

Oracle Sql Pl Sql Optimization For Developers

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 "queuing 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.

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 identifying 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 uprnt 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

The authors have revised and updated this bestseller to include both the Oracle®i and new Oracle®i Internet-savvy database products.

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

Advanced Oracle PL/SQL Developer's Guide

Oracle Tuning

Oracle Built-in Packages

Real-world Oracle Performance Secrets

Optimizing Oracle Performance

Oracle SQL and PL/SQL Handbook

Jonathan Lewis is one of the world's foremost authorities in this field (he is frequently quoted and reference by other leading experts, such as Tom Kyte – see for example http://asktom.oracle.com/pls/ask/download_file?p_file=3067171813508366601. Book will be strongly co-promoted with Tom Kyte's Expert Oracle Database Architecture (1-59059-530-0) Highlights traps for those migrating from Oracle 8i to 9i to 10g, potentially averting often disastrous performance issues and downtime (=lost revenue) The first comprehensive book written to investigate, describe, and demonstrate the methods used by the Cost Based Optimizer Jonathan is one of very few Oracle authors to maintain online enhancements, errata and addenda pages, so the reader will be supported long after the book is published

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

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: "haunting" training the horses, and the price of goods. 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.

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.

It's All about the Cardinalities

Troubleshooting Oracle Performance

Optimization, Deployment, and Statistics

Effective Oracle by Design

Optimizing Oracle Code

Oracle SQL Performance Tuning and Optimization

CD-ROM contains: Practice Database -- Sample scripts reference in text.

For the past ten years, O'Reilly's Oracle PL/SQL Programming has been the bestselling book on PL/SQL, Oracle's powerful procedural language. Packed with examples and helpful recommendations, the book has helped everyone--from novices to experienced developers, and from Oracle Forms developers to database administrators--make the most of PL/SQL. The fourth edition is a comprehensive update, adding significant new content and extending coverage to include the very latest Oracle version, Oracle Database 10g Release 2. It describes such new features as the PL/SQL optimizing compiler, conditional compilation, compile-time warnings, regular expressions, set operators for nested tables, nonsequential collections in FORALL, the programmer-defined quoting mechanism, the ability to backtrack an exception to a line number, a variety of new built-in packages, and support for IEEE 754 compliant floating-point numbers. The new edition adds brand-new chapters on security (including encryption, row-level security, fine-grained auditing, and application contexts), file, email, and web I/O (including the built-in packages DBMS_OUTPUT, UTL_FILE, UTL_MAIL, UTL_SMTP, and UTL_HTTP) and globalization and localization. Co-authored by the world's foremost PL/SQL authority, Steven Feuerstein, this classic reference provides language syntax, best practices, and extensive code, ranging from simple examples to complete applications--making it a must-have on your road to PL/SQL mastery. A companion web site contains many more examples and additional technical content for enhanced learning.

Toad Scalzo and Dan Hotka have written the definitive, up-to-date guide to Version 12.x. Dell's powerful new release of Toad for Oracle. Packed with step-by-step recipes, detailed screen shots, and hands-on exercises, Toad for Oracle unleashed shows both developers and DBAs how to maximize their productivity. Drawing on their unsurpassed experience running Toad in production Oracle environments, Scalzo and Hotka thoroughly cover every area of Toad's functionality. You'll find practical insights into each of Toad's most useful tools, from App Designer to Doc Generator, ER Diagrammer to Code Road Map. The authors offer proven solutions you can apply immediately to solve a wide variety of problems, from maintaining code integrity to automating performance and scalability testing. Learn how to... Install and launch Toad, connect to a database, and explore Toad's new features Customize Toad to optimize productivity in your environment Use the Editor Window to execute SQL and PL/SQL and view, save, or convert data Browse your schema, and create and edit objects Quickly generate useful reports with FastReport and Report Manager Clarify your database's tables and data with the powerful Entity Relationship Diagrammer (ERD) and HTML documentation generator Work more efficiently with PL/SQL using code templates, snippets, and shortcuts Automate activities and applications with Automation Designer Perform key DBA tasks including database health checks, tablespage management, database and schema comparisons, and object rebuilding Identify and optimize poorlyperforming SQL and applications ON THE WEB: Download all examples and source code presented in this book from informit.com/title/9780134131856 as it becomes available.

