

Powershell For Sql Server Essentials

Over 150 real-world recipes to simplify database management, automate repetitive tasks, and enhance your productivity

About This Book This book helps you build a strong foundation to get you comfortable using PowerShell with SQL Server, empowering you to create more complex scripts for your day-to-day job. The book provides numerous guidelines, tips, and explanations on how and when to use PowerShell cmdlets, WMI, SMO, .NET classes, or other components. It offers easy-to-follow, practical recipes to help you get the most out of SQL Server and PowerShell.

Who This Book Is For If you are a SQL Server database professional (DBA, developer, or BI developer) who wants to use PowerShell to automate, integrate, and simplify database tasks, this book is for you. Prior knowledge of scripting would be helpful, but it is not necessary.

What You Will Learn Explore database objects and execute queries on multiple servers. Manage and monitor the running of SQL Server services and accounts. Back up and restore databases. Create an inventory of database properties and server configuration settings. Maintain permissions and security for users. Work with CLR assemblies, XML, and BLOB objects in SQL. Manage and deploy SSIS packages and SSRS reports. In Detail PowerShell can be leveraged when automating and streamlining SQL Server tasks. PowerShell comes with a rich set of cmdlets, and integrates tightly with the .NET framework. Its scripting capabilities are robust and flexible, allowing you to simplify automation and integration across different Microsoft applications and components. The book starts with an introduction to the new features in SQL Server 2014 and PowerShell v5 and the installation of SQL Server. You will learn about basic SQL Server administration tasks and then get to know about some security-related topics such as the authentication mode and assigning permissions. Moving on, you will explore different methods to back up and restore your databases and perform advanced administration tasks such as working with Policies, Filetables, and SQL audits. The next part of the book covers more advanced HADR tasks such as log shipping and data mirroring, and then shows you how to develop your server to work with BLOB, XML, and JSON. Following on from that, you will learn about SQL Server's BI stack, which includes SSRS reports, the SSIS package, and the SSAS cmdlet and database. Snippets not specific to SQL Server will help you perform tasks quickly on SQL servers. Towards the end of the book, you will find some useful information, which includes a PowerShell tutorial for novice users, some commonly-used PowerShell and SQL Server syntax, and a few online resources. Finally, you will create your own SQL Server Sandbox VMs. All these concepts will help you to efficiently manage your administration tasks.

Style and approach SQL Server 2014 with PowerShell v5 Cookbook is an example-focused book that provides step-by-step instructions on how to accomplish specific SQL Server tasks using PowerShell. Each recipe is followed by an analysis of the steps or design decisions taken and additional information about the task at hand. Working scripts are provided for all examples so that you can dive in right away. You can read this book sequentially by chapter or you can pick and choose which topics you need right away.

"Microsoft Azure Essentials" from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. The second ebook in the series, "Microsoft Azure Essentials: Azure Automation," introduces a fairly new feature of Microsoft Azure called Azure Automation. Using a highly scalable workflow execution environment, Azure Automation allows you to orchestrate frequent deployment and life cycle management tasks using runbooks based on Windows PowerShell Workflow functionality. These runbooks are stored in and backed up by Azure. By automating runbooks, you can greatly minimize the occurrence of errors when carrying out repeated tasks and process automation. Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the "Microsoft Azure Essentials" series.

A learning guide to get you started with PowerShell DSC.

About This Book Create flexible and maintainable deployments using DSC configuration scripts that stand the test of time. Explore the core architecture, concepts, and practices in depth. Learning PowerShell DSC is a step-by-step guide that shows you how to start using and taking advantage of PowerShell DSC along with configuring and deploying applications.

Who This Book Is For If you are a system administrator, developer, or engineer and are responsible for configuration management and automation, then this book is for you. IT professionals who wish to learn PowerShell Desired State Configuration for the efficient management, configuration, and deployment of systems will also find this book useful.

What You Will Learn Explore PowerShell Desired State Configuration and activities around it, including the need for configuration management and abstraction. Create reusable DSC configurations and debug/troubleshoot configuration files. Learn about the PowerShell DSC architecture with the help of push-and-pull management and workflows. Define DSC configuration scripts and data files and push DSC configuration files remotely and locally. Validate DSC Pull Server install and register target nodes with a DSC Pull Server. Learn about DSC Cross Platform and install PowerShell on Linux and macOS along with real-life DSC uses and different types of deployment. In Detail The main goal of this book is to teach you to configure, deploy, and manage your system using the new features of PowerShell v5/v6 DSC. This book begins with the basics of PowerShell Desired State Configuration, covering its architecture and components. It familiarizes you with the set of Windows PowerShell language extensions and new Windows PowerShell commands that make up DSC. Then it helps you create DSC custom resources and work with DSC configurations with the help of practical examples. Finally, it describes how to deploy configuration data using PowerShell DSC. Throughout this book, we will be focusing on concepts such as building configurations with parameters, the local configuration manager, and testing and restoring configurations using PowerShell DSC. By the end of the book, you will be able to deploy a real-world application end-to-end and will be familiar enough with the powerful Desired State Configuration platform to achieve continuous delivery and efficiently and easily manage and deploy data for systems.

Style and approach The purpose of this book is to introduce readers to the powerful PowerShell Desired State Configuration platform to achieve continuous delivery, efficient management, and the easy deployment of data for systems.

If you are a Microsoft System Center administrator who manages System Center environments and utilizes the console for management, then this book is ideal for you. This book is also for System Center users who now want to learn to manage systems using PowerShell.

Pro SQL Server Internals explains how different SQL Server components work "under the hood" and how they communicate with each other. This is the practical book with a large number of examples that will show you how various design and implementation decisions affect the behavior and performance of your systems. Pro SQL Server Internals covers a multiple SQL Server versions starting with SQL Server 2005 all the way up to the recently released SQL Server 2014. You'll learn about new SQL Server 2014 features including the new Cardinality Estimator, In-Memory OLTP Engine (codename Hekaton), and Clustered Columnstore Indexes. With Pro SQL Server Internals, you have a solid roadmap for understanding the depth and power of the SQL Server database backend, regardless of the version and edition of SQL Server you use. Pro SQL Server Internals does the following: Explains how to design efficient database schema, indexing, and transaction strategies. Shows how various database objects and technologies are implemented internally and when they should or should not be used. Demonstrates how SQL Server executes queries and works with data and transaction logs.

