

Hadoop skills with real-world case studies and code Book Description Apache Hadoop is one of the most popular big data solutions for distributed storage and for processing large chunks of data. With Hadoop 3, Apache promises to provide a high-performance, more fault-tolerant, and highly efficient big data processing platform, with a focus on improved scalability and increased efficiency. With this guide, you'll understand advanced concepts of the Hadoop ecosystem tool. You'll learn how Hadoop works internally, study advanced concepts of different ecosystem tools, discover solutions to real-world use cases, and understand how to secure your cluster. It will then walk you through HDFS, YARN, MapReduce, and Hadoop 3 concepts. You'll be able to address common challenges like using Kafka efficiently, designing low latency, reliable message delivery Kafka systems, and handling high data volumes. As you advance, you'll discover how to address major challenges when building an enterprise-grade messaging system, and how to use different stream processing systems along with Kafka to fulfil your enterprise goals. By the end of this book, you'll have a complete understanding of how components in the Hadoop ecosystem are effectively integrated to implement a fast and reliable data pipeline, and you'll be equipped to tackle a range of real-world problems in data pipelines. What you will learn Gain an in-depth understanding of distributed computing using Hadoop 3 Develop enterprise-grade applications using Apache Spark, Flink, and more Build scalable and high-performance Hadoop data pipelines with security, monitoring, and data governance Explore batch data processing patterns and how to model data in Hadoop Master best practices for enterprises using, or planning to use, Hadoop 3 as a data platform Understand security aspects of Hadoop, including authorization and authentication Who this book is for If you want to become a big data professional by mastering the advanced concepts of Hadoop, this book is for you. You'll also find this book useful if you're a Hadoop professional looking to strengthen your knowledge of the Hadoop ecosystem. Fundamental knowledge of the Java programming language and basics of Hadoop is necessary to get started with this book.

Mastering Windows Server 2019-Jordan Krause 2021-07-29 This third edition covers all the essential information and more in-depth topics needed to implement and utilize Microsoft Windows Server 2019 at the core of your datacenter.

Mastering Zoho CRM-Ali Shabdar 2017-09-07 Teaches you to use Zoho CRM effectively to benefit your business. This book takes you through a number of real-life scenarios and teaches you how to use Zoho CRM to create solutions for your business, with no technical background needed and with little to no coding required. Sound too good to be true? Technology makes our lives easier and there are a large number of resources on offer to help with various tasks, including managing business information. With all the tools, apps, and services to choose from, it is still a daunting and often expensive undertaking for businesses to create solutions that fit their specific requirements. That's where Zoho CRM comes in. Using this book you can create a fully-functional cloud-based app that manages your company information, is elegant to use, and cost-effective to maintain. Basic computer and internet skills is all you need to successfully launch your very own CRM with the help of this book. Get started today with Mastering Zoho CRM. What You'll Learn Set up Zoho CRM properly from the ground up Model your business processes and implement them on Zoho CRM Centralize and manage your entire marketing, sales, and customer service processes Integrate CRM with other Zoho tools to streamline day to day business operations Create powerful dashboards and reports to provide relevant, actionable information to concerned people Use advanced CRM features such as workflow automation, role-based security, territories, etc. Connect Zoho CRM to external tools and services to extend features, and let CRM scale up with your business needs. Who This Book Is For Small business owners and solopreneurs who want to take control of the beating heart of their business -their marketing, sales, and customer-service efforts- without spending tens of thousands of dollars on customized solutions. Solution providers and consultants who want to learn the ins and outs of one of the hottest CRM tools in the market and provide winning related services to their clients by adding Zoho to their list of offerings.

Mastering Windows Server 2016 Hyper-V-John Savill 2016-12-19 Build a seamless, flexible, full-service datacenter solution Microsoft Windows Server 2016 Hyper-V is the IT administrator's guide to this rising datacenter solution. Hyper-V has already surpassed VMWare in datacenter management, identity service for multiple devices, and more; this book shows you how to harness the power of this hypervisor to simplify the infrastructure, reduce costs, improve productivity, and better manage system resources. From a tour of the technology through architecture, deployment, and integration of System Center, Microsoft Azure, and Microsoft

Azure Stack, the discussion illustrates the skills you need to create a complete solution for optimum enterprise management. Coverage includes Windows Azure capabilities for virtual machines, managing a hybrid cloud, IaaS, storage capabilities, PowerShell, and more, with practical real-world guidance from a leading authority in the field. Hyper-V has recently undergone improvements in scalability and features that have positioned it as an ideal solution in the Small/Medium Business and Enterprise markets. This book shows you how to exploit these new capabilities to build a robust data solution for your organization. Discover the capabilities of Microsoft Hyper-V Architect a Hyper-V datacenter solution Plan and manage a deployment or migration Integrate complementary technologies for full scalability Data is everywhere—on desktops, laptops, phones, and multiple operating systems, accessed through email, text messages, web searches, online services, and more. All of this data must be stored, accessible, updated, backed up, secured, managed, sorted, and analyzed—sometimes instantly. Hyper-V is the rising star in the virtualization space, and Microsoft Windows Server 2016 Hyper-V shows you how to turn greater capabilities into better datacenter solutions.

Mastering Veeam Backup & Replication 10-Chris Childerhose 2021-02-18 Veeam is an infrastructure backup solution for VMware vSphere or Hyper-V to enable VM and server backup. This book takes you through installation best practices, optimizations, and the 3-2-1 rule, before going on to examine repository and proxy-related topics and finally advanced topics such as DataLabs, Instant VM Recovery, and Veeam ONE.

Mastering Docker-Russ McKendrick 2018-10-25 Docker has been a game-changer when it comes to how modern applications are deployed and architected. This book shows you how to leverage the power of Docker, you'll find new and innovative ways to use Docker Compose, Docker Swarm, and Kubernetes to help you take control of your containers in an efficient way.

