



## Oracle Database 12cR2 Install & Upgrade

**Duration: 2 Days**    **Course Code: O12CIU**    **Delivery Method: Company Event**

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### Overview:

This Oracle Database 12cR2 Install & Upgrade course is designed to give the Oracle database administrator practical experience in installing Oracle Database 12cR2 Grid Infrastructure and Database software. Delegates will also learn the various methods that can be used to upgrade an earlier release of the Oracle database software to 12.2. learn how to create a container database and provision pluggable databases. Versions supported 12cR2,18c,19c.

### Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

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### Target Audience:

This Oracle Database 12cR2 Install & Upgrade course is for anyone who needs to install and configure an Oracle 12cR2 database or upgrade an earlier database to Oracle 12cR2 database.

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### Objectives:

- This Oracle Database 12cR2 Install & Upgrade course is designed to give database administrators the knowledge and skills needed to install and configure an Oracle 12cR2 database. The Oracle Database 12cR2 administrator will gain practical experience in upgrading a database to Oracle 12cR2 database.
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### Prerequisites:

Delegates who wish to attend the Oracle Database 12cR2 Install & Upgrade course should have practical knowledge of administering an Oracle database. They should have attended either the Oracle Database 12cR2 Administration course or the Oracle Database 18c Administration course or have a good working knowledge of Oracle administration.

This course is run on a Linux operating system, a basic knowledge of UNIX/Linux is recommended but is not essential.

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### Follow-on-Courses:

- Oracle Database 12cR2 Backup and Recovery with RMAN (O12CBR)
  - Oracle Database 12cR2 DBA Performance Tuning & Management (O12CDBAPT)
  - Oracle Database 12cR2 Data Guard (O12CDG)
  - Oracle Database 12cR2 RAC and Grid Infrastructure Administration (O12CRAC)
  - Oracle Database 12cR2,18c and 19c New Features for Administrators (ONF)
  - Oracle 12c Container and Pluggable Database Administration (O12CCPA)
  - Oracle 18c Container and Pluggable Database Administration (O18CCPA)
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## Content:

### Oracle Database 12cR2 Install ; Upgrade Training Course Course Contents - DAY 1

#### Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

#### Session 1: OVERVIEW OF ORACLE DATABASE 12cR2

- Overview of the Oracle Database 12cR2
- Overview of Oracle Database 12cR2 architecture
- Oracle Database instance configuration
- Oracle Background processes
- Database storage architecture
- Database logical and physical structures
- Overview of container and pluggable database

#### Session 2: 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

#### Session 3: 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

#### Session 4: 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
- Install the Oracle Database software with the Oracle Universal Installer
- The Oracle Inventory
- Silent mode installation
- Use response files
- Database Software De-install

#### Session 5: CREATE A DATABASE WITH THE DATABASE CONFIGURATION ASSISTANT (DBCA)

- Select 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
- Delete a database with DBCA silent mode
- Create a database design template
- Carry out post database creation tasks
- Read-Only homes from Oracle 18c

#### Session 6: MANAGE ORACLE RESTART

- The Benefits of Grid Infrastructure for a standalone server
- Overview of using Oracle Restart
- The ohasd daemon

#### Session 7: PREPARATION FOR UPGRADE

- Upgrade process overview
- Methods used to perform upgrade
- Methods of data migration
- Direct upgrade supported releases
- Methods used to perform indirect upgrade
- 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 12cR2 software

#### Session 8: PERFORM AN UPGRADE TO ORACLE DATABASE 12cR2

- 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
- Carry out post upgrade tasks
- Migrate to Unified Auditing
- Deprecated database features and parameters
- De-supported database features and parameters

#### Session 9: MIGRATE DATA WITH DATA PUMP

- Migrate data with Data Pump
- Transport a database
- Import data using a Data Pump network link

- 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 12.2 home Oracle Database 12cR2 Install ; Upgrade Training Course Course Contents - DAY 2

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### Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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