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## Get Free Tuning Performance And Optimization Server Sql

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### SQL Server Query Performance Tuning

Apres 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

### SQL Server Query Performance Tuning Distilled

Apres \* 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 eprformance of an exisiting SQL Server system, or the design of a new one.

### Microsoft SQL Server 2014 Query Tuning & Optimization

McGraw Hill Professional 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

# High Performance SQL Server The Go Faster Book

Apress 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.

## Microsoft SQL Server 2012 Performance Tuning Cookbook

Packt Publishing Ltd Over 80 recipes to help you tune SQL Server 2012 and achieve optimal performance.

## SQL Performance Tuning

Addison-Wesley Professional A very practical guide to making databases run faster and better. A poorly performing database application can cost each user time, and have an impact on other applications running on the same computer or the same network. This book will help DBAs and programmers improve the performance of their databases.

## Performance Tuning with SQL Server Dynamic Management Views

Fastprint Publishing Dynamic Management Views (DMVs) are a significant and valuable addition to the DBA's troubleshooting armory, laying bare previously unavailable information regarding the under-the-covers activity of your database sessions and transactions. Why, then, aren't all DBAs using them? Why do many DBAs continue to ignore them in favour of "tried and trusted" tools such as sp\_who2, DBCC OPENTRAN, and so on, or make do with the "ready made" reports built into SSMS? Why do even those that do use the DMVs speak wistfully about "good old sysprocesses"? There seem to be two main factors at work. Firstly, some DBAs are simply unaware of the depth and breadth of the information that is available from the DMVs, or how it might help them troubleshoot common issues. This book investigates all of the DMVs that are most frequently useful to the DBA in investigating query execution, index usage, session and transaction activity, disk IO, and how SQL Server is using or abusing the operating system. Secondly, the DMVs have a reputation of being difficult to use. In the process of exposing as much useful data as possible, sysprocesses has been de-normalized, and many new views and columns have been added. This fact, coupled with the initially-baffling choices of what columns will be exposed where, has led to some DBAs to liken querying DMVs to "collecting mystic spells." In fact, however, once you start to write your own scripts, you'll see the same tricks, and similar join patterns, being used time and again. As such, a relatively small core set of scripts can be readily adapted to suit any requirement. This book is here to de-mystify the process of collecting the information you need to troubleshoot SQL Server problems. It will highlight the core techniques and "patterns" that you need to master, and will provide a core set of scripts that you can use and adapt for your own systems, including how to: \* Root out the queries that are causing memory or CPU pressure on your system \* Investigate caching, and query plan reuse \* Identify index usage patterns \* Track fragmentation in clustered indexes and heaps \* Get full details on blocking and blocked transactions, including the exact commands being executed, and by whom. \* Find out where SQL Server is spending time waiting for resources to be released, before proceeding \* Monitor usage and growth of tempdb The DMVs don't

make existing, built-in, performance tools obsolete. On the contrary, they complement these tools, and offer a flexibility, richness and granularity that are simply not available elsewhere. Furthermore, you don't need to master a new GUI, or a new language in order to use them; it's all done in a language all DBAs know and mostly love: T-SQL.

## SQL Server Tuning Scripts: Performance Optimization Secrets

Rampant Techpress If you're a SQL Server DBA who wants to get proactive and organized with performance monitoring and tuning, then this book is for you. Written by a widely read DBA and SQL Server internals expert, Robin Schumacher offers real-world advice, an easy to follow performance strategy, and lots of SQL diagnostics scripts in a superb book that shows how to quickly diagnose and optimize SQL Server performance problems. Robin Schumacher has written the internals for some of the world's most powerful SQL Server performance software, and now he shows you how to make your database servers run as fast as possible.

## Professional SQL Server 2005 Performance Tuning

John Wiley & Sons A guide to performance tuning with SQL Server 2005 describes how to discover bottlenecks, identify and remove problems that are causing poor performance, avoid performance problems through preventative measures, and ways to achieve better performance.

## SQL Server Tuning

## SQL Server Performance Tuning and Optimization-Concepts and Tips for All. NET/Database Developers, Programmers,Architects and Testers

Createspace Independent Publishing Platform The purpose of this book is to make aware about what probable causes are & how to troubleshoot when we face any kind of SQL Server database performance issues. Performance tuning means to optimize the performance of SQL Server/ database/ instance by adjusting/ identifying the various bottlenecks causing degradation in database. If SQL Server instance/ database is not properly tuned or optimized, obviously we will face issues like slowness, bad performance of database which relatively affect performance of related application as well. So it's quite mandatory to have your database or SQL Server instance properly tuned to perform optimally. Whenever there is any database/ SQL Server performance issues, there might be various parameters/ factors included which might cause database/ SQL Server performance degradation.

