Teach Yourself Linux Virtualization And High Availability Prepare For The LPIC 3 304 Certification Exam

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High Performance Linux Clusters with OSCAR, Rocks, OpenMosix, and MPI - Joseph Sloan 2005
The author teaches at Wofford College.

Linux в действии - Клинтон Дэвид 2019-05-29
Без практики ничему нельзя научиться, и Linux не исключение. Книга «Linux в действии» поможет приобрести навыки защиты файлов, папок и серверов, безопасной установки патчей и приложений, а также управления сетью. В книге описываются 12 реальных проектов, в том числе автоматизация системы резервного копирования и восстановления, настройка личного файлового облака в стиле Dropbox и создание собственного сервера MediaWiki. На интересных примерах вы изучите виртуализацию, аварийное восстановление, обеспечение безопасности, резервное копирование, внедрение DevOps и устранение неполадок системы. Каждая глава заканчивается обзором практических рекомендаций, глоссарием новых терминов и упражнениями.

Learning Embedded Linux Using the Yocto Project - Alexandru Vaduva 2015-06-30
This book offers readers an idea of what embedded Linux software and hardware architecture looks like, cross-compiling, and also presents information about the bootloader and how it can be built for a specific board. This book will go through Linux kernel features and source code, present information on how to build a kernel source, modules, and the Linux root filesystem. You'll be given an overview of the available Yocto Project components, how to set up Yocto Project Eclipse IDE, and how to use tools such as Wic and Swabber that are still under development. It will present the meta-realtime layer and the newly created meta-cgl layer, its purpose, and how it can add value to poky.

AWS Certified Solutions Architect Study Guide - David Clinton 2020-11-26
Master the intricacies of Amazon Web Services and efficiently prepare for the SAA-C02 Exam with this comprehensive study guide AWS Certified Solutions Study Guide: Associate (SAA-C02) Exam, Third Edition comprehensively and efficiently prepares you for the SAA-C02 Exam. The study guide contains robust and effective study tools that will help you succeed on the exam. The guide grants you access to the regularly updated Sybex online learning environment and test bank, which contains hundreds of test questions, bonus practice exams, electronic flashcards, and a glossary of key terms. In this study guide, accomplished and experienced authors Ben Piper and David Clinton show you how to: Design resilient architectures Create high-performing architectures Craft secure applications and architectures Design cost-optimized architectures Perfect for anyone who hopes to begin a new career as an Amazon Web Services cloud professional, the study guide also belongs on the bookshelf of any existing AWS professional who wants to brush up on the fundamentals of their profession.

Linux in Action - David Clinton 2018-08-19
Summary Linux in Action is a task-based tutorial that will give you the skills and deep understanding you need to administer a Linux-based system. This hands-on book guides you through 12 real-world projects so you can practice as you learn. Each chapter ends with a review of best practices, new terms, and exercises. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology You can't learn anything without getting your hands dirtyâ¬â€ including Linux. Skills like securing files, folders, and servers, safely installing patches and applications,

and managing a network are required for any serious user, including developers, administrators, and DevOps professionals. With this hands-on tutorial, you'll roll up your sleeves and learn Linux project by project. About the Book Linux in Action guides you through 12 real-world projects, including automating a backup-and-restore system, setting up a private Dropbox-style file cloud, and building your own MediaWiki server. You'll try out interesting examples as you lock in core practices like virtualization, disaster recovery, security, backup, DevOps, and system troubleshooting. Each chapter ends with a review of best practices, new terms, and exercises. What's inside Setting up a safe Linux environment Managing secure remote connectivity Building a system recovery device Patching and upgrading your system About the Reader No prior Linux admin experience is required. About the Author David Clinton is a certified Linux Server Professional, seasoned instructor, and author of Manning's bestselling Learn Amazon Web Services in a Month of Lunches. Table of Contents Welcome to Linux Linux virtualization: Building a Linux working environment Remote connectivity: Safely accessing networked machines Archive management: Backing up or copying entire file systems Automated administration: Configuring automated offsite backups Emergency tools: Building a system recovery device Web servers: Building a MediaWiki server Networked file sharing: Building a Nextcloud file-sharing server Securing your web server Securing network connections: Creating a VPN or DMZ System monitoring: Working with log files Sharing data over a private network Troubleshooting system performance issues Troubleshooting network issues Troubleshooting peripheral devices DevOps tools: Deploying a scripted server environment using Ansible

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

Learning DevOps: Continuously Deliver Better Software - Joakim Verona 2016-09-22
Learn to use some of the most exciting and powerful tools to deliver world-class quality software with continuous delivery and DevOps 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 Deploy top-quality software and ensure software maintenance and release management with this practical guide This

