

Read Online Oracle Tuning The Definitive Reference 2nd Edition Rampart Pdf For Free

Oracle Tuning: The Definitive Reference Oracle Tuning Oracle SQL Tuning with Oracle SQLTXPLAIN SQL Tuning Advanced Oracle SQL Tuning Oracle SQL Performance Tuning and Optimization Oracle Database 12c Performance Tuning Recipes Oracle Database 12c Release 2 Performance Tuning Tips & Techniques Oracle Tuning Power Scripts Oracle SQL Tuning Pocket Reference Oracle Rac Performance Tuning Oracle Performance Survival Guide Oracle Performance Tuning Oracle9i High-Performance Tuning with STATSPACK Oracle SQL Tuning with Oracle SQLTXPLAIN Oracle Data Warehouse Tuning for 10g Troubleshooting Oracle Performance Oracle Database 10g Performance Tuning Tips & Techniques Oracle Performance Tuning for 10gR2 Oracle PL/SQL Performance Tuning Tips & Techniques Mastering Oracle SQL Oracle High-Performance SQL Tuning Oracle Shell Scripting High-Performance Oracle Oracle Performance Tuning 101 Oracle SQL Tuning & CBO Internals Oracle Database 11gR2 Performance Tuning Cookbook Oracle High Performance Tuning for 9i and 10g Oracle SQL High-performance Tuning Oracle Database Performance Tuning Interview Questions,

**Answers and Explanations Oracle Database 11g
Performance Tuning Recipes Optimizing Oracle
Performance Oracle SQL Tuning with Oracle
SQLTXPLAIN Oracle and UNIX Performance Tuning
OCP: Oracle9i Performance Tuning Study Guide Oracle
Wait Interface: A Practical Guide to Performance
Diagnostics & Tuning Oracle Performance Tuning Tips
& Techniques Oracle Solid State Disk Tuning Oracle
Internals: An Introduction The Art and Science of
Oracle Performance Tuning**

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 clues 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 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. A practical guide showing you how to tune your SQL the way Oracle's own experts do it ... with a simple-to-use, free-download tool called SQLTXPLAIN. You will be able to tune even the most complex SQL quickly without the huge learning curve usually associated with tuning as a whole. 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 Oracle has become the world's most flexible and robust database and along with great power comes great complexity. This complexity requires that the DBA have expert knowledge of Oracle internals. This book provides a thorough step-by-step approach for holistic Oracle tuning in this challenging information technology era. It represents the knowledge accumulated from tuning thousands of Oracle databases. Oracle tuning has always been a complex task; however, it has become even more complex as Oracle evolves and yields new techniques for achieving optimal performance in the stressed production environment of today's high-tech world. Oracle STATSPACK and AWR has introduced a revolution in database tuning. By understanding these time-series tables, we can develop time-series tuning models to predict upcoming outages and dynamically change the instance to accommodate the impending resource changes. Database tuning efforts must become as sophisticated as the databases themselves. This book strives to show you how to leverage upon the wealth of Oracle performance information so that you can create

a robust Oracle database engine, one that maximizes computing resources while minimizing overhead. If you are seeking theory, this is not the book for you. This book encapsulates the combined knowledge of over a century of hands-on DBA tuning experience, a pragmatic, practical approach for the professional Oracle DBA. This is not a book for beginners. Targeted at the senior Oracle DBA, this comprehensive book gives you all of the knowledge you need to be successful in tuning even the most complex Oracle database. The code download for this book is packed with ready-to-run scripts to monitor and identify even the most challenging performance issues. 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. 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. 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. This concise book contains detailed information about Oracle internals--information that's not readily available to Oracle customers. Based on Oracle8i release 8.1, the book describes many of the secrets of Oracle's internal services: data structures, algorithms, and undocumented Oracle system statistics. Main topics include waits, latches, locks (including instance locks, which are used in parallel server environments), and memory use and management. The author's toolkit of scripts accesses

the Oracle X\$ tables directly to return statistics you'll find extremely helpful in tuning and analysis. Oracle8i Internal Services is aimed especially at administrators and developers who need detailed internal information to do advanced performance tuning. The book will expand your repertoire of tuning solutions and troubleshooting techniques by explaining how you can use Oracle's hidden parameters and undocumented system statistics to best advantage. "The Oracle wait events are probably the most important piece of tuning information for any Oracle DBA. In this book Steve Adams gives a good introduction to the most important wait events and also offers information on how to tune them." Anjo Kolk, Oracle Corporation "Steve Adams knows more about Oracle internals than anyone I know. This book is a very significant contribution to the body of Oracle knowledge and an invaluable aid to advanced performance tuning and configuration. I highly recommend it. " Guy Harrison, Project Manager, Database Monitoring Tools, Quest Software "Steve has taken Oracle internals information to the next level. The book is a 'must read' for every DBA and senior technical person who's working on mission-critical Oracle databases. It is a welcome addition to my bookshelf. " Mark Gurry, Author of Oracle Performance Tuning It's impossible to tune an Oracle database without understanding SQL tuning. Oracle is a SQL processing engine and the execution speed of any SQL query is influenced by many factors, both internal and