## SQL Tuning

## Generating Optimal Execution Plans

"O'Reilly Media, Inc." 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.

# The SQL Server 6.5 Performance Optimization and Tuning Handbook

Butterworth-Heinemann

## SQL Server 2012 Query Performance Tuning

Apres Queries not running fast enough? Tired of the phone calls from frustrated users? Grant Fritchey's book SQL Server 2012 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. It is current with SQL Server 2012. It provides the tools you need to approach your queries with performance in mind. SQL Server 2012 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 2012 Query Performance Tuning into practice today. Establish performance baselines and monitor against them Troubleshoot and eliminate bottlenecks that frustrate users Plan ahead to achieve the right level of performance

## SQL Server Query Tuning and Optimization

## Optimize Microsoft SQL Server 2022 queries and applications

Packt Publishing Ltd 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.

## High Performance SQL Server

## Consistent Response for Mission-Critical Applications

Apres Design and configure SQL Server instances and databases in support of high-throughput, mission-critical applications providing consistent response times in the face of variations in numbers of users and query volumes. In this new edition, with over 100 pages of additional content, every original chapter has been updated for SQL Server 2019, and the book also includes two new chapters covering SQL Server on Linux and Intelligent Query Processing. This book shows you how to configure SQL Server and design your databases to support a given instance and workload. You will learn advanced configuration options, in-memory technologies, storage and disk configuration, and more, all aimed 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 you in detecting and fixing production performance problems and minimizing application outages. You will learn about a variety of tools, ranging from the traditional wait analysis methodology to the query store or indexing, and you will learn how improving performance is an iterative process. This book is an excellent complement to query performance tuning books and provides the other half of what you need to know by focusing on configuring the instances on which mission-critical queries are executed. 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.

## SQL Server 2017 Query Performance Tuning Troubleshoot and Optimize Query Performance

Apress 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.

## Oracle Performance Tuning and Optimization

Sams A comprehensive guide to performance design planning for client-network-server systems using Oracle, this book contains some dynamite applications design tips that can reduce network and server traffic dramatically. The CD-ROM contains various tuning and performance measurement utilities provided by the author and third-party developers.

## T-SQL Fundamentals

Microsoft Press Effectively query and modify data using Transact-SQL Master T-SQL fundamentals and write robust code for Microsoft SQL Server and Azure SQL Database. Itzik Ben-Gan explains key T-SQL concepts and helps you apply your knowledge with hands-on exercises. The book first introduces T-SQL's roots and underlying logic. Next, it walks you through core topics such as single-table queries, joins, subqueries, table expressions, and set operators. Then the book covers more-advanced data-query topics such as window functions, pivoting, and grouping sets. The book also explains how to modify data, work with temporal tables, and handle transactions, and provides an overview of programmable objects. Microsoft Data Platform MVP Itzik Ben-Gan shows you how to: Review core SQL concepts and its mathematical roots Create tables and enforce data integrity Perform effective single-table queries by using the SELECT statement Query multiple tables by using joins, subqueries, table expressions, and set operators Use advanced query techniques such as window functions, pivoting, and grouping sets Insert, update, delete, and merge data Use transactions in a concurrent environment Get started with programmable objects—from variables and batches to user-defined functions, stored procedures, triggers, and dynamic SQL

## Microsoft SQL Server 2000 Performance Tuning Technical Reference

This test measures the ability to install, configure and administer SQL Server 2000. Candidates can sharpen their skills, save time and money and build their confidence for the real test with this book and CD-ROM.

## Inside the SQL Server Query Optimizer

The SQL Server Query Optimizer is perceived by many to be a magic black box, transforming SQL queries into high performance execution plans 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 superior queries, provide the Query Optimizer with all the information it needs to produce efficient execution plans, and troubleshoot the cases when the Query Optimizer is not giving you the best plan possible. With over 15 years of experience in the use of Relational Databases (including 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.