course covers some of the most exciting technology available to DevOps engineers, and demonstrates multiple techniques for using them Real-world and realistic examples are provided to help you as you go about the implementation and adoption of continuous delivery and DevOps Who This Book Is For This course is for developers who want to understand how the infrastructure that builds today's enterprises works, and how to painlessly and regularly ship quality software. What You Will Learn 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 Test the code using automated regression testing with Jenkins Selenium Managing the lifecycle of hosts, from creation to ongoing management using Puppet Razor Find out how to manage, use, and work with Code in the Git version management system See what traps, pitfalls, and hurdles to look out for as you implement continuous delivery and DevOps In Detail Harness the power of DevOps to boost your skill set and make your IT organization perform better. If you're keen to employ DevOps techniques to better your software development, this course contains all you need to overcome the day-to-day complications of managing complex infrastructures the DevOps way. Start with your first module – Practical DevOps - that encompasses the entire flow from code from testing to production. Get a solid ground-level knowledge of how to monitor code for any anomalies, perform code testing, and make sure the code is running smoothly through a series of real-world exercise, and develop practical skills by creating a sample enterprise Java application. In the second module, run through a series of tailored mini-tutorials designed to give you a complete understanding of every DevOps automation technique. Create real change in the way you deliver your projects by utilizing some of the most commendable software available today. Go from your first steps of managing code in Git to configuration management in Puppet, monitoring using Sensu, and more. In the final module, get to grips with the continuous delivery techniques that will help you reduce the time and effort that goes into the delivery and support of software. 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: Practical DevOps by Joakim Verona DevOps Automation Cookbook by Michael Duffy Continuous Delivery and DevOps : A Quickstart Guide - Second Edition by Paul Swartout Style and approach This course is an easy to follow project based guide for all those with a keen interest in deploying world-class software using some of the most effective and remarkable technologies available.

Day One VSRX on KVM - Rahul Verma 2019-04

LPIC-3 304-200 Linux Virtualization and High Availability Exam Practice Questions & Dumps - Quantic Books 2020-11-02
Use this certification to gather all the information on the topic of LPI LPIC-3 (304-200) Certification exam. The Questions will help you distinguish the type and complexity level of the questions and the Practice Exams will make you familiar with the format of an exam. You should refer this guide carefully before attempting your actual LPI LPIC-3 304 Linux Virtualization and High Availability certification exam. This certification is particularly interesting for candidates who must know and understand the general concepts, theory and terminology of virtualization. This consist of Xen, KVM and libvirt terminology. Key learning points in this certification includes: - Variations of Virtual Machine Monitors- Migration of Physical to Virtual Machines- Migration of Virtual Machines between Host systems- Cloud Computing- IaaS, PaaS, SaaS- Understand the most important cluster architectures- Understand recovery and cluster reorganization mechanisms- Design an appropriate cluster architecture for a given purpose- Application aspects of high availability- Operational considerations of high availability Preparing for the LPIC-3 304-200 Linux Virtualization and High Availability exam to become a certified LPI expert? Here we have brought Best Exam Questions for you so that you can prepare well for this Exam of LPIC-3 304-200 Linux Virtualization and High Availability. Unlike other online simulation practice tests, you get a Paperback version that is easy to read & remember these questions. You can simply rely on these questions for successfully certifying this exam.

Virtualization for Security - John Hoopes 2009-02-24
One of the biggest buzzwords in the IT industry for the past few years, virtualization has matured into a practical requirement for many best-practice business scenarios, becoming an invaluable tool for security professionals at companies of every size. In addition to saving time and other resources, virtualization affords unprecedented means for intrusion and malware detection, prevention, recovery, and analysis. Taking a practical approach in a growing market underserved by books, this hands-on title is the first to combine in one place the most important and sought-after uses of virtualization for enhanced security, including sandboxing, disaster recovery and high availability, forensic analysis, and honeypotting. Already gaining buzz and traction in actual usage at an impressive rate, Gartner research indicates that virtualization will be the most significant trend in IT infrastructure and operations over the next four years. A recent report by IT research firm IDC predicts the virtualization services market will grow from $5.5 billion in 2006 to $11.7 billion in 2011. With this growth in adoption, becoming increasingly common even for small and midsize businesses, security is becoming a much more serious concern, both in terms of how to secure virtualization and how virtualization can serve critical security objectives. Titles exist and are on the way to fill the need for securing virtualization, but security professionals do not yet have a book outlining the many security applications of virtualization that will become increasingly important in their job requirements. This book is the first to fill that need, covering tactics such as isolating a virtual environment on the desktop for application testing, creating virtualized storage solutions for immediate disaster recovery and high availability across a network, migrating physical systems to virtual systems for analysis, and creating complete virtual systems to entice hackers and expose potential threats to actual production systems. About the Technologies A sandbox is an isolated environment created to run and test applications that might be a security risk. Recovering a compromised system is as easy as restarting the virtual machine to revert to the point before failure. Employing virtualization on actual production systems, rather than just test environments, yields similar benefits for disaster recovery and high availability. While traditional disaster recovery methods require time-consuming reinstallation of the operating system and applications before restoring data, backing up to a virtual machine makes the recovery process much easier, faster, and efficient. The virtual machine can be restored to same physical machine or an entirely different machine if the original machine has experienced irreparable hardware failure. Decreased downtime translates into higher availability of the system and increased productivity in the enterprise. Virtualization has been used for years in the field of forensic analysis, but new tools, techniques, and automation capabilities are making it an increasingly important tool. By means of virtualization, an investigator can create an exact working copy of a physical computer on another machine, including hidden or encrypted partitions, without altering any data, allowing complete access for analysis. The investigator can also take a live ?snapshot? to review or freeze the target computer at any point in time, before an attacker has a chance to cover his tracks or inflict further damage.

