Mastering Zabbix Second Edition

Aimed at helping Java developers, Servlet/JSP developers, and J2EE developers pass the Sun Certified Web Component Developer Exam (SCWCD 310-081), this study guide covers all aspects of the Servlet and JSP technology that Sun has determined necessary. This new edition adds aspects of servlet/JSP development, such as the Expression language, and updated materials of servlets with a particular focus on using filters to make request processing more efficient. Covering the reliance on the JSP Standard Template Library (JSTL) and its core, this guide allows JSP developers will be able to simplify their development process and remove Java-based scriptlets and expressions from their code. All applications in this book are designed to run on Apache's latest development server, Tomcat 5.0, and instructions on how to install this new edition and execute servlets and JSPs are included.

Learn web scraping and crawling techniques to access unlimited data from any web source in any format. With this practical guide, you'll learn how to use Python scripts and web APIs to gather and process data from thousands—or even millions—of web pages at once. Ideal for programmers, security professionals, and web administrators familiar with Python, this book not only teaches basic web

scraping mechanics, but also delves into more advanced topics, such as analyzing raw data or using scrapers for frontend website testing. Code samples are available to help you understand the concepts in practice. Learn how to parse complicated HTML pages Traverse multiple pages and sites Get a general overview of APIs and how they work Learn several methods for storing the data you scrape Download, read, and extract data from documents Use tools and techniques to clean badly formatted data Read and write natural languages Crawl through forms and logins Understand how to scrape JavaScript Learn image processing and text recognition

Transit from monolithic architectures to highly available, scalable, and fault-tolerant microservices About This Book Build your own applications based on event-driven microservices and set them up on a production server. Successfully transform any monolithic application into a microservice. Monitor the health of your application, prevent downtime, and reduce costs. Who This Book Is For PHP developers who want to build scalable, highly available, and secure applications will find this book useful. No knowledge of microservices is assumed. What You Will Learn Set up a development environment using the right strategies and tools. Learn about application design and structure to start implementing your application. Transform a

monolithic application into microservices. Explore the best way to start implementing your application using testing. Understand how to monitor your microservices, handle errors, and debug the application. Deploy your finished application into a production environment and learn how to solve common problems. Know how to scale your application based on microservices once it is up–and-running. In Detail The world is moving away from bulky, unreliable, and high-maintenance PHP applications, to small, easy-to-maintain and highly available microservices and the pressing need is for PHP developers to understand the criticalities in building effective microservices that scale at large. This book will be a reliable resource, and one that will help you to develop your skills and teach you techniques for building reliable microservices in PHP. The book begins with an introduction to the world of microservices, and quickly shows you how to set up a development environment and build a basic platform using Docker and Vagrant. You will then get into the different design aspects to be considered while building microservices in your favorite framework and you will explore topics such as testing, securing, and deploying microservices. You will also understand how to migrate a monolithic application to the microservice architecture while keeping scalability and best practices in mind. Furthermore you will get into a few important

DevOps techniques that will help you progress on to more complex domains such as native cloud development, as well as some interesting design patterns. By the end of this book you will be able to develop applications based on microservices in an organized and efficient way. You will also gain the knowledge to transform any monolithic applications into microservices. Style and approach Filled with code that you can start typing straightaway, this book will take you through building, testing, securing, and deploying microservices in the most practical way possible. The focus of the book is more inclined towards showing you how it's done, rather than with what to do, although you will get a good idea of those tools most widely used to build microservices. Discover over 90 practical and exciting recipes that leverage the power of OpenVPN 2.4 to help you obtain a reliable and secure VPN About This Book Master the skills of configuring, managing, and securing your VPN using the latest OpenVPN Gain expertise in establishing IPv6 connections and understand PolarSSL using the latest version of OpenVPN This book contains enticing recipes about OpenVPN functionalities that cater to mission critical applications Who This Book Is For This book is for system administrators who have a basic knowledge of OpenVPN and are eagerly waiting to build, secure, and manage VPNs using the latest version. This book assumes some prior knowledge of TCP/IP

networking and OpenVPN and you must have network administration skills to get the most out of this book. What You Will Learn Determine the best type of OpenVPN setup for your networking needs Get to grips with the encryption, authentication, and certifications features of OpenSSL. Integrate an OpenVPN server into the local IT infrastructure with the scripting features of OpenVPN Ease the integration of Windows clients into the VPN using Windows-specific client-side configuration Understand the authentication plugins for PAM and LDAP Get to know the difference between TUN-style and TAP-style networks and when to use what Troubleshoot your VPN setup Establish a connection via IPv6 along with demonstrations In Detail OpenVPN provides an extensible VPN framework that has been designed to ease site-specific customization, such as providing the capability to distribute a customized installation package to clients, and supporting alternative authentication methods via OpenVPN's plugin module interface. This book provides you with many different recipes to help you set up, monitor, and troubleshoot an OpenVPN network. You will learn to configure a scalable, load-balanced VPN server farm that can handle thousands of dynamic connections from incoming VPN clients. You will also get to grips with the encryption, authentication, security, extensibility, and certifications features of OpenSSL. You will also

get an understanding of IPv6 support and will get a demonstration of how to establish a connection via IPv64. This book will explore all the advanced features of OpenVPN and even some undocumented options, covering all the common network setups such as point-to-point networks and multi-client TUN-style and TAP-style networks. Finally, you will learn to manage, secure, and troubleshoot your virtual private networks using OpenVPN 2.4. Style and approach This practical, recipe-based book covers the core functionalities of OpenVPN ending with troubleshooting, performance tuning and making the readers inquisitive about the advanced features.