Automate your workload and manage more databases and instances with greater ease and efficiency by combining metadata-driven automation with powerful tools like PowerShell and SQL Server Agent. Automate your new instance-builds and use monitoring to drive ongoing automation, with the help of an inventory database and a management data warehouse. The market has seen a trend towards there being a much smaller ratio of DBAs to SQL Server instances. Automation is the key to responding to this challenge and continuing to run a reliable database platform service. Expert Scripting and Automation for SQL Server DBAs guides you through the process of automating the maintenance of your SQL Server enterprise. Expert Scripting and Automation for SQL Server DBAs shows how to automate the SQL Server build processes, monitor multiple instances from a single location, and automate routine maintenance tasks throughout your environment. You will also learn how to create automated responses to common or time consuming break/fix scenarios. The book helps you become faster and better at what you do for a living, and thus more valuable in the job market. Extensive coverage of automation using PowerShell and T-SQL Detailed discussion and examples on metadata-driven automation Comprehensive coverage of automated responses to break/fix scenarios What You Will Learn Automate the SQL Server build process Create intelligent, metadata-drive routines Automate common maintenance tasks Create automated responses to common break/fix scenarios Monitor multiple instance from a central location Utilize T-SQL and PowerShell for administrative purposes Who This Book Is For Expert Scripting and Automation for SQL Server DBAs is a book for SQL Server database administrators responsible for managing increasingly large numbers of databases across their business enterprise. The book is also useful for any database administrator looking to ease their workload through automation. The book addresses the needs of these audiences by showing how to get more done through less effort by implementing an intelligent, automated-processes service model using tools such as T-SQL, PowerShell, Server Agent, and the Management Data Warehouse.

Summary PowerShell in Depth, Second Edition is the go-to reference for administrators working with Windows PowerShell. Every major technique, technology, and tactic is carefully explained and demonstrated, providing a hands-on guide to almost everything an admin would do in the shell. Written by three experienced authors and PowerShell MVPs, this is the PowerShell book you'll keep next to your monitor—not on your bookshelf! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book A Windows admin using PowerShell every day may not have the time to search the net every time he or she hits a snag. Wouldn't it be great to have a team of seasoned PowerShell experts ready to answer even the toughest questions? That's what you get with this book. PowerShell in Depth, Second Edition is the go-to reference for administrators working with Windows PowerShell. Every major technique, technology, and tactic is carefully explained and demonstrated, providing a hands-on guide to almost everything an admin would do in the shell. Written by PowerShell MVPs Don Jones, Jeffrey Hicks, and Richard Siddaway, each valuable technique was developed and thoroughly tested, so you'll be able to consistently write production-quality, maintainable scripts while saving hours of time and effort. This book assumes you know the basics of PowerShell. What's Inside Automating tasks Packaging and deploying scripts Introduction to Desired State Configuration PowerShell security Covers PowerShell version 3 and later About the Authors Don Jones, Jeffery Hicks, and Richard Siddaway are Microsoft MVPs, trainers, and administrators. Collectively, they've authored nearly three dozen books on PowerShell and Windows administration. Table of Contents PART 1 POWERSHELL FUNDAMENTALS Introduction PowerShell hosts Using the PowerShell help system The basics of PowerShell syntax Working with PSSnapins and modules Operators Working with objects The PowerShell pipeline Formatting PART 2 POWERSHELL MANAGEMENT PowerShell Remoting Background jobs and scheduling Working with credentials Regular expressions Working with HTML and XML data PSDrives and PSProviders Variables, arrays, hash tables, and script blocks PowerShell security Advanced PowerShell syntax PART 3 POWERSHELL SCRIPTING AND AUTOMATION PowerShell's scripting language Basic scripts and functions Creating objects for output Scope PowerShell workflows Advanced syntax for scripts and functions Script modules and manifest modules Custom formatting views Custom type extensions Data language and internationalization Writing help Error handling techniques Debugging tools and techniques Functions that work like cmdlets Tips and tricks for creating reports PART 4 ADVANCED POWERSHELL Working with the Component Object Model (COM) Working with .NET Framework objects Accessing databases Proxy functions Building a GUI WMI and CIM Working with the web Desired State Configuration

This book is an easy-to-follow, comprehensive guide that is full of hands-on examples, which you can follow to successfully design, build, and deploy mission-critical database applications with SQL Server 2014. If you are a database

developer, architect, or administrator who wants to learn how to design, implement, and deliver a successful database solution with SQL Server 2014, then this book is for you. Existing users of Microsoft SQL Server will also benefit from this book as they will learn what's new in the latest version.

Sharpen your data visualization skills with Tableau 10 Bootcamp. About This Book Make informed decisions using powerful visualizations in Tableau Learn effective data storytelling to transform how your business uses ideas Use this extensive bootcamp that makes you an efficient Tableau user in a short span of time Who This Book Is For This book caters to business, data, and analytics professionals who want to build rich interactive visualizations using Tableau Desktop. Familiarity with previous versions of Tableau will be helpful, but not necessary. What You Will Learn Complete practical Tableau tasks with each chapter Build different types of charts in Tableau with ease Extend data using calculated fields and parameters Prepare and refine data for analysis Create engaging and interactive dashboards Present data effectively using story points In Detail Tableau is a leading visual analytics software that can uncover insights for better and smarter decision-making. Tableau has an uncanny ability to beautify your data, compared to other BI tools, which makes it an ideal choice for performing fast and easy visual analysis. A military camp style fast-paced learning book that builds your understanding of Tableau 10 in no time. This day based learning guide contains the best elements from two of our published books, Learning Tableau 10 - Second Edition and Tableau 10 Business Intelligence Cookbook, and delivers practical, learning modules in manageable chunks. Each chunk is delivered in a "day", and each "day" is a productive day. Each day builds your competency in Tableau. You will increase your competence in integrating analytics and forecasting to enhance data analysis during the course of this Bootcamp. Each chapter presents core concepts and key takeaways about a topic in Tableau and provides a series of hands-on exercises. In addition to these exercises, at the end of the chapter, you will find self-check quizzes and extra drills to challenge you, to take what you learned to the next level. To summarize, this book will equip you with step-by-step instructions through rigorous tasks, practical callouts, and various real-world examples and assignments to reinforce your understanding of Tableau 10. Style and approach A fast paced book filled with highly-effective real-world examples to help you build new things and help you in solving problems in newer and unseen ways.

