delivery timeline from days to hours by treating your server configurations and VMs as code, just like you would with software code. Take your existing knowledge and skill set with your existing tools (Puppet, Chef, or Docker) to the next level and solve IT infrastructure challenges. Use practical recipes to use code to provision and deploy servers and applications and have greater control of your infrastructure. Who This Book Is For This book is for DevOps engineers and developers working in cross-functional teams or operations and would now switch to IAC to manage complex infrastructures. What You Will Learn Provision local and remote development environments with Vagrant Automate production infrastructures with Terraform, Ansible and Cloud-init on AWS, OpenStack, Google Cloud, Digital Ocean, and more Manage and test automated systems using Chef and Puppet Build, ship, and debug optimized Docker containers Explore the best practices to automate and test everything from cloud infrastructures to operating system configuration In Detail Infrastructure as Code (IAC) is a key aspect of the DevOps movement, and this book will show you how to transform the way you work with your infrastructure—by treating it as software. This book is dedicated to helping you discover the essentials of infrastructure automation and its related practices; the over 90 organized practical solutions will demonstrate how to work with some of the very best tools and cloud solutions. You will learn how to deploy repeatable infrastructures and services on AWS, OpenStack, Google Cloud, and

Digital Ocean. You will see both Ansible and Terraform in action, manipulate the best bits from cloud-init to easily bootstrap instances, and simulate consistent environments locally or remotely using Vagrant. You will discover how to automate and test a range of system tasks using Chef or Puppet. You will also build, test, and debug various Docker containers having developers' interests in mind. This book will help you to use the right tools, techniques, and approaches to deliver working solutions for today's modern infrastructure challenges. Style and approach This is a recipe-based book that allows you to venture into some of the most cutting-edge practices and techniques about IAC and solve immediate problems when trying to implement them.

DevOps for VMware Administrators - Trevor Roberts 2015

DevOps represents a powerful new approach to delivering IT services, where software developers and IT operations teams work closely together to deploy projects far more often and more reliably. As pioneers like Google, Amazon, and Netflix have discovered, DevOps can improve efficiency, accelerate delivery, and reduce costs. However, most discussions of DevOps focus on theory rather than implementation, and DevOps raises unique issues in virtualized environments. DevOps for VMware Administrators addresses these issues, offering realistic insights both for implementing DevOps and for applying new tools to maximize its value. The authors also offer extensive hands-on practice with solving realistic problems and improving IT efficiency by utilizing these four tools: Puppet IT automation software for managing infrastructure across its lifecycle, including provisioning, configuration, orchestration, and reporting Chef configuration management tool for writing system configuration "recipes" that streamline server configuration and maintenance and can integrate with cloud-based platforms such as Rackspace and Amazon EC2 to automate provisioning Ansible, the flexible open source toolkit for automating configuration management and orchestration in Unix and Unix-style environments Windows PowerShell for automating tasks and configuration management in Windows environments

Practical Network Automation - Abhishek Ratan 2017-11-16

Get More from your Network with Automation tools to increase its effectiveness. About This Book Get started with network automation (and different automation tasks) with relevant use cases Apply software design principles such as Continuous Integration and DevOps to your network toolkit Guides you through some best practices in automation Who This Book Is For If you are a network engineer looking for an extensive guide to help you automate and manage your network efficiently, then this book is for you. What You Will Learn Get the detailed analysis of Network automation Trigger automations through available data factors Improve data center robustness and security through specific access and data digging Get an Access to APIs from Excel for dynamic reporting Set up a communication with SSH-based devices using netmiko Make full use of practical use cases and best practices to get accustomed with the various aspects of network automation In Detail Network automation is the use of IT controls to supervise and carry out every-day network management functions. It plays a key role in network virtualization technologies and network functions. The book starts by providing an introduction to network automation, SDN, and its applications, which include integrating DevOps tools to automate the network efficiently. It then guides you through different network automation tasks and covers various data digging and reporting methodologies such as IPv6 migration, DC relocations, and interface parsing, all the while retaining security and improving data center robustness. The book then moves on to the use of Python and the management of SSH keys for machine-to-machine (M2M) communication, all followed by practical use cases. The book also covers the importance of Ansible for network automation including best practices in automation, ways to test automated networks using different tools, and other important techniques. By the end of the book, you will be well acquainted with the various aspects of network automation. Style and approach A clear, concise, and straightforward book that will enable you to automate networks and improve performance.

