

Oracle Database 19c: Performance Management and Tuning Course

Course Duration: 40 Hrs.

Course Code: OD19c-PMT

Course Overview

The Oracle Database 19c: Performance Management and Tuning course provides participants with in-depth knowledge of how to diagnose, tune, and optimize Oracle Database performance. It focuses on proactive monitoring, identifying performance bottlenecks, and using Oracle tools to manage workload effectively. Through practical exercises, learners will gain the ability to apply tuning techniques that improve SQL execution and database efficiency.

What You'll Learn?

- Understand the database tuning methodology and performance principles.
- Use Oracle tools such as Automatic Workload Repository (AWR), Active Session History (ASH), and Automatic Database Diagnostic Monitor (ADDM).
- Tune SQL statements for better execution performance.
- Manage database memory effectively with Automatic Memory Management (AMM) and shared pool tuning.
- Monitor and optimize database resources including CPU and I/O.
- Implement proactive monitoring strategies for long-term performance improvement.
- Troubleshoot performance-related issues efficiently.

Target Audience

- Database Administrators (DBAs) seeking advanced tuning skills.
- Technical Consultants involved in database optimization.
- Support Engineers responsible for maintaining high-performing Oracle databases.
- IT professionals preparing for Oracle certification in performance tuning.

Pre-Requisites

- Prior experience with Oracle Database Administration.
- Familiarity with Oracle SQL and PL/SQL programming.
- Completion of Oracle Database 19c: Administration Workshop recommended.

Course Content

Module 1: Oracle Performance Tuning Overview and Methodology

Module 2: Performance Monitoring Tools (AWR, ASH, ADDM)

Module 3: Tuning Memory and Buffer Cache Management

Module 4: SQL Tuning Techniques and Optimizer Concepts

Module 5: Managing Database Statistics for Performance

Module 6: I/O Tuning and Storage Optimization

Module 7: Monitoring CPU Utilization and Workload

Module 8: Using Real-Time SQL Monitoring

Module 9: Troubleshooting Performance Bottlenecks

Module 10: Best Practices for Database Performance Management