Microsoft Azure Infrastructure Services for Architects - John Savill 2019-10-01
An expert guide for IT administrators needing to create and manage a public cloud and virtual network using Microsoft Azure With Microsoft Azure challenging Amazon Web Services (AWS) for market share, there has been no better time for IT professionals to broaden and expand their knowledge of Microsoft's flagship virtualization and cloud computing service. Microsoft Azure Infrastructure Services for Architects: Designing Cloud Solutions helps readers develop the skills required to understand the capabilities of Microsoft Azure for Infrastructure Services and implement a public cloud to achieve full virtualization of data, both on and off premise. Microsoft Azure provides granular control in choosing core infrastructure components, enabling IT administrators to deploy new Windows Server and Linux virtual machines, adjust usage as requirements change, and scale to meet the infrastructure needs of their entire organization. This accurate, authoritative book covers topics including IaaS cost and options, customizing VM storage, enabling external connectivity to Azure virtual machines, extending Azure Active Directory, replicating and backing up to Azure, disaster recovery, and much more. New users and experienced professionals alike will: Get expert guidance on understanding, evaluating, deploying, and maintaining Microsoft Azure environments from Microsoft MVP and technical specialist John Savill Develop the skills to set up cloud-based virtual machines, deploy web servers, configure hosted data stores, and use other key Azure technologies Understand how to design and implement serverless and hybrid solutions Learn to use enterprise security guidelines for Azure deployment Offering the most up to date information and practical advice, Microsoft Azure Infrastructure Services for Architects: Designing Cloud Solutions is an essential

resource for IT administrators, consultants and engineers responsible for learning, designing, implementing, managing, and maintaining Microsoft virtualization and cloud technologies.

Guide to Supporting Microsoft Private Clouds - Ron Carswell 2013-01-07
GUIDE TO SUPPORTING MICROSOFT PRIVATE CLOUDS instructs future network administrators how to effectively implement and maintain Microsoft private clouds with a balance of conceptual expertise and hands-on skills. Ideal for your server administration course, this text prepares students to work with large providers, such as Amazon, Microsoft, and Google, as well as implement smaller scale cloud computing solutions within their own network environments. GUIDE TO SUPPORTING MICROSOFT PRIVATE CLOUDS begins with a conceptual foundation and by the last chapter, students have completed over 75 lab activities as they learn to put in place a high-availability cluster to support a Microsoft private cloud. Clear learning objectives, review questions, case projects, and complete instructor support further reinforce student understanding of cloud computing. Successive chapters help refine key skills students need to implement private cloud stations using Microsoft technologies, including Windows Server 2008 R2, Hyper-V virtualization, Virtual Machine Manager, Self-Service Portal, Virtual Desktop Infrastructure (VDI), Storage Server, Failover Cluster Manager, and Windows PowerShell. To encourage teamwork, lab activities are designed for three-member teams who share private cloud stations consisting of three networked servers. Rely on GUIDE TO SUPPORTING MICROSOFT PRIVATE CLOUDS to teach your students the private cloud computing skills they will need now and in the future. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

A Practical Guide to XEN High Availability - Sander van Vugt 2010-03-08
If you need an affordable and stable solution to offer high availability for virtual machines, this book is written for you. With this book you will learn how to build an HA solution with open source software. The solutions described in this book can help our organization save thousands of dollars on data center virtualization. You will learn how to create virtual machines using Xen and how to make them highly available using Pacemaker software. As a bonus, you will also read how to implement a cheap SAN solution, using open source software. This book is written for anyone who wants to create an affordable and stable solution for high availability of Xen virtual machines. To get the most out of this book, the reader should have a good working knowledge of Linux. The book uses SUSE Linux Enterprise as the example distribution. The configuration is also applicable to other distributions.

CentOS High Availability - Mitja Resman 2015-04-28
This book is targeted at system engineers and system administrators who want to upgrade their knowledge and skills in high availability and want to learn practically how to achieve high availability with CentOS Linux. You are expected to have good CentOS Linux knowledge and basic networking experience.

Practical LPIC-1 Linux Certification Study Guide - David Clinton 2016-11-12
This book is your complete guide to studying for the Linux Professional Institute's Server Professional (LPIC-1) certification. Every concept, principle, process, and resource that might make an appearance on the exam is fully represented. You will understand every concept by rolling up your sleeves, opening up a terminal, and trying it all yourself. You will find suggestions for practical tasks along with "test-yourself" quizzes at the end of each chapter. Whether you've decided to earn the Linux Professional Institute's Server Professional certification or you simply want to learn more about Linux administration, this book is a great choice. Right now, Linux administration skills are opening doors to some of the hottest job markets. And with the ongoing explosive growth of the cloud computing world - the vast majority of which is being built with Linux - the scope of the opportunities will only increase. Whether or not you end up taking the exam, if you manage to learn this material, you'll have done yourself a real favor. What You Will Learn Basic Linux system administration and package management Device and desktop management Bash scripting Networking fundamentals Security administration Who This Book Is For Most potential readers will already have a decent idea of what Linux is and what kinds of things can be done with it, and are looking to acquire or formalize a more structured and complete ability to confidently administrate Linux systems.

Pro Linux High Availability Clustering - Sander van Vugt 2014-07-25
Pro Linux High Availability Clustering teaches you how to implement this fundamental Linux add-on into your business. Linux High Availability Clustering is needed to ensure the availability of mission critical resources. The technique is applied more and more in corporate datacenters around the world. While lots of documentation about the subject is available on the internet, it isn't always easy to build a real solution based on that scattered information, which is often oriented towards specific tasks only. Pro Linux High Availability Clustering explains essential high-availability clustering components on all Linux platforms, giving you the insight to build solutions for any specific case needed. In this book four common cases will be explained: Configuring Apache for high availability Creating an Open Source SAN based on DRBD, iSCSI and HA clustering Setting up a load-balanced web server cluster with a back-end, highly-available database Setting up a KVM virtualization platform with high-availability protection for a virtual machine. With the knowledge you'll gain from these real-world applications, you'll be able to efficiently apply Linux HA to your work situation with confidence. Author Sander Van Vugt teaches Linux high-availability clustering on training courses, uses it in his everyday work, and now brings this knowledge to you in one place, with clear examples and cases. Make the best start with HA clustering with Pro Linux High Availability Clustering at your side.