[Hands-On Enterprise Automation with Python](#) - Bassem Aly 2018-06-28
Invent your own Python scripts to automate your infrastructure Key

Features Make the most of Python libraries and modules to automate your infrastructure Leverage Python programming to automate server configurations and administration tasks Efficiently develop your Python skill set Book Description Hands-On Enterprise Automation with Python starts by covering the set up of a Python environment to perform automation tasks, as well as the modules, libraries, and tools you will be using. We'll explore examples of network automation tasks using simple Python programs and Ansible. Next, we will walk you through automating administration tasks with Python Fabric, where you will learn to perform server configuration and administration, along with system administration tasks such as user management, database management, and process management. As you progress through this book, you'll automate several testing services with Python scripts and perform automation tasks on virtual machines and cloud infrastructure with Python. In the concluding chapters, you will cover Python-based offensive security tools and learn how to automate your security tasks. By the end of this book, you will have mastered the skills of automating several system administration tasks with Python. What you will learn Understand common automation modules used in Python Develop Python scripts to manage network devices Automate common Linux administration tasks with Ansible and Fabric Managing Linux processes Administrate VMware, OpenStack, and AWS instances with Python Security automation and sharing code on GitHub Who this book is for Hands-On Enterprise Automation with Python is for system administrators and DevOps engineers who are looking for an alternative to major automation frameworks such as Puppet and Chef. Basic programming knowledge with Python and Linux shell scripting is necessary.

[Chef Cookbook - Third Edition](#) - Matthias Marschall 2017-04-28
Over 80 incredibly effective recipes to manage day-to-day complications in your infrastructure About This Book* Immediately apply Devops techniques and methods, then combine them with powerful Chef tools to manage and automate your infrastructure* Address the growing challenges of code management, cloud, and virtualization with Chef

quickly* Explore and implement the important aspects of Chef Automate using this recipe-based guide Who This Book Is For This book is for system engineers and administrators who have a fundamental understanding of information management systems and infrastructure. It is also for DevOps Engineers, IT professionals, and organizations who want to automate and gain greater control of their infrastructures with Chef. It helps if you've already played around with Chef. What you will learn* Test your cookbooks with Test Kitchen* Manage cookbook dependencies with Berkshelf* Use reporting to keep track of what happens during the execution of chef-client runs across all of the machines* Create custom Ohai and Knife plugins* Build a high-availability service using Heartbeat* Use a HAProxy to load-balance multiple web servers In Detail Chef is a configuration management tool that lets you automate your more cumbersome IT infrastructure processes and control a large network of computers (and virtual machines) from one master server. This book will help you solve everyday problems with your IT infrastructure with Chef. In this edition, you will get to know more about Chef Automate, which consists of three important aspects: Infrastructure, Application, and Compliance Automation. It will start with recipes that show you how to effectively manage your infrastructure and solve problems with users, applications, and automation. You will then come across a new testing framework, InSpec, to test any node in your infrastructure. Further on, you will learn to customize plugins and write cross-platform cookbooks depending on the platform. You will also install packages from a third-party repository and learn how to manage users and applications. Toward the end, you will build high-availability services and explore what Habitat is and how you can implement it.

DevOps for Web Development - Mitesh Soni 2016-10-24

Achieve the Continuous Integration and Continuous Delivery of your web applications with ease About This Book Overcome the challenges of implementing DevOps for web applications, familiarize yourself with diverse third-party modules, and learn how to integrate them with bespoke code to efficiently complete tasks Understand how to deploy

web applications for a variety of Cloud platforms such as Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure, Azure Web Apps, and Docker Container Understand how to monitor applications deployed in Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure, Azure Web Apps using Nagios, New Relic, Microsoft Azure, and AWS default monitoring features Who This Book Is For If you are a system admin or application and web application developer with a basic knowledge of programming and want to get hands-on with tools such as Jenkins 2 and Chef, and Cloud platforms such as AWS and Microsoft Azure, Docker, New Relic, Nagios, and their modules to host, deploy, monitor, and manage their web applications, then this book is for you. What You Will Learn Grasp Continuous Integration for a JEE application—create and configure a build job for a Java application with Maven and with Jenkins 2.0 Create built-in delivery pipelines of Jenkins 2 and build a pipeline configuration for end-to-end automation to manage the lifecycle of Continuous Integration Get to know all about configuration management using Chef to create a runtime environment Perform instance provisioning in AWS and Microsoft Azure and manage virtual machines on different cloud platforms—install Knife plugins for Amazon EC2 and Microsoft Azure Deploy an application in Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure Web Apps, and a Docker container Monitor infrastructure, application servers, web servers, and applications with the use of open source monitoring solutions and New Relic Orchestrate multiple build jobs to achieve application deployment automation—create parameterized build jobs for end-to-end automation In Detail The DevOps culture is growing at a massive rate, as many organizations are adopting it. However, implementing it for web applications is one of the biggest challenges experienced by many developers and admins, which this book will help you overcome using various tools, such as Chef, Docker, and Jenkins. On the basis of the functionality of these tools, the book is divided into three parts. The first part shows you how to use Jenkins 2.0 for Continuous Integration of a sample JEE application. The second part explains the Chef configuration management tool, and provides an overview of Docker containers, resource provisioning in cloud