Mastering Spark with R-Javier Luraschi 2019-10-07 If you're like most R users, you have deep knowledge and love for statistics. But as your organization continues to collect huge amounts of data, adding tools such as Apache Spark makes a lot of sense. With this practical book, data scientists and professionals working with large-scale data applications will learn how to use Spark from R to tackle big data and big compute problems. Authors Javier Luraschi, Kevin Kuo, and Edgar Ruiz show you how to use R with Spark to solve different data analysis problems. This book covers relevant data science topics, cluster computing, and issues that should interest even the most advanced users. Analyze, explore, transform, and visualize data in Apache Spark with R Create statistical models to extract information and predict outcomes; automate the process in production-ready workflows Perform analysis and modeling across many machines using distributed computing techniques Use large-scale data from multiple sources and different formats with ease from within Spark Learn about alternative modeling frameworks for graph processing, geospatial analysis, and genomics at scale Dive into advanced topics including custom transformations, real-time data processing, and creating custom Spark extensions

Mastering Zoho Creator-Ali Shabdar 2017-09-12 Learn how to use Zoho Creator effectively to benefit your business. This book takes you through a number of real-life scenarios and teaches you how to use Zoho Creator to create solutions for your business, with no technical background needed and with little to no coding required. Sound too good to be true? Not with Zoho Creator. With the help of this book you can create a fully-functional cloud-based app that manages your company information, is elegant to use, and cost-effective to maintain. Get started today. Technology makes our lives easier and there are a large number of resources on offer to help with various tasks, including managing business information. With all the tools, apps, and services to choose from, it is still a daunting and often expensive undertaking for businesses to create solutions that fit their specific requirements. Mastering Zoho Creator will guide you through all of this. What You'll Learn Build Zoho Creator applications properly from the ground up Design with the user in mind Design with the data in mind Create and launch real world business applications, such as real estate management system Integrate your app with external tools and services Extend the capabilities of other Zoho offerings such as CRM Add advanced features by coding in Deluge scripting language Who This Book Is For Small business owners and solopreneurs who want to create business applications and solution to solve their day-to-day problems without the need for prior technical knowledge, coding, or the help of programmers and expensive external consultants. Solution providers and consultants who want to learn the ins and outs of Zoho tools and create world-class business applications for their

clients quickly and efficiently.

Mastering GeoServer-Colin Henderson 2014-11-25 If you are a GIS professional who intends to explore advanced techniques and get more out of GeoServer deployment rather than simply delivering good looking maps, then this book is for you.

Advanced Methodologies and Technologies in Network Architecture, Mobile Computing, and Data Analytics-Khosrow-Pour, D.B.A., Mehdi 2018-10-19 From cloud computing to data analytics, society stores vast supplies of information through wireless networks and mobile computing. As organizations are becoming increasingly more wireless, ensuring the security and seamless function of electronic gadgets while creating a strong network is imperative. Advanced Methodologies and Technologies in Network Architecture, Mobile Computing, and Data Analytics highlights the challenges associated with creating a strong network architecture in a perpetually online society. Readers will learn various methods in building a seamless mobile computing option and the most effective means of analyzing big data. This book is an important resource for information technology professionals, software developers, data analysts, graduate-level students, researchers, computer engineers, and IT specialists seeking modern information on emerging methods in data mining, information technology, and wireless networks.

Encyclopedia of Information Science and Technology, Fourth Edition-Khosrow-Pour, D.B.A., Mehdi 2017-06-20 In recent years, our world has experienced a profound shift and progression in available computing and knowledge sharing innovations. These emerging advancements have developed at a rapid pace, disseminating into and affecting numerous aspects of contemporary society. This has created a pivotal need for an innovative compendium encompassing the latest trends, concepts, and issues surrounding this relevant discipline area. During the past 15 years, the Encyclopedia of Information Science and Technology has become recognized as one of the landmark sources of the latest knowledge and discoveries in this discipline. The Encyclopedia of Information Science and Technology, Fourth Edition is a 10-volume set which includes 705 original and previously unpublished research articles covering a full range of perspectives, applications, and techniques contributed by thousands of experts and researchers from around the globe. This authoritative encyclopedia is an all-encompassing, well-established reference source that is ideally designed to disseminate the most forward-thinking and diverse research findings. With critical perspectives on the impact of information science management and new technologies in modern settings, including but not limited to computer science, education, healthcare, government, engineering, business, and natural and physical sciences, it is a pivotal and relevant source of knowledge that will benefit every professional within the field of information science and technology and is an invaluable addition to every academic and corporate library.

Mastering Visual Studio 2017-Kunal Chowdhury 2017-07-27 A guide to mastering Visual Studio 2017 About This Book Focus on coding with the new, improved, and powerful tools of VS 2017 Master improved debugging and unit testing support capabilities Accelerate cloud development with the built-in Azure tools Who This Book Is For .NET Developers who would like to master the new features of VS 2017, and would like to delve into newer areas such as cloud computing, would benefit from this book. Basic knowledge of previous versions of Visual Studio is assumed. What You Will Learn Learn what's new in the Visual Studio 2017 IDE, C# 7.0, and how it will help developers to improve their productivity Learn the workloads and components of the new installation wizard and how to use the online and offline installer Build stunning Windows apps using Windows Presentation Foundation (WPF) and Universal Windows Platform (UWP) tools Get familiar with .NET Core and learn how to build apps targeting this new framework Explore everything about NuGet packages Debug and test your applications using Visual Studio 2017 Accelerate cloud development with Microsoft Azure Integrate Visual Studio with most popular source control repositories, such as TFS and GitHub In Detail Visual Studio 2017 is the all-new IDE released by Microsoft for developers, targeting Microsoft and other platforms to build stunning Windows and web apps. Learning how to effectively use this technology can enhance your productivity while simplifying your most common tasks, allowing you more time to focus on your project. With this book, you will learn not only what VS2017 offers, but also what it takes to put it to work for your projects. Visual Studio 2017 is packed with improvements that increase productivity, and this book will get you started with the new features introduced in