external. As a declarative data access method, SQL relies on the Oracle cost-based optimizer to always choose the "best" execution plan for every SQL query. However, Oracle's SQL is among the most flexible and robust in the world, and along with this great power comes complexity. Tuning Oracle SQL is the single most important skill of any Oracle professional, and Oracle professionals are challenged to create SQL statements that will support thousands of concurrent executions with sub-second response time. "Advanced Oracle SQL Tuning" is a pragmatic treatment of Oracle SQL tuning, short on theory and big on real-world techniques and tips. This book is the culmination of the author's 25 years of full-time DBA experience and he shares expert tips and secrets for hyper charging SQL execution speed. This book covers advanced topics and it is not appropriate for beginners, dilettantes or neophytes. The Ultimate Reference & Learning Guide for Oracle Database Professionals! Over 150 Interview Questions, Answers, and Explanations It's clear that Oracle is the future for enterprise information systems data storage and retrieval - but finding the right reference materials can be difficult. For the first time, over 150 Oracle Database Performance Tuning Certification Questions are here to guide your learning. From helping you to assess your Oracle Performance Tuning skills to evaluating candidates for a job, Oracle Database Performance Tuning Interview Questions will help you understand very quickly what you really need

to know, and what you can safely ignore. The book is organized around Oracle Database Performance Tuning basics such as root cause analysis, database design, hit ratios, average latencies, and wait times. Each question includes everything you need to know to master an Oracle Performance Tuning interview or properly evaluate a candidate. More than just a rehash of Oracle documentation and sales presentations, each question is based on project knowledge and experience gained on successful high-profile Oracle implementations. Key certification and interview topics include:

- . Root cause analysis
- . Analysis of response time statistics
- . Queue theory and the basics of database performance
- . Hit ratios, Average latency, and wait time improvements

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. If you work with Oracle in any capacity, whether as a Java programmer, Database Administrator, or PL/SQL programmer, chances are good that you write SQL statements to query for data within the database. Knowledge of SQL, and particularly of Oracle's implementation of SQL, is the key to writing good queries in a timely manner. In this book, authors Sanjay Mishra and Alan Beaulieu share their knowledge of Oracle SQL, and show you many creative techniques that you can use to advantage in your own applications. Book jacket. 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 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 Your Oracle career starts here! Ideal for those new to Oracle technology, this officially authorized guide teaches new DBAs the essentials of keeping an Oracle database running at top performance. You'll get coverage of application, instance, database, I/O, OS, and contention tuning. * Presents an innovative, philosophical approach to Oracle database administration, and shows how to think about the whole complex problem of performance tuning, how to break it down, how to root out the cause of performance bottlenecks. *Covers all practical aspects of Oracle performance tuning. * Filled with hands-on lessons and accounts. * Teaches an innovative and effective "Physician to Magician" approach, showing how to understand the problem, uncover the root cause, and choose and implement the most effective solution. 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** 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 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. 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. 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. With the expert techniques discussed in this book, Oracle database administrators can automate routine tasks to save time and money and better monitor the flow of work. Using shell scripts—an indispensable tool on UNIX and Linux—any number of commands can be combined and

executed either simultaneously or sequentially. More than 50 working shell scripts for both beginners and experts give Oracle professionals a fantastic head-start on automating their administration duties and are easily modifiable for any environment. Topics include the history of shells and shell scripting, detailed step-by-step instructions on building shell scripts, how to tell when things are working right, and how to effectively monitor the system for failures. As Oracle professionals are challenged to create SQL statements that will support thousands of concurrent executions with sub-second response time, this book's timing is critical as tuning Oracle SQL has become the single most important skill of the Oracle professional. While not appropriate for the beginner, this book allows senior Oracle professionals to explore important internal mechanisms within Oracle and the powerful and complex internals of Oracle SQL execution. Topics include the internals of Oracle cost-based SQL optimizer, SQL execution internals within the library cache, Oracle SQL coding and optimization techniques, and Oracle index internals. Also included is a ready-to-use code depot full of working SQL tuning scripts, which allow for quick optimization of the SQL and indexes inside the Oracle database. "Geoff Ingram has met the challenge of presenting the complex process of managing Oracle performance. This book can support every technical person looking to resolve Oracle8i and Oracle9i performance issues." -Aki Ratner, President,

Precise Software Solutions Ensuring high-performance and continuous availability of Oracle software is a key focus of database managers. At least a dozen books address the subject of "performance tuning"-- that is, how to fine-tune the Oracle database for its greatest processing efficiency. Geoff Ingram argues that this approach simply isn't enough. He believes that performance needs to be addressed right from the design stage, and it needs to cover the entire system--not just the database. High-Performance Oracle is a hands-on book, loaded with tips and techniques for ensuring that the entire Oracle database system runs efficiently and doesn't break down. Written for Oracle developers and DBAs, and covering both Oracle 8i and Oracle 9i, the book goes beyond traditional performance-tuning books and covers the key techniques for ensuring 24/7 performance and availability of the complete Oracle system. The book provides practical solutions for:

