

Query Optimization Techniques In Microsoft Sql Server

Pro Microsoft HDInsight is a complete guide to deploying and using Apache Hadoop on the Microsoft Windows Azure Platforms. The information in this book enables you to process enormous volumes of structured as well as non-structured data easily using HDInsight, which is Microsoft's own distribution of Apache Hadoop. Furthermore, the blend of Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) offerings available through Windows Azure lets you take advantage of Hadoop's processing power without the worry of creating, configuring, maintaining, or managing your own cluster. With the data explosion that is soon to happen, the open source Apache Hadoop Framework is gaining traction, and it benefits from a huge ecosystem that has risen around the core functionalities of the Hadoop distributed file system (HDFS™) and Hadoop Map Reduce. Pro Microsoft HDInsight equips you with the knowledge, confidence, and technique to configure and manage this ecosystem on Windows Azure. The book is an excellent choice for anyone aspiring to be a data scientist or data engineer, putting you a step ahead in the data mining field. Guides you through installation and configuration of an HDInsight cluster on Windows Azure Provides clear examples of configuring and executing Map Reduce jobs Helps you consume data and diagnose errors from the Windows Azure HDInsight Service

This book constitutes the refereed proceedings of the 9th European Conference on Genetic Programming, EuroGP 2006, held in Budapest, Hungary, in April 2006, colocated with EvoCOP 2006. The 21 revised plenary papers and 11 revised poster papers were carefully reviewed and selected from 59 submissions. The papers address fundamental and theoretical issues, along with a wide variety of papers dealing with different application areas.

Design and configure SQL Server instances and databases in support of high-throughput applications that are mission-critical 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 mission-critical queries are executed. Covers SQL Server instance-configuration 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 high-throughput 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 Troubleshoot 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 are responsible for the physical servers on which SQL Server instances are run.

This practical book provides a comprehensive overview of troubleshooting and performance tuning best practices for Microsoft SQL Server. Database engineers, including database developers and administrators, will learn how to identify performance issues, troubleshoot the system in a holistic fashion, and properly prioritize tuning efforts to attain the best system performance possible. Author Dmitri Korotkevitch, Microsoft Data Platform MVP and Microsoft Certified Master (MCM), explains the interdependencies between SQL Server database components. You'll learn how to quickly diagnose your system and discover the root cause of any issue. Techniques in this book are compatible with all versions of SQL Server and cover both on-premises and cloud-based SQL Server installations. Discover how performance issues present themselves in SQL Server Learn about SQL Server diagnostic tools, methods, and technologies Perform health checks on SQL Server installations Learn the dependencies between SQL Server components Tune SQL Server to improve performance and reduce bottlenecks Detect poorly optimized queries and inefficiencies in query execution plans Find inefficient indexes and common database design issues Use these techniques with Microsoft Azure SQL databases, Azure SQL Managed Instances, and Amazon RDS for SQL Server

In just 24 sessions of one hour or less, you'll learn how to use SQL to build effective databases, efficiently retrieve your data, and manage everything from performance to security! Using this book's straightforward, step-by-step approach, you'll learn hands-on through practical examples. Each lesson builds on what you've already learned, giving you a strong real-world foundation for success. The authors guide you from the absolute basics to advanced techniques—including views, transactions, Web data publishing, and even powerful SQL extensions for Oracle and Microsoft SQL Server! Step-by-step instructions carefully walk you through the most common SQL tasks. Quizzes and Exercises at the end of each chapter help you test your knowledge. By the Way notes present interesting information related to the discussion. Did You Know? tips offer advice or show you easier ways to perform tasks. Watch Out! cautions alert you to possible problems and give you advice on how to avoid them. Learn how to... Understand what SQL is, how it works, and what it does Define efficient database structures and objects "Normalize" raw databases into logically organized tables Edit relational data and tables with DML Manage database transactions Write effective, well-performing queries Categorize, summarize, sort, group, and restructure data Work with dates and times Join tables in queries, use subqueries, and combine multiple queries Master powerful query optimization techniques Administer databases and manage users Implement effective database security Use views, synonyms, and the system catalog Extend SQL to the enterprise and Internet Master important Oracle and Microsoft SQL Server extensions to ANSI SQL