Visual Studio 2017 IDE and C# 7.0. Next, you will learn to use XAML tools to build classic WPF apps, and UWP tools to build apps targeting Windows 10. Later, you will learn about .NET Core and then explore NuGet, the package manager for the Microsoft development platform. Then, you will familiarize yourself with the debugging and live unit testing techniques that comes with the IDE. Finally, you'll adapt Microsoft's implementation of cloud computing with Azure, and the Visual Studio integration with Source Control repositories. Style and approach This comprehensive guide covers the advanced features of Visual Studio 2017, and communicates them through a practical approach to explore the underlying concepts of how, when, and why to use it.

Mastering Defensive Security-Cesar Bravo 2021-11-08 An immersive learning experience enhanced with technical, hands-on labs to understand the concepts, methods, tools, platforms, and systems required to master the art of cybersecurity Key Features Get hold of the best defensive security strategies and tools Develop a defensive security strategy at an enterprise level Get hands-on with advanced cybersecurity threat detection, including XSS, SQL injections, brute forcing web applications, and more Book Description Every organization has its own data and digital assets that need to be protected against an ever-growing threat landscape that compromises the availability, integrity, and confidentiality of crucial data. Therefore, it is important to train professionals in the latest defensive security skills and tools to secure them. Mastering Defensive Security provides you with in-depth knowledge of the latest cybersecurity threats along with the best tools and techniques needed to keep your infrastructure secure. The book begins by establishing a strong foundation of cybersecurity concepts and advances to explore the latest security technologies such as Wireshark, Damn Vulnerable Web App (DVWA), Burp Suite, OpenVAS, and Nmap, hardware threats such as a weaponized Raspberry Pi, and hardening techniques for Unix, Windows, web applications, and cloud infrastructures. As you make progress through the chapters, you'll get to grips with several advanced techniques such as malware analysis, security automation, computer forensics, and vulnerability assessment, which will help you to leverage pentesting for security. By the end of this book, you'll have become familiar with creating your own defensive security tools using IoT devices and developed advanced defensive security skills. What you will learn Become well versed with concepts related to defensive security Discover strategies and tools to secure the most vulnerable factor - the user Get hands-on experience using and configuring the best security tools Understand how to apply hardening techniques in Windows and Unix environments Leverage malware analysis and forensics to enhance your security strategy Secure Internet of Things (IoT) implementations Enhance the security of web applications and cloud deployments Who this book is for This book is for IT professionals, including systems administrators, programmers, IT architects, solution engineers, system analysts, data scientists, DBAs, and any IT expert looking to explore the fascinating world of cybersecurity. Cybersecurity professionals who want to broaden their knowledge of security topics to effectively create and design a defensive security strategy for a large organization will find this book useful. A basic understanding of concepts such as networking, IT, servers, virtualization, and cloud is required.

Mastering Windows Server 2016-Brian Svidergol 2018-07-03 The IT pro's must-have guide to Windows Server 2016 Mastering Windows Server 2016 is a complete resource for IT professionals needing to get quickly up to date on the latest release. Designed to provide comprehensive information in the context of real-world usage, this book offers expert guidance through the new tools and features to help you get Windows Server 2016 up and running quickly. Straightforward discussion covers all aspects, including virtualization products, identity and access, automation, networking, security, storage and more, with clear explanations and immediately-applicable instruction. Find the answers you need, and explore new solutions as Microsoft increases their focus on security, software-defined infrastructure, and the cloud; new capabilities including containers and Nano Server, Shielded VMs, Failover Clustering, PowerShell, and more give you plenty of tools to become more efficient, more effective, and more productive. Windows Server 2016 is the ideal server for Windows 10 clients, and is loaded with new features that IT professionals need to know. This book provides a comprehensive resource grounded in real-world application to help you get up to speed quickly. Master the latest features of Windows Server 2016 Apply new tools in real-world scenarios Explore new capabilities in security, networking, and the cloud Gain expert guidance on all aspect of Windows Server 2016 migration and management System administrators tasked with upgrading, migrating, or managing Windows Server 2016 need a one-stop resource to help them get the job done. Mastering Windows Server 2016 has the answers you need, the practicality you seek, and the latest information to get you up to speed quickly.

Mastering Python Networking-Eric Chou 2017-06-28 Become an expert in implementing advanced, network-related tasks with Python. About This Book Build the skills to perform all networking tasks using Python with ease Use Python for network device automation, DevOps, and software-defined networking Get practical guidance to networking with Python Who This Book Is For If you are a network engineer or a programmer who wants to use Python for networking, then this book is for you. A basic familiarity with networking-related concepts such as TCP/IP and a familiarity with Python programming will be useful. What You Will Learn Review all the fundamentals of Python and the TCP/IP suite Use Python to execute commands when the device does not support the API or programmatic interaction with the device Implement automation techniques by integrating Python with Cisco, Juniper, and Arista eAPI Integrate Ansible using Python to control Cisco, Juniper, and Arista networks Achieve network security with Python Build Flask-based web-service APIs with Python Construct a Python-based migration plan from a legacy to scalable SDN-based network. In Detail This book begins with a review of the TCP/IP protocol suite and a refresher of the core elements of the Python language. Next, you will start using Python and supported libraries to automate network tasks from the current major network vendors. We will look at automating traditional network devices based on the command-line interface, as well as newer devices with API support, with hands-on labs. We will then learn the concepts and practical use cases of the Ansible framework in order to achieve your network goals. We will then move on to using Python for DevOps, starting with using open source tools to test, secure, and analyze your network. Then, we will focus on network monitoring and visualization. We will learn how to retrieve network information using a polling mechanism, ?ow-based monitoring, and visualizing the data programmatically. Next, we will learn how to use the Python framework to build your own customized network web services. In the last module, you will use Python for SDN, where you will use a Python-based controller with OpenFlow in a hands-on lab to learn its concepts and applications. We will compare and contrast OpenFlow, OpenStack, OpenDaylight, and NFV. Finally, you will use everything you've learned in the book to construct a migration plan to go from a legacy to a scalable SDN-based network. Style and approach An easy-to-follow guide packed with hands-on examples of using Python for network device automation, DevOps, and SDN.

