
Oracle Database 11g for Experienced 10g Database Administrators

5 days

Oracle Database 11g for Experienced 10g Database Administrators Course Overview

This course is designed to provide the knowledge and skills needed to maintain successful and efficient day-to-day operation of Oracle Database 11g. The Oracle Database 11g for Experienced 10g Database Administrators course will give experienced Oracle database administrators practical experience in installing, configuring, administering and implementing an Oracle Database 11g. Database administrators will gain a practical understanding of the new features of Oracle Database 11g and how these can be implemented in their current Oracle installations.

Skills Gained

The delegate will practise:

- Installing Oracle Database 11g Software
- Creating an Oracle Database Using New Features
- Upgrading a Database to 11g Release 1
- Hot Patching
- Using SQL and PL/SQL New Features
- Using New Memory Management Features
- Real Application Testing
- Using Database Replay to Capture, Process and Replay Workloads
- Using the Data Recovery Advisor and Flashback
- Transaction Management using Flashback and LogMiner
- Using RMAN New Features
- Using Data Pump Data Compression
- Using Performance Tuning New Features
- Using New Security Features
- Using New Schema Management Functionality
- Using AutoTask
- Using Data Warehouse and BI New Features

Who will the Course Benefit?

This Oracle Database 11g for Experienced 10g Database Administrators course is designed for experienced Oracle 10g database administrators and technical support staff.

Course Objectives

To provide the skills needed install, upgrade, implement and support Oracle Database 11g.

Database administrators will gain a practical understanding of the new features of Oracle Database 11g and how these can be implemented in their current Oracle installations.

Examinations

The Oracle Database 11g for Experienced 10g Database Administrators course covers the major topics required for the Oracle examination **IZO-050: Oracle Database 11g: New Features for Administrators**.

Before taking any exam, ensure you have the recommended experience. The Oracle website lists all exam requirements and these are updated regularly.

Exams are not included as part of the course.

Requirements

Delegates should have good understanding of Oracle Database 10g administration.

Follow-On Courses

- Oracle 11g SQL Performance Tuning
- Oracle 10g Application Server Administration

Oracle Database 11g for Experienced 10g Database Administrators Training Course

Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: NEW MANAGEMENT FEATURES

- Log File Changes
- Parameter File Management Changes
- Automatic Memory Management
- Memory Advisor Views
- New Management Parameters

Session 2: INSTALLING AND CONFIGURING ORACLE DATABASE 11g

- Installing Oracle Database 11g
- The Database Configuration Assistant
- Hot Patching

Session 3: UPGRADING TO ORACLE DATABASE 11g

- Upgrading to Oracle Database 11g
- Oracle Parameter Changes
- Online Dictionary View Changes

Session 4: NEW SECURITY FEATURES

- Default Passwords
 - Case Sensitive Passwords
 - Profiles and the Password Verify Function
 - Default Auditing
 - Transparent Tablespace Encryption
 - Data Masking
 - Oracle SecureFile LOBs
 - Access Control Lists on Network Services
 - Oracle Secure File Masking
 - Security and OEM
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Course Contents - DAY 2

Session 5: ADDM AND AWR NEW FEATURES

- ADDM New Features
- ADDM New Views
- ADDM for RAC
- Manage ADDM through DBMS_ADDM
- Find Classifications
- Directives
- AWR New Features
- Altered Retention of AWR Snapshots
- AWR Baseline New Features
- Adaptive Metric Thresholds

Session 6: NEW SCHEDULER FEATURES

- Scheduler Automated Maintenance Tasks

- Auto Task Architecture
- Auto Task Dictionary Views
- Use OEM to Manage Auto Task
- Manage Auto Task Manually
- The Auto Task Maintenance Windows

Session 7: SCHEMA MANAGEMENT NEW FEATURES

- DDL Wait Option
- Add Columns with a Default Value
- Virtual Columns
- Improved Online Index Creation and rebuild
- Invisible Indexes
- Read Only Tables

Session 8: APPLICATION DEVELOPMENT NEW FEATURES

- SQL
- New SQL*Plus Commands
- Lock Table Parameter
- Client Side Result Cache
- Server Result Cache
- Regular Expression Enhancements
- Named Notation
- PL/SQL
- PL/SQL Function Cache
- Automatic Subprogram Inlining
- PL/SQL Scope
- PL/SQL Native Compilation
- Dynamic SQL in PL/SQL
- Dynamic SQL and REF Cursors
- Trigger Enhancements
- Simple Integer Datatype
- PL/SQL CONTINUE Statement
- Natural Sequences

