Learn the basics of Microsoft Azure and see how SQL Server on Azure VMs (Infrastructure-as-a-Service) and Azure SQL Databases (Platform-as-a-Service) work. This concise book shows you how to deploy, operate, and maintain your data using any one or a combination of these offerings along with your on-premise environment. Pro SQL Server on Microsoft Azure is a quintessential book for any IT professional who is planning to host their data on Microsoft Azure. This book will not only equip you with the tips, tricks, and tools to manage SQL Server offerings on Azure, but will also help you in deciding between PaaS, laaS, or hybrid. In the ever-changing world of operations, IT administrators and SQL Server DBAs often find that the biggest challenges occur once they've deployed to the cloud. This is precisely why Pro SQL Server on Microsoft Azure was written; it will help you master today's cloud world. What You'll Learn Understand the Microsoft Azure laaS architecture Work with Azure Storage and Networking Deploy SQL Server on Azure VMs using best practices Apply effective security principles to SQL Azure Databases Measure and optimize the performance of SQL Server offerings on Azure Implement Business continuity and disaster recovery options with Azure SQL Databases Who This Book Is For This book is for IT admins and SQL Server DBAs who are managing or would be managing SQL Server deployments on Microsoft Azure. v> When used with the MDX guery language, SQL Server Analysis Services allows developers to build full-scale database applications to support such business functions as budgeting, forecasting, and market analysis. Shows readers how to build data warehouses and multi-dimensional Page 1/31

databases, query databases, and use Analysis Services and other components of SQL Server to provide end-to-end solutions Revised, updated, and enhanced, the book discusses new features such as improved integration with Office and Excel 2007; query performance enhancements; improvements to aggregation designer, dimension designer, cube and dimension wizards, and cell writeback; extensibility and personalization; data mining; and more A hands-on resource for SQL Server 2008 troubleshooting methods and tools SQL Server administrators need to ensure that SQL Server remains running 24/7. Authored by leading SQL Server experts and MVPs, this book provides in-depth coverage of best practices based on a deep understanding of the internals of both SQL Server and the Windows operating system. You'll get a thorough look at the SQL Server database architecture and internals as well as Windows OS internals so that you can approach troubleshooting with a solid grasp of the total processing environment. Armed with this comprehensive understanding, readers will then learn how to use a suite of tools for troubleshooting performance problems whether they originate on the database server or operating system side. Topics Covered: SQL Server Architecture Understanding Memory SQL Server Waits and Extended Events Working with Storage CPU and Query Processing Locking and Latches Knowing Tempdb Defining Your Approach To Troubleshooting Viewing Server Performance with PerfMon and the PAL Tool Tracing SQL Server with SQL Trace and Profiler Consolidating Data Collection with SQLDiag and the PerfStats Script Introducing RML Utilities for Stress Testing and Trace File Analysis Bringing It All Together with SQL Nexus Using Management Studio Reports and the Performance Dashboard Using SQL Server Management Data Warehouse Shortcuts to Efficient Data Collection and Quick Analysis Note: CD-ROM/DVD and Page 2/31

other supplementary materials are not included as part of eBook file.

Conquer SQL Server 2017 administration—from the inside out Dive into SQL Server 2017 administration—and really put your SQL Server DBA expertise to work. This supremely organized reference packs hundreds of timesaving solutions, tips, and workarounds—all you need to plan, implement, manage, and secure SQL Server 2017 in any production environment: onpremises, cloud, or hybrid. Four SQL Server experts offer a complete tour of DBA capabilities available in SQL Server 2017 Database Engine, SQL Server Data Tools, SQL Server Management Studio, and via PowerShell. Discover how experts tackle today's essential tasks—and challenge yourself to new levels of mastery. • Install, customize, and use SQL Server 2017's key administration and development tools • Manage memory, storage, clustering, virtualization, and other components • Architect and implement database infrastructure, including laaS, Azure SQL, and hybrid cloud configurations • Provision SQL Server and Azure SQL databases • Secure SQL Server via encryption, row-level security, and data masking • Safeguard Azure SQL databases using platform threat protection, firewalling, and auditing • Establish SQL Server laaS network security groups and user-defined routes • Administer SQL Server user security and permissions • Efficiently design tables using keys, data types, columns, partitioning, and views • Utilize BLOBs and external, temporal, and memory-optimized tables Master powerful optimization techniques involving concurrency, indexing, parallelism, and execution plans • Plan, deploy, and perform disaster recovery in traditional, cloud, and hybrid environments For Experienced SQL Server Administrators and Other Database Professionals • Your role: Intermediate-to-advanced level SQL Server database administrator, architect, developer, or performance tuning

expert • Prerequisites: Basic understanding of database administration procedures

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 Selfservice Business Intelligence enhancements in Microsoft Excel Enterprise information management enhancements Big Data solutions

