

NUTECH COMPUTER TRAINING INSTITUTE

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Oracle 11gR2 RAC on Linux Training

– 11gR2 RAC Introduction

- What is a Cluster
- Advantage of using RAC
- Architecture of RAC
- Grid Infrastructure Concepts
 - Grid Foundation Components
 - Oracle Clusterware Architecture
 - Oracle Clusterware Software and Storage
- Cache fusion
- Multi instance transaction behavior
- Extra background process in RAC
- Download Software (VMware, infrastructure, Database, Grid Control)

– Hands-on Build server (VM, OS)

- Pre-requisite before installation
 - Hardware Requirements
 - Network Requirements
 - DNS and DHCP Configuration
- VMware Server Installation
- Virtual Machine Setup
- VM server OS Installation
- Install OS Requirements
- Clone the VM Machine

– Hands-on Grid Installation

- 11g Grid Control Installation
- Grid Control Agent Installation
- Pre and Post installation task
- Cluster verify utility CLUVFY
- Oracle 11g R2 Grid Infrastructure Architecture
- 11gR2 Infrastructure Installation

- Managing Clusterware with Enterprise Manager
- Determining the Location of the Oracle Clusterware Configuration Files
- Backing Up and Recovering the Voting Disk
- Adding, Deleting, or Migrating Voting Disks
- Locating the OCR Automatic Backups
- Oracle Local Registry

– **Hands-on Grid Infrastructure configuration**

- Oracle 11g R2 Grid Infrastructure
- Administrating Oracle Clusterware
- Managing Oracle Clusterware
- SCAN configuration
- Managing ASM instance
- Managing ASM disk groups, Add and remove disk
- ASM Cluster File System (ACFS) Management

- Administering ASM Instances
 - ASM Initialization Parameters
 - Starting and Stopping ASM Instances Using srvctl
 - Starting and Stopping ASM Instances Using ASMCA and ASMCMD
 - Starting and Stopping ASM Instances Containing Cluster Files
 - Starting and Stopping the ASM Listener
- Administering ASM Disk Groups
 - Creating And Deleting ASM Disk Groups
 - ASM Disk Group Attributes
 - ASM Disk Group Maintenance Tasks
 - ASM Files, Directories, and Templates
 - Creating and Managing ASM files, Directories and Aliases
 - Managing Disk Group Templates
 - Managing ASM ACL With Command Line Utilities
 - Managing ASM ACL with Enterprise Manager
- Administering ASM Cluster File Systems
 - ASM Dynamic Volume Manager
 - Managing ASM Volumes
 - Implementing ASM Cluster File System
 - Managing ASM Cluster File System (ACFS)
 - Using Command Line Tools To Manage ACFS

– **Hands-on RAC database administration 1**

- Oracle 11g RAC Database software Installation
- RAC database Creation
- Oracle RAC database Administration
 - Redo log files
 - Control files
 - Data files

- Initialization Parameter Files
- Alert log files
- Undo management
- Temporary tablespace
- Starting and stopping of RAC instances

– Hands-on RAC database administration 2

1. RMAN backup and recovery
 - 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
2. 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

- Hands-on RAC database administration 3

- No archive log to Archive log conversion
- Apply patch with ‘opatch’
- Rolling Patches
- Rolling Upgrades
- Infrastructure Upgrade
- RAC database Upgrade
- Add and delete disks.
- Add and delete new node
- Oracle 11g One Node RAC

Service Management