SQL Server Advanced Troubleshooting and Performance Tuning

Multi Query Optimization in GLADE

Inside the SQL Server Query Optimizer

T-SQL Querying

Introducing Microsoft SQL Server 2019

Microsoft SQL Server 6.5 Unleashed

Organized into several parts that comprise the various jobs and tasks the DBA performs, each chapter of this book is presented with the goal of providing knowledge and "know-how" to Database Administrators of a SQL Server database. The chapters also offer real-world insight and experience by passing on tips, tricks, and suggestions.

This 4-Volume-Set, CCIS 0251 - CCIS 0254, constitutes the refereed proceedings of the International Conference on Informatics Engineering and Information Science, ICIEIS 2011, held in Kuala Lumpur, Malaysia, in November 2011. The 210 revised full papers presented together with invited papers in the 4 volumes were carefully reviewed and selected from numerous submissions. The papers are organized in topical sections on e-learning, information security, software engineering, image processing, algorithms, artificial intelligence and soft computing, e-commerce, data mining, neural networks, social networks, grid computing, biometric technologies, networks, distributed and parallel computing, wireless networks, information and data management, web applications and software systems, multimedia, ad hoc networks, mobile computing, as well as miscellaneous topics in digital information and communications.

* A completely revised edition of a book that is highly-regarded in the community (as evidenced by Amazon reviews and other customer feedback). * The only comprehensive, practical guide to performance optimization techniques for SQL Server applications. * Essential reading for any DBA or developer responsible for the performance of an existing SQL Server system, or the design of a new one.

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 queries. In-Memory OLTP (Hekaton), a key new feature of SQL Server 2014, is fully covered in this practical guide. Understand how the query 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 reuse to improve application performance Improve the performance of data warehouse queries using columnstore indexes Handle query processor limitations with hints and other methods

Your essential guide to key programming features in Microsoft SQL Server 2012 Take your database programming skills to a new level—and build customized applications using the developer tools introduced with SQL Server 2012. This hands-on reference shows you how to design, test, and deploy SQL Server databases through tutorials, practical examples, and code samples. If you're an experienced SQL Server developer, this book is a must-read for learning how to design and build effective SQL Server 2012 applications. Discover how to: Build and deploy databases using the SQL Server Data Tools IDE Query and manipulate complex data with powerful Transact-SQL enhancements Integrate non-relational features, including native file streaming and geospatial data types Consume data with Microsoft ADO.NET, LINQ, and Entity Framework Deliver data using Windows Communication Foundation (WCF) Data Services and WCF RIA Services Move your database to the cloud with Windows Azure SQL Database Develop Windows Phone cloud applications using SQL Data Sync Use SQL Server BI components, including xVelocity in-memory technologies

Microsoft Jet Database Engine Programmer's Guide

Troubleshoot and Optimize Query Performance

SQL Server 2017 Administration Inside Out

International Conference, ICIEIS 2011, Kuala Lumpur, Malaysia, November 12-14, 2011. Proceedings, Part I

Hadoop on Windows

9th European Conference, EuroGP 2006, Budapest, Hungary, April 10-12, 2006. Proceedings

