

Oracle Database Administration Certification

Duration:

5 Days

What is the course about?

The Oracle Database 12c Administration course will teach you about the Oracle Database architecture. You will discover how to effectively manage an Oracle Database instance, configure the Oracle Network Environment and perform database maintenance. This is a required course to attain the Oracle Associate Database Administrator Certification for Oracle 12c.

Duration

The course is run 5 days full time.

Programming Experience

You will need some experience working with SQL. You should be able comfortable with basic SQL such as:

- Adding into the database by performing an INSERT query
- Removing records by performing a DELETE operation
- Updating records using the UPDATE statement
- Extract data from the database using the SELECT statement

Technical Skill

The Oracle Database runs on Linux and knowledge of basic Linux administration skills is required in order to succeed in this course. The course is suitable for database developers and administrators.

Private Training

This course is only offered privately. The training can run onsite or on our premises. We have offices in Cape Town and Johannesburg. A minimum of 4 delegates is required to schedule the course. The price for running onsite is R12 599 and R15 500 on our premises. There is no fixed date to run the course, we work with you to find a date that will suit your team.

Course Topics

Oracle Database 12c New Features

Setup a Global Database Service (GDS)
Define declarative policies for Oracle Data Redaction
Apply best practices for running the ADDM Advisor

Oracle Database Administration & Configuration

Design a database, identify requirements, create the logical design and physical database design

- Install and configure a database
- Grant Enterprise Manager administrative privileges
- Use SQL*Plus and SQL Developer to access your database

Oracle Database Instance Architecture

- Define the main components of an Oracle Instance
- Describe the various stages of a database instance
- Articulate the various basic memory structures
- Describe how a block of data is written to the database
- Articulate the mandatory background processes

Exploring the Oracle Database Architecture

- Explain the Memory Structures
- Describe the Process Structures
- Overview of Storage Structures

Preparing the Database Environment

- Identify the tools for Administering an Oracle Database
- Plan an Oracle Database installation
- Install the Oracle software by using Oracle Universal Installer \(\OUI\)

Creating an Oracle Database

- Create a database by using the Database Configuration Assistant \(\DBCA\)

Managing the Oracle Instance

- Setting database initialization parameters
- Describe the stages of database startup and shutdown
- Using alert log and trace files
- Using data dictionary and dynamic performance views

Oracle Network Architecture

- Configure and Manage the Oracle Network
- Using the Oracle Shared Server architecture
- Describe the differences between Shared Server and Dedicated Server architecture as it relates to Oracle Connection Manager
- Describe the Oracle Database listener architecture
- Configure and connect to a database service
- Configure a database listener

Managing Database Storage Structures

- Overview of tablespace and datafiles
- Create and manage tablespaces
- Space management in tablespaces

Administering User Security

- Create and manage database user accounts
- Grant and revoke privileges
- Create and manage roles Create and manage profiles

Managing Data and Concurrency

Monitor and resolve locking conflicts

Managing Undo Data

Overview of Undo Transactions and undo data Managing undo

Implementing Oracle Database Security

Database Security and Principle of Least Privilege

Work with Standard Database Auditing

Database Maintenance

Use and manage optimizer statistics

Use and manage Automatic Workload Repository \ (AWR\)

Use advisory framework Manage Alerts and Thresholds

Performance Management

Use Automatic Memory Management

Use Memory Advisors Troubleshoot invalid and unusable objects

Intelligent Infrastructure Enhancements

Use the Enterprise Manager Support Workbench Managing Patches

Backup and Recovery Concepts

Identify the types of failure that can occur in an Oracle database

Describe ways to tune instance recovery

Identify the importance of checkpoints, redo log files, and archived log files Overview of flash recovery area

Configure ARCHIVELOG mode

Performing Database Recovery

Overview of Data Recovery Advisor

Use Data Recovery Advisor to Perform recovery \ (Control file, Redo log file and Data file\)

Performing Database Backup

Explain general best practices and guidelines for backups on the Oracle database

Implement recovery procedures for various failure scenarios

Use the Data Recovery Advisor for backup and recovery solutions

Create consistent database backups

Back up your database without shutting it down

Create incremental backups

Automate database backups

Manage backups, view backup reports and monitor the flash recovery area

Oracle Multitenant Architecture

Explain the benefits of multitenant architecture for database consolidation

Create a pluggable database (PDB)

Articulate the difference between a Container database and a Pluggable database
Perform administration tasks on a container database (CDB)
Manage processes in a CDB
Manage physical and logical structures in a CDB
Describe the various storage options for a PDB

Oracle Database Monitoring

Use Oracle Enterprise Manager to view database storage structures
Apply different strategies for interacting with the database using SQL Developer
Describe the EM Cloud Control and EM Express architecture as it relates to the database
Manage structures used to undo changes made to the database and maintain data consistency

Maximum Availability Architecture

Implement the various Data Guard configurations available
Explain the architectural differences between Data Guard and Active Data Guard
Implement the various replication options available to the Oracle database
Create an MAA architecture that leverages Active Data Guard and Oracle Golden Gate
Choose the appropriate high availability architecture based on various planned and unplanned scenario