Oracle Database 19c: New Features for Administrators Ed 1

Oracle Database

DURATION	MODULES	COURSE CODE
2 Days	**7 Lectures**	**—**

Course Overview

The course provides the Oracle Database 19c new features and enhancements related to database overall, security, availability, performance, data warehousing, and diagnosability.

What You Will Learn

Using General Database Overall Enhancements

- Overview
- Objectives
- Automatic Execution of Fixups Scripts and root.sh
- Cloning a Remote PDB
- Using DBCA to Clone a Remote PDB
- Relocating a Remote PDB
- Using DBCA to Relocate a Remote PDB
- Duplicating a CDB
- Using DBCA to Duplicate a CDB
- Creating a PDB Snapshot from a PDB
- Data Pump Enhancements
- Decreasing Transportable Import Time
- Decreasing Transportable Export Time
- Omitting the Column Encryption Attribute During Import
- Controlling Resources Consumed During Data Pump Operations
- Handling Long Lists of Values Generated by the LISTAGG Function
- Using the LISTAGG Function with ON OVERFLOW TRUNCATE
- Using the LISTAGG Function with DISTINCT
- Summary
- Practices Environment – 1
- Practices Environment – 2
- Practice 1: Overview

Using Security Enhancements

- Overview
- Objectives
- Schema-Only Accounts
- Database Vault Operations Control
- Database Vault Operations Control: Allowing Operations
- Database Vault Operations Control: Granting the DV_OWNER Role
- Database Vault Operations Control: Setting an Exception List
- Creating Database Vault Command Rules to Protect Audit Policies
- Auditing Top-Level Statements Only
- Privilege Analysis
- Handling Operations on Oracle-Managed and User-Managed Tablespaces Encrypted in TDE
- Informing the Database of the Location Change of the Password File
- Summary
- Practices Environment – 1
- Practices Environment – 2
- Practice 2: Overview

Using Availability Enhancements

- Overview
- Objectives
- Using Recovery Catalog with a PDB Target Connection
- Using Recovery Catalog with a PDB Target Connection: Steps
- Using Compression Methods for Backups
- Reclaiming Flashback Logs
- Flashback and Restore Points
- Automatic Propagation of Restore Points to All Standby Databases
- Automatic Flashback on Physical Standby Databases
- Summary
- Practices Environment – 1
- Practices Environment – 2
- Practice 3: Overview

Using Performance Enhancements

- Overview
- Objectives
- Memoptimized Rowstore – Fast Lookup
- Hash Index in Memory
- Memoptimized Rowstore – Fast Ingest
- Using Memoptimized Rowstore – Fast Ingest
- AWR and ADDM Behavior
- Configuring Automatic ADDM Analysis at the PDB Level
- SQL Developers and Users Enabled for SQL Monitor Usage
- Comparing SQL Execution Plans

- Hint Usage Reporting
- Populating In-Memory Segments
- Waiting for In-Memory Segments to be Populated
- DB Replay: The Big Picture
- Capturing and Replaying in a CDB and PDBs
- Reporting
- New DBA_RAT_CAPTURE_SCHEMA_INFO View
- Supplemental Logging
- Supplemental Logging for Subset Database Replication
- Fine-Grained Supplemental Logging
- Summary
- Practices Environment: 1
- Practices Environment: 2
- Practice 4: Overview

Using Big Data and Data Warehousing Enhancements

- Overview
- Objectives
- Automated Tuning Tasks
- Automatic Indexing Task
- Workflow
- Automatic Indexing Task Reporting
- Automatic Indexing Views
- Hybrid Partitioned Tables (HyPT)
- In-Memory Hybrid Partitioned Tables (HyPT)
- Database In-Memory Support for External Tables
- Populating In-Memory External Tables
- Querying in Parallel In-Memory External Tables
- Using Other Access Drivers on In-Memory External Tables
- Summary
- Practices Environment – 1
- Practices Environment – 2
- Practice 5: Overview

Using Diagnosability Enhancements

- Overview
- Objectives
- End-to-End Automated Service for Incidents
- Automatic Diagnosability Repository Incidents
- SQL Test Case Builder
- SQL Test Case Builder Export Procedure
- SQL Diagnostic Advisor
- SQL Diagnostic and Repair
- Trace File Analyzer (TFA) Collector
- TFA Collector Process

- Upload Metadata and Data to a Service Request
- Automatic Data Redaction
- Summary
- Practices Environment – 1
- Practices Environment – 2
- Practice 6: Overview

Sharding Enhancements

- Objectives
- Multiple Table Family Support in System-Managed Sharding
- Support for Multiple PDB Shards in the Same CDB
- Generation of Unique Sequence Numbers Across Shards
- Support for Multi-Shard Query Coordinators on Shard Catalog Standbys
- Propagation of Parameter Settings Across Shards
- Summary
- Practice 7: Overview