ORACLE DATABASE: RAC ADMINISTRATION
CORPORATE COLLEGE SEMINAR SERIES

Date: Ongoing
Presented by: Lone Star Corporate College in partnership with the University of Houston
Location: Lone Star College-University Park
20515 State Highway 249 (@ Louetta Rd.)
Houston, TX 77070
Meets: Monday & Thursdays from 6-10 p.m.

Description: You will learn about RAC database management in the Oracle Grid Infrastructure environment. In addition, you will also learn to administer cluster databases using Enterprise Manager and command-line utilities like SRVCTL, CRSCTL, and SQL Plus. Other topics will include new connection architecture, as well as backup and recovery issues related to cluster database environments. Oracle database administration experience is a required prerequisite for this course.

Who should attend: This program is designed for data warehouse administrators, database administrators, database designers, functional implementers, support engineers, system analysts, technical administrators, and technical consultants.

Objectives: In this workshop, you will learn how to install Oracle 11gR2 software and create a RAC database, manage RAC databases, manage RAC backup and recovery, determine RAC-specific tuning components, configure and manage services in a RAC environment, and describe high availability architectures.

Course topics include:
- Real application clusters database installation
- Oracle RAC administration
- Managing backup and recovery for RAC
- Monitoring and tuning the RAC database
- Services
- Design for High Availability

Hours: 36
Cost: $1,500

For more information, contact:
Michael Burns
Sr. Program Manager of Business and Information Technology
Michael.Burns@LoneStar.edu
281.290.2925
Oracle Database: RAC Administration

What You Will Learn

Learn about RAC database administration in the Oracle Grid Infrastructure environment; how to administer cluster databases using Enterprise Manager and command-line utilities like SRVCTL, CRSCTL, and SQL*Plus; study the new connection architecture and how to make those connections highly available; and learn about backup and recovery issues relative to cluster database environments.

In addition, learn to administer both policy- and administrator-managed RAC databases, install and configure 11gR2 RAC software, describe backup and recovery in a RAC environment, create and configure a RAC database, use services, and describe Oracle Database 11gR2 RAC enhancements and new features.

This course is based on Oracle Database 11g Release 2.

Note: This course counts towards the hands-on course requirement for the Oracle Database 10g and 11g Administrator Certifications. Only instructor-led in-class or instructor-led online formats of this course will meet the Certification Hands-on Requirement. Self Study CD-ROM and Knowledge Center courses DO NOT meet the Hands-on Requirement.

Audience

- Data Warehouse Administrators
- Database Administrators
- Database Designers
- Functional Implementers
- Support Engineers
- System Analysts
- Technical Administrators & Consultants

Required Prerequisites

- Oracle Database Administration experience

Suggested Prerequisites

- Oracle Grid Infrastructure 11g: Manage Clusterware and ASM Release 2
- Oracle Database: Introduction to SQL
- Oracle Database 11g: Administration Workshop I DBA Release 2
- Oracle Database 11g: Administration Workshop II DBA Release 2

Course Objectives

- Install Oracle 11gR2 software and create RAC database
- Manage RAC databases
- Manage backup and recovery for RAC
- Determine RAC-specific tuning components
- Configure and manage services in a RAC environment
- Describe high availability architectures

If you have questions, contact:
Michael Burns, Senior Program Manager of Business and Information Technology, Lone Star College System
Michael.Burns@LoneStar.edu - 281.290.2925
Course Topics

**Real Application Clusters Database Installation**
- Installing the Oracle Database Software
- Creating a Cluster Database
- Post-database Creation Tasks
- Single-Instance Conversion Using the DBCA
- Single-Instance Conversion Using rconfig
- Background Processes Specific to Oracle RAC

**Oracle RAC Administration**
- Enterprise Manager Cluster Database Pages
- Redo Log Files In A RAC Environment
- Undo Tablespaces In A RAC Environment
- Starting And Stopping RAC Databases And Instances
- Initialization Parameters In A RAC Environment
- Transparent Data Encryption and Wallets in RAC
- Quiescing RAC Databases

**Managing Backup and Recovery for RAC**
- Protecting Against Media Failure
- Parallel Recovery in RAC
- Archived Log File Configurations
- RAC Backup and Recovery Using EM
- Archived Redo File Conventions in RAC
- Channel Connections to Cluster Instances
- Distribution of Backups

**Monitoring and Tuning the RAC Database**
- Determining RAC-Specific Tuning Components
- Tuning Instance Recovery in RAC
- RAC-Specific Wait Events, Global Enqueues, and System Statistics
- Implementing the Most Common RAC Tuning Tips
- Using the Cluster Database Performance Pages
- Using the Automatic Workload Repository in RAC
- Using Automatic Database Diagnostic Monitor in RAC

**Services**
- Configure and Manage Services in a RAC environment
- Using Services with Client Applications
- Using Services with the Database Resource Manager
- Use Services with the Scheduler
- Configuring Services Aggregation and Tracing
- Managing Services From the Command Line
- Managing Services With Enterprise Manager

**Design for High Availability**
- Designing a Maximum Availability Architecture
- Determine the Best RAC and Data Guard Topologies
- Data Guard Broker Configuration files in a RAC Environment
- Identifying Successful Disk I/O strategies