

Oracle Database 12c Performance Tuning Recipes A Problem Solution Approach 1st First Edition By Alapati Sam Kuhn Darl Padfield Bill Published By Apress 2013 Paperback

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

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.

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

Tom Kyte of Oracle Magazine's "Ask Tom" column has written the definitive guide to designing and building high-performance, scalable Oracle applications. The book covers schema design, SQL and PL/SQL, tables and indexes, and much more. From the exclusive publisher of Oracle Press books, this is a must-have resource for all Oracle developers and DBAs.

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

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.

Take Your PL/SQL Programming Skills to the Next Level Build robust database-centric PL/SQL applications quickly and effectively. Oracle Database 12c PL/SQL Advanced Programming Techniques shows you how to write and deploy Java libraries inside Oracle Database 12c, use the `utl_file` and `DBMS_SCHEDULER` packages, and create external tables and external procedures. Application security, performance tuning, and Oracle Database In-Memory are also covered in this Oracle Press guide. Configure, deploy, and troubleshoot Java libraries for Oracle object types Use the `utl_file` package to manage unstructured and structured data Develop and deploy Java I/O libraries and wrap them with PL/SQL Create and use external tables Implement high-speed data transfer Harden database systems and develop secure applications Manage complex schedules and jobs with the `DBMS_SCHEDULER` package Optimize PL/SQL for use in performance tuning Create and deploy external procedures Implement the Oracle Database In-Memory column store feature

Demystifying the power of the Oracle 12c database The Oracle database is the industry-leading relational database management system (RDMS) used from small companies to the world's largest enterprises alike for their most critical business and analytical processing. Oracle 12c includes industry leading enhancements to enable cloud computing and empowers users to manage both Big Data and traditional data structures faster and cheaper than ever before. Oracle 12c For Dummies is the perfect guide for a novice database administrator or an Oracle DBA who is new to Oracle 12c. The book covers what you need to know about Oracle 12c architecture, software tools, and how to successfully manage Oracle databases in the real world. Highlights the important features of Oracle 12c Explains how to create, populate, protect, tune, and troubleshoot a new Oracle database Covers advanced Oracle 12c technologies including Oracle Multitenant—the "pluggable database" concept—as well as several other key changes in this release Make the most of Oracle 12c's improved efficiency, stronger security, and simplified management capabilities with Oracle 12c For Dummies.

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Master Oracle Database 12c Release 2 testing and tuning Seamlessly transition to Oracle Database 12c Release 2 and achieve peak performance using the step-by-step instruction and best practices contained in this Oracle Press guide. Written by a team of Oracle ACEs, Oracle Database 12c Release 2 Testing Tools and Techniques for Performance and Scalability clearly explains how to identify, investigate, and resolve performance issues. You will discover how to use troubleshooting tools and test rigs, optimize code and queries, evaluate database performance, perform realistic application testing, capture and replay actual production workloads, and employ Oracle Database In-Memory. •Establish benchmarks and evaluate application workload performance •Configure and deploy SQL Tuning Advisor and SQL Access Advisor •Maximize efficiency using Oracle Database In-Memory and In-Memory Advisor •Identify and repair poorly running code with SQL Monitor •Uncover database problems using Real-Time ADDM and Emergency Monitoring •Work with database workload capture and replay •Analyze third-party code with Workload Intelligence •Identify database objects that will benefit most from In-Memory Column Store (IMCS) •Monitor and manage IMCS objects with In-Memory Central

