Oracle Database 11g: Change Management Overview Seminar Release 2

Duration: 1 Day

What you will learn

The adage that "Change is the only constant" holds true especially in the information technology world. While change can bring improvements, it also brings disruptions. This course focuses on the Oracle Database 11g innovations which enable you to minimize the disruptions that database and application upgrades can bring. In this course, you will learn about the features you can use to record production workloads then play them back in a test environment so that you can determine and eliminate potential issues before you deploy the changes.

You will also learn about other capabilities that can help you to deploy database changes in a controlled manner and with minimal disruption to normal processing. The lessons are supported by recorded product demonstrations. Both the lessons and the demonstrations are based on Oracle Database 11g Release 2.

By attending this course, you can learn how to more effectively realize the positive benefits of database and application upgrades, while minimizing the negative side effects.

Learn how to describe and use the following Oracle Database features to manage database changes:

Snapshot Standby Database

Database Replay

SQL Performance Analyzer

Online Schema Redefinition

Edition-Based Schema Evolution

SQL Plan Management

Automatic Diagnostic Repository and EM Support Workbench

Online (Hot) Patching

Audience

Data Warehouse Administrator

Database Administrators

Project Manager

Technical Consultant

Related Training

Required Prerequisites

Oracle Database 10g: Administration Workshop I Release 2

Oracle Database 10g: Administration Workshop II Release 2

Learn how to more effectively realize the positive benefits of database and application upgrades, while minimizing the negative side effects.

Course Topics

Introduction
Objectives
Prerequisites
Seminar Scope
Seminar Outline
Additional Resources

Realistic Testing - Setting Up The Test Environment
Setting Up a Test Database
Data Pump Export and Import: Overview
Managing File Locations & Masking Sensitive Data
RMAN Active Database Duplication
Performing Active Database Duplication Using Enterprise Manager
Performing Active Database Duplication Using the RMAN DUPLICATE Command
Other Enhancements to Database Duplication
Snapshot Standby Databases: Overview & Architecture

Realistic Testing – Using SQL Performance Analyzer
Realistic Testing with Real Application Testing
SQL Performance Analyzer: Overview & Use Cases
Using Enterprise Manager to Access SQL Performance Analyzer
SQL Performance Analyzer: PL/SQL Example
Tuning Regressed SQL Statements
Testing Database Upgrades: Oracle9i Database and Oracle Database 10g Release 1
Testing Database Upgrades: Oracle Database 10g Release 2 and Later Releases
SQL Performance Analyzer: Data Dictionary Views

Realistic Testing – Using Database Replay
Using Database Replay
The Big Picture
System Architecture: Capture, Preprocessing the Workload & Replay
Changes Supported by Database Replay
Supported Workloads
Capture & Replay Considerations
Workload Replay Filters & Analysis
Database Replay Workflow in Enterprise Manager

Managing Change – Making Changes Online
Online Application Maintenance & Online Table Redefinition
Redefinition and Materialized View

Using PL/SQL to Redefine a Table
Fine-Grained Dependency Management
Serializing Locks, Locking Tables Explicitly & Changes
Invisible Index: Overview & Examples
Introducing Editions & Changing the Current Edition
Inherited and Actual Object & Introducing Crossedition Triggers

Managing Change – SQL Plan Management

SQL Plan Management: Overview & Architecture
Loading & Evolving SQL Plan Baselines
Viewing Important SQL Plan Baseline Attributes & Important SQL Plan Baseline Attributes
SQL Performance Analyzer and SQL Plan Baseline Scenario
Loading a SQL Plan Baseline Automatically
Purging SQL Management Base Policy
Enterprise Manager and SQL Plan Baselines
Migrating Stored Outlines to SQL Plan Baselines

Managing Change – Fault Management

Oracle Database 11g Fault Management
Ease Diagnosis: Automatic Diagnostic Workflow & Automatic Diagnostic Repository
ADRCI: The ADR Command-Line Tool & V$DIAG_INFO
Viewing the Alert Log Using Enterprise Manager & ADRCI
Problems and Incidents & Incident Packaging Service
Enterprise Manager Support Workbench: Overview & Roadmap
Package and Upload Diagnostic Data to Oracle Support
Health Monitor: Overview

Managing Change – Installing Patches

Online Patching: Overview
Installing an Online Patch
Benefits of Online Patching
Conventional Patching and Online Patching
Online Patching Considerations
Patch Application with Enterprise Manager Database Control
Zero Down Time Patching for Clusterware, ASM, and RAC

Managing Change – Enterprise Manager Change Management and Data Masking Packs

Overview of Change Management for Databases
Using Change Management Pack Features
Dictionary Baselines, Comparison & Synchronization
Change Management Pack Use Cases
Data Masking & Using Masking Definitions
Format Libraries
Advanced Data Masking Features