environments using Chef, and Configuration Management in a cloud environment. The third part explores Continuous Delivery and Continuous Deployment in AWS, Microsoft Azure, and Docker, all using Jenkins 2.0. This book combines the skills of both web application deployment and system configuration as each chapter contains one or more practical hands-on projects. You will be exposed to real-world project scenarios that are progressively presented from easy to complex solutions. We will teach you concepts such as hosting web applications, configuring a runtime environment, monitoring and hosting on various cloud platforms, and managing them. This book will show you how to essentially host and manage web applications along with Continuous Integration, Cloud Computing, Configuration Management, Continuous Monitoring, Continuous Delivery, and Deployment. Style and approach This is a learning guide for those who have a basic knowledge of application deployment, configuration management tools, and Cloud computing, and are eager to leverage it to implement DevOps for web applications using end-to-end automation and orchestration.

Chef: Powerful Infrastructure Automation - John Ewart 2017-05-15

Learn Chef Provisioning like a boss and discover how to deploy software and manage hosts, along with engaging recipes to automate your cloud and server infrastructure with Chef. About This Book* Leverage the power of Chef to transform your infrastructure into code to deploy new features in minutes* Get step-by-step instructions to configure, deploy, and scale your applications* Master specific Chef techniques to run an entire fleet of machines without breaking a sweat. Who This Book Is For If you are a system administrator, Linux administrator, a cloud developer, or someone who just wants to learn and apply Chef automation to your existing or new infrastructure, then this learning path will show you all you need to know. In order to get the most out of this learning path, some experience of programming or scripting languages would be useful. What You Will Learn* Install Chef server on your own hosts* Integrate Chef with cloud services* Debug your cookbooks and Chef runs using the numerous inspection and logging facilities of Chef* Extend Chef to meet your advanced needs by creating custom plugins for Knife

and Ohai* Create a perfect model system* Use the best test-driven development methodologies In Detail Chef is a configuration management tool that turns IT infrastructure into code. Chef provides tools to manage systems at scale. This learning path takes you on a comprehensive tour of Chef's functionality, ranging from its core features to advanced development. You will be brought up to speed with what's new in Chef and how to set up your own Chef infrastructure for individuals, or small or large teams. You will learn to use the basic Chef command-line tools. We will also take you through the core concepts of managing users, applications, and your entire cloud infrastructure. You will learn the techniques of the pros by walking you through a host of step-by-step guides to solve real-world infrastructure automation challenges. You will learn to automate and document every aspect of your network, from the hardware to software, middleware, and all your containers. You will become familiar with the Chef's Provisioning tool. By the end of this course, you will be confident in how to manage your infrastructure, scale using the cloud, and extend the built-in functionality of Chef itself. The books used in this Learning Path are: 1) Chef Essentials 2) Chef Infrastructure Automation Cookbook - Second Edition 3) Mastering Chef Provisioning Style and approach This fast-paced guide covers the many facets of Chef and will teach administrators to use Chef as a birds-eye lens for their entire system. This book takes you through a host of step-by-step guides to solve real-world infrastructure automation challenges and offers elegant, time-saving solutions for a perfectly described and automated network.

