

Course : Oracle Database 19c: Performance Management and Tuning

**OFFICIAL COURSE: DIGITAL SUPPORT AVAILABLE FOR 90 DAYS
ONLY**

Practical course - 5d - 35h00 - Ref. ODE

With this training course, you'll discover the tuning tasks expected of a database administrator: reactive tuning of SQL statements, maintenance of SQL statements and operational performance, and tuning of Oracle database instance components.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Use Oracle database tuning methodology adapted to available tools
- ✓ Use database advisors to proactively tune an Oracle database instance
- ✓ Use Automatic Workload Repository-based tools to optimize the database
- ✓ Diagnose and solve common SQL performance problems
- ✓ Diagnose and solve common instance-related performance problems
- ✓ Use Enterprise Manager performance pages to monitor an Oracle database

Intended audience

Database administrators.

Prerequisites

Completion of Oracle Database 19c: Administration Workshop or equivalent knowledge and skills. Basic knowledge of the Linux operating system.

Certification

Successful completion of the exam leads to Oracle Database Administration II certification.

[Comment passer votre examen ?](#)

PARTICIPANTS

Database administrators.

PREREQUISITES

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TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.

Assessment by the participant, at the end of the training course, of the skills acquired during the training course.

Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.

At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.

An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Practical details

Teaching methods

Training in French. Course material and practical exercises in English, in digital format and ACCESSIBLE ONLY FOR 90 DAYS. Good understanding of written English.

Course schedule

- 1 Overview
- 2 Defining the scope of performance problems
- 3 Using the time model to diagnose performance problems
- 4 Use statistics and waiting events to diagnose performance problems
- 5 Using log and trace files to monitor performance
- 6 Use Enterprise Manager Cloud Control and SQL Developer to monitor performance
- 7 Using Statspack to display performance data
- 8 Real-time monitoring of database operations
- 9 Using the automatic workload repository
- 10 Using metrics and alerts
- 11 Using base lines
- 12 Automated maintenance task management
- 13 Using ADDM to analyze performance
- 14 Use of active session history data for initial system failure analysis
- 15 Use emergency monitoring and real-time ADDM to analyze performance problems
- 16 Overview of SQL statement processing

TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

- 17 Index and table management
- 18 Introduction to the query optimizer
- 19 Understanding working drawings
- 20 Viewing execution plans with SQL Trace and TKPROF
- 21 Optimizer statistics management
- 22 Using SQL automatic setting
- 23 Using SQL plan management functionality
- 24 Introducing SQL consultants
- 25 Using the SQL tuning advisor
- 26 Using SQL Access Advisor
- 27 Presentation of test components for real-life applications
- 28 Using SQL Performance Analyzer to determine the impact of modifications
- 29 Using Database Replay to test system performance
- 30 Implement real-time monitoring of database operations
- 31 Using services to monitor applications
- 32 Memory structures overview
- 33 Shared pool performance management
- 34 Buffer cache performance management
- 35 Performance management of the PGA and temporary spaces
- 36 Large pool configuration

- 37 Using automatic shared memory management
- 38 Introduction to the in-memory column store
- 39 Using in-memory column storage to improve SQL performance
- 40 Using the in-memory column store with Oracle database functions