Learning a language--any language--involves a process wherein you learn to rely less and less on instruction and more increasingly on the aspects of the language you've mastered. Whether you're learning French, Java, or C, at some point you'll set aside the tutorial and attempt to converse on your own. It's not necessary to know every subtle facet of French in order to speak it well, especially if there's a good dictionary available. Likewise, C programmers don't need to memorize every detail of C in order to write good programs. What they need instead is a reliable, comprehensive reference that they can keep nearby. C in a Nutshell is that reference. This long-awaited book is a complete reference to the C programming language and C runtime library. Its

purpose is to serve as a convenient, reliable companion in your day-to-day work as a C programmer. C in a Nutshell covers virtually everything you need to program in C, describing all the elements of the language and illustrating their use with numerous examples. The book is divided into three distinct parts. The first part is a fast-paced description, reminiscent of the classic Kernighan & Ritchie text on which many C programmers cut their teeth. It focuses specifically on the C language and preprocessor directives, including extensions introduced to the ANSI standard in 1999. These topics and others are covered: Numeric constants Implicit and explicit type conversions Expressions and operators Functions Fixed-length and variable-length arrays Pointers Dynamic memory management Input and output The second part of the book is a comprehensive reference to the C runtime library; it includes an overview of the contents of the standard headers and a description of each standard library function. Part III provides the necessary knowledge of the C programmer's basic tools: the compiler, the make utility, and the debugger. The tools described here are those in the GNU software collection. C in a Nutshell is the perfect companion to K&R, and destined to be the most reached-for reference on your desk. Explore real-world examples of issues with systems and find ways to resolve them using Amazon

CloudWatch as a monitoring service Key Features Become well-versed with monitoring fundamentals such as understanding the building blocks and architecture of networking Learn how to ensure your applications never face downtime Get hands-on with observing serverless applications and services Book Description CloudWatch is Amazon's monitoring and observability service, designed to help those in the IT industry who are interested in optimizing resource utilization, visualizing operational health, and eventually increasing infrastructure performance. This book helps IT administrators, DevOps engineers, network engineers, and solutions architects to make optimum use of this cloud service for effective infrastructure productivity. You'll start with a brief introduction to monitoring and Amazon CloudWatch and its core functionalities. Next, you'll get to grips with CloudWatch features and their usability. Once the book has helped you develop your foundational knowledge of CloudWatch, you'll be able to build your practical skills in monitoring and alerting various Amazon Web Services, such as EC2, EBS, RDS, ECS, EKS, DynamoDB, AWS Lambda, and ELB, with the help of real-world use cases. As you progress, you'll also learn how to use CloudWatch to detect anomalous behavior, set alarms, visualize logs and metrics, define automated actions, and rapidly troubleshoot issues. Finally, the book will take you through monitoring AWS billing

and costs. By the end of this book, you'll be capable of making decisions that enhance your infrastructure performance and maintain it at its peak. What you will learn Understand the meaning and importance of monitoring Explore the components of a basic monitoring system Understand the functions of CloudWatch Logs, metrics, and dashboards Discover how to collect different types of metrics from EC2 Configure Amazon EventBridge to integrate with different AWS services Get up to speed with the fundamentals of observability and the AWS services used for observability Find out about the role Infrastructure As Code (IaC) plays in monitoring Gain insights into how billing works using different CloudWatch features Who this book is for This book is for developers, DevOps engineers, site reliability engineers, or any IT individual with hands-on intermediate-level experience in networking, cloud computing, and infrastructure management. A beginner-level understanding of AWS and application monitoring will also be helpful to grasp the concepts covered in the book more effectively. Learn how to gather detailed statistics and data with this one-stop, comprehensive course along with hands-on recipes to get your infrastructure up and running with Zabbix. About This Book Monitor your network and deploy impressive business solutions with Zabbix Get practical recipes to automate your Zabbix infrastructure and create impressive graphs

Integrate, customize, and extend your monitoring solutions with external components and software. Who This Book Is For This course is for System Administrators who have been managing and monitoring infrastructure. You do not need any knowledge about Zabbix. What You Will Learn Efficiently collect data from a large variety of monitoring objects Organize your data in graphs, charts, maps, and slide shows Write your own custom probes and monitoring scripts to extend Zabbix Configure Zabbix and its database to be high available and fault-tolerant Automate repetitive procedures using Zabbix's API FInd out how to monitor SNMP devices Manage hosts, users, and permissions while acting upon monitored conditions Set up your Zabbix infrastructure efficiently Customize the Zabbix interface to suit your system needs Monitor your VMware infrastructure in a quick and easy way with Zabbix In Detail Nowadays, monitoring systems play a crucial role in any IT environment. They are extensively used to not only measure your system's performance, but also to forecast capacity issues. This is where Zabbix, one of the most popular monitoring solutions for networks and applications, comes into the picture. With an efficient monitoring system in place, you'll be able to foresee when your infrastructure runs under capacity and react accordingly. Due to the critical role a monitoring system plays, it is fundamental to

implement it in the best way from its initial setup. This avoids misleading, confusing, or, even worse, false alarms that can disrupt an efficient and healthy IT department. This course is for administrators who are looking for an end-to-end monitoring solution. It will get you accustomed with the powerful monitoring solution, starting with installation and explaining the fundamentals of Zabbix. Moving on, we explore the complex functionalities of Zabbix in the form of enticing recipes. These recipes will help you to gain control of your infrastructure. You will be able to organize your data in the form of graphs and charts along with building intelligent triggers for monitoring your network proactively. Toward the end, you will gain expertise in monitoring your networks and applications using Zabbix. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Zabbix Network Monitoring-Second Edition Zabbix Cookbook Mastering Zabbix-Second Edition Style and approach This course is a compact practical guide that starts from the fundamentals of Zabbix and takes you all the way to building a monitoring solution that gathers data from a large variety of systems. Along the way, we will discuss the low-level operational details that should benefit you even if you have used Zabbix for a while. It also follows a step-by-step approach that is easy to follow, full of

engaging examples, and will help you apply the theory to practice.

Master the art of advanced VoIP and WebRTC communication with the most dynamic application server, FreeSWITCH About This Book Forget the hassle - make FreeSWITCH work for you Discover how FreeSWITCH integrates with a range of tools and APIs From high availability to IVR development use this book to become more confident with this useful communication software Who This Book Is For SysAdmins, VoIP engineers – whoever you are, whatever you're trying to do, this book will help you get more from FreeSWITCH. What You Will Learn Get to grips with the core concepts of FreeSWITCH Learn FreeSWITCH high availability Work with SIP profiles, gateways, ITSPs, and Codecs optimization Implement effective security on your projects Master audio manipulation and recording Discover how FreeSWITCH works alongside WebRTC Build your own complex IVR and PBX applications Connect directly to PSTN/TDM Create your own FreeSWITCH module Trace SIP packets with the help of best open source tools Implement Homer Sipcapture to troubleshoot and debug all your platform traffic In Detail FreeSWITCH is one of the best tools around if you're looking for a modern method of managing communication protocols through a range of different media. From real-time browser communication with the WebRTC API to

implementing VoIP (voice over internet protocol), with FreeSWITCH you're in full control of your projects. This book shows you how to unlock its full potential – more than just a tutorial, it's packed with plenty of tips and tricks to make it work for you. Written by members of the team who actually helped build FreeSWITCH, it will guide you through some of the newest features of version 1.6 including video transcoding and conferencing. Find out how FreeSWITCH interacts with other tools and APIs, learn how to tackle common (and not so common) challenges ranging from high availability to IVR development and programming advanced PBXs. Great communication functionality begins with FreeSWITCH – find out how and get your project up and running today. Style and approach Find out how it works, then put your knowledge into practice - that's how this advanced FreeSWITCH guide has been designed to help you learn. You'll soon master FreeSWITCH and be confident using it in your projects.

