

Advanced Oracle DBA (RAC, ASM)

1. **Real Application Cluster - RAC:**

- 1.1. What is a Cluster?
- 1.2. Grid Foundation Components
- 1.3. Oracle Clusterware Architecture
- 1.4. installation Oracle Clusterware Software and Storage
- 1.5. Describe ASM Architecture
- 1.6. Creating and Managing ASM Disk Groups
- 1.7. Creating and Managing ASM Cluster File systems
- 1.8. Administering Oracle Clusterware
- 1.9. Troubleshooting Oracle Clusterware

2. **Grid Infrastructure Installation and Configuration**

- 2.1. Hardware Requirements
- 2.2. Network Requirements
- 2.3. Software Requirements
- 2.4. DNS and DHCP Configuration
- 2.5. Grid Plug and Play Considerations
- 2.6. Single Client Access Names
- 2.7. Post tasks

3. **Oracle Automatic Storage Management concepts**

- 3.1. ASM Instance
- 3.2. ASM Disks
- 3.3. ASM Disk Groups
- 3.4. ASM Redundancy

4. **Cluster installation Prerequisite for Oracle 11g R2 RAC**

- 4.1. Linux OS Software Installation
- 4.2. Create OS Group and User Accounts
- 4.3. Networking
- 4.4. Synchronizing the Time on ALL Nodes
- 4.5. Configuring Kernel Parameters
- 4.6. Set shell limits for the oracle & grid user
- 4.7. Create the Oracle Inventory Directory
- 4.8. Creating the Oracle Grid Infrastructure Home Directory
- 4.9. Creating the Oracle Base Directory
- 4.10. Creating the Oracle RDBMS Home Directory
- 4.11. Stage the Oracle Software
- 4.12. Check OS Software Requirements
- 4.13. Cluster Verification Utility

5. **Shared Storage Configuration**

- 5.1. Types of Shared Storage
- 5.2. Partition the Shared Disks
- 5.3. Installing and Configuring ASMLib
- 5.4. Using ASMLib to Mark the Shared Disks as Candidate Disks

6. **Oracle 11g Grid Infrastructure Installation**

- 6.1. Basic/Advanced Grid Infrastructure Install (without GNS and IPMI)
- 6.2. Grid Infrastructure Home Patching
- 6.3. RDBMS Software Install
- 6.4. Run ASMCA to create disk groups

7. **Oracle 11g R2 RAC Database Software Installation**

- 7.1. Installing the Oracle Database Software
- 7.2. Creating A Cluster Database
- 7.3. Post database Creation Tasks

8. Administering Oracle Clusterware

- 8.1. Managing Clusterware with Enterprise Manager
- 8.2. Determining the Location of the Oracle Clusterware Configuration Files
- 8.3. Backing Up and Recovering the Voting Disk
- 8.4. Adding, Deleting, or Migrating Voting Disks
- 8.5. Locating the OCR Automatic Backups
- 8.6. Oracle Local Registry
- 8.7. Migrating OCR Locations to ASM
- 8.8. Managing Network Settings
- 8.9. Managing Oracle Clusterwar

9. Administering ASM Instances

- 9.1. ASM Initialization Parameters
- 9.2. Adjusting ASM Instance Parameters in SPFILES
- 9.3. Starting and Stopping ASM Instances Using srvctl
- 9.4. Starting and Stopping ASM Instances Using ASMCA and ASMCMD
- 9.5. Starting and Stopping ASM Instances Containing Cluster Files
- 9.6. Starting and Stopping the ASM Listener
- 9.7. Administering ASM Disk Groups
- 9.8. Creating and Deleting ASM Disk Groups
- 9.9. ASM Disk Group Attributes
- 9.10. ASM Disk Group Maintenance Tasks
- 9.11. Viewing ASM Disk Statistics

10. Cluster Node Management

- 10.1. Add/Deleting the instance
- 10.2. Add the Node
- 10.3. Remove the Node

11. Troubleshooting Oracle Clusterware

- 11.1. Oracle Clusterware Log Files
- 11.2. Gathering Log Files usingdiagcollection.pl
- 11.3. Component-level Debugging
- 11.4. RAC-Specific Wait Events, Global Enqueues, and System Statistic
- 11.5. Implementing the Most Common RAC Tuning Tips
- 11.6. Using the Cluster Database Performance Pages
- 11.7. Using the Automatic Workload Repository in RAC
- 11.8. Using Automatic Database Diagnostic Monitor in RAC