## Sybase Performance Tuning

This text offers a detailed look at Sybase SQL Server Performance Tuning and a sneak peek at Sybase System 11 performance features. It compares and contrasts all recent major releases of Sybase SQL Server

## Microsoft SQL Server 7.0 Performance Tuning Technical Reference

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.

## T-SQL Querying

Microsoft Press T-SQL insiders help you tackle your toughest queries and query-tuning problems Squeeze maximum performance and efficiency from every T-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, the authors 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 OLTP Master useful and elegant approaches to manipulating graphs About This Book For experienced T-SQL practitioners Includes coverage updated 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

## SQL Server MVP Deep Dives

Simon and Schuster 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 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](http://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.

## SQL Server Performance Monitoring and Tuning

### Become A Smart DBA

SQL Server is one of the great platforms where you can host your database application. Performance Monitoring and Tuning in SQL Server is a continuous process. Today, a particular functionality in your application may work fantastic, however, with the increase in the data volume performance gets slower. You need to continuously monitor the performance of your SQL Server database so that you can avoid any major outage later. So, the question is how do you monitor? Do you perform this activity manually on a daily basis? If yes, then this book is a perfect match for you. Monitoring some common parameters on a daily basis can make a DBA's life easy to a greater extent. Even an experienced DBA can make a mistake. So it is important to automate this activity so that you get to know the status of your database health even when you are off work. This book is also a perfect match for the developers and architects who work with SQL Server daily in one or the other way. This book contains the approach of how to automate the entire database monitoring process. Automation eliminates human errors. So, it is important to collect the database performance metrics automatically by following some steps mentioned in this book. This book talks about the core concept of the SQL Server Query Optimizer so that by knowing this fundamental and important concept developers can write queries in a better way that will help to maintain the database performance at an optimum level. This book also explains about the Parameter Sniffing and how to fix it, what are the causes of performance degradation and how to fix them using some simple methods, update statistics and its importance, indexes, expensive queries, blocking scenarios, deadlock incidents, and resource utilization trend. This book also explains the method of how to automate the database performance metrics collection. After reading this book, Database Administrators and Developers will have the knowledge and skills to use the techniques and tools effectively to monitor and tune the database performance. The areas that are covered are: 1) Identifying costly stored procedures or queries 2) Identifying blocking and deadlock scenarios 3) Understanding Wait Statistics and how wait statistics can help to find the potential bottleneck 4) Resource (Disk, CPU, Memory) bottlenecks 5) Some important queries that can be used in performance optimization 6) Index fragmentation 7) Update statistics 8) Parameter Sniffing and how to fix it 9) How to analyze the execution plan 10) How to improve query performance 11) How to address Tempdb Contention issues 12) Temporary tables Vs Table Variables

## Microsoft SQL Server 2005 Performance Optimization and Tuning Handbook

Digital Press Database professionals will find that this new edition aids in mastering the latest version of Microsoft's SQL Server. Developers and database administrators (DBAs) use SQL on a daily basis in application development and the subsequent problem solving and fine tuning. Answers to SQL issues can be quickly located helping the DBA or developer optimize and tune a database to maximum efficiency. Basic questions are easily located on the topics of filtering, sorting, operators, conditionals, pseudo columns, single row functions, joins, grouping functions, sub queries, composite queries, hierarchies, flashback queries, parallel queries, expressions and regular expressions. Assistance on DML, data types (including collections), XML, DDL for basic database objects such as tables, views and indexes, partitioning, and security is also considered. \* Identifies and discusses the most common issues database administrators (DBAs) face day-to-day \*Provides DBAs with solutions actually used by the authors in enterprise environments \*Explores new features which add more control but reduce performance

## Learn T-SQL From Scratch

## An Easy-to-Follow Guide for Designing, Developing, and Deploying Databases in the SQL Server and Writing T-SQL Queries Efficiently (English Edition)

