Oralogic Education Systems

Next Generation IT Education Systems

Introduction:

Oracle Real Application Clusters provides customers with the highest database availability by removing individual database servers as a single point of failure. In a clustered server environment, the database itself is shared across a pool of servers, which means that if any server in the server pool fails, the database continues to run on surviving servers. Oracle RAC not only enables customers to continue processing database workloads in the event of a server failure, it also helps to further reduce costs of downtime by reducing the amount of time databases are taken offline for planned maintenance operations.

Oracle Real Application Clusters is an option to the award-winning Oracle Database Enterprise Edition. Oracle RAC is a cluster database with a shared cache architecture that overcomes the limitations of traditional shared-nothing and shared-disk approaches to provide highly scalable and available database solutions for all business applications. Oracle RAC is a key component of Oracle's private cloud architecture.

Oracle Real Application Clusters enables the transparent deployment of Oracle Databases across a pool of clustered servers. This enables customers to easily re-deploy their single server Oracle Database onto a cluster of database servers, and thereby take full advantage of the combined memory capacity and processing power the clustered database servers provide.

Oralogic Education Systems provide quality education in this key technology. We have most experienced professional who have extensive experience in managing and configuring Oracle Database software in most mission critical environments.

Course Contents:

Overview of Oracle Grid Infrastructure and RAC

- Describe the Oracle Clusterware architecture
- Describe the Automatic Storage Management (ASM) architecture
- Describe the Real Application Clusters (RAC) services and Sever Pools
- Describe the tools used for Grid Infrastructure and RAC

Planning your cluster installation

- Use the Cluster Verification Utility (CVU)
- Review and backup an existing Oracle environment

Preparing the cluster servers

- Check the hardware and software requirements
- Perform platform-specific configuration tasks

- Check the kernel parameters with the Oracle Universal Installer (OUI)

Preparing the administrator environment

- Configure the operating system environment
- Configure the operating system users and groups
- Configure the secure shell (SSH)
- Configure SSH user equivalency

Preparing the storage

- Check storage hardware requirements
- Describe the supported storage options
- Implement a storage option
- Explain the file requirements for Oracle Clusterware
- Configure the Oracle Cluster Registry (OCR)
- Manage the Oracle Local Registry (OLR)
- Create ASM instances, ASM Disk Groups and ASM Files
- Explain Multipathing
- Describe ASMLIB

Preparing the installation directories

- Set the Oracle Inventory directory
- Set the Oracle Grid Infrastructure Home directory
- Set the Oracle Base directory
- Set the Oracle Home directory

Preparing the network

- Identify the network requirements
- Describe the IP address types
- Explain the Single Client Access Name feature (SCAN)
- Implement cluster interconnect best practices

Installing Oracle Clusterware 11g

- Install Oracle Clusterware
- Verify the installation

Installing the Oracle Database 11g software with RAC

- Install the Oracle Database software
- Configure ASM with the Database Configuration Assistant (DBCA)
- Create a cluster database
- Set the initializations parameters

Using the Server Control utility (SRVCTL)

- Start or stop nodeapps, databases, instances, listeners and services
- Add, move or delete instances and services
- Manage configuration information with SRVCTL

Using the Oracle Clusterware Control utility (CRSCTL)

- Enable or disable Oracle Clusterware daemons
- Enable or disable debugging
- Add, move or delete voting disks dynamically
- Diagnose cluster issues

Using the Oracle Interface Configuration tool (OIFCFG)

- Allocate or deallocate network interfaces and components
- Retrieve component configuration information

Using the Oracle Cluster Registry Configuration utility (OCRCONFIG)

- Add, replace, repair or remove an OCR
- Manage backups and restore the OCR

Using the OCRCHECK and OCRDUMP utilities

- Check the status of an OCR file with OCRCHECK
- View OCR and OLR content with OCRDUMP

Using the Oracle ASM Configuration Assistant (ASMCA)

- Manage ASM instances and disk groups with ASMCA
- Manage Oracle ASM Dynamic Volume Manager volumes (ADVM)
- Manage Oracle ASM Cluster File Systems (ACFS)

Using the ASM Command tool (ASMCMD)

- Manage ASM instances and disk groups with ASMCMD
- Manage file access control for disk groups
- Manage files and directories within disk groups
- Manage templates for disk groups and volumes

Using the Oracle Cluster Health Monitor (IPD/OS)

- Check the Oracle Clusterware and RAC clusters for problems

Oracle RAC 12cR2 New Features Highlights

Note: Above topics include hands on training exercises. In addition to above topics The Platform (Linux O/S, Oracle Real Application Clusters) Readiness is also included which covers –

- Install oracle linux 6.x
- Install oracle GI/RAC binaries 11.2.x
- deploy oracle cluster database environment
- configure oracle RAC high availability services (client, server side configuration)

Other Information:

Course #	DBARAC01
Instructor	Industry Professional
Course	Oracle Real Application Cluster (RAC)
Version	Oracle11g, 12c
Duration	2 Weeks
Class Duration	3 Session a week, 2 hours
Medium	In-Class, Online