

Sql Tuning Guide

Write SQL statements that are more powerful, simpler, and faster using Oracle SQL and its full range of features. This book provides a clearer way of thinking about SQL by building sets, and provides practical advice for using complex features while avoiding anti-patterns that lead to poor performance and wrong results. Relevant theories, real-world best practices, and style guidelines help you get the most out of Oracle SQL. Pro Oracle SQL Development is for anyone who already knows Oracle SQL and is ready to take their skills to the next level. Many developers, analysts, testers, and administrators use Oracle databases frequently, but their queries are limited because they do not have the knowledge, experience, or right environment to help them take full advantage of Oracle's advanced features. This book will inspire you to achieve more with your Oracle SQL statements through tips for creating your own style for writing simple, yet powerful, SQL. It teaches you how to think about and solve performance problems in Oracle SQL, and covers advanced topics and shows you how to become an Oracle expert. What You'll Learn Understand the power of Oracle SQL and where to apply it Create a database development environment that is simple, scalable, and conducive to learning Solve complex problems that were previously solved in a procedural language Write large Oracle SQL statements that are powerful, simple, and fast Apply coding styles to make your SQL statements more readable Tune large Oracle SQL statements to eliminate and avoid performance problems Who This Book Is For Developers, testers, analysts, and administrators who want to harness the full power of Oracle SQL to solve their problems as simply and as quickly as possible. For traditional database professionals the book offers new ways of thinking about the language they have used for so long. For modern full stack developers the book explains how a database can be much more than simply a place to store data. 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.

Proven Database Optimization Solutions? Fully Updated for Oracle Database 12c Release 2 Systematically identify and eliminate database performance problems with help from Oracle Certified Master Richard Niemiec. Filled with real-world case studies and best practices, Oracle Database 12c Release 2 Performance Tuning Tips and Techniques details the latest monitoring, troubleshooting, and optimization methods. Find out how to identify and fix bottlenecks on premises and in the cloud, configure storage devices, execute effective queries, and develop bug-free SQL and PL/SQL code. Testing, reporting, and security enhancements are also covered in this Oracle Press guide. • Properly index and partition Oracle Database 12c Release 2 • Work effectively with Oracle Cloud, Oracle Exadata, and Oracle Enterprise Manager • Efficiently manage disk drives, ASM, RAID arrays, and memory • Tune queries with Oracle SQL hints and the Trace utility • Troubleshoot databases using V\$ views and X\$ tables • Create your first cloud database service and prepare for hybrid cloud • Generate reports using Oracle's Statspack and Automatic Workload Repository tools • Use sar, vmstat, and iostat to monitor operating system statistics

DB2 SQL developers now have a handy reference guide with tuning tips to improve performance in queries, programs and applications. Poorly coded programs or improperly coded SQL statements are often the culprit causing poor performance. Many developers working with an IBM DB2 relational database will benefit from this guide, entitled 'DB2 SQL 75+ Tuning Tips For Developers'. The book's focus is to increase developers' knowledge in the ways of performance and tuning in an IBM DB2 relational database environment. In an organized and easy-to-understand format, the guide provides development and SQL tips that will help developers improve performance problems. By modifying application and SQL code, understanding Runstat options, or adding and altering indexes, there are many things that developers can do to resolve performance issues. This book provides development tips and suggestions, along with many SQL coding examples, all with the purpose of gaining better performance.

Explaining how to use the powerful Oracle 10g automatic features for simple database administration, this book has complete coverage for 10g Automatic Storage Management (ASM), 10g Automatic Workload Repository (AWR), Automatic Database Diagnostic Monitor (ADDM), Automatic SGA Management (ASM), and the SQL Tuning Advisor. Demonstrated is how a non-Oracle person can quickly install and configure Oracle database 10g for automatic database administration and how, in less than a day, a complete Oracle 10g database can be ready to use. Also explained is easy disk and file management with the 10g Automatic Storage Management and how the 10g Automatic Workload Repository collects important Oracle performance statistics.

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

Maintain a high-performance Oracle 9i environment using the proven tuning methods presented in this authoritative resource. This book offers hundreds of essential tips guaranteed to enhance system performance. Real-world examples illustrate insider best practices and in-depth details throughout the book highlight the new tuning options available in Oracle 9i.