Implement, maintain, and repair SQL Server 2012 databases As the most significant update since 2008, Microsoft SQL Server 2012 boasts updates and new features that are critical to understand. Whether you manage and administer SQL Server 2012 or are planning to get your MCSA: SQL Server 2012 certification, this book is the perfect supplement to your learning and preparation. From understanding SQL Server's roles to implementing business intelligence and reporting, this practical book explores tasks and scenarios that a working SQL Server DBA faces regularly and shows you step by step how to handle them. Includes practice exams and coverage of exam objectives for those seeking MCSA: SQL Server 2012 certification Explores the skills you'll need on the job as a SQL Server 2012 DBA Discusses designing and implementing database solutions Walks you through administering, maintaining, and securing SQL Server 2012 Addresses implementing high availability and data distribution Includes bonus videos where the author walks you through some of the more difficult tasks expected of a DBA Featuring hands-on exercises and real-world scenarios, this resource guides you through the essentials of implementing, maintaining, and repairing SQL Server 2012 databases.

SQL Server 2012 with PowerShell V3 Cookbook" is an example-focused book that provides step-by-step instructions on how to accomplish specific SQL Server tasks using PowerShell. Each recipe is followed by an analysis of the steps or design decisions taken, and additional information about the task at hand. Working scripts are provided for all examples so that you can dive in right away. You can read this book sequentially by chapter, or you can pick and choose which topics you need right away. This book is written for the SQL Server database professional (DBA, developer, BI developer) who wants to use PowerShell to automate, integrate, and simplify database tasks. A little bit of scripting background is helpful, but not necessary.

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. The first ebook in the series, Microsoft Azure Essentials: Fundamentals of Azure, introduces developers and IT professionals to the wide range of capabilities in Azure. The authors - both Microsoft MVPs in Azure - present both conceptual and how-to content for key areas, including: Azure Websites and Azure Cloud Services Azure Virtual Machines Azure Storage Azure Virtual Networks Databases Azure Active Directory Management tools Business scenarios Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the "Microsoft Azure Essentials" series.

Take advantage of everything Microsoft's new PowerShell 7 has to offer PowerShell 7 for IT Pros is your guide to using PowerShell 7, the open source, cross-platform version of Windows PowerShell. Windows IT professionals can begin setting up automation in PowerShell 7, which features many improvements over the early version of PowerShell Core and Windows PowerShell. PowerShell 7 users can enjoy the high level of compatibility with the Windows PowerShell modules they rely on today. This book shows IT professionals—especially Windows administrators and developers—how to use PowerShell 7 to engage in their most important tasks, such as managing networking, using AD/DNS/DHCP, leveraging Azure, and more. To make it easy to learn everything PowerShell 7 has to offer, this book includes robust examples, each containing sample code so readers can follow along. Scripts are based on PowerShell 7 running on Windows 10 19H1 or later and Windows Server 2019. • Learn to navigate the PowerShell 7 administrative environment • Use PowerShell 7 to automate networking, Active Directory, Windows storage, shared data, and more • Run Windows Update, IIS, Hyper-V, and WMI and CIM cmdlets within PowerShell 7 • Understand how to handle reporting in the new PowerShell 7 environment PowerShell 7 for IT Pros provides exclusive coverage of using PowerShell with both cloud-based systems and virtualized environments (Hyper V and Azure). Written by PowerShell veteran Thomas Lee, this is the only book you'll need to get started with PowerShell 7.

With Microsoft SQL Server 2016, a variety of new features and enhancements to the data platform deliver breakthrough performance, advanced security, and richer, integrated reporting and analytics capabilities. In this ebook, we introduce new security features: Always Encrypted, Row-Level Security, and dynamic data masking; discuss enhancements that enable you to better manage performance and storage: TempDB configuration, query store, and Stretch Database; review several improvements to Reporting Services; and also describe AlwaysOn Availability Groups, tabular enhancements, and R integration.

NOTE: This title is also available as a free eBook on the Microsoft Download Center. It is offered for sale in print format as a convenience. Get a head start evaluating SQL Server 2014 - guided by two experts who have worked with the technology from the earliest beta. Based on Community Technology Preview 2 (CTP2) software, this guide introduces new features and capabilities, with practical insights on how SQL Server 2014 can meet the needs of your business. Get the early, high-level overview you need to begin preparing your deployment now. Coverage includes: SQL Server 2014 Editions and engine enhancements Mission-critical performance enhancements Hybrid cloud enhancements Self-service Business Intelligence enhancements in Microsoft Excel Enterprise information management enhancements Big

Data solutions

Portable and precise, this pocket-sized guide delivers ready answers for the day-to-day administration of SQL Server. Zero in on core support and maintenance tasks using quick-reference tables, instructions, and lists. You'll get the focused information you need to save time and get the job done—whether at your desk or in the field! Get fast facts to: Manage SQL Server services and clients Configure, manage, and tune servers Implement policy-based management Administer security and access Monitor server activity and tune performance Automate maintenance Perform backups and recovery

Pro PowerShell for Database Developers helps you master PowerShell application development by continuing where other books leave off. There are no "Hello World" functions here, just real-world examples that get down to business. Develop and deploy database and ETL applications in a reusable framework. Read from any data source and write to any destination. Integrate PowerShell with SQL Server. Pro PowerShell for Database Developers shows how to dive into the PowerShell environment and customize it to your needs. Learn about CmdletBinding and its use in extending functions with powerful new features. Also learn to package functions into libraries called modules that are loaded automatically on demand. PowerShell is about automation and getting work done when you're not around to perform it. To that end you'll see how to schedule PowerShell applications using SQL Agent and the scheduled job cmdlets. And for when you are around to run automated processes in person, you'll learn to add a Windows GUI to your applications to give them that professional polish. Other exciting topics include: Creating objects with custom methods and properties and extending them with PowerShell-style inheritance. Implementing function polymorphism using parameter sets. Using PowerShell as an ETL tool surpassing even SSIS. Creating distributed, interruptible, and multithreaded programs using PowerShell's workflow engine and the .Net Windows Workflow Foundation. All these topics are explained using real-world examples encapsulated into modules you can immediately put to use in your organization. You'll reap even more as you come to grips with all that PowerShell can do. Begin the journey toward deep expertise and amazing productivity. Buy and read Pro PowerShell for Database Developers today.