Queries not running fast enough? Wondering about the in-memory database features in 2014? Tired of phone calls from frustrated users? Grant Fritchey's book SQL Server Query Performance Tuning is the answer to your SQL Server query performance problems. The book is revised to cover the very latest in performance optimization features and techniques, especially including the newly-added, in-memory database features formerly known under the code name Project Hekaton. This book provides the tools you need to approach your queries with performance in mind. SQL Server Query Performance Tuning leads you through understanding the causes of poor performance, how to identify them, and how to fix them. You'll learn to be proactive in establishing performance baselines using tools like Performance Monitor and Extended Events. You'll learn to recognize bottlenecks and defuse them before the phone rings. You'll learn some quick solutions too, but emphasis is on designing for performance and getting it right, and upon heading off trouble before it occurs. Delight your users. Silence that ringing phone. Put the principles and lessons from SQL Server Query Performance Tuning into practice today. Covers the in-memory features from Project Hekaton Helps establish performance baselines and monitor against them Guides in troubleshooting and eliminating of bottlenecks that frustrate users

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. Get Up to Speed on Microsoft® SQL Server® 2019 Quickly and Easily Start working with Microsoft SQL Server 2019 in no time with help from this thoroughly revised, practical resource. Filled with real-world examples and hands-on exercises, Microsoft SQL Server 2019: A Beginner's Guide, Seventh Edition starts by explaining fundamental relational database system concepts. From there, you'll learn how to write Transact-SQL statements, execute simple and complex database queries, handle system administration and security, and use powerful analysis and reporting tools. New topics such as SQL and JSON support, graph databases, and support for machine learning with R and Python are also covered in this step-by-step tutorial. • Install, configure, and customize Microsoft SQL Server 2019 • Create and modify database objects with Transact-SQL statements • Write stored procedures and user-defined functions • Handle backup and recovery, and automate administrative tasks • Tune your database system for optimal availability and reliability • Secure your system using authentication, encryption, and authorization • Work with SQL Server Analysis Services, Reporting Services, and other BI tools • Gain knowledge of relational storage, presentation, and retrieval of data stored in the JSON format • Manage graphs using SQL Server Graph Databases • Learn about machine learning support for R and Python

SQL-on-Hadoop systems, query optimization, data distribution over multiple nodes and parallelization techniques are few of the areas under extreme research these days. Big names like

Amazon, Google, Microsoft and many more are working on implementing systems for faster access of data from multiple nodes, reducing data mobility and increasing the parallelization. Customer's queries are retrieved and reviewed by the database systems in an efficient way in the least amount of time by the introduction of various parallelization techniques by running the same query in parallel over different nodes carrying the data. Apart from multi-threading parallelization, there is another way of parallelization that can be performed in order to further reduce retrieval time, hence improving the efficiency of the system; parallelization on user queries on top of a DBMS/RDBMS. In this paper, we will study one such technique of how multiple queries can run simultaneously on a system in order to increase the system efficiency by reducing the data retrieval from the storage. Maximum sharing of workload has been performed by generating optimal and ubiquitous join plans for a set of queries and then fed them to GLADE (Generalized Linear Aggregate Distributed Engine), a scalable distributed system for large scale data analytics. Our main work is centered on generating GLADE join plans for a Multi-Query, satisfying maximum number of queries in order to maximize data sharing and minimize data retrieval for each individual query.

Updated for the latest database management systems -- including MySQL 6.0, Oracle 11g, and Microsoft's SQL Server 2008 -- this introductory guide will get you up and running with SQL quickly. Whether you need to write database applications, perform administrative tasks, or generate reports, Learning SQL, Second Edition, will help you easily master all the SQL fundamentals. Each chapter presents a self-contained lesson on a key SQL concept or technique, with numerous illustrations and annotated examples. Exercises at the end of each chapter let you practice the skills you learn. With this book, you will: Move quickly through SQL basics and learn several advanced features Use SQL data statements to generate, manipulate, and retrieve data Create database objects, such as tables, indexes, and constraints, using SQL schema statements Learn how data sets interact with queries, and understand the importance of subqueries Convert and manipulate data with SQL's built-in functions, and use conditional logic in data statements Knowledge of SQL is a must for interacting with data. With Learning SQL, you'll quickly learn how to put the power and flexibility of this language to work.