BPB Publications Advance your career as an SQL Server developer and DBA KEY FEATURES ● Cutting-edge coverage from community experts to learn T-SQL programming. ● Detailed explanation of concepts and techniques for easy understanding. ● Numerous practical demonstrations of T-SQL querying and programming applications. DESCRIPTION This book will teach you the fundamentals of SQL, SQL Server, databases, and how to write queries and programs using T-SQL. After reading this book, you will be able to create, modify, and delete databases, tables, and indexes. You can practice querying the data and running complex analytics on it. You will also be able to add, delete, and modify procedures, user-defined functions, triggers, and views. The journey of learning T-SQL with this book begins with an understanding of SQL and database fundamentals. You'll explore the SQL Server Management Studio (SSMS) used for developing and managing SQL Server databases. You'll then learn how to use DDL statements to create, modify and delete tables and indexes. Gradually, you'll be able to query in T-SQL using DML statements, joins, and various built-in functions. Successively, you'll learn XML and JSON data processing, and by the time you'll reach the end of this book, you will learn to program in SQL Server and various strategies to deploy your databases and programs. Throughout the book, you'll learn through simple examples and straightforward explanations, diagrams, and numerous real-world use-cases. WHAT YOU WILL LEARN ● Concise understanding of relational databases and the SQL Server. ● Learn how to create database tables and indexes using T-SQL. ● Learn to add, modify, and delete records. ● Practice how to slice and dice data by running smart T-SQL queries. ● Perform advanced analytical analysis using various functions. ● Discover Error Handling and Transaction Management. ● Administer XML and JSON handling with T-SQL. ● Practice different deployment modes for T-SQL objects. WHO THIS BOOK IS FOR If you want to know how to design, develop, and maintain SQL Server databases and run sophisticated T-SQL queries without much hassle, this book is for you. Readers with a basic understanding of programming would have an advantage. TABLE OF CONTENTS 1. Getting started 2. Tables 3. Index 4. DML 5. Built-In Functions - Part 1 6. Join, Apply, and Subquery 7. Built-In Functions - Part 2 8. Dealing with XML and JSON 9. Variables and Control Flow Statements 10. Temporary Tables, CTE, and MERGE Statement 11. Error Handling and Transaction Management 12. Data Conversion, Cross Database, and Cross-Server Data Access 13. Programmability 14. Deployment

## IBM Business Process Manager V8.5 Performance Tuning and Best Practices

IBM Redbooks This IBM® Redbooks® publication provides performance tuning tips and best practices for IBM Business Process Manager (IBM BPM) V8.5.5 (all editions) and IBM Business Monitor V8.5.5. These products represent an integrated development and runtime environment based on a key set of service-oriented architecture (SOA) and business process management (BPM) technologies. Such technologies include Service Component Architecture (SCA), Service Data Object (SDO), Business Process Execution Language (BPEL) for web services, and Business Processing Modeling Notation (BPMN). Both IBM Business Process Manager and Business Monitor build on the core capabilities of the IBM WebSphere® Application Server infrastructure. As a result, Business Process Manager solutions benefit from tuning, configuration, and best practices information for WebSphere Application Server and the corresponding platform Java virtual machines (JVMs). This book targets a wide variety of groups, both within IBM (development, services, technical sales, and others) and customers. For customers who are either considering or are in the early stages of implementing a solution incorporating Business Process Manager and Business Monitor, this document proves a useful reference. The book is useful both in terms of best practices during application development and deployment and as a reference for

setup, tuning, and configuration information. This book talks about many issues that can influence performance of each product and can serve as a guide for making rational first choices in terms of configuration and performance settings. Similarly, customers who already implemented a solution with these products can use the information presented here to gain insight into how their overall integrated solution performance can be improved.

## Microsoft SQL Server 2014 Unleashed

Sams Publishing 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 hands-on 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-to-advanced-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

## Performance Tuning for IBM Security Directory Server

IBM Redbooks In today's highly connected world, directory servers are the IT cornerstone of many businesses. These components of the corporate infrastructure are the foundation of authentication systems for internal and, more commonly, external user populations. Managing a directory server with several hundred internal users is not all that difficult. However, managing a directory server with several million external users in all 24 time zones throughout the world is a much more daunting task. IBM® Security Directory Server software can handle millions of entries, given the right architecture, configuration, and performance tuning. However, that tuning can differ greatly from tuning for a smaller server with only a few hundred thousand entries. Managing and tuning a directory server of this size requires a change in mindset. Tuning and performance must be a focus even before the hardware is ordered. A proactive approach must be taken after installation also, including the pretuning steps to better interface with other products to make installations and migrations successful, and then regular maintenance to keep the directory running smoothly. This IBM Redbooks® publication is the accumulation of lessons learned in many different real-world environments, including a 24-server fault tolerant configuration with more than 300 million entries. The authors pooled their knowledge and resources to provide the most comprehensive performance view possible, from hardware to software, sort heaps to buffer pools, and table cardinalities. In large directory server deployments, use this document as a guide for how to get the right fit for your environment.

