

Oracle Database 19c: New Features for Administrators

Duration:
2 days

In the lessons, you learn the new and enhanced features of Oracle Database 19c amongst different areas such as database overall, security, availability, performance, big data and warehousing, and diagnosability.

Topics of the database overall module cover new features such as DBCA, OUI and Data Pump enhancements.

Topics of the security module cover enhancements such as key management of encrypted Oracle-managed tablespaces in TDE, and Database Vault operations control.

Topics of the availability module cover enhancements in RMAN such as recovery catalog connection when user is connected to target database as PDB.

Topics of the performance module cover enhancements such as PDB-level ADDM analysis, Memoptimized Rowstore - Fast Ingest deferred writes, and enabling SQL developers to use Real-Time SQL Monitor.

Topics of the data warehousing module cover enhancements such as hybrid partitioned tables and automated indexing.

Topics of the diagnosability module cover new features such as an end-to-end automated service for fault prediction, detection and fixation to avoid or minimize the human intervention, and new service request data collections determining the data to collect for crucial errors.

Topics of the sharding module cover enhancements such as the support for multiple PDB-shards in the same CDB and of multiple table family for system-managed sharding.

Course Objectives

Upon completion of this course, the student should be able to:

- Understand the concept, benefits, configuration, and usage of the new features and enhancements in database overall area
- Understand the concept, benefits, configuration, and usage of the new features and enhancements in the security area
- Understand the concept, benefits, configuration, and usage of the new features and enhancements in the availability area
- Understand the concept, benefits, configuration, and usage of the new features and enhancements in the performance area
- Understand the concept, benefits, configuration, and usage of the new features and enhancements in big data and data warehousing area
- Understand the concept, benefits, configuration, and usage of the new features and enhancements in diagnosability area
- Understand the concept, benefits, configuration, and usage of the new features and enhancements in sharding area

Audience

- Oracle Database Administrators
- System Administrators
- Developers

1. Using General Database Overall Enhancements

- Creating a PDB Snapshot from a PDB
- Practice 1-1: Discovering the Practices Environment
- Practice 1-2: Installing Oracle Database 19c with Automatic root.sh Execution
- Practice 1-3: Cloning a PDB by Using DBCA in Silent Mode (Part01)
- Practice 1-3: Cloning a PDB by Using DBCA in Silent Mode (Part02)
- Practice 1-4: Relocating a PDB by Using DBCA in Silent Mode
- Practice 1-5: Duplicating a CDB by Using DBCA in Silent Mode (Part01)
- Practice 1-5: Duplicating a CDB by Using DBCA in Silent Mode (Part02)
- Practice 1-6: Decreasing TTS Import Time
- Practice 1-7: Decreasing TTS Export Time
- Practice 1-8: Omitting the Column Encryption Attribute During Import
- Practice 1-9: Avoiding Errors Due to Values Generated by LISTAGG

2. Using Security Enhancements

- Practice 2-1: Exploring Oracle-supplied Schemas Only Accounts
- Practice 2-2: Protecting Application Data by Using Database Vault Operations Control (Part 01)
- Practice 2-2: Protecting Application Data by Using Database Vault Operations Control (Part 02)
- Practice 2-3: Constraining AUDIT POLICY and NOAUDIT POLICY SQL Commands with Oracle Database Vault Command Rules
- Practice 2-4: Auditing Direct User Activities
- Practice 2-5: Handling Operations on Oracle-managed and User-managed Tablespaces Encrypted in TDE

3. Using Availability Enhancements

- Practice 3-1: Using RMAN to Connect to a PDB and Use the Recovery Catalog (Part 01)
- Practice 3-1: Using RMAN to Connect to a PDB and Use the Recovery Catalog (Part 02)
- Practice 3-2: Exploring Automatic Deletion of Flashback Logs (Part 01)
- Practice 3-2: Exploring Automatic Deletion of Flashback Logs (Part 02)

4. Using Performance Enhancements

- Supplemental Logging
- Practice 4-1: Using Memoptimized Rowstore - Fast Ingest
- Practice 4-2: Completing an ADDM Analysis Inside a PDB
- Practice 4-3: Using Real-time SQL Monitoring as a SQL Developer
- Practice 4-4: Waiting In-memory Objects to be Populated
- Practice 4-5: Configuring and Using Database Replay at PDB Level

5. Using Big Data and Data Warehousing Enhancements

- Practice 5-1: Managing Hybrid Partitioned Tables
- Practice 5-2: Creating and Populating In-memory Hybrid Partitioned Tables
- Practice 5-3: Creating and Populating In-memory External Tables

6. Using Diagnosability Enhancements

- Practice 6-1: Fixing SQL Statements by Using Automatic SQL Diagnosis and Repair (Part 01)
- Practice 6-1: Fixing SQL Statements by Using Automatic SQL Diagnosis and Repair (Part 02)
- Practice 6-2: Creating SRDCs for Specific Events (Part01)
- Practice 6-2: Creating SRDCs for Specific Events (Part02)

7. Sharding Enhancements

8. Oracle Database 19c: Performance and Warehousing Enhancement Demos

- 19c Memoptimized Rowstore - Fast Ingest
- 19c Automatic Indexing
- 19c In-memory External Tables