

Oracle Plsql Tuning Expert Secrets For High Performance Programming Oracle In Focus Series Volume 8

Expert Consolidation in Oracle Database 12c is your key to reducing data management costs and increasing data center efficiency. Consolidation and cloud computing are converging trends sweeping the industry. The same technologies enabling cloud computing enable consolidation as well, leading to savings on all fronts from the amount of power used for servers to the amount of floor space consumed to the number of administrators needed to manage an installation. Yet the consolidation process can be a long and winding road. Success requires planning, and consideration to the impacts on supporting infrastructure. Expert Consolidation in Oracle Database 12c guides you through planning and implementing a consolidated Oracle Database installation using the many new features built into the latest release of Oracle's database management system. You'll learn to identify candidates for consolidation and to recognize instances that are best left stand-alone. The book guides in working with clustered systems and ASM storage in the consolidated environment. Focus is given to Oracle Enterprise Manager 12c Cloud Control as a monitoring and management dashboard. Always the goal is to drive towards a cost-effective environment that is efficient both in technology and people. Focuses on the new consolidation features in Oracle Database 12c Helps you evaluate and correctly decide when to consolidate Leads to cost savings and improved data center efficiency

* A proven best-seller by the most recognized Oracle expert in the world. * The best Oracle book ever written. It defines what Oracle really is, and why it is so powerful. * Inspired by the thousands of questions Tom has answered on his <http://asktom.oracle.com> site. It tackles the problems that developers and DBAs struggle with every day. * Provides everything you need to know to program correctly with the database and exploit its feature-set effectively.

Enterprise Manager 12c (EM12c), Oracle's newest and fully-integrated enterprise management product, now provides a complete cloud lifecycle management solution and enterprise environment management interface. Expert Oracle Enterprise Manager 12c opens up the secrets of this incredible management tool, saving you time while enhancing your visibility as someone management can rely upon to deliver reliable database service in today's increasingly chaotic and change-driven IT environment. Expert Oracle Enterprise Manager 12c covers all the topics you demand and need to function effectively, from basic monitoring and configuration to advanced metric extensions and plugins. Real-life scenarios and demonstrations place you in the comfort zone of using the EM12c console, and the experienced author team provides deep understanding of the inner workings of this new Enterprise Manager. Database administrators and system administrators are expected to offer increasing levels of service for 24X7 systems and newer cloud environments. Em12c offers robust, end-to-end intelligent management of the complete environment. It includes direct, real-time integration with Oracle's online knowledgebase. Expert Oracle Enterprise Manager 12c helps you master this important tool and manage any challenge that comes your way. Provides example solutions to everyday problems through EM12c features. Explains the changes in EM12c, included trusted extensions. Focuses on advanced aspects of the EM12c interface.

This book is an anthology of effective database management techniques representing the collective wisdom of the OakTable Network. With an emphasis upon performance—but also branching into security, national language, and other issues—the book helps you deliver the most value for your company's investment in Oracle Database technologies. You'll learn to effectively plan for and monitor performance, to troubleshoot systematically when things go wrong, and to manage your database rather than letting it manage you.

Provides information on using solid state RAM disk to optimize the performance of Oracle.

Engine-tuning expert A. Graham Bell steers you through the various modifications that can be made to coax maximum useable power output and mechanical reliability from your two-stroke. Fully revised with the latest information on all areas of engine operation, from air and fuel, through carburation, ignition, cylinders, porting, reed and rotary valves, and exhaust systems to cooling and lubrication, dyno tuning and gearing.

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

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.

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.

Provides information on advanced Oracle SQL techniques for creating complex queries and extracting and summarizing data from large tables.

Expert Oracle Exadata, 2nd Edition opens up the internals of Oracle's Exadata platform so that you can fully benefit from the most performant and scalable database hardware appliance capable of running Oracle Database. This edition is fully-updated to cover Exadata 5-2 and Oracle Database 12c. If you're new to Exadata, you'll soon learn that it embodies a change in how you think about and manage relational databases. A key part of that change lies in the concept of offloading SQL processing to the storage layer. In addition there is Oracle's engineering effort in creating a powerful platform for both consolidation and transaction processing. The resulting value proposition in the form of Exadata has truly been a game-changer. Expert Oracle Exadata, 2nd Edition provides a look at the internals and how the combination of hardware and software that comprise Exadata actually work. Authors include Martin Bach, Andy Colvin, and Frits Hoogland, with contributions from Karl Arao, and built on the foundation laid by Kerry Osborne, Randy Johnson, and Tanel Poder in the first edition. They share their real-world experience gained through a great many Exadata implementations, possibly more than any other group of experts today. Always their goal is toward helping you advance your career through success with Exadata in your own environment. This book is intended for readers who want to understand what makes the platform tick and for whom—"how" it does what it does is as important as what it does. By being exposed to the features that are unique to Exadata, you will gain an understanding of the mechanics that will allow you to fully benefit from the advantages that the platform provides. This book changes how you think about managing SQL performance and processing. It provides a roadmap to successful Exadata implementation. And it removes the "black box" mystique. You'll learn how Exadata actually works and be better able to manage your Exadata engineered systems in support of your business. This book: Changes the way you think about managing SQL performance and processing Provides a roadmap to successful Exadata implementation Removes the "black box" mystique, showing how Exadata actually works