DevOps Automation Cookbook - Michael Duffy 2015-11-26

Over 120 recipes covering key automation techniques through code management and virtualization offered by modern Infrastructure as a Service About This Book- Use some of the powerful tools that have emerged to enable systems administrators and developers to take control and automate the management, monitoring, and creation of complex infrastructures- Covers some of the most exciting technologies available to DevOps engineers, and demonstrates multiple techniques for using them- A hands-on guide filled with clear examples and multiple

methodologies to demonstrate the various DevOps tools available Who This Book Is For If you are a systems administrator or developer who is keen to employ DevOps techniques to help with the day-to-day complications of managing complex infrastructures, then this book is for you. No prior knowledge of DevOps tools is required. What You Will Learn- Manage, use, and work with code in the Git version management system- Manage the life cycle of hosts, from creation to on-going management, using Puppet Razor- Create hosts automatically using a simple combination of TFTP, DHCP, and pre-seeds- Implement virtual hosts using the ubiquitous VMware ESXi hypervisor- Control configuration using the powerful and popular Ansible configuration management system- Develop powerful, consistent, and portable containers using Docker- Track trends, discover data, and monitor key systems using InfluxDB, syslog, and Sensu- Deal efficiently with powerful cloud infrastructures using the Amazon AWS Infrastructure as a Service and the Heroku Platform as a Service In Detail There has been a recent explosion in tools that allow you to redefine the delivery of infrastructure and applications, using a combination of automation and testing to deliver continuous deployment. DevOps has garnered interest from every quarter, and is rapidly being recognized as a radical shift, as large as the Agile movement for the delivery of software. This book takes a collection of some of the coolest software available today and shows you how to use it to create impressive changes to the way you deliver applications and software. It tackles the plethora of tools that are now available to enable organizations to take advantage of the automation, monitoring, and configuration management techniques that define a DevOps-driven infrastructure. Starting off with the fundamental command-line tools that every DevOps enthusiast must know, this book will guide you through the implementation of the Ansible tool to help you facilitate automation and perform diverse tasks. You will explore how to build hosts automatically with the creation of Apt mirrors and interactive pre-seeds, which are of the utmost importance for Ubuntu automation. You will also delve into the concept of virtualization and creating and manipulating guests with ESXi. Following this, you will venture into the application of Docker;

learn how to install, run, network, and restore Docker containers; and also learn how to build containers in Jenkins and deploy apps using a combination of Ansible, Docker, and Jenkins. You will also discover how to filter data with Grafana and the usage of InfluxDB along with unconventional log management. Finally, you will get acquainted with cloud infrastructure, employing the Heroku and Amazon AWS platforms. By tackling real-world issues, this book will guide you through a huge variety of tools, giving new users the ability to get up and running and offering advanced users some interesting recipes that may help with existing issues. Style and approach This book has an easy-to-follow approach to both introducing the wide range of available DevOps tools and working with them. Each recipe is lavishly sprinkled with example code and uses clear instructions to easily allow you to see how you can both implement the solutions, and more importantly, tailor them to your unique needs.

[Learning CFEngine 3](#) - Diego Zamboni 2012-03-21

Get up to speed on CFEngine 3, the open source configuration management software that enables you to automate everything from one-server shops to enterprise computer networks. This hands-on introduction shows you how to use CFEngine 3 to implement and manage and your IT infrastructure in a sustainable, scalable, and efficient manner. Through numerous examples, you'll learn how to use CFEngine to perform tasks such as user management, software installation, and security. You'll also learn how to focus on higher-level issues of design, implementation and maintenance, knowing that CFEngine is handling the lower-level details for you automatically. Discover how far you can go with system automation, using CFEngine Become familiar with the software's principles, components, and policy structure Configure CFEngine step-by-step to perform routine tasks on your system Specify custom machine configuration without making changes by hand Get tricks and patterns that you can use in your own CFEngine policies Maintain separate CFEngine environments for development, testing, production, or other uses

Customizing Chef - Jon Cowie 2014-08-28

Take advantage of Chef's highly customizable design to tackle specific automation issues that you can't solve by simply using Chef's tools, resources, and services out of the box. With this practical guide, you'll examine the internal structure of this configuration management technology and learn where, how, and why to add custom code. Author Jon Cowie not only provides code snippets and practical advice for customizing Chef, but also helps you determine case by case whether it's in your best interests to customize at all. If you have intermediate-to-advanced Chef experience, this book is indispensable. Explore Chef's typical setups and why you'd want to customize them Learn the Ruby concepts needed to write customizations Customize the Chef run process and explore Chef's internal classes Gain more insight into your Chef runs through handlers and Chef's event stream Level up your Chef recipes by writing your own resources and providers Create and extend plugins for Knife—Chef's command-line tool Interact with the Chef API to write scripts and reports Learn how to contribute customizations to the Chef community