Introducing SQL Server is a fast and easy introduction to SQL Server and the world of relational databases. You'll learn how databases work and how to use the T-SQL language by practicing on one of the most widely-used and powerful database engines in the corporate world: Microsoft SQL Server. Do you quake at the sight of a SELECT statement? Start to shiver when people start talking about tables and rows? Fear not, Introducing SQL Server is here to rescue you. The book focuses on the knowledge and skills needed to begin your journey toward becoming a solid and competent SQL Server professional and database programmer. You'll learn the core concepts of SQL Server, from installing the software to executing and profiling queries. Introducing SQL Server is aimed at SQL Server newcomers as well as at those wanting to improve their database skills. You'll put a comprehensive database together as you work through the book. You will create tables and learn to use constraints; Page 4/31

create reusable functions and stored procedures; and even learn how indexes work and what they bring in terms of increased performance. Introducing SQL Server shows you that databases don't need to be difficult. • Teaches you how to build a SQL Server database from scratch • Takes a tutorial-based approach, with each chapter building on the last • Covers what you need to know for common SQL Server development tasks

Build agile and responsive Business Intelligence solutions Analyze tabular data using the BI Semantic Model (BISM) in Microsoft SQL Server 2012 Analysis Services—and discover a simpler method for creating corporate-level BI solutions. Led by three BI experts, you'll learn how to build, deploy, and query a BISM tabular model with step-by-step guides, examples, and best practices. This hands-on book shows you how the tabular model's in-memory database enables you to perform rapid analytics—whether you're a professional BI developer new to Analysis Services or familiar with its multidimensional model. Discover how to: Determine when a tabular or multidimensional model is right for your project Build a tabular model using SQL Server Data Tools in Microsoft Visual Studio 2010 Integrate data from multiple sources into a single, coherent view of company information Use the Data Analysis expressions (DAX) language to create calculated columns, measures, and queries Choose a data modeling technique that meets your organization's performance and usability requirements Optimize your data model for better performance with xVelocity storage engine Manage complex data relationships, such as multicolumn, banding, and many-to-many Implement security by establishing administrative and data user roles Design and configure SQL Server instances and databases in support of high-throughput applications that are missioncritical and provide consistent response times in the face of

variations in user numbers and query volumes. Learn to configure SQL Server and design your databases to support a given instance and workload. You'll learn advanced configuration options, in-memory technologies, storage and disk configuration, and more, all toward enabling your desired application performance and throughput. Configuration doesn't stop with implementation. Workloads change over time, and other impediments can arise to thwart desired performance. High Performance SQL Server covers monitoring and troubleshooting to aid in detecting and fixing production performance problems and minimizing application outages. You'll learn a variety of tools, ranging from the traditional wait analysis methodology to the new query store. and you'll learn how improving performance is really an iterative process. High Performance SQL Server is based on SQL Server 2016, although most of its content can be applied to prior versions of the product. This book is an excellent complement to performance tuning books focusing on SQL queries, and provides the other half of what you need to know by focusing on configuring the instances on which missioncritical queries are executed. Covers SQL Server instanceconfiguration for optimal performance Helps in implementing SQL Server in-memory technologies Provides guidance toward monitoring and ongoing diagnostics What You Will Learn Understand SQL Server's database engine and how it processes queries Configure instances in support of highthroughput applications Provide consistent response times to varying user numbers and query volumes Design databases for high-throughput applications with focus on performance Record performance baselines and monitor SQL Server instances against them Troubleshot and fix performance problems Who This Book Is For SQL Server database administrators, developers, and data architects. The book is also of use to system administrators who are managing and Page 6/31

are responsible for the physical servers on which SQL Server instances are run.

This book provides an understanding of the SQL Server transaction log, what it does and how it works, and its role in ensuring data integrity. Topics covered include: write ahead logging; how to perform transaction log backup and restore in FULL and BULK_LOGGED recovery models; managing log growth, and dealing correctly with an overgrown or full log; and optimizing log throughput and availability, and how to avoid log fragmentation. --

Introducing Microsoft(r) SQL Server(r) 2012 explores the exciting enhancements and new capabilities engineered into SQL Server, ranging from improvements in operation to those in reporting and management. This book is for anyone who has an interest in SQL Server 2012 and wants to understand its capabilities, including database administrators, application developers, and technical decision makers.

This is not an ordinary SQL Server Book. SQL Server MVP Deep Dives brings together the world's most highly-regarded SQL Server experts to create a masterful collection of tips, techniques, and experience-driven best practices for SQL Server development and administration. These SQL Server MVPs-53 in all-each selected a topic of great interest to them, and in this unique book, they share their knowledge and passion with you. SQL Server MVP Deep Dives is organized into five parts: Design and Architecture, Development, Administration, Performance Tuning and Optimization, and Business Intelligence. Within each part, you'll find a collection of brilliantly concise and focused chapters that take on key topics like mobile data strategies. Dynamic Management Views, or query performance. The range of subjects covered is comprehensive, from database design tips to data profiling strategies for BI. Additionally, the authors of this book have generously donated 100% of their royalties to support War Page 7/31