Furnishes indepth, authoritative data about Oracle internal services, including data structures, algorithms, hidden parameters, and undocumented system statistics, with new sections on latches, memory use and management, waits, and locks. Original. (Intermediate)

"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 Oracle 8i and Oracle 9i 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 for examples in the book, updates on techniques, and additional documentation for optimizing your Oracle system.

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 Core: Essential Internals for DBAs and Developers by Jonathan Lewis provides just the essential information about Oracle Database internals that every database administrator needs for troubleshooting—no more, no less. Oracle Database seems complex on the surface. However, its extensive feature set is really built upon upon a core infrastructure resulting from sound architectural decisions made very early on that have stood the test of time. This core infrastructure manages transactions and the ability to commit and roll back changes, protects the integrity of the database, enables backup and recovery, and allows for scalability to thousands of users all accessing the same data. Most performance, backup, and recovery problems that database administrators face on a daily basis can easily be identified through understanding the essential core of Oracle Database architecture that Lewis describes in this book. Provides proven content from a world-renowned performance and troubleshooting expert Emphasizes the significance of internals knowledge to rapid identification of database performance problems Covers the core essentials and does not waste your time with esoterica

This text explains hot issues for resolving the most difficult performance and recovery issues for Oracle 11g databases. It will allow the experienced Oracle professional to become an expert on how the Oracle database engine really works and provide the Oracle beginner with the solid core knowledge of the theory and practice behind the Oracle database. Most experienced Oracle DBAs are familiar with the standard utilities found within the Oracle database server environment such as RMAN, export and import and Grid Control. However, when it comes down to how the actual database engine works under the hood, the internal workings of Oracle are poorly documented or hidden from plain view of the working DBA. Are you a senior level Oracle professional who wants to learn the secret workings of the Oracle 11g database engine to be able to solve tricky database issues? This timely and expert guide will cover many of the little known and undocumented features within the newest release of Oracle database for Oracle 11g. It will be a perfect capstone to mastering the keys to the kingdom of the Oracle 11g engine. Move from the average Oracle DBA to become an expert level DBA with the help of this exciting new guide from an Oracle guru! Topics will include a detailed discussion of the latest Oracle 11g database internals which previously have been undocumented and internal to only the Oracle server development team. In addition, tools and utilities that have been previously neglected such as how to use internal tools for database issues such as oradebug and tkprof will be explored for tuning difficult issues with the Oracle 11g database. This book distills the very complex nature of Oracle 11g database internals using undocumented tools and features that have not been covered so that database professionals can gain mastery over solving the most difficult and challenging issues for Oracle 11g. Secrets of the Oracle Database is the definitive guide to undocumented and partially-documented features of the Oracle Database server. Covering useful but little-known features from Oracle Database 9 through Oracle Database 11, this book will improve your efficiency as an Oracle database administrator or developer. Norbert Debes shines the light of day on features that help you master more difficult administrative, tuning, and troubleshooting tasks than you ever thought possible. Finally, in one place, you have at your fingertips knowledge that previously had to be acquired through years of experience and word of mouth through knowing the right people. What Norbert writes is accurate, well-tested, well-illustrated by clear examples, and sure to improve your ability to make an impact on your day-to-day work with Oracle.

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 Oracle Press eBook is filled with cutting-edge security techniques for Oracle Database 12c. It covers authentication, access control, encryption, auditing, controlling SQL input, data masking, validating configuration compliance, and more. Each chapter covers a single threat area, and each security mechanism reinforces the others.

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

This 1,000-page book enables a beginner or intermediate level Oracle DBA or Oracle Developer/Manager to master the art of building and managing complex Oracle 9i databases.

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.

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 authors have revised and updated this bestseller to include both the Oracle8i and new Oracle9i Internet-savvy database products.

Provides information on how to quickly troubleshoot Oracle performance problems, covering such topics as designing databases, storage and reorganization, memory usage, and SQL.

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.