This is the official technical reference on Jet, the powerful database engine used in Microsoft Access and Visual Basic for Windows 95. The book starts by describing what Jet is, how to use it, and how it compares to other databases. Each chapter includes a simple Basic program that it builds upon within the chapter to illustrate points. CD includes the Jet Database Engine.

Microsoft SQL Server 2012 Pocket Consultant

T-SQL Window Functions

SQL Server 2017 Query Performance Tuning

SQL

Introducing Microsoft SQL Server 2016

High Performance SQL Server

Delve inside the core SQL Server engine—and put that knowledge to work—with guidance from a team of well-known internals experts. Whether database developer, architect, or administrator, you'll gain the deep knowledge you need to exploit key architectural changes—and capture the product's full potential. Discover how SQL Server works behind the scenes, including: What happens internally when SQL Server builds, expands, shrinks, and moves databases How to use event tracking—from triggers to the Extended Events Engine Why the right indexes can drastically reduce your query execution time How to transcend normal row-size limits with new storage capabilities How the Query Optimizer operates Multiple techniques for troubleshooting problematic query plans When to force SQL Server to reuse a cached query plan—or create a new one What SQL Server checks internally when running DBCC How to choose among five isolation levels and two concurrency models when working with multiple concurrent users

F. Scott Barker's Access 2002 Power Programming gives many practical techniques for the corporate and independent developer. The main topics covered are: The Root of Power Programming; Manipulating and Presenting Data; Extending Access with Interoperability; Adding the Professional Look and Distributing Applications; Managing Databases; Adding Finishing Touches. New features of Access 2002 will be covered thoroughly, including: A whole new chapter devoted to Data Pages, which is Microsoft's way of bringing the Web interface into everyday office solutions. A new chapter clarifying the confusion over ADP/MDB and DAO/ADO. Including when and where to use each. There are a number of new additions to VBA which developers will need good exposure to in order to take advantage of them. A number of changes have been implemented in the form design with control features added.

Are you thinking about learning SQL, but not sure where to start? That's where databases and SQL come in, providing the means to manage and interpret data easily. SQL is the go-to language for database management.

Expert Performance Indexing for SQL Server 2012 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. All of this will help you progress towards properly achieving your database performance goals. What you'll learn from Expert Performance Indexing for SQL Server 2012 will help you understand what indexes are doing in the database and what can be done to mitigate and improve their effects on performance. The final destination is a guided tour through a number of real-world scenarios and approaches that can be taken to investigate, mitigate, and improve the performance of your database. Defines indexes and provides an understanding of their role Uncovers and explains the statistics that are kept in indexes Teaches strategies and approaches for indexing databases

Serving as both a tutorial and a reference guide to the MDX (Multidimensional Expressions) query language, this book shows data warehouse developers what they need to know to build effective multidimensional data warehouses After a brief overview of the MDX language and a look at how it is used to access data in sophisticated, multidimensional databases and data warehousing, the authors move directly to providing practical examples of MDX in use New material covers changes in the MDX language itself as well as major changes in its implementation with the latest software releases of Microsoft SQL Server Analysis Services 2005 and Hyperion Essbase Also covers more advanced techniques, like aggregation, query templates, and MDX optimization, and shows users what they need to know to access and analyze data to make better business decisions Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook

file.

Professional Microsoft SQL Server 2012 Analysis Services with MDX and DAX

Microsoft SQL Server 2019: A Beginner's Guide, Seventh Edition

Master SQL Fundamentals

Programming Microsoft SQL Server 2012

SQL Server Query Tuning and Optimization

Expert MySQL

Offers tips for improving the performance of any SQL database, no matter what the platform. Written for experienced database administrators familiar with SQL, the book identifies the similarities and differences of eight DBMSs, including Oracle 9i, IBM DB2 7.2, and Microsoft SQL server 2000. It provides strategies for refining sorts, subqueries, columns, tables, indexes, constraints, and locks. Annotation copyrighted by Book News, Inc., Portland, OR

