

## Oracle Database 12c Pl Sql Programming

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's Oracle 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 Developer/2000, 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: DBMS\_SQL executes dynamically constructed SQL statements and PL/SQL blocks of code. DBMS\_PIPE communicates between different Oracle sessions through a pipe in the RDBMS shared memory. DBMS\_JOB submits and manages regularly scheduled jobs for execution inside the database. DBMS\_LOB 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 Oracle's built-in packages are described in the PL/SQL book, there are also packages extensions for specific Oracle environments such as distributed database, hence this book. Oracle Built-in Packages puts 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 ReveaNet, 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: Preface Part I: Overview 1. Introduction Part II: Application Development Packages Executing Dynamic SQL and PL/SQL Intercession Communication User Lock and Transaction Management Oracle Advanced Querying 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? Leverage the New and Improved Features of Oracle Database 12c Written by Oracle experts Bob Gryll and Robert G. Freeman, this Oracle Press guide describes the myriad new and enhanced capabilities available in the latest Oracle Database Release. Inside, you'll find everything you need to know to get up and running quickly on Oracle Database 12c Release 2. Supported by contributions from Oracle expert Eric Yen, Oracle Database 12c Release 2 New Features offers detailed coverage of: Installing Oracle Database 12c and Grid Infrastructure Architectural changes, such as Oracle Multitenant The most current information on upgrading and migrating to Oracle Database 12c The pre-upgrade information tool and parallel processing for database upgrades Oracle Real Application Clusters new features, such as Oracle Flex Cluster, Oracle Flex Automatic Storage Management, and Oracle Automatic Storage Management Cluster File System Enhanced and new online operations: tables, indexes, and PDBs Oracle RMAN enhancements, including cross-platform backup and recovery Oracle Data Guard improvements, such as Fast Sync, and Oracle Active Data Guard new features, such as Fast Sync PL/SQL, DML, and DDL new features Improvements to partitioning manageability, performance, and availability Advanced business intelligence and data warehousing capabilities Security enhancements, including privileges analysis, data reduction, and new administrative-level privileges Manageability, performance, and optimization improvements

Learn how to most effectively use PL/SQL programming language with one of the most popular and widely-used software programs in large companies today -- Oracle11g. ORACLE 11G: PL/SQL PROGRAMMING & ORACLE CD, 2E uses Oracle 11g to provide an overview of the PL/SQL programming language from a developer's perspective. The author begins with a step-by-step expanded introduction to fundamental PL/SQL concepts before progressing to the writing and testing of PL/SQL code. This edition also covers more advanced topics, such as Dynamic SQL and code tuning, as well as developments in bulk processing, compound triggers, PL/SQL compiler features and hiding source code. Updates reflect the latest Oracle 11g release with the most recent figures and examples using the user-friendly SQL Developer tool. A wealth of real-world examples, a straightforward presentation, and accompanying Oracle CD make this book an invaluable resource in preparing for the new Oracle Certification exam or mastering the PL/SQL programming language with Oracle. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

OCA Oracle Database SQL Exam Guide (Exam 1Z0-071)

Oracle Database 12c The Complete Reference

Oracle Database 12c Performance Tuning Recipes

A Problem-Solution Approach

Oracle PL/SQL Performance Tuning Tips & Techniques

Get a thorough understanding of Oracle Database 10g from the most comprehensive Oracle database reference on the market, published by Oracle Press. From critical architecture concepts to advanced object-oriented concepts, this powerhouse contains nearly 50 chapters designed to enlighten you. Upgrade from earlier versions, use SQL, SQL Plus, and PL/SQL. Get code examples and access popular documentation PDFs--plus a full electronic copy of the book on the included CD-ROM. Go beyond the basics and learn security, text searches, external tables, using Java in Oracle, and a great deal more.

Murach's Oracle SQL and PL/SQL for Developers By Joel Murach

Provides instructions on how to create, debug, and execute PL/SQL code.

