

ORACLE RAC [10 G / 11 G] COURSE CONTENT

❖ **INTRODUCTION:**

- What is a Cluster Oracle Real Application Clusters (RAC)
- Advantage of using RAC
- Clusters High Availability, Scalability and Performance
- Oracle Real Application Clusters Architecture
- Cache fusion
- Multi instance transaction behavior
- Extra background process in RAC

❖ **INSTALLATION OF ORACLE CLUSTERWARE (CRS) AND CONFIGURATION:**

- Oracle RAC 10g Installation: Outline
- Pre-Installation Tasks
- Hardware Requirements
- Network Requirements
- The oracle User Environment Setup & User Shell Limits
- Linux Operating System Parameters
- Cluster Setup Tasks
- Storage for Cluster
- Oracle Cluster Registry File
- Voting Disk File
- Verifying the Oracle Clusterware Installation
- Cluster verify utility (CLUVFY)

❖ **ASM WITH RAC:**

- ASM Overview
- Installation of ASM Instances
- Managing ASM Disk Groups and Instances.
- ASM Instance and Crash Recovery in RAC

❖ **RAC SOFTWARE INSTALLATION & DATABASE CREATION:**

- Oracle database software installation
- Cluster database creation
- Post installation tasks

❖ **ORACLE CLUSTERWARE ADMINISTRATION & DEBUGGING:**

- Oracle Cluster registry (OCR)
- Voting disk
- VIP Addresses
- Debugging Clusterware log files
- Workload distribution
- Transparent application failover

❖ **RAC ADMINISTRATION:**

- Starting and Stopping RAC Instances
- Creating and Registering Instances
- Transparent Application Failover (TAF)
- Database files with RAC
- Initialization Parameter Files
- Trace & Alert logs

- Undo management
- Temporary table space monitoring

❖ **RAC SERVICES:**

- What is a Service
- Advantage of using service
- Possible service configuration
- Creation and maintenance of services using SRVCTL, DBCA,EM
- Statistics gathering and tracing to check performance of Services
- Service performance views
- Workload distribution
- Transparent application failover

❖ **PERFORMANCE MONITORING:**

- Finding & Monitoring the Sessions
- Session and system statistics
- Finding and Resolving Locks across Instances
- Cache Fusion impact & events in RAC
- Wait events & Wait event views
- Generating AWR Snapshots & Reports in RAC
- Doing ADDM analysis

❖ **BACKUP AND RECOVERY IN RAC:**

- Protecting Against Media Failure
- Archived Log File Configurations & Conventions
- RAC and the Flash Recovery Area
- Oracle Recovery Manager
- Distribution of Backups

❖ **WORKSHOP AND CASE STUDIES:**

- Single instance to RAC conversion
- Cloning a RAC Instance
- No archive log to Archive log conversion
- Node addition and deletion
- Patching RAC software and Clusterware