Start developing applications with Oracle PL/SQL-fast! This integrated book-and-Web learning solution teaches all the Oracle PL/SQL skills you need, hands on, through real-world labs, extensive examples, exercises, projects, and a complete Web-based training site. Oracle PL/SQL by Example, Third Edition covers Oracle 10G and all the fundamentals: Master PL/SQL syntax, its native and conditional control, scoping, anchored datatypes, cursors, triggers, security, tables, procedures, functions, packages and Oracle-supplied packages--plus powerful new techniques for working with exceptions, cursors, collections, and records. Your free Web-based training module includes a Virtual Study Lounge where you can interact with other learners, work on new projects, and get updates! Totally integrated with a FREE, state-of-the-art Oracle 10G learning Web site! Every Practice Hall Oracle Interactive Workbook is fully integrated with its own exclusive Web site, giving you all this and more: "Test Your Thinking" project solutions and detailed explanations Additional self-review exercises with instant feedback and explanations An exclusive Virtual Study Lounge where you can interact with other students! Just the facts! No endless, boring discussions here! You'll learn hands on, through practical exercises, self-review questions, and real-world answers. Exclusive "Test Your Thinking" projects guarantee you'll go beyond rote knowledge to really master the subject! It's an integrated learning system that's proven to work!

Oracle Development Languages

The Complete Reference

Oracle Performance Survival Guide

Oracle SQL Tuning with Oracle SQLTPLAIN

ORACLE High-Performance SQL Tuning

A Problem-Solution Approach

SQL TuningGenerating Optimal Execution Plans"O'Reilly Media, Inc."

Master the Cutting-Edge Features of Oracle Database 12c Maintain a scalable, highly available enterprise platform and reduce complexity by leveraging the powerful new tools and cloud enhancements of Oracle Database 12c. This authoritative Oracle Press guide offers complete coverage of installation, configuration, tuning, and administration. Find out how to build and populate Oracle databases, perform effective queries, design applications, and secure your enterprise data. Oracle Database 12c: The Complete Reference also contains a comprehensive appendix covering commands, keywords, features, and functions. Set up Oracle Database 12c or upgrade from an earlier version Design Oracle databases and plan for application implementation Construct SQL and SQL*Plus statements and execute powerful queries Secure data with roles, privileges, virtualization, and encryption Move data with SQL*Loader and Oracle Data Pump Restore databases using flashback and the Oracle Database Automatic Undo Management feature Build and deploy PL/SQL triggers, procedures, and packages Work with Oracle pluggable and container databases Develop database applications using Java, JDBC, and XML Optimize performance with Oracle Real Application Clusters

Expert Oracle SQL: Optimization, Deployment, and Statistics is about optimizing individual SQL statements, especially on production database systems. This Oracle-specific book begins by assuming you have already identified a particular SQL statement and are considering taking steps to improve its performance. The book describes a systematic process by which to diagnose a problem statement, identify a fix, and to implement that fix safely in a production system. You'll learn not only to improve performance when it is too slow, but also to stabilize performance when it is too variable. You'll learn about system statistics and how the Cost-Based Optimizer uses them to determine a suitable execution plan for a given statement. That knowledge provides the foundation from which to identify the root cause, and to stabilize and improve performance. Next after identifying a problem and the underlying root cause is to put in place a solution. Expert Oracle SQL: Optimization, Deployment, and Statistics explains how to apply various remedies such as changing the SQL statement, adding hints, changing the physical design, and more, and how they can be brought to bear on fixing a problem once and for all. Rolling a change out smoothly is an important topic when dealing with tuning and optimization. Expert Oracle SQL: Optimization, Deployment, and Statistics does not let you down in this critical area. The book contains two chapters of good information from an experienced professional on how to safely deploy changes into production so that your systems remaining running and available throughout the deployment process. Describes a systematic approach to tuning Oracle SQL Explains how things are supposed to work, what can go wrong, and how to fix it Takes you through the steps needed to stabilize performance in your production systems