Practical DevOps - Joakim Verona 2016-02-16

Harness the power of DevOps to boost your skill set and make your IT organization perform better About This Book Get to know the background of DevOps so you understand the collaboration between different aspects of an IT organization and a software developer Improve your organization's performance to ensure smooth production of software and services Deploy top-quality software and ensure software maintenance and release management with this practical guide Who This Book Is For This book is aimed at developers and system administrators who wish to take on larger responsibilities and understand how the infrastructure that builds today's enterprises works. This book is also great for operations personnel who would like to better support developers. You do not need to have any previous knowledge of DevOps. What You Will Learn Appreciate the merits of DevOps and continuous delivery and see how DevOps supports the agile process Understand how all the systems fit together to form a larger whole Set up and familiarize yourself with all the tools you need to be efficient with DevOps Design an

application that is suitable for continuous deployment systems with Devops in mind Store and manage your code effectively using different options such as Git, Gerrit, and Gitlab Configure a job to build a sample CRUD application Test the code using automated regression testing with Jenkins Selenium Deploy your code using tools such as Puppet, Ansible, Palletops, Chef, and Vagrant Monitor the health of your code with Nagios, Munin, and Graphite Explore the workings of Trac—a tool used for issue tracking In Detail DevOps is a practical field that focuses on delivering business value as efficiently as possible. DevOps encompasses all the flows from code through testing environments to production environments. It stresses the cooperation between different roles, and how they can work together more closely, as the roots of the word imply—Development and Operations. After a quick refresher to DevOps and continuous delivery, we quickly move on to looking at how DevOps affects architecture. You'll create a sample enterprise Java application that you'll continue to work with through the remaining chapters. Following this, we explore various code storage and build server options. You will then learn how to perform code testing with a few tools and deploy your test successfully. Next, you will learn how to monitor code for any anomalies and make sure it's running properly. Finally, you will discover how to handle logs and keep track of the issues that affect processes Style and approach This book is primarily a technical guide to DevOps with practical examples suitable for people who like to learn by implementing concrete working code. It starts out with background information and gradually delves deeper into technical subjects.

Web Operations - John Allspaw 2010-06-21

A web application involves many specialists, but it takes people in web ops to ensure that everything works together throughout an application's lifetime. It's the expertise you need when your start-up gets an unexpected spike in web traffic, or when a new feature causes your mature application to fail. In this collection of essays and interviews, web veterans such as Theo Schlossnagle, Baron Schwartz, and Alistair Croll offer insights into this evolving field. You'll learn stories from the trenches—from builders of some of the biggest sites on the Web—on

what's necessary to help a site thrive. Learn the skills needed in web operations, and why they're gained through experience rather than schooling Understand why it's important to gather metrics from both your application and infrastructure Consider common approaches to database architectures and the pitfalls that come with increasing scale Learn how to handle the human side of outages and degradations Find out how one company avoided disaster after a huge traffic deluge Discover what went wrong after a problem occurs, and how to prevent it from happening again Contributors include: John Allspaw Heather Champ Michael Christian Richard Cook Alistair Croll Patrick Debois Eric Florenzano Paul Hammond Justin Huff Adam Jacob Jacob Loomis Matt Massie Brian Moon Anoop Nagwani Sean Power Eric Ries Theo Schlossnagle Baron Schwartz Andrew Shafer

Chef: Powerful Infrastructure Automation - John Ewart 2017-05-16

Learn Chef Provisioning like a boss and discover how to deploy software and manage hosts, along with engaging recipes to automate your cloud and server infrastructure with Chef. About This Book Leverage the power of Chef to transform your infrastructure into code to deploy new features in minutes Get step-by-step instructions to configure, deploy, and scale your applications Master specific Chef techniques to run an entire fleet of machines without breaking a sweat. Who This Book Is For If you are a system administrator, Linux administrator, a cloud developer, or someone who just wants to learn and apply Chef automation to your existing or new infrastructure, then this learning path will show you all you need to know. In order to get the most out of this learning path, some experience of programming or scripting languages would be useful. What You Will Learn Install Chef server on your own hosts Integrate Chef with cloud services Debug your cookbooks and Chef runs using the numerous inspection and logging facilities of Chef Extend Chef to meet your advanced needs by creating custom plugins for Knife and Ohai Create a perfect model system Use the best test-driven development methodologies In Detail Chef is a configuration management tool that turns IT infrastructure into code. Chef provides tools to manage systems at scale. This learning path takes you on a