"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 Speed up the execution of important database queries by making good choices about which indexes to create. Choose correct index types for different scenarios. Avoid indexing pitfalls that can actually have indexes hurting performance rather than helping. Maintain indexes so as to provide consistent and predictable query response over the lifetime of an application. Expert Oracle Indexing and Access Paths is about the one database structure at the heart of almost all performance concerns: the index. Database system performance is one of the top concerns in information technology today. Administrators struggle to keep up with the explosion of access and activity driven by the proliferation of computing into everything from phones to tablets to PCs in our increasingly connected world. At the heart of any good-performing database lies a sound indexing strategy that makes appropriate use of indexing, and especially of the vendor-specific indexing features on offer. Few databases fully exploit the wealth of data access mechanisms provided by Oracle. Expert Oracle Indexing and Access Paths helps by bringing together information on indexing and how to use it into one blissfully short volume that you can read quickly and have at your fingertips for reference. Learn the different types of indexes available and when each is best applied. Recognize when queries aren't using indexes as you intend. Manage your indexing for maximum performance. Confidently use the In Memory column store feature as an alternate access path to improve performance. Let Expert Indexing in Oracle Database 12c be your guide to deep mastery of the most fundamental performance optimization structure in Oracle Database. Explains how indexes help performance, and sometimes hinder it too Demystifies the various index choices so that you can chose rightly Describes the database administration chores associated with indexes Demonstrates the use of the In Memory column store as an alternate access path to the data What You Will Learn Create an overall indexing strategy to guide your decisions Choose the correct indexing mechanisms for your applications Manage and maintain indices to avoid degradation and preserve efficiency Take better advantage of underused index types such as index-organized tables Choose the appropriate columns to index, with confidence Blend partitioning and materialized views into your indexing strategy Who This Book Is For All levels of database administrators and application developers who are struggling with the database performance and scalability challenge. Any database administrator involved with indexing, which is any database administrator period, will appreciate the wealth of advice packed into this gem of a book.

Oracle Database 12c Release 2 Performance Tuning Tips & Techniques McGraw Hill Professional

The definitive reference for every Oracle DBA—completely updated for Oracle Database 12c Oracle Database 12c DBA Handbook is the quintessential tool for the DBA with an emphasis on the big picture—enabling administrators to achieve effective and efficient database management. Fully revised to cover every new feature and utility, this Oracle Press guide shows how to harness cloud capability, perform a new installation, upgrade from previous versions, configure hardware and software, handle backup and recovery, and provide failover capability. The newly revised material features high-level and practical content on cloud integration, storage management, performance tuning, information management, and the latest on a completely revised security program. Shows how to administer a scalable, flexible Oracle enterprise database Includes new chapters on cloud integration, new security capabilities, and other cutting-edge features All code and examples available online

PeopleSoft for the Oracle DBA, Second Edition stands on the boundary between the PeopleSoft application and the Oracle database. This new edition of David Kurtz's book is freshly revised, showing how to tame the beast and manage Oracle successfully in a PeopleSoft environment. You'll learn about PeopleSoft's Internet architecture and its use of Oracle's Tuxedo Application Server. You'll find full coverage of key database issues such as indexing, connectivity, and tablespace usage as they apply to PeopleSoft. Kurtz also provides

some of the best advice and information to be found anywhere on managing and troubleshooting performance issues in a PeopleSoft environment. The solid coverage of performance troubleshooting is enough by itself to make PeopleSoft for the Oracle DBA a must-have book for any Oracle Database administrator working in support of a PeopleSoft environment. Explains PeopleSoft's technical architecture as it relates to Oracle Database Demonstrates how to instrument and measure the performance of PeopleSoft Provides techniques to troubleshoot and resolve performance problems

Sam Alapati's Expert Oracle Database 11g Administration is a comprehensive handbook for Oracle database administrators (DBAs) using the 11g release of the Oracle Database. All key aspects of database administration are covered, including backup and recovery, day-to-day administration and monitoring, performance tuning, and more. This is the one book to have on your desk as a continual reference. Refer to it frequently. It'll help you get the job done. Comprehensive handbook for Oracle Database administrators. Covers all major aspects of database administration. Tests and explains in detail key DBA commands. Offers primers on Linux/Unix, data modeling, SQL, and PL/SQL. "This book should satisfy those who want a different perspective than the official Oracle documentation. It will cover all important aspects of a data warehouse while giving the necessary examples to make the reading a lively experience. - Tim Donar, Author and Systems Architect for Enterprise Data Warehouses Tuning a data warehouse database focuses on large transactions, mostly requiring what is known as throughput. Throughput is the passing of large amounts of information through a server, network and Internet environment, backwards and forwards, constantly! The ultimate objective of a data warehouse is the production of meaningful and useful reporting, from historical and archived data. The trick is to make the reports print within an acceptable time frame. A data model contains tables and relationships between tables. Tuning a data model involves Normalization and Denormalization. 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. * Takes users beyond basics to critical issues in running most efficient data warehouse applications * Illustrates how to keep data going in and out in the most productive way possible * Focus is placed on Data Warehouse performance tuning