Implement Proven Database Optimization Solutions Systematically identify and eliminate database performance problems with help from Oracle Certified Master Richard Niemiec. Filled with real-world case studies and best practices, Oracle Database 11g Release 2 Performance Tuning Tips & Techniques details the latest monitoring, troubleshooting, and optimization methods. Find out how to find and fix bottlenecks, configure storage devices, execute effective queries, and develop bug-free SQL and PL/SQL code. Testing, reporting, and security enhancements are also covered in this Oracle Press guide. Properly index and partition Oracle Database 11g Release 2 Work with Oracle

Exadata and Oracle Exalogic Elastic Cloud Efficiently manage disk drives, RAID arrays, and memory Tune queries with Oracle SQL hints and the TRACE utility Troubleshoot databases using V\$ views and X\$ tables Distribute workload using Oracle Real Application Testing Generate reports using Oracle's Statspack and Automatic Workload Repository tools Use sar, vmstat, and iostat to monitor system statistics "This is a timely update of Rich's classic book on Oracle Database performance tuning to cover hot new topics like Oracle Database 11g Release 2 and Oracle Exadata. This is a must-have for DBAs moving to these new products." --Andrew Mendelsohn, Senior Vice President, Oracle Database Server Technologies

Performance problems are rarely "problems" per se. They are more often "crises" during which you're pressured for results by a manager standing outside your cubicle while your phone rings with queries from the help desk. You won't have the time for a leisurely perusal of the manuals, nor to lean back and read a book on theory. What you need in that situation is a book of solutions, and solutions are precisely what Oracle Database 12c Performance Tuning Recipes delivers. Oracle Database 12c Performance Tuning Recipes is a ready reference for database administrators in need of immediate help with performance issues relating to Oracle Database. The book takes an example-based approach, wherein each chapter covers a specific problem domain. Within each chapter are "recipes," showing by example how to perform common tasks in that chapter's domain. Solutions in the recipes are backed by clear explanations of background and theory from the author team. Whatever the task, if it's performance-related, you'll probably find a recipe and a solution in this book. Provides proven solutions to real-life Oracle performance problems Offers relevant background and theory to support each solution Gets straight to the point for when you're under pressure for results

"Offers hundreds of hints, tips, and tricks of the trade that can be useful to any DBA wanting to achieve maximum performance of Oracle applications. No Oracle library would be complete without this book." --Ken (Dr. DBA) Jacobs, Vice President of Product Strategy for Server Technologies, Oracle Corporation "Rich is the first and last stop for Oracle Database technology and performance tuning. His knowledge is a vital tool that you need to successfully negotiate the waters of Oracle database development." --Mike Frey, Principal Architect, Navteq

Canada was young during the First World War, and with as many as 20,000 underage soldiers leaving their homes to join the war effort, the country's army was, too. Jim, at 17, was one of them, and he penned countless letters home. But these weren't the writings of an ordinary boy. They were the letters of a lad who left a small farming community for the city on July 15, 1915, a boy who volunteered to serve with the 79th Queen's Own Cameron Highlanders. Jim's letters home gloss over the horrors of war, focusing instead on issues of the home front: of harvesting, training the horses, and the price of hogs. Rarely do these letters, especially those to his mother and father, mention the mud and rats, the lice and stench of the trenches, or the night duty of cutting barbed wire in no man's land. For 95 years his letters remained in a shoebox decorated by his mother. Jim was just 18 when he was wounded and died during the Battle of the Somme. Hold the Oxo! tells the story that lies between the lines of his letters, filling in the historical context and helping us to understand what it was like to be Jim.

Oracle SQL Tuning with SQLTXPLAIN is a practical guide to SQL tuning the way Oracle's own experts do it, using a freely downloadable tool called SQLTXPLAIN. Using this simple tool you'll learn how to tune even the most complex SQL, and you'll learn to do it quickly, without the huge learning curve usually associated with tuning as a whole. Firmly based in real world problems, this book helps you reclaim system resources and avoid the most common bottleneck in overall performance, badly tuned SQL. You'll learn how the optimizer works, how to take advantage of its latest features, and when it's better to turn them off. Quickly tune any SQL statement no matter how complex. Build and tune test cases without affecting production. Use the latest tuning features with confidence.

