

Updated on 11/10/2024

Sign up

# Oracle 23ai Administration training

3 days (21 hours)

## Presentation

Our Oracle 23ai Administration training course will help you master all the tasks involved in managing and deploying Oracle Database. Whether you need a flexible, reliable database or more advanced solutions such as Cloud Computing, Oracle Database is the right tool for you.

Our program covers all aspects of administering an Oracle Database solution, including installation, configuration, maintenance and troubleshooting. You'll learn how to set up Oracle 23ai environments, manage users and permissions, optimize performance and ensure system security and reliability.

One chapter is dedicated to [Automatic Storage Management](#), which will greatly simplify your database file management tasks.

Like all our training courses, this one will be run on the [latest version of](#) Oracle Database.

## Objectives

- Understanding Oracle Database architecture
- Deploying and maintaining an Oracle database
- Using ASM functions
- How to react in the event of an incident

## Target audience

- **Data engineers**
- Cloud architects
- Network administrators

## Prerequisites

- Knowledge of databases
- Familiarity with SQL

## Technical requirements

- Oracle database installed (Docker Image, VirtualBox VMLinux RPM)
- 2GB RAM
- 10GB free disk space

## Our Oracle 23ai administration training program

### INTRODUCTION TO ORACLE 23ai

- Introducing Oracle 23ai and its new features
- Oracle Database 23ai architecture
- Management and administration tools
- Oracle Cloud and Exadata Express Cloud Service
- The administrator's roles and responsibilities

### INITIAL SETUP AND INSTALLATION

- Installing and creating an Oracle 23ai database
- Setting instance and database parameters
- Database Configuration Assistant (DBCA)
- Network configurations with Oracle Net Services

### USER AND SCHEMA MANAGEMENT

- Creating and managing user accounts
- Privilege, role and profile management
- Data Definition Language (DDL)
- Schema objects (tables, views, indexes)
- Best practices in security and access auditing

### DATA AND TRANSACTIONS

- Table management with DML instructions
- Data backup and recovery techniques
- RMAN for backup and restoration
- Data management in different time zones
- Performance monitoring and optimization

### Automatic Storage Management (ASM)

- Basic ASM concepts
  - Disk Group
  - Mirroring
  - Allowances
- Administration of ASM instances and disk groups
- ASM file administration
  - Disk Group Directories
  - XML DB virtual Folder
  - Templates
- Oracle Enterprise Manager
- Advanced ASM management techniques
  - ASMCMD
  - RMAN
  - ASMCA

## MAINTENANCE AND MONITORING

- Using Oracle Enterprise Manager for monitoring
- Alert and diagnostic management with ADDM and AWR
- Patching and updating the database and its components
- High availability strategies with Oracle Data Guard and RAC
- Database performance monitoring and tuning

## DATA RECOVERY AND RESTORATION

- Retrieving data with the SQL SELECT command
- Fault management and disaster recovery
- Using group functions for aggregate reporting
- Displaying data from several tables using joins
- Using subqueries and SET operators for advanced queries

## DATA MANAGEMENT AND PERFORMANCE

- Partitioning techniques
- Creating and using materialized views
- Index management and query performance analysis
- Using one-line functions and conversion functions
- SQL tuning strategies and use of diagnostic tools

## SECURITY, AUDIT AND COMPLIANCE

- Database security
- Audit policies
- Data encryption methods and encryption key management
- Compliance with regulations and data security standards
- Management of security patches and critical updates
- Monitoring and auditing user activities with Oracle Audit Vault

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.