Child International. War Child International is a network of independent organizations, working across the world to help children affected by war. War Child was founded upon a fundamental goal: to advance the cause of peace through investing hope in the lives of children caught up in the horrors of war. War Child works in many different conflict areas around the world, helping hundreds of thousands of children every year. Visit www.warchild.org for more information. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

Build agile and responsive business intelligence solutions Create a semantic model and analyze data using the tabular model in SQL Server 2016 Analysis Services to create corporate-level business intelligence (BI) solutions. Led by two BI experts, you will learn how to build, deploy, and query a tabular model by following detailed examples and best practices. This hands-on book shows you how to use the tabular model's in-memory database to perform rapid analytics—whether you are new to Analysis Services or already familiar with its multidimensional model. Discover how to: • Determine when a tabular or multidimensional model is right for your project • Build a tabular model using SQL Server Data Tools in Microsoft Visual Studio 2015 • Integrate data from multiple sources into a single, coherent view of company information • Choose a data-modeling technique that meets your organization's performance and usability requirements • Implement security by establishing administrative and data user roles • Define and implement partitioning strategies to reduce processing time • Use Tabular Model Scripting Language (TMSL) to execute and automate administrative tasks • Optimize your data model to reduce the memory footprint for VertiPaq • Choose between in-memory (VertiPaq) and pass-through (DirectQuery)

engines for tabular models • Select the proper hardware and virtualization configurations • Deploy and manipulate tabular models from C# and PowerShell using AMO and TOM libraries Get code samples, including complete apps, at: https://aka.ms/tabular/downloads About This Book • For BI professionals who are new to SQL Server 2016 Analysis Services or already familiar with previous versions of the product, and who want the best reference for creating and maintaining tabular models. • Assumes basic familiarity with database design and business analytics concepts. Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Optimize Microsoft SQL Server 2014 gueries and applications Microsoft SQL Server 2014 Query Tuning & Optimization is filled with ready-to-use techniques for creating high-performance queries and applications. The book describes the inner workings of the query processor so you can write better queries and provide the query processor with the quality information it needs to produce efficient execution plans. You'll also get tips for troubleshooting underperforming queries. In-Memory OLTP (Hekaton), a key new feature of SQL Server 2014, is fully covered in this practical guide. Understand how the guery optimizer works Troubleshoot queries using extended events, SQL trace, dynamic management views (DMVs), the data collector, and other tools Work with query operators for data access, joins, aggregations, parallelism, and updates Speed up queries and dramatically improve application performance by creating the right indexes Understand statistics and how to detect and fix cardinality estimation errors Maximize OLTP query performance using In-Memory OLTP (Hekaton) features, including memory-optimized tables and natively compiled stored procedures Monitor and promote plan caching and Page 9/31

reuse to improve application performance Improve the performance of data warehouse queries using columnstore indexes Handle query processor limitations with hints and other methods

Bring the performance and security of SQL Server to Linux About This Book Design and administer your SQL Server solution on the open source Linux platform Install, configure, and fine-tune your database application for maximum performance An easy-to-follow guide teaching you how to implement various SQL Server CTP 2.x offerings on Linux—from installation to administration Who This Book Is For This book is for the Linux users who want to learn SQL Server on their favorite Linux distributions. It is not important if you are experienced database user or a beginner as we are starting from scratch. However, it is recommended that you have basic knowledge about relational models. More advanced readers can pick the chapters of their interest and study specific topics immediately. Users from Windows platform can also benefit from this book to expand their frontiers and become equally efficient on both platforms. What You Will Learn Install and set up SQL Server CTP 2.x on Linux Create and work with database objects using SQL Server on Linux Configure and administer SQL Server on Linux-based systems Create and restore database back-ups Protect sensitive data using the built-in cryptographic features Optimize query execution using indexes Improve query execution time by more than 10x using in-memory OLTP Track row-versioning using temporal tables In Detail Microsoft's launch of SQL Server on Linux has made SQL Server a truly versatile platform across different operating systems and data-types, both on-premise and on-cloud. This book is your handy guide to setting up and implementing your SQL Server solution on the open source Linux platform. You will start by understanding how SQL Server can be installed

on supported and unsupported Linux distributions. Then you will brush up your SQL Server skills by creating and querying database objects and implementing basic administration tasks to support business continuity, including security and performance optimization. This book will also take you beyond the basics and highlight some advanced topics such as in-memory OLTP and temporal tables. By the end of this book, you will be able to recognize and utilize the full potential of setting up an efficient SQL Server database solution in your Linux environment. Style and approach This book follows a step-by-step approach to teach readers the concepts of SQL Server on Linux using the bash command line and SQL programming language trough examples which can easily be adapted and applied in your own solutions. This book is a deep dive into perhaps the single-most important facet of good performance: indexes, and how to best use them. The book begins in the shallow waters with explanations of the types of indexes and how they are stored in databases. Moving deeper into the topic, and further into the book, you will look at the statistics that are accumulated both by indexes and on indexes. You'll better understand what indexes are doing in the database and what can be done to mitigate and improve their effect on performance. The final destination is a guided tour through a number of real life scenarios showing approaches you can take to investigate, mitigate, and improve the performance of your database. Defines the types of indexes and their implementation options Provides use cases and common patterns in applying indexing Describes and explain the index metadata and statistics Provides a framework of strategies and approaches for indexing databases With Microsoft SQL Server 2016, a variety of new features and enhancements to the data platform deliver breakthrough performance, advanced security, and richer, integrated Page 11/31