## SQL Server 2022 Query Performance Tuning

## Troubleshoot and Optimize Query Performance

Apress Troubleshoot slow-performing queries and make them run faster. Database administrators and SQL developers are constantly under pressure to provide more speed. This new edition has been redesigned and rewritten from scratch based on the last 15 years of learning, knowledge, and experience accumulated by the author. The book Includes expanded information on using extended events, automatic execution plan correction, and other advanced features now available in SQL Server. These modern features are covered while still providing the necessary fundamentals to better understand how statistics and indexes affect query performance. The book gives you knowledge and tools to help you identify poorly performing queries and understand the possible causes of that poor performance. The book also provides mechanisms for resolving the issues identified, whether on-premises, in containers, or on cloud platform providers. You'll learn about key fundamentals, such as statistics, data distribution, cardinality, and parameter sniffing. You'll learn to analyze and design your indexes and your queries using best practices that ward off performance problems before they occur. You'll also

learn to use important modern features, such as Query Store to manage and control execution plans, the automated performance tuning feature set, and memory-optimized OLTP tables and procedures. You will be able to troubleshoot in a systematic way. Query tuning doesn't have to be difficult. This book helps you to make it much easier. What You Will Learn Use Query Store to understand and easily change query performance Recognize and eliminate bottlenecks leading to slow performance Tune queries whether on-premises, in containers, or on cloud platform providers Implement best practices in T-SQL to minimize performance risk Design in the performance that you need through careful query and index design Understand how built-in, automatic tuning can assist your performance enhancement efforts Protect query performance during upgrades to the newer versions of SQL Server Who This Book Is For Developers and database administrators with responsibility for query performance in SQL Server environments, and anyone responsible for writing or creating T-SQL queries and in need of insight into bottlenecks (including how to identify them, understand them, and eliminate them)

## Windows NT Performance Tuning & Optimization

McGraw-Hill Osborne Media From tuning for maximum performance using the Windows NT Registry, to domain and capacity planning, to defining and minimizing bottlenecks, an exhaustive guide provides concise recommendations for getting the most from Windows NT. Original. (Advanced).

## ORACLE High-Performance SQL Tuning

## BizTalk Server 2016

## Performance Tuning and Optimization

Apress Gain an in depth view of optimizing the performance of BizTalk Server. This book provides best practices and techniques for improving development of high mission critical solutions. You'll see how the BizTalk Server engine works and how to proactively detect and remedy potential bottlenecks before they occur. The book starts with an overview of the BizTalk Server internal mechanisms that will help you understand the optimizations detailed throughout the book. You'll then see how the mechanisms can be applied to a BizTalk Server environment to improve low and high latency throughput scenarios. A section on testing BizTalk server solutions will guide you through the most frequently adopted techniques used to develop solutions such as performance and unit testing as part of the development cycle. With BizTalk Server 2016 you'll see how to apply side-by-side versioning to your solutions to reduce the chances of downtime, You'll also review instrumentation techniques using Event Traces for windows and business activity monitoring (BAM). While the book is focused on the latest version of BizTalk Server, most of the topics discussed will also work with BizTalk Server 2013R2. What You'll Learn Review BizTalk Server internals and how the message engine works Understand BizTalk Server architecture Gather and analyze BizTalk Server performance data Develop BizTalk Server performance solutions Use advanced troubleshooting tools to help diagnose your platform Who This Book Is For Those who have strong BizTalk and .NET Framework knowledge and want to get their BizTalk Server knowledge to the next level

## The Definitive Guide to Scaling Out SQL Server 2005 Edition

Realtimerepublishers.com

## MongoDB Performance Tuning

## Optimizing MongoDB Databases and their Applications

Apress Use this fast and complete guide to optimize the performance of MongoDB databases and the applications that depend on them. You will be able to turbo-charge the performance of your MongoDB applications to provide a better experience for your users, reduce your running costs, and avoid application growing pains. MongoDB is the world's most popular document database and the foundation for thousands of mission-critical applications. This book helps you get the best possible performance from MongoDB. MongoDB Performance Tuning takes a methodical and comprehensive approach to

