

Nutech Computer Training Institute

1682 E. Gude Dr. #102 Rockville, MD. 20850

Tel: 301-610-9300 Web:Nutechtraining.com

www.NutechTraining.com

OCP Oracle Database 12C: Advanced Administration

Backup and Recovery

Oracle Data Protection Solutions

- Explain Oracle backup and recovery solutions
 - Describe types of database failures
 - Describe the tools available for backup and recovery tasks
 - Describe RMAN and maximum availability architecture
 - Use the SYSBACK privilege
 - Use RMAN stand-alone and job commands

Performing Basic Backup and Recovery

- Back up and recover a NOARCHIVELOG database
 - Perform backup and recovery in NOARCHIVELOG mode
 - Use SQL in RMAN

Configuring for Recoverability

- Configure and manage RMAN settings
 - Configure persistent settings for RMAN
 - View persistent settings
 - Specify a retention policy
- Configure the Fast Recovery Area
 - Explain the Fast Recovery Area
 - Configure the Fast Recovery Area
- Configure control files and redo log files for recoverability
 - Multiplex control files
 - Multiplex redo log files

Using the RMAN Recovery Catalog

- Create and use an RMAN recovery catalog
 - Configure a recovery catalog
 - Register target databases in a recovery catalog

- Catalog additional backup files
- Resynchronize a recovery catalog
- Use and maintain RMAN stored scripts
- Upgrade and drop a recovery catalog
- Protect the RMAN recovery catalog
 - Back up the recovery catalog
 - Re-create an unrecoverable recovery catalog
 - Export and import the recovery catalog

Implementing Backup Strategies

- Use various RMAN backup types and strategies
 - Enable ARCHIVELOG mode
 - Create tape and disk based backups
 - Create whole database backups
 - Create consistent and inconsistent backups
 - Create backup sets and image copies
 - Create backups of read-only tablespaces
 - Employ best practices for data warehouse backups

Performing Backups

- Perform full and incremental backups
 - Create full and incremental backups
 - Use the Oracle-suggested backup strategy
- Manage backups
 - Configure and monitor block change tracking
 - Report on backups using LIST, REPORT commands
 - Manage backups using CROSSCHECK, DELETE commands

Configuring RMAN Backup Options and Creating Backup of Non-Database Files

- Use techniques to improve backups
 - Create compressed backups
 - Create multi-section backups of very large files
 - Create proxy copies
 - Create duplexed backup sets
 - Create backups of backup sets
 - Create archival backups
- Perform backup of non-database files
 - Back up a control file to trace
 - Back up archived redo log files
 - Back up ASM diskgroup metadata

Using RMAN-Encrypted Backups

- Create RMAN-encrypted backups
 - Use transparent-mode encryption
 - Use password-mode encryption
 - Use dual-mode encryption
 - Restore encrypted backups

Diagnosing Failures

- Describe the Automatic Diagnostic Workflow
 - Use the Automatic Diagnostic Repository
 - Use ADRCI
 - Find and interpret message output and error stacks
 - Use the Data Recovery Advisor
- Handle block corruption
 - Detect block corruption using RMAN
 - Perform block recovery using RMAN

Performing Restore and Recovery Operations

- Describe and tune instance recovery
- Perform complete and incomplete recovery
 - Use RMAN RESTORE and RECOVER commands
 - Restore ASM disk groups
 - Recover from media failures
 - Perform complete and incomplete or “point-in-time” recoveries using RMAN

Recovering Files Using RMAN

- Perform recovery for spfile, password file, control file, redo log files
- Perform table recovery from backups
- Perform recovery of index and read-only tablespaces, temp file
- Restore a database to a new host

Using Oracle Secure Backup

- Configure and use Oracle Secure Backup

Using Flashback Technologies

- Describe the Flashback technologies
 - Configure a database to use Flashback technologies
 - Guarantee undo retention
- Use Flashback to query data
 - Use Flashback Query
 - Use Flashback Version Query

- Use Flashback Transaction Query
- Flash back a transaction
- Perform Flashback Table operations
 - Perform Flashback Table
 - Restore tables from the recycle bin
- Describe and use Flashback Data Archive
 - Use Flashback Data Archive
 - Use DBMS_FLASHBACK_ARCHIVE package

Using Flashback Database

- Perform Flashback Database
 - Configure Flashback Database
 - Perform Flashback Database

Transporting Data

- Describe and use transportable tablespaces and databases
 - Transport tablespaces between databases using image copies or backup sets
 - Transport databases using data files or backup sets
 - Transport data across platforms

Duplicating a Database

- Choose a technique for duplicating a database
 - From an active database, connected to the target and auxiliary instances
 - From backup, connected to the target and auxiliary instances
 - From backup, connected to the auxiliary instance, not connected to the target, but with recovery catalog connection
 - From backup, connected to the auxiliary instance, not connected to the target and the recovery catalog
 - Duplicate a database with RMAN
- Create a backup-up based duplicate database
- Duplicate a database based on a running instance

Monitoring and Tuning of RMAN Operations

- Tune RMAN performance
 - Interpret RMAN error stacks
 - Diagnose performance bottlenecks
 - Tune RMAN backup performance

Managing Pluggable and Container Databases

Introduction

Multitenant Container and Pluggable Database Architecture

- Describe the multitenant container database architecture
- Explain pluggable database provisioning

Creating Multitenant Container and Pluggable Databases

- Configure and create a CDB
- Create a PDB using different methods
- Unplug and drop a PDB
- Migrate a non-CDB database to PDB

Managing a CDB and PDBs

- Establish connections to CDB/PDB
- Start up and shut down a CDB and open and close PDBs
- Evaluate the impact of parameter value changes

Managing Storage in a CDB and PDBs

- Manage permanent and temporary tablespaces in CDB and PDBs

Managing Security in a CDB and PDBs

- Manage common and local users
- Manage common and local privileges
- Manage common and local roles
- Enable common users to access data in specific PDBs

Managing Availability

- Perform backups of a CDB and PDBs
- Recover PDB from PDB datafiles loss
- Use Data Recovery Advisor
- Duplicate PDBs using RMAN

Managing Performance

- Monitor operations and performance in a CDB and PDBs
- Manage allocation of resources between PDBs and within a PDB
- Perform Database Replay

Moving Data, Performing Security Operations and Interacting with Other Oracle Products

- Use Data Pump
- Use SQL*Loader
- Audit operations
- Use Other Products with CDB and PDBs - Database Vault, Data Guard, LogMiner