Install and configure a pfSense router/firewall, and become a pfSense expert in the process. Key Features You can always do more to secure your software – so extend and customize your pfSense firewall Build a high availability security system that's fault-tolerant – and capable of blocking potential threats Put the principles of better security into practice by implementing examples provided in

the text Book Description pfSense has the same reliability and stability as even the most popular commercial firewall offerings on the market – but, like the very best open-source software, it doesn't limit you. You're in control – you can exploit and customize pfSense around your security needs. Mastering pfSense - Second Edition, covers features that have long been part of pfSense such as captive portal, VLANs, traffic shaping, VPNs, load balancing, Common Address Redundancy Protocol (CARP), multi-WAN, and routing. It also covers features that have been added with the release of 2.4, such as support for ZFS partitions and OpenVPN 2.4. This book takes into account the fact that, in order to support increased cryptographic loads, pfSense version 2.5 will require a CPU that supports AES-NI. The second edition of this book places more of an emphasis on the practical side of utilizing pfSense than the previous edition, and, as a result, more examples are provided which show in step-by-step fashion how to implement many features. What you will learn Configure pfSense services such as DHCP, Dynamic DNS, captive portal, DNS, NTP and SNMP Set up a managed switch to work with VLANs Use pfSense to allow, block and deny traffic, and to implement Network Address Translation (NAT) Make use of the traffic shaper to lower and raise the priority of certain types of traffic Set up and connect to a VPN tunnel with pfSense Incorporate

redundancy and high availability by utilizing load
balancing and the Common Address Redundancy
Protocol (CARP) Explore diagnostic tools in pfSense
to solve network problems Who this book is for This
book is for those with at least an intermediate
understanding of networking. Prior knowledge of
pfSense would be helpful but is not required. Those
who have the resources to set up a pfSense firewall,
either in a real or virtual environment, will especially
benefit, as they will be able to follow along with the
examples in the book.

Over 100 practical recipes related to network and
application security auditing using the powerful
Nmap About This Book Learn through practical
recipes how to use Nmap for a wide range of tasks
for system administrators and penetration testers.
Learn the latest and most useful features of Nmap
and the Nmap Scripting Engine. Learn to audit the
security of networks, web applications, databases,
mail servers, Microsoft Windows
servers/workstations and even ICS systems. Learn
to develop your own modules for the Nmap Scripting
Engine. Become familiar with Lua programming.
100% practical tasks, relevant and explained step-by-
step with exact commands and optional arguments
description Who This Book Is For The book is for
anyone who wants to master Nmap and its scripting
engine to perform real life security auditing checks
for system administrators and penetration testers.

This book is also recommended to anyone looking to learn about network security auditing. Finally, novice Nmap users will also learn a lot from this book as it covers several advanced internal aspects of Nmap and related tools. What You Will Learn Learn about Nmap and related tools, such as Ncat, Ncrack, Ndiff, Zenmap and the Nmap Scripting Engine Master basic and advanced techniques to perform port scanning and host discovery Detect insecure configurations and vulnerabilities in web servers, databases, and mail servers Learn how to detect insecure Microsoft Windows workstations and scan networks using the Active Directory technology Learn how to safely identify and scan critical ICS/SCADA systems Learn how to optimize the performance and behavior of your scans Learn about advanced reporting Learn the fundamentals of Lua programming Become familiar with the development libraries shipped with the NSE Write your own Nmap Scripting Engine scripts In Detail This is the second edition of 'Nmap 6: Network Exploration and Security Auditing Cookbook'. A book aimed for anyone who wants to master Nmap and its scripting engine through practical tasks for system administrators and penetration testers. Besides introducing the most powerful features of Nmap and related tools, common security auditing tasks for local and remote networks, web applications, databases, mail servers, Microsoft Windows

machines and even ICS SCADA systems are explained step by step with exact commands and argument explanations. The book starts with the basic usage of Nmap and related tools like Ncat, Ncrack, Ndiff and Zenmap. The Nmap Scripting Engine is thoroughly covered through security checks used commonly in real-life scenarios applied for different types of systems. New chapters for Microsoft Windows and ICS SCADA systems were added and every recipe was revised. This edition reflects the latest updates and hottest additions to the Nmap project to date. The book will also introduce you to Lua programming and NSE script development allowing you to extend further the power of Nmap. Style and approach This book consists of practical recipes on network exploration and security auditing techniques, enabling you to get hands-on experience through real life scenarios. If you are an experienced network administrator looking for a comprehensive monitoring solution that will keep a watchful eye on networks, then this book is for you. Provides information on using the ticketing system Request Tracker. Apache Ignite is one of the most widely used open source memory-centric distributed, caching, and processing platform. This allows the users to use the platform as an in-memory computing framework or a full functional persistence data stores with SQL and

ACID transaction support. On the other hand, Apache Ignite can be used for accelerating existing Relational and NoSQL databases, processing events & streaming data or developing Microservices in fault-tolerant fashion. This book addressed anyone interested in learning in-memory computing and distributed database. This book intends to provide someone with little to no experience of Apache Ignite with an opportunity to learn how to use this platform effectively from scratch taking a practical hands-on approach to learning. Please see the table of contents for more details.

