

## Oracle Database 10g: RAC for Administrators Release 2

**Duration:** 5 Days

### What you will learn

This course offers students an introduction to the general features and capabilities of Oracle Database 10g Release 2 for Oracle Real Application Clusters (RAC). Students learn how to install and administer Oracle Clusterware, Real Application Clusters, and Automatic Storage Management. Students also learn how to administer their Database in a Real Application Clusters environment using Enterprise Manager Grid Control. Increase your efficiency by learning how to configure and use database services as well as the Load Balancing Advisory in a RAC environment. Learn how to add and remove nodes in clusters and how to patch both Oracle Clusterware and Real Application Clusters software in a rolling fashion.

This course counts toward the Hands-on course requirement for the following certifications

Oracle Database 10g Administrator Certification

Oracle Database 10g: Real Application Clusters Administrator Certified Expert

Only instructor-led inclass or instructor-led online formats of this course will meet the Certification Hands-on Requirement. Self Study CD-Rom and Knowledge Center courses are excellent study and reference tools but DO NOT meet the Hands-on Requirement for certification.

Learn To: Install Oracle Clusterware and Real Application Clusters  
Administer a RAC Database  
Administer Database Services in a RAC environment  
Administer Oracle Clusterware  
Add/Remove a node to/from a cluster  
Patch Oracle Clusterware and RAC software in a rolling fashion

### Audience

Data Warehouse Administrator  
Database Administrators  
Database Designers  
Project Manager  
Support Engineer  
System Analysts  
Technical Administrator  
Technical Consultant

### Prerequisites

*Required Prerequisites*

Oracle Database 10g: Administration Workshop I Release 2

Oracle Enterprise Manager 10g Grid Control Release 2

Oracle Database 10g: Administration Workshop II Release 2

*Suggested Prerequisites*

Single-instance Oracle Database 10g Architecture and Experience

## Course Objectives

- Identify Real Application Clusters components
- Install, create, administer, and monitor a Real Application Clusters database
- Use configuration and management tools for Real Application Clusters databases
- Setup services for workloads management, and applications high availability
- Develop a backup and recovery strategy for Real Application Clusters databases
- Configure and monitor Oracle Clusterware resources
- Review high availability best practices

## Course Topics

### Identify Real Application Clusters components

- Understand Real Application Clusters
- Clusters Scalability and High Availability
- The Necessity of Global Resources
- Parallel Execution with RAC
- RAC Software and Database Principles
- RAC and Shared Storage Technologies
- Understand VIPs
- Describe the benefits of Fast Application Notification

### Install, create, administer, and monitor a Real Application Clusters database

- Describe the installation of Oracle RAC 10g
- Perform RAC pre-installation tasks
- Perform cluster setup tasks
- Install Oracle Clusterware
- Install and configure Automatic Storage Management (ASM)
- Install the Oracle database software
- Create a cluster database
- Install the Enterprise Manager agent on each cluster node

### Use configuration and management tools for Real Application Clusters databases

- Use Enterprise Manager cluster database pages
- Define redo log files in a RAC environment
- Define undo tablespaces in a RAC environment
- Start and stop RAC databases and instances
- Modify initialization parameters in a RAC environment
- Manage ASM instances in a RAC environment
- Determine RAC-specific wait events, global enqueues, and system statistics
- Implement the most common RAC tuning tips

### Setup services for workloads management, and applications high availability

- Configure and manage services in a RAC environment
- Set performance-metric thresholds on services
- Configure services aggregation and tracing
- Configure server-side connect-time load balancing
- Use the Load Balancing Advisory
- Configure server-side callouts
- Configure the server- and client-side ONS
- Configure Transparent Application Failover (TAF)

**Develop a backup and recovery strategy for Real Application Clusters databases**

Configure the RAC database to use ARCHIVELOG mode and the flash recovery area

Configure RMAN for the RAC environment

**Configure and monitor Oracle Clusterware resources**

Manually control the Oracle Clusterware stack

Change voting disk and OCR configuration

Back up or recover your voting disks and OCR files

Change VIP addresses

Use the CRS framework

Collect Oracle Clusterware diagnostic files

Enable Oracle Clusterware debugging

**Review high availability best practices**

Add a new node to your cluster database

Remove a node from your cluster database

Design a Maximum Availability Architecture in your environment

Decide on the best ASM configuration to use

Patch your RAC system in a rolling fashion