With tools for gaining as much as 30 times the execution speed, this handbook educates database administrators on how to rewrite SQL into PL/SQL and how to use advanced Oracle bulk array processing techniques to achieve high performance. Ready-to-use tips for saving millions of dollars in hardware costs by running applications at peak efficiencies are provided. Targeted at senior Oracle DBAs and developers, these powerful techniques will help PL/SQL users save both time and money.

Oracle Advanced PL/SQL Developer Professional Guide

Oracle PL/SQL Language Pocket Reference

Oracle PL/SQL Programming

Practical Oracle SQL

Mastering Oracle 12c PL/SQL Advanced Programming Techniques

Mastering Oracle PL/SQL

Oracle is the most popular database management system in use today, and PL/SQL plays a pivotal role in current and projected Oracle products and applications. PL/SQL is a programming language providing procedural extensions to the SQL relational database language and to an ever-growing number of oracle development tools. originally a rather limited tool, PL/SQL became with Oracle7 a mature and effective language for developers. now, with the introduction of Oracle8, PL/SQL has taken the next step towards becoming a fully realized programming language providing sophisticated object-oriented capabilities. Steven Feuerstein'sOracle PL/SQL Programming is a comprehensive guide to building applications with PL/SQL. That book has become the bible for PL/SQL developers who have raved about its completeness, readability, and practicality.Built-in packages are collections of PL/SQL objects built by Oracle Corporation and stored directly in the Oracle database. The functionality of these packages is available from any programming environment that can call PL/SQL stored procedures, including Visual Basic, Oracle Developer2000, Oracle Application Server (for web-based development), and, of course, the Oracle database itself. Built-in packages extend the capabilities and power of PL/SQL in many significant ways. for example: DBMSSQL executes dynamically constructed SQL statements and PL/SQL blocks of code. DBMSPIPE communicates between different Oracle sessions through a pipe in the RDBMS shared memory. DBMSJOB submits and manages regularly scheduled jobs for execution inside the database. DBMSJOB accesses and manipulates Oracle's large objects (LOBs) from within PL/SQL programs. The first edition of Oracle PL/SQL Programming contained a chapter on Oracle's built-in packages, but there is much more to say about the basic PL/SQL packages than Feuerstein could fit in his first book. In addition, now that Oracle8 built-in packages not described in the PL/SQL book. There are also packages extensions for specific oracle environments such as distributed databases, hence this book.Oracle Built-in Packages pulls together information about how to use the calling interface (API) to Oracle's Built-in Packages, and provides extensive examples on using the built-in packages effectively. The windows diskette included with the book contains the companion guide, an online tool developed by RevealNet, Inc., that provides point-and-click access to the many files of source code and online documentation developed by the authors. The table of contents follows:PrefacePart I: Overview 1. Introduction Part II: Application Development Packages Executing Dynamic SQL and PL/SQL. Interession Communication User Lock and Transaction Management Oracle Advanced Queuing Generating Output from PL/SQL Programs Defining an Application Profile Managing Large Objects Datatype Packages Miscellaneous Packages Part III: Server Management Packages Managing Session Information Managing Server Resources Job Scheduling in the Database Part IV: Distributed Database Packages Snapshots Advanced Replication Conflict Resolution Deferred Transactions and Remote Procedure Calls Appendix. What's on the companion disk?

This book is packed with real world examples that cover all the advanced features of PL/SQL. In turn, each major certification topic is covered in a separate chapter that makes understanding concepts easier. At the end of each chapter, you will find plenty of practice questions to strengthen and test your learning.If you are a PL/SQL developer looking for deeper insight and a move from mid-level programmer to professional database developer, then this is the best guide for you. This book is also an ideal guide for all the Associate level PL/SQL programmers who are preparing for the Professional 120-146 certification. This book assumes you have prior knowledge of PL/SQL programming.