Discover practical recipes to help you efficiently monitor enterprise IT infrastructure for Windows, Linux, and networking Key Features Find out how you can leverage some of the most exciting features of Zabbix 5 Perform professional IT infrastructure and application monitoring on multiple platforms Discover easy-to-follow, practical solutions to problems in network monitoring with Zabbix Book Description Zabbix offers useful insights into your infrastructure performance and issues and enables you to enhance your monitoring setup with its variety of powerful features. This book covers hands-on, easy-to-follow recipes for using Zabbix 5 for effectively monitoring the performance of devices and applications over networks. The book starts by guiding you through the installation of Zabbix and using the Zabbix frontend. You'll then work your way

through the most prominent features of Zabbix and make the right design choices for building a scalable and easily manageable environment. The book contains recipes for building items and triggers for different types of monitoring, building templates, and using Zabbix proxies. As you advance, you'll learn how to use the Zabbix API for customization and manage your Zabbix server and database efficiently. Finally, you'll find quick solutions to the common and not-so-common problems that you may encounter in your everyday Zabbix monitoring work. By the end of this Zabbix book, you'll have learned how to use Zabbix for all your monitoring needs and be able to build a solid Zabbix setup by leveraging its key functionalities. What you will learn Explore the different types of monitoring available in Zabbix 5 Find out how to build your own Zabbix templates Use Zabbix proxies for effective load balancing/scaling Work with custom integrations and the Zabbix API Set up triggers and alerting with Zabbix 5 Maintain your Zabbix setup for scaling, backups, and upgrades Discover how to perform advanced Zabbix database management Monitor cloud-based products such as Amazon Web Services (AWS), Azure, and Docker Who this book is for This book is for IT engineers who want to get started with Zabbix and anyone with an intermediate understanding of Zabbix looking to extend their knowledge. Although not necessary, prior

experience with Zabbix will help you to make the most of this book.

Mastering ZabbixPackt Publishing Ltd
In 2016, Google's Site Reliability Engineering book ignited an industry discussion on what it means to run production services today—and why reliability considerations are fundamental to service design. Now, Google engineers who worked on that bestseller introduce The Site Reliability Workbook, a hands-on companion that uses concrete examples to show you how to put SRE principles and practices to work in your environment. This new workbook not only combines practical examples from Google's experiences, but also provides case studies from Google's Cloud Platform customers who underwent this journey. Evernote, The Home Depot, The New York Times, and other companies outline hard-won experiences of what worked for them and what didn't. Dive into this workbook and learn how to flesh out your own SRE practice, no matter what size your company is. You'll learn: How to run reliable services in environments you don't completely control—like cloud Practical applications of how to create, monitor, and run your services via Service Level Objectives How to convert existing ops teams to SRE—including how to dig out of operational overload Methods for starting SRE from either greenfield or brownfield
Performance is one of the main issues that every

administrator faces at one point or another. This book will help you to identify and mitigate it. The book starts with an introduction to Zabbix and the most common mistakes that are usually overlooked while deploying it. You will discover the importance of an impressive and easy-to-use front-end and how to develop one, along with comparisons between Apache, Ngnix, and lighttpd web servers. Storage, as an important aspect of every deployment, is covered and you will be shown how to choose the right storage system for you and configure it to suit your deployment. Towards the end of the book, you will walk through the intricacies of the operating system; the final piece of the puzzle that holds all the components together. You will then dive into advanced topics including using a specific piece of hardware for each of the components, the Zabbix proxy, and firewall settings. By the end of the book, you will be able to tune your Zabbix implementation to achieve maximum performance.

If you are a database administrator looking for solutions to common PostgreSQL problems, this is the book for you. The book is suitable for people with intermediate and professional expertise.

This is not an instructional guide, but a practical, scenario-based book which guides you through everything you need to know in a practical manner by letting you build your own cluster. By the end of the book, you will have a fully functional Proxmox cluster setup at your disposal and have the knowledge to replicate virtualization solutions. If you already know what the word "virtualization" means and you are ready to stand out from the crowd equipped with the unique ability to design and implement a rock-solid virtualized network environment using Proxmox, then you have just picked up the only book you will need. Linux system administration experience together with knowledge of networking and virtualization concepts is assumed. This book is also useful if

you are already using Proxmox and simply want to master its advanced features.

Network analysis using Wireshark Cookbook contains more than 100 practical recipes for analyzing your network and troubleshooting problems in the network. This book provides you with simple and practical recipes on how to solve networking problems with a step-by-step approach. This book is aimed at research and development professionals, engineering and technical support, and IT and communications managers who are using Wireshark for network analysis and troubleshooting. This book requires a basic understanding of networking concepts, but does not require specific and detailed technical knowledge of protocols or vendor implementations.

This soup-to-nuts collection of recipes covers everything you need to know to perform your job as a Linux network administrator, whether you're new to the job or have years of experience. With Linux Networking Cookbook, you'll dive straight into the gnarly hands-on work of building and maintaining a computer network. Running a network doesn't mean you have all the answers. Networking is a complex subject with reams of reference material that's difficult to keep straight, much less remember. If you want a book that lays out the steps for specific tasks, that clearly explains the commands and configurations, and does not tax your patience with endless ramblings and meanderings into theory and obscure RFCs, this is the book for you. You will find recipes for: Building a gateway, firewall, and wireless access point on a Linux network Building a VoIP server with Asterisk Secure remote administration with SSH Building secure VPNs with OpenVPN, and a Linux PPTP VPN server Single sign-on with Samba for mixed Linux/Windows LANs Centralized network directory with OpenLDAP Network monitoring with Nagios or MRTG Getting acquainted with IPv6 Setting up

hands-free networks installations of new systems Linux system administration via serial console And a lot more. Each recipe includes a clear, hands-on solution with tested code, plus a discussion on why it works. When you need to solve a network problem without delay, and don't have the time or patience to comb through reference books or the Web for answers, Linux Networking Cookbook gives you exactly what you need.