Mastering CloudForms Automation-Peter McGowan 2016-08-22 Learn how to work with the Automate feature of CloudForms, the powerful Red Hat cloud management platform that lets you administer your virtual infrastructure, including hybrid public and private clouds. This practical hands-on introduction shows you how to increase your operational efficiency by automating day-to-day tasks that now require manual input. Throughout the book, author Peter McGowan provides a combination of theoretical information and practical coding examples to help you learn the Automate object model. With this CloudForms feature, you can create auto-scalable cloud applications, eliminate manual decisions and operations when provisioning virtual machines and cloud instances, and manage your complete virtual machine lifecycle. In six parts, this book helps you: Learn the objects and concepts for developing automation scripts with CloudForms Automate Customize the steps and workflows involved in provisioning virtual machines Create and use service catalogs, items, dialogs, objects, bundles, and hierarchies Use CloudForm's updated workflow to retire and delete virtual machines and services Orchestrate and coordinate with external services as part of a workflow Explore distributed automation processing as well as argument passing and handling

Mastering Structured Data on the Semantic Web-Leslie Sikos 2015-07-11 A major limitation of conventional web sites is their unorganized and isolated contents, which is created mainly for human consumption. This limitation can be addressed by organizing and publishing data, using powerful formats that add structure and meaning to the content of web pages and link related data to one another. Computers can "understand" such data better, which can be useful for task automation. The web sites that provide semantics (meaning) to software agents form the Semantic Web, the Artificial Intelligence extension of the World Wide Web. In contrast to the conventional Web (the "Web of Documents"), the Semantic Web includes the "Web of Data", which connects "things" (representing real-world humans and objects) rather than documents meaningless to computers. Mastering Structured Data on the Semantic Web explains the practical aspects and the theory behind the Semantic Web and how structured data, such as HTML5 Microdata and JSON-LD, can be used to improve your site's performance on next-generation Search Engine Result Pages and be displayed on Google Knowledge Panels. You will learn how to represent arbitrary fields of human knowledge in a machine-interpretable form using the Resource Description Framework (RDF), the cornerstone of the Semantic Web. You will see how to store and manipulate RDF data in purpose-built graph databases such as triplestores and quadstores, that are exploited in

Internet marketing, social media, and data mining, in the form of Big Data applications such as the Google Knowledge Graph, Wikidata, or Facebook's Social Graph. With the constantly increasing user expectations in web services and applications, Semantic Web standards gain more popularity. This book will familiarize you with the leading controlled vocabularies and ontologies and explain how to represent your own concepts. After learning the principles of Linked Data, the five-star deployment scheme, and the Open Data concept, you will be able to create and interlink five-star Linked Open Data, and merge your RDF graphs to the LOD Cloud. The book also covers the most important tools for generating, storing, extracting, and visualizing RDF data, including, but not limited to, Protégé, TopBraid Composer, Sindice, Apache Marmotta, Callimachus, and Tabulator. You will learn to implement Apache Jena and Sesame in popular IDEs such as Eclipse and NetBeans, and use these APIs for rapid Semantic Web application development. Mastering Structured Data on the Semantic Web demonstrates how to represent and connect structured data to reach a wider audience, encourage data reuse, and provide content that can be automatically processed with full certainty. As a result, your web contents will be integral parts of the next revolution of the Web.

Mastering Kali Linux for Advanced Penetration Testing-Vijay Kumar Velu 2019-01-30 A practical guide to testing your infrastructure security with Kali Linux, the preferred choice of pentesters and hackers Key Features Employ advanced pentesting techniques with Kali Linux to build highly secured systems Discover various stealth techniques to remain undetected and defeat modern infrastructures Explore red teaming techniques to exploit secured environment Book Description This book takes you, as a tester or security practitioner, through the reconnaissance, vulnerability assessment, exploitation, privilege escalation, and post-exploitation activities used by pentesters. To start with, you'll use a laboratory environment to validate tools and techniques, along with an application that supports a collaborative approach for pentesting. You'll then progress to passive reconnaissance with open source intelligence and active reconnaissance of the external and internal infrastructure. You'll also focus on how to select, use, customize, and interpret the results from different vulnerability scanners, followed by examining specific routes to the target, which include bypassing physical security and the exfiltration of data using a variety of techniques. You'll discover concepts such as social engineering, attacking wireless networks, web services, and embedded devices. Once you are confident with these topics, you'll learn the practical aspects of attacking user client systems by backdooring with fileless techniques, followed by focusing on the most vulnerable part of the network - directly attacking the end user. By the end of this book, you'll have explored approaches for carrying out advanced pentesting in tightly secured environments, understood pentesting and hacking techniques employed on embedded peripheral devices. What you will learn Configure the most effective Kali Linux tools to test infrastructure security Employ stealth to avoid detection in the infrastructure being tested Recognize when stealth attacks are being used against your infrastructure Exploit networks and data systems using wired and wireless networks as well as web services Identify and download valuable data from target systems Maintain access to compromised systems Use social engineering to compromise the weakest part of the network - the end users Who this book is for This third edition of Mastering Kali Linux for Advanced Penetration Testing is for you if you are a security analyst, pentester, ethical hacker, IT professional, or security consultant wanting to maximize the success of your infrastructure testing using some of the advanced features of Kali Linux. Prior exposure of penetration testing and ethical hacking basics will be helpful in making the most out of this book.