This book is intended for system administrators and other IT professionals who need to both design and implement an Azure-based cloud solution. With the help of this book, you will soon master the basic tasks needed to build a cloud-based solution.

Learn to use PowerShell, Microsoft's scripting language, to automate real-world tasks that IT professionals and system administrators deal with every day. Save Time. Automate. PowerShell® is both a scripting language and an administrative shell that lets you control and automate nearly every aspect of IT. In PowerShell for Sysadmins, five-time Microsoft® MVP "Adam the Automator" Bertram shows you how to use PowerShell to manage and automate your desktop and server environments so that you can head out for an early lunch. You'll learn how to: • Combine commands, control flow, handle errors, write scripts, run scripts remotely, and test scripts with the PowerShell testing framework, Pester • Parse structured data like XML and JSON, work with common domains (like Active Directory, Azure, and Amazon Web Services), and create a real-world server inventory script • Design and build a PowerShell module to demonstrate PowerShell isn't just about ad-hoc scripts • Use PowerShell to create a hands-off, completely automated Windows deployment • Build an entire Active Directory forest from nothing but a Hyper-V host and a few ISO files • Create endless Web and SQL servers with just a few lines of code! Real-world examples throughout help bridge the gap between theory and actual system, and the author's anecdotes keep things lively. Stop with the expensive software and fancy consultants. Learn how to manage your own environment with PowerShell for Sysadmins and make everyone happy. Covers Windows PowerShell v5.1

From the author and series editor of the immensely popular ADMINISTRATOR'S POCKET CONSULTANT series from Microsoft Press—this pocket-size guide delivers fast, accurate answers on the spot for IT professionals. Microsoft SQL Server 2008 Administrator's Pocket Consultant, 2nd Edition is the ideal concise, immediate reference you'll want with you at all times as you deal with Microsoft SQL Server 2008 and SQL Server 2008 R2 administration. Whether you handle administration for 50 users or 5000, this hands-on, fast answers guide focuses on what you need to do to get the job done quickly. With extensive easy-to-read tables, lists, and step-by-step instructions, it's the portable, readable guide that you consistently save you time and minimize system downtime by giving you the right information right now. Get fast facts to: Plan, deploy, and configure SQL Server 2008 R2 Administer server and surface security, access, and network configuration Import, export, transform, and replicate data Use SQL Server Management Studio for core administrative tasks Manipulate schemas, tables, indexes, and views Automate maintenance and implement policy-based management Monitor server activity and tune performance Manage log shipping and database mirroring Perform backups and recovery

Your hands-on guide to Windows PowerShell scripting fundamentals Expand your expertise—and teach yourself the fundamentals of Windows PowerShell scripting, including features available in Windows PowerShell 5. If you are an IT professional, power user, or consultant, you'll get the guidance, exercises, and code you need to master core techniques for automating Windows setup, deployment, and management. Discover how to: Run cmdlets and command-line utilities Administer Windows-based servers and desktops with built-in cmdlets Use providers to access external information Write and run scripts from the Windows ISE Create functions that are easy to maintain Build standardized environments with profiles Automate Windows systems with WMI, CIM cmdlets, and remoting Automate Active Directory Domain Services (AD DS) Debug scripts and handle errors Run commands that survive interruptions Use Desired State Configuration (DSC) to manage software services and their environments Get powerful new modules from PowerShell Gallery About You This book is for: IT professionals and power users who want to get productive with Windows PowerShell, including new features in Windows PowerShell 5 Windows system administrators who want to be more efficient and productive Anyone pursuing Windows PowerShell certifications No experience with Windows PowerShell or other scripting technologies necessary

Create powerful, effective visualizations to help analyze your data with Tableau 10 by your side About This Book Cook your favorite Tableau 10 business intelligence recipe with the help of this easy-to-follow book Build beautiful, interactive dashboards and visualizations in Tableau 10 that help you make informed decisions This rich collection of independent recipes cover everything needed to become an advanced Tableau user and get an edge over other Tableau users Who This Book Is For This book is targeted to business, data, and analytics professionals who want to build rich interactive visualizations using Tableau. Familiarity with previous versions of Tableau would be helpful, but is not necessary. What You Will Learn Become familiar with the Tableau interface Build basic to more advanced charts with step-by-step recipes Use filters, calculated fields, parameters, and actions to add interactivity to charts and dashboards Prepare and transform data for analysis using Tableau's built-in tools and functions Create effective and compelling dashboards and story points Leverage Tableau's mapping capabilities to visualize location and shape data Integrate analytics and forecasting to enhance data analysis Get to know tips and tricks to work more quickly and effectively in Tableau Increase your confidence and competence in creating rich, interactive visualizations in Tableau In Detail Tableau is a software tool that can speed up data analysis through its rich visualization capabilities, and help uncover insights for better and smarter decision making. This book is for the business, technology, data and analytics professionals who use and analyze data and data-driven approaches to support business operations and strategic initiatives in their organizations. This book provides easy-to-follow recipes to get the reader up and running with Tableau 10, and covers basic to advanced use cases and scenarios. The book starts with building basic charts in Tableau and moves on to building more complex charts by incorporating different Tableau features and interactivity components. There is an entire chapter dedicated to dashboard techniques and best practices. A number of recipes specifically for geospatial visualization, analytics, and data preparation are also covered. By the end of this book, you'll have gained confidence and competence to analyze and communicate data and insights more efficiently and effectively by creating compelling interactive charts,

dashboards, and stories in Tableau. Style and approach This book is a collection of independent recipes that cover a wide range of options for data visualization on offer with Tableau. With the help of the recipes in this book, you can explore Tableau and pick the business intelligence solution that's best suited for your needs.