- * Choosing physical layout for ease of administration and efficient use of space**
- * Managing indexes, including detecting unused indexes and automating rebuilds**
- * SQL and system tuning using the powerful new features in Oracle 9i Release 2**
- * Improving SQL performance without modifying code**
- * Running Oracle Real Application Clusters (RAC) for performance and availability**
- * Protecting data using Recover Manager (RMAN), and physical and logical standby databases**

The companion Web site provides the complete source

code forexamples in the book, updates on techniques, and additionaldocumentation for optimizing your Oracle system. DBAs can instantly optimize their database and applications with STATSPACK and this invaluable resource. Includes ready-to-run scripts. 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. In this book you will find both examples and theoretical concepts covered. Every recipe is based on a script/procedure explained step-by-step, with screenshots, while theoretical concepts are explained in the context of the recipe, to explain why a solution performs better than another. This book is aimed at software developers, software and data architects, and DBAs who are using or are planning to use the Oracle Database, who have some experience and want to solve performance problems faster and in a rigorous way. If you are an architect who wants to design better applications, a DBA who is keen to dig into the causes of performance issues, or a developer who wants to learn why and where the application is running slow, this is the book for you. Basic knowledge of SQL language is required and general knowledge of the Oracle Database architecture is preferable. Alomari makes in-depth recommendations for tuning both decision support and transaction applications - each of which impact the Oracle kernel in significantly different ways. No other tuning book covers specific OLAP and

OLTP issues in comparable detail. “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

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. From the official Oracle Press comes a comprehensive guide to tuning SQL statements for optimal execution This expert resource explains how to view the internal execution plan of any SQL statement and change it to improve the performance of the statement. You'll get details on Oracle's optimizer modes, SQL extensions, the STATSPACK utility, and a wealth of methods for tuning Oracle SQL statements. "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 Tuning of SQL code is generally cheaper than changing the data model. Physical and configuration tuning involves a search for bottlenecks that often points to SQL code or data model issues. Building an appropriate data model and writing properly performing SQL code can give 100%+ performance improvement. Physical and configuration tuning often gives at most a 25% performance increase.

Gavin Powell shows that the central theme of Oracle10gR2 Performance Tuning is four-fold: denormalize data models to fit applications; tune SQL code according to both the data model and the application in relation to scalability; create a well-proportioned physical architecture at the time of initial Oracle installation; and most important, mix skill sets to obtain the best results. Fully updated for version 10gR2 and provides all necessary transition material from version 9i 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 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. Tuning skills are in high demand in Oracle communication, and this guide gives specific examples to build performance tuning skill sets. Database administrators will find helpful hints and useful information to help them get optimal performance from Oracle RDBMS environments. Here's the book you need to prepare for Exam 1Z0-033: Oracle9i Database: Performance Tuning. This Study Guide provides: In-depth coverage

of official exam objectives Practical information on optimizing Oracle9i databases Hundreds of challenging review questions, in the book and on the CD Authoritative coverage of all exam objectives, including: Using Diagnostic and Tuning Tools Monitoring and Managing the Buffer Cache Optimizing Sort Operations Detecting and Resolving Lock Contention Diagnosing Shared Server Performance Issues Using Oracle Blocks Efficiently Tuning SQL Statements Configuring Resource Manager Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file. Learn through this practical guide to SQL tuning how Oracle's own experts do it, using a freely downloadable tool called SQLTXPLAIN. This new edition has been expanded to include AWR, Oracle 12c Statistics, interpretation of SQL Monitor reports, Parallel execution, and Exadata-related features. Reading this book and using SQL helps you learn 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. Best of all, the book is updated to cover the very latest feature set in Oracle Database 12c. Covers AWR report integration Helps with SQL

Monitor Report Interpretation Provides a reliable method that is repeatable Shows the very latest tuning features in Oracle Database 12c Enables the building of test cases without affecting production What You'll Learn Identify how and why complex SQL has gone wrong Correctly interpret AWR reports generated via SQLTXPLAIN Collect the best statistics for your environment Know when to invoke built-in tuning facilities Recognize when tuning is not the solution Spot the steps in a SQL statement's execution plan that are critical to performance of that statement Modify your SQL to solve performance problems and increase the speed and throughput of production database systems Who This Book Is For divAnyone who deals with SQL and SQL tuning. Both developers and DBAs will benefit from learning how to use the SQLTXPLAIN tool, and from the problem solving methodology in this book. A complete revision of the original title, this second edition adds new material on Oracle 7.3 and many Oracle 8 features. It explores new Oracle capabilities like parallel server, parallel query, and distributed database. It contains more detail on constraints and triggers, many more examples, and information on new tuning tools like the Oracle Performance Pack, Oracle Trace, and Oracle Expert. 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. 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 with 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.