Summary RabbitMQ in Action is a fast-paced run through building and managing scalable applications using the RabbitMQ messaging server. It starts by explaining how message queuing works, its history, and how RabbitMQ fits in. Then it shows you real-world examples you can apply to your own scalability and interoperability challenges. About the Technology There's a virtual switchboard at the core of most large applications where messages race between servers, programs, and services. RabbitMQ is an efficient and easy-to-deploy queue that handles this message traffic effortlessly in all situations, from web startups to massive enterprise systems. About the Book RabbitMQ in Action teaches you to build and manage scalable applications in multiple languages using the RabbitMQ messaging server. It's a snap to get started. You'll learn how message queuing works and how RabbitMQ fits in. Then, you'll explore practical scalability and interoperability issues through many examples. By the end, you'll know how to make Rabbit run like a well-oiled machine in a 24 x 7 x 365 environment. Written for developers familiar with Python, PHP, Java, .NET, or any other modern programming language. No RabbitMQ experience required. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Learn fundamental messaging design patterns Use patterns for on-demand scalability Glue a PHP frontend to a backend written in

anything Implement a PubSub-alerting service in 30 minutes flat Configure RabbitMQ's built-in clustering Monitor, manage, extend, and tune RabbitMQ

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Table of Contents Pulling RabbitMQ out of the hat Understanding messaging Running and administering Rabbit Solving problems with Rabbit: coding and patterns Clustering and dealing with failure Writing code that survives failure Warrens and Shovels: failover and replication Administering RabbitMQ from the Web Controlling Rabbit with the REST API Monitoring: Houston, we have a problem Supercharging and securing your Rabbit Smart Rabbits: extending RabbitMQ Learn how to monitor your large IT environments using Zabbix with this one-stop, comprehensive guide to the Zabbix world About This Book Create a tailor-made monitoring solution based on your specific needs Learn advanced techniques of Zabbix to monitor networks, performances, and other critical features in large environments Integrate, customize, and extend your monitoring solutions with external components and software Who This Book Is For This book is intended for system administrators and IT architects who need to better integrate their Zabbix installation with their surrounding environment. A basic, working knowledge of Zabbix and Linux is assumed so that the book can focus on how to use every component to its full advantage. It will also be helpful to be familiar with programming concepts and languages but if not, all the content in the book is thorough and well documented. What You Will Learn Efficiently collect data from a large variety of monitoring objects Organize your data in graphs, charts, maps, and slide shows Build intelligent triggers and alarms to monitor your network proactively Write your own custom probes and monitoring scripts to extend Zabbix Configure Zabbix and its database to be high available and fault-tolerant Automate repetitive procedures

using Zabbix's API Integrate Zabbix with external systems Understand the protocol and how to interact with it by writing your own custom agent In Detail Nowadays monitoring systems play a crucial role in any IT environment. They are extensively used to not only measure your system's performance, but also to forecast capacity issues. This is where Zabbix, one of the most popular monitoring solutions for networks and applications, comes into the picture. With an efficient monitoring system in place you'll be able to foresee when your infrastructure runs under capacity and react accordingly. Due to the critical role a monitoring system plays, it is fundamental to implement it in the best way from its initial setup. This avoids misleading, confusing, or, even worse, false alarms which can disrupt an efficient and healthy IT department. This new edition will provide you with all the knowledge you need to make strategic and practical decisions about the Zabbix monitoring system. The setup you'll do with this book will fit your environment and monitoring needs like a glove. You will be guided through the initial steps of choosing the correct size and configuration for your system, to what to monitor and how to implement your own custom monitoring component. Exporting and integrating your data with other systems is also covered. By the end of this book, you will have a tailor-made and well configured monitoring system and will understand with absolute clarity how crucial it is to your IT environment. Style and approach This book is an easy to follow, step-by-step guide to monitoring network and performance in large environments with Zabbix. It is designed for real-world Zabbix administrators, and is comprised of a perfect mix of theoretical explanations and practical applications, making it your perfect companion.

Nmap is a well known security tool used by penetration testers and system administrators. The Nmap Scripting

Engine (NSE) has added the possibility to perform additional tasks using the collected host information. Tasks like advanced fingerprinting and service discovery, information gathering, and detection of security vulnerabilities. "Nmap 6: Network exploration and security auditing cookbook" will help you master Nmap and its scripting engine. You will learn how to use this tool to do a wide variety of practical tasks for pentesting and network monitoring. Finally, after harvesting the power of NSE, you will also learn how to write your own NSE scripts. "Nmap 6: Network exploration and security auditing cookbook" is a book full of practical knowledge for every security consultant, administrator or enthusiast looking to master Nmap. The book overviews the most important port scanning and host discovery techniques supported by Nmap. You will learn how to detect mis-configurations in web, mail and database servers and also how to implement your own monitoring system. The book also covers tasks for reporting, scanning numerous hosts, vulnerability detection and exploitation, and its strongest aspect; information gathering. Design, develop, and solve real world automation and orchestration needs by unlocking the automation capabilities of Ansible About This Book Discover how Ansible works in detail Explore use cases for Ansible's advanced features including task delegation, fast failures, and serial task execution Extend Ansible with custom modules, plugins, and inventory sources Who This Book Is For This book is intended for Ansible developers and operators who have an understanding of the core elements and applications but are now looking to enhance their skills in applying automation using Ansible. What You Will Learn Understand Ansible's code and logic flow Safeguard sensitive data within Ansible

Access and manipulate complex variable data within Ansible playbooks Handle task results to manipulate change and failure definitions Organize Ansible content into a simple structure Craft a multi-tier rollout playbook utilizing load balancers and manipulating your monitoring system Utilize advanced Ansible features to orchestrate rolling updates with almost no service disruptions Troubleshoot Ansible failures to understand and resolve issues Extend Ansible with custom modules, plugins, or inventory sources In Detail Automation is critical to success in the world of DevOps. How quickly and efficiently an application deployment can be automated, or a new infrastructure can be built up, can be the difference between a successful product or a failure. Ansible provides a simple yet powerful automation engine. Beyond the basics of Ansible lie a host of advanced features which are available to help you increase efficiency and accomplish complex orchestrations with ease. This book provides you with the knowledge you need to understand how Ansible works at a fundamental level and leverage its advanced capabilities. You'll learn how to encrypt Ansible content at rest and decrypt data at runtime. You will master the advanced features and capabilities required to tackle the complex automation challenges of today and beyond. You will gain detailed knowledge of Ansible workflows, explore use cases for advanced features, craft well thought out orchestrations, troubleshoot unexpected behaviour, and extend Ansible through customizations. Finally, you will discover the methods used to examine and debug Ansible operations, helping you to understand

and resolve issues. Style and approach A clear, practical guide that covers best practise, system architecture and design aspects that will help you master Ansible with ease.