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: TemDB configuration, query store, and Stretch Database; review several improvements to Reporting Services; and also describe AlwaysOn Availability Groups, tabular enhancements, and R integration. Learn effective and scalable database design techniques in SQL Server 2019 and other recent SQL Server versions. This book is revised to cover additions to SQL Server that include SQL graph enhancements, in-memory online transaction processing, temporal data storage, row-level security, and other design-related features. This book will help you design OLTP databases that are high-quality, protect the integrity of your data, and perform fast on-premises, in the cloud, or in hybrid configurations. Designing an effective and scalable database using SQL Server is a task requiring skills that have been around for well over 30 years, using technology that is constantly changing. This book covers everything from design logic that business users will understand to the physical implementation of design in a SQL Server database. Grounded in best practices and a solid understanding of the underlying theory, author Louis Davidson shows you how to "get it right" in SQL Server database design and lay a solid groundwork for the future use of valuable business data. What You Will Learn

Develop conceptual models of client data using interviews and client documentation Implement designs that work on premises, in the cloud, or in a hybrid approach Recognize and apply common database design patterns Normalize data models to enhance integrity and scalability of your databases for the long-term use of valuable data Translate conceptual models into high-performing SQL Server databases Secure and protect data integrity as part of meeting regulatory requirements Create effective indexing to speed query performance Understand the concepts of concurrency Who This Book Is For Programmers and database administrators of all types who want to use SQL Server to store transactional data. The book is especially useful to those wanting to learn the latest database design features in SQL Server 2019 (features that include graph objects, in-memory OLTP, temporal data support, and more). Chapters on fundamental concepts, the language of database modeling, SQL implementation, and the normalization process lay a solid groundwork for readers who are just entering the field of database design. More advanced chapters serve the seasoned veteran by tackling the latest in physical implementation features that SQL Server has to offer. The book has been carefully revised to cover all the design-related features that are new in SQL Server 2019.

Up-to-date Microsoft SQL Server 2016 skills made Page 13/31

easy! Get up and running on Microsoft SQL Server 2016 in no time with help from this thoroughly revised, practical resource. The book offers thorough coverage of SQL management and development and features full details on the newest business intelligence, reporting, and security features. Filled with new real-world examples and hands-on exercises, Microsoft SQL Server 2016: A Beginner's Guide, Sixth Edition, starts by explaining fundamental relational database system concepts. From there, you will learn how to write Transact-SQL statements, execute simple and complex database queries, handle system administration and security, and use the powerful analysis and BI tools. XML, spatial data, and full-text search are also covered in this step-by-step tutorial. Revised from the ground up to cover the latest version of SQL Server · Ideal both as a self-study guide and a classroom textbook · Written by a prominent professor and best-selling author

Implement a Robust BI Solution with Microsoft SQL Server 2012 Equip your organization for informed, timely decision making using the expert tips and best practices in this practical guide. Delivering Business Intelligence with Microsoft SQL Server 2012, Third Edition explains how to effectively develop, customize, and distribute meaningful information to users enterprise-wide. Learn how to build data marts and create BI Semantic Models, work with the MDX

and DAX languages, and share insights using Microsoft client tools. Data mining and forecasting are also covered in this comprehensive resource. Understand the goals and components of successful BI Design, deploy, and manage data marts and OLAP cubes Load and cleanse data with SQL Server Integration Services Manipulate and analyze data using MDX and DAX scripts and queries Work with SQL Server Analysis Services and the BI Semantic Model Author interactive reports using SQL Server Data Tools Create KPIs and digital dashboards Use data mining to identify patterns, correlations, and clusters Implement time-based analytics Embed BI reports in custom applications using ADOMD.NET

Buy the print version of Microsoft SQL Server 2012 Unleashed and get the eBook version for free! eBook version includes chapters 44-60 not included in the print. See inside the book for access code and details. With up-to-the-minute content, this is the industry's most complete, useful guide to SQL Server 2012. You'll find start-to-finish coverage of SQL Server's core database server and management capabilities: all the real-world information, tips, guidelines, and samples you'll need to create and manage complex database solutions. The additional online chapters add extensive coverage of SQL Server Integration Services, Reporting Services, Analysis Services, T-SQL

