Oracle Database 19c: Deploy, Patch, and Upgrade Workshop Live Class

Oracle Database

DURATION	MODULES	COURSE CODE
2 Days	**12 Lectures**	**—**

Course Overview

This course helps you learn how to deploy, patch, and upgrade Oracle Grid Infrastructure and Oracle Database software. You learn how to create a container database and provision pluggable databases. Additionally, you get to work on multiple install scenarios as part of the hands-on.

What You Will Learn

- I Oracle Database 19c: Deploy, Patch, and Upgrade
- Running Auto Data Placement Advisor I-3
- Course Outline I-4
- Feedback I-5

Installation Overview

- Objectives
- Planning Your Installation
- Oracle Software Installation Decisions
- Oracle Grid Infrastructure Software Groups
- Oracle Database Software Groups
- Oracle Extended Database Groups
- Accounts and Group Assignments: Example
- Oracle Software Installation Decisions
- Method for Root Privilege Access
- Oracle Software Installation Decisions
- Preparing the Operating System for Oracle Software
- Oracle Software Installation Decisions
- Oracle Database Instance Configurations
- Oracle Software Installation Decisions
- Storage Options: File Systems
- Storage Options: Automatic Storage Management

- Methods for Disks Ownership, Naming, and Persistence
- Summary

Preparing to Install Oracle Software

- Objectives
- Check Server Hardware and Memory Configuration
- Update the Oracle Linux Operating System
- Create Groups for Job Role Separation
- Modify and Create Users
- View and Adjust Pluggable Authentication Module (PAM) Limits
- Create Initial Installation Directories
- Summary

Installing Oracle Grid Infrastructure for a Stand-Alone Server

- Objectives
- Overview of Oracle Grid Infrastructure
- Configuring Storage for Oracle Automatic Storage Management
- Oracle Grid Infrastructure Installation: System Requirements for
- Linux x86-64 Systems
- Installation Option
- Create ASM Disk Group
- ASM Password
- Management Options
- Operating System Groups
- Installation Location
- Create Inventory
- Root Script Execution
- Prerequisite Checks
- Summary
- Install Product
- Finish
- Oracle ASMCA: Home
- Oracle ASMCA: Create Disk Group
- Summary

Installing Oracle Database Software

- Objectives
- Oracle Database Software Installation: System Requirements
- Configure Security Updates
- Select Installation Option
- Select Database Installation Option
- Select Database Edition
- Specify Installation Location
- Privileged Operating System Groups

- Perform Prerequisite Checks
- Summary
- Install Product
- Finish
- Summary

Creating an Oracle Database Using Oracle DBCA

- Objectives
- Planning the Database
- Database Operation
- Database Creation Mode
- Database Deployment Type
- Database Identification
- Database Storage Option
- Fast Recovery Option
- Network Configuration
- Oracle Data Vault Config Option
- Configuration Options
- Management Options
- Database User Credentials
- Database Creation Options
- Summary
- Progress Page
- Finish
- Summary

Patching Oracle Grid Infrastructure and Oracle Database

- Objectives
- Overview of the Patch Process
- Oracle Patches Maintenance
- Oracle Patches Prior to 19.17.0
- Oracle Patches 19.17.0 and Forward
- Proactive Maintenance with RUs and MRPs
- Oracle Database Server Risk Matrix
- Oracle Patching Tools:
- Oracle Patching Tools: OPatch
- Oracle Patching Tools: opatchauto
- Oracle Patching Tools: opatchauto -binary
- Minimizing Downtimes: Rolling Patching
- Minimizing Downtimes: Standby-First Patching
- Minimizing Downtimes: Patching a Cloned Home
- Summary

Oracle Restart

- Objectives
- Oracle Restart Process Startup
- Oracle Restart Configuration & Management
- Oracle Restart Configuration
- Managing Oracle Restart
- Server Control Utility (SRVCTL)
- Using the SRVCTL Utility
- Choosing the Correct SRVCTL Utility
- Obtaining Help for the SRVCTL Utility
- Starting Components Using the SRVCTL Utility
- Stopping Components Using the SRVCTL Utility
- Viewing Component Status
- Displaying the Oracle Restart Configuration for a Component
- Manually Adding Components to the Oracle Restart Configuration
- Oracle Restart Maintenance Operations
- Stopping and Restarting Restart for Maintenance Operations
- Stopping and Restarting Restart Example
- Stopping and Restarting Restart: Example
- Summary

Upgrading to Oracle Grid Infrastructure 19c

- Objectives
- Upgrading Oracle Grid Infrastructure: Restrictions and Guidelines
- Checklist for Upgrading Oracle Grid Infrastructure
- Install the Oracle Preinstallation RPM
- Create a Copy of the Preinstallation Configuration File for the Grid User
- Configuration Option
- Management Options
- Operating System Groups
- Installation Location
- Root Script Execution
- Prerequisite Checks
- Summary
- Install Product
- Finish
- Summary

Before Upgrading to Oracle Database 19c

- Objectives
- Defining Upgrade and Data Migration
- Upgrade Methods
- AutoUpgrade Utility: Advantages and Disadvantages
- Database Upgrade Assistant: Advantages and Disadvantages

- Manual Upgrade: Advantages and Disadvantages
- Upgrade Paths
- Upgrade Method Limitations
- Upgrading to a New Release of Oracle Database
- Migration Methods
- Defining Upgrade and Data Migration
- Summary

Upgrading to Oracle Database 19c

- Objectives
- Preparing to Upgrade
- Planning the Upgrade
- Developing a Test Plan
- Performance Testing
- Requirements for Databases Using Oracle Label Security or Oracle
- Database Vault
- Installing Oracle Database 19c Software Using OUI
- Configuration Option
- Database Installation Option
- Database Edition
- Installation Location
- Operating System Groups
- Root Script Execution Configuration
- Perform Prerequisite Checks
- Perform Prerequisite Checks Results (For Errors)
- Summary
- Install Product
- Finish
- AutoUpgrade Utility System Checks
- Running AutoUpgrade Fixups
- Configuration File to Run AutoUpgrade Prechecks
- Backing Up the Database
- Upgrading Using the AutoUpgrade Utility
- AutoUpgrade with Source and Target Database Homes on Same Server
- AutoUpgrade with Source and Target Database Homes on Different Servers
- Overview of AutoUpgrade Job Stages
- AutoUpgrade Command-Line Parameters and Options
- AutoUpgrade Command-Line Syntax
- AutoUpgrade Configuration File
- Upgrading Using the Oracle Database Upgrade Assistant (DBUA)
- Select Database
- Pluggable Databases
- Prerequisite Checks
- Select Upgrade Options
- Select Recovery Options

- Configure Network
- Configure Management
- Summary
- Progress
- Results
- Manually Upgrading to Oracle Database 19c
- Summary

Performing Postupgrade Tasks

- Objectives
- Required Tasks After Database Upgrade
- Recommended Tasks After Database Upgrade
- Summary

Migrating Data Using Oracle Data Pump

- Objectives
- Oracle Data Pump: Overview
- Data Pump Export and Import Clients: Overview
- Data Pump Utility: Interfaces and Modes
- Migrating Using Oracle Data Pump
- Importing Using a Network Link
- Creating a Container Database by Using Oracle DBCA
- Creating an Empty New PDB from PDB$SEED
- Exporting from a Non-CDB and Importing into a PDB
- Summary