
Oracle Database 11g for Experienced 9i Database Administrators

5 days

Oracle Database 11g for Experienced 9i Database Administrators Course Overview

The course will give experienced Oracle 9i database administrators practical experience in installing, configuring, administering and implementing an Oracle Database 11g. DBAs 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
- Using the New Enterprise Manager
- Proactively Monitoring with Database Advisors
- Using New Memory Management Features
- Using New Data Storage Features
- Using Automatic Storage Management
- Using New Space Management Features
- Using New Optimizer and Index Features
- Using New SQL and PL/SQL Features
- Using the Data Pump Utility
- Using New Backup and Recovery Features
- Using New Availability Features
- Using New Security Features
- Automating Tasks with the New Scheduler
- Using Real Application Testing
- Using Database Replay to Capture, Process and Replay Workloads
- Using the Data Recovery Advisor and Flashback
- Managing Transactions using Flashback and LogMiner
- Using Performance Tuning New Features
- Implementing New Schema Management Functionality

Who will the Course Benefit?

Database administrators, who need to update their current Oracle 9i skills to create, administer, monitor, backup and support Oracle Database 11g.

Course Objectives

This Oracle Database 11g for Experienced 9i Database Administrators course is designed to provide the knowledge and skills needed to maintain successful and efficient day-to-day operations of Oracle Database 11g. The course will give experienced Oracle 9i 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.

Requirements

Delegates should have good understanding of Oracle 9i Database Administration.

Follow-On Courses

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

Oracle Database 11g for Experienced 9i 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
- New Memory Management Features
- Memory Advisor Views
- New Management Parameters

Session 2: INSTALLING ORACLE DATABASE 11g

- System Hardware requirements
- Installing Oracle Database 11g
- The Database Configuration Assistant
- Database Templates
- Hot Patching

Session 3: UPGRADING TO ORACLE DATABASE 11g

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

Session 4: ADMINISTER A DATABASE

- Administrative Tools Available to a DBA
- Use Oracle Enterprise Manager to Manage a Database
- Stop and Start the EM Database Console
- Access Oracle Enterprise Manager
- Grant EM Administrative Privileges

Session 5: NEW DATABASE STORAGE FEATURES

- Default Permanent Tablespace
- Rename a Tablespace
- The SYSAUX Tablespace
- Copy Files Using the Database Server
- Drop an Empty Datafile
- Tablespace Monitoring
- Segment Management Enhancements
- Segment Advisor
- Segment Resource Estimation
- On Line Segment Shrink
- Proactive Tablespace Management
- Automatic Undo Retention

Oracle Database 11g for Experienced 9i Database Administrators Training Course

Course Contents - DAY 2

Session 6: SECURITY ENHANCEMENTS

- Connect Role Change
- Default Passwords
- Case Sensitive Passwords
- Profiles and the Password Verify Function
- Virtual Private Database Enhancements
- Auditing Enhancements
- OS Audit in XML Format
- Uniform Audit Trail
- Default Auditing in Oracle Database 11g
- DBMS_CRYPTO
- Transparent Data Encryption
- Transparent Tablespace Encryption
- Data Masking

- Security and OEM

Session 7: AUTOMATIC DATABASE MANAGEMENT

- Automatic Workload Repository
- AWR 11g New Features
- Automatic Database Diagnostic Monitor
- ADDM 11g New Features
- ADDM Reports
- DBMS_ADVISOR Reports
- DBMS_ADVISOR Views
- Alerts

Session 8: AUTOMATING TASKS WITH THE SCHEDULER

- Scheduler Overview
- DBMS_SCHEDULER
- Scheduler Related Parameters
- Access Rights
- Create a Program
- Enable a Program
- Drop a Program
- Create a Schedule
- Create a Job
- Job Classes
- Resource Windows
- Window Group
- Events and Chains
- Chains
- Monitoring and Logging
- AutoTask

