

Advanced PL/SQL Quick Guide

Find tips for creating efficient PL/SQL code. If you know a bit about SQL, this book will make PL/SQL programming painless! The Oracle has spoken—you need to get up to speed on PL/SQL programming, right? We predict it'll be a breeze with this book! You'll find out about code structures, best practices, and code naming standards, how to use conditions and loops, where to place PL/SQL code in system projects, ways to manipulate data, and more. Discover how to write efficient, easy-to-maintain code. Test and debug PL/SQL routines. Integrate SQL and PL/SQL. Apply PL/SQL best practices. Use new features introduced in Oracle 9i and 10g. This integrated learning solution teaches all the Oracle PL/SQL skills you need, hands-on, through real-world labs, extensive examples, exercises, and projects! Completely updated for Oracle 11g, *Oracle PL/SQL by Example*, Fourth Edition covers all the fundamentals, from PL/SQL syntax and program control through packages and Oracle 11g's significantly improved triggers. One step at a time, you'll walk through every key task, discovering the most important PL/SQL programming techniques on your own. Building on your hands-on learning, the authors share solutions that offer deeper insights and proven best practices. End-of-chapter projects bring together all the techniques you've learned, strengthening your understanding through real-world practice. This book's approach fully reflects the authors' award-winning experience teaching PL/SQL programming to professionals at Columbia University. New database developers and DBAs can use its step-by-step instructions to get productive fast; experienced PL/SQL programmers can use this book as a practical solutions reference. Coverage includes:

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

Focused squarely on the language topics of special concern to DBAs, this text contains a quick tour of the PL/SQL language, extensive coverage of security topics, and methods for DBAs to improve query and database performance with cursors and table functions.

Advanced Oracle PL/SQL Developer's Guide Packt Publishing Ltd

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 Oracle8'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 has been released, there are many new Oracle8 built-in packages not 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 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 Intersession 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? Presents a syntax reference for every Oracle SQL command supported by version 9.2. From the authorized Oracle Press comes a complete guide to developing robust PL/SQL applications. The book contains new information on development tools, datatypes, SQL commands and functions, and much more. The CD-ROM contains sample code plus a sampling of development environments covered in the book.

The World's #1 Hands-On Oracle SQL Workbook—Fully Updated for Oracle 11g Crafted for hands-on learning and tested in classrooms worldwide, this book illuminates in-depth every Oracle SQL technique you'll need. From the simplest query fundamentals to regular expressions and with newly added coverage of Oracle's powerful new SQL Developer tool, you will focus on the tasks that matter most. Hundreds of step-by-step, guided lab exercises will systematically strengthen your expertise in writing effective, high-performance SQL. Along the way, you'll acquire a powerful arsenal of useful skills—and an extraordinary library of solutions for your real-world challenges with Oracle SQL. Coverage includes 100% focused on Oracle SQL for Oracle 11g, today's #1 database platform—not “generic” SQL! Master all core SQL techniques including every type of join such as equijoins, self joins, and outer joins Understand Oracle functions in depth, especially character, number, date, timestamp, interval, conversion, aggregate, regular expressions, analytical, and more Practice all types of subqueries, such as correlated and scalar subqueries, and learn about set operators and hierarchical queries Build effective queries and learn fundamental Oracle SQL Developer and SQL*Plus skills Make the most of the Data Dictionary and create tables, views, indexes, and sequences Secure databases using Oracle privileges, roles, and synonyms Explore Oracle 11g's advanced data warehousing features Learn many practical tips about performance optimization, security, and architectural solutions Avoid common pitfalls and understand and solve common mistakes For every database developer, administrator, designer, or architect, regardless of experience!

The first edition of "Oracle PL/SQL Programming" quickly became an indispensable reference for both novice and experienced PL/SQL developers. This new edition covers Oracle8 and includes chapters on Oracle8 object types,

object views, collections, and external procedures. It also covers new datatypes and functions, and contains new chapters on tuning, tracing, and debugging PL/SQL programs. The companion diskette contains an online Windows-based tool offering access to more than 100 files of source code and documentation prepared by the authors.