programming, .NET Framework integration, and much more. Authored by four expert SQL Server administrators, designers, developers, architects, and consultants, this book reflects immense experience with SQL Server in production environments. Intended for intermediate-toadvanced-level SQL Server professionals, it focuses on the product's most complex and powerful capabilities, and its newest tools and features. Understand SQL Server 2012's newest features, licensing changes, and capabilities of each edition Manage SQL Server 2012 more effectively with SQL Server Management Studio, the SQLCMD commandline guery tool, and Powershell Use Policy-Based Management to centrally configure and operate SQL Server Utilize the new Extended Events trace capabilities within SSMS Maximize performance by optimizing design, queries, analysis, and workload management Implement new best practices for SQL Server high availability Deploy AlwaysOn Availability Groups and Failover Cluster Instances to achieve enterprise-class availability and disaster recovery Leverage new business intelligence improvements, including Master Data Services, Data Quality Services and Parallel Data Warehouse Deliver better full-text search with SQL Server 2012's new Semantic Search Improve reporting with new SQL Server 2012 Reporting Services features Download the following from informit.com/title/9780672336928: Page 16/31

Sample databases and code examples The start-to-finish guide to virtualizing businesscritical SQL Server databases on VMware vSphere 5 By virtualizing business-critical databases, enterprises can drive far more value from existing IT infrastructure. But squeezing maximum performance out of a virtualized database instance is an art as much as a science. This indispensable start-to-finish guide brings together all the techniques, tips, and insights you need to succeed. Drawing on unsurpassed personal experience, three leading experts share complete best practices for deploying business-critical database servers in virtualized vSphere 5 environments. They cover the entire project lifecycle, bridging technical and communications gaps between SQL Server and VMware professionals that often make database virtualization more difficult than it needs to be. You'll find specific guidance for architects and administrators responsible for systems, storage, databases, applications, or VMware virtualization. The authors also present detailed, start-to-finish coverage of performance baselining and testing: all you need to make your virtualized databases as fast as they are cost effective. Although this book focuses on SQL, the authors' proven guidance for enhancing performance can be leveraged by any IT professional virtualizing a demanding Tier 1 application. Coverage includes • Business cases for Page 17/31

database virtualization: consolidation. Database as a Service (DaaS), efficiency, and "SLAs on steroids" • Using the redundancy inherent in virtualization to improve availability • Constructing a careful, conservative implementation plan • Balancing disk, CPU, memory, and network for superior performance • Mastering the five key principles of database storage design • Leveraging memory: SQL MAX, page locking, NUMA, reservations, swapping, large memory pages, and more • Ensuring responsiveness by providing a fast, reliable, lowlatency network • Supporting advanced AlwaysOn Failover Cluster Instances and Availability Groups • Baselining physical systems and properly determining resource requirements • Configuring performance tests from beginning to end • Migrating existing SQL Server databases onto a vSphere platform • Avoiding traps and pitfalls in virtualizing production databases • Managing and monitoring virtualized database instances and resources Harness the powerful new SQL Server 2012 Microsoft SQL Server 2012 is the most significant update to this product since 2005, and it may change how database administrators and developers perform many aspects of their jobs. If you're a database administrator or developer, Microsoft SQL Server 2012 Bible teaches you everything you need to take full advantage of this major release. This detailed guide not only covers all the new features of Page 18/31

SQL Server 2012, it also shows you step by step how to develop top-notch SQL Server databases and new data connections and keep your databases performing at peak. The book is crammed with specific examples, sample code, and a host of tips, workarounds, and best practices. In addition, downloadable code is available from the book's companion web site, which you can use to jumpstart your own projects. Serves as an authoritative guide to Microsoft's SQL Server 2012 for database administrators and developers Covers all the software's new features and capabilities, including SQL Azure for cloud computing, enhancements to client connectivity, and new functionality that ensures high-availability of mission-critical applications Explains major new changes to the SQL Server Business Intelligence tools, such as Integration, Reporting, and Analysis Services Demonstrates tasks both graphically and in SQL code to enhance your learning Provides source code from the companion web site, which you can use as a basis for your own projects Explores tips, smart workarounds, and best practices to help you on the job Get thoroughly up to speed on SQL Server 2012 with Microsoft SQL Server 2012 Bible. As your essential guide to Microsoft's new SQL Server 2005 certification (exam 70-442), this book offers you practical and in-depth coverage. Full coverage of all exam objectives is presented in a

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systematic approach so you can be confident you're getting the instruction you need for the exam. Plus, practical hands-on exercises reinforce critical skills and real-world scenarios put what you've learned in the context of actual job roles. Finally, challenging review questions in each chapter prepare you for exam day.