"The Testing Network" presents an integrated approach to testing based on cutting-edge methodologies, processes and tools in today's IT context. It means complex network-centric applications to be tested in heterogeneous IT infrastructures and in multiple test environments (also geographically distributed). The added-value of this book is the in-depth explanation of all processes and relevant methodologies and tools to address this complexity. Main aspects of testing are explained using TD/QC - the world-leader test platform. This up-to-date know-how is based on real-life IT experiences gained in large-scale projects of companies operating worldwide. The book is abundantly illustrated to better show all technical aspects of modern testing in a national and international context. The author has a deep expertise by designing and giving testing training in large companies using the above-mentioned tools and processes. "The Testing Network" is a unique synthesis of core test topics applied in real-life.

This pocket guide presents the most crucial information about SQL in a compact and easily accessible format, covering the four commonly used SQL variants--Oracle, IBM DB2, Microsoft SQL Server, and MySQL. Topics include: Data manipulation statements (SELECT, DELETE, INSERT, UPDATE, MERGE) and transaction control statements (START TRANSACTION, SAVEPOINT, COMMIT, ROLLBACK). Common SQL functions (date, numeric, math, trigonometric, string, conversion, aggregate) Such topics as literals, NULLs, CASE expressions, datatype conversion, regular expressions, grouping and summarizing data, joining tables, and writing queries (hierarchical, recursive, union, flashback) and subqueries. Instead of presenting complex and confusing syntax diagrams, the book teaches by example, showing the SQL statements and options that readers are most like to use. All example data is available on the O'Reilly web site. "If you need fast, accurate SQL information, with examples for multiple database engines, be sure to check out this book."--Chris Kempster, Senior DBA and author of SQL Server 2000 for the Oracle DBA, www.chriskempster.com

Targeted at Oracle professionals who need fast and accurate working examples of complex issues, Oracle In-focus books target specific areas of Oracle technology in a concise manner.

Plenty of working code is provided without a lot of theory, allowing database managers to solve their problems quickly without reviewing data that they already know. All code scripts are available for instant download from a companion web site.

Oracle Performance Survival Guide A Systematic Approach to Database Optimization The fast, complete, start-to-finish guide to optimizing Oracle performance Oracle Performance Survival Guide offers a structured, systematic, start-to-finish methodology for optimizing Oracle performance as efficiently as possible. Leading Oracle expert Guy Harrison shows how to maximize your tuning investment by focusing on causes rather than symptoms, and by quickly identifying the areas that deliver the greatest “bang for the buck.” Writing for DBAs and developers with all levels of experience, Harrison covers every area of Oracle performance management, from application design through SQL tuning, contention management through memory and physical IO management. He also presents up-to-the-minute guidance for optimizing the performance of the Oracle 11g Release 2. You’ll start by mastering Oracle structured performance tuning principles and tools, including techniques for tracing and monitoring Oracle execution. Harrison illuminates the interaction between applications and databases, guides you through choosing tuning tools, and introduces upfront design techniques that lead to higher-performance applications. He also presents a collection of downloadable scripts for reporting on all aspects of database performance. Coverage includes • “Tuning by layers,” the most effective, highest-value approach to Oracle performance optimization • Making the most of Oracle’s core tools for tracing, monitoring, and diagnosing performance • Highly efficient database logical and physical design, indexing, transaction design, and API use • SQL and PL/SQL tuning, including the use of parallel SQL techniques • Minimizing contention for locks, latches, shared memory, and other database resources • Optimizing memory and physical disk IO • Tuning Real Application Cluster (RAC) databases guyharrison.net informit.com/ph

Explores Oracle's implementation of SQL and explains how to perform tasks including querying time-based data, implementing conditional logic in queries, writing queries, and joining data from two or more tables.

An updated guide for an updated certification exam! As the most popular database software in the world, OracleDatabase 12c has been updated for the first time in nearly sixyears and the changes are significant. This study guide reviews howOracle 12c allows multiple instances to be used simultaneously via the cloud. You'll sharpen your skills to prepare for the threelevels of certification: Oracle Certified Associate, OracleCertified Professional, and Oracle Certified Master. Workbookexercise appendix, test engine, chapter review questions,electronic flashcards, searchable PDF glossary, and two bonuspractice exams all help to enhance your preparation to take theOracle 12c exam. Addresses such topics as: database architecture, configuringand recoverability, configuring backup specifications, andperforming user-managed backup and recovery Reviews how to use RMAN to create backups, perform recovery,and duplicate a database Looks at performing tablespace point-in-time recovery and usingflashback technology Covers diagnosing the database, managing memory, managingresources, and automating tasks Focusing 100 percent on the exam objectives, OCP: OracleDatabase 12c Administrator Certified Professional Study Guideis designed for those who feel they are ready to attempt thischallenging exam.