Learn the fundamentals of PowerShell to build reusable scripts and functions to automate administrative tasks with Windows About This Book Harness the capabilities of the PowerShell system to get started quickly with server automation Learn to package commands into a reusable script and add control structures and parameters to make them flexible Get to grips with cmdlets that allow you to perform administration tasks efficiently Who This Book Is For This book is intended for Windows administrators or DevOps users who need to use PowerShell to automate tasks. Whether you know nothing about PowerShell or know just enough to get by, this guide will give you what you need to go to take your scripting to the next level. What You Will Learn Learn to verify your installed version of PowerShell, upgrade it, and start a PowerShell session using the ISE Discover PowerShell commands and cmdlets and understand PowerShell formatting Use the PowerShell help system to understand what particular cmdlets do Utilise the pipeline to perform typical data manipulation Package your code in scripts, functions, and modules Solve common problems using basic file input/output functions Find system information with WMI and CIM Automate IIS functionality and manage it using the WebAdministration module In Detail Windows PowerShell is a task-based command-line shell and scripting language designed specifically for system administration. Built on the .NET Framework, Windows PowerShell helps IT professionals and power users control and automate the administration of the Windows operating system and applications that run on Windows. PowerShell is great for batch importing or deleting large sets of user accounts and will let you collect a massive amount of detailed system information in bulk via WMI (Windows Management Instrumentation). Getting Started with PowerShell is designed to help you get up and running with PowerShell, taking you from the basics of installation, to writing scripts and web server automation. This book, as an introduction to the central topics of PowerShell, covers finding and understanding PowerShell commands and packaging code for reusability, right through to a practical example of automating IIS. It also includes topics such as installation and setup, creating scripts, automating tasks, and using Powershell to access data stores, registry, and file systems. You will explore the PowerShell environment and discover how to use cmdlets, functions, and scripts to automate Windows systems. Along the way, you will learn to perform data manipulation and solve common problems using basic file input/output functions. By the end of this book, you will be familiar with PowerShell and be able to utilize the lessons learned from the book to automate your servers. Style and approach A practical learning guide, complete with plenty of activities, examples and screenshots.

Leverage the power of PowerShell to bring the best out of your AWS infrastructure About This Book A collection of real-world-tested Powershell scripts that can be used to manage your Windows server efficiently Follow step-by-step processes to solve your problems with Windows servers using AWS tools Design examples that work in the Amazon free usage tier, which lets you run the Windows platform on cloud Who This Book Is For This book will be useful for (but not limited to) Windows System administrators, cloud engineers, architects, DevOps engineers, and all those who want to accomplish tasks on the AWS Public Cloud using PowerShell. What You Will Learn Install the AWS Tools for PowerShell 6 Understand key services provided by Amazon Web services (AWS) Understand the Virtual Private Cloud Use PowerShell 6 for AWS Identity and Access Management (IAM) Use PowerShell 6 for AWS Elastic Compute Cloud (EC2) Use PowerShell 6 for AWS Simple Storage Service (S3) Use PowerShell 6 for AWS Relational Database Service (RDS) Build fault-tolerant and highly-available applications using PowerShell 6 In Detail AWS Tools for PowerShell 6 shows you exactly how to automate all the aspects of AWS. You can take advantage of the amazing power of the cloud, yet add powerful scripts and mechanisms to perform common tasks faster than ever before. This book expands on the Amazon documentation with real-world, useful examples and production-ready scripts to automate all the aspects of your new cloud platform. It will cover topics such as managing Windows with PowerShell, setting up security services, administering database services, and deploying and managing networking. You will also explore advanced topics such as PowerShell authoring techniques, and configuring and managing storage and content delivery. By the end of this book, you will be able to use Amazon Web Services to automate and manage Windows servers. You will also have gained a good understanding of automating the AWS infrastructure using simple coding. Style and approach This step-by-step guide starts with simple examples then expands to full-blown administrative tasks leading to the efficient management of Windows servers. Each topic covers a section related to Amazon Web Services products, and the examples are built on one another to deliver a comprehensive library of scripts for administrators.

Part of the "Microsoft Azure Essentials" series, this ebook helps SQL Server database users understand Microsoft's offering for SQL Server in Azure. Learn how SQL Server in Azure is similar to SQL Server in an on-premises environment, and how they are different. The author, a content lead for Azure.com, walks you through the steps of getting started with SQL Server in an Azure virtual machine and with Azure SQL Database. Follow the numerous screenshots to create a trial subscription, create SQL Server in an Azure virtual machine, create an Azure SQL Database, migrate an on-premises database to each Azure environment, create users, back up and restore data, and archive data. Microsoft Exchange Server 2013 is a complex messaging system. Windows PowerShell 5 can be used in conjunction with Exchange Server 2013 to automate and manage routine and complex tasks to save time and money and eliminate errors. Starting by going through key PowerShell concepts and the Exchange Management Shell, this book will get you automating tasks that used to take hours in no time. Diving deeper, you will then manage your mailbox database, client access, and your transport servers with simple but effective scripts. This book finishes with advanced recipes on Exchange Server problems, such as managing distribution groups and maintaining high availability and security.

Stellar author team of Microsoft MVPs helps developers and administrators get the most out of Windows IIS 8 If you're a developer or administrator, you'll want to get thoroughly up to speed on Microsoft's new IIS 8 platform with this complete, in-depth reference. Prepare yourself to administer IIS 8 in not only commercial websites and corporate intranets, but also the mass web hosting market with this expert content. The book covers common administrative tasks associated with monitoring and managing an IIS environment--and then moves well beyond, into extensibility, scripted admin, and other complex topics. The book highlights automated options outside the GUI, options that include the PowerShell provider and AppCmd tool. It explores extensibility options for developers, including ISAPI and HTTPModules. And, it delves into security protocols and high availability/load balancing at a level of detail that is not often found in IIS books. Author team includes Microsoft MVPs and an IIS team member Covers the management and monitoring of Microsoft Internet Information Services (IIS) 8 for administrators and developers, including MOF and MOM Delves into topics not often included in IIS books, including using the PowerShell provider and AppCmd tool and other automated options, and extending IIS 8 with ISAPI or HTTPModules Explores security issues in depth, including high availability/load balancing, and the Kerberos, NTLM, and PKI/SSL protocols Explains how to debug and troubleshoot IIS Professional Microsoft IIS 8 features a wealth of information gathered from individuals running major intranets and web hosting facilities today, making this an indispensable and real-world reference to keep on hand.

