Oracle Database 12c: Clusterware Administration

Course code: D81246

This Oracle Database 12c: Clusterware Administration training will explore general cluster concepts and Oracle Clusterware architecture. Work with expert Oracle University instructors through interactive instruction and hands-on exercises to reinforce your learning. Benefits to You - Learn how to make applications highly available using Oracle Clusterware. You'll walk away with the ability to install, configure, manage and troubleshoot both standard and flex clusters. Furthermore, you will have developed the skills to upgrade and patch Clusterware environments.

Affiliate	Duration	Course price	ITB
Praha	4	58 540 Kč	60
Brno	4	58 540 Kč	60
Bratislava	4	2 164 €	60

The prices are without VAT.

Course terms

Date	Duration	Course price	Type	Course language	Location

The prices are without VAT.

What we teach you

- Understand Flex Clusters architecture and components
- Understand effect of node failure in Flex Clusters
- Understand the scope and capabilities of what-if command evaluation
- Perform the different types of what-if command evaluation
- Install Grid Infrastructure for Standard and Flex clusters
- Verify the installation
- Configure ASM disk groups
- Perform the prerequisite steps for extending a cluster
- Add a Leaf node and a Hub node to a Flex cluster
- Delete a node from a cluster
- Explain the principles and purposes of clusters
- Describe Cluster hardware best practices
- Describe the Oracle Clusterware architecture
- Describe Clusterware architecture
- Install and configure Flex Clusters
- Understand effect of node failure in Flex Clusters

Required skills

Working knowledge of Oracle Database 11g: Release 2, including Clusterware, ASM and RAC

Teaching methods

Expert instruction with practical examples, computer practice

Oracle Training Formats

Training on Demand, one of the most popular learning formats, allows students to learn whenever they need (24/7, 90 days). These video recorded courses are led by TOP instructors. Other learning formats are traditional in-class training, Live Virtual Class, or Self-Study Courses. Read more here.

Teaching materials

The student materials include comprehensive courseware and other necessary materials for this class. All reading materials are in English.

GOPAS Praha
Kodaňská 1441/46
101 00 Praha 10
Tel.: +420 234 064 900-3
info@gopas.cz

GOPAS Brno
Nové sady 996/25
602 00 Brno
Tel.: +420 542 422 111
info@gopas.cz

GOPAS Bratislava
Dr. Vladimíra Clementisa 10
Bratislava, 821 02
Tel.: +421 248 282 701-2
info@gopas.sk

GOPAS®

Course outline

Introduction to Grid Infrastructure
- What is a Cluster?
- What is a Flex Cluster?
- Clusterware Characteristics
- Oracle Clusterware
- Hardware and Software Concepts (High level)
- Shared Storage Overview

Oracle Clusterware Architecture
- Cluster Storage Requirements
- Clusterware Initialization and OHASD
- Clusterware Process Architecture
- Location Independent Names, Addresses and Name Resolution (GNS, SCAN, VIP..)
- Shared GNS Background and Architecture
- Configuring shared GNS
- Migrating to shared GNS
- Moving GNS to Another Cluster

Flex Cluster Architecture
- Flex Cluster Architecture
- Configuring Flex Cluster
- Flex Clusters and Node Failure

Grid Infrastructure Pre-Installation Tasks
- Shared Storage for Oracle Clusterware
- Checking System Requirements
- Single Client Access Name for the Cluster
- Redundant Interconnect Usage
- Kernel Requirements
- Groups and Users
- Shell Settings
- Oracle Validated Configuration

Installing Grid Infrastructure
- Installing Oracle Grid Infrastructure
- Installing Flex Cluster
- Verifying the Oracle Clusterware Installation

Managing Cluster Nodes
- Adding Oracle Clusterware Homes
- Prerequisites for Running addNode.sh
- Adding a Node with addNode.sh
- Configuring the node role
- Removing a Node from the Cluster

Traditional Clusterware Management
- Oracle Clusterware startup and shutdown
- Administering the Voting Disk file
- Administering the Oracle Cluster Registry Disk file
- Network Administration
- What-If Command Evaluation
- Clusterware Admin Tools Review

GOPAS

Policy-Based Cluster Management
- Policy-Based Cluster Management Overview
- Server Categorization
- Policy Set

Patching Grid Infrastructure
- Out-of-Place Oracle Clusterware Upgrade
- Types of Patches
- Obtaining Oracle Clusterware Patches
- Rolling Patches
- Installing a Rolling Patchset with OUI
- OPatch Overview
- Installing a Rolling Patch with OPatch
- OPatch Automation

Troubleshooting Oracle Clusterware
- Diagnostic Framework Support for CRS
- Cluster Health Monitor Enhancements Overview
- Component level checks - cluvfy with -comp
- Resource Debugging - Java Tools and Dynamic Debugging
- Troubleshooting Node Evictions
- Log files and Diagnostic Collection
- The oclumon Utility

Making Applications Highly Available
- Overview of Using Oracle Clusterware to Enable HA
- Oracle Clusterware HA Components
- Resource Management Options
- Server Pools
- Overall flow diagram of HA lifecycle (crs_profile, crs_register, crs_start....)
- Clusterware Resource Modeling
- Creating an Application VIP
- ONS and FAN overviews

GOPAS®