This updated study guide for the latest release of the most popular database software in the world—Oracle Database 11g— reviews using the RMAN recovery catalog, handling Flashback technology, managing memory and resources, automating tasks, diagnosing the database, and much more. Plus, more than 100 pages of workbook exercises help prepare you to take the 1Z0-053 exam. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

The Definitive Solutions-Oriented Guide to IBM® DB2® for z/OS®: Now Fully Updated for Both v9 and v10! The largest database tuning performance gains can often be obtained from tuning application code, and applications that use SQL to retrieve data are the best candidates for tuning. This well-organized, easy-to-understand reference brings together more than 100 SQL-related skills and techniques that any developer can use to build and optimize DB2 applications for consistently superior performance. DB2 tuning expert Tony Andrews (“Tony the Tuner”) draws on more than 20 years of DB2-related experience, empowering you to take performance into your own hands, whether you’re writing new software or tuning existing systems. Tony shows you exactly how to clear bottlenecks, resolve problems, and improve both speed and reliability. This book fully reflects the latest SQL programming best practices for DB2 V9 and DB2 V10 on z/OS: techniques that are taught in no other book and are rarely covered in general DB2 SQL courses. Drawing on his extensive consulting experience and highly praised training with Themis Inc., Tony also presents practical checklists and an invaluable 15-step methodology for optimizing virtually any DB2 application. Coverage includes Empowering developers on knowing what to do and where to look in resolving performance problems in queries or programs Providing many programming and SQL coding examples Establishing standards and guidelines that lead to high-performance SQL Implementing time-efficient code walkthroughs to ensure that your standards are followed Focusing on the small number of SQL statements that consume the most resources Identifying simple solutions that deliver the most sizable benefits Optimizing performance by rewriting query predicates more efficiently Providing a better understanding of SQL optimization and Runstat statistics Recognizing opportunities to tweak your code more effectively than the Optimizer Optimizing SQL code with COBOL applications Efficiently checking for the existence of data, rows, or tables Using Runstats’ newest capabilities to consistently optimize paths to data

Expert Oracle SQL: Optimization, Deployment, and Statistics is about optimizing individual SQL statements, especially on production database systems. This Oracle-specific book begins by assuming you have already identified a particular SQL statement and are considering taking steps to improve its performance. The book describes a systematic process by which to diagnose a problem statement, identify a fix, and to implement that fix safely in a production system. You'll learn not only to improve performance when it is too slow, but also to stabilize performance when it is too variable. You'll learn about system statistics and how the Cost-Based Optimizer uses them to determine a suitable execution plan for a given statement. That knowledge provides the foundation from which to identify the root cause, and to stabilize and improve performance. Next after identifying a problem and the underlying root cause is to put in place a solution.

Expert Oracle SQL: Optimization, Deployment, and Statistics explains how to apply various remedies such as changing the SQL statement, adding hints, changing the physical design, and more, and how they can be brought to bear on fixing a problem once and for all. Rolling a change out smoothly is an important topic when dealing with tuning and optimization. Expert Oracle SQL: Optimization, Deployment, and Statistics does not let you down in this critical area. The book contains two chapters of good information from an experienced professional on how to

safely deploy changes into production so that your systems remaining running and available throughout the deployment process. Describes a systematic approach to tuning Oracle SQL Explains how things are supposed to work, what can go wrong, and how to fix it Takes you through the steps needed to stabilize performance in your production systems One of the most important challenges faced by Oracle database administrators and Oracle developers is the need to tune SQL statements so that they execute efficiently. Poorly tuned SQL statements are one of the leading causes of substandard database performance and poor response time. SQL statements that perform poorly result in frustration for users, and can even prevent a company from serving its customers in a timely manner. In this book, Mark Gurry shares his in-depth knowledge of Oracle's SQL statement optimizers. Mark's knowledge is the result of many hard-fought tuning battles during his many years of providing Oracle tuning services to clients. Mark provides insights into the workings of the rule-based optimizer that go well beyond what the rules tell you. Mark also provides solutions to many common problems that occur with both the rule-based and cost-based optimizers. In addition to the specific problem/solution scenarios for the optimizers, Mark provides a number of handy SQL tuning tips. He discusses the various optimizer hints, telling you when they can be used to good effect. Finally, Mark discusses the use of the DBMS_STATS package to manage database statistics, and the use of outlines to specify execution plans for SQL statements in third-party applications that you can't otherwise modify.