Summary Discover how scripting is different from command-line PowerShell, as you explore concrete hands-on examples in this handy guide. The book includes and expands on many of the techniques presented in Learn PowerShell Toolmaking in a Month of Lunches. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Automate it! With Microsoft's PowerShell language, you can write scripts to control nearly every aspect of Windows. Just master a few straightforward scripting skills, and you'll be able to eliminate repetitive manual tasks, create custom reusable tools, and build effective pipelines and workflows. Once you start scripting in PowerShell, you'll be amazed at how many

opportunities you'll find to save time and effort. About the Book Learn PowerShell Scripting in a Month of Lunches teaches you how to expand your command-line PowerShell skills into effective scripts and tools. In 27 bite-size lessons, you'll discover instantly useful techniques for writing efficient code, finding and squashing bugs, organizing your scripts into libraries, and much more. Advanced scripters will even learn to access the .NET Framework, store data long term, and create nice user interfaces. What's Inside Designing functions and scripts Effective pipeline usage Dealing with errors and bugs Professional-grade scripting practices About the Reader Written for devs and IT pros comfortable with PowerShell and Windows. About the Authors Don Jones is a PowerShell MVP, speaker, and trainer who has written dozens of books on information technology topics. Jeffery Hicks is a PowerShell MVP and an independent consultant, trainer, and author. Don and Jeff coauthored Manning's Learn Windows PowerShell in a Month of Lunches, Learn PowerShell Toolmaking in a Month of Lunches, and PowerShell in Depth. Table of Contents PART 1 - INTRODUCTION TO SCRIPTING Before you begin Setting up your scripting environment WWPDP: what would PowerShell do? Review: parameter binding and the PowerShell pipeline Scripting language crash course The many forms of scripting (and which to use) Scripts and security PART 2 - BUILDING A POWERSHELL SCRIPT Always design first Avoiding bugs: start with a command Building a basic function and script module Going advanced with your function Objects: the best kind of output Using all the pipelines Simple help: making a comment Dealing with errors Filling out a manifest PART 3 - GROWN-UP SCRIPTING Changing your brain when it comes to scripting Professional-grade scripting An introduction to source control with git Pester your script Signing your script Publishing your script PART 4 - ADVANCED TECHNIQUES Squashing bugs Making script output prettier Wrapping up the .NET Framework Storing data-not in Excel! Never the end

Summary Learn Windows PowerShell in a Month of Lunches, Third Edition is an innovative tutorial designed for busy IT professionals. This updated edition covers PowerShell features that run on Windows 7, Windows Server 2008 R2 and later, PowerShell v3 and later, and includes v5 features like PowerShellGet. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology PowerShell is both a scripting language and an administrative shell that lets you control and automate nearly every aspect of Windows. It accepts and executes commands interactively and you can write scripts to manage most Windows servers like Exchange, IIS, and SharePoint, as well as online services like Azure and Office 365. About the Book Learn Windows PowerShell in a Month of Lunches, Third Edition is an innovative tutorial designed for busy IT professionals. Just set aside one hour a day - lunchtime would be perfect - for a month, and you'll be automating Windows tasks faster than you ever thought possible. This updated edition covers PowerShell features that run on Windows 7, Windows Server 2008 R2 and later, PowerShell v3 and later, and includes v5 features like PowerShellGet. What's Inside Learn PowerShell from the beginning, no experience required! Covers PowerShell v3 and up, Windows 7, and Windows Server 2008 R2 and later Each lesson takes you an hour or less About the Reader Experience with Windows administration is helpful. No programming or scripting experience needed. About the Author Veteran PowerShell MVPs Don Jones and Jeffery Hicks bring years as successful trainers to this concise, easy-to-follow book. Table of Contents Before you begin Meet PowerShell Using the help system Running commands Working with providers The pipeline: connecting commands Adding commands Objects: data by another name The pipeline, deeper Formatting - and why it's done on the right Filtering and comparisons A practical interlude Remote control: one-to-one, and one-to-many Using Windows Management Instrumentation and CIM Multitasking with background jobs Working with many objects, one at a time Security alert! Variables: a place to store your stuff Input and output Sessions: remote control with less work You call this scripting? Improving your parameterized script Advanced remoting configuration Using regular expressions to parse text files Additional random tips, tricks, and techniques Using someone else's script Never the end PowerShell cheat sheet

Use this comprehensive guide for the SQL Server DBA, covering all that practicing database administrators need to know to get their daily work done. Updated for SQL Server 2019, this edition includes coverage of new features such as Memory-optimized TempDB Metadata, and Always Encrypted with Secure Enclaves. Other new content includes coverage of Query Store, resumable index operations, installation on Linux, and containerized SQL. Pro SQL Server 2019 Administration takes DBAs on a journey that begins with planning their SQL Server deployment and runs through installing and configuring the instance, administering and optimizing database objects, and ensuring that data is secure and highly available. Finally, readers will learn how to perform advanced maintenance and tuning techniques. This book teaches you to make the most of new SQL Server 2019 functionality, including Data Discovery and Classification. The book promotes best-practice installation, shows how to configure for scalability and high workloads, and demonstrates the gamut of database-level maintenance tasks such as index maintenance, database consistency checks, and table optimizations. What You Will Learn Install and configure SQL Server on Windows through the GUI and with PowerShell Install and configure SQL Server on Linux and in Containers Optimize tables through in-memory OLTP, table partitioning, and the creation of indexes Secure and encrypt data to protect against embarrassing data breaches Ensure 24x7x365 access through high-availability and disaster recovery features Back up your data to ensure against loss, and recover data when needed Perform routine maintenance tasks such as database consistency checks Troubleshoot and solve performance problems in SQL queries and in the database engine Who This Book Is For SQL Server DBAs who manage on-premise installations of SQL Server. This book is also useful for DBAs who wish to learn advanced features such as Query Store, Extended Events, Distributed Replay, and Policy-Based Management, or those who need to install SQL Server in a variety of environments.