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. The industry's most complete, useful, and up-to-date guide to SQL Server 2014. You'll find start-to-finish coverage of SQL Server's core database server and management capabilities: all the real-world information, tips, guidelines, and examples you'll need to install, monitor, maintain, and optimize the most complex database environments. The provided examples and sample code provide plenty of handson opportunities to learn more about SQL Server and create your own viable solutions. Four leading SQL Server experts

present deep practical insights for administering SQL Server, analyzing and optimizing queries, implementing data warehouses, ensuring high availability, tuning performance, and much more. You will benefit from their behind-the-scenes look into SQL Server, showing what goes on behind the various wizards and GUI-based tools. You'll learn how to use the underlying SQL commands to fully unlock the power and capabilities of SQL Server. Writing for all intermediate-toadvanced-level SQL Server professionals, the authors draw on immense production experience with SQL Server. Throughout, they focus on successfully applying SQL Server 2014's most powerful capabilities and its newest tools and features. Detailed information on how to... Understand SQL Server 2014's new features and each edition's capabilities and licensing Install, upgrade to, and configure SQL Server 2014 for better performance and easier management Streamline and automate key administration tasks with Smart Admin Leverage powerful new backup/restore options: flexible backup to URL, Managed Backup to Windows Azure, and encrypted backups Strengthen security with new features for enforcing "least privilege" Improve performance with updateable columnstore indexes, Delayed Durability, and other enhancements Execute queries and business logic more efficiently with memoryoptimized tables, buffer pool extension, and natively-compiled stored procedures Control workloads and Disk I/O with the Resource Governor Deploy AlwaysOn Availability Groups and Failover Cluster Instances to achieve enterprise-class availability and disaster recovery Apply new Business Intelligence improvements in Master Data Services, data quality, and Parallel Data Warehouse SQL Server Hardware will provide the fundamental knowledge and resources you need to make intelligent decisions about choice, and optimal installation and configuration, of SQL Server hardware, operating system and Page 21/31

the SQL Server RDBMS.

Build smarter and efficient database application systems for your organization with SQL Server 2017 Key Features Build database applications by using the development features of SQL Server 2017 Work with temporal tables to get information stored in a table at any time Use adaptive querying to enhance the performance of your queries Book Description Microsoft SQL Server 2017 is the next big step in the data platform history of Microsoft as it brings in the power of R and Python for machine learning and containerizationbased deployment on Windows and Linux. Compared to its predecessor, SQL Server 2017 has evolved into Machine Learning with R services for statistical analysis and Python packages for analytical processing. This book prepares you for more advanced topics by starting with a quick introduction to SQL Server 2017's new features and a recapitulation of the possibilities you may have already explored with previous versions of SQL Server. The next part introduces you to enhancements in the Transact-SQL language and new database engine capabilities and then switches to a completely new technology inside SQL Server: JSON support. We also take a look at the Stretch database, security enhancements, and temporal tables. Furthermore, the book focuses on implementing advanced topics, including Query Store, columnstore indexes, and In-Memory OLTP. Towards the end of the book, you'll be introduced to R and how to use the R language with Transact-SQL for data exploration and analysis. You'll also learn to integrate Python code in SQL Server and graph database implementations along with deployment options on Linux and SQL Server in containers for development and testing. By the end of this book, you will have the required information to design efficient, highperformance database applications without any hassle. What you will learn Explore the new development features

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introduced in SQL Server 2017 Identify opportunities for In-Memory OLTP technology Use columnstore indexes to get storage and performance improvements Exchange JSON data between applications and SQL Server Use the new security features to encrypt or mask the data Control the access to the data on the row levels Discover the potential of R and Python integration Model complex relationships with the graph databases in SQL Server 2017 Who this book is for Database developers and solution architects looking to design efficient database applications using SQL Server 2017 will find this book very useful. In addition, this book will be valuable to advanced analysis practitioners and business intelligence developers. Database consultants dealing with performance tuning will get a lot of useful information from this book as well. Some basic understanding of database concepts and T-SQL is required to get the best out of this book.

Explore the impressive storage and analytic tools available with the in-cloud and on-premises versions of Microsoft SQL Server 2019. Key Features Gain insights into what's new in SQL Server 2019 Understand use cases and customer scenarios that can be implemented with SQL Server 2019 Discover new cross-platform tools that simplify management and analysis Book Description Microsoft SQL Server comes equipped with industry-leading features and the best online transaction processing capabilities. If you are looking to work with data processing and management, getting up to speed with Microsoft Server 2019 is key. Introducing SQL Server 2019 takes you through the latest features in SQL Server 2019 and their importance. You will learn to unlock faster querying speeds and understand how to leverage the new and improved security features to build robust data management solutions. Further chapters will assist you with integrating, managing, and analyzing all data, including