Get a 360-degree view of digital project management. Learn proven best practices from case studies and real-world scenarios. A variety of project management tools, templates, models, and frameworks are covered. This book provides an in-depth view of digital project management from initiation to execution to monitoring and maintenance. Covering end-to-end topics from pre-sales to post-production, the book explores project management from various dimensions. Each core concept is complemented by case studies and real-world scenarios. The Complete Guide to Digital Project Management provides valuable tools for your use such as: Frameworks: governance, quality, knowledge transfer, root cause analysis, digital product evaluation, digital consulting, estimation Templates: estimation, staffing, resource induction, RACI Models: governance, estimation, pricing, digital maturity continuous execution, earned value management and effort forecast Metrics: project management, quality What You'll Learn Study best practices and failure scenarios in digital projects, including common challenges, recurring problem themes, and leading indicators of project failures Explore an in-depth discussion of topics related to project quality and project governance Understand Agile and Scrum practices for Agile execution See how to apply Quality Management in digital projects, including a quality strategy, a quality framework, achieving quality in various

project phases, and quality best practices Be able to use proven metrics and KPIs to track, monitor, and measure project performance Discover upcoming trends and innovations in digital project management Read more than 20 real-world scenarios in digital project management with proven best practices to handle the scenarios, and a chapter on a digital transformation case study Who This Book Is For Software project managers, software program managers, account managers, software architects, lead developers, and digital enthusiasts

Gather detailed statistics and deploy impressive business solutions with Zabbix 4.0 Key Features Experience the full impact of Zabbix 4.0, a useful and increasingly popular tool Enhance your network's performance and manage hosts and systems A step-by-step guide to smarter network monitoring Book Description Zabbix 4 Network Monitoring is the perfect starting point for monitoring the performance of your network devices and applications with Zabbix. Even if you've never used a monitoring solution before, this book will get you up and running quickly. You'll learn to monitor more sophisticated operations with ease and soon feel in complete control of your network, ready to meet any challenges you might face. Starting with the installation, you will discover the new features in Zabbix 4.0. You will then get to grips with native Zabbix agents and Simple Network Management Protocol (SNMP) devices. You will also explore Zabbix's integrated functionality for monitoring Java application servers and VMware. This book also covers notifications, permission

management, system maintenance, and troubleshooting, so you can be confident that every potential challenge and task is under your control. If you're working with larger environments, you'll also be able to find out more about distributed data collection using Zabbix proxies. Once you're confident and ready to put these concepts into practice, you will understand how to optimize and improve performance. Troubleshooting network issues is vital for anyone working with Zabbix, so the book also helps you work through any technical snags and glitches you might face. By the end of this book, you will have learned more advanced techniques to fine-tune your system and make sure it is in a healthy state. What you will learn Install Zabbix server and an agent from source Manage hosts, users, and permissions while acting upon monitored conditions Visualize data with the help of ad hoc graphs, custom graphs, and maps Simplify complex configurations and learn to automate them Monitor everything from web pages to IPMI devices and Java applications to VMware stats Configure Zabbix to send alerts including problem severity and time periods Troubleshoot any network issue Who this book is for If you're new to Zabbix look no further than this book. Zabbix 4 Network Monitoring is for system and network administrators who are looking to put their knowledge to work with Zabbix 4.0.

Discover real world scenarios for Proxmox troubleshooting and become an expert cloud builder About This Book Formulate Proxmox-based solutions and set up virtual machines of any size while gaining expertise even on the most complex multi-cluster setups

Master the skills needed to analyze, monitor, and troubleshoot real-world virtual environments This is the most up-to-date title on mastering Proxmox, with examples based on the new Linux Kernel 4.10.15 and Debian Stretch (9.x) Who This Book Is For This book is for Linux and system administrators and professionals working in IT teams who would like to design and implement an enterprise-quality virtualized environment using Proxmox. Some knowledge of networking and virtualization concepts is assumed. What You Will Learn Install basic Proxmox VE nodes and get to know the Proxmox GUI Get to know Proxmox's internal structure and mechanics Create and manage KVM or LXC-based virtual machines Understand advanced virtual networks Configure high availability Proxmox nodes Integrate Ceph big data storage with the Proxmox hypervisor Plan a large virtual environment for cloud-based services Discover real-world scenarios for Proxmox troubleshooting In Detail Proxmox is an open source server virtualization solution that has enterprise-class features for managing virtual machines, for storage, and to virtualize both Linux and Windows application workloads. You'll begin with a refresher on the advanced installation features and the Proxmox GUI to familiarize yourself with the Proxmox VE hypervisor. Then, you'll move on to explore Proxmox under the hood, focusing on storage systems, such as Ceph, used with Proxmox. Moving on, you'll learn to manage KVM virtual machines, deploy Linux containers fast, and see how networking is handled in Proxmox. You'll also learn how to protect a cluster or a VM with a firewall and explore the new high

availability features introduced in Proxmox VE 5.0. Next, you'll dive deeper into the backup/restore strategy and see how to properly update and upgrade a Proxmox node. Later, you'll learn how to monitor a Proxmox cluster and all of its components using Zabbix. Finally, you'll discover how to recover Promox from disaster strikes through some real-world examples. By the end of the book, you'll be an expert at making Proxmox work in production environments with minimal downtime. Style and approach This book walks you through every aspect of virtualization using Proxmox using a practical, scenario-based approach that features best practices and all the weaponry you need to succeed when building virtual environments with Proxmox 5.0.

PostgreSQL offers a comprehensive set of replication related features. Unleashing the power of PostgreSQL provides you with countless opportunities and a competitive advantage over other database systems. This book will guide you through the most important concepts of PostgreSQL replication. It contains all the information you need to design and operate replicated setups. Beginning by giving you an understanding of replication concepts, the PostgreSQL transaction log, and Point-in-time Recovery, we gradually move on to setting up asynchronous and synchronous replication. Next up, you will learn to monitor a PostgreSQL cluster setup, deal with monitoring tools, and then move on to understanding Linux High Availability. Further, we explore widely-used tools such as Slony, SkyTools, Postgres-XC, and walbouncer, and set up PL/Proxy. Finally, you'll get acquainted with the new technology of

BDR, which allows bidirectional replication in PostgreSQL.

