

Course 285: Oracle Database 10g New Features for DBAs

Course Description...

This course introduces students to the new features in Oracle Database 10g - the database for Grid computing. Students learn to implement and use the new features of Oracle Database 10g to:

- increase database availability,
- improve database performance monitoring and tuning through the use of Oracle Database 10g Advisors,
- simplify database manageability.

Hands-on Lab exercises give students practice using many of the new features.

Learning Objectives...

- Implement improved manageability features to simplify database management
- Use Oracle provided database advisors for proactive database monitoring
- Increase data availability through Oracle Database 10g features that offer improved point in time recovery
- Prepare to assist applications developers in learning about new Oracle Database 10g features

Who should attend...

Database Administrators and support staff currently managing Oracle9i databases are the intended audience. Advanced PL/SQL developers who are tasked with exploiting Oracle database services will also benefit from this course.

Prerequisites...

Significant administration experience with Oracle9i Database.

See next page for a detailed course outline...



Course Outline

Introduction and Overview

Course Objectives

Unit 1: Oracle Database 10g Introduction

- Manageability Goals
- Grid Computing

Unit 2: Installation

- Installation Performance Enhancements
- Installation New Feature Support
- Automatic Pre and Post Install Validations

Unit 3: Server Configuration

- Database Features Usage Tracking
- Automatic Enterprise Manager Configuration
- Simplified Initialization Parameters and Install

Unit 4: Load and Unload Data

- Cross-Platform Transportable Tablespaces
- External Tables Unload
- DataPump Export and Import Utilities

Unit 5: Automatic Features

- Checkpoint Tuning
- Diagnostic Monitor
- Shared Memory Tuning
- Optimizer Statistics Collection
- Undo Retention

Unit 6: Manageability Infrastructure

- Advisory Framework
- Automatic Routine Administration Tasks
- Server-Generated Alerts / Threshold-Based Alerts
- Automatic Workload Repository

Unit 7: Application Management and Availability

- SQL Access and Tuning Advisors
- New Performance Overview Charts in EM
- Rule-Based Optimization (RBO) Obsolescence

Unit 8: SQL Support for Analytical Applications

- MERGE Command Enhancements
- Partitioned Outer Join
- Integrating Interrow Calculations in SQL

Unit 9: System Resource Management

- Setting Idle Timeouts
- Switching Back to Initial Consumer Group at End of Call
- Database Resource Manager - Adaptive Consumer Group Mapping
- Monitoring the Resource Manager



Unit 10: The Scheduler

- Core Scheduler Features
- Privileges for Scheduler Components
- Calendaring Expressions
- Advanced Scheduler Concepts

Unit 11: Space Management

- Segment Advisor
- New Segment Resource Estimation
- Online Segment Shrink
- Proactive Tablespace Management
- Undo Advisor
- Sorted Hash Clusters

Unit 12: Improved VLDB Support

- Bigfile Tablespace
- Enhanced Partition Management in Enterprise Manager
- Global Partitioned Indexes - Hash Partitioning
- Local Partitioned Indexes Manageability Improvements
- Temporary Tablespace Groups

Unit 13: RMAN Enhancements

- Flash Backup and Recovery
- Backup Compression
- Drop Database
- Automatic Channel Failover for Backup and Restore
- Incrementally Updated Backups
- Simplified Recovery through Resetlogs

Unit 14: Flashback Any Error

- Flashback Database
- Flashback Table
- Flashback Versions Query
- Flashback Transaction Query
- Flashback Drop

Unit 15: General Storage Management

- Rename Tablespace
- Redo Logfile Sizing Advisor
- SYSAUX Tablespace
- Copying Files Using the Database Server

Unit 16: Automatic Storage Management

- Data Mirroring with ASM
- ASM Dynamic Rebalancing
- ASM Striping
- ASM General Architecture
- ASM Disk Groups
- Failure Groups

Unit 17: Maintain Software

- Oracle Database 10g Upgrade Paths
- Easy Upgrade (key DBUA features / one script upgrade)
- Upgrade Information Tools (pre/post)



Unit 18: Security Enhancements

- VPD Static and Dynamic Policies
- Column-Level VPD
- Uniform Audit Trail

Unit 19: Miscellaneous New Features

- Transaction Monitoring
- End-to-End Tracing
- Logminer Enhancements
- Resumable Space Allocation Enhancements
- Regular Expression Functions

Unit 20: Course Summary

- Plan of Action

Please contact your ROI representative to discuss course tailoring!!!