SQL Server Query Tuning and Optimization Optimize Microsoft SQL Server 2022 queries and applications Packt Publishing Ltd

Expert MySQL is the leading reference for learning, understanding, and extending the MySQL server. It unlocks the full promise of open source by showing how to modify the code, create your own storage engine, build your own authentication plugins, and even add your own functions and commands to the SQL language. No other book provides the level of detail or the extensive examples of the inner workings of MySQL that have taken engineers years to master. Expert MySQL is a must have book for all systems integrators, engineers, and software developers working with the MySQL server code. Expert MySQL is also a wealth of information on key aspects of MySQL internals. You'll learn about internal query representation, how the optimizer creates execution plans, and how to exert control over those plans for optimal performance in your environment. You'll even learn to build your own query optimizer, giving insight that can help you understand and resolve tough performance problems. High-availability and replication are also covered, making Expert MySQL a must-have book for anyone doing high-end work involving MySQL. Shows how to customize MySQL and its storage and authentication engines Provides in-depth knowledge of internals for use in query tuning and performance troubleshooting Covers high-end features such as high-availability and replication

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

Get well-versed with ready-to-use techniques for creating high-performance queries and applications Key Features Speed up queries and dramatically improve application performance by both understanding query engine internals and practical query optimization Understand how the query optimizer works Learn about intelligent query processing and what is new in SQL Server 2022 Book Description SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications. This book starts by describing the inner workings of the query optimizer, and will enable you to use this knowledge to write better queries and provide the query engine with all the information it needs to produce efficient execution plans. As you progress, you'll get practical query optimization tips for troubleshooting underperforming queries. The book will also guide you through intelligent query processing and what is new in SQL Server 2022. Query performance topics such as the Query Store, In-Memory OLTP and columnstore indexes are covered as well. By the end of this book, you'll be able to get the best possible performance for your queries and applications. What you will learn Troubleshoot queries using methods including extended events, SQL Trace, and dynamic management views Understand how the execution engine and query operators work Speed up queries and improve app performance by creating the right indexes Detect and fix cardinality estimation errors by examining query optimizer statistics Monitor and promote both plan caching and plan reuse to improve app performance Troubleshoot and improve query performance by using the Query Store Improve the performance of data warehouse queries by using columnstore indexes Handle query processor limitations with hints and other methods Who this book is for This book is for SQL Server developers who are struggling with slow query execution, database administrators who are tasked with troubleshooting slow application performance, and database architects who design SQL Server databases in support of line-of-business and

data warehousing applications.

Microsoft SQL Server 2008 Internals

F. Scott Barker's Microsoft Access 2002 Power Programming

Generating Optimal Execution Plans

The Microsoft SQL Server 2000 Performance Optimization and Tuning Handbook

Microsoft SQL Server 2000 DBA Survival Guide

SQL Tuning

This new edition of the bestselling guide to a critical SQL server task teaches tools, techniques, and best practices readers can use to tune SQL Server 2000's configuration and operation, and learn how to enhance performance through good physical design, effective internal storage structures, and controlling SQL Server's new query optimizer.

A poorly performing database application not only costs users time, but also has an impact on other applications running on the same computer or the same network. SQL Tuning provides an essential next step for SQL developers and database administrators who want to extend their SQL tuning expertise and get the most from their database applications. There are two basic issues to focus on when tuning SQL: how to find and interpret the execution plan of an SQL statement and how to change SQL to get a specific alternate execution plan. SQL Tuning provides answers to these questions and addresses a third issue that's even more important: how to find the optimal execution plan for the query to use. Author Dan Tow outlines a timesaving method he's developed for finding the optimum execution plan--rapidly and systematically--regardless of the complexity of the SQL or the database platform being used. You'll learn how to understand and control SQL execution plans and how to diagram SQL queries to deduce the best execution plan for a query. Key chapters in the book include exercises to reinforce the concepts you've learned. SQL Tuning concludes by addressing special concerns and unique solutions to "unsolvable problems." Whether you are a programmer who develops SQL-based applications or a database administrator or other who troubleshoots poorly tuned applications, SQL Tuning will arm you with a reliable and deterministic method for tuning your SQL queries to gain optimal performance.

