

COURSE OVERVIEW

Course Name:
(D81246GC24) Oracle Database 19C: Performance Management & Tuning

COURSE DURATION: 5 Days

Gauteng:

3rd Floor, 34 Whitely Road
Melrose Arch
Johannesburg
2196

Gauteng:

192 on Bram
192 Bram Fischer Drive
Ferndale, Randburg
Johannesburg
2160

Cape Town:

3rd Floor, Thomas Pattullo Building
19 Jan Smuts St
Cape Town
8000

Durban:

9 Mountview Close
Broadlands
Mount Edgecombe
Durban
4302



087 941 5764



sales@impactful.co.za



impactful.co.za

COURSE DESCRIPTION

Students will learn how to use Oracle Database automatic tuning features such as SQL Tuning Advisor, SQL Access Advisor, Automatic Workload Repository and Automatic Database Diagnostic Monitor, and practice these tuning methods. The course focuses on the tuning tasks expected of a DBA: reactive tuning of SQL statements, maintaining SQL statement and operation performance, and tuning the Oracle Database Instance component.

DELIVERY METHOD

- In-person classroom training at the Impactful training facilities
- Our courses have flexible delivery options:
- Virtual instructor-led training
 - Nationally: on-site at the client



IMPACTFUL
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COURSE OBJECTIVES

Upon completion of this course, students will be able to:

- Use the Oracle Database tuning methodology appropriate to the available tools
- Utilize database advisors to proactively tune an Oracle Database Instance
- Use the tools based on the Automatic Workload Repository to tune the database
- Diagnose and tune common SQL related performance problems
- Diagnose and tune common Instance related performance problems
- Use Enterprise Manager performance-related pages to monitor an Oracle Database

TARGET AUDIENCE

- Data Warehouse Administrators,
- Database Administrators,
- Database Designers,
- Support Engineers and Technical Administrators

PREREQUISITES

- Oracle Database 19c: Administration Workshop
- Basic knowledge of Linux operating system
- A working knowledge of SQL and PL/SQL packages
- Basic understanding of Oracle Database architecture

COURSE CONTENT

Lesson 1: Overview

Lesson 2: Defining the Scope of Performance Issues

Lesson 3: Using the Time Model to Diagnose Performance Issues

Lesson 4: Using Statistics and Wait Events to Diagnose Performance Issues

Lesson 5: Using Log and Trace Files to Monitor Performance

Lesson 6: Using Enterprise Manager Cloud Control and SQL Developer to Monitor Performance

Lesson 7: Using Statspack to View Performance Data

Lesson 8: Using Automatic Workload Repository

Lesson 9: Using Metrics and Alerts

Lesson 10: Using Baselines

Lesson 11: Managing Automated Maintenance Tasks

Lesson 12: Using ADDM to Analyze Performance

Lesson 13: Using Active Session History Data for First Fault System Analysis

Lesson 14: Using Emergency Monitoring and Real-Time ADDM to Analyze Performance Issues

Lesson 15: Overview of SQL Statement Processing

Lesson 16: Maintaining Indexes

Lesson 17: Maintaining Tables

Lesson 18: Introduction to Query Optimizer

Lesson 19: Understanding Execution Plans

Lesson 20: Viewing Execution Plans by Using SQL Trace and TKPROF

Lesson 21: Managing Optimizer Statistics

Lesson 22: Using Automatic SQL Tuning

Lesson 23: Using the SQL Plan Management Feature

Lesson 24: Overview of the SQL Advisors

Lesson 25: Using the SQL Tuning Advisor

Lesson 26: Using the SQL Access Advisor

Lesson 27: Overview of Real Application Testing Components

Lesson 28: Using SQL Performance Analyzer to Determine the Impact of Changes

Lesson 29: Using Database Replay to Test System Performance

Lesson 30: Implementing Real-Time Database Operation Monitoring

Lesson 31: Using Services to Monitor Applications

Lesson 32: Overview of Memory Structures
Lesson 33: Managing Shared Pool Performance
Lesson 34: Managing Buffer Cache Performance
Lesson 35: Managing PGA and Temporary Space Performance
Lesson 36: Configuring the Large Pool
Lesson 37: Using Automatic Shared Memory Management
Lesson 38: Introduction to In-Memory Column Store
Lesson 39: Configuring the In-Memory Column Store Feature
Lesson 40: Using the In-Memory Column Store Feature to Improve SQL Performance
Lesson 41: Using In-Memory Column Store with Oracle Database Features