Oracle ACE Alumnus Christopher Lawson has solved over 10,000 Oracle performance problems over the past two decades. In this book, Chris provides 100 of his all-time favorite tips. The tips cover the most recent performance techniques available, including Oracle 12c. Whether you are a beginner at performance tuning, or a veteran DBA, ORACLE PERFORMANCE TUNING EXPERT is sure to offer you lots of powerful ideas.

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 11g Performance Tuning Recipes delivers. Oracle Database 11g 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 Written by a team of experienced database administrators successful in their careers

Beginning Oracle Database 12c Administration is your entry point into a successful and satisfying career as an Oracle Database Administrator. The chapters of this book are logically organized into four parts closely tracking the way your database administration career will naturally evolve. Part 1 "Database Concepts" gives necessary background in relational database theory and Oracle Database concepts, Part 2 "Database Implementation" teaches how to implement an Oracle database correctly, Part 3 "Database Support" exposes you to the daily routine of a database administrator, and Part 4 "Database Tuning" introduces the fine art of performance tuning. Beginning Oracle Database 12c Administration provides information that you won't find in other books on Oracle Database. You'll discover not only technical information, but also guidance on work practices that are as vital to your success as are your technical skills. The author's favorite chapter is "The Big Picture and the Ten Deliverables." (It is the editor's favorite chapter too!) If you take the lessons in that chapter to heart, you can quickly become a much better Oracle database administrator than you ever thought possible. You will grasp the key aspects of theory behind relational database management systems and learn how to:

- Install and configure an Oracle database, and ensure that it's properly licensed;
- Execute common management tasks in a Linux environment;
- Defend against data loss by implementing sound backup and recovery practices; and
- Improve database and query performance.

Write Powerful SQL Statements and PL/SQL Programs Learn how to access Oracle databases through SQL statements and construct PL/SQL programs. Oracle Database 12c SQL offers complete coverage of the latest database features and techniques. Find out how to write SQL statements to retrieve and modify database information, use SQL*Plus and SQL Developer, work with database objects, write PL/SQL programs, use performance optimization techniques, incorporate XML, and more. This Oracle Press guide contains everything you need to know to master SQL. Use SQL statements to access an Oracle database Work with SQL*Plus and SQL Developer Write PL/SQL programs Create tables, sequences, indexes, views, and triggers Design advanced queries containing complex calculations Create database objects to handle abstract data Use date, time stamp, and time interval data types Establish user roles and privileges Handle multimedia files using large objects Tune SQL statements to make them execute faster Generate, process, and store XML data Master the very latest Oracle Database 12c features Code examples in the book are available for download.

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.

This book is the first of its kind, a book dedicated to tuning the Oracle high availability RAC architecture. Oracle RAC databases

