

DTI-DMW-004

# Oracle 19c Database Administration

# Program Information



**Nature of the Course**  
Theory + Practical



**Total Hours per Day**  
2 hours



**Course Duration**  
80 Hours

## Course Summary

Oracle 19C Database Administration is a comprehensive, hands-on course provides concrete information on the design of an Oracle Database instance and database, allowing you to manage your database investment. In this class, you will learn how to create database storage structures that align with your requirements and business models. You will also learn how to create users and administer databases as well as harden the databases to meet your business requirements. This is the foundational course for learning about Oracle Database and it does not assume prior knowledge or Oracle technologies.

# Course Details

## Oracle Database Architecture

- Oracle Database Server Architecture
  - Oracle Database Instance Configurations
  - Connecting to the Database Instance
  - Oracle Database Memory Structures
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## Creating DBCS Database Deployments

- Automated Database Provisioning
  - Creating a Database Deployment
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## Accessing an Oracle Database

- Connecting to an Oracle Database Instance
  - Oracle Database Tools
  - SQL\*Plus
  - Oracle SQL Developer
  - SQL Developer Command Line (SQLcl)
  - Database Configuration Assistant (DBCA)
  - Oracle Enterprise Manager Database Express
  - Enterprise Manager Cloud Control 13c Features
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## Creating DBCS Database Deployments

- Managing the Compute Node
  - Scaling a Database Deployment
  - Patching DBCS
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# Managing Database Instances

- Working with Initialization Parameters
  - Starting the Oracle Database Instance
  - Shutting Down an Oracle Database Instance
  - Opening and Closing PDBs
  - Alert Log
  - Trace Files
  - DDL Log File
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## Oracle Net Services

- Oracle Net Services
  - Oracle Net Listener
  - The Default Listener
  - Establishing Oracle Network Connections
  - Connecting to an Oracle Database
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## User Security

- Database User Accounts
  - Oracle-Supplied Administrator Accounts
  - Creating Oracle Database Users in a Multitenant Environment -9
  - Schema-Only Account
  - Authenticating Users
  - System Privileges for Administrators
  - Object Privileges
  - Granting Privileges in a Multitenant Environment
  - Granting and Revoking System Privileges
  - Granting and Revoking Object Privileges
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## Creating PDBs

- Creating a New PDB from PDB\$SEED
  - Cloning PDBs
  - Unplugging and Plugging in PDBs
  - Plugging an Unplugged Regular PDB into a CDB
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# Creating and Managing Tablespaces

- Creating Tablespaces
  - Creating Permanent Tablespaces in a CDB
  - Altering and Dropping Tablespaces
  - Viewing Tablespace Information
  - Tablespace Encryption by Default in DBCS
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## Managing Storage Space

- Space Management Features
  - Block Space Management
  - Row Chaining and Migration
  - Types of Segments
  - Allocating Extents
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## Managing Undo Data

- Undo Data
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## Moving Data

- Oracle Data Pump
  - SQL Loader
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# Backup and Recovery Concepts

- Types of Failures
  - Instance Recovery
  - The Checkpoint (CKPT) Process
  - Redo Log Files and the Log Writer (LGWR) Automatic
  - Instance Recovery or Crash Recovery
  - Using the MTTR Advisor
  - Complete Recovery Process
  - The Point-in-Time Recovery Process
  - Flashback
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# Backup and Recovery Configuration

- Configuring for Recoverability
  - Redo Log Files
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# Creating Database Backups

- RMAN Backup
  - Backing Up Databases on DBCS
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# Performing Database Recovery

- Data Recovery Advisor
  - Loss of a Control File
  - Loss of a Redo Log File
  - DBCS: Performing Recovery by Using the Console
  - dbaascli Utility
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# Monitoring and Tuning Database Performance

- Automatic Workload Repository (AWR)
  - Automatic Database Diagnostic Monitor (ADDM)
  - Advisory Framework
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## Tuning SQL

- SQL Tuning Process
  - Oracle Optimizer
  - Optimizer Statistics
  - SQL Plan
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