Considered the best Oracle PL/SQL programming guide by the Oracle community, this definitive guide is precisely what you need to make the most of Oracle's powerful procedural language. The sixth edition describes the features and capabilities of PL/SQL up through Oracle Database 12c Release 1. Hundreds of thousands of PL/SQL developers have benefited from this book over the last twenty years; this edition continues that tradition. With extensive code examples and a lively sense of humor, this book explains language fundamentals, explores advanced coding techniques, and offers best practices to help you solve real-world problems. Get PL/SQL programs up and running quickly, with clear instructions for executing, tracing, testing, debugging, and managing code Understand new 12.1 PL/SQL features, including the ACCESSIBLE\_BY clause, WITH FUNCTION and UDF pragma, BEUOEATH CURRENT\_USER for views, and new conditional compilation directives Take advantage of extensive code samples, from easy-to-follow examples to reusable packaged utilities Optimize PL/SQL performance with features like the function result cache and Oracle utilities such as PL/Scope and the PL/SQL hierarchical profiler Build modular, easy-to-maintain PL/SQL applications using packages, procedures, functions, and triggers

Real-World SQL and PL/SQL: Advice from the Experts

Oracle PL/SQL by Example

Oracle Database 12c PL/SQL Advanced Programming Techniques

Oracle Database 11g PL/SQL Programming

Oracle PL/SQL Programming

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. Run 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

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.

Master the Fundamentals of Oracle Database 12c Filled with easy-to-follow tutorials, this Oracle Press guide provides detailed coverage of core database concepts, the role of the administrator, and enterprise database capabilities. Oracle Database 12c: Install, Configure & Maintain Like a Professional walks you through database configuration, administration, programming, backup and recovery, and high availability. You'll get in-depth introductions to SQL and PL/SQL as well as important information on managing large databases and using Oracle's engineered systems. This essential beginner's resource features: Critical Skills--Lists of specific skills covered in each chapter Projects--Practical exercises that show how to apply the critical skills learned in each chapter Progress Checks--Quick self-assessment sections to check your progress Ask the Expert--Q&A sections filled with helpful tips Notes--Extra information related to the topic being covered Mastery Checks--Chapter-ending quizzes to test your knowledge

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, code threading, 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\_CRYPTO, UTL\_COMPRESS, DBMS\_DATAPUMP, and DBMS\_FILE\_TRANSFER

Oracle Database 12c SQL

ORACLE DATABASE 12C HANDS-ON SQL AND PL/SQL

Oracle 12c: SQL

Oracle 11g: PL/SQL Programming

Practical Solutions

A fully updated, integrated self-study system for the Oracle Database SQL Exam This thoroughly revised Oracle Press guide offers 100% coverage of all objectives on the latest version of the Oracle Database SQL Exam. Ideal both as a study guide and on-the-job reference, OCA Oracle Database SQL Exam Guide (Exam 120-071) features detailed explanations, examples, practice questions, and chapter summaries. "Certification Objectives," "Exam Watch," and "On the Job" sections reinforce salient points throughout. You will gain access to two complete practice exams that match the tone, tenor, and format of the live test. Get complete coverage every topic on Exam 120-071, including: DDL and SQL SELECT statements • Manipulating, restricting, and sorting data • Single-row and group functions • Displaying data from multiple tables • Subqueries • Schema objects • Set operators • Grouping related data • Report creation • Data dictionary views • Large data sets • Hierarchical retrieval • Regular expression support • User access control The electronic includes: • Two full practice exams • Detailed answers and explanations

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.

Design Feature-Rich PL/SQL Applications Deliver dynamic, client/server PL/SQL applications with expert guidance from an Oracle programming professional. With full coverage of the latest features and tools, Oracle Database 11g PL/SQL Programming lays out each topic alongside detailed explanations, cut-and-paste syntax examples, and real-world case studies. Access and modify database information, construct powerful PL/SQL statements, execute effective queries, and deploy bulletproof security. You'll also learn how to implement C, C++, and Java procedures. Web-enable your database, cut development time, and optimize performance. Create, debug, and manage Oracle-driven PL/SQL programs Use PL/SQL structures, delimiters, operators, variables, and statements Identify and eliminate errors using PLSQL\_WARNINGS and exception handlers Work with functions, procedures, packages, collections, and triggers Define and deploy array, nested table, and associative array data types Handle external routines, object types, large objects, and secure files Communicate between parallel sessions using DBMS\_ALERT and DBMS\_PIPE Call external procedures through Oracle Net Services and PL/SQL wrappers Integrate internal and server-side Java class libraries using Oracle JVM Developer robot Web applications using PL/SQL Gateway and Web Toolkit

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 SQL in PL/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.

