Oracle Database 12c R2: High Availability New Features

The Oracle Database 12c R2: High Availability New Features course covers High Availability new features introduced in the Oracle Database 12c Release 2. Focus areas include Clusterware, ASM, ACFS, RAC, and Data Guard.

Learn To:

- Configure and administer the Oracle Database 12c R2 high availability new features contained in Oracle Clusterware Infrastructure (including Automatic Storage Management [ASM] and Cloud FS.
- Configure and administer RAC new features.
- Describe the new features contained in Oracle Data Guard.
- Describe Oracle Data Guard Enhancements.
- Gain an understanding of the Oracle Database Exadata Cloud Service.
- Gain an understanding of Clusterware Manageability Enhancements.
- Gain an understanding of ASM New Features.
- Gain an understanding of ACFS Manageability New Features & Performance Enhancements.
- Gain an understanding of Real Application Cluster New Features.
- Gain an understanding of Data Guard and Broker New Features.

Benefits To You

By enrolling in this course, you'll be able to practice using Oracle's new clustering technologies and gain valuable experience through hands-on demos and labs.

Audience

- Administrator
- Database Administrator
- End User

Objectives

- Learn how to perform essential administration tasks for each new feature
- Describe the Oracle Database 12c R2 high availability new features contained in Clusterware Infrastructure
- Gain an understanding of the Oracle Database Exadata Cloud Service
- Learn how to perform essential installation and configuration tasks for each new feature
- Describe Data Guard Enhancements

Topics

- Cluster Types and Installation Options
  - Stand-alone (Traditional Cluster)
  - Oracle Domain Services Cluster
  - Oracle Member Clusters
  - Oracle Extended Clusters (Stretch Cluster)
  - Installation Options
  - Shared Grid Naming Service (GNS) High Availability
  - Shared GIMR
  - Rapid Home Provisioning Enhancements
- Clusterware Manageability Enhancements
  - Enhanced (Reasoned) Command Evaluation (Why-If)
  - Clusterware Resource Groups
  - Server Weight-Based Node Eviction
  - Load-Aware Resource Placement
- Clusterware Monitoring and Miscellaneous Enhancements
  - Oracle Autonomous Health Framework
  - Cluster Resource Activity Log
  - Private Network IPv6 Support
- Oracle ASM Manageability New Features
  - Flex Disk Groups
  - File Groups
  - Quota Groups
  - Prioritized Rebalancing for Oracle ASM File Groups
  - Oracle ASM Mirror Splitting
  - Prioritized Rebalancing for File Groups
  - Oracle ASM Extended Support for 4K Sector Size
  - Oracle IOServer: DBs on Leaf Nodes
- ACFS Manageability New Features
  - Snapshot Enhancements
  - Oracle ACFS Automatic Resize
  - Oracle ACFS Metadata Acceleration
  - Oracle ACFS NAS Maximum Availability eXtensions
- ACFS Performance Enhancements
  - Oracle ACFS Defragger
  - Oracle ACFS Compression
  - Oracle ACFS Sparse Files
  - Oracle ACFS Metadata Acceleration
- Oracle RAC New Features
  - Separation of Duty for Administering Oracle RAC
  - Oracle Real Application Clusters Reader Nodes
  - SCAN Listener and HTTP Protocol
  - Service-Oriented Buffer Cache Access
  - In-Memory FastStart
  - QoS Support for Administrator-Managed Databases
- Data Guard Configuration Enhancements

- Standby Database Creation Using DBCA
- New Initialization Parameters
- Detecting Lost Writes Using DBMS_DBCOMP.DBCOMP
- Rolling Upgrade Support for Multitenant Databases
- Upgrading Databases Using Oracle Label Security or Database Vault With Oracle Data Guard
- Far Sync Instance Creation using RMAN DUPLICATE with FARSYNC Option
- Automatic Propagation of Password File Changes
- Support of In-Memory Column Store in Active Data Guard Environments
- Data Guard Broker Enhancements
  - Multiple Fast-Start Failover Target Selection
  - High Availability Observer Configuration
  - Configurable Property, DataGuardSyncLatency
  - Data Validation and Lost Write Detection using VALIDATE DATABASE DATAFILE
  - Validation of Database Files on both Primary and Standby using the VALIDATE DATABASE DATAFILE command
  - Using Broker Property ApplyInstances to Engage Multi-Instance Redo Apply
  - DGMGRL Command Script Support @name
  - Enhanced Broker Support for Application Continuity