Learn how to hack systems like black hat hackers and secure them like security experts

Key Features Understand how computer systems work and their vulnerabilities Exploit weaknesses and hack into machines to test their security Learn how to secure systems from hackers

Book Description This book starts with the basics of ethical hacking, how to practice hacking safely and legally, and how to install and interact with Kali Linux and the Linux terminal. You will explore network hacking, where you will see how to test the security of wired and wireless networks. You'll also learn how to crack the password for any Wi-Fi network (whether it uses WEP, WPA, or WPA2) and spy on the connected devices. Moving on, you will discover how to gain access to remote computer systems using client-side and server-side attacks. You will also get the hang of post-exploitation techniques, including remotely controlling and interacting with the systems that you compromised. Towards the end of the book, you will be able to pick up web application hacking techniques. You'll see how to discover, exploit, and prevent a number of website vulnerabilities, such as XSS and SQL injections. The attacks covered are practical techniques that work against real systems and are purely for educational purposes. At the end of each section, you will learn how to detect, prevent, and secure systems from these attacks. What you will learn

Understand ethical hacking and the different fields and types of hackers Set up a penetration testing lab to practice safe and legal hacking Explore Linux basics, commands, and how to interact with the terminal Access password-protected networks and spy on connected clients Use server and client-side attacks to hack and control remote computers Control a hacked system remotely and use it to hack other systems Discover, exploit, and prevent a number of web application vulnerabilities such as XSS and SQL injections Who this book is for Learning Ethical Hacking from Scratch is for anyone interested in learning how to hack and test the security of systems like professional hackers and security experts.

Explores Oracle's implementation of SQL and explains how to perform tasks including querying time-based data, implementing conditional logic in queries, writing queries, and joining data from two or more tables.

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.

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

Despite the wide use of SQL *Plus, few developers and database administrators know how powerful it really is. And the syntax can sometimes be tricky. This portable guide provides a quick reference to subjects such as interacting with SQL *Plus, selecting data, formatting reports, writing scripting, and tuning SQL. There's also a command reference.

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.

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

This IBM® Redbooks® publication describes IBM DB2® SQL compatibility features. The latest version of DB2 includes extensive native support for the PL/SQL procedural language, new data types, scalar functions, improved concurrency, built-in packages, OCI, SQLPlus, and more. These features can help with developing applications that run on both DB2 and Oracle and can help simplify the process of moving from Oracle to DB2. In addition, IBM now provides tools to simplify the enablement process, such as the highly scalable IBM Data Movement Tool for moving schema and data into DB2, and an Editor and Profiler for PL/SQL provided by the IBM Data Studio tool suite. This Oracle to DB2 migration guide describes new technology, preferred practices for moving to DB2, and common scenarios that can help you as you move from Oracle to DB2. This book is intended for IT architects and developers who are converting from Oracle to DB2. DB2 compatibility with Oracle is provided through native support. The new capabilities in DB2 that provide compatibility are implemented at the lowest and most intimate levels of the database kernel, as though they were originally engineered for DB2. This means that the DB2 implementation is done without the aid of an emulation layer. This intimacy leads to the scalable implementation that DB2 offers, providing identical performance between DB2 compatibility features and DB2 other language elements. For example, DB2 runs SQL PL at the same performance as PL/SQL implementations of the same function.

Updated for the latest database management systems -- including MySQL 6.0, Oracle 11g, and Microsoft's SQL Server 2008 -- this introductory guide will get you up and running with SQL quickly. Whether you need to write database applications, perform administrative tasks, or generate reports, *Learning SQL, Second Edition*, will help you easily master all the SQL fundamentals. Each chapter presents a self-contained lesson on a key SQL concept or technique, with numerous illustrations and annotated examples. Exercises at the end of each chapter let you practice the skills you learn. With this book, you will:

- Move quickly through SQL basics and learn several advanced features
- Use SQL data statements to generate, manipulate, and retrieve data
- Create database objects, such as tables, indexes, and constraints, using SQL schema statements
- Learn how data sets interact with queries, and understand the importance of subqueries
- Convert and manipulate data with SQL's built-in functions, and use conditional logic in data statements

Knowledge of SQL is a must for interacting with data. With *Learning SQL*, you'll quickly learn how to put the power and flexibility of this language to work.