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

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.

Expert Oracle PL/SQL

Query Tuning and Optimization

Oracle SQL Tuning Pocket Reference

SQL Tuning

Oracle PL/SQL Performance Tuning Tips & Techniques

Oracle SQL High-performance Tuning

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 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 provide the learned, 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 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

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

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

Oracle PL/SQL Best Practices

Expert Oracle SQL

Oracle PL/SQL by Example

Oracle High-Performance Tuning for 9i and 10g

Oracle Silver Bullets

Expert Secrets for High Performance Programming

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 SQLTPLAIN. You will be able to tune even the most complex SQL quickly without the huge learning curve usually associated with tuning as a whole.

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.

In this book, Steven Feuerstein, widely recognized as one of the world's experts on the Oracle PL/SQL language, distills his many years of programming, writing, and teaching about PL/SQL into a set of PL/SQL language "best practices"---rules for writing code that is readable, maintainable, and efficient. Too often, developers focus on simply writing programs that run without errors--and ignore the impact of poorly written code upon both system performance and their ability (and their colleagues' ability) to maintain that code over time.Oracle PL/SQL Best Practices is a concise, easy-to-use reference to Feuerstein's recommendations for excellent PL/SQL coding. It answers the kinds of questions PL/SQL developers most frequently ask about their code: How should I format my code? What naming conventions, if any, should I use? How can I write my packages so they can be more easily maintained? What is the most efficient way to query information from the database? How can I get all the developers on my team to handle errors the same way? The book contains 120 best practices, divided by topic area. It's full of advice on the program development process, coding style, writing SQL in PL/SQL, data structures, control structures, exception handling, program and package construction, and built-in packages. It also contains a handy, pull-out quick reference card. As a helpful supplement to the text, code examples demonstrating each of the best practices are available on the O'Reilly web site.Oracle PL/SQL Best Practices is intended as a companion to O'Reilly's larger Oracle PL/SQL books. It's a compact, readable reference that you'll turn to again and again--a book that no serious developer can afford to be without.

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. Create and debug next-generation, feature-rich PL/SQL applications Push your PL/SQL programming skills to the next level with the extensive information contained in this volume. You'll learn how to write dynamic PL/SQL programs, interface with Oracle databases, execute complex calculations, and handle error conditions using advanced techniques. Plus, you'll get the latest on the PL/SQL Toolkit, Java integration, and performance optimizing. Oracle professionals Ron Hardman and Michael McLaughlin cover all the bases, providing real-world examples, undocumented tricks, syntax samples, and unique solutions for every topic.

Compile high performance PL/SQL scripts using procedures, functions, packages and triggers Trap, trace, identify, and eliminate compile-time and runtime errors Manage error propagation, stacks, regular expressions, and metacharacters Exploit definer's-rights and invoker's-rights architectures Extend PL/SQL functionality using server-side and internal Java class libraries Build and run parallel PL/SQL program units using DBMS_JOB and DBMS_PIPE Exploit definer's-rights and invoker's-rights architectures Tune performance using statistics gathering, the PL/SQL optimizer, SQL Trace, DBMS_STATS, and TKPROF Use Oracle Text with PL/SQL Server Pages to perform theme/gist extraction, highlighting, stemming, fuzzy, and wildcard searching Administer server-side PL/SQL Toolkit web pages and PL/SQL Server Pages Secure, encrypt, and transmit data using DBMS_CRYPT, UTL_COMPRESS, DBMS_DATAUMP, and DBMS_FILE_TRANSFER