are flexible and robust, and along with this flexibility comes complexity, making RAC tuning one of the most challenging areas of Oracle tuning. Packed with incisive insights and examples from one of America's leading RAC experts, guru Brian Peasland delivers an indispensable book for all RAC administrators who need to guarantee that their RAC systems run at optimal performance. It's not enough for the DBA to maintain and control RAC database, the RAC DBA must also have an arsenal of tools and scripts that will help them ensure that their RAC database run at optimal levels. This book will be valuable to all Oracle professionals who must tune their Oracle RAC systems for peak performance. Similar to tuning Oracle database systems in general, Oracle RAC performance tuning covers a wide variety of focus areas. Topics will include Oracle wait events specific to RAC deployments, using Oracle Enterprise Manager Grid Control and AWR in diagnosing RAC problems, and RAC utilities such as OS Watcher and ORAchK (formerly RACcheck). This book will also discuss architecture issues related RAC performance, delving into the cluster interconnect, physical disk layout and Oracle 12c new Flex Clusters. Oracle RAC also allows the workload the spread among several low cost servers (scale-out) rather than a large single server (scale-up), and this book examines these approaches from a tuning perspective. Many companies are working towards private cloud implementations using RAC, and this book is perfect for the DBA's charged with . Oracle 12c RAC raises the bar with its new multi-tenant database implementation. Think of multi-tenant as virtualization at the database level. As more companies start leveraging Oracle 12c RAC for their enterprise database architecture, it is important that the system be designed and tuned properly to ensure the application has a well-performing user experience. This unique book provides a one-stop location for any RAC DBA who must become a RAC performance tuning specialist. Most Oracle RAC books on the market devote only one chapter to performance tuning. The information in this book provides a solid foundation for one's first RAC deployment, and provide you with the tools and methods needed to keep your complex RAC systems running optimally. While this book is not for beginners, the reader is given sufficient background throughout the chapters so that most Oracle DBAs, even those will little Oracle RAC experience, will be able to understand its contents. Oracle RAC is inherently complex. This explains the concepts before delving into highly technical areas. Many in-depth areas of RAC tuning are explored that help the DBA reveal hidden performance trends within even the most complex RAC database.

Troubleshooting Oracle Performance, 2nd Edition is your systematic guide to diagnosing and resolving performance problems in database-backed applications involving Oracle's database engine. Christian Antognini brings a decade and a half experience to his topic. His first edition is one of the most well-respected books in its field. This second edition has been rigorously updated to cover the latest developments in Oracle Database 11g Release 2 through Oracle Database 12c. What do you do when your database application isn't running fast enough? You troubleshoot, of course. Finding the slow part of an application is often the easy part of the battle. It's finding a solution that's difficult. Troubleshooting Oracle Performance, 2nd Edition helps by providing a systematic approach to addressing the underlying causes of poor database application performance. The author freely shares his experience while explaining the underlying foundations of how SQL statements are executed by the Oracle database engine. You'll be able to draw a solid foundation of theory and shared experience as you face head-on the performance challenges in your daily work. Written for developers by an application developer who has learned by doing Gives a systematic approach to solving database application performance problems Helps you plan for performance as you would for any other application requirement Oracle 10g has become the most complex database ever created and Oracle tuning has become increasingly complex. This book provides a complete step-by-step approach for holistic Oracle tuning and it is the accumulated knowledge from tuning thousands of Oracle databases. Incorporating the principles of artificial intelligence, Oracle10g has developed a sophisticated mechanism for capturing and tracking database performance over time periods. This new complexity has introduced dozens of new v\$ and DBA views, plus dozens of Automatic Workload Repository (AWR) tables. The AWR and its interaction with the Automatic Database Diagnostic Monitor (ADDM) is a revolution in database tuning. By understanding the internal workings of the AWR tables, the senior DBA can develop time-series tuning models to predict upcoming outages and dynamically change the instance to accommodate the impending resource changes. This is not a book for beginners. Targeted at the senior Oracle DBA, this book dives deep into the internals of the v\$ views, the AWR table structures and the new DBA history views. Packed with ready-to-run scripts, you can quickly monitor and identify the most challenging performance issues.

Troubleshoot, tune, and optimize your Oracle database efficiently and successfully every time. This book explains how to take full advantage of the revolutionary Oracle Wait Interface to quickly pinpoint--and solve--core problems and bottlenecks, and increase productivity exponentially.

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.

