Oracle 19c Database Administration I / Oracle 19c DBA I - TTOR20519

Explore Oracle DB Architecture, DBCS Deployments, Managing Database Security, Backup and Recovery, Monitoring and More

Duration: 5 Days
Skill Level: Introductory
Available Format: Instructor-Led Online ; On Public Schedule

Oracle 19C Database Administration I (Oracle DBA I) 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, however you should have incoming experience working with SQL, and be comfortable with Linux and working from the command line.

NOTE: This training is NOT Official Oracle University training. This is independent, adjustable content that aligns with current topics, skills and tools that participants need to excel in these areas.

What You'll Learn

Overview

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Objectives

This course combines expert lecture, real-world demonstrations and group discussions with machine-based practical labs and exercises. Working in a hands-on learning environment led by our Oracle Certified expert facilitator, students will learn how to:

- How to use tools to access an Oracle Database
- Generate database creation scripts by using DBCA
- How to create a container database (CDB) by using the CREATE DATABASE command
- Learn about Startup and shut down Oracle databases
- Initialization parameter files and initialization parameters
- Tools that are used to administer Oracle Net Services
- How to use the Oracle Connection Manager Control utility to administer Oracle Connection Manager
- How to create a new PDB from the PDB seed.
- Logical and physical storage structures in an Oracle database
- Usage of Oracle Database features that save space
- Explanation of DML and undo data generation
- Learn about general architecture of Oracle Data Pump and SQL*Loader
- How to use SQL*Loader to load data from a non-Oracle database (or user files)

Audience

This hands-on course is geared for experienced DBAs new to Oracle 19c, who can work in Linux and have basic experience with SQL scripting. Incoming students should possess:

- Basic understanding of database principles
- Basic Linux skills, including familiarity with command-line options such as ls, cd, cp, and su. This is NOT a Windows based course.
- Basic SQL scripting skills

Pre-Requisites

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Agenda

Please note topics, agenda and labs are subject to change, and may adjust during live delivery based on audience interests, skill-level and participation.

1. **Introduction to Oracle Database**
   - Oracle Multitenant Container Database
   - Oracle Database Instance Configurations
   - Database Sharding
   - Oracle Database Server

2. **Accessing an Oracle Database**
   - Oracle Database Tools
   - Database Tool Choices
   - SQL Developer
   - Enterprise Manager Database Express

3. **Creating an Oracle Database by Using DBCA**
   - Planning the Database
   - Choosing a Database Template
   - Configuration Assistant

4. **Creating an Oracle Database by Using a SQL Command**
   - Creating a Container Database
   - Enable Pluggable Database

5. **Starting Up and Shutting Down a Database Instance**
   - Starting the Oracle Database Instance
   - Shutting Down an Oracle Database Instance

- Opening and Closing PDBs

6. Managing Database Instances
- Investigating Initialization Parameter Files
- Viewing Initialization Parameters by Using SQL*Plus
- Modifying Initialization Parameters by Using SQL*Plus
- Viewing Diagnostic Information

7. Oracle Net Services Overview
- Oracle Net Services Components
- Oracle Net Listener

8. Configuring Naming Methods
- Configuring the Oracle Network to Access a Database
- Creating a Net Service Name for a PDB

9. Configuring and Administering the Listener
- Exploring the Default Listener
- Creating a Second Listener
- Connecting to a Database Service Using the New Listener

10. Configuring a Shared Server Architecture
- Configuring Shared Server Mode
- Configuring Clients to Use a Shared Server

11. Configuring Oracle Connection Manager for Multiplexing and Access Control
- Oracle Connection Manager Processes
- Filtering Rules
- Session Multiplexing

12. Creating PDBs from Seed
- Provisioning New Pluggable Databases
- Tools
- Creating a New PDB from PDB$SEED
- Using OMF or the PDB_FILE_NAME_CONVERT Parameter

13. Using Other Techniques to Create PDBs
- Cloning Regular PDBs

- Migrating Data from a Non-CDB into a CDB
- Remote PDB
- Cloning Remote PDBs in Hot Mode
- Creating a Proxy PDB

14. Managing PDBs

- Renaming a PDB
- Setting Parameter Values for PDBs

15. Database Storage Overview

- Logical and Physical Database Structures
- Tablespaces and Data Files
- Types of Segments
- Monitoring Tablespace Space Usage

16. Creating and Managing Tablespaces

- Viewing Tablespace Information
- Creating a Tablespace
- Managing Temporary and Permanent Tablespaces

17. Improving Space Usage

- Managing Space in Tablespaces
- Using Compression
- Enabling the Resumable Space Allocation Feature

18. Managing Undo Data

- Transactions and Undo Data
- Managing Undo
- Configuring Undo Retention
- Categories of Undo
- Temporary Undo Benefits

19. Creating and Managing User Accounts

- Creating Common and Local Users
- Creating a Local User for an Application
- Exploring OS and Password File Authentication

20. Configuring Privilege and Role Authorization

- Granting a Local Role (DBA) to PDBADMIN

- Using SQL*Developer to Create Local Roles

21. Configuring User Resource Limits
- Using SQL*Developer to Create a Local Profile & Users
- Configuring a Default Role for a User

22. Implementing Oracle Database Auditing
- Enabling Unified Auditing
- Creating Audit Users
- Creating an Audit Policy

23. Introduction to Loading and Transporting Data
- General Architecture
- Oracle Data Pump
- SQL Loader
- Loading Data into a PDB from an External File
- Moving Data from One PDB to Another PDB
- Transporting a Tablespace

NEXT-LEVEL BONUS CONTENT / TIME PERMITTING

These **extra / bonus chapters** will be included with your courseware but are only covered live in class if time permits.

- Using External Tables to Load and Transport Data
- Automated Maintenance Tasks: Overview
- Managing Tasks and Windows
- Database Monitoring and Performance Tuning Overview
- Monitoring Database Performance
- Database Processes
- Managing Memory
- Analyzing SQL and Optimizing Access Paths

For More Information

Please contact us or call 844-475-4559 toll free for more information about our training services (instructor-led, self-paced or blended), coaching and mentoring services, public course enrollment or questions, partner programs, courseware licensing options and more.