Cost-Based Oracle Fundamentals

Oracle PL/SQL Tuning

A Systematic Approach to Database Optimization

High Performance Oracle Database Automation

Write Efficient SQL

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 LAB: Reverse Engineering the QEP Appendix: Know Your Scripts Scripts for analyzing queries and plans Scripts for examining an active database Script for looking at metadata showplan showplanshort showplanconstraints showplanfilterqueries showplanandrivingtable showplanfilterquery showplanlrnsindexes showplanlrnsnumrows showplanlrnsquerydiagram showplanlrnsuniqueshowplanlrnsfomhist showtopcpu showtimershowindexesshowconstrains showcolstats showhistograms showallsccanres It's all about the Cardinalities Pro Oracle SQL unlocks the power of SQL in the Oracle Database—one of the most potent SQL implementations on the market today. To master it requires a three-pronged approach: learn the language features, learn the supporting features that Oracle provides to help use the language effectively, and learn to think and work in sets. Karen Morton and her team help you master powerful aspects of Oracle SQL not found in competing databases. You'll learn analytic functions, the MODEL clause, and advanced grouping syntax—features that will help in creating good queries for reporting and business intelligence applications. Pro Oracle SQL also helps you minimize parsing overhead, read execution plans, test for correct results, and exert control over SQL execution in your database. You'll learn when to create indexes, how to verify that they make a difference, how to use SQL Profiles to optimize SQL in packaged applications, and much more. You'll also understand how SQL is optimized for working in sets, and that the key to getting accurate results lies in making sure that queries ask clear and precise questions. What's the bottom-line? Pro Oracle SQL helps you work at a truly professional level in Oracle dialect of SQL. You'll master the language, the tools to work effectively with the language, and the right way to think about a problem in SQL. Pro Oracle SQL helps you rise above the crowd to provide stellar service in your chosen profession. Endorsed by the OakTable Network, a group of Oracle technologists well-known for their rigorous and scientific approach to Oracle Database performance Comprehensive—goes beyond the language with a focus on what you need to know to write successful queries and data manipulation statements.

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.

The fourth edition of this popular pocket guide provides quick-reference information that will help you use Oracle's PL/SQL language, including the newest Oracle Database 11g features. It's a companion to Steven Feuerstein and Bill Pribyl's bestselling Oracle PL/SQL Programming. This concise guide boils down the most vital PL/SQL information into an accessible summary of: Fundamental language elements (e.g., block structure, datatypes, declarations) Statements for program control, cursor management, and exception handling Records, procedures, functions, triggers, and packages Calling PL/SQL functions in SQL Compilation options, object-oriented features, collections, and Java integration The new edition describes such Oracle Database 11g elements as PL/SQL's function result cache, compound triggers, the CONTINUE statement, the SIMPLE_INTEGER datatype, and improvements to native compilation, regular expressions, and compiler optimization (including intra-unit inlining). In addition, this book now includes substantial new sections on Oracle's built-in functions and packages. When you need answers quickly, the Oracle PL/SQL Language Pocket Reference will save you hours of frustration.

The Definitive Reference
Oracle Database 12c Performance Tuning Recipes
Toad for Oracle Unleashed
Practical Solutions
Oracle Performance Tuning for 10gR2

A Guide for Data Administrators, Developers, and Business Analysts

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.

Write powerful queries using as much of the feature-rich Oracle SQL language as possible, progressing beyond the simple queries of basic SQL as standardized in SQL-92. Both standard SQL and Oracle's own extensions to the language have progressed far over the decades in terms of how much you can work with your data in a single, albeit sometimes complex, SQL statement. If you already know the basics of SQL, this book provides many examples of how to write even more advanced SQL to huge benefit in your applications, such as Pivoting rows to columns and columns to rows Recursion in SQL with MODEL and WITH clauses Answering Top-N questions Forecasting with linear regressions Row pattern matching to group or distribute rows Using MATCH_RECOGNIZE as a row processing engine The process of starting from simpler statements in SQL and gradually working those statements stepwise into more complex statements that deliver powerful results is covered in each example. By trying out the recipes and examples for yourself, you will put together the building blocks into powerful SQL statements that will make your application run circles around your competitors. What You Will Learn Take full advantage of advanced and modern features in Oracle SQL Recognize when modern SQL constructs can help create better applications Improve SQL query building skills through stepwise refinement Apply set-based thinking to process more data in fewer queries Make cross-row calculations with analytic functions Search for patterns across multiple rows using row pattern matching Break complex calculations into smaller steps with subquery factoring Who This Book Is For Oracle Database developers who already know some SQL but rarely use features of the language beyond the SQL-92 standard. And it is for developers who would like to apply the more modern features of Oracle SQL, but don't know where to start. The book also is for those who want to write increasingly complex queries in a stepwise and understandable manner. Experienced developers will use the book to develop more efficient queries using the advanced features of the Oracle SQL language.