performance tuning that begins with application and schema design and goes on to cover optimization of code at all levels of an application. The book also explains how to configure MongoDB hardware and cluster configuration for optimal performance. The systematic approach in the book helps you treat the true causes of performance issues and get the best return on your tuning investment. Even when you're under pressure and don't know where to begin, simply follow the method in this book to set things right and get your MongoDB performance back on track. What You Will Learn Apply a methodical approach to MongoDB performance tuning Understand how to design an efficient MongoDB application Optimize MongoDB document design and indexing strategies Tune MongoDB queries, aggregation pipelines, and transactions Optimize MongoDB server resources: CPU, memory, disk Configure MongoDB Replica sets and Sharded clusters for optimal performance Who This Book Is For Developers and administrators of high-performance MongoDB applications who want to be sure they are getting the best possible performance from their MongoDB system. For developers who wish to create applications that are fast, scalable, and cost-effective. For administrators who want to optimize their MongoDB server and hardware configuration.

## SQL Server 2008 Query Performance Tuning Distilled

Apress SQL Server 2008 Query Performance Tuning Distilled presents a direct trouble-shooting methodology for identifying poorly-performing stored procedures and queries, isolating the causes of that poor performance, and fixing the underlying problems. Each chapter is dedicated to one of the top causes of poorly performing queries and shows methods for identifying and dealing with the problems in that chapter's domain. Emphasis is always put upon or placed upon practical methods that you can put to immediate use in your day-to-day work. SQL Server 2008 functionality, tips, and tricks are emphasized in each subject area. Emphasizes the practical. Does not bury readers in theory. Gives readers practical techniques to immediately apply in their daily work. Dedicates a chapter to each of the most common, performance-related problem areas.

## Hibernate Tips

### More than 70 solutions to common Hibernate problems

Thoughts on Java When you use Hibernate in your projects, you quickly recognize that you need to do more than just add @Entity annotations to your domain model classes. Real-world applications often require advanced mappings, complex queries, custom data types and caching. Hibernate can do all of that. You just have to know which annotations and APIs you need to use. Hibernate Tips - More than 70 solutions to common Hibernate problems shows you how to efficiently implement your persistence layer with Hibernate's basic and advanced features. Each Hibernate Tip consists of one or more code samples and an easy to follow step-by-step explanation. You can also download an example project with executable test cases for each Hibernate Tip. Throughout this book, you will get more than 70 ready-to-use solutions that show you how to: - Define standard mappings for basic attributes and entity associations. - Implement your own attribute mappings and support custom data types. - Use Hibernate's Java 8 support and other proprietary features. - Read data from the database with JPQL, Criteria API, and native SQL queries. - Call stored procedures and database functions. This book is for developers who are already working with Hibernate and who are looking for solutions for their current development tasks. It's not a book for beginners who are looking for extensive descriptions of Hibernate's general concepts. The tips are designed as self-contained recipes which provide a specific solution and can be accessed when needed. Most of them contain links to related tips which you can follow if you want to dive deeper into a topic or need a slightly different solution. There is no need to read the tips in a specific order. Feel free to read the book from cover to cover or to just pick the tips that help you in your current project.

## SQL in a Nutshell

### A Desktop Quick Reference

"O'Reilly Media, Inc." SQL in a Nutshell applies the eminently useful "Nutshell" format to Structured Query Language (SQL), the elegant--but complex--descriptive language that is used to create and manipulate large stores of data. For SQL programmers, analysts, and database administrators, the new second edition of SQL in a Nutshell is the essential date language reference for the world's top SQL database products. SQL in a Nutshell is a lean, focused, and thoroughly comprehensive reference for those who live in a deadline-driven world. This invaluable desktop quick reference drills down and documents every SQL command and how to use it in both commercial (Oracle, DB2, and Microsoft SQL Server) and open source implementations (PostgreSQL, and MySQL). It describes every command and reference and includes the command syntax (by vendor, if the syntax differs across implementations), a clear description, and practical examples that illustrate important concepts and uses. And it

also explains how the leading commercial and open sources database product implement SQL. This wealth of information is packed into a succinct, comprehensive, and extraordinarily easy-to-use format that covers the SQL syntax of no less than 4 different databases. When you need fast, accurate, detailed, and up-to-date SQL information, *SQL in a Nutshell, Second Edition* will be the quick reference you'll reach for every time. *SQL in a Nutshell* is small enough to keep by your keyboard, and concise (as well as clearly organized) enough that you can look up the syntax you need quickly without having to wade through a lot of useless fluff. You won't want to work on a project involving SQL without it.

## SQL Server Advanced Troubleshooting and Performance Tuning

"O'Reilly Media, Inc." 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