



ORACLE 12C DBA

Course Overview

Topic

Architecture Overview

- Overview of Oracle Database 12c
- Oracle Database Instance Configurations
- Connecting to the Oracle Database Instance
- Oracle Database Memory Structures and Process Architecture
- Database Storage Architecture
- Basics and Advantages of Multitenant Architecture
- Pluggable databases and container databases
- Difference between 11g and 12c
- Dictionary Views 12c (CDB_XXX, DBA_XXX, ALL_XXX etc.)

Installation and Database Creation

- 12c Installation
- Database Creation using DBCA (CDB and PDB)
- Configuration and creation of CDB
- Create a PDB from a non-CDB
- Create a new PDB from PDB\$SEED
- Cloning of PDB
- PDB Snapshot Clone
- View the Alert Log File

Startup and Shutdown of Database

- Start up a CDB
- Describe the stages of database startup
- Open / Close a PDB (SQL*Plus)
- Shut down a CDB
- Change PDB state
- Shutdown Types
- Alert Log Files and Trace files

Configuring the Oracle Network Environment

- Use Enterprise Manager to create and configure the Listener
- Use testing to test Oracle Net connectivity
- Identify when to use shared servers and when to use dedicated servers

Managing Data Concurrency

- Data Concurrency Enqueue Mechanism
- Resolving Lock Conflicts
- Deadlocks

Managing Tablespaces, Common and Local Users, Privileges, and Roles

- Create permanent tablespaces in the root and PDBs
- Roles and Privileges (dba_sys_privs and dba_tab_privs)
- Manage common and local schemas and users in the root and PDBs
- Manage system and object privileges to common and local grantees granted
- Manage common and local roles granted commonly or locally

Backup & Recovery in Multitenant Databases

- Backups
- Recovery
- Handling redo log failures
- Control File recovery
- Recovery use cases
- Point In Time Recovery
- Using the RMAN Recovery Catalog
- Tracking and Storing Backup Information
- Setting up a Recovery Catalog
- Backup and Recovery Reporting
- Restoring from Autobackup: Server Parameter File and Control File

Moving Data

- Describe ways to move data
- Create and use directory objects
- The general architecture of Oracle Data Pump
- Use Data Pump export and import to move data

Using Flashback Technology

- Flashback Technology: Overview and Setup
- Using Flashback Technology to Query Data
- Flashback Table
- Flashback Transaction Query

- Flashback Drop and the Recycle Bin
- Configuring Flashback Database
- Performing Flashback Database Operations

Performance Tuning

- Tuning Basics
- Wait for Events, Class, and Statistics
- System Statistics Dictionary Views
- Invalid and Unusable Objects
- Index Scans and Type of Index Scans
- Parallelism and parallel_degree_policy
- Statistics and Histograms
- Cursor Sharing and Bing Peeking
- AWR and ADDM reports

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