A comprehensive introduction to help you get up and running with creating interactive dashboards to visualize and monitor time-series data in no time Key Features Install, set up, and configure Grafana for real-time data analysis and visualization Visualize and monitor data using data sources such as InfluxDB, Prometheus, and Elasticsearch Explore Grafana's multi-cloud support with Microsoft Azure, Amazon CloudWatch, and Google Stackdriver Book Description Grafana is an open-source analytical platform used to analyze and monitoring time-series data. This beginner's guide will help you get to grips with Grafana's new features for querying, visualizing, and exploring metrics and logs no matter where they are stored. The book begins by showing you how to install and set up the Grafana server. You'll explore the working mechanism of various components of the Grafana interface along with its security features, and learn how to visualize and monitor data using, InfluxDB, Prometheus, Logstash, and Elasticsearch. This Grafana book covers the advanced features of the Graph panel and shows you how Stat, Table, Bar Gauge, and Text are used. You'll build dynamic dashboards to perform end-to-end analytics and label and organize dashboards into folders to make them easier to find. As you progress, the book delves into the administrative aspects of Grafana by creating alerts, setting permissions for teams, and implementing user authentication. Along with exploring Grafana's multi-cloud monitoring support, you'll also learn about Grafana

Loki, which is a backend logger for users running Prometheus and Kubernetes. By the end of this book, you'll have gained all the knowledge you need to start building interactive dashboards. What you will learn Find out how to visualize data using Grafana Understand how to work with the major components of the Graph panel Explore mixed data sources, query inspector, and time interval settings Discover advanced dashboard features such as annotations, templating with variables, dashboard linking, and dashboard sharing techniques Connect user authentication to Google, GitHub, and a variety of external services Find out how Grafana can provide monitoring support for cloud service infrastructures Who this book is for This book is for business intelligence developers, business analysts, data analysts, and anyone interested in performing time-series data analysis and monitoring using Grafana. Those looking to create and share interactive dashboards or looking to get up to speed with the latest features of Grafana will also find this book useful. Although no prior knowledge of Grafana is required, basic knowledge of data visualization and some experience in Python programming will help you understand the concepts covered in the book. Summary Node.js in Action, Second Edition is a thoroughly revised book based on the best-selling first edition. It starts at square one and guides you through all the features, techniques, and concepts you'll need to build production-quality Node applications. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the

Technology You already know JavaScript. The trick to mastering Node.js is learning how to build applications that fully exploit its powerful asynchronous event handling and non-blocking I/O features. The Node server radically simplifies event-driven real-time apps like chat, games, and live data analytics, and with its incredibly rich ecosystem of modules, tools, and libraries, it's hard to beat! About the Book Based on the bestselling first edition, Node.js in Action, Second Edition is a completely new book. Packed with practical examples, it teaches you how to create high-performance web servers using JavaScript and Node. You'll master key design concepts such as asynchronous programming, state management, and event-driven programming. And you'll learn to put together MVC servers using Express and Connect, design web APIs, and set up the perfect production environment to build, lint, and test. What's Inside Mastering non-blocking I/O The Node event loop Testing and deploying Web application templating About the Reader Written for web developers with intermediate JavaScript skills. About the Authors The Second Edition author team includes Node masters Alex Young, Bradley Meck, Mike Cantelon, and Tim Oxley, along with original authors Marc Harter, T.J. Holowaychuk, and Nathan Rajlich. Table of contents PART 1 - WELCOME TO NODE Welcome to Node.js Node programming fundamentals What is a Node web application? PART 2 - WEB DEVELOPMENT WITH NODE Front-end build systems Server-side frameworks Connect and Express in depth Web application templating Storing application data Testing Node applications Deploying Node

applications and maintaining uptime PART 3 - BEYOND WEB DEVELOPMENT Writing command-line applications Conquering the desktop with Electron Your complete guide to designing, deploying, and managing OpenStack-based clouds in mid-to-large IT infrastructuresAbout This Book* Design and deploy an OpenStack-based cloud in your mid-to-large IT infrastructure using automation tools and best practices* Keep yourself up-to-date with valuable insights into OpenStack components and new services in the latest OpenStack release* Discover how the new features in the latest OpenStack release can help your enterprise and infrastructureWho This Book Is ForThis book is for system administrators, cloud engineers, and system architects who would like to deploy an OpenStack-based cloud in a mid-to-large IT infrastructure. This book requires a moderate level of system administration and familiarity with cloud concepts.What You Will Learn* Explore the main architecture design of OpenStack components and core-by-core services, and how they work together* Design different high availability scenarios and plan for a no-single-point-of-failure environment* Set up a multinode environment in production using orchestration tools* Boost OpenStack's performance with advanced configuration* Delve into various hypervisors and container technology supported by OpenStack* Get familiar with deployment methods and discover use cases in a real production environment* Adopt the DevOps style of automation while deploying and operating in an OpenStack environment* Monitor the cloud infrastructure and make

decisions on maintenance and performance improvementIn DetailIn this second edition, you will get to grips with the latest features of OpenStack. Starting with an overview of the OpenStack architecture, you'll see how to adopt the DevOps style of automation while deploying and operating in an OpenStack environment. We'll show you how to create your own OpenStack private cloud. Then you'll learn about various hypervisors and container technology supported by OpenStack. You'll get an understanding about the segregation of compute nodes based on reliability and availability needs. We'll cover various storage types in OpenStack and advanced networking aspects such as SDN and NFV.Next, you'll understand the OpenStack infrastructure from a cloud user point of view. Moving on, you'll develop troubleshooting skills, and get a comprehensive understanding of services such as high availability and failover in OpenStack. Finally, you will gain experience of running a centralized logging server and monitoring OpenStack services.The book will show you how to carry out performance tuning based on OpenStack service logs. You will be able to master OpenStack benchmarking and performance tuning. By the end of the book, you'll be ready to take steps to deploy and manage an OpenStack cloud with the latest open source technologies.

The Cloud Computing Bible is a complete reference to cloud computing that presents the technologies, protocols, platforms and infrastructure that make cloud computing possible and desirable. Many of the cloud computing books on the market today are small books of 300 pages or less and

the larger books tend to be programming books or security titles. A longer format book such as Cloud Computing Bible allows a complete definition of the topic as well as in-depth introductions to essential technologies and platforms. Additionally it allows significant technologies to be presented in a form that provides enough detail for the reader to determine if it is something that they are interested in learning more about. It is important to stress platform and technologies as the main subject and intersperse that with products in order to provide an extended life span, but have current appeal. The book will be divided into five parts: The Value Proposition, Platforms, Infrastructure, Services and Applications, and The Mobile Cloud.