Mastering Front-End Web Development (HTML, Bootstrap, CSS, SEO, Cordova, SVG, ECMAScript, JavaScript, WebGL, Web Design and many more.)-Chong Lip Phang 2020-11-20 As opposed to back-end web development which deals with servers, front-end web development focuses on the end users' interactions with a website on a browser. A skillful front-end web developer knows more than just the basics of HTML, CSS and JavaScript. Going beyond the major web-based languages, this book represents an attempt to compile all the knowledge needed to become a professional front-end web developer. The reader will be introduced to more than 200 web extensions, frameworks, tools, and libraries, along with a complete illustration of all Web APIs known to the world today. Overview: Chapter 1: Development Environments Chapter 2: HTML 5.2 Chapter 3: Bootstrap 5 Chapter 4: CSS 3 Chapter 5: SEO Chapter 6: Cordova Chapter 7: SVG Chapter 8: ECMAScript 2020 / ES11 Chapter 9: HTML DOM Chapter 10: Advanced Web APIs Chapter 11: jQuery 3.5 Chapter 12: Extensions and Tools Chapter 13: Canvas Chapter 14: WebGL ** special note: this book partially overlaps with two books by the same author: 1) Web Coding Bible (18 Books in 1) 2) An Effective Guide to Modern JavaScript (ECMAScript 2017 / ES8)

Mastering Azure Serverless Computing-Abhishek Mishra 2020-09-03 A comprehensive guide that will teach you to build and implement Azure serverless solutions Key Features a- Learn the Function as a Service (FaaS) offering from Microsoft Azure a- Build Enterprise-grade workflows and integration using Azure Logic App a- Build event-driven Serverless solutions using Azure Event Grid a- Use Azure Service Bus to facilitate messaging between Azure Serverless components a- Implement advanced Serverless services such as Azure Serverless SQL Database and Azure Serverless Kubernetes Description The book starts with the basic concepts of Serverless Computing, its evolution, characteristics, and benefits. The next set of chapters is based on Azure Function as a Service (FaaS) programming model where you will gain proficiency in creating Serverless Azure Function, which is the basic unit of Azure Serverless Computing. Furthermore, the book focuses on building Azure Serverless Messaging, Integration, and Workflow that facilitates communication between components in the Azure Serverless ecosystem. Azure Logic Apps, Azure Event Grid, and Azure Service Bus are explained in detail. You will also work with advanced Azure Serverless services such as Azure Serverless Database and Azure Serverless Kubernetes that are essential for building highly scalable (at runtime) next-generation Serverless applications. Towards the end, the book focuses on reference architectures for Serverless Computing scenarios. By now, you will be proficient in working with Azure Serverless components, and their integration and can design and build an end to end Azure Serverless solution. What will you learn a- Design and implement Serverless workflows using Azure Logic Apps a- Design and implement Integration Services using Azure Event Grid a- Learn how to build Messaging Services on Azure Serverless platform a- Work with Azure Serverless SQL database a- Get familiar with Azure Serverless Kubernetes Architecture Who this book is for Anyone familiar with Cloud Fundamentals can use this book to get upskilled in Azure Serverless Computing and become an expert in it. Architects and Developers proficient in Microsoft Azure can use this book to learn Azure Serverless Computing and apply the knowledge gained to design and build solutions in this area. Table of Contents 1. Introduction to Azure Serverless Computing 2. Azure Functions 3. Azure Durable Functions 4. Azure Logic Apps 5. Azure Event Grid 6. Azure Service Bus 7. Azure Serverless SQL Database 8. Azure Serverless Kubernetes 9. Designing Azure Serverless Solutions 10. Implementing Azure Serverless Solutions About the Author Abhishek Mishra is an Architect with a leading Fortune 500 software multinational company and has deep expertise in designing and building Enterprise-grade Intelligent Azure and .NET based architectures. He is an expert in .NET Full-stack, Azure (PaaS, IaaS, Serverless), Infrastructure as Code, Azure Machine Learning, Intelligent Azure (Azure Bot Services and Cognitive Services) and Robotics Process Automation. He has a rich 14+ years of experience working across top organizations in the industry. He loves blogging and is an active blogger on C# Corner. He has been awarded C# Corner Most Valuable Professional (MVP) - December 2018 and December 2019 two times in a row for his contributions to the developer community. He is an active speaker and delivers sessions on Azure. He has spoken in leading conferences like nopCommerce Days 2019 Mumbai, C# Corner Pune Conference 2019, Global Power Platform Bootcamp Pune, and many more. Certifications to his credit - TOGAF Certified, Microsoft Certified Solutions Associate in Machine Learning, Microsoft Certified Azure Developer Associate, and many more. Your Blog links: <https://www.c-sharpcorner.com/members/abhishek-mishra16> Your LinkedIn Profile: <https://www.linkedin.com/in/abhishek-mishra-4890909>

Infrastructure Monitoring with Amazon CloudWatch-Ewere Diagboya 2021-04-16 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.

