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ORACLE 19c Install and Upgrade
2 Day Course

Overview

This Oracle Database 19c Install & Upgrade course is designed to give the Oracle database administrator practical experience in installing Oracle Database 19c software. Delegates will also learn the various methods that can be used to upgrade an earlier release of the Oracle database software to 19c.

Delegate will practice:

- Installing Oracle Grid Infrastructure for a standalone server
- Understand the concepts of Multitenant architecture
- Installing Oracle Grid Infrastructure for a standalone server
- Installing the Oracle Database software in interactive mode
- Installing the Oracle Database software in in silent mode and using response files
- Carrying out an Oracle Database 19c RPM Installation
- Using image based client installation
- Creating a database with the Database Configuration Assistant in interactive mode
- Creating a database with the DBCA in silent mode and using response files
- Using Oracle Restart to manage software components
- Preparing for an upgrade
- Upgrading a database to Oracle Database using the DBUA in interactive and silent modes
- Using Oracle Database Autoupgrade
- Upgrading an Oracle database manually
- Carrying out post-upgrade tasks
- Transporting a database using Data Pump
- Importing data using a Data Pump network link

Audience

Database administrators, technical support staff and anyone who needs to anyone who needs to install and configure Oracle 19c database or upgrade a database to Oracle 19c.

Course Objectives

By the end of the course database administrators will have the knowledge and skills needed to install and configure an Oracle 19c database and will gain practical experience in upgrading a database to Oracle 19c.

Prerequisites

Delegates should have practical knowledge of administering an Oracle database. They should have attended the Oracle 19c Administration course or have a good working knowledge of Oracle administration.

Course Contents (2 days)

- **OVERVIEW OF ORACLE DATABASE 12cR2**
  - Overview of the Oracle Database 12cR2
  - Overview of Oracle Database 12cR2 architecture
  - Oracle Database instance configuration
  - Database storage architecture
  - Database logical and physical structures
  - Overview of container and pluggable database
- **ORACLE DATABASE 12c MULTITENANT ARCHITECTURE**
  - Overview of Container and Pluggable databases
  - The benefits of Multitenant Architecture
  - Files in a multitenant database
  - The structure of the root container
  - The structure of a pluggable container
  - CDB_ and DBA_ views

- **INSTALL ORACLE GRID INFRASTRUCTURE ON A STANDALONE SERVER**
  - Overview of Grid Infrastructure for a standalone server
  - System requirements and prerequisites
  - Create directories and groups for a Grid Infrastructure installation
  - Configure Grid Infrastructure for a standalone server
  - Overview of ASM storage
  - Install Grid Infrastructure for a standalone server
  - Upgrade Grid Infrastructure for a standalone server
- **INSTALL THE ORACLE DATABASE SOFTWARE**
  - Plan an installation
  - System requirements and operating system prerequisites
  - Oracle Flexible Architecture and directory structures
  - Carry out pre-installation tasks and checks
  - Set environment variables
  - Interactive Oracle Database Software Installation with the OUI
  - The Oracle Inventory
  - Silent mode installation in 18c/19c
  - Use Response Files
  - Oracle Database 19c RPM Installation
  - Image based client installation
  - Database Software De-install
- **CREATE A DATABASE WITH THE DATABASE CONFIGURATION ASSISTANT (DBCA)**
  - Selecting a database storage method
  - Select a CDB or non-CDB database
  - Select a database type based on workload
  - Select a character set for the database
  - Set the NLS_LANG initialization parameter
  - Create a database with the DBCA
  - Create a Database using a response file with DBCA silent mode
  - Create a Database with DBCA silent mode
  - Create a Duplicate database using silent mode from 19c
  - Delete a database with DBCA silent mode
  - Create a database design template
  - Carry out post database creation tasks
  - Read-Only homes from Oracle 18c
- **ORACLE RESTART**
  - Benefits of Grid Infrastructure for a standalone server
  - Overview of using Oracle Restart
  - The ohasd daemon
  - Use commands to manage the Oracle Restart Stack
  - Add components to Oracle Restart
  - Use the srvctl utility to manage, start and stop and manage components
  - Upgrade and patch the 18c or 19c home
- **PREPARATION FOR UPGRADE**
  - Upgrade process overview
  - Methods used to perform upgrade
  - Methods of data migration
  - Direct upgrade supported releases
  - Methods used to perform indirect upgrades
  - The Database Upgrade Assistant
  - Manual Upgrade Methods
  - Rolling Upgrade for Oracle Grid Infrastructure
  - Create an upgrade test plan
  - Carry out performance testing
  - Prepare to Upgrade a Database
  - Run the Pre-Upgrade Information tool
  - Check for compatibility issues
  - Use the ORAchk Utility
  - Backup the database
  - Create the new Oracle home
  - Install the Oracle Database 18c/19c software
  - Oracle 19c Upgrade of Expired Password Accounts
- **PERFORM AN UPGRADE**
  - Upgrade a database with the Database Upgrade Assistant (DBUA)
  - Perform an upgrade of an Oracle Database to 12.2.0.n
  - Perform Post upgrade actions
  - Upgrade a database with the DBUA
  - Manually start a failed upgrade
  - Common installation errors
  - Run the DBUA in silent mode
  - Oracle Database Autoupgrade
  - Carry out post upgrade tasks
  - Migrate to Unified Auditing
  - Deprecated database features and parameters
  - De-supported database features and parameters
- **MIGRATE DATA WITH DATA PUMP**
  - Migrate data with Data Pump
  - Transport a database
  - Import data using a Data Pump network link

Course Materials

Enliten IT will provide each delegate with a workbook and other useful reference materials where applicable.