

# Oracle Database 12c/18c/19c RAC for Administrators

## Course information

Days : 5

Total lessons : 12

Suggested Prerequisites :

- Oracle Database : Administrator Workshop I
- Oracle Database : Administrator Workshop II

Training includes :

- Experienced trainer(s)
- Pre-test and Post-test
- Practices and solutions

Public price :

- 30,000 baht(THB) : 1 person

In-house price for 5 days

- 90,000 baht(THB) : Economic Class : 1 - 5 people
- 102,500 baht(THB) : Small Class : 6 - 10 people
- 125,000 baht(THB) : Medium Class : 11 - 20 people
- 147,500 baht(THB) : Big Class : 21 - 30 people

*All prices exclude VAT 7 %*

## Course details

### Day 1

- Introduction
- Lesson 1 : Oracle Clusterware Installation and Configuration
- Lesson 2 : RAC Software Installation
- Lesson 3 : RAC Database Creation

### Day 2

- Lesson 4 : RAC Database Administration
- Lesson 5 : Managing Backup and Recovery in RAC
- Lesson 6 : RAC Performance Tuning

### Day 3

- Lesson 7 : Services
- Lesson 8 : High Availability of Connections

### Day 4

- Lesson 9 : Oracle Clusterware Administration
- Lesson 10 : Diagnosing Oracle Clusterware and RAC Components

### Day 5

- Lesson 11 : Node Addition and Removal
- Lesson 12 : Design for High Availability
- Lesson 13 : Workshop



## **Lesson details**

### **Lesson 1 : Oracle Clusterware Installation and Configuration**

- Describe the installation of Oracle RAC 10g
- Perform RAC preinstallation tasks
- Perform cluster setup tasks
- Install Oracle Clusterware

### **Lesson 2 : RAC Software Installation**

- Install and configure Automatic Storage Management (ASM)
- Install the Oracle database software
- Perform pre–database creation tasks

### **Lesson 3 : RAC Database Creation**

- Install the Enterprise Manager agent on each cluster node
- Create a cluster database
- Perform post–database creation tasks

### **Lesson 4 : RAC Database Administration**

- 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

### **Lesson 5 : Managing Backup and Recovery in RAC**

- Configure the RAC database to use ARCHIVELOG mode and the flash recovery area
- Configure RMAN for the RAC environment

### **Lesson 6 : RAC Performance Tuning**

- Determine RAC-specific tuning components
- Tune instance recovery in RAC
- Determine RAC-specific wait events, global enqueues, and system statistics
- Implement the most common RAC tuning tips
- Use the Cluster Database Performance pages
- Use the Automatic Workload Repository (AWR) in RAC
- Use Automatic Database Diagnostic Monitor (ADDM) in RAC

### **Lesson 7 : Services**

- Configure and manage services in a RAC environment
- Use services with client applications
- Use services with the Database Resource Manager
- Use services with the Scheduler
- Set performance-metric thresholds on services
- Configure services aggregation and tracing



## **Lesson 8 : High Availability of Connections**

- Configure client-side connect-time load balancing
- Configure client-side connect-time failover
- Configure server-side connect-time load balancing
- Use the Load Balancing Advisory (LBA)
- Describe the benefits of Fast Application Notification (FAN)
- Configure server-side callouts
- Configure the server- and client-side ONS
- Configure Transparent Application Failover (TAF)

## **Lesson 9 : Oracle Clusterware Administration**

- Manually control the Oracle Clusterware stack
- Change voting disk configuration
- Back up or recover your voting disks
- Manually back up OCR
- Recover OCR
- Replace an OCR mirror
- Repair the OCR configuration
- Change VIP addresses
- Use the CRS framework
- Prevent automatic instance restarts

## **Lesson 10 : Diagnosing Oracle Clusterware and RAC Components**

- Collect Oracle Clusterware diagnostic files
- Use Cluster Verify

## **Lesson 11 : Node Addition and Removal**

- Add a new node to your cluster database
- Remove a node from your cluster database

## **Lesson 12 : Design for High Availability**

- Design a Maximum Availability Architecture in your environment
- Determine the best RAC and Data Guard topologies for your environment
- Configure the Data Guard Broker configuration files in a RAC environment
- Decide on the best ASM configuration to use
- Patch your RAC system in a rolling fashion

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