Expert Oracle RAC Performance Diagnostics and Tuning provides comprehensive coverage of the features, technology and principles for testing and tuning RAC databases. The book takes a deep look at optimizing RAC databases by following a methodical approach based on scientific analysis rather than using a speculative approach, twisting and turning knobs and gambling on the system. The book starts with the basic concepts of tuning methodology, capacity planning, and architecture. Author Murali Vallath then dissects the various tiers of the testing implementation, including the operating system, the network, the application, the storage, the instance, the database, and the grid infrastructure. He also introduces tools for performance optimization and thoroughly covers each aspect of the tuning process, using many real-world examples, analyses, and solutions from the field that provide you with a solid, practical, and replicable approach to tuning a RAC environment. The book concludes with troubleshooting guidance and quick reference of all the scripts used in the book. Expert Oracle RAC Performance Diagnostics and Tuning covers scenarios and details never discussed before in any other performance tuning books. If you have a RAC database, this book is a requirement. Get your copy today. Takes you through optimizing the various tiers of the RAC environment. Provides real life case studies, analysis and solutions from the field. Maps a methodical approach to testing, tuning and diagnosing the cluster

RMAN Recipes for Oracle Database 12c is an example-driven approach to the Oracle database administrator's #1 job responsibility: Be able to recover the database. Of all the things you are responsible for as database administrator, nothing is more important than the data itself. Like it or not, the fearsome responsibility of protecting your organization's most critical data falls squarely upon your shoulders: Lose that data and your company could fail. Lose that data and you could be out of a job. Oracle's flagship database product fortunately implements a wide-ranging feature set to aid you in the all-important task of safeguarding against data loss. Recovery Manager, or RMAN, is at the heart of that

feature set, and is the tool most-often used to initiate database backup and recovery operations. In this book, well-known authors and database experts Darl Kuhn, Sam Alapati, and Arup Nanda have created a set of examples encompassing the gamut of backup and recovery tasks that you might need to perform. Sometimes, especially when the heat is on, a good example is what you need to get started towards a solution. RMAN Recipes for Oracle Database 12c delivers. It'll be the book you reach for when that dreaded call comes in at 3:00am some dreary morning. It'll be the book that lets you sleep at night knowing that no matter what transpires, that you've done your job well and can recover from any outage. RMAN Recipes for Oracle Database 12c gets right to the point with quick and easy-to-read, step-by-step solutions that can help you backup and recover your data with confidence. What you'll learn Reliably back up and recover your database using Oracle's Recovery Manager Let Oracle Database manage your backup files via the Fast Recovery Area Automate backup and recovery tasks by writing scripts Troubleshoot RMAN problems and optimize RMAN performance Recover from the loss of a control file, loss of an online redo log, and from other unusual situations Who this book is for RMAN Recipes for Oracle Database 12c is aimed squarely at Oracle database administrators responsible for database backup and recovery operations. Table of Contents Backup and Recovery 101 Jump-Starting RMAN Using the Fast Recovery Area Using RMAN Configuring the RMAN Environment Using the Recovery Catalog Making Backups with RMAN Maintaining RMAN Backups and the Repository Scripting RMAN Restoring the Control File Performing Complete Recovery Performing Incomplete Recovery Performing Flashback Recovery Handling Online Redo Log Failures Duplicating Databases and Transporting Data Tuning RMAN Troubleshooting RMAN Implementing Oracle Secure Backup Performing Backup and Recovery with Enterprise Manager Using the Data Recovery Advisor Using RMAN on Windows DataGuard RMAN and RAC RMAN and ASM RMAN and Exadata

If you are a typical Oracle professional, you don't have the luxury of time to keep up with new technology and read all the new manuals to understand each new feature of the latest release from Oracle. You need a comprehensive source of information and in-depth tips and techniques for using the new technology. You need Oracle Internals: Tips, Trick