Apply powerful window functions in T-SQL—and increase the performance and speed of your queries Optimize your queries—and obtain simple and elegant solutions to a variety of problems—using window functions in Transact-SQL. Led by T-SQL expert Itzik Ben-Gan, you ' ll learn how to apply calculations against sets of rows in a flexible, clear, and efficient manner. Ideal whether you ' re a database administrator or developer, this practical guide demonstrates ways to use more than a dozen T-SQL querying solutions to address common business tasks. Discover how to: Go beyond traditional query approaches to express set calculations more efficiently Delve into ordered set functions such as rank, distribution, and offset Implement hypothetical set and inverse distribution functions in standard SQL Use strategies for improving sequencing, paging, filtering, and pivoting Increase query speed using partitioning, ordering, and coverage indexing Apply new optimization iterators such as Window Spool Handle common issues such as running totals, intervals, medians, and gaps

Adaptive Query Processing surveys the fundamental issues, techniques, costs, and benefits of adaptive query processing. It begins with a broad overview of the field, identifying the dimensions of adaptive techniques. It then looks at the spectrum of approaches available to adapt query execution at runtime - primarily in a non-streaming context. The emphasis is on simplifying and abstracting the key concepts of each technique, rather than reproducing the full details available in the papers. The authors identify the strengths and limitations of the different techniques, demonstrate when they are most useful, and suggest possible avenues of future research. Adaptive Query Processing serves as a valuable reference for students of databases, providing a thorough survey of the area. Database researchers will benefit from a more complete point of view, including a number of approaches which they may not have focused on within the scope of their own research.

Identify and fix causes of poor performance. You will learn Query Store, adaptive execution plans, and automated tuning on the Microsoft Azure SQL Database platform. Anyone responsible for writing or creating T-SQL queries will find valuable the insight into bottlenecks, including how to recognize them and eliminate them. This book covers the latest in performance optimization features and techniques and is current with SQL Server 2017. If your queries are not running fast enough and you ' re tired of phone calls from frustrated users, then this book is the answer to your performance problems. SQL Server 2017 Query Performance Tuning is about more than quick tips and fixes. You ' ll learn to be proactive in establishing performance baselines using tools such as Performance Monitor and Extended Events. You ' ll recognize bottlenecks and defuse them before the phone rings. You ' ll learn some quick solutions too, but emphasis is on designing for performance and getting it right. The goal is to head off trouble before it occurs. What You'll Learn Use Query Store to understand and easily change query performance Recognize and eliminate bottlenecks leading to slow performance Deploy quick fixes when needed, following up with long-term solutions Implement best practices in T-SQL to minimize performance risk Design in the performance that you need through careful query and index design Utilize the latest performance optimization features in SQL Server 2017 Protect query performance during upgrades to the newer versions of SQL Server Who This Book Is For Developers and database administrators with responsibility for application performance in SQL Server environments. Anyone responsible for writing or creating T-SQL queries will find valuable the insight into bottlenecks, including how to recognize them and eliminate them.

Microsoft SQL Server 2012 High-Performance T-SQL Using Window Functions

SQL Server Query Performance Tuning Distilled

The Go Faster Book

MDX Solutions

Genetic Programming

Professional Microsoft SQL Server Analysis Services 2008 with MDX

Provides information on the architecture of the T-SQL programming language to create scalable code.