Configure, manage, and secure a CentOS 7 Linux server to serve a variety of services provided in a sustainable computer's infrastructure. About This Book Learn how to efficiently set up and manage a Linux server using one of the best suited technologies for this purpose, CentOS 7 Personalize your Linux server and familiarize yourself with the latest tools and utilities setup provided by the new CentOS distribution Follow a step-by-step tutorial through the configuration of the requested services with the capacity to personalize them as per your needs Who This Book Is For If you are a Linux system administrator with an intermediate administration level, this is your opportunity to master the brand new distribution of CentOS. If you wish to possess a fully sustainable Linux server, with all its new tools and tweaks, that serves a variety of services to your users and customers, this book is ideal for you. It is your ticket to easily adapt to all the changes made in the latest shift. What You Will Learn Manage CentOS 7 users, groups, and root access privileges Enhance the server's security through its firewall and prevent the most common attacks from penetrating or disabling the server Explore and implement the common,

useful services that a CentOS 7 server can provide Monitor your server infrastructure for system or hardware issues Create and configure a virtual machine using virtualization technologies Implement a cloud computing solution on a single node system Get an introduction to the configuration management tools and their usage Discover the importance of the tools that provide remote connection, server service security, and system and process monitoring tools In Detail Most server infrastructures are equipped with at least one Linux server that provides many essential services, both for a user's demands and for the infrastructure itself. Setting up a sustainable Linux server is one of the most demanding tasks for a system administrator to perform. However, learning multiple, new technologies to meet all of their needs is time-consuming. CentOS 7 is the brand new version of the CentOS Linux system under the RPM (Red Hat) family. It is one of the most widely-used operating systems, being the choice of many organizations across the world. With the help of this book, you will explore the best practices and administration tools of CentOS 7 Linux server along with implementing some of the most common Linux services. We start by explaining the initial steps you need to carry out after installing CentOS 7 by briefly explaining the concepts related to users, groups, and right management, along with some basic system security measures. Next, you will be introduced to the most commonly used services and shown in detail how to implement and deploy them so they can be used by internal or external users. Soon enough, you will be shown how to monitor the server. We will then move on to master the virtualization and cloud computing techniques. Finally, the book wraps up by explaining configuration management and some security tweaks. All these topics and more are covered in this comprehensive guide, which briefly demonstrates the latest changes to all of the services and tools with the recent

shift from CentOS 6 to CentOS 7. Style and approach This is a detailed and in-depth guide to help you administrate CentOS 7 for the usage of your server's infrastructure and also for personal network security. Each section shows a list of tools and utilities that are useful to perform the required task, in an easy to understand manner.
Monitor your network hardware, servers, and web performance effectively and efficiently.
Learn how to monitor your large IT environments using Zabbix with this one-stop, comprehensive guide to the Zabbix worldAbout This Book• Create a tailor-made monitoring solution based on your specific needs• Learn advanced techniques of Zabbix to monitor networks, performances, and other critical features in large environments• Integrate, customize, and extend your monitoring solutions with external components and softwareWho This Book Is ForThis book is intended for system administrators and IT architects who need to better integrate their Zabbix installation with their surrounding environment. A basic, working knowledge of Zabbix and Linux is assumed so that the book can focus on how to use every component to its full advantage. It will also be helpful to be familiar with programming concepts and languages but if not, all the content in the book is thorough and well documented.What You Will Learn• Efficiently collect data from a large variety of monitoring objects• Organize your data in graphs, charts, maps, and slide shows• Build intelligent triggers and alarms to monitor your network proactively• Write your own custom probes and monitoring scripts to extend Zabbix• Configure Zabbix and its database to be high available and fault-tolerant• Automate repetitive procedures using Zabbix's API• Integrate Zabbix with external systems• Understand the protocol and how to interact with it by writing your own custom agentIn DetailNowadays monitoring systems play a crucial role in any

IT environment. They are extensively used to not only measure your system's performance, but also to forecast capacity issues. This is where Zabbix, one of the most popular monitoring solutions for networks and applications, comes into the picture. With an efficient monitoring system in place you'll be able to foresee when your infrastructure runs under capacity and react accordingly. Due to the critical role a monitoring system plays, it is fundamental to implement it in the best way from its initial setup. This avoids misleading, confusing, or, even worse, false alarms which can disrupt an efficient and healthy IT department.This new edition will provide you with all the knowledge you need to make strategic and practical decisions about the Zabbix monitoring system. The setup you'll do with this book will fit your environment and monitoring needs like a glove. You will be guided through the initial steps of choosing the correct size and configuration for your system, to what to monitor and how to implement your own custom monitoring component. Exporting and integrating your data with other systems is also covered.By the end of this book, you will have a tailor-made and well configured monitoring system and will understand with absolute clarity how crucial it is to your IT environment.Style and approachThis book is an easy to follow, step-by-step guide to monitoring network and performance in large environments with Zabbix. It is designed for real-world Zabbix administrators, and is comprised of a perfect mix of theoretical explanations and practical applications, making it your perfect companion.
Over 80 recipes to master the most widely used penetration testing framework.
The fourth edition of this popular pocket guide provides quick-reference information that will help you use Oracle's PL/SQL language, including the newest Oracle Database 11g features. It's a companion to Steven Feuerstein and Bill

Pribyl's bestselling Oracle PL/SQL Programming. This concise guide boils down the most vital PL/SQL information into an accessible summary of: Fundamental language elements (e.g., block structure, datatypes, declarations) Statements for program control, cursor management, and exception handling Records, procedures, functions, triggers, and packages Calling PL/SQL functions in SQL Compilation options, object-oriented features, collections, and Java integration The new edition describes such Oracle Database 11g elements as PL/SQL's function result cache, compound triggers, the CONTINUE statement, the SIMPLE_INTEGER datatype, and improvements to native compilation, regular expressions, and compiler optimization (including intra-unit inlining). In addition, this book now includes substantial new sections on Oracle's built-in functions and packages. When you need answers quickly, the Oracle PL/SQL Language Pocket Reference will save you hours of frustration. If you have some experience with Zabbix and wish to take your infrastructure to the next level, then this book is for you. Before you start with Zabbix, or monitoring in general, it is best to have some basic Linux knowledge and a good understanding of snmp, virtualization, and scripting.

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