



Oracle19c Database Administration Training

Exploring the Oracle Database Architecture

Oracle Database Architecture Overview
Process Architecture and Memory structures
Logical and physical storage structures

Basics of Multitenant Container Database (CDB)

Benefits of the multitenant architecture
Differences between the root container and pluggable database containers
Structure of the root
Structure of Pluggable Database (PDB)
CDB_xxx and DBA_xxx views

Installing Oracle19c Database Software

Tasks of an Oracle Database Administrator
Tools Used to Administer an Oracle Database
Installation: System Requirements
Oracle Universal Installer (OUI)
Installing Oracle Database Software

Configuring and Creating NonCDB/CDB and PDBs

Planning the Database
Using the DBCA to Create a Database
Password Management
Using the DBCA /Drop a Database
Tools: DBCA and SQL*Plus
Configuration and creation of CDB
Exploring the Structure (CDB_xxx views and EM)
Tools used: SQL Developer, DBCA and SQL*Plus
Create a new PDB from PDB\$SEED
Create a PDB from a non-CDB
Clone a PDB into the same CDB or into another CDB using DB links
Plug in an unplugged PDB



Managing CDB and PDBs

- Connect to CDB as administrator
- Connect to a PDB using a service name
- Start up a CDB / Shut down a CDB
- Open / Close a PDB (SQL*Plus, srvctl, EM)
- Open / Close all PDBs
- Triggers ON PLUGGABLE DATABASE
- Change PDB state

Managing the Oracle Database Instance

- Start and stop the Oracle database and components
- Access a database with SQLPlus
- Modify database installation parameters
- Describe the stages of database startup
- Describe database shutdown options
- View the alert log
- Access dynamic performance views

Configuring the Oracle Network Environment

- Use Netca, Netmgr, Manual to create and configure the Listener
- Start and stop the listener
- Setting up tnsnames.ora/listener.ora/sqlnet.ora on Non-Default/Default path
- Troubleshooting listener related connectivity issue
- Use tnsping to test Oracle Net connectivity

Identify when to use shared servers and when to use dedicated servers

Managing Tablespaces, Common and Local Users, Privileges and Roles

- Storage Structures
- Create permanent tablespaces in the root and PDBs
- Manage common and local schemas and users in the root and PDBs
- Manage system and object privileges to common and local grantees granted "commonly" or "locally"
- Manage common and local roles granted "commonly" or "locally"
- Online Datafile Movement



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Managing Database Storage Structures/Files

- Storage Structures
- How Table Data Is Stored
- Anatomy of a Database Block
- Actions with Table space like create/drop/offline/online
- Space Management in Tablespace
- Adding/Resizing Data files
- Renaming/Relocating Data file
- Oracle Managed Files (OMF)

Undo Management

- Monitor and administer undo
- Configure undo retention
- Guarantee undo retention

Redo and Archive Log Management

- Identify the importance of checkpoints, redo log files, and archived log file
- Configure ARCHIVELOG mode
- Adding/Dropping Redolog Members/ Groups
- Changing Archive Destinations

Administering User Security

- Database User Creation/Management
- Predefined Administrative Accounts
- Benefits/Creation of Roles and Predefined Roles and Roles Management

Backup and Recovery Concepts

- Describe the basics of database backup, restore and recovery
- List the types of failure that may occur in an Oracle Database
- Identify the importance of checkpoints, redo log files, and archived log file
- Configure ARCHIVELOG mode

Logical Backup/Recovery



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Data export/import with different Levels Using datapump utility
Real Time Scenarios like Schema/Tables Refresh Using datapump utility

Physical Database backups

Create consistent database backups
Back your database up without shutting it down/ Hot Backup

Configuring Recovery Manager

Recovery Manager Features and Components
Connection Types with RMAN and Additional RMAN Command Line Arguments
Channel Allocation and Control Options
Using RMAN to connect to target database in default NOCATALOG mode
Configuring Persistent Settings for RMAN
Recovery Catalog Creation for RMAN

Using Recovery Manager

RMAN Command Overview like list/report/crosscheck/catalog
Backup Constraints and Options
Parallelization of Backup Sets
Configure/Monitor the Flash Recovery Area for RMAN Backups
Create Full and incremental backups
Compressed Backups
Tags for Backups and Image Copies
Backing Up Archived Redo Log Files
Removing expired backup using RMAN

Database Recovery Using RMAN

Recover from loss of a spfile file using RMAN
Recover from loss of a control file using RMAN
Recover from loss of a data file using RMAN
Restoring Archived Redo Log Files
Full Database Restore and Recover Using RMAN
Incomplete/ Point-in-time recovery Using RMAN
Real Time Scenarios like DB Cloning Using RMAN Backup



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Introduction to Performance Tuning

Brief overview of Tuning methodology
General tuning concepts
Session Management
Gathering Statistics/Statistics Management
Index Creation and Rebuilding Indexes
Coalesce/Shrinking tables/indexes
Checking Locks/Dead Locks/Blockings Sessions
Checking Waitevents and Long Running Queries
Generating Statspack/AWR/ASH/ADDM Reports
Conclusion Q & A

For Any Clarification please feel free to contact @ +91 9867328291.

Cheers,

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