Get up to speed on the extensive changes to the newest release of Microsoft SQL Server The 2012 release of Microsoft SQL Server changes how you develop applications for SQL Server. With this comprehensive resource, SQL Server authority Robert Vieira presents the fundamentals of database design and SQL concepts, and then shows you how to apply these concepts using the updated SQL Server. Publishing time and date with the 2012 release, Beginning Microsoft SQL Server 2012 Programming begins with a quick overview of database design basics and the SQL query language and then quickly proceeds to show you how to implement the fundamental concepts of Microsoft SQL Server 2012. You'll explore the key additions and changes to this newest version, including conditional action constructs, enhanced controls for results paging, application integration with SharePoint and Excel, and development of BI applications. Covers new features such as SQL Azure for cloud computing, client-connectivity enhancements, security and compliance, data replication, and data warehouse performance improvements Addresses essential topics including managing keys, writing scripts, and working with store procedures Shares helpful techniques for creating and changing tables, programming with XML, and using SQL Server Reporting and Integration Services Beginning Microsoft SQL Server 2012 Programming demystifies even the most difficult challenges you may face with the new version of Microsoft SQL Server.

Sharpen your data visualization skills with Tableau 10 Bootcamp. About This Book* Make informed decisions using powerful visualizations in Tableau* Learn effective data storytelling to transform how your business uses ideas* Use this extensive bootcamp that makes you an efficient Tableau user in a short span of time Who This Book Is For This book caters to business, data, and analytics professionals who want to build rich interactive visualizations using Tableau Desktop. Familiarity with previous versions of Tableau will be helpful, but not necessary. What You Will Learn* Complete practical Tableau tasks with each chapter* Build different types of charts in Tableau with ease* Extend data using calculated fields and parameters* Prepare and refine data for analysis* Create engaging and interactive dashboards* Present data effectively using story points In Detail Tableau is a leading visual analytics software that can uncover insights for better and smarter decision-making. Tableau has an uncanny ability to beautify your data, compared to other BI tools, which makes it an ideal choice for performing fast and easy visual analysis. A military camp style fast-paced learning book that builds your understanding of Tableau 10 in no time. This day based learning guide contains the best elements from two of our published books, Learning Tableau 10 - Second Edition and Tableau 10 Business Intelligence Cookbook, and delivers practical, learning modules in manageable chunks. Each chunk is delivered in a "day", and each "day" is a productive day. Each day builds your competency in Tableau. You will increase your competence in integrating analytics and forecasting to enhance data analysis during the course of this Bootcamp. Each chapter presents core concepts and key takeaways about a topic in Tableau and provides a series of hands-on exercises. In addition to these exercises, at the end of the chapter, you will find self-check quizzes and extra drills to challenge you, to take what you learned to the next level. To summarize, this book will equip you with step-by-step instructions through rigorous tasks, practical callouts, and various real-world examples and assignments to reinforce your understanding of Tableau 10. Style and approach A fast paced book filled with highly-effective real-world examples to help you build new things and help you in solving problems in newer and unseen ways.

How do you use PowerShell to navigate the filesystem, manage files and folders, or retrieve a web page? This introduction to the PowerShell language and scripting environment provides more than 400 task-oriented recipes to help you solve all kinds of problems. Intermediate to advanced system administrators will find more than 100 tried-and-tested scripts they can copy and use immediately. Updated for PowerShell 5, Open Source PowerShell up to 7 and beyond, this comprehensive cookbook includes hands-on recipes for common tasks and administrative jobs that you can apply whether you're on the client or server version of Windows. You also get quick references to technologies used in conjunction with PowerShell, including format specifiers and frequently referenced registry keys to selected .NET, COM, and WMI classes. Learn how to use PowerShell on Windows 10 and Windows Server 2019 Tour PowerShell's core features, including the command model, object-based pipeline, and ubiquitous scripting Master fundamentals such as the interactive shell, pipeline, and object concepts Perform common tasks that involve working with files, Internet-connected scripts, user interaction, and more Solve tasks in systems and enterprise management, such as working with Active Directory and the filesystem

PowerShell for SQL Server Essentials Packt Publishing Ltd

Learn dbatools in a Month of Lunches is a practical hands-on guide to automating SQL Server with PowerShell and the awesome dbatools module. An effective DBA is an efficient DBA. And if you work with SQL Server, dbatools is a lifesaver. With over 500 commands, this free and open source PowerShell module has the horsepower to automate just about every task you can imagine—and then some! Learn dbatools in a Month of Lunches teaches you techniques that will make you more effective—and efficient—than you ever thought possible. Learn dbatools in a Month of Lunches is a practical hands-on guide to automating SQL Server with PowerShell and the awesome dbatools module. You'll master techniques you can immediately put into practice, from daily duties like backups and restores right through to performing security audits. Stabilize and standardize your SQL server environment, and simplify your tasks by building automation, alerting, and reporting with this powerful tool. Each lesson delivers another skill that you can use to speed through your core tasks as a SQL Server DBA! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Covers the concepts and fundamentals of Microsoft Windows server with information on such topics as active directory, group policy, installation, storage, and remote access.

This book is written for SQL Server administrators and developers who want to leverage PowerShell to work with SQL Server. Some background with scripting will be helpful but not necessary.

The "Microsoft Azure Essentials" series helps you advance your technical skills with Microsoft Azure. "Microsoft Azure Essentials: Azure Web Apps for Developers" focuses on providing essential information about developing web applications hosted on Azure Web Apps. It is written with the developer who has experience using Visual Studio and the .NET Framework in mind. If Azure Web Apps is new to you, this book is for you. If you have experience developing for Azure Web Apps, this book is for you, too, because there are features and tools discussed in this text that are new to the platform.