relational, NoSQL, and unstructured big data using SQL Server 2019. Dedicated sections in the book will also demonstrate how you can use SQL Server 2019 to leverage data processing platforms, such as Apache Hadoop and Spark, and containerization technologies like Docker and Kubernetes to control your data and efficiently monitor it. By the end of this book, you'll be well versed with all the features of Microsoft SQL Server 2019 and understand how to use them confidently to build robust data management solutions. What you will learn Build a custom container image with a Dockerfile Deploy and run the SQL Server 2019 container image Understand how to use SQL server on Linux Migrate existing paginated reports to Power BI Report Server Learn to query Hadoop Distributed File System (HDFS) data using Azure Data Studio Understand the benefits of In-Memory OLTP Who this book is for This book is for database administrators, architects, big data engineers, or anyone who has experience with SQL Server and wants to explore and implement the new features in SQL Server 2019. Basic working knowledge of SQL Server and relational database management system (RDBMS) is required. Here's the book you need to prepare for Exam 70-228. Installing, Configuring, and Administering Microsoft SQL Server 2000. This Study Guide provides: In-depth coverage of every official exam objective Practical information on installing, configuring, and administering SQL Server 2000 Real-world insights, advice, and recommendations Hundreds of challenging practice questions, in the book and on the CD Leading-edge exam preparation software, including a test engine and electronic flashcards Authoritative coverage of all exam objectives, including: Installing and configuring SQL Server 2000 Creating SQL Server 2000 databases Managing, monitoring, and troubleshooting SQL Server 2000 databases Extracting and transforming data with SQL Server 2000 Page 24/31

Managing and monitoring SQL Server 2000 security Managing, monitoring, and troubleshooting SQL Server 2000 Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

This book provides a comprehensive overview on best practices for troubleshooting and performance tuning in SQL Server. It reviews how to identify performance issues, how to troubleshoot the system in a holistic fashion, and how to properly prioritize tuning efforts in order to induce the best system performance possible. The book also discusses interdependencies between database components, while spotlighting ways to avoid the bottlenecks that can be triggered by those dependencies. The troubleshooting and performance tuning techniques presented in the book are compatible with any version of SQL Server. They cover both on-premise and Cloud-based SQL Server installations, including Microsoft Azure SQL Databases and Amazon SQL Server RDS. Reflecting the approaches used by many highend SQL Server consultants, SQL Server Advanced Troubleshooting and Performance Tuning is a valuable resource that will help readers master troubleshooting and performance tuning skills and get the best performance out of SQL Server.

Improve your ability to develop, manage, and troubleshoot SQL Server solutions by learning how different components work "under the hood," and how they communicate with each other. The detailed knowledge helps in implementing and maintaining high-throughput databases critical to your business and its customers. You'll learn how to identify the root cause of each problem and understand how different design and implementation decisions affect performance of your systems. New in this second edition is coverage of SQL Server 2016 Internals, including In-Memory OLTP, columnstore enhancements, Operational Analytics support,

Query Store, JSON, temporal tables, stretch databases, security features, and other improvements in the new SQL Server version. The knowledge also can be applied to Microsoft Azure SQL Databases that share the same code with SQL Server 2016. Pro SQL Server Internals is a book for developers and database administrators, and it covers multiple SQL Server versions starting with SQL Server 2005 and going all the way up to the recently released SQL Server 2016. The book provides a solid road map for understanding the depth and power of the SQL Server database server and teaches how to get the most from the platform and keep your databases running at the level needed to support your business. The book: • Provides detailed knowledge of new SQL Server 2016 features and enhancements • Includes revamped coverage of columnstore indexes and In-Memory OLTP • Covers 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 log What You Will Learn Design and develop database solutions with SQL Server. Troubleshoot design, concurrency, and performance issues. Choose the right database objects and technologies for the job. Reduce costs and improve availability and manageability. Design disaster recovery and high-availability strategies. Improve performance of OLTP and data warehouse systems through in-memory OLTP and Columnstore indexes. Who This Book Is For Developers and database administrators who want to design, develop, and maintain systems in a way that gets the most from SQL Server. This book is an excellent choice for people who prefer to understand and fix the root cause of a problem rather than applying a 'band aid' to it. Provides information on the tuning and optimization features of SQL server 2005, covering such topics as query execution, Page 26/31

plan caching, and concurrency problems. InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects. If you need to deploy, manage, or secure Microsoft SQL Server 2012, this is the complete, fast-paced, task-based reference you've been searching for. Authored by a worldclass expert on running SQL Server in the enterprise, this book goes far beyond the basics, taking on the complex tasks that DBAs need to make the most of Microsoft's first cloud-enabled database platform. Designed for maximum practical usability, it's packed with expert tips and up-to-date real-world configuration guidance you simply won't find anywhere else. As someone who helped influence the design of SQL Server 2012 and drawing on many months of beta testing, Ross Mistry provides immediately usable solutions for installation and upgrades, management and monitoring, performance and availability, security, consolidation, virtualization, troubleshooting, and more. Mistry identifies new features and corresponding best practices in every chapter, helping you take full advantage of new SQL Server innovations ranging from private cloud support to AlwaysOn Availability Groups. Understand how to: Efficiently install or upgrade the SQL Server 2012 database engine Administer and configure database engine settings, storage, I/O, and partitioning Transfer data on-premise or to the cloud Manage and optimize indexes Learn how to consolidate, virtualize and optimize SQL Server for Private Clouds Harden and audit SQL Server 2012 environments Administer security and authorization, including new Contained Databases Encrypt data and communications Design and deploy new AlwaysOn high-availability and disaster recovery features Implement maintenance best practices, including Policy-Based Management Page 27/31

