

## Oracle 10g Backup and Recovery

Length: 3 Days

Audience: Database Administrators responsible for an Oracle database.

Prerequisites: Oracle 10g Database Administration

Overview: The emphasis of this class is on database backup and recovery concepts. Much attention is given to the use Recovery Manager (RMAN), however, many of the concepts associated with the use of RMAN are applicable to manual backup and recovery strategies. Students will learn the architecture of Recovery Manager and the essential Recovery Manager commands. Flashback features are described as an additional way to recover from human error. Workshops serve to reinforce and expand upon topics presented during lectures.

Topics discussed include:

### Backup and Recovery Essentials

- Logical Backup vs. Physical Backup
- Oracle Database Architecture
- Instance Startup and Shutdown Processing
- Archivelog Mode vs. Noarchivelog Mode
- Backing up and Restoring the Server Parameter File

### Configuring for Recoverability

- Configuring ARCHIVELOG Mode
- Specifying a Retention Policy
- Configuring the Flash Recovery Area

### Recovery Manager Architecture

- RMAN Utility
- Packages used by RMAN
- Recovery Catalog
- Flash Recovery Area
- RMAN Setup and Configuration

### Using RMAN to Create Backups

- Configuring RMAN Persistent Settings
- Enabling Fast Incremental Backup
- Creating a Backup
- Creating Duplex Backup Sets
- Configuring Control File Auto-backups
- Managing Backups

### Using RMAN to Perform Recovery

- Performing Complete Recovery
- Performing Recovery Using Incrementally Updated Backups
- Using the Flash Recovery Area for Fast Recovery
- Restoring the Server Parameter File
- Restoring the Control File from Auto-backup

#### Using Oracle Flashback Technologies

- Understanding Oracle Flashback Technologies
- Performing Flashback Table
- Flashing Back Dropped Tables
- Performing Flashback Versions Query
- Performing Flashback Transaction Query
- Performing Flashback Database

#### Using RMAN to Create a Duplicate Database

- Creating a Duplicate Database
- Using Enterprise Manager to Create a Duplicate Database
- Performing Tablespace Point-in-Time Recovery
- Tablespace Point-in-time Recovery Architecture
- Performing Basic RMAN Tablespace Point-in-time Recovery

#### Oracle Secure Backup Overview

- Oracle Secure Backup: Tape Management
- Oracle Secure Backup Interface Options
- Media Management Expiration Policies

#### User-Managed Backups (An alternative to RMAN)

- Dynamic Performance Views Backup Information
- Backups of the Entire Database
- Backups of Tablespaces and Datafiles
- Backups of the Control File
- Backups of Archived Redo Logs
- Verifying User-Managed Datafile Backups

#### User-Managed Recovery (An alternative to RMAN)

- Recovering and Recreating a Control File
- Recreating Datafiles When Backups Are Unavailable
- Recovering NOLOGGING Tables and Indexes
- Recovering After the Loss of Online Redo Log Files
- Recovering from a Dropped Table Without Using Flashback Features
- User-Managed Media Recovery
- Performing Complete Database Recovery
- Performing Incomplete Database Recovery