comprehensive tour of Chef's functionality, ranging from its core features to advanced development. You will be brought up to speed with what's new in Chef and how to set up your own Chef infrastructure for individuals, or small or large teams. You will learn to use the basic Chef command-line tools. We will also take you through the core concepts of managing users, applications, and your entire cloud infrastructure. You will learn the techniques of the pros by walking you through a host of step-by-step guides to solve real-world infrastructure automation challenges. You will learn to automate and document every aspect of your network, from the hardware to software, middleware, and all your containers. You will become familiar with the Chef's Provisioning tool. By the end of this course, you will be confident in how to manage your infrastructure, scale using the cloud, and extend the built-in functionality of Chef itself. The books used in this Learning Path are: 1) Chef Essentials 2) Chef Infrastructure Automation Cookbook - Second Edition 3) Mastering Chef Provisioning Style and approach This fast-paced guide covers the many facets of Chef and will teach administrators to use Chef as a birds-eye lens for their entire system. This book takes you through a host of step-by-step guides to solve real-world infrastructure automation challenges and offers elegant, time-saving solutions for a perfectly described and automated network.

Terraform: Up & Running - Yevgeniy Brikman 2019-09-06

Terraform has become a key player in the DevOps world for defining, launching, and managing infrastructure as code (IaC) across a variety of cloud and virtualization platforms, including AWS, Google Cloud, Azure, and more. This hands-on second edition, expanded and thoroughly updated for Terraform version 0.12 and beyond, shows you the fastest way to get up and running. Gruntwork cofounder Yevgeniy (Jim) Brikman walks you through code examples that demonstrate Terraform's simple, declarative programming language for deploying and managing infrastructure with a few commands. Veteran sysadmins, DevOps engineers, and novice developers will quickly go from Terraform basics to running a full stack that can support a massive amount of traffic and a large team of developers. Explore changes from Terraform 0.9 through

0.12, including backends, workspaces, and first-class expressions Learn how to write production-grade Terraform modules Dive into manual and automated testing for Terraform code Compare Terraform to Chef, Puppet, Ansible, CloudFormation, and Salt Stack Deploy server clusters, load balancers, and databases Use Terraform to manage the state of your infrastructure Create reusable infrastructure with Terraform modules Use advanced Terraform syntax to achieve zero-downtime deployment

Network Automation Cookbook - Karim Okasha 2020-04-17

Take your network automation skills to the next level with practical recipes on managing network devices from a variety of vendors like Cisco, Juniper, and Arista Key Features Use Ansible to automate network infrastructure with the help of step-by-step instructions Implement network automation best practices to save cost, avoid critical errors, and reduce downtime Deliver a robust automation framework by integrating Ansible with NAPALM, NetBox, and Batfish Book Description Network Automation Cookbook is designed to help system administrators, network engineers, and infrastructure automation engineers to centrally manage switches, routers, and other devices in their organization's network. This book will help you gain hands-on experience in automating enterprise networks and take you through core network automation techniques using the latest version of Ansible and Python. With the help of practical recipes, you'll learn how to build a network infrastructure that can be easily managed and updated as it scales through a large number of devices. You'll also cover topics related to security automation and get to grips with essential techniques to maintain network robustness. As you make progress, the book will show you how to automate networks on public cloud providers such as AWS, Google Cloud Platform, and Azure. Finally, you will get up and running with Ansible 2.9

and discover troubleshooting techniques and network automation best practices. By the end of this book, you'll be able to use Ansible to automate modern network devices and integrate third-party tools such as NAPALM, NetBox, and Batfish easily to build robust network automation solutions. What you will learn Understand the various components of Ansible Automate network resources in AWS, GCP, and Azure cloud solutions Use IaC concepts to design and build network solutions Automate network devices such as Cisco, Juniper, Arista, and F5 Use NetBox to build network inventory and integrate it with Ansible Validate networks using Ansible and Batfish Who this book is for This Ansible network automation book is for network and DevOps engineers interested in automating complex network tasks. Prior understanding of networking and basic Linux knowledge is required.

Chef Infrastructure Automation Cookbook - Matthias Marschall 2013

Chef Infrastructure Automation Cookbook contains practical recipes on everything you will need to automate your infrastructure using Chef. The book is packed with illustrated code examples to automate your server and cloud infrastructure. The book first shows you the simplest way to achieve a certain task. Then it explains every step in detail, so that you can build your knowledge about how things work. Eventually, the book shows you additional things to consider for each approach. That way, you can learn step-by-step and build profound knowledge on how to go about your configuration management automation. This book is for system engineers and administrators who have a fundamental understanding of information management systems and infrastructure. It helps if you've already played around with Chef; however, the book covers all the important topics you will need to know. If you don't want to dig through a whole book before you can get started, this book is for you, as it features a set of independent recipes you can try out immediately.