Mastering System Center Configuration Manager-Santos Martinez 2017-01-24 Get up to date quickly with clear, expert coverage of SCCM 2016 Mastering System Center Configuration Manager provides comprehensive coverage of Microsoft's powerful network software deployment tool, with a practical hands-on approach. Written by Santos Martinez, Peter Daalmans, and Brett Bennett, this guide walks you through SCCM 2016 with in-depth explanations anchored in real-world applications to get you up to speed quickly. Whether you're planning a new installation or migrating from a previous version of Configuration Manager, this book provides clear instruction and expert insight to get the job done right. Fully aligned with the latest release, the discussion covers the newest tools and features with examples that illustrate utility in a variety of contexts. System Center Configuration Manager (formerly SMS) is one of Microsoft's flagship products; the 2016 release has been updated with better Windows 10 and Windows Server 2016 compatibility, improved tools for managing non-Microsoft mobile devices in the cloud, and more. This book provides start-to-finish coverage and expert guidance on everything you need to get your system up to date. Deploy software and operating systems Automate processes and customize configurations Monitor performance and troubleshoot issues Manage security in the cloud and on Virtual Machines SCCM 2016 improves your ability to handle the bring-your-own-device influx in managing mobile, streamlining the latest hiccup right into the everyday workflow. Mastering System Center Configuration Manager provides the practical coverage you need to get up and running seamlessly.

Mastering Active Directory-Dishan Francis 2017-06-30 Become a master at managing enterprise identity infrastructure by leveraging Active Directory About This Book Manage your Active Directory services for Windows Server 2016 effectively Automate administrative tasks in Active Directory using PowerShell Manage your organization's network with ease Who This Book Is For If you are an Active Directory administrator, system administrator, or network professional who has basic knowledge of Active Directory and are looking to gain expertise in this topic, this is the book for you. What You Will Learn Explore the new features in Active Directory Domain Service 2016 Automate AD tasks with PowerShell Get to know the advanced functionalities of the schema Learn about Flexible Single Master Operation (FSMO) roles and their placement Install and migrate Active directory from older versions to Active Directory 2016 Manage Active Directory objects using different tools and techniques Manage users, groups, and devices effectively Design your OU structure in the best way Audit and monitor Active Directory Integrate Azure with Active Directory for a hybrid setup In Detail Active Directory is a centralized and standardized system that automates networked management of user data, security, and distributed resources and enables interoperation with other directories. If you are aware of Active Directory basics and want to gain expertise in it, this book is perfect for you. We will quickly go through the architecture and fundamentals of Active Directory and then dive deep into the core components, such as forests, domains, sites, trust relationships, OU, objects, attributes, DNS, and replication. We will then move on to AD schemas, global catalogs, LDAP, RODC, RMS, certificate authorities, group policies, and security best practices, which will help you gain a better understanding of objects and components and how they can be used effectively. We will also cover AD Domain Services and Federation Services for Windows Server 2016 and all their new features. Last but not least, you will learn how to manage your identity infrastructure for a hybrid-cloud setup. All this will help you design, plan, deploy, manage operations on, and troubleshoot your enterprise identity infrastructure in a secure, effective manner. Furthermore, I will guide you through automating administrative tasks using PowerShell cmdlets. Toward the end of the book, we will cover best practices and troubleshooting techniques that can be used to improve security and performance in an identity infrastructure. Style and approach This step-by-step guide will help you master the core functionalities of Active Directory services using Microsoft Server 2016 and PowerShell, with real-world best practices at the end.

Mastering Azure Serverless Computing-Abhishek Mishra 2020-07-31 A comprehensive guide that will teach you to build and implement Azure serverless solutions

KEY FEATURES

- Learn the Function as a Service (FaaS) offering from Microsoft Azure
- Build Enterprise-grade workflows and integration using Azure Logic App
- Build event-driven Serverless solutions using Azure Event Grid
- Use Azure Service Bus to facilitate messaging between Azure Serverless components
- Implement advanced Serverless services such as Azure Serverless SQL Database and Azure Serverless Kubernetes

DESCRIPTION

The book starts with the basic concepts of Serverless Computing, its evolution, characteristics, and benefits. The next set of chapters is based on Azure Function as a Service (FaaS) programming model where you will gain proficiency in creating Serverless Azure Function, which is the basic unit of Azure Serverless Computing. Furthermore, the book focuses on building Azure Serverless Messaging, Integration, and Workflow that facilitates communication between components in the Azure Serverless ecosystem. Azure Logic Apps, Azure Event Grid, and Azure Service Bus are explained in detail. You will also work with advanced Azure Serverless services such as Azure Serverless Database and Azure Serverless Kubernetes that are essential for building highly scalable (at runtime) next-generation Serverless applications. Towards the end, the book focuses on reference architectures for Serverless Computing scenarios.

By now, you will be proficient in working with Azure Serverless components, and their integration and can design and build an end to end Azure Serverless solution.

WHAT WILL YOU LEARN

- Design and implement Serverless workflows using Azure Logic Apps
- Design and implement Integration Services using Azure Event Grid
- Learn how to build Messaging Services on Azure Serverless platform
- Work with Azure Serverless SQL database
- Get familiar with Azure Serverless Kubernetes Architecture

WHO THIS BOOK IS FOR

Anyone familiar with Cloud Fundamentals can use this book to get upskilled in Azure Serverless Computing and become an expert in it. Architects and Developers proficient in Microsoft Azure can use this book to learn Azure Serverless Computing and apply the knowledge gained to design and build solutions in this area.