Learn to take advantage of the opportunities offered by SQL Server 2014 Microsoft's SQL Server 2014 update means big changes for database administrators, and you need to get up to speed quickly because your methods, workflow, and favorite techniques will be different from here on out. The update's enhanced support of large-scale enterprise databases and significant price advantage mean that SQL Server 2014 will become even more widely adopted across the industry. The update includes new backup and recovery tools, new AlwaysOn features, and enhanced cloud capabilities. In-memory OLTP, Buffer Pool Extensions for SSDs, and a new Cardinality Estimator can improve functionality and smooth out the workflow, but only if you understand their full capabilities. Professional Microsoft SQL Server 2014 is your comprehensive guide to working with the new environment. Authors Adam Jorgensen, Bradley Ball, Ross LoForte, Steven Wort, and Brian Knight are the dream team of the SQL Server community, and they put their expertise to work guiding you through the changes. Improve oversight with better management and monitoring Protect your work with enhanced security features Upgrade performance tuning, scaling, replication, and clustering Learn new options for backup and recovery Professional Microsoft SQL Server 2014 includes a companion website with sample code and efficient automation utilities, plus a host of tips, tricks, and workarounds that will make your job as a DBA or database architect much easier. Stop getting frustrated with administrative issues and start taking control. Professional Microsoft SQL Server 2014 is your roadmap to mastering the update and creating solutions that work.

Optimize Microsoft SQL Server 2014 queries and applications Microsoft SQL Server 2014 Query Tuning & Optimization is filled with ready-to-use techniques for creating high-performance queries and applications. The book describes

the inner workings of the query processor so you can write better queries and provide the query processor with the quality information it needs to produce efficient execution plans. You'll also get tips for troubleshooting underperforming gueries. In-Memory OLTP (Hekaton), a key new feature of SQL Server 2014, is fully covered in this practical guide. Understand how the guery optimizer works Troubleshoot gueries using extended events, SQL trace, dynamic management views (DMVs), the data collector, and other tools Work with query operators for data access, joins, aggregations, parallelism, and updates Speed up queries and dramatically improve application performance by creating the right indexes Understand statistics and how to detect and fix cardinality estimation errors Maximize OLTP query performance using In-Memory OLTP (Hekaton) features, including memory-optimized tables and natively compiled stored procedures Monitor and promote plan caching and reuse to improve application performance Improve the performance of data warehouse queries using columnstore indexes Handle query processor limitations with hints and other methods

Discover how to optimize your SQL Server 7*0 system for maximum performance and scalability. Performance tuning a relational database can be challenging, exciting, and frustrating. "MICROSOFT SQL SERVER 7*0 PERFORMANCE TUNING TECHNICAL REFERENCE "provides the practical information that database administrators need to configure a SQL Server 7*0 database for better, faster, more scalable solutions. This is the only book about SQL Server 7*0 performance tuning co-authored by engineers from the Microsoft SQL Server performance group. The authors start with the basics, and then build upon this information to teach the mechanics of performance tuning and how those mechanics affect the whole system. What's

more, this book is unique in that it also teaches you how to optimize for the underlying operating system and hardware. Expert Instruction helps you understand these topics. Server tuning: how to use the Enterprise Manager, SQL Server Performance Monitor, and Profiler to shorten transaction response times, and how to optimize your database layout to get the best use of hardware resources. Sizing and capacity planning: how to model software and hardware usage to predict resource consumption, plus how to perform what-if scenarios about workload growth to avoid slow response times. Configuring and tuning the system: how to tune OLTP systems, data warehouses and data marts, and replicated systems, and how to set up your system for high-performance backup and recovery. Tuning SQL statements: how to get optimal performance by using the Query Analyzer and Profiler to tune SQL statements and stored procedures, plus how to take advantage of indexes and hints.

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.

The SQL Server 2014 In-Memory OLTP engine (a.k.a. Hekaton) is designed from the ground up to exploit terabytes of available memory and high numbers of processing cores. It allows us to work with memory-optimized tables and indexes, and natively compiled stored procedures, in addition to the disk-based tables and indexes, and T-SQL stored procedures, that SQL Server has always provided. Hekaton in-

memory data is accessible, transparently, using familiar interfaces such as T-SQL and SSMS, but Hekaton's internal behavior and capabilities are very different than those of the standard relational engine. Everything you knew about how your SQL Server stores and accesses data is different in Hekaton. Everything you understood about how multiple concurrent processes are handled needs to be reconsidered. In this book, Kalen Delaney explains how the new In-Memory OLTP engine works, how it stores and manipulates data, and how, even with all data stored in memory and no locking or latching, it can still guarantee the ACID properties of all transactions. Kalen has been working with SQL Server since 1987, specializing in query performance tuning and SQL Server internals. The Hekaton internals knowledge she provides in this book will help you migrate existing tables or databases to Hekaton, and get faster performance from your SQL Server applications than you ever thought possible. Copyright: 4cb1c76d6da7360f52451a493aeba0d7