

Oracle Database 11g: New Features for Administrators

: 5 Days

What you will learn

This course gives students the opportunity to learn about-and practice with the new change management features and other key enhancements in Oracle Database 11g Release 1. Students examine the benefits and use of the new features in managing change, diagnosing and recovering from problems, ensuring high availability, improving scalability and performance, strengthening security, and several other areas that concern database administrators. In addition, the hands-on practice sessions help reinforce students understanding of these new capabilities in Oracle Database 11g Release 1.

This course counts toward the Hands-on course requirement for the following certifications

Oracle Database 9i Administrator Certification

Oracle Database 10g Administrator Certification

Oracle Database 11g Administrator Certification

Oracle Database 10g Administrator Certified Master

Only instructor-led inclass or instructor-led online formats of this course will meet the Certification Hands-on Requirement. Self Study CD-Rom and Knowledge Center courses DO NOT meet the Hands-on Requirement.

Learn to:

Implement manageability features to simplify database management

Utilize database advisors to provide proactive database monitoring

Increase data availability by using improved ASM, RMAN, and Flashback features.

Use change management features to master database changes

Data Warehouse Administrator

Database Administrators

Support Engineer

Technical Consultant

Prerequisites

Required Prerequisites

Oracle Database 10g: New Features for Administrators Release 2

Oracle Database 10g: Administration Workshop II Release 2

Suggested Prerequisites

Strong Oracle Database 10g concepts

Course Objectives

Use the SQL Performance Analyzer
Upgrade your database to 11g Release 1
Record and replay workloads
Use the automatic database diagnostic monitor
Explore advanced RMAN capabilities
Manage a flashback data archive
Use the data recovery advisor
Setup and use ASM

Course Topics

Installation and Upgrade Enhancements

Oracle Database 11g Installation: Changes
Oracle Database 11g: Software Installation
Oracle Database Upgrade Enhancements
Upgrade Performance Enhancement
Upgrade Process
Oracle Database 11g Release 1: Upgrade Paths
Database Upgrade Assistant (DBUA)
Hot Patching: Overview

Storage Enhancements

ASM Fast Mirror Resync: Overview
ASM Preferred Mirror Read: Overview
ASM Scalability and Performance Enhancements
ASM Scalability in Oracle Database 11g
ASM Disk Group Compatibility
ASMCMD Extensions

Change Management Unit Overview

Change Management in Oracle Database 11g
Challenges Faced by DBAs When Performing Changes
Lifecycle of Change Management
Setting Up a Test Environment by Using the Snapshot Standby Database
SQL Performance Analyzer: Overview
Capturing the SQL Workload
SQL Performance Analyzer: Data Dictionary Views

SQL Plan Management

SQL Plan Management: Overview
SQL Plan Baseline: Architecture
Evolving SQL Plan Baselines
SQL Plan Selection
Possible SQL Plan Manageability Scenarios
SQL Performance Analyzer and SQL Plan Baseline Scenario
Loading a SQL Plan Baseline Automatically
Purging SQL Management Base Policy

Database Replay

System Architecture: Capture
System Architecture: Processing the Workload

System Architecture: Replay
Pre-Change Production System
Supported Workloads
Database Replay Workflow in Enterprise Manager
Using the Capture Wizard
Packages and Procedures

Automatic SQL Tuning

Automatic SQL Tuning in Oracle Database 11g
Selecting Potential SQL Statements for Tuning
Maintenance Window Timeline
Automatic Tuning Process
DBA Controls
Automatic SQL Tuning Task
Automatic SQL Tuning: Fine Tune
Automatic SQL Tuning Considerations

Intelligent Infrastructure Enhancements

Automatic Workload Repository Baselines
Performance Monitoring and Baselines
Automated Maintenance Tasks
Resource Manager: New EM Interface

Performance Enhancements

ADDM Enhancements in Oracle Database 11g
Oracle Database 11g: Automatic Database Diagnostic Monitor for RAC
New ADDM Views
Automatic Memory Management: Overview
Oracle Database 11g Memory Parameters
Automatic Memory Parameter Dependency
Monitoring Automatic Memory Management

Partitioning and Storage-Related Enhancements

Oracle Partitioning
Partitioning Enhancements
Interval Partitioning
System Partitioning
Virtual Column–Based Partitioning
Reference Partitioning
Table Compression: Overview
SQL Access Advisor: Overview

Using RMAN Enhancements

RMAN: New Features
Optimized Backups
Parallel Backup and Restore for Very Large Files
Using RMAN Multisection Backups
Duplicating a Database
Managing Recovery Catalogs
Creating and Using Virtual Private Catalogs
Using RMAN Virtual Private Catalogs

Using Flashback and LogMiner

New and Enhanced Features for Flashback and LogMiner

Flashback Data Archive Overview: "Oracle Total Recall"

Flashback Data Archive: Architecture

Flashback Data Archive: Workflow

Guidelines and Usage Tips

Flashback Transaction Backout

Flashback Transaction Wizard

Using LogMiner

Diagnosability Enhancements

Oracle Database 11g R1 Fault Management

Ease Diagnosis: Automatic Diagnostic Workflow

Automatic Diagnostic Repository

Location for Diagnostic Traces

Incident Packaging Service (IPS)

EM Support Workbench: Overview

Health Monitor: Overview

Data Recovery Advisor

Using the Data Recovery Advisor

Repairing Data Failures

Data Recovery Advisor

Data Recovery Advisor RMAN Command-Line Interface

Best Practice: Proactive Checks

Setting Parameters to Detect Corruption

Security: New Features

Secure Password Support

Automatic Secure Configuration

Managing Default Audits

Setting Database Administrator Authentication

Transparent Data Encryption

Hardware Security Module

Using RMAN Security Enhancements

Oracle SecureFiles

Managing Enterprise Information

Problems with Existing LOB Implementation

Oracle SecureFiles

Shared I/O Pool

Altering SecureFiles

Accessing SecureFiles Metadata

Migrating to SecureFiles

SecureFiles Monitoring

Miscellaneous New Features

Foreground Statistics

Online Redefinition Enhancements

Minimizing Dependent Recompilations

Locking Enhancements

Invisible Index: Overview

SQL Query Result Cache: Overview
Adaptive Cursor Sharing: Overview
Temporary Tablespace Shrink

Related Courses

Oracle Database 11g: New Features for Administrators - Self-Study CD Course NEW