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.

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. The Oracle SQLPlus Pocket Reference is a must-have for anyone working with Oracle databases, especially those looking to maximize the effectiveness of SQLPlus. As Oracle's long-standing interactive query tool, SQLPlus is available at every Oracle site, from the largest data warehouse to the smallest single-user system. Despite its wide use, however, SQLPlus is still often not completely understood or fully utilized. Database administrators and developers alike will therefore find the Oracle SQLPlus Pocket Reference to be extremely beneficial. In addition to summarizing all of the SQLPlus syntax and format options, including new Oracle Database 10g features, this handy, on-the-job guide specifically shows readers how to:

- Differentiate between SQL and SQLPlus
- Interact with SQLPlus from both the command line and the web browser
- Select, insert, update, and delete data
- Format both text and HTML reports with SQLPlus
- Specify SQLPlus commands and format elements
- Tune SQL queries

The new third edition of this book has been updated for Oracle Database 10g to include information on both SQLPlus and SQL. New SQL information includes the SELECT statement's new MODEL clause, flashback queries, partition outer joins, and DBMS_XPLAN. With its quick-reference format and compact size, the Oracle SQLPlus Pocket Reference follows in the long line of successful "pocket references" offered by O'Reilly. It also serves as the ideal companion to O'Reilly's larger, more comprehensive book on SQLPlus, the bestselling Oracle SQLPlus: The Definitive Guide. Author Jonathan Gennick is an editor for O'Reilly specializing in database and programming titles, having amassed some 17 years of programming and database management experience.

SQL (Structured Query Language), the heart of a relational database management system, is the language used to query the database, to create new tables in the database, to update and delete fields, and to set access privileges. Aimed at everyone who needs to access an Oracle database using SQL, including developers, DBAs, designers, and managers, this book delivers all the information they need to know about standard SQL, and Oracle's extensions to it.

Readers get the complete text of the following books on CD-ROM: "Oracle PL/SQL Programming, Advanced PL/SQL Programming, Oracle Web Applications, Oracle Built-in Packages, Oracle Developer's Workbook, Oracle PL/SQL Pocket Reference, Oracle Built-ins Pocket Reference", and "Oracle PL/SQL Programming: A Guide to Oracle 8i Features". Introducing the latest PL/SQL features of Oracle 8i, this detailed manual discusses autonomous transactions, invoker rights, native dynamic SQL, system-level database triggers, access control, and other valuable topics and provides one hundred files of reusable source code and examples on diskette. Original. (Intermediate)

An interactive guide to Oracle's intensive query tool, SQL*Plus, discusses its powerful features, furnishes a syntax quick reference, and explains how to write and execute script files, generate reports, extract data from the database, utilize new administrative features, query data dictionary tables, and more. Original. (Intermediate)

This pocket reference provides quick-reference information that will help you use Oracle Corporation's extensive set of built-in functions and packages, including those new to Oracle 8. Oracle's PL/SQL language is a programming language providing procedural extensions to the SQL relational database language and to an ever-growing number of Oracle development tools. Among the most useful constructs in the PL/SQL language are the built-in functions and packages. Built-in functions are constructs that operate on certain types of data (e.g., numeric, character) to return a result. By using functions, you can minimize the coding you need to do in your programs. Functions are described in detail in Steven Feuerstein's Oracle PL/SQL Programming; this comprehensive guide to building applications with PL/SQL has become the bible for PL/SQL developers who have raved about its completeness, readability, and

