

Course 286: Oracle Database 10g Real Application Clusters (RAC)

Course Description...

This course introduces students to the general features and capabilities of Oracle Database for Oracle Real Application Clusters (RAC). Students learn how to implement and use RAC to:

- configure and administer a database for use with Real Application Clusters
- set up and use Automatic Storage Management (ASM)
- performance tune in the RAC environment
- implement high availability via Transparent Application Failover (TAF)
- design the configuration for maximum throughput

Hands-on Lab exercises give students practice using many of the new features.

Learning 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
- Migrate your database storage to Automatic Storage Management
- Setup services for workloads management, and applications high availability
- Develop a backup and recovery strategy for Real Application Clusters databases
- Review high availability best practices

Who should attend...

Database Administrators (DBAs) who are implementing Real Application Clusters or tasked with supporting them

Prerequisites...

Significant administration experience with administering Oracle Databases and Oracle Database 10g features

See next page for a detailed course outline...



Course Outline

Introduction and Overview

Course Objectives

Unit 1: Oracle Database RAC and the GRID

- Grid Computing
- Clusters
- Real Application Clusters

Unit 2: RAC Architecture

- RAC Components
- Instance and new Processes
- Logical Objects
- Cluster Ready Services (CRS)
- Accessing RAC: Network Services

Unit 3: Shared Storage

- Overview of Required Files and Directories
- Cluster File System (CFS)
- Oracle Disk Manager
- Automated Storage Management (ASM)

Unit 4: Install and Configure

- Installation Components
- Installation Tasks
- Cluster Ready Services Setup Tasks
- Database Creation

Unit 5: Administration

- Parameter Management
- UNDO Management
- The Oracle Interface Configuration Tool
- The Oracle Cluster Registry in RAC
- Adding and Deleting Nodes and Instances
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Unit 6: Services

- Services and High Availability in Real Application Clusters
- Adding and Modifying Services
- Using the DBCA to Add and Modify Services
- Automatic Restarts after Failures
- Administering Services with Enterprise Manager and SRVCTL

Unit 7: Cache Fusion and Instance Recovery

- Cache Fusion
- SGA Components and Locking
- Resource Coordination
- Recovery



Unit 8: Transparent Application Failover (TAF)

- Overview
- Load Balancing
- TAF Configurations

Unit 9: Deployment of Applications

- Overview and Consolidation of Databases
- RAC Suitability
- Deployment Issues
- High Availability Requirements

Unit 10: Managing Backup and Recovery

- Overview
- Backing up RAC Databases
- Using RMAN

Unit 11: Migrating to RAC

- Migration Overview
- Migration Methodology
- Adding Instances to Nodes

Unit 12: Performance Tuning and Parallel Processing

- Overview of Monitoring Real Application Clusters Databases
- Performance Views in Real Application Clusters
- Real Application Clusters Performance Statistics
- Automatic Workload Repository in Real Application Clusters Environments
- Monitoring RAC Statistics and Events

Unit 13: Course Summary

- Plan of Action

Please contact your ROI representative to discuss course tailoring!!!