

Oracle Database 11g: New Features for Administrators DBA Release 2

Duration: 5 Days

What you will learn

This Oracle Database 11g: New Features for Administrators DBA Release 2 training explores new change management features and other key enhancements in Oracle Database 11g Release 1 and Release 2. Participating in hands-on practice sessions help reinforce your understanding of the new capabilities.

Learn To:

Implement manageability features to simplify database management.

Use change management features to master database changes.

Use database advisors to provide proactive database monitoring.

Increase data availability by using ASM, RMAN and Flashback feature enhancements.

Benefits to You

Ensure fast, reliable, secure and easy to manage performance. Optimize database workloads, lower IT costs and deliver a higher quality of service by enabling smooth and rapid consolidation within your Datacenter.

Utilize New Features to Manage Change

Topics covered include: the benefits and use of the new features in managing change, diagnosing and recovering from problems, ensuring high availability, improving scalability and performance and strengthening security. Expert Oracle University instructors will also review several other areas that are of particular interest to database administrators.

Related Training

Required Prerequisites

Working knowledge of Oracle Database 10g

Course Objectives

Install Oracle Grid Infrastructure

Install Oracle Database 11g Release 2

Use Oracle Restart to manage components

Use Automatic Storage Management (ASM) enhancements

Implement table compression and hybrid columnar compression

Implement data warehousing and partitioning enhancements

Use the SQL Performance Analyzer

Use SQL Plan Management and load SQL plan baselines

Use Database Replay to record and replay workloads

Set and manage Automatic SQL Tuning

Use Resource Manager enhancements

Use Enterprise Manager to monitor SQL commands

Use the new and enhanced RMAN features

Use Total Recall to create

protect

and use history data

Use Data Pump in legacy mode

Use Data Recovery Advisor

Course Topics

Oracle Grid Infrastructure

- Installing Oracle Grid Infrastructure for a Standalone Server
- Creating an ASM Disk Group
- ASM Cluster File System
- ASM Dynamic Volume Manager
- ASM File System Snapshot

Installation and Upgrade Enhancements

- Installing Oracle Database 11g Release 2
- Oracle Database Upgrade Enhancements
- Online Patching
- Upgrading Your Time Zone File and Timestamp with Time Zone Data

Oracle Restart

- Controlling Oracle Restart
- Using the srvctl Utility
- Manually Adding Components to the Oracle Restart Configuration

ASM Enhancements

- Setting up ASM fast mirror resync
- Using ASM Scalability and Performance Enhancements
- ASM Disk Group Compatibility
- Using ASMCMD Extensions
- ASM File Access Control
- ASM Optimal Disk Placement

Storage Enhancements

- Using 4 KB-Sector Disks
- Using Table Compression
- Hybrid Columnar Compression
- SQL Access Advisor
- Segment Creation on Demand

Data Warehouse and Partitioning Enhancements

- Preprocessing Data for ORACLE_LOADER Access Driver in External Tables
- Degree of Parallelism Enhancements
- In-Memory Parallel Query
- Partitioning Enhancements
- System-Managed Indexes for List Partitioning

Oracle SecureFiles

- Enabling SecureFiles Storage
- Creating SecureFiles
- Using SecureFile Compression
- Accessing SecureFiles Metadata
- Migrating to SecureFiles

Security and Networking Enhancements

- Secure Password Support
- Automatic Secure Configuration

- Managing Default Audits
- Setting Database Administrator Authentication
- Transparent Data Encryption
- Hardware Security Module
- Tablespace Master Key Re-Key
- Supporting IPv6 Address Notification

SQL Performance Analyzer

- SQL Performance Analyzer: Overview
- Using SQL Performance Analyzer
- Using Enterprise Manager to Access SQL Performance Analyzer
- SQL Performance Analyzer: PL/SQL Example
- SQL Performance Analyzer: Data Dictionary Views

SQL Plan Management

- SQL Plan Management: Overview
- Loading SQL Plan Baselines
- Using the MIGRATE_STORED_OUTLINE Functions
- Viewing Important Baseline SQL Plan Attributes
- Loading a SQL Plan Baseline Automatically
- Purging SQL Management Base Policy

Database Replay

- Using Database Replay
- Database Replay System Architecture
- Supported Workloads
- Database Replay Workflow in Enterprise Manager
- Database Replay PL/SQL Procedures
- Database Replay Data Dictionary Views

Automatic SQL Tuning

- Automatic SQL Tuning in Oracle Database 11g
- Selecting Potential SQL Statements for Tuning
- Controlling the Automatic SQL Tuning Task
- Configuring Automatic SQL Tuning
- Using the PL/SQL Interface to Generate Reports

Intelligent Infrastructure Enhancements

- Using New Automatic Workload Repository Views
- Creating AWR Baselines
- Defining Alert Thresholds Using Static Baseline
- Controlling Automatic Maintenance Tasks
- Fixed Policy CPU Resource Management
- Instance Caging
- Scheduler Enhancements

Diagnosability Enhancements

- Setting Up Automatic Diagnostic Repository
- ADRCI: The ADR Command-Line Tool
- Incident Packaging Service (IPS)
- Using the Enterprise Manager Support Workbench
- Invoking IPS Using ADRCI

Running Health Checks Manually

Using the SQL Repair Advisor

SQL Monitoring

SQL Monitoring in Oracle Database 11g Release 2

Viewing Session Details

Viewing the SQL Monitoring Report

Performance Enhancements

Using the DBMS_ADDM Package

New and Modified Views

Enabling Automatic Memory Management

Using New Statistic Preferences Features

Locking Enhancements

Adaptive Cursor Sharing

Using Table Annotation to Control Result Caching

Application Maintenance and Upgrade Enhancements

Online Redefinition Enhancements

Creating and Using Invisible Indexes

Backup and Recovery Enhancements

Using New SET NEWNAME Clauses

Optimized Backups

Using New Settings for Binary Compression

Enhancements to Database Duplication

Creating Archival Backups

TSPITR Enhancements and Modifications

Creating and Using Virtual Private Catalogs

Introduction to Oracle Secure Backup Cloud Module

Flashback Technology, LogMiner, and Data Pump

Oracle Total Recall

Flashback Transaction Backout

Enterprise Manager LogMiner Interface

Data Pump Legacy Mode

Data Recovery Advisor

Assessing Data Failures

Data Recovery Advisor RMAN Command-Line Interface

Data Recovery Advisor Views

Setting Parameters to Detect Corruption