VMware Cookbook - Ryan Troy 2009-10-23
If you want to gain insight into the real-world uses of VMware ESX and ESXi, this book provides scores of step-by-step solutions for working with these products in a wide range of network environments. You'll not only learn the basics -- how to pool resources from hardware servers, computer clusters, networks, and storage, and then distribute them among virtual machines -- but also the stumbling blocks you'll encounter when you monitor systems, troubleshoot problems, and deal with security. In addition to the recipes, VMware Cookbook includes background information to help you determine your virtualization needs. You'll come to view VMware as part of the real environment, alongside operating systems, storage, and logical and physical network components. Follow best practices for installing VMware in your environment Discover how to secure and monitor your network Understand disk storage implementation and configuration Learn resource management using the distributed resource scheduler, shares, and resource pools Configure logical and physical networks Learn how to clone and migrate servers Gain valuable tips for configuration and fine-tuning Many resources can teach you about virtualization and the basics of VMware. This book is for system administrators who are ready to go beyond an introduction.

Pro Microsoft Hyper-V 2019 - Andy Syrewicze 2018-10-31
Successfully create and manage your Hyper-V environment without any of the marketing fluff. This book's lab-driven, hands-on approach will get you up and running as quickly and efficiently as possible. Virtualization is the cornerstone of today's data center. As a modern-day IT pro, you are required to manage environments that are in a regular state of flux and increasing in both size and complexity. To keep up, you need practical information in a format that is succinct, yet comprehensive and highly applicable. Pro Hyper-V 2019 breaks down critical and time-saving topics into a series of easy-to-digest chapters, showing you how to perform Hyper-V management tasks using both GUI and PowerShell-based tools. Building on your existing knowledge of Windows Server management, Active Directory, networking, and storage, experts and Microsoft MVPs Syrewicze and Siddaway begin with a foundation of why computing workloads are virtualized. This is followed by chapters covering the range of management tasks associated with virtualized environments, including: managing hosts and guest machines; networking, storage, and high availability (host and guest); disaster recovery and virtual machine migration; and monitoring. What You'll Learn Apply practical information to administer your Hyper-V environments Understand multiple administration styles (GUI, command line, and automation) Written by IT pros for IT pros – just the information you really need without the padding Administer and use containers Utilize hands-on labs to learn about storage, networking, and high availability Who This Book Is For IT administrators tasked with implementing Hyper-V environments or migrating from VMware. IT pros joining a team that is responsible for managing Hyper-V and "lone administrators" covering the gamut in smaller organizations will also find this book indispensable.

Virtualization: A Manager's Guide - Dan Kusnetzky 2011-06-13
What exactly is virtualization? As this concise book explains, virtualization is a smorgasbord of technologies that offer organizations many advantages, whether you're managing extremely large stores of rapidly changing data, scaling out an application, or harnessing huge amounts of computational power. With this

guide, you get an overview of the five main types of virtualization technology, along with information on security, management, and modern use cases. Topics include: Access virtualization—Allows access to any application from any device Application virtualization—Enables applications to run on many different operating systems and hardware platforms Processing virtualization—Makes one system seem like many, or many seem like one Network virtualization—Presents an artificial view of the network that differs from the physical reality Storage virtualization—Allows many systems to share the same storage devices, enables concealing the location of storage systems, and more

DB2 Virtualization - Whei-Jen Chen 2009-11-25
Server virtualization technologies are becoming more popular to help efficiently utilize resources by consolidating servers. IBM® , the first company that developed and made available the virtual technology in 1966, offers advanced, powerful, reliable, and cost-saving virtualization technologies in various hardware and software products including DB2® for Linux, UNIX, and Windows. This IBM Redbooks® publication describes using IBM DB2 9 with server virtualization. We start with a general overview of virtualization and describe specific server virtualization technologies to highlight how the server virtualization technologies have been implemented. With this introduction anyone new to virtualization will have a better understanding of server virtualization and the industry server virtualization technologies available in the market. Following the virtualization concept, we describe in detail the setup, configuration, and managing of DB2 with three leading server virtualization technologies: IBM Power SystemsTM with PowerVMTM VMware Hyper-V We discuss the virtual machine setup with DB2 in mind to help IT support understand the effective ways of setting up a virtual environment specific for DB2. We explain the architecture and components of these three server virtualization technologies to allow DBAs to understand how a database environment using DB2 can benefit from using the server virtualization technologies. In addition, we discuss the DB2 features and functions that can take advantage of using server virtualization. These features are put into practice when describing how to set up DB2 with the three virtualization technologies discussed in this book. This book also includes a list of best practices from the various tests performed while using these virtualization technologies. These best practices can be used as a guideline or a reference when setting up DB2 using these virtualization technologies.