Oracle Database 12c PL/SQL Programming

Murach's Oracle SQL and PL SQL for Developers

Easy Oracle PL/SQL

Oracle 12c For Dummies

Oracle PL/SQL Language Pocket Reference

Oracle Database 12c PL/SQL Programming McGraw Hill Professional

*Annotation This pocket reference condenses the most vital information from Oracle PL/SQL programming into an accessible quick reference that summarises the basics of PL/SQL - block structure, fundamental language elements, data structures, control statements, and use of procedures, functions and packages.*

*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*

*The fourth edition of this popular pocket guide provides quick-reference information that will help you use Oracle's 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.*

Expert Oracle PL/SQL

Get Started Fast with Working PL/SQL Code Examples

Oracle PL/SQL Best Practices

Optimizing Oracle Code

Programming with Packages

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 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 Start developing with Oracle SQL This book is a one-stop introduction to everything you need to know about getting started developing an Oracle Database. You'll learn about foundational concepts, setting up a simple schema, adding data, reading data from the database, and making changes. No experience with databases is required to get started. Examples in the book are built around Oracle Live SQL, a freely available, online sandbox for practicing and experimenting with SQL statements, and Oracle Express Edition, a free version of Oracle Database that is available for download. A marquee feature of Beginning Oracle SQL for Oracle Database 18c is the small chapter size. Content is divided into easily digestible chunks that can be read and practiced in very short intervals of time, making this the ideal book for a busy professional to learn from. Even just a 15-20 minute block of free time can be put to good use. Author Ben Brumm begins by helping you understand what a database is, and getting you set up with a sandbox in which to practice the SQL that you are learning. From there, easily digestible chapters cover, point-by-point, the different aspects of writing queries to get data out of a database. You'll also learn about creating tables and getting data into the database. Crucial topics such as working with nulls and writing analytical queries are given the attention they deserve, helping you to avoid pitfalls when writing queries for production use. What You'll Learn>Create, update, and delete tables in an Oracle database Add, update, delete data from those database tables Query and view data stored in your database Manipulate and transform data using in-built database functions and features Correctly choose when to use Oracle-specific syntax and features Who This Book Is For Those new to Oracle who are planning to develop software using Oracle as the database The book is also for those who are getting started in software development and realize they need to learn more kind of database language. Those who are learning software development on the side of their normal job, or learning it as a college student, who are ready to learn what a database is and how to use it so it will find this book useful.

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 120-146 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 120-146 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 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 surpasses 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 update 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. Demonstrates how to construct and properly build PL/SQL packages, providing a full-use shareware version of PL/Vision and a library of dozens of packages written by the author on the companion disk. Original. (Advanced).

Covers Versions Through Oracle Database 12c

The Complete Reference

Oracle Database 10g The Complete Reference

Oracle Development Languages

*Introduces the latest version of the fundamental SQL language used in all relational databases today with Casterle's ORACLE 12C: SQL, 3E. Much more than a study guide, this edition helps those who have only a basic knowledge of databases master the latest SQL and Oracle concepts and techniques. Learners gain a strong understanding of how to use Oracle 12c SQL most effectively as they prepare for the first exam in the Oracle Database Administrator or Oracle Developer Certification Exam paths. This edition initially focuses on creating database objects, including tables, constraints, indexes, sequences, and more. The author then explores data query techniques, such as row filtering, joins, single-row functions, aggregate functions, subqueries, and views, as well as advanced query topics. ORACLE 12C: SQL, 3E introduces the latest features and enhancements in 12c, from enhanced data types and invisible columns to new CROSS and OUTER APPLY methods for joins. To help readers transition to further studies, appendices introduce SQL tuning, compare Oracle's SQL syntax with other databases, and overview Oracle connection interface tools: SQL Developer and SQL Plus. Readers can trust ORACLE 12C: SQL, 3E to provide the knowledge for Oracle certification testing and the solid foundation for pursuing a career as a successful database administrator or developer. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.*