Expert Oracle RAC 12c is a hands-on book helping you understand and implement Oracle Real Application Clusters (RAC), and to reduce the total-cost-of-ownership (TCO) of a RAC database. As a seasoned professional, you are probably aware of the importance of understanding the technical details behind the RAC stack. This book provides deep understanding of RAC concepts and implementation details that you can apply toward your day-to-day operational practices. You'll be guided in troubleshooting and avoiding trouble in your installation. Successful RAC operation hinges upon a fast-performing network interconnect, and this book dedicates a chapter solely to that very important and easily overlooked topic. All four authors are experienced RAC engineers with a wealth of hard-won experience encountering and surmounting the challenges of running a RAC environment that delivers on its promise. In Expert Oracle RAC 12c they provide you a framework in which to avoid repeating their hard-won lessons. Their goal is for you to manage your own RAC environment with ease and expertise. Provides a deep conceptual understanding of RAC Provides best practices to implement RAC properly and match application workload Enables readers to troubleshoot RAC with ease What you'll learn Know when to apply RAC, and when not to Design applications to take advantage of RAC Troubleshoot and solve clusterware problems Manage database backup and recovery in RAC Stay on top of locking issues and deadlock detection Harness the performance from parallel processing in RAC Support your RAC environment with a healthy network interconnect Who this book is for Expert Oracle RAC 12c is for experienced Oracle Database Administrators (DBAs) who are ready to take the next step in their career by expanding their skill set to include building and managing Oracle Real Application Clusters (RAC). DBAs and architects who are in the process of implementing RAC can immensely benefit from this book. It's an excellent choice for DBAs to learn RAC conceptually, understand best practices, and become experts in troubleshooting RAC problems. Table of Contents Overview of Oracle RAC Clusterware Management and Troubleshooting RAC Operational Practices RAC New Features Storage and ASM Practices Application Design Issues Managing and Optimizing a Complex RAC Environment Backup and Recovery in RAC Network Practices in RAC RAC Database Optimization Locks and Deadlocks Parallel Query in RAC Clusterware and Database Upgrades Oracle RAC One Node

The most trusted name in performance tuning updates his bestselling guide for the challenges of Oracle Database 11" + 11"R2, leaving no stone unturned in his pursuit of optimal tuning.

When your database application isn't running fast enough, troubleshooting is usually your first move. Finding the slow part of an application is often easy, but discovering a solution can prove much more difficult. Troubleshooting Oracle Performance helps by providing a systematic approach to addressing the underlying causes of poor database application performance. Written for developers by an application developer who has learned by doing, this book shows you how to plan for performance as you would for any other application requirement.

The book follows a tutorial-based approach, covering all the best practices for backup and recovery. The book starts by introducing readers to the world of backup and recovery, then moves on to teach them the new features offered by Oracle 12c. The book is full of useful tips and best practices that are essential for any DBA to perform backup and recovery operations in an organization. This book is designed for Oracle DBAs and system administrators. The reader will have a basic working experience of administering Oracle databases. This book is designed for Oracle DBAs and system administrators. This book will become a reference guide and will also help you to learn some new skills, and give you some new ideas you never knew about, helping you to easily find the solution to some of the most well-known problems you could encounter as DBAs.

Pro Oracle Database 11g Administration is a book focused on results. Author Darl Kuhn draws from a well of experience over a decade deep to lay out real-world techniques that lead to success as an Oracle Database administrator. He gives clear explanations on how to perform critical tasks. He weaves in theory where necessary without bogging you down in unneeded detail. He is not afraid to take a stand on how things should be done. He won't leave you adrift in a sea of choices, showing you three ways to do something and then walking away. Database administration isn't about passing a certified exam, or about pointing-and-clicking your way through a crisis. Database administration is about applying the right solution at the right time, about avoiding risk, about making robust choices that get you home each night in time for dinner with your family. If you have "buck stops here" responsibility for an Oracle database, then Pro Oracle Database 11g Administration is the book you need to help elevate yourself to the level of Professional Oracle Database Administrator. Condenses and organizes the core job of a database administrator into one volume. Takes a results-oriented approach to getting things done. Lays a foundation upon which to build a senior level of expertise