Sams Teach Yourself SAP in 24 Hours - Tim Rhodes 2004-07-16
Third Edition: Thoroughly Updated and Expanded, with Extensive New Coverage! In just 24 sessions of one hour or less, you'll master the entire SAP project lifecycle, from planning through implementation and system administration through day-to-day operations. Using this book's straightforward, step-by-step approach, you'll gain a strong real-world foundation in both the technology and business essentials of today's SAP products and applications—from the ground up. Step-by-step instructions walk you through the most common questions, issues, and tasks you'll encounter with SAP. Case study-based exercises help you build and test your knowledge. By the Way notes present interesting pieces of information. Did You Know? tips offer advice or teach an easier way. Watch Out! cautions warn about potential problems. Learn how to... Understand SAP's newest products for enterprises and small-to-midsize businesses, and choose the right solutions for your company Discover how SAP integrates with Web services and service-oriented architecture Develop an efficient roadmap for deploying SAP in your environment Plan your SAP implementation from business, functional, technical, and project management perspectives Leverage NetWeaver 7.0 features to streamline development and integration, and reduce cost Walk through a step-by-step SAP technical installation Master basic SAP system administration and operations Perform essential tasks such as logon, session management, and printing Build SAP queries and reports Prepare for SAP upgrades and enhancements Develop your own personal career as an SAP professional Register your book at informit.com/title/9780137142842 for convenient access to updates and corrections as they become available.

Enhancing Business Continuity and IT Capability - Nijaz Bajgorić 2020-12-01
Enterprise servers play a mission-critical role in modern computing environments, especially from a business continuity perspective. Several models of IT capability have been introduced over the last two decades. Enhancing Business Continuity and IT Capability: System Administration and Server Operating Platforms proposes a new model of IT capability. It presents a framework that establishes the relationship between downtime on one side and business continuity and IT capability on the other side, as well as how system administration and modern server operating platforms can help in improving business continuity and IT capability. This book begins by defining business continuity and IT capability and their importance in modern business, as well as by giving an overview of business continuity, disaster recovery planning, contingency planning, and business continuity maturity models. It then explores modern server environments and the role of system administration in ensuring higher levels of system availability, system scalability, and business continuity. Techniques for enhancing availability and business continuity also include Business impact analysis Assessing the downtime impact Designing an optimal business continuity solution IT auditing as a process of gathering data and evidence to evaluate whether the company's information systems infrastructure is efficient and effective and whether it meets business goals The book concludes with frameworks and guidelines on how to measure and assess IT capability and how IT capability affects a firm's performances. Cases and white papers describe real-world scenarios illustrating the concepts and techniques presented in the book.

Learn Amazon Web Services in a Month of Lunches - David Clinton 2017-08-31
AWS gives users the networking, compute, and security services they need without making them pay for anything they're not actually using. With almost a hundred individual AWS services, putting all the pieces together is not a simple thing. That's where this book can help. Learn Amazon Web Services in a Month of Lunches guides readers through the process of building a robust and secure web application using the core AWS services they really need to know. When they're done, readers will be comfortable with the basics, and know exactly where to look when they're ready for more. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

OpenNebula 3 Cloud Computing - Giovanni Toraldo 2012-01-01
This is a step-by-step practical guide to get you started easily with openNebula. It guides you to build, maintain, and configure your cloud infrastructure, providing real-world examples in a simple and coherent manner. If you are a GNU/Linux system administrator with no experience with virtualization or cloud computing but eager to learn about it, or you are thwarted by your current virtualized infrastructure, this book is for you. You are expected to have some basic knowledge of GNU/Linux, with knowledge of basic package management tools and system configuration.

Cloud Computing for Machine Learning and Cognitive Applications - Kai Hwang 2017-07-07
The first textbook to teach students how to build data analytic solutions on large data sets using cloud-based technologies. This is the first textbook to teach students how to build data analytic solutions on large data sets (specifically in Internet of Things applications) using cloud-based technologies for data storage, transmission and mashup, and AI techniques to analyze this data. This textbook is designed to train college students to master modern cloud computing systems in operating principles, architecture design, machine learning algorithms, programming models and software tools for big data mining, analytics, and cognitive applications. The book will be suitable for use in one-semester computer science or electrical engineering courses on cloud computing, machine learning, cloud programming, cognitive computing, or big data science. The book will also be very useful as a reference for professionals who want to work in cloud computing and data science. Cloud and Cognitive Computing begins with two introductory chapters on fundamentals of cloud computing, data science, and adaptive computing that lay the foundation for the rest of the book. Subsequent chapters cover topics including cloud architecture, mashup services, virtual machines, Docker containers, mobile clouds, IoT and AI, inter-cloud mashups, and cloud performance and benchmarks, with a focus on Google's Brain Project, DeepMind, and X-Lab programs, IBKai HwangM SyNapse, Bluemix programs, cognitive initiatives, and neurocomputers. The book then covers machine learning algorithms and cloud programming software tools and application development, applying the tools in machine learning, social media, deep learning, and cognitive applications. All cloud systems are illustrated with big data and cognitive application examples.

Red Hat Enterprise Linux 6 Administration - Sander van Vugt 2013-01-23
The definitive guide to administering a Red Hat EnterpriseLinux 6 network Linux professionals who need a go-to guide on version 6 of RedHat Enterprise Linux (RHEL) will find what they need in thiscomprehensive Sybex book. It covers RHEL administration in detail,including how to set up and manage web and mail

services, use RHELin enterprise environments, secure it, optimize storage, configurefor virtualization and high availability, and much more. It alsoprovides a great study aid for those preparing for either the RHCSAor RHCE certification exam. Red Hat is the Linux market leader, and Red Hat administratorsare in demand This Sybex guide is a comprehensive resource on Red HatEnterprise Linux administration and useful for those preparing forone of the Red Hat certification exams Covers setting up and managing web and mail services, usingRHEL in enterprise environments, securing RHEL, and optimizingstorage to fit your environment Explores advanced RHEL configurations, including virtualizationand high availability Red Hat Enterprise Linux 6 Administration is the guideLinux professionals and Red Hat administrators need to stay currenton the newest version.