This is a comprehensive guide to writing SQL code that's optimized for performance. It includes a unique set of software tools on CD-ROM for benchmarking SQL performance. Proven PL/SQL Optimization Solutions In Oracle PL/SQL Performance Tuning Tips & Techniques, Oracle ACE authors with decades of experience building complex production systems for government, industry, and educational organizations present a hands-on approach to enabling optimal results from PL/SQL. The book begins by describing the discovery process required to pinpoint performance problems and then provides measurable and repeatable test cases. In-depth coverage of linking SQL and PL/SQL is followed by deep dives into essential Oracle Database performance tuning tools. Real-world examples and best practices are included throughout this Oracle Press guide. Follow a request-driven nine-step process to identify and address performance problems in web applications Use performance-related database tools, including data dictionary views, logging, tracing, PL/SQL Hierarchical Profiler, PL/Scope, and RUNSTATS Instrument code to pinpoint performance issues using call stack APIs, error stack APIs, and timing markers Embed PL/SQL in SQL and manage user-defined functions Embed SQL in PL/SQL using a set-based approach to handle large volumes of data Properly write and deploy data manipulation language triggers to avoid performance problems Work with advanced datatypes, including LOBs and XML Use caching techniques to avoid redundant operations Effectively use dynamic SQL to reduce the amount of code needed and streamline system management Manage version control and ensure that performance fixes are successfully deployed Code examples in the book are available for download.

There are three parts to tuning an Oracle database: data modeling, SQL code tuning and physical database configuration. A data model contains tables and relationships between tables. Tuning a data model involves normalization and de-normalization. Different approaches are required depending on the application, such as OLTP or a Data Warehouse. Inappropriate database design can make SQL code impossible to tune. Poor data modeling can have a most profound effect on database performance since all SQL code is constructed from the data model. Poorly written SQL code is often a culprit of performance problems and is expensive to rectify. However, tuning of SQL code is generally cheaper than changing the data model. SQL code tends to be contained inside independent blocks within applications or stored procedures. Physical database tuning involves hardware resource usage, networking and various other Oracle things such as configuration and file distribution. Physical configuration is often a culprit of poor performance where Oracle is installed with defaults, and never altered by an expert. *Includes all three aspects of Oracle database tuning: data model tuning, SQL & PL/SQL code tuning, physical plus configuration tuning *Contains experienced guidance and real-world examples using large datasets *Emphasizes development as opposed to operating system perspective

Demonstrates important concepts and offers working Transact-SQL code, covering data filtering, DDL, DML, statistical functions, runs and sequences, transactions, stored procedures and triggers, and performance tuning.

Written by Oracle insiders, this indispensable guide distills an enormous amount of information about the Oracle Database into one compact volume. Ideal for novice and experienced DBAs, developers, managers, and users, Oracle Essentials walks you through technologies and features in Oracle's product line, including its architecture, data structures, networking, concurrency, and tuning. Complete with illustrations and helpful hints, this fifth edition provides a valuable one-stop overview of Oracle Database 12c, including an introduction to Oracle and cloud computing. Oracle Essentials provides the conceptual background you need to understand how Oracle truly works. Topics include: A complete overview of Oracle databases and data stores, and Fusion Middleware products and features Core concepts and structures in Oracle's architecture, including pluggable databases Oracle objects and the various datatypes Oracle supports System and database management, including Oracle Enterprise Manager 12c Security options, basic auditing capabilities, and options for meeting compliance needs Performance characteristics of disk, memory, and CPU tuning Basic principles of multiuser concurrency Oracle's online transaction processing (OLTP) Data warehouses, Big Data, and Oracle's business intelligence tools Backup and recovery, and high availability and failover solutions

* 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.

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.