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.

Mastering the Full Power of Oracle Database
Pro Oracle SQL

Generating Optimal Execution Plans

Oracle SQL and PL/SQL Performance Tuning

Oracle Database 12c The Complete Reference

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.

Creating Oracle 8 database applications involves more than just banging out SQL code. Skills like creating efficient stored procedures, designing robust exception handlers, and debugging SQL and PL/SQL (Oracle's SQL extensions) must all be mastered, and that is the mission of this book. The CD-ROM features all project code and easily accessible demonstration databases, plus SQL scripts, automation tools, templates, and optimizing database design resources.

Master the advanced concepts of PL/SQL for professional-level certification and learn the new capabilities of Oracle Database 12c About This Book Learn advanced application development features of Oracle Database 12c and prepare for the 1Z0-146 examination Build robust and secure applications in Oracle PL/SQL using the best practices Packed with feature demonstrations and illustrations that will help you learn and understand the enhanced capabilities of Oracle Database 12c Who This Book Is For This book is for Oracle developers responsible for database management. Readers are expected to have basic knowledge of Oracle Database and the fundamentals of PL/SQL programming. Certification aspirants can use this book to prepare for 1Z0-146 examination in order to be an Oracle Certified Professional in Advanced PL/SQL. What You Will Learn Learn and understand the key SQL and PL/SQL features of Oracle Database 12c Understand the new Multitenant architecture and Database In-Memory option of Oracle Database 12c Know more about the advanced concepts of the Oracle PL/SQL language such as external procedures, securing data using Virtual Private Database (VPD), SecureFiles, and PL/SQL code tracing and profiling Implement Virtual Private Databases to prevent unauthorized data access Trace, analyze, profile, and debug PL/SQL code while developing database applications Integrate the new application development features of Oracle Database 12c with the current concepts Discover techniques to analyze and maintain PL/SQL code Get acquainted with the best practices of writing PL/SQL code and develop secure applications In Detail Oracle Database is one of the most popular databases and allows users to make efficient use of their resources and to enhance service levels while reducing the IT costs incurred. Oracle Database is sometimes compared with Microsoft SQL Server, however, Oracle Database clearly supersedes SQL server in terms of high availability and addressing planned and unplanned downtime. Oracle PL/SQL provides a rich platform for application developers to code and build scalable database applications and introduces multiple new features and enhancements to improve development experience. Advanced Oracle PL/SQL Developer's Guide, Second Edition is a handy technical reference for seasoned professionals in the database development space. This book starts with a refresher of fundamental concepts of PL/SQL, such as anonymous block, subprograms, and exceptions, and prepares you for the upcoming advanced concepts. The next chapter introduces you to the new features of Oracle Database 12c, not limited to PL/SQL. In this chapter, you will understand some of the most talked about features such as Multitenant and Database In-Memory. Moving forward, each chapter introduces advanced concepts with the help of demonstrations, and provides you with the latest updates from Oracle Database 12c context. This helps you to visualize the pre- and post-applications of a feature over the database releases. By the end of this book, you will have become an expert in PL/SQL programming and will be able to implement advanced concepts of PL/SQL for efficient management of Oracle Database. Style and approach The book follows the structure of the Oracle Certification examination but doesn't restrict itself to the exam objectives.

Advanced concepts have been explained in an easy-to-understand style, supported with feature demonstrations and case illustrations.

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.