Teach Yourself Linux Virtualization and High Availability - David Clinton 2017-03-24
High availability server virtualization currently powers the vast majority of public-facing compute deployments and Linux lies at the heart of nearly all of them. If you aren't already engaged in a virtualized project that touches some kind of Linux technology, you probably will be soon. What are you doing to build your skills to meet the future? The Linux Professional Institute's LPIC-3 304 certification expectations are an excellent, vendor neutral introduction to Linux server virtualization and cluster management. Even if you don't have plans to take the exam and earn the certification itself right now, using the 304 as a curriculum guide is a smart move. And, one way or another, this book is a great primary resource.

Virtualization Essentials - Matthew Portnoy 2016-08-29
Learn virtualization skills by building your own virtual machine Virtualization Essentials, Second Edition provides new and aspiring IT professionals with immersive training in working with virtualization environments. Clear, straightforward discussion simplifies complex concepts, and the hands-on tutorial approach helps you quickly get up to speed on the fundamentals. You'll begin by learning what virtualization is and how it works within the computing environment, then you'll dive right into building your own virtual machine. You'll learn how to set up the CPU, memory, storage, networking, and more as you master the skills that put you in-demand on the job market. Each chapter focuses on a specific goal, and concludes with review questions that test your understanding as well as suggested exercises that help you reinforce what you've learned. As more and more companies are leveraging virtualization, it's imperative that IT professionals have the skills and knowledge to interface with virtualization-centric infrastructures. This book takes a learning-by-doing approach to give you hands-on training and a core understanding of virtualization. Understand how virtualization works Create a virtual machine by scratch and migration Configure and manage basic components and supporting devices Develop the necessary skill set to work in today's virtual world Virtualization was initially used to build test labs, but its use has expanded to become best practice for a tremendous variety of IT solutions including high availability, business continuity, dynamic IT, and more. Cloud computing and DevOps rely on virtualization technologies, and the exponential spread of these and similar applications make virtualization proficiency a major value-add for any IT professional. Virtualization Essentials, Second Edition provides accessible, user-friendly, informative virtualization training for the forward-looking pro.

MCSA Guide to Installation, Storage, and Compute with Microsoft Windows Server2016, Exam 70-740 - Greg Tomsho 2017-07-26
Packed with hands-on activities, MCSA GUIDE TO INSTALLATION, STORAGE, AND COMPUTE WITH MICROSOFT WINDOWS SERVER 2016, EXAM 70-740 equips readers to pass the MCSE/MCSA certification exam while preparing users to become a successful Microsoft networking professional. A clear presentation emphasizes the skills to manage a Windows Server 2016 system and focuses on installation, management, and configuration. Extensive coverage of all exam objectives introduces Windows Server 2016 and covers server installation, server configuration and management, storage and file systems, Hyper-V virtualization, high availability, and server maintenance and monitoring. A full chapter highlights new technologies, including Nano Server and Windows Containers. Unlike many certification-focused books, this edition goes beyond the certification objectives to provide an understanding of the core technologies built into Windows Server. Numerous hands-on activities focus on virtualization. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Mastering CentOS 7 Linux Server - Mohamed Alibi 2016-01-29

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.

Proxmox High Availability - Simon M.C. Cheng 2014-10-31
If you want to know the secrets of virtualization and how to implement high availability on your services, this is the book for you. For those of you who are already using Proxmox, this book offers you the chance to build a high availability cluster with a distributed filesystem to further protect your system from failure.

How Linux Works, 2nd Edition - Brian Ward 2014-11-14
Unlike some operating systems, Linux doesn't try to hide the important bits from you—it gives you full control of your computer. But to truly master Linux, you need to understand its internals, like how the system boots, how networking works, and what the kernel actually does. In this completely revised second edition of the perennial best seller How Linux Works, author Brian Ward makes the concepts behind Linux internals accessible to anyone curious about the inner workings of the operating system. Inside, you'll find the kind of knowledge that normally comes from years of experience doing things the hard way. You'll learn: –How Linux boots, from boot loaders to init implementations (systemd, Upstart, and System V) –How the kernel manages devices, device drivers, and processes –How networking, interfaces, firewalls, and servers work –How development tools work and relate to shared libraries –How to write effective shell scripts You'll also explore the kernel and examine key system tasks inside user space, including system calls, input and output, and filesystems. With its combination of background, theory, real-world examples,

and patient explanations, How Linux Works will teach you what you need to know to solve pesky problems and take control of your operating system.

Practical Linux Infrastructure - Syed Ali 2014-12-29

Practical Linux Infrastructure teaches you how to use the best open source tools to build a new Linux infrastructure, or alter an existing infrastructure, to ensure it stands up to enterprise-level needs. Each chapter covers a key area of implementation, with clear examples and step-by-step instructions. Using this book, you'll understand why scale matters, and what considerations you need to make. You'll see how to switch to using Google Cloud Platform for your hosted solution, how to use KVM for your virtualization, how to use Git, Postfix, and MySQL for your version control, email, and database, and how to use Puppet for your configuration management. For enterprise-level fault tolerance you'll use Apache, and for load balancing and high availability, you'll use HAProxy and Keepalived. For trend analysis you'll learn how to use Cacti, and for notification you'll use Nagios. You'll also learn how to utilize BIND to implement DNS, how to use DHCP (Dynamic Host Configuration Protocol), and how to setup remote access for your infrastructure using VPN and Iptables. You will finish by looking at the various tools you will need to troubleshoot issues that may occur with your hosted infrastructure. This includes how to use CPU, network, disk and memory management tools such as top, netstat, iostat and vmstat. Author Syed Ali is a senior site reliability engineering manager, who has extensive experience with virtualization and Linux cloud based infrastructure. His previous experience as an entrepreneur in infrastructure computing offers him deep insight into how a business can leverage the power of Linux to their advantage. He brings his expert knowledge to this book to teach others how to perfect their Linux environments. Become a Linux infrastructure pro with Practical Linux Infrastructure today.