The ideal on-the-job reference guide for SQL Server 2008 database administrators If you manage and administer SQL Server 2008 in the real world, you need this detailed guide at your desk. From planning to disaster recovery, this practical book explores tasks and scenarios that a working SQL Server DBA faces regularly and shows you step by step how to handle them. Topics include installation and configuration, creating databases and tables, optimizing the database server, planning for high availability, and more. And, if you're preparing for MCTS or MCITP certification in SQL Server 2008 administration, this book is the perfect supplement to your preparation, featuring a CD with practice exams, flashcards, and video walkthroughs of the more difficult administrative tasks Delves into Microsoft's SQL Server 2008, a rich set of enterprise-level database services for business-critical applications Explores the skills you'll need on the job as a SQL Server 2008 administrator Shows you how to implement, maintain, and repair the SQL Server database, including bonus videos on the CD where the authors walk you through the more difficult tasks Covers database design, installation and configuration, creating databases and tables, security, backup and high availability, and more Supplements your preparation for MCTS and MCITP SQL Server 2008 certification with in-depth coverage of the skill sets required for certification, as defined by Microsoft Uses hands-on exercises and real-world scenarios to keep what you're learning grounded in the reality of the workplace Make sure you're not only prepared for certification, but also for your job as a SQL Server 2008 administrator, with this practical reference! Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Summary Learn SQL Server Administration in a Month of Lunches is the perfect way to get started with SQL Server operations, including maintenance, backup and recovery, high availability, and performance monitoring. In about an hour a day over a month,

you'll learn exactly what you can do, and what you shouldn't touch. Most importantly, you'll learn the day-to-day tasks and techniques you need to keep SQL Server humming along smoothly. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book Microsoft SQL Server is used by millions of businesses, ranging in size from Fortune 500s to small shops worldwide. Whether you're just getting started as a DBA, supporting a SQL Server-driven application, or you've been drafted by your office as the SQL Server admin, you do not need a thousand-page book to get up and running. Learn SQL Server Administration in a Month of Lunches is the perfect way to get started with SQL Server. This concise, easy-to-read book skips academic introductions and teaches you day-to-day techniques for maintenance, backup and recovery, performance monitoring, and more. Each of the 21 short lessons gives you practical takeaways you'll use over and over. What's Inside Master the basics—indexes, logins, backup, recovery ... and more Learn what you can and cannot do when supporting a third-party application Monitor and improve performance Written by expert trainer and bestselling author Don Jones Accessible to readers of any level of experience, the book covers techniques for all versions of SQLServer 2005-2014. About the Author Don Jones is a Microsoft MVP, speaker, and trainer. He is the creator of the Month of Lunches series and author of over 50 books on PowerShell, IIS, Active Directory, SCCM, SQL Server, and more. Table of Contents Before you begin Server assessment and configuration T-SQL crash course Managing databases Backup and recovery Authentication: who are you? Authorization: what are you allowed to do? Accounting: what did you do? Analyzing indexes Maintaining indexes Tuning index designs Reading query execution plans Block and deadlock analysis Automating management with SQL Server Agent Multiserver management Windows PowerShell and SQL Server Using Extended Events Monitoring and analyzing performance Options for high availability Virtualizing SQL Server Moving, migrating, and upgrading databases SQL Server performance checklist Never the end

Summary Here's your chance to learn from the best in the business. PowerShell Deep Dives is a trove of essential techniques, practical guidance, and the expert insights you earn only through years of experience. Editors Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic hand-picked the 28 chapters in the book's four parts: Administration, Scripting, Development, and Platforms. About the Technology PowerShell has permanently changed Windows administration. This powerful scripting and automation tool allows you to control virtually every aspect of Windows and most Microsoft servers like IIS and SQL Server. Here's your chance to learn from the best in the business. About this Book PowerShell Deep Dives is a trove of essential techniques and practical guidance. It is rich with insights from experts who won them through years of experience. The book's 28 chapters, grouped in four parts (Administration, Scripting, Development, and Platforms), were hand-picked by four section editors: Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic. Whether you're just getting started with PowerShell or you already use it daily, you'll find yourself returning to this book over and over. What's Inside Managing systems through a keyhole The Ten Commandments of PowerShell scripting Scalable scripting for large datasets Adding automatic remoting Provisioning web servers and websites automatically to IIS 8 And 23 more fantastic chapters Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the AuthorsEditors Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic are joined by PowerShell experts Chris Bellee, Bartek Bielawski, Robert C. Cain, Jim Christopher, Adam Driscoll, Josh Gavant, Jason Helmick, Don Jones, Ashley McGlone, Jonathan Medd, Ben Miller, James O'Neill, Arnaud Petitjean, Vadims Podans, Karl Prosser, Boe Prox, Matthew Reynolds, Mike Robbins, Donabel Santos, Will Steele, Trevor Sullivan, and Jeff Wouters. Table of Contents PART 1 POWERSHELL ADMINISTRATION Diagnosing and troubleshooting PowerShell remoting CIM sessions 22 Collecting and analyzing performance counter data TCP port communications with PowerShell Managing systems through a keyhole Using PowerShell to audit user logon events Managing and administering a certification authoritydatabase with PowerShell Using PowerShell to reduce Active Directory token bloat PART 2 POWERSHELL SCRIPTING The 10 PowerShell scripting commandments Avoiding the pipeline A template for handling and reporting errors Tips and tricks for creating complex or advancedHTML reports with PowerShell Using and "abusing" dynamic parameters PowerShell type formatting Scalable scripting for large data sets: pipelineand database techniques Building your own WMI-based cmdlets Turning command-line tools into PowerShell tools PART 3 POWERSHELL FOR DEVELOPERS Using Source Control Software with PowerShell Inline .NET code PowerShell and XML: better together Adding automatic remoting to advanced functionsand cmdlets Taming software builds (and other complicated processes)with psake PART 4 POWERSHELL PLATFORMS PowerShell and the SQL Server provider Creating flexible subscriptions in SSRS Inventory database table statistics using PowerShellSQL Server Management Objects WSUS and PowerShell Provisioning IIS web servers and sites with PowerShell Active Directory Group Management application

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