Oracle Database 19c: Clusterware Administration Workshop

Duration: 4 Days

Course Description:

This is a newly curated course of two-day duration that covers how to install, configure, and administer clusterware software when using the latest release of Oracle Database (19c).

Course Objectives:

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

- Configure a Standalone Flex Cluster
- Add a New Hub Node to the Cluster
- Create an additional ASM disk group
- Install RAC Database Software
- Create a RAC Database
- Start and Stop Oracle Clusterware
- Add and Remove Oracle Clusterware Configuration Files
- Perform Backup of the OCR and OLR
- Configure Network Interfaces Using oifcfg
- Work with SCANs, SCAN Listeners, and GNS
- Recover from Voting Disk Corruptions
- Configure and Use Policy-Based Cluster Management
- Work with CLUVFY
- Work with Cluster Health Monitor and Cluster Health Advisor
- Create and Manage Clusterware Resources and Resource Groups

Course Outlines:

Introduction to Clusterware

- Introduction to Clusterware
- Oracle Clusterware Networking

Oracle Clusterware Architecture

- Oracle Clusterware Architecture
- Voting Disk Considerations
- Clusterware Startup Details: OHASD oraagent
- Practice 2-1: Laboratory Introduction

Cluster Configuration Options

- Cluster Configuration Options
- Oracle Member Cluster for Applications

Grid Infrastructure: Preinstallation Tasks

- Grid Infrastructure: Preinstallation Tasks
- Enabling the Name Service Cache Daemon (nscd)
- Private Interconnect Network Requirements
- Oracle Linux with the Unbreakable Enterprise Kernel
- Practice 4-1: Preinstallation Tasks

Grid Infrastructure Installation

- Grid Infrastructure Installation
- Specify Installation Location
- Practice 5-1: Configuring a Standalone Flex Cluster Part01
- Practice 5-1: Configuring a Standalone Flex Cluster Part02

Managing Cluster Nodes

- Managing Cluster Nodes
- Deleting a Node from the Cluster
- Practice 6-1 and Practice 6-2
- Practice 6-3: Installing RAC Database Software
- Practice 6-4: Creating a RAC Database

Traditional Clusterware Management

- Traditional Clusterware Management
- Checking the Integrity of Oracle Clusterware Configuration Files
- Restoring the OCR on Linux or UNIX Systems
- Oracle Local Registry
- SCAN Listeners and Valid Node Checking
- Practice 7-1 to Practice 7-3
- Practice 7-4 to Practice 7-6

Policy-Based Cluster and Capacity Management

- Policy-Based Cluster and Capacity Management
- Moving Servers Between Server Pools
- Policy-Based Cluster Management and QoS Management
- Practice 8-1: Configuring and Using Policy- Based Cluster Management

Upgrading and Patching Grid Infrastructure

- Upgrading and Patching Grid Infrastructure
- Completing a Clusterware Upgrade When Nodes Become Unreachable
- OPatch: Overview

Monitoring and Troubleshooting Oracle Clusterware

- Monitoring and Troubleshooting Oracle Clusterware
- oclumon Utility
- CHA Key Performance and Workload Indicators
- Cluster Resource Activity Log (CALOG)
- Rebootless Node Eviction
- Practice for lesson 10

Making Applications Highly Available with Oracle Clusterware

- Making Applications Highly Available with Oracle Clusterware
- Using Clusterware to Enable High Availability
- Deciding on a Deployment Scheme
- Resource Group: Overview
- Practice 11-1: Configuring highly available application resources
- Practice 11-2: Clusterware Resource Groups

Appendix A: Cleanup and Catchup Scripts

- Appendix A: Cleanup and Catchup Scripts lab part 1
- Appendix A: Cleanup and Catchup Scripts lab part 2