Sams Teach Yourself Linux in 24 Hours - Bill Ball 1999

A guide to the open-source operating system explains how to install Calder OpenLinux, configure Internet connections, work within the K Desktop environment, and maximize the potential of StarOffice

Learn Amazon Web Services in a Month of Lunches - David Clinton 2017-08-18

Summary Learn Amazon Web Services in a Month of Lunches guides you through the process of building a robust and secure web application using the core AWS services you really need to know. You'll be amazed by how much you can accomplish with AWS! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Cloud computing has transformed the way we build and deliver software. With the Amazon Web Services cloud platform, you can trade expensive glass room hardware and custom infrastructure for virtual servers and easy-to-configure storage, security, and networking services. Better, because you don't own the hardware, you only pay for the computing power you need! Just learn a few key ideas and techniques and you can have applications up and running in AWS in minutes. About the Book Learn Amazon Web Services in a Month of Lunches gets you started with AWS fast. In just 21 bite-size lessons, you'll learn the concepts and practical techniques you need to deploy and manage applications. You'll learn by doing real-world labs that guide you from the core AWS tool set through setting up security and storage and planning for growth. You'll even deploy a public-facing application that's highly available, scalable, and load balanced. What's Inside First steps with AWS - no experience required Deploy web apps using EC2, RDS, S3, and Route 53 Cheap and fast system backups Setting up cloud automation About the Reader If you know your way around Windows or Linux and have a basic idea of how web applications work, you're ready to start using AWS. About the Author David Clinton is a system administrator, teacher, and writer. He has administered, written about, and created training materials for many important technology subjects including Linux systems, cloud computing (AWS in particular), and container technologies like Docker. Many of his video training courses can be found on Pluralsight.com, and links to his other books (on Linux administration and server virtualization) can be found at https://bootstrap-it.com. Table of Contents Before you begin PART 1 - THE CORE AWS TOOLS The 10-minute EC2 web server Provisioning a more robust EC2 website Databases on AWS DNS: what's in a name? S3: cheap, fast file storage S3: cheap, fast system backups AWS security: working with IAM users, groups, and roles Managing growth Pushing back against the chaos: using resource tags CloudWatch: monitoring AWS resources for fun and profit Another way to play: the command-line interface PART 2 - THE AWS POWER USER: OPTIMIZING YOUR INFRASTRUCTURE Keeping ahead of user demand High

availability: working with AWS networking tools High availability: load balancing High availability: auto scaling High availability: content-delivery networks PART 3 - FOOD FOR THOUGHT: WHAT ELSE CAN AWS DO FOR YOU? Building hybrid infrastructure Cloud automation: working with Elastic Beanstalk, Docker, and Lambda Everything else (nearly) Never the end

Learning Proxmox VE - Rik Goldman 2016-03-31

Unleash the power of Proxmox VE by setting up a dedicated virtual environment to serve both containers and virtual machines About This Book Create virtual machines and containers from the comfort of your workstation using Proxmox VE's web-based management interface Maximize performance, security, and the quality of virtual services by tailoring container and virtual machine configurations based on established best practices Put theory to practice by deploying virtual servers that promise portability, modularity, flexibility, security, and quality of service at any scale Who This Book Is For This book is intended for server and system administrators and engineers who are eager to take advantage of the potential of virtual machines and containers to manage servers more efficiently and make the best use of resources, from energy consumption to hardware utilization and physical real estate What You Will Learn Install and configure Proxmox VE Create new virtual machines and containers Import container templates and virtual appliances Optimize virtual machine performance for common use cases Apply the latest security patches to a Proxmox VE host Contrast PVE virtual machines and containers to recognize their respective use cases Secure virtual machines and containers Assess the benefits of virtualization on budgets, server real estate, maintenance, and management time In Detail Proxmox VE 4.1 provides an open source, enterprise virtualization platform on which to host virtual servers as either virtual machines or containers. This book will support your practice of the requisite skills to successfully create, tailor, and deploy virtual machines and containers with Proxmox VE 4.1. Following a survey of PVE's features and characteristics, this book will contrast containers with virtual machines and establish cases for both. It walks through the installation of Proxmox VE, explores the creation of containers and virtual machines, and suggests best practices for virtual disk creation, network configuration, and Proxmox VE host and guest security. Throughout the book, you will navigate the Proxmox VE 4.1 web interface and explore options for command-line management Style and approach This book is a practical exploration of the different processes and procedures, which are essential in beginning your journey to fluent creation and optimization of effective containers and virtual machines.