Session 9: SCHEMA MANAGEMENT NEW FEATURES

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

Session 10: APPLICATION DEVELOPMENT NEW FEATURES

- Append, Create and Replace Extensions to Spool/Save
 - SQL*Plus Errorlog Table
 - Lock Table Parameter
 - SQL Query Result Cache
 - Client Side Result Cache
 - PL/SQL Function Cache
-

Oracle Database 11g for Experienced 9i Database Administrators Training Course

Course Contents - DAY 3

Session 11: UTILITIES FOR TROUBLESHOOTING DATA CORRUPTION

- Automatic Block Corruption Reporting
- Automatic Quarantine of Corrupt Undo Segments
- Protection from Data Corruptions
- Improvements to ANALYZE ... VALIDATE STRUCTURE
- Proactive Monitoring with the Health Monitor

Session 12: BACKUP AND RECOVERY NEW FEATURES

- Recovery Through Reset Logs
- Changes to ALTER DATABASE ARCHIVELOG
- Recovery Manager Enhancements

Session 13: DATA RECOVERY ADVISOR

- Overview of Data Recovery Advisor
- Use the Data Recovery Advisor through the RMAN Command Line
- Run Pro-Active Health Checks with the Validate Command
- Use the Data Recovery Advisor through EM
- Data Recovery Advisor Dictionary Views

Session 14: AUTOMATIC STORAGE MANAGEMENT

- Overview of ASM
- ASM Instance Creation
- SYSASM Role
- Administer ASM Disk Groups
- ASM Files
- ASM Startup and Shutdown
- ASM Disk Failure
- ASM Data Dictionary Tables
- Migrate a Database to ASM Using RMAN
- The ASM Command Line Tool

Oracle Database 11g for Experienced 9i Database Administrators Training Course

Course Contents - DAY 4

Session 15: DATABASE REPLAY

- Overview of Database Replay
- The Database Replay Process
- Capture a Workload
- Pre-process the Captured Workload
- Replay the Workload
- Database Replay Usage
- The DBMS_WORKLOAD Package

Session 16: DATA PUMP

- The exp Utility Deprecated
- Introduction to Data Pump Import and Export
- Data Pump Architecture
- Data Pump Export
- Data Pump Import

Session 17: DATA GUARD NEW FEATURES

- Apply Redo in Real Time
- Redo Transmission Enhancements
- New Standby Database Parameters
- ARCH Process Writes to Standby Redo Logs
- Changes to Standby Database Startups
- Logical Standby Database Enhancements
- Fast Start Failover Enhancements
- Archive Redo Log Compression
- Lost Write Detection
- Real Time Query Capable Physical Standby Database
- Rolling Upgrades to Physical Standby
- SQL Apply Logical Standby
- RMAN and Data Guard
- Snapshot Standby Databases
- Clone a Running Database

Session 18: ORACLE DATABASE ADVISORS

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

Oracle Database 11g for Experienced 9i Database Administrators Training Course

Course Contents - DAY 5

Session 19: FLASHBACK

- Flashback Query
- Flashback Version Query
- Flashback Table
- Flashback Transaction Query
- Flashback Drop
- Flashback Database
- Flashback Restore Points
- Flashback Transaction Backout
- Flashback Data Archive

Session 20: DIAGNOSTICS NEW FEATURES

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

Session 21: PERFORMANCE TUNING NEW FEATURES

- Rule Based Optimizer Obsolescence
- Automatic Statistics Collection
- Improved Statistics Gathering
- Direct SGA Access
- Application and SQL Tuning
- SQL Tuning Advisor
- SQL Access Advisor
- Real-Time SQL Monitoring Report
- SQL Performance Analyzer
- Intelligent Cursor Sharing
- SQL Plan Management
- Temporary Tablespace Shrink
- Test Case Builder
- New Hints

Session 22: DATA WAREHOUSE AND BI NEW FEATURES

- Partitioning Enhancements
- Materialized View and Query Rewrite Enhancements
- The PIVOT and UNPIVOT Clauses
- Data Compression

Follow-On Courses

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