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1. Introduction to Azure Serverless Computing
2. Azure Functions
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8. Azure Serverless Kubernetes
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10. Implementing Azure Serverless Solutions

Scaling Your Startup-Peter S. Cohan 2019-01-23 Know how your company can accelerate growth by not only tapping into new growth vectors, but also by adapting its organization, culture, and processes. To oversee growth from an idea to a company with billions in revenue, CEOs must reinvent many aspects of their company in anticipation of it reaching ever-higher revenues. Author Peter Cohan takes you through the four stages of scaling: winning the first customers, building a scalable business model, sprinting to liquidity, and running the marathon. What You'll Learn Discover how founders keep their CEO positions by managing the organizational change needed to reach the next stage of scaling Read case studies that illustrate how CEOs craft growth strategies, raise capital, create culture, build their organizations, set goals, and manage processes to achieve them Discover principles of successful scaling through comparisons of successful and less successful companies Use the Scaling Quotient to assess your startup's readiness to grow Follow a road map for turning your idea into a company that can change the world Who This Book Is For Entrepreneurs, aspiring CEOs, capital providers, and all other key stakeholders

Mastering vRealize Automation 7. 1-Guido Soeldner 2016-10-24 Master your cloud environment with the ultimate vRealize Automation guide

Mastering vRealize Automation 7.1 is the fully updated edition of the comprehensive guide to VMware's cloud management platform solution. With extensive coverage of the vRealize Automation platform, this book acts as an informative guide and valuable reference. Step-by-step instruction walks you through design, installation, configuration, operation, extensibility, and much more. Written by certified VMware vExperts, this guide provides hands-on instruction and detailed conceptual explanations, anchored by practical applications and real-world examples. This book is the ultimate guide to vRealize Automation, helping administrators, architects and developers master their virtual environment. Learn to:

- * Design, install, configure, and manage a vRealize Automation cloud environment
- * How to use and design blueprints
- * Integrate NSX to provide automated network isolation and micro-segmentation
- * Manage resource allocation and utilization to meet application needs
- * Monitor infrastructure performance and availability with vRealize Operations and Log Insight
- * Use vRealize Orchestrator to automate and integrate third-party products

Mastering vRealize Automation 7 is what you need to stay up-to-date on VMware's industry-leading software for building up a cloud management platform.

Mastering Ansible-James Freeman 2019-03-25 Design, develop, and solve real-world automation and orchestration problems by unlocking the automation capabilities of Ansible. Key Features Tackle complex automation challenges with the newly added features in Ansible 2.7

Book Description Automation is essential for success in the modern world of DevOps. Ansible provides a simple, yet powerful, automation engine for tackling complex automation challenges. This book will take you on a journey that will help you exploit the latest version's advanced features to help you increase efficiency and accomplish complex orchestrations. This book will help you understand how Ansible 2.7 works at a fundamental level and will also teach you to leverage its advanced capabilities. Throughout this book, you will learn how to encrypt Ansible content at rest and decrypt data at runtime. Next, this book will act as an ideal resource to help you master the advanced features and capabilities required to tackle complex automation challenges. Later, it will walk you through workflows, use cases, orchestrations, troubleshooting, and Ansible extensions. Lastly, you will examine and debug Ansible operations, helping you to understand and resolve issues. By the end of the book, you will be able to unlock the true power of the Ansible automation engine and tackle complex, real-world actions with ease. What you will learn

- Gain an in-depth understanding of how Ansible works under the hood
- Fully automate Ansible playbook executions with encrypted data
- Access and manipulate variable data within playbooks
- Use blocks to perform failure recovery or cleanup
- Explore the Playbook debugger and the Ansible Console
- Troubleshoot unexpected behavior effectively
- Work with cloud infrastructure providers and container systems
- Develop custom modules, plugins, and dynamic inventory sources

Who this book is for This book is for Ansible developers and operators who have an understanding of its core elements and applications but are now looking to enhance their skills in applying automation using Ansible.

Mastering Machine Learning with Spark 2.x-Alex Tellez 2017-08-31 Unlock the complexities of machine learning algorithms in Spark to generate useful data insights through this data analysis tutorial

About This Book Process and analyze big data in a distributed and scalable way Write sophisticated Spark pipelines that incorporate elaborate extraction Build and use regression models to predict flight delays Who This Book Is For Are you a developer with a background in machine learning and statistics who is feeling limited by the current slow and "small data" machine learning tools? Then this is the book for you! In this book, you will create scalable machine learning applications to power a modern data-driven business using Spark. We assume that you already know the machine learning concepts and algorithms and have Spark up and running (whether on a cluster or locally) and have a basic knowledge of the various libraries contained in Spark. What You Will Learn

- Use Spark streams to cluster tweets online
- Run the PageRank algorithm to compute user influence
- Perform complex manipulation of DataFrames using Spark
- Define Spark pipelines to compose individual data transformations
- Utilize generated models for off-line/on-line prediction
- Transfer the learning from an ensemble to a simpler Neural Network
- Understand basic graph properties and important graph operations
- Use GraphFrames, an extension of DataFrames to graphs, to study graphs using an elegant query language
- Use K-means algorithm to cluster movie reviews dataset

In Detail The purpose of machine learning is to build systems that learn from data. Being able to understand trends and patterns in complex data is critical to success; it is one of the key strategies to unlock growth in the challenging contemporary marketplace today. With the meteoric rise of machine learning, developers are now keen on finding out how can they make their Spark applications smarter. This book gives you access to transform data into actionable knowledge. The book commences by defining machine learning primitives by the MLlib and H2O libraries. You will learn how to use Binary classification to detect the Higgs Boson particle in the huge amount of data produced by CERN particle collider and classify daily health activities using ensemble Methods for Multi-Class Classification. Next, you will solve a typical regression problem involving flight delay predictions and write sophisticated Spark pipelines. You will analyze Twitter data with help of the doc2vec algorithm and K-means clustering. Finally, you will build different pattern mining models using MLlib, perform complex manipulation of DataFrames using Spark and Spark SQL, and deploy your app in a Spark streaming environment. Style and approach This book takes a practical approach to help you get to grips with using Spark for analytics and to implement machine learning algorithms. We'll teach you about advanced applications of machine learning through illustrative examples. These examples will equip you to harness the potential of machine learning, through Spark, in a variety of enterprise-grade systems.

