

Oracle Database 11g: New Features for Oracle 9i DBAs

Duration: 5 Days

What you will learn

This course introduces students to the new features of Oracle Database 10g and Oracle Database 11g. You will learn how to upgrade from an Oracle9i database to Oracle Database 11g. As a Database Administrator, you learn how to set up and perform typical tasks using the new features available with Oracle Database 10g and Oracle Database 11g including many of the Advisors. Students learn how to use features that increase database availability, simplify overall database management, and improve performance. Hands-on practice sessions provide students with an opportunity to upgrade an Oracle9i database to Oracle Database 11g and use many of the new features.

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:

Upgrade to Oracle Database 11g
Perform typical DBA tasks tailored to an 11g database

Audience

Database Administrators
Technical Administrator

Related Training

Required Prerequisites

Oracle9i Database: New Features for Administrators

Course Objectives

Upgrade your database from 9i to Oracle Database 11g

Use improved ASM, RMAN, and Flashback features

Use database advisors for proactive database monitoring

Implement improved manageability features simplifying database management

Utilize Enterprise Manager to efficiently manage diagnostic data

Use change management features to master database changes

Course Topics

Planning Your Upgrade to Oracle Database 11g

Steps to Upgrade to Oracle Database 11g

Choosing an Upgrade Method

Performing Character Conversion

Upgrading the Oracle Database 11g

Installing Oracle Database 11g Software

Applying Oracle Software Patches

Creating a Database

Real Application Testing

Why Use Database Replay?

Pre-Change Production System

Capture / Replay Considerations

Performing Workload Capture

Performing Workload Replay

Using SQL Performance Analyzer

Using Database Replay to test system changes

Using SQL Performance Replay to test SQL changes

Upgrading Your Database Using other Methods

Using DBUA to Upgrade the Database

Oracle Database 11g: Upgrade Enhancements

Backing Up the Database Before Upgrade

Using the Preupgrade Information Tool

Using New Postupgrade Status Utility

Performing Post-Upgrade Steps

Upgrading Server Manager scripts

Performing Additional Upgrade Tasks

Using New Features in Your Upgraded Database

Executing the Postupgrade Script

Upgrading the National Character Set toAL16UTF16

Checking for Unusable Function-based Indexes

Upgrading the Recovery Catalog

Using EM: Database Control and Grid Control

Administering the Database Using Enterprise Manager: Overview

Using Database Control

Granting Database Control Administrative Privileges

Using Grid Control to Manage Your Environment

Setting Preferred Credentials

Proactively Maintaining the Database

Oracle Database 11g: Self-Managing Database
Automatic Workload Repository
Job Scheduler Concepts
Server-Generated Alerts
Advisor Framework
Automatic Database Diagnostic Monitor
Configuring Alerts

Managing System Resources

Database Resource Manager: Concepts (auto enabled)
Using New Features of Database Resource Manager
Exploring Allocation methods
Maximum Estimated Execution Time
Automatic Consumer Group Switching
Using Resource Manager Statistics

Automating Tasks with the Scheduler

Scheduler Concepts
Using Scheduler Programs
Windows and Resources
Administering the Scheduler

Managing Memory Structures

Enabling Automatic Memory Management
Modifying Parameters for Automatically Managed Components
Modifying Parameters for Manually Sized Components
Monitoring Automatic Memory Management

Managing Database Storage Structures

Using the SYSAUX Tablespace
Specifying a Default User Tablespace
Using Oracle Managed Files (OMF)
Creating Bigfile Tablespaces
Using Nonstandard Block Sizes
Proactively Monitoring Tablespaces
Using the Redo Logfile Sizing Advisor

Implementing Automatic Storage Management (ASM)

ASM: Key Features and Benefits
ASM: General Architecture
Accessing an ASM Instance
ASM Administration
Database Instance Parameter Changes
Migrating Your Database to ASM

Managing Database Space

Understanding Automatic Undo Management
Specifying the Undo Management Mode
Setting the Undo Management Initialization Parameters
Using the Undo Advisor

Administering Users and Database Security

- Unlocking Default User Accounts
- Specifying a Common Password for System
- Securing access by user
- Using Fine-Grained Auditing
- Auditing the SYS User
- Understanding Changes to the Audit Trail

Managing Schema Objects

- Using Automatic Segment-space Management
- Estimating Table and Index Size Before Creation
- Granting Object Privileges on Behalf of the Object Owner
- Performing Online Redefinition of Tables
- Enabling Data Segment Compression
- Automatically Collecting Statistics
- Using the Segment Advisor

Accessing and Loading Data

- Using Data Pump to Import and Export Data
- Managing External Tables
- Cross-Platform Transportable Tablespaces

Performing Backup and Recovery Operations

- Using RMAN to Back up the SPFILE
- Creating Change-aware Incremental Backups
- Encrypting backups
- Using backup compression
- Using RMAN to Perform Recovery: Automatic File Creation During Recovery
- Performing Trial Recovery
- Enabling and Performing Flashback Database

Recovering From User Errors

- Using Flashback Query
- Auditing and Recovering Transactions Using the Flashback Transaction Query Feature
- Retrieving Row History Information Using the Flashback Version Query Feature
- Recovering Table Data Using the Flashback Table Feature
- Recovering Dropped Tables using Flashback Drop Feature
- Flashing back a transaction
- Using LogMiner Enhancements

Managing Performance

- Using the SQL Tuning Advisor
- Using the SQL Access Advisor
- Using the trcsess Utility to Consolidate Output from Trace Files
- Using DBMS_MONITOR

Diagnosability Enhancements

- Oracle Database 11g Fault Management
- Ease Diagnosis: Automatic Diagnostic Workflow
- Automatic Diagnostic Repository
- Incident Packaging Configuration
- Running Health Checks

Using the SQL Repair Advisor
Viewing, Disabling, or Removing a SQL Patch

Miscellaneous New Features

Managing & Using SQL Query Result Cache
Adaptive Cursor Sharing: Architecture
Temporary tablespace shrinkage
Using the client result cache