This book describes, diagnoses, and solves the most common problems with SQL Server 2005, 2008, and 2008 R2. The authors explain a basic approach to troubleshooting and the essential tools. They explore areas in which problems arise with regularity: high disk I/O (RAID misconfiguration, inadequate I/O throughput, poor workload distribution, SAN issues, disk partition misalignment); high CPU usage (insufficient memory, poorly written queries, inadequate indexing, inappropriate configuration option settings); memory mismanagement; missing indexes; blocking (caused mainly by poorly designed databases that lack proper keys and indexing, and applications that apply needlessly restrictive transaction isolation levels); deadlocking (Bookmark Lookup, Serializable Range Scan, Cascading Constraint); full transaction logs (lack of log backups, hefty index maintenance operations, long running transaction, problems with replication and mirroring environments); and accidentally-lost data. Finally, the authors discuss diagnosing tools such as the Performance Monitor, Dynamic Management Views, and server-side tracing. --

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

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

Covering Microsoft's brand-new SQL 2005 administrator exam, this study guide walks readers through setting up, maintaining, and troubleshooting database solutions Reviews key topics such as defining high-availability solutions, automating administrative tasks, defining security solutions, monitoring and troubleshooting the database server, and designing and executing deployments Candidates must first complete the requirements for the MCTS exam and have three or more years dedicated to database work; then they may earn their MCITP by passing two exams The CD-ROM features leading-edge exam prep software with an assessment test, test engine of case study practice questions, and electronic flashcards

Written by a Senior Database Administrator who has worked with the Oracle RDBMS for thirty years, this is a book which teaches the skill of SQL Tuning for the Oracle Database. Not a list of one-off tricks or tips, nor a glossing over of topics; this book offers an in-depth process covering discovery, analysis, and problem resolution. Learn the science behind SQL Tuning. Learn and apply the FILTERED ROWS PERCENTAGE Cardinality based method of tuning Determine a query's Driving Table and Join Order Construct Query Diagrams, Data Models, and Join Trees Build and use Count / Filter / and Reconstruction Queries Identify Waste in a Query Execution Plan Zero in on Cardinality Divergence using Estimated vs. Actuals Use the ACCESS / FILTER / COVERAGE strategy to build indexes for Problem Queries Exploit THE 2% RULE in analyzing Access method and Join method Classify queries as Precision Style or Warehouse Style Understand Hash Join mechanics and make Hash Joins go faster Make HINTS work as Detection Tools rather than clubs Avoid early Database Design flaws Manage Statistics and deal with common Statistics problems (NDV, Uniform Distribution, Independence, Dynamic Sampling) (Staleness, Skew, Dependence, Defaulting, Out-Of-Bounds, Transiency, Bloat) Perfect your Question Based Analysis Technique and more Included are: a special chapter for EXADATA, a LAB which demonstrates the cardinality based process of SQL Tuning, and twenty three magical SQL scripts that make the process of SQL Tuning easy to do. Learn the skill of SQL Tuning as taught by an expert who does it for a living, and become the go-to specialist in your company. Chapter 1: DRIVING TABLE and JOIN ORDER Chapter 2: Ways to Use a Query Execution Plan Chapter 3: The Best Indexes for a Query Chapter 4: JOINS Chapter 5: HINTS Chapter 6: BASICS Chapter 7: ROW COUNTS and RUN TIMES Chapter 8: EXADATA LAB: Reverse Engineering the QEP Appendix: Know Your Scripts Scripts for analyzing queries and plans Scripts for examining an active database Scripts for looking at metadata showplan showplanshort showplanconstraints showplancountqueries showplandatamodel showplandrivingtable showplanfilterqueries showplanfrpspreadsheetcode showplanindexes showplannumrows showplanquerydiagram showplantables showplantablesunique loadplanfromcache loadplanfromhist showtopcpu showowner showindexes showconstraints showcolstats showhistograms showallscanrates showallworkareas It's all about the Cardinalities

Here's the book you need to prepare for Exam 1Z0-007: Introduction to Oracle9i: * In-depth coverage of official exam objectives * Practical information on using SQL in a real-world Oracle9i environment * Hundreds of challenging review questions, in the book and on the CD Authoritative coverage of all exam objectives, including: * Writing basic SQL SELECT statements * Restricting and sorting data * Displaying data from multiple tables * Aggregating data using group functions * Producing readable output with iSQL*Plus * Creating and managing tables * Controlling user access

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