

KNOWLEDGE
POWER



Core Concepts and Tools of the Oracle Database
Configuring for Recoverability
Using the RMAN Recovery Catalog
Configuring Backup Settings
Creating Backups with RMAN
Restore and Recovery Task
Using RMAN to Perform Recovery
Monitoring and Tuning RMAN
Diagnosing the Database

ORACLE 11g Administration – II

Using Flashback Technology
Performing Flashback Database
Managing Memory
Managing Database Performance
Managing Performance by SQL Tuning
Managing Resources
Automating Tasks with the Scheduler
Managing Space in Blocks
Managing Space in Segments
Managing Space for the Database
Duplicating a Database



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ORACLE 11g Administration- II

This course takes the database administrator beyond the basic tasks covered in the first administrative workshop. The student begins by gaining a much deeper understanding of possibly the most important job of a DBA – backup and recovery.

Lesson Plan

DAY 1



Session Hours

3 days

Who are we?

Data Softech Incorporation is a dynamic and progressive organization committed to provide an affordable and flexible Database Administration, Solution, Consultation and Employee or Staff training to meet the client needs. We have been working with major Fortune 500 companies.



Core Concepts and Tools of the Oracle Database

- The Oracle Database Architecture: Set up initialization parameter files for ASM and database instances
- Explain ASM Storage Concepts
- Connecting to the Database and the ASM Instance
- Administration of ASM disk groups
- DBA Tools Overview

Configuring for Recoverability

- Purpose of Backup and Recovery (B&R), Typical Tasks and Terminology
- Using the Recovery Manager (RMAN)
- Configuring your Database for B&R Operations - Configure multiple archive log file destinations to increase availability
- Configuring Archivelog Mode
- Configuring Backup Retention
- Configuring and Using a Flash Recovery Area (FRA)

Using the RMAN Recovery Catalog

- Tracking and Storing Backup Information
- Setting up a Recovery Catalog
- Recording Backups
- Using RMAN Stored Scripts
- Managing the Recovery Catalog (Backup, Export, Import, Upgrade, Drop and Virtual Private Catalog)

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Trainers

Our database training experts come from various IT backgrounds and possess market-specific IT qualifications. These specialists have worked on various data management fields with leading database industries in Information Technology.

Tutorials

DSI custom designed tutorials and live training on key projects helps the learners gain a quality and accountable experience with various projects.



Configuring Backup Settings

- Configuring and Managing Persistent Settings for RMAN
- Configuring Autobackup of Control File
- Configure Backup optimization
- Advanced Configuration Settings: Compressing Backups
- Configuring Backup and Restore for Very Large Files (Multisection)

Creating Backups with RMAN

- RMAN backup types
- Creating and Using the following:
 - Backup Sets and Image Copies
 - Whole Database Backup
 - Fast Incremental Backup
 - Configure Backup Destinations
 - Create a multisection, compressed and encrypted backup
 - Duplexed Backup Sets
 - Archival Backups for longterm retention

Restore and Recovery Task

- Restoring and Recovering
- Causes of File Loss
- Automatic Tempfile Recovery
- Recovering from the Loss of a Redo Log Group
- Recovering from a Lost Index Tablespace
- Re-creating a Password Authentication File
- Complete and Incomplete Recovery
- Other Recovery Operations (User managed and server managed recovery)
- Back up and recover a control file

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DAY 2



Training Benefits

Our certified and highly experienced trainers will help you equip with the IT knowledge and database management solutions that helps you independently assess and utilize the updated technology skills in any business-IT firm. We provide state-of-art infrastructure to incorporate our training practices.

Affordable Training

DSI custom designs the training addressing the clients, their staff or learners needs thus maximizing the benefit they gain from their training investment.