practicality. Built-in functions fall into several major categories: Character functions: Operate on character data. Examples include CONCAT (concatenates two strings into one), LENGTH (returns the length of a string), and REPLACE (replaces a character sequence in a string with a different set of characters). Date functions: Operate on dates and supplement the DATE datatype. Examples include SYSDATE (returns the current date and time in the Oracle Server) and LAST_DAY (returns the last day in the month of the specified date). Numeric functions: Operate on numeric data. Examples include CEIL (returns the smallest integer greater than or equal to the specified number) and POWER (returns a number raised to a particular power). LOB functions: Operate on large object data. Examples include EMPTY_BLOB (returns an empty locator of the binary large object type) and EMPTY_CLOB (returns an empty locator of the character large object type). Conversion functions: Perform explicit conversions of different types of data. Examples include TO_CHAR (converts a number or date to a string) and TO_NUMBER (converts a string to a number). Miscellaneous functions. Examples include GREATEST (returns the greatest of the specified list of values) and UID (returns the user ID of the current Oracle session). Built-in packages (collections of PL/SQL objects, such as functions, procedures, and data structures) greatly expand the scope of the PL/SQL language. These packages are described in detail in Feuerstein's and Beresniewicz's book, Oracle Built-in Packages. Built-in packages are built by Oracle Corporation and stored directly in the Oracle database. The functionality of the built-ins 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 Oracle8's large objects (LOBs) from within PL/SQL programs. The book shows how to call all of the commonly used built-in functions and packages. For packages, it also shows the RESTRICT REFERENCES pragmas (needed if you call packages from a SQL statement), as well as the exceptions, constants, and data structures defined in the packages.

Teaches all the Oracle PL/SQL skills needed to start developing PL/SQL fast, through hundreds of extensive exercises, examples, and projects.

A guide to creating client/server applications using PL/SQL covers such topics as recovering errors, using intersession communication, managing large data sets, and working with Oracle Net Services.

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 1Z0-146 certification. This book assumes you have prior knowledge of PL/SQL programming.

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).

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.

PL/SQL, Oracle's powerful procedural language, has been the cornerstone of Oracle application development for nearly 15 years. Although primarily a tool for developers, PL/SQL has also become an essential tool for database administration, as DBAs take increasing responsibility for site performance and as the lines between developers and DBAs blur. Until now, there has not been a book focused squarely on the language topics of special concern to DBAs Oracle PL/SQL for DBAs fills the gap. Covering the latest Oracle version, Oracle Database 10g Release 2 and packed with code and usage examples, it contains:

- A quick tour of the PL/SQL language, providing enough basic information about language fundamentals to get DBAs up and running
- Extensive coverage of security topics for DBAs: Encryption (including both traditional methods and Oracle's new Transparent Data Encryption, TDE); Row-Level Security(RLS), Fine-Grained Auditing (FGA); and random value generation
- Methods for DBAs to improve query and database performance with cursors and table functions
- Coverage of Oracle scheduling, which allows jobs such as database monitoring and statistics gathering to be scheduled for regular execution

Using Oracle's built-in packages (DBMS_CRYPTO, DBMS_RLS, DBMS_FGA, DBMS_RANDOM, DBMS_SCHEDULING) as a base, the book describes ways of building on top of these packages to suit particular organizational needs. Authors are Arup Nanda, Oracle Magazine 2003 DBA of the Year, and Steven Feuerstein, the world's foremost PL/SQL expert and coauthor of the classic reference, Oracle PL/SQL Programming. DBAs who have not yet discovered how helpful PL/SQL can be will find this book a superb introduction to the language and its special database administration features. Even if you have used PL/SQL for years, you'll find the detailed coverage in this book to be an invaluable resource.

"Learning Oracle PL/SQL" introduces PL/SQL in a way that's useful to a variety of audiences: beginning programmers, new Oracle database administrators, and developers familiar with other databases who now need to learn Oracle. A consistent and understandable example application--the development of a

library's electronic catalog system--runs through the chapters.

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 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.

Provides quick-reference information that will help you use Oracle's PL/SQL language, including the newest Oracle Database 10g features. This is a companion to Steven Feuerstein and Bill Pribyl's Oracle PL/SQL Programming. Provides information on advanced Oracle SQL techniques for creating complex queries and extracting and summarizing data from large tables.

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, varrays, 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 unnesting queries

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