Leverage the New and Improved Features of Oracle Database 12c Written by Oracle experts Bob Bryla and Robert G. Freeman, this Oracle Press guide describes the myriad new and enhanced capabilities available in the latest Oracle Database release. Inside, you'll find everything you need to know to get up and running quickly on Oracle Database 12c Release 2. Supported by contributions from Oracle expert Eric Yen, Oracle Database 12c Release 2 New Features offers detailed coverage of: • Installing Oracle Database 12c and Grid Infrastructure • Architectural changes, such as Oracle Multitenant • The most current information on upgrading and migrating to Oracle Database 12c • The pre-upgrade information tool and parallel processing for database upgrades • Oracle Real Application Clusters new features, such as Oracle Flex Cluster, Oracle Flex Automatic Storage

Management, and Oracle Automatic Storage Management Cluster File System • Enhanced and new online operations: tables, indexes, and PDBs • Oracle RMAN enhancements, including cross-platform backup and recovery • Oracle Data Guard improvements, such as Fast Sync, and Oracle Active Data Guard new features, such as Far Sync • SQL, PL/SQL, DML, and DDL new features • Improvements to partitioning manageability, performance, and availability • Advanced business intelligence and data warehousing capabilities • Security enhancements, including privileges analysis, data redaction, and new administrative-level privileges • Manageability, performance, and optimization improvements

Oracle system performance inefficiencies often go undetected for months or even years--even under intense scrutiny--because traditional Oracle performance analysis methods and tools are fundamentally flawed. They're unreliable and inefficient. Oracle DBAs and developers are all too familiar with the outlay of time and resources, blown budgets, missed deadlines, and marginally effective performance fiddling that is commonplace with traditional methods of Oracle performance tuning. In this crucial book, Cary Millsap, former VP of Oracle's System Performance Group, clearly and concisely explains how to use Oracle's response time statistics to diagnose and repair performance problems. Cary also shows how "queueing theory" can be applied to response time statistics to predict the impact of upgrades and other system changes. Optimizing Oracle Performance eliminates the time-consuming, trial-and-error guesswork inherent in most conventional approaches to tuning. You can determine exactly where a system's performance problem is, and with equal importance, where it is not, in just a few minutes--even if the problem is several years old. Optimizing Oracle Performance cuts a path through the complexity of current tuning methods, and streamlines an approach that focuses on optimization techniques that any DBA can use quickly and successfully to make noticeable--even dramatic--improvements. For example, the one thing database users care most about is response time. Naturally, DBAs focus much of their time and effort towards improving response time. But it is entirely too easy to spend hundreds of hours to improve important system metrics such as hit ratios, average latencies, and wait times, only to find users are unable to perceive the difference. And an expensive hardware upgrade may not help either. It doesn't have to be that way. Technological advances have added impact, efficiency, measurability, predictive capacity, reliability, speed, and practicality to the science of Oracle performance optimization. Optimizing Oracle Performance shows you how to slash the frustration and expense associated with unraveling the true root cause of any type of performance problem, and reliably predict future performance. The price of this essential book will be paid back in hours saved the first time its methods are used.

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

This comprehensive guide has been fully updated to cover the latest features and tools of Oracle Real Application Clusters 12c. Through clear instruction and detailed examples, Oracle Database 12c Real Application Clusters Handbook: Concepts, Administration, Tuning & Troubleshooting teaches how to build, configure, and maintain a dynamic enterprise computing infrastructure. This thoroughly revised edition covers best uses for the latest tools and features—all from the practical standpoint of a working DBA. You will discover how to prepare hardware, configure the software, optimize data integrity, and integrate seamless failover protection. Brand-new flex and large cluster technologies are explained in full detail, and readers will get complete solutions for securing data and continuing business operations in the event of hardware failure. Presents all the new information needed to effectively use Oracle Real Application Clusters 12c -considered the most radical overhaul ever Offers detailed coverage of troubleshooting, performance tuning, and application development

This Oracle Press guide illuminates and details the revolutionary new features and tools available in Oracle Database 12c.

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