Understand Microsoft's dramatically updated new release of its premier toolset for business intelligence The first major update to Microsoft's state-of-the-art, complex toolset for business intelligence (BI) in years is now available and what better way to master it than with this detailed book from key members of the product's development team? If you're a database or data warehouse developer, this is the expert resource you need to build full-scale, multi-dimensional, database applications using Microsoft's new SQL Server 2012 Analysis Services and related tools. Discover how to solve real-world BI problems by leveraging a slew of powerful new Analysis Services features and capabilities. These include the new DAX language, which is a more user-friendly version of MDX; PowerPivot, a new tool for performing simplified analysis of data; BISM, Microsoft's new Business Intelligence Semantic Model; and much more. Serves as an authoritative guide to Microsoft's new SQL Server 2012 Analysis Services BI product and is written by key members of the Microsoft Analysis Services product development team Covers SQL Server 2012

Analysis Services, a major new release with a host of powerful new features and capabilities Topics include using the new DAX language, a simplified, more user-friendly version of MDX; PowerPivot, a new tool for performing simplified analysis of data; BISM, Microsoft's new Business Intelligence Semantic Model; and a new, yet-to-be-named BI reporting tool Explores real-world scenarios to help developers build comprehensive solutions Get thoroughly up to speed on this powerful new BI toolset with the timely and authoritative Professional Microsoft SQL Server 2012 Analysis Services with MDX.

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 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.

This book is the most comprehensive reference on Microsoft SQL Server 6.5 today. Readers will gain knowledge of the programming and database administration aspects behind this popular relational database management system. The text provides a comprehensive understanding of the nuts and bolts of developing and administrating complex SQL Server systems. When used with the MDX query 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 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 With Microsoft SQL Server Analysis Services 2005 and Hyperion Essbase

Expert Performance Indexing for SQL Server 2012

Sams Teach Yourself SQL in 24 Hours

Learning SQL

Adaptive Query Processing

Use window functions to write simpler, better, more efficient T-SQL queries Most T-SQL developers recognize the value of window functions for data analysis calculations. But they can do far more, and recent optimizations make them even more powerful. In T-SQL Window Functions, renowned T-SQL expert Itzik Ben-Gan introduces breakthrough techniques for using them to handle many common T-SQL querying tasks with unprecedented elegance and power. Using extensive code examples, he guides you through window aggregate, ranking, distribution, offset, and ordered set functions. You'll find a detailed section on optimization, plus an extensive collection of business solutions — including novel solutions not available in no other book. Microsoft MVP Itzik Ben-Gan shows how to:

- Use window functions to improve queries you previously built
- Master essential SQL windowing concepts, and efficiently design window functions
- Effectively utilize partitioning, ordering, and framing
- Gain practical in-depth insight into window aggregate, ranking, offset, and statistical functions
- Understand how the SQL standard supports ordered set functions, and find working solutions for functions not yet available in the language
- Preview advanced Row Pattern Recognition (RPR) data analysis techniques
- Optimize window functions in SQL Server and Azure SQL Database, making the most of in-memory OLAP, parallelism, and more
- Discover a full library of window function solutions for common business problems

About This Book • For developers, DBAs, data analysts, data scientists, BI professionals, and power users familiar with T-SQL queries • Addresses any edition of the SQL Server 2008, 2008 R2, 2012, 2014, 2016, or 2019 database engine or later, as well as Azure SQL Database Get all code samples at:

MicrosoftPressStore.com/TSQLWindowFunctions/downloads

Conquer SQL Server 2017 administration—from the inside out Dive into SQL Server 2017 administration—and really put your SQL Server 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: on-premises, cloud, or hybrid. Four SQL Server experts take you on a complete tour of DBA capabilities available in SQL Server 2017 Database Engine, SQL Server Data Tools, SQL Server Management Studio, and SQL Server PowerShell. Discover how experts tackle today's essential tasks—and challenge yourself to new levels of mastery.