Oracle PL/SQL Tuning Expert Secrets for High Performance Programming Rampant TechPress

Backup and recovery are mission-critical DBA tasks, and it is critical that every Oracle professional develop a RMAN strategy that guarantees recoverability while minimizing unplanned downtime. RMAN is one of the world's most sophisticated backup and recovery tools. It is robust and complex with thousands of options. This landmark book demonstrates, by example, how to create a successful backup and recovery infrastructure using RMAN. This book also contains links to RMAN video tutorials and a download of working RMAN scripts to guide users through full automation of a backup strategy. Together, backup and recovery are the single most important combined DBA activity, and it is crucial that you master the RMAN and Data Pump Import utilities to protect against catastrophic data loss. Written by practicing Oracle DBAs with years of RMAN experience, this is a pragmatic approach to RMAN, focusing less on theory and more on real-world, practical RMAN tools, tips and techniques. This Oracle backup and recovery book is unique because it provides real-world examples on how to use RMAN and other tools to protect your mission critical data. Even with reliable mirrored disks, your important Oracle database is still at-risk from software corruption, user error and hardware failures. This book details Oracle RMAN best practices and shows the best ways to minimize backup and recovery time, which is critical for maximizing system availability This is the definitive RMAN reference that guides you, step-by-

step, through all of the techniques for Oracle backup and recovery, from simple cold backups to complex incremental backups. Experienced RMAN experts guide you through the installation, setup and configuration for a complete RMAN backup and recovery infrastructure using proven techniques and Oracle best practices. Best of all, you be given the opportunity to learn from supplemental video tutorials and working examples how to recover from every possible data scenario. This book has step-by-step checklists that you can follow to guide you through a complex recovery with minimal unplanned system outages. This is an indispensable RMAN reference for every professional DBA who needs to ensure that they understand every possible backup and recovery strategy. It also contains a download of working RMAN scripts to help you easily automate and monitor your RMAN backups.

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 valuable manual for database professionals looking to adopt open-source database technology demonstrates real-world techniques for migrating legacy applications to EnterpriseDB, furnishing working code, expert tips and tricks, and an overview of various EnterpriseDB applications, covering such areas as cross-platform integration, performance and tuning, programming, and Superset Procedural Language. Original (Intermediate/Advanced)

Database Administration, Second Edition , is the definitive, technology-independent guide to the modern discipline of database administration. Packed with best practices and proven solutions for any database platform or environment, this text fully reflects the field's latest realities and challenges. Drawing on more than thirty years of database experience, Mullins focuses on problems that today's DBAs actually face, and skills and knowledge they simply must have. Mullins presents realistic, thorough, and up-to-date coverage of every DBA task, including creating database environments, data modeling, normalization, design, performance, data integrity, compliance, governance, security, backup/recovery, disaster planning, data and storage management, data movement/distribution, data warehousing, connectivity, metadata, tools, and more. This edition adds new coverage of "Big Data," database appliances, cloud computing, and NoSQL. Mullins includes an entirely new chapter on the DBA's role in regulatory compliance, with substantial new material on data breaches, auditing, encryption, retention, and metadata management. You'll also find an all-new glossary, plus up-to-the-minute DBA rules of thumb.

Achieve 24x7 database uptime and expand your Oracle knowledge using the hundreds of tips and techniques provided in this unique reference.

If you have mastered the fundamentals of the PL/SQL language and are now looking for an in-depth, practical guide to solving real problems with PL/SQL stored procedures, then this is the book for you.

"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

This integrated learning solution teaches all the Oracle PL/SQL skills you need, hands-on, through real-world labs, extensive examples, exercises, and projects! Completely updated for Oracle 11g, Oracle PL/SQL by Example , Fourth Edition covers all the fundamentals, from PL/SQL syntax and program control through packages and Oracle 11g's significantly improved triggers. One step at a time, you'll walk through every key task, discovering the most important PL/SQL programming techniques on your own. Building on your hands-on learning, the authors share solutions that offer deeper insights and proven best practices. End-of-chapter projects bring together all the techniques you've learned, strengthening your understanding through real-world practice. This book's approach fully reflects the authors' award-winning experience teaching PL/SQL programming to professionals at Columbia University. New database developers and DBAs can use its step-by-step instructions to get productive fast; experienced PL/SQL programmers can use this book as a practical solutions reference.

Coverage includes • Mastering basic PL/SQL concepts and general programming language fundamentals, and understanding SQL's role in PL/SQL • Using conditional and iterative program control techniques, including the new CONTINUE and CONTINUE WHEN statements • Efficiently handling errors and exceptions • Working with cursors and triggers, including Oracle 11g's powerful new compound triggers • Using stored procedures, functions, and packages to write modular code that other programs can execute • Working with collections, object-relational features, native dynamic SQL, bulk SQL, and other advanced PL/SQL capabilities • Handy reference appendices: PL/SQL formatting guide, sample database schema, ANSI SQL standards reference, and more

Provides information on ways to achieve high performance from PL/SQL.

This handbook provides database administrators with clear and concise processes with which to attack tuning problems using Oracle Wait Interface. A guide is provided to demonstrate the mechanics of the Wait Interface and how to use it not only to tune database performance at the database level but also to give the statistics needed to understand problems that lie outside of the database in the SAN or the network. Techniques that apply to tuning any Oracle database from version 7 through 9i and beyond are included.

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