Oracle Database 19c: RAC Administration

Duration: 5 Days

Course Description:

This Oracle Database: Real Application Cluster (RAC) Administration training teaches you about Oracle RAC database architecture. Explore Global Resources and Cache Fusion and more. In this course, you will be introduced to Oracle Database Exadata Cloud Service

Target Audience:
- Oracle Database Administrator
- Administrator

Objectives:
- Configure RMAN for the RAC environment
- Describe the benefits of Oracle RAC
- Explain the necessity of global resources
- Configure the RAC database to use ARCHIVELOG mode and the fast recovery area
- Convert a single-instance Oracle Database to RACs
- Create a cluster database
- Ain an understanding of the Oracle Database Exadata Cloud Service
- Explain the principles and purposes of clusters
- Install the Oracle Database software
- Modify initialization parameters in a RAC environment
- Perform post-database-creation tasks
- Define redo log files in a RAC environment
- Define undo tablespaces in a RAC environment
- Describe global cache coordination
- Describe how Grid Plug and Play affects Cluster ware
- Describe the Oracle Cluster ware architecture

Course Outlines:

Grid Infrastructure Overview and Review
- What is a Cluster?
- What is a Flex Cluster
- Clusterware Characteristics
- Oracle Clusterware
- Hardware and Software Concepts (High level)

RAC Databases Overview & Architecture
- Overview of Oracle RAC
- RAC One Node
- Cluster-Aware Storage Solutions
- Benefits of Using RAC
- Scaleup and Speedup
- I/O Throughput Balanced
- Global Resources
- RAC and Flex ASM

Installing and Configuring Oracle RAC
- Installing the Oracle Database Software
- Installation options
- Creating the Cluster Database
- Post-installation Tasks
- Single Instance to RAC Conversion
- Cleaning Up Unsuccessful Installs

Oracle RAC Administration
- Parameters and RAC - SPFILE, Identical and Unique Parameters
- Instance Startup, Shutdown and Quiesce
- Undo Tablespaces
- Redo Threads
- Use Enterprise Manager Cluster Database Pages
- RAC Alerts
- RAC Metrics

Managing Backup and Recovery for RAC
- Overview of Upgrades and Patching
- Release and Patch Set Upgrades
- PSU, CPU and Interim Patches
- Merge Patches
- Performing Out of Place Database Upgrades
- Planning and Preparing for Upgrade
- Performing Out of Place Release Install or Upgrade
- Post Upgrade Tasks

RAC Backup and Recovery
- Instance Failure and Recovery In RAC - LMON and SMON
- Redo Threads and Archive Log Configurations and Admin
- Parameter Settings Affecting Parallel Recovery and MTTR
- Instance Failure and Recovery In RAC - LMON and SMON

- RAC and the Fast Recovery Area
- RMAN Configuration
- RMAN Admin For RAC: Channels, Instances, Backup Distribution
- RMAN Restore and Recovery RAC Considerations

RAC Global Resource Management and Cache Fusion
- Globally Managed Resources and Management
- Library Cache Management
- Row cache management
- Buffer cache fusion
- Buffer Cache Management Requirements
- Accessing single blocks in RAC
- Multi-block read considerations in RAC
- Undo and read consistency considerations in RAC

RAC Database Monitoring and Tuning
- OCPU and Wait Time Latencies
- Wait Events for RAC
- Common RAC Tuning
- Session and System Statistics
- RAC specific V$ Views
- Automatic Database Diagnostic Monitor for RAC
- Managing High Availability of Services in a RAC Environment
- Oracle Services
- Services for Policy - and Administrator-Managed Databases
- Creating Services
- Managing Services
- Use Services with Client Applications
- Services and Connection Load Balancing
- Services and Transparent Application Failover
- Services and the Resource Manager

Managing High Availability of Connections
- Types of Workload Distribution
- Client-Side Load Balancing
- Server-Side Load Balancing
- Runtime Connection Load Balancing and Connection Pools
- Fast Application Notification
- The Load Balancing Advisory FAN Event
- Server-Side Callouts
- Configuring the Server-Side ONS

Application Continuity
- What is AC?
- What problem does it solve?
- Benefits of AC
- How AC works
- AC Architecture
- Side Effects
- Restrictions
- Application requirements

RAC One Node
- RAC One Node Concepts
- Online database migration
- Adding Oracle RAC One Node Database to an Existing Cluster
- Convert an Oracle RAC One Node database to a RAC database
- Convert an Oracle RAC database to a RAC One Node database
- Use DBCA to convert a single instance database to a RAC One Node database

Multitenant Architecture and RAC
- Non-CDB Architecture
- Multitenant Architecture: Benefits
- CDB in a Non-RAC Environment Containers
- Terminology and Data Dictionary Views
- Connection to a non-RAC CDB
- Oracle RAC and Multitenant Configuration
- Oracle RAC and Multitenant Architecture

Quality of Service Management
- QOS Management concepts
- Describe the benefits of using QoS Management
- QoS Management components
- QoS Management functionality

Oracle Database Exadata Cloud Service Overview
- Introducing Exadata Cloud Service
- Service Configuration Options & Service Connection Options
- Service Architecture & Availability
- Management Responsibilities
- Storage Configuration & Management Details
- Simple Web-Based Provisioning & Management
- REST APIs
- Migrating to Exadata Cloud Service

REGISTER NOW!
training@trends.com.ph
(+632) 8863-2123
www.trendsacademy.com.ph