Oracle Database 11g R2: Advanced PL/SQL Programming & Tuning

ora11g102-ver2 | Instructor Resources From The Sideris Training Portal | 5 Days

General Description	This Oracle 11g courseware training guide book will give attention to three fundamental pillars of effective implementation of PL/SQL applications. The PL/SQL programming language is at the core of most Oracle database applications. First, we will explore the advanced features of the language which allow powerful and effective database applications to be built. Next, we will discuss performance tuning techniques which allows these applications to run efficiently. Finally, we will consider critical security measures which should be implemented to counter hacker attacks and other security threats. In addition to receiving the print copy of this course book, all students will receive e-Learning modules.
Target Audience	The target audience for this course is senior application developers. Developers who will be building, debugging and tuning PL/SQL program units will benefit from this course.
Prerequisites	The following Sideris courses are suggested prerequisites: • ORACLE DATABASE 11G R2: SQL FUNDAMENTALS – COMPLETE LIBRARY • ORACLE DATABASE 11G R2: PROGRAM WITH PL/SQL – COMPLETE LIBRARY • ORACLE DATABASE 11G R2: NEW & ADVANCED FEATURES FOR DEVELOPERS
Pages	612
Duration	5 days
Instructor Resources	Instructor resources from the Sideris Training Portal. There is no substitute for a subject matter expert. Sideris custom print courseware combined with our online resources make distance-learning and virtual training more effective than ever. Download the instructor resources for this courseware and see how your instructor presentations improve!

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Objectives

Among the specific topics contained within these training materials are:

• Invoking external procedures and integrating these into PL/SQL applications. These include external Java classes using the JDBC interface and external C programs contained within DLL libraries.

• Using dynamic SQL to extend the functionality and flexibility of database programs, including the DBMS_SQL() system-supplied package for maximum flexibility.

• Identifying SQL injection attack vulnerabilities within an application and applying countermeasures to address security risks and protect against hacking.

• Incorporating collections and other advanced types into application logic to increase efficiency and execution speed.

• Working with LOBs, including piece-wise data manipulation and dynamic modification of SecureFile storage options.

• Expanding functionality with system-supplied database utility packages.

• Tuning with the DBMS_PROFILER() system-supplied package and debugging with the DBMS_TRACE() system-supplied package.

• Writing efficient PL/SQL code and avoiding common coding mistakes.

• Enabling native compilation and execution of all database-resident program units.

• Controlling and managing PL/SQL compilation for high-efficiency execution.

• Analyze PL/SQL code structure by means of the PL/Scope facility.

• Analyze PL/SQL application performance and tune bottlenecks using the PL/SQL Hierarachical Profiler.

• Recognizing the dangers of SQL injection attacks against PL/SQL applications and applying countermeasures to this potential security threat from hackers.

• Implementing fine-grained security mechanisms as part of an advanced security model using application contexts and the Oracle virtual private database (VPD).

• Dynamic partitioning and DML parallelization using the system-supplied package DBMS_PARALLEL_EXECUTE().

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