- Install, customize, and upgrade SQL Server 2017's key administration and development tools
- Manage memory, storage, clustering, virtualization, and other components
- Architect and implement database infrastructure, including IaaS, 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 protection, firewalling, and auditing
- Establish SQL Server IaaS network security groups and user-defined routes
- Administer SQL Server security and permissions
- Efficiently design tables using keys, data types, columns, partitioning, and views
- Utilize BLOBs and external, memory-optimized, 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

T-SQL insiders help you tackle your toughest queries and query-tuning problems Squeeze maximum performance and efficiency from every SQL query you write or tune. Four leading experts take an in-depth look at T-SQL's internal architecture and offer advanced practical techniques for optimizing response time and resource usage. Emphasizing a correct understanding of the language and its foundations, they present unique solutions they have spent years developing and refining. All code and techniques are fully updated to reflect new T-SQL enhancements in Microsoft SQL Server 2014 and SQL Server 2012. Write faster, more efficient T-SQL code: Move from procedural programming to the language of sets and logic Master an efficient top-down tuning methodology Assess algorithmic complexity to predict performance Compare data aggregation techniques, including new grouping sets Efficiently perform data-analysis calculations Make the most of T-SQL's optimized bulk import tools Avoid date/time pitfalls that lead to buggy, poorly performing code Create optimized BI statistical queries without additional software Use programmable objects to accelerate queries Unlock major performance improvements with In-Memory OLAP Master useful and elegant approaches to manipulating graphs About This Book For experienced T-SQL practitioners Includes coverage up to date from Inside Microsoft SQL Server 2008 T-SQL Querying and Inside Microsoft SQL Server 2008 T-SQL Programming Valuable to developers

DBAs, BI professionals, and data scientists Covers many MCSE 70-464 and MCSA/MCSE 70-461 exam topics

The SQL Server Query Optimizer is perceived by many to be a magic black box, transforming SQL queries into high performance execution in the blink of an eye through some unknowable process. The truth is that, while the Query Optimizer is indeed the highly-complex result of decades of research, learning how it works its magic is not only possible, but immensely useful to DBAs and Developers alike. A better understanding of what the Query Optimizer does behind the scenes can help you to improve the performance of your databases and applications, and this book explains the core concepts behind how the SQL Server Query Optimizer works. With this knowledge, you'll be able to write queries, provide the Query Optimizer with all the information it needs to produce efficient execution plans, and troubleshoot the cases where the Query Optimizer is not giving you the best plan possible. With over 15 years of experience in the use of Relational Databases (including Microsoft SQL Server since version 6.5), Benjamin has watched the SQL Server Query Optimizer grow and evolve. His insight will leave you with an excellent foundation in the practicalities of the Query Optimizer, and everything you need to know to start tuning your queries to perfection. With Microsoft SQL Server 2016, a variety of new features and enhancements to the data platform deliver breakthrough performance, 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.

Microsoft SQL Server 2012 Bible

The Essential Reference for the Database Engine Used in Microsoft Windows 95 Applications and Programming Environments
Informatics Engineering and Information Science

Mission-Critical Applications, Deeper Insights, Hyperscale Cloud

Inside Microsoft SQL Server 2008

SQL Server Query Performance Tuning

Explore the impressive storage and analytic tools available with the in-cloud and on-premises versions of Microsoft SQL Server 2019. Key FeaturesGain insights into what's new in SQL Server 2019Understand use cases and customer scenarios that can be implemented with SQL Server 2019Discover new cross-platform tools that simplify management and analysisBook 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 learnBuild a custom container image with a DockerfileDeploy and run the SQL Server 2019 container imageUnderstand how to use SQL server on LinuxMigrate existing paginated reports to Power BI Report ServerLearn to query Hadoop Distributed File System (HDFS) data using Azure Data StudioUnderstand the benefits of In-Memory OLTPWho 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.

For data analysis and beyond

SQL Performance Tuning

Pro Microsoft HDInsight

Reliability, scalability, and security both on premises and in the cloud

Microsoft SQL Server 2014 Query Tuning & Optimization

Optimize Microsoft SQL Server 2022 queries and applications