
Oracle Database 11g DBA Backup & Recovery with RMAN

3 days

Oracle Database 11g DBA Backup & Recovery with RMAN Course Overview

Delegates will learn how to plan and implement a backup and recovery strategy using Recovery Manager. They will perform backup and recovery operations using RMAN and Enterprise Manager. They will use Flashback features to recover from human error.

This Oracle Database 11g DBA Backup & Recovery with RMAN course is suitable for users of Oracle Database 10g and Oracle Database 11g.

Skills Gained

The delegate will practise:

- Planning a backup and recovery strategy
- Altering a database to ARCHIVELOG and NOARCHIVELOG modes
- Creating and managing a recovery catalog database
- Using Recovery Manager to perform backups
- Using Recovery Manager to perform recoveries
- Monitor and Tune Recovery Manager
- Performing tablespace point-in-time recovery
- Creating a duplicate database
- Using Flashback technology to recover from errors

Who will the Course Benefit?

The Oracle Database 11g DBA Backup & Recovery with RMAN course is designed for database administrators, data warehouse administrators and technical support staff who are required to plan and implement database backup and recovery strategies for Oracle 10g or Oracle 11g databases.

Course Objectives

To provide the skills needed to plan and implement backup and recovery strategies for Oracle databases using RMAN and Flashback.

Requirements

A working knowledge of Oracle SQL and Oracle Database Administration. This can be obtained by attendance on the Oracle SQL and Oracle Database 10g DBA - Part I or Oracle Database 11g DBA - Part I courses.

Pre-Requisite Courses

- Oracle SQL
- Oracle Database 11g DBA - Part I
- Oracle Database 10g DBA - Part I

Follow-On Courses

- Oracle Database 11g DBA Performance & Tuning
 - Oracle Database 11g Data Guard
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Oracle Database 11g DBA Backup & Recovery with RMAN Training Course

Course Contents - DAY 1

Course Introduction

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

Session 1: BACKUP AND RECOVERY CONSIDERATIONS

- Plan and Implement a Backup and Recovery Strategy
- Define a Disaster Recovery Plan
- Test a Backup and Recovery Plan
- Advantages and Disadvantages of Different Backup Methods
- Data Recovery Strategy
- Backup Strategy
- Validate the Recovery Strategy

Session 2: ORACLE RECOVERY STRUCTURES AND PROCESSES

- Architectural Components of Backup and Restore
- Redo logs, Checkpoints and Archives
- Multiplexing Control files and Redo Logs
- Flash Recovery Area

Session 3: USING ARCHIVELOG AND NOARCHIVELOG MODES

- The Archive Modes of a Database
- Configure a Database in Archivelog Mode
- Configure a Database in Noarchivelog Mode
- Configure Multiple Redo Log Archive Processes
- Configure Multiple Archival Destinations

Session 4: FLASHBACK

- Configure and Use Flashback Database
- Monitor Flashback Database
- Flash Recovery Area Space Usage
- Flashback Query
- Retrieve Row History with Flashback Versions Query
- Audit or Recover From Transactions with Flashback Transactions Query
- Flashback Table
- Recover Dropped Tables with Flashback Drop
- The Recycle Bin
- Recover Tables to a Point In Time With Flashback Table
- Flashback Database
- Flashback Restore Points
- Flashback Transaction Backout
- Flashback Data Archive

Session 5: RECOVERY MANAGER OVERVIEW

- RMAN Features and Components
- Connect to RMAN
- Start Up and Shut Down a Target Database Using RMAN

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Course Contents - DAY 2

Session 6: CREATE AND CONFIGURE A RECOVERY CATALOG

- Create a Recovery Catalog
- Register a Database
- Unregister a Database
- Control File Information
- RESYNC CATALOG Command
- Virtual Private Catalogs
- Merge Catalogs
- Backup a Recovery Catalog
- Use a Flashback Recovery Area
- Configure Persistent RMAN Settings
- Set Retention Policies
- Configure Control File Autobackups

Session 7: BACKUP WITH RMAN

- Channel Allocation
- Types of RMAN Backup
- Backup Commands

- Backup Sets Parallelization
- Compressed Backups
- Performing Backups
- Full Closed and Open Backups
- Incremental and Cumulative Backups
- The Copy Command
- Block Change Tracking
- Backup Validate
- Troubleshooting

Session 8: MAINTAIN A RECOVERY CATALOG

- Reset Command
- Change the Availability Status of Backups and Copies
- Catalog Backups Made with Operating System Commands
- Generate Reports and Lists
- Cross Check Backups and Copies
- Delete Backups
- Update the Repository after Backup Deletion
- Drop Database
- Use Data Dictionary Tables

Session 9: RESTORE AND RECOVER WITH RMAN

- Perform Recovery in Noarchivelog Mode
- Perform Complete Recovery in Archivelog Mode
- Perform Incomplete Recovery
- Use the Flash Recovery Area for Fast Recovery
- Restore and Recover a tablespace
- Restore and Recover Datafiles
- Recover a Datafile Not Backed Up
- Restore the Server Parameter File
- Restore the Control File from Auto-Backup
- Restore and Recover the Database on a New Host

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Course Contents - DAY 3

Session 10: CREATE A DUPLICATE DATABASE WITH RMAN

- Database Duplication
- Duplication Options
- Create Files for the Duplicate Database
- Prepare the Auxiliary Instance for Duplication
- Create a Duplicate Database
- Create a Duplicate Database with Enterprise Manager

- Clone a Running Database
- Use EM to Clone a Running Database

Session 11: TABLESPACE POINT-IN-TIME RECOVERY

- Overview of Tablespace Point-in-Time Recovery
- Determine Recovery Set Tablespaces
- Perform RMAN Tablespace Point-in-Time Recovery
- Troubleshoot Tablespace Point-in-Time Recovery

Session 12: MONITOR, TUNE AND TROUBLESHOOT BACKUP AND RECOVERY

- Tune recovery Manager Overview
- Tune RMAN Backup Performance
- Instance Recovery Performance Tuning
- Understand RMAN Output Messages
- Troubleshoot RMAN

Session 13: OVERVIEW OF ORACLE SECURE BACKUP

- Oracle Secure Backup Overview
- Oracle Secure Backup Product Family
- Encrypted Backups
- Oracle Secure Backup Interfaces
- Oracle Secure Backup Web Tool
- Oracle Secure Backup Command Line Tool
- Oracle Enterprise Manager and Grid Control
- Recovery Manager Command Line Interface
- Media Management Expiration Policies
- Domain Security

Pre-Requisite Courses

- Oracle SQL
- Oracle Database 11g DBA - Part I
- Oracle Database 10g DBA - Part I

Follow-On Courses

- Oracle Database 11g DBA Performance & Tuning
 - Oracle Database 11g Data Guard
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