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

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

*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 120-146 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 120-146 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 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 surpasses 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 update 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*

Oracle and PL/SQL Recipes

Troubleshooting Oracle Performance

Oracle Database 11g PL/SQL Programming Workbook

Beginning Oracle SQL

Learn how to use the PL/SQL programming language effectively, using one of the most popular and widely-used software programs in large companies today. Oracle 10g Developer: PL/SQL Programming uses Oracle 10g to provide an overview of the PL/SQL programming language, beginning with fundamental PL/SQL concepts and progressing to the writing and testing of PL/SQL code. The book then progresses to more advanced topics, such as Dynamic SQL and code tuning. Updated to the latest release, Oracle 10g, it uses the developer's perspective to focus on the PL/SQL component of the software. With real-world examples and a straightforward writing style, this is a valuable resource for anyone preparing for the new Oracle Certification exam, or simply looking to master the PL/SQL programming language with Oracle.

Master Oracle Database 12c PL/SQL Application Development Develop, debug, and administer robust database programs. Filled with detailed examples and expert strategies from an Oracle ACE, Oracle Database 12c PL/SQL Programming explains how to retrieve and process data, write PL/SQL statements, execute effective queries, incorporate PHP and Java, and work with dynamic SQL. Code testing, security, and object-oriented programming techniques are fully covered in this comprehensive Oracle Press guide. Explore new SQL and PL/SQL features in Oracle Database 12c: Build control structures, cursors, and loop statements Work with collections, arrays, tables, and associative array collections Locate and repair errors and employ exception handlers Execute black box, white box, and integration tests Configure and manage stored packages and libraries Handle security with authentication and encryption Use LOBs to store text and multimedia content Write and implement PL/SQL and Java triggers Extend functionality using dynamic SQL statements Understand object types, nested tables, and unsetting queries.

The book teaches the fundamentals of practical applications of SQL and PL/SQL functions and lays out essential development strategies. Data modeling, advanced analytics, database security, secure coding, and administration are covered in complete detail. Learn how to Apply advanced SQL and PL/SQL tools and techniques Understand SQL and PL/SQL functionality and incorporated in the 12c version. It also explains how to retrieve, add, update and delete data in the Oracle database using SQL, SQL\*PLUS and PL/SQL. In the press, it discusses the various data types and built-in Functions of Oracle, as well as the sorting of records and the table operations. The text also includes coverage of advanced queries using special operators, Oracle security, indexing, and stored functions and procedures. The book is suitable for undergraduate engineering students of Computer Science and Information Technology, B.Sc. (Computer Science/IT), M.Sc. (Computer Science/IT) and students of Computer Applications (BCA, MCA, PGDCA, and DCA). Besides, the book can be used as a reference by professionals pursuing short-term courses on Oracle Database and special of Oracle Certified Courses. KEY FEATURES • Based on latest Oracle Database 12c: It explains the various features introduced with the new Oracle Database 12c software. • Hands-on methodology: Its objective is to impart practical skills using hands-on methodology. • Elaborate Practical Examples: Each topic begins with appropriate theory and concept followed by relevant examples for better understanding of the concepts. • Commands tested and executed on Oracle Database software: All the programming examples have been tested on actual Oracle Database software.

Master the Underutilized Advanced Features of SQL and PL/SQL This hands-on guide from Oracle Press shows how to fully exploit lesser-known but extremely useful SQL and PL/SQL features—and how to effectively use both languages together. Written by a team of Oracle ACE Directors, Real-World SQL and PL/SQL: Advice from the Experts features best practices, detailed examples, and insider tips that clearly demonstrate how to write, trace, and tune code for a wide variety of practical applications. The book thoroughly explains underutilized SQL and PL/SQL functions and lays out essential development strategies. Data modeling, advanced analytics, database security, secure coding, and administration are covered in complete detail. Learn how to Apply advanced SQL and PL/SQL tools and techniques Understand SQL and PL/SQL functionality and determine when to use which language • Develop accurate data models and implement business logic • Run PL/SQL in SQL and integrate complex datasets • Handle PL/SQL instrumenting and profiling • Use Oracle Advanced Analytics and Oracle R Enterprise • Build and execute predictive queries • Secure your data using encryption, hashing, redaction, and masking • Defend against SQL injection and other code-based attacks • Work with Oracle Virtual Private Database Code examples in the book are available for download at www.MHProfessional.com. TAG: For a complete list of Oracle Press titles, visit www.OraclePressBooks.com