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Course Contents - DAY 3

Session 9: UTILITIES FOR TROUBLESHOOTING DATA CORRUPTION

- Automatic Block Corruption Reporting
- Automatic Quarantine of Corrupt Redo Segments
- Protection from Data Corruption
- Improvements to Analyze Validate Structure

- Proactive Monitoring with the Health Monitor

Session 10: RECOVERY MANAGER NEW FEATURES

- Automatic Channel Failover
- Parallel Backups
- Compressed Backups
- Improved Handling of Long Term Backups
- Backup Failover of Archived Redo Logs
- Archived Redo Log Deletion Policy
- Undo Backup Optimization
- Improved Block Media Recovery
- Stored Scripts with Substitution Values
- Virtual Private Catalogs
- Merge Catalogs
- Backup up Catalogs
- Active Database Duplication

Session 11: DATA RECOVERY ADVISOR

- Overview of the Data Recovery Advisor
- Use the Data Recovery Advisor through OEM
- Use the Data Recovery Advisor through the RMAN Command Line
- Proactive Health Checks with the Validate Command
- Data Recovery Advisor Dictionary Views

Session 12: FLASHBACK DATA ARCHIVE

- Flashback Transaction Backout
- Flashback Transaction Wizard
- Flashback Data Archive Overview
- Flashback Data Archive Architecture
- Flashback Data Archive Workflow

Session 13: DATABASE REPLAY

- Overview of Database Replay
- The Database Replay Process
- Capture Workload
- PreProcess the Captured Workload
- Replay Workload
- Database Replay Usage
- The DBMS_Workload Package

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Course Contents - DAY 4

Session 14: DATA PUMP NEW FEATURES

- Dump File Set Compression
- Encryption Enhancements
- Data Remapping
- Rename Table
- Dump File Overwrite
- Partitioned Tables
- The Transportable Parameter
- The Data_Options Parameter
- The exp Utility Deprecated

Session 15: DATA GUARD NEW FEATURES

- Compression of Archived Redo Logs
- Lost Write Detection
- Higher Availability with Fast Start Failover Enhancements
- Real Time Query Capable Physical Standby Database
- Rolling Upgrades to Physical Standby
- SQL Apply Logical Standby
- RMAN and Data Guard
- Snapshot Standby Database
- Clone a Running Database

Session 16: ORACLE DATABASE ADVISORS

- Repair Advisors and Fault Diagnostics
- The SQL Repair Advisor
- The SQL Access Advisor
- The Streams Performance Advisor
- The Advisor Views

Session 17: OVERVIEW OF ASM CHANGES AND NEW FEATURES

- SYSASM Role
- Disk Group Attributes
- Fast Disk Resync
- Preferred Mirror Read
- Compatibility Settings
- ASM Support for Variable Allocation Unit Sizes
- Drop Diskgroup Force
- New asmcmd Commands
- New ASM Documentation

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Course Contents - DAY 5

Session 18: NEW DIAGNOSTIC FEATURES

- Oracle Database 11g Fault Diagnostic Automation
- Automatic Diagnostic Workflow
- Problems and Incidents
- Incident Packaging Service
- Temporary Tablespace Shrink
- EM Support Workbench Overview

Session 19: PERFORMANCE TUNING NEW FEATURES

- Improved Statistics Gathering
- Real-Time SQL Monitoring
- Monitoring and Tuning usage model
- Setting up Notification rules
- Using the Advisors
- The SQL Performance Analyzer
- Automatic SQL Tuning
- Manual Creating and Use of SQL Tuning Sets
- Intelligent Cursor Sharing
- SQL Plan Management
- Temporary Tablespace Shrink
- Test Case Builder

Session 20: DATA WAREHOUSE AND BI NEW FEATURES

- Partitioning Enhancements
- Extended Composite Partitioning
- Interval Partitioning
- System Partitioning
- Reference Partitioning
- Partition Advisor
- Virtual Column-Based Partitioning
- Data Pump Single-Partition Imports
- Materialized Views and Query Rewrite Enhancements
- The PIVOT and UNPIVOT Clauses
- Data Compression

Session 21: RESOURCE MANAGER CHANGES AND NEW FEATURES

- I/O Calibration
 - Default Maintenance Plan
 - Built-In Resource Plans
 - Resource Manager Statistics in AWR
 - Resource Manager Plan Directive New Features
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Follow-On Courses

- Oracle 11g SQL Performance Tuning
 - Oracle 10g Application Server Administration
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