

Oracle 11g New Features for Administrators

Course Summary

Description

This course presents an overview of new features and enhancements introduced to the Oracle DBMS in Oracle 11g. Attendees should already be familiar with the general features available in earlier releases of Oracle, including features introduced in Oracle10g. The examination of this release includes reviewing the benefits and use of the new features in diagnosing and recovering from problems, ensuring high availability, improving scalability and performance, strengthening security, and several other areas that concern database administrators. The material covered in this course is presented through lectures, demonstrations, and student workshops.

Topics

- Security Enhancements
- Database Architecture and Instance Performance Enhancements
- Diagnosability Enhancements
- SQL Plan Management
- Database Replay
- Automatic SQL Tuning
- Partitioning and Storage-Related Enhancements
- Using RMAN Enhancements
- Using Flashback Features
- Using the Data Recovery Advisor
- Enhancements to Utilities
- Oracle SecureFiles
- Storage Enhancements
- Miscellaneous New Feature
- Installation and Upgrade Enhancements

Audience

This course is designed for database administrators.

Prerequisites

Students should have experience with Oracle DBMS.

Duration

Four or five days

Oracle 11g New Features for Administrators

Course Outline

- I. Security Enhancements**
 - A. Secure Password Support
 - B. Transparent Data Encryption
 - C. Tablespace-Level Encryption
 - D. Metadata Related to Security Features
 - E. Database Vault Overview
- II. Database Architecture and Instance Performance Enhancements**
 - A. UNDO Management
 - B. Oracle Memory Management
 - C. Automatic Memory Management
 - D. Oracle 11g Memory Parameters
 - E. Result Cache Overview
 - F. Adaptive Cursor Sharing Overview
 - G. ADDM Enhancements
- III. Diagnosability Enhancements**
 - A. Oracle 11g Fault Diagnosability Infrastructure
 - B. Automatic Diagnostic Repository (ADR)
 - C. Automatic Diagnostic Workflow
 - D. Overview of Health Monitor
 - E. Incident Packaging Service (IPS)
 - F. Enterprise Manager Support Workbench Overview
 - G. Data Recovery Advisor Overview
- IV. SQL Plan Management**
 - A. SQL Plan Baseline Architecture
 - B. Evolving SQL Plan Baselines
 - C. SQL Plan Selection
 - D. SQL Performance Analyzer
 - E. Capturing the SQL Workload
 - F. Loading a SQL Plan Baseline Automatically
- V. Database Replay**
 - A. Database Replay System Architecture
 - B. Pre-Change Production System
 - C. Supported Workloads
 - D. Using the Capture Wizard
 - E. Packages and Procedures
- VI. Automatic SQL Tuning**
 - A. Selecting Potential SQL Statements for Tuning
 - B. Automatic Tuning Process
 - C. Automatic SQL Tuning Task
 - D. Enabling/Disabling Automatic SQL Tuning
- VII. Partitioning and Storage-Related Enhancements**
 - A. Overview of Oracle Partitioning
 - B. Interval Partitioning
 - C. System Partitioning
 - D. Virtual Columns
 - E. Virtual Column-Based Partitioning
 - F. Reference Partitioning
- VIII. Using RMAN Enhancements**
 - A. Parallel Backup and Restore for Very Large Files
 - B. Using RMAN Multisection Backups
 - C. Duplicating a Database
 - D. Virtual Private Catalogs
- IX. Using Flashback Features**
 - A. Flashback Data Archive Architecture
 - B. Flashback Transaction Backout
 - C. Flashback Transaction Wizard
- X. Using the Data Recovery Advisor**
 - A. Data Recovery Advisor Overview
 - B. Data Recovery Advisor RMAN Command Line Interface
 - C. Repairing Data Failures
 - D. Setting Parameters to Detect Corruption
- XI. Enhancements to Utilities**
 - A. DataPump
 - B. External Tables
 - C. LogMiner
 - D. SQL*Plus
 - E. Overview of Scheduler Enhancements

Oracle 11g New Features for Administrators

Course Outline (cont'd)

XII. Oracle SecureFiles

- A. LOB Concepts and Terminology
- B. BasicFile LOB
- C. Oracle SecureFile Overview
- D. Migrating to SecureFile

XIII. Storage Enhancements

- A. Overview of ASM Fast Mirror Resync
- B. Overview of Preferred Mirror Read
- C. ASM Scalability and Performance Enhancements
- D. ASMCMD Extensions

XIV. Miscellaneous New Feature

- A. Online Redefinition Enhancements
- B. Enhancements to ALTER TABLE
- C. DDL Lock Timeout
- D. Minimizing Dependent Recompilations
- E. Temporary Tablespace Shrink
- F. Database Resident Connection Pooling
- G. Transportable Tablespace Enhancements
- H. Initialization Parameter Management
- I. Invisible Indexes
- J. Multicolumn Statistics
- K. Compound Triggers
- L. PL/SQL Native Compilation

XV. Installation and Upgrade Enhancements

- A. Oracle 11g Software Installation
- B. Oracle Upgrade Process
- C. Oracle 11g Upgrade Paths
- D. Database Upgrade Assistant (DBUA)
- E. Hot Patching Overview