For Oracle Database 12c

Oracle 10g Developer

PL/SQL Programming

A Guide to Oracle's PL/SQL Language Fundamentals

Beginning Oracle SQL for Oracle Database 18c

Demystifying the power of the Oracle 12c database The Oracle database is the industry-leading relational database management system (RDBMS) 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 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 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 security, and simplified management capabilities with Oracle 12c For Dummies.

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

Ramp Up Your PL/SQL Programming Skills Master PL/SQL through the hands-on exercises, extensive examples, and real-world projects inside this Oracle Press guide. Filled with best practices, Oracle Database 11g PL/SQL Programming Workbook covers all the latest features and enhancements of the language. Mastery checks at the end of the material covered, and sample code from the book is available for download. Even experienced Oracle professionals will benefit from this practical resource. Understand the Oracle development architecture and the mechanics of connections Work with data types, structures, blocks, cursors, and PL/SQL semantics Write, deploy, and use Oracle packages Manage transactions and more Use dynamic SQL statements in real-world applications Support online transaction processing and data warehousing applications with external tables Find syntax samples and best practices to solve problems Write, deploy, and use object types For a complete list of Oracle Press titles, visit www.OraclePressBooks.com

Beginning Oracle SQL is your introduction to the interactive query tools and specific dialect of SQL used with Oracle Database. These tools include SQL\*Plus and SQL Developer. SQL\*Plus is the one tool any Oracle developer or database administrator can always count on, and it is widely used in creating scripts to automate routine tasks. So graphical environment for developing and debugging queries. Oracle's is possibly the most valuable dialect of SQL from a career standpoint. Oracle's database engine is widely used in corporate environments worldwide. It is also found in many government applications. Oracle SQL implements many features not found in competing products. Working with Oracle can afford to be without knowledge of these features and how they work, because of the performance and expressiveness they bring to the table. Written in an easygoing and example-based style, Beginning Oracle SQL is the book that will get you started down the path to successfully writing SQL statements and generating database objects. Database. Takes an example-based approach, with clear and authoritative explanations Introduces both SQL and the query tools used to execute SQL statements Shows how to create tables, populate them with data, and then query that data to generate business results What you'll learn Create database tables and define their relationships and constraints Create and execute SQL statements and queries Understand the performance and expressiveness of analytic and window functions. Make use of Oracle Database's support for object types. Write recursive queries to query hierarchical data. Retrieve Functions 6. Data Manipulation 7. Data Definition, Part II 8. Retrieval: Joins and Grouping 9. Retrieval: Advanced Features 10. Views 11. Automating 12. Object-Relational Features 13. Appendix A – Case Tables 14. Appendix B – Exercise Solutions

Oracle Database 12c Release 2 New Features

From Novice to Professional

Oracle Built-in Packages

Oracle Advanced PL/SQL Developer Professional Guide, Second Edition

Oracle Database 12c: Install, Configure & Maintain Like a Professional

*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 package 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 Recipes is your go to book for PL/SQL programming solutions. It takes a task-oriented approach to PL/SQL programming that lets you quickly look up a specific task and see the pattern for a solution. Then it's as simple as modifying the pattern for your specific application and implementing it. And you're done and home for dinner. Oracle PL/SQL Recipes is another in Apress' ongoing series of recipe books aimed at Oracle practitioners. The recipe format is ideal for the busy professional who just needs to get the job done. Covers the most common PL/SQL programming problems Presents solutions in ready-to-use format Stays short and to-the-point*

Advanced Oracle PL/SQL

Mastering Oracle PL/SQL