Using RMAN to Perform Recovery

- Complete Recovery after Loss of a Critical or Noncritical Data File
- Recovering Image Copies and Switching Files
- Restore and Recovery of a Database in NOARCHIVELOG Mode
- Incomplete Recovery
- Performing Recovery with a Backup Control File
- Restoring from Autobackup: Server Parameter File and Control File
- Restoring and Recovering the Database on a New Host
- Perform Disaster recovery

Monitoring and Tuning RMAN

- Monitoring RMAN Jobs
- Balance Between Speed of Backup Versus Speed of Recovery
- RMAN Multiplexing
- Tuning RMAN for Synchronous and Asynchronous I/O
- Explaining Performance Impact of MAXPIECESIZE, FILESPERSET, MAXOPEN-FILES and BACKUP DURATION

Diagnosing the Database

- Data Recovery Advisor (DRA)
- Block Corruption
- Automatic Diagnostic Repository (ADR)
- Health Monitor
- The ADR Command-Line Tool, ADRCI

Using Flashback Technology

- Flashback Technology: Overview and Setup
- Using Flashback Technology to Query Data
- Oracle Total Recall
- Flashback Drop and the Recycle Bin
- Flashback Table
- Flashback Transaction Query
- Performing Flashback Transaction Backout
- Set up and use a Flashback Data Archive

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Training Courses

Oracle 11g New features

Oracle 11g R2 RAC Administration

Oracle 11g R2 Administration I

Oracle 11g R2 Administration II

Oracle 11g R1 RAC Administration

Oracle 11g/10g Performance tuning

Oracle 11g/10g Streams

Oracle 11g/10g Data Guard

Oracle 11g/10g Backup

Oracle 11g/10g Recovery using RMAN

Oracle Application server Administration I

Oracle Application server Administration II

Oracle 10g Sql Tuning

Oracle Apps 11i System Administration

Installations



Performing Flashback Database

- Configuring Flashback Database
- Performing Flashback Database Operations
- Monitoring Flashback Database

Managing Memory

- Oracle Memory Structures
- Oracle Database Memory Parameters
- Using Automatic Memory Management
- Automatic Shared Memory Management
- Using Memory Advisors
- Using Data Dictionary Views

DAY 3

Managing Database Performance

- Tuning Activities - Use the SQL Tuning Advisor
- Using Statistic Preferences
- Optimizer Statistics Collection
- Monitor the Performance of Sessions and Services
- Automatic Workload Repository (AWR)
- Understanding the Benefits of Database Replay

Managing Performance by SQL Tuning

- SQL Tuning and SQL Advisors
- Using SQL Tuning Advisor
- SQL Access Advisor to tune a workload
- SQL Performance Analyzer Overview

Managing Resources

- Database Resource Manager: Overview and Concepts
- Accessing and Creating Resource Plans
- Creating Consumer Group
- Specifying Resource Plan Directives, including:
- Activating a Resource Plan
- Monitoring the Resource Manager

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DSI Activities

Database Management
Database Monitoring
Database Administration
Performance Tuning
Database Backup
Recovery Procedures
Quality Assessment
System Analysis
Database Upgrades
Database Patching
Cloning and Refresh
Instance Management
Security Administration
Schema Maintenance
Application Development
Server Hosting
Web Development
Domain Registration
E-business solutions
Business Process Outsourcing
Database Migration
Strategic IT Planning
Consultation and Advices

Automating Tasks with the Scheduler

- Simplifying Management Tasks
- Creating a Job, Program, and Schedule
- Using Time-Based, Event-Based, and Complex Schedules - Use advanced Scheduler concepts to prioritize jobs
- Describing the Use of Windows, Window Groups, Job Classes, and Consumer Groups
- Multi-Destination Jobs - Use job chains to perform a series of related tasks

Managing Space in Blocks

- Free Space Management
- Monitoring Space
- Compressing Data

Managing Space in Segments

- Segment Creation on Demand
- Additional Automatic Space-Saving Functionality
- Shrinking Segments - Reclaim wasted space from tables and indexes by using the segment shrink functionality
- Segment Advisor
- Managing Resumable Space Allocation

Managing Space for the Database

- Using 4 KB-Sector Disks
- Concept of Transportable Tablespaces
- Transporting Databases
- Manage resumable space allocation

Duplicating a Database

- Purpose and Methods of Cloning a Database
- Using RMAN to Create a Duplicate Database
- Cloning a Database from a Backup
- Duplicate a Database Based on a Running Instance
- Targetless Duplicating a Database