Mastering Ubuntu Server-Jay LaCroix 2020-12-29 Mastering Ubuntu Server, Third Edition not only strengthens

your server fundamentals but also equips you with the advanced concepts of Ubuntu 20.04 LTS. It polishes and expands your skill set to prepare you for better business opportunities.

Mastering AWS Lambda-Yohan Wadia 2017-08-11 Build cost-effective and highly scalable Serverless applications using AWS Lambda. About This Book Leverage AWS Lambda to significantly lower your infrastructure costs and deploy out massively scalable, event-driven systems and applications Learn how to design and build Lambda functions using real-world examples and implementation scenarios Explore the Serverless ecosystem with a variety of toolsets and AWS services including DynamoDB, API Gateway, and much more! Who This Book Is For If you are a Cloud administrator and/or developer who wishes to explore, learn, and leverage AWS Lambda to design, build, and deploy Serverless applications in the cloud, then this is the book for you! The book assumes you have some prior knowledge and hands-on experience with AWS core services such as EC2, IAM, S3, along with the knowledge to work with any popular programming language such as Node.js, Java, C#, and so on. What You Will Learn Understand the hype, significance, and business benefits of Serverless computing and applications Plunge into the Serverless world of AWS Lambda and master its core components and how it works Find out how to effectively and efficiently design, develop, and test Lambda functions using Node.js, along with some keen coding insights and best practices Explore best practices to effectively monitor and troubleshoot Serverless applications using AWS CloudWatch and other third-party services in the form of Datadog and Loggly Quickly design and develop Serverless applications by leveraging AWS Lambda, DynamoDB, and API Gateway using the Serverless Application Framework (SAF) and other AWS services such as Step Functions Explore a rich variety of real-world Serverless use cases with Lambda and see how you can apply it to your environments In Detail AWS is recognized as one of the biggest market leaders for cloud computing and why not? It has evolved a lot since the time it started out by providing just basic services such as EC2 and S3 and today; they go all the way from IoT to Machine Learning, Image recognition, Chatbot Frameworks, and much more! One of those recent services that is also gaining a lot of traction is AWS Lambda! Although seemingly simple and easy to use, Lambda is a highly effective and scalable compute service that provides developers with a powerful platform to design and develop Serverless event-driven systems and applications. The book begins with a high-level introduction into the world of Serverless computing and its advantages and use cases, followed by a deep dive into AWS Lambda! You'll learn what services AWS Lambda provides to developers; how to design, write, and test Lambda functions; as well as monitor and troubleshoot them. The book is designed and accompanied with a vast variety of real-world examples, use cases, and code samples that will enable you to get started on your Serverless applications quickly. By the end of the book, you will have gained all the skills required to work with AWS Lambda services! Style and approach This step-by-step guide will help you build Serverless applications and run Serverless workloads using the AWS Lambda service. You'll be able to get started with it in a matter of minutes with easy-to-follow code snippets and examples.

Mastering VMware vSphere 6.7-Martin Gavanda 2019-03-07 Unleash the benefits of VMware vSphere 6.7 to provide a powerful, flexible and secure digital infrastructure Key Features Deep dive into areas like management, security, scalability, availability and more with vSphere 6.7 Design, deploy and manage VMware vSphere virtual datacenters Implement monitoring and security of VMware workloads with ease Book Description vSphere 6.7 is the latest release of VMware's industry-leading, virtual cloud platform. It allows organisations to move to hybrid cloud computing by enabling them to run, manage, connect and secure applications in a common operating environment. This up-to-date, 2nd edition provides complete coverage of vSphere 6.7. Complete with step-by-step explanations of essential concepts, practical examples and self-assessment questions, you will begin with an overview of the products, solutions and features of the vSphere 6.7 suite. You'll learn how to design and plan a virtual infrastructure and look at the workflow and installation of components. You'll gain insight into best practice configuration, management and security. By the end the book you'll be able to build your own VMware vSphere lab that can run even the most demanding of workloads. What you will learn Explore the immense functionality of vSphere 6.7 Design, manage and administer a virtualization environment Get tips for the VCP6-DCV and VCIX6-DCV exams Understand how to implement different migration techniques across different environments Explore vSphere 6.7s powerful capabilities for patching, upgrading and managing the configuration of virtual environments. Understand core vSphere components Master resource management, disaster recovery, troubleshooting, monitoring and security Who this book is for This book is for Administrators, Infrastructure Engineers, Architects, and Consultants with basic knowledge of VMware vSphere.

Stream Processing with Apache Spark-Gerard Maas 2019-06-05 Before you can build analytics tools to gain quick insights, you first need to know how to process data in real time. With this practical guide, developers familiar with Apache Spark will learn how to put this in-memory framework to use for streaming data. You'll discover how Spark enables you to write streaming jobs in almost the same way you write batch jobs. Authors Gerard Maas and François Garillot help you explore the theoretical underpinnings of Apache Spark. This comprehensive guide features two sections that compare and contrast the streaming APIs Spark now supports: the original Spark Streaming library and the newer Structured Streaming API. Learn fundamental stream processing concepts and examine different streaming architectures Explore Structured Streaming through practical examples; learn different aspects of stream processing in detail Create and operate streaming jobs and applications with Spark Streaming; integrate Spark Streaming with other Spark APIs Learn advanced Spark Streaming techniques, including approximation algorithms and machine learning algorithms Compare Apache Spark to other stream processing projects, including Apache Storm, Apache Flink, and Apache Kafka Streams