

O1015 Oracle 10g New Features for DBA's

Course Objectives

This course is designed to introduce the new features and enhancements in Oracle10g database.

The course has been designed for existing DBA's, familiar with previous versions of Oracle's family of RDBMS products (7, 8, 8i, 9i).

The course fulfils the need of DBA's to remain up to date with new 10g development as well as considering the impact/opportunities available through the implementation of Oracle 10g within an existing Oracle business infrastructure.

Who Should Attend	Prerequisites	Duration
Oracle Database Administrators Oracle Technical IT Managers Oracle Support Engineers Oracle Application Developers Oracle Project Managers	Understanding of general Oracle architectures (v7, v8, v8i, v9i) Oracle RDBMS experience	2 Days

Course Contents

Introduction

Oracle 10g and Grid Computing
 Database Features

Automatic Shared Memory Management

Manual Memory Allocation
 Setting up Automatic Shared Memory Management
 Non-dynamic SGA Buffers
 Tablespace Management
 Default Permanent Tablespace
 Rename Tablespace
 SYSAUX Tablespace

Tablespace Management

Default Permanent Tablespace
 Rename Tablespace
 SYSAUX Tablespace

Scheduler

Programs
 Schedules
 Jobs
 Job Classes
 Windows
 Data Dictionary Views

Space Management

Segment Advisor
 Improved Segment Size Estimation
 Shrinking Segments

Undo Advisor
 Automatic Undo Retention Tuning

Improved VLDB Support

Bigfile Tablespaces
 Temporary Tablespace Groups
 Partitioning Enhancements and Index Organized Tables
 Unusable Indexes
 Hash partitioned global indexes

Automated Storage Management

Features
 ASM instances and database instances
 ASM Disk groups
 ASM Files
 Data dictionary Views

Security Enhancements

Virtual Private Database Enhancements
 Uniform Audit Trail
 DBMS_CRYPT0

Utilities

Export, Import and Data Pump
 Directories and files
 Example of a Data Pump Job
 Command Line Interactive Jobs
 Object selection

Data Pump Features
 Data Pump API
 External Tables
 Cross-Platform Transportable Tablespaces

Automatic Workload Repository (AWR)

AWR Features
 Automatic Statistics Collection
 Baselines
 Workload Repository Views
 AWR Reporting
 Feature Usage Metrics
 Active Session History (ASH)

Automatic Database Diagnostic Monitor (ADDM)

Features
 ADDM Reporting
 Server Alerts
 Related Views
 SQL Tuning Advisor
 SQL Tuning Advisor Features

Miscellaneous Tuning Features

Buffer cache flushing
 Optimizer Changes
 Gathering Data Dictionary Statistics

Flashback

- Flashback Features
- Enabling Flashback
- Flashback Query
- Additional Query Functions
- Flashback Version Query
- Flashback Transaction Query
- Flashback Table
- Flashback Drop (Recycle Bin)
- Flashback Database

RMAN Enhancements

- Flash Recovery Area
- Fast Incremental Backups
- Using Image Copies with Incremental Backups
- Image Copies and the BACKUP Command
- Catalog Maintenance
- Automatic Instance Creation for RMAN TSPITR
- Global Stored Scripts
- Backupset Compression
- Restore Preview
- Limiting Backup Duration
- More Robust Backup and Restore