Red Hat RHCSA 8 Cert Guide - Sander van Vugt 2019-11-04

This is the eBook version of the print title. Learn, prepare, and practice for Red Hat RHCSA 8 (EX200) exam success with this Cert Guide from Pearson IT Certification, a leader in IT Certification learning. Master Red Hat RHCSA 8 EX200 exam topics Assess your knowledge with chapter-ending quizzes Review key concepts with exam-preparation tasks Practice with four unique practice tests Learn from two full hours of video training from the author's Red Hat Certified System Administrator (RHCSA) Complete Video Course, 3rd Edition. Red Hat RHCSA 8 Cert Guide is a best-of-breed exam study guide. Leading Linux consultant, author, and instructor Sander van Vugt shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. The book presents you with an organized test-preparation routine through the use of proven series elements and techniques. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Review questions help you assess your knowledge, and a final preparation chapter guides you through tools and resources to help you craft your final study plan. Well regarded for its level of detail, assessment features, and challenging review questions and exercises, this study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time, including Basic system management: Installation, tools, file management, text files, RHEL8 connections, user/group management, permissions, and network configuration Operating running systems: Managing software, processes, storage, and advanced storage; working with systemd; scheduling tasks; and configuring logging Advanced system administration: Managing the kernel and boot procedures, essential troubleshooting, bash shell scripting Managing network services: Configuring SSH, firewalls, and time services; managing Apache HTTP services and SE

Linux; and accessing network storage

KVM Virtualization Cookbook - Konstantin Ivanov 2017-06-16
Deploy, manage, and scale virtual instances using Kernel-based Virtual Machines About This Book Build, manage and scale virtual machines with practical step-by-step examples Leverage the libvirt user-space tools and libraries to manage the life-cycle of KVM instances Deploy and scale applications inside KVM virtual machines with OpenStack Who This Book Is For If you are a system administrator working KVM virtualization, this book will help you grow on your expertise of working with the infrastructure to manage things in a better way. You should have a knowledge of working with Linux based systems. What You Will Learn Deploy different workloads in isolation with KVM virtualization and better utilize the available compute resources Explore the benefits of running applications with KVM and learn to prevent the "bad-neighbor" effect Leveraging various networking technologies in the context of virtualization with Open vSwitch and the Linux bridge. Create KVM instances using Python and inspect running KVM instances Understand Kernel Tuning for enhanced KVM performance and better memory utilization In Detail Virtualization technologies such as KVM allow for better control over the available server resources, by deploying multiple virtual instances on the same physical host, or clusters of compute resources. With KVM it is possible to run various workloads in isolation with the hypervisor layer providing better tenant isolation and higher degree of security. This book will provide a deep dive into deploying KVM virtual machines using qemu and libvirt and will demonstrate practical examples on how to run, scale, monitor, migrate and backup such instances. You will also discover real production ready recipes on deploying KVM instances with OpenStack and how to programatically manage the life cycle of KVM virtual machines using Python. You will learn numerous tips and techniques which will help you deploy & plan the KVM infrastructure. Next, you will be introduced to the working of libvirt libraries and the iPython development environment. Finally, you will be able to tune your Linux kernel for high throughput and better performance. By the end of this book, you will gain all the knowledge needed to be an expert in working with the KVM virtualization infrastructure. Style and approach This book takes a complete practical approach with many step-by-step example recipes on how to use KVM in production. The book assumes certain level of expertise with Linux systems and virtualization in general. Some knowledge of Python programming is encouraged, to fully take advantage of the code recipes.

Hands on Virtual Computing - Ted Simpson 2017-05-24

Reader equip themselves for today's dramatically changing IT world with the insights and timely instruction in HANDS-ON VIRTUAL COMPUTING, 2E. Whether a novice or experienced IT professional, this unique book combines current theory and developing concepts with practical hands-on activities and projects to help readers master virtualization and learn to apply those skills in real world scenarios. Readers gain experience working with the latest virtualization technology and learn the differences between the two major leaders in virtualization products -- VMware and Microsoft. Specific chapters address Oracle VirtualBox, VMware Workstation, Microsoft Hyper-V, VMware vSphere, and virtualization in software-defined data centers. Readers develop the solid understanding of virtualization concepts and products needed to advance today's IT career. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Pro Oracle Database 11g RAC on Linux - Julian Dyke 2011-01-11
Pro Oracle Database 11g RAC on Linux provides full-life-cycle guidance on implementing Oracle Real Application Clusters in a Linux environment. Real Application Clusters, commonly abbreviated as RAC, is Oracle's industry-leading architecture for scalable and fault-tolerant databases. RAC allows you to scale up and down by simply adding and subtracting inexpensive Linux servers. Redundancy provided by those multiple, inexpensive servers is the basis for the failover and other fault-tolerance features that RAC provides. Written by authors well-known for their talent with RAC, Pro Oracle Database 11g RAC on Linux gives you a rock-solid and technically flawless foundation on which to build your RAC-management skills. Authors Julian Dyke and Steve Shaw share their hard-won experience in building RAC clusters, showing you how to build for success using the very latest Oracle technologies, such as Automatic Storage Management (ASM) and Oracle Clusterware. You'll learn to troubleshoot performance and other problems. You'll even learn how to correctly deploy RAC in a virtual-machine environment based upon Oracle VM, which is the only virtualization solution supported by Oracle Corporation. RAC is a complex and powerful technology. It demands expertise in its deployment. You can't just "wing it" in creating a RAC solution. Julian and Steve have earned the right to term themselves expert—in Pro Oracle Database 11g RAC on Linux, they offer a rigorous and technically-correct treatment of RAC that helps you build a solid foundation of expertise and achieve success. Rigorous and technically accurate content Complete coverage of RAC, from planning to implementation to rollout to ongoing maintenance and troubleshooting Up-to-date with the very latest RAC features