

Oracle AI Database: Performance Management and Tuning

Duration: 5 Days

Course Outlines:

1 Overview

- Objectives
- What is performance management?
- Who manages performance?
- What does the DBA tune?
- Types of Tuning
- Tuning Methodology
- Effective Tuning Goals
- General Tuning Session
- Tuning a CDB
- Performance Tuning: Diagnostics
- Performance Tuning: Features and Tools
- Tuning Objectives

2 Defining the Scope of Performance Issues

- Objectives
- Defining the Problem
- Limit the Scope
- Determining Tuning Priorities
- Common Tuning Problems
- Tuning Life Cycle Phases
- Tuning During the Life Cycle
- Application Design and Development
- Testing: Database Configuration
- Deployment
- Production
- Migration, Upgrade, and Environment Changes
- ADDM Tuning Session
- Performance Versus Business Requirements
- Monitoring and Tuning Tools: Overview

3 Using the Time Model to Diagnose Performance Issues

- Objectives
- Time Model: Overview
- DB Time
- CPU and Wait Time Tuning Dimensions
- Time Model Statistics Hierarchy
- Time Model: Example
- Top Timed Events

4 Using Statistics and Wait Events to Diagnose Performance Issues

- Objectives
- Dynamic Performance Views
- Dynamic Performance Views: Usage Examples
- Dynamic Performance Views: Considerations
- Statistic Levels

- Instance Activity and Wait Event Statistics
- System Statistic Classes
- Displaying Statistics
- Displaying SGA Statistics
- Wait Events
- Using the V\$EVENT_NAME View
- Wait Classes
- Displaying Wait Event Statistics
- Commonly Observed Wait Events
- Using the V\$SESSION_WAIT View
- Precision of System Statistics

5 Using Log and Trace Files to Monitor Performance

- Objectives
- Viewing the Alert Log
- Using Alert Log Information as an Aid in Managing Performance
- Administering the DDL Log File
- Understanding the Debug Log File
- User Trace Files
- Background Processes Trace Files

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

- Objectives
- Enterprise Manager: Overview
- Oracle Enterprise Manager Cloud Control Components
- Using Features of the Oracle Management Packs and Options
- Oracle SQL Developer
- SQL Developer Command Line (SQLcl)

7 Using Statspack to View Performance Data

- Objectives
- Introduction to Statspack
- Statspack Scripts
- Installing Statspack
- Capturing Statspack Snapshots
- Configuring Snapshot Data Capture
- Statspack Snapshot Levels
- Statspack Baselines and Purging
- Reporting with Statspack
- Statspack Considerations
- Statspack Reports
- Reading a Statspack Report
- Statspack Report Drilldown Sections
- Report Drilldown Examples
- Load Profile Section
- Time Model Section
- Statspack and AWR

REGISTER NOW!

training@trends.com.ph
(+632) 8863-2123
www.trendssacademy.com.ph

COURSE OUTLINE

8 Using Automatic Workload Repository

- Objectives
- Automatic Workload Repository: Overview
- Automatic Workload Repository Data
- Workload Repository
- AWR Administration
- AWR Snapshot Purging Policy
- Managing Snapshots with PL/SQL
- AWR Snapshot Settings
- Manual AWR Snapshots
- Managing AWR Data in a Multitenant Environment
- AWR Snapshots and ADDM in a Multitenant Architecture Database
- Reading the AWR Report
- AWR Report: Multitenant Data
- Generating AWR Reports by Using SQL*Plus
- Statspack and AWR Reports
- Reading a Statspack or an AWR Report
- Compare Periods: Benefits
- Snapshots and Periods Comparisons
- Compare Periods: Results
- Compare Periods: Report
- Multitenant AWR Views

9 Using Metrics and Alerts

- Objectives
- Metrics and Alerts
- Limitation of Base Statistics
- Typical Delta Tools
- Oracle Database Metrics
- Benefits of Metrics
- Viewing Metric History Information
- Viewing Metric Details
- Statistics Histograms
- Histogram Views
- Server-Generated Alerts
- Alert Usage Model
- Metric and Alert Views

10 Using Baselines

- Objectives
- Comparative Performance Analysis with AWR Baselines
- Automatic Workload Repository Baselines
- AWR Baselines
- Types of Baselines
- Moving Window Baseline
- Baseline Templates
- Creating AWR Baselines
- Creating a Single AWR Baseline
- Creating a Repeating Baseline and Template
- Managing Baselines by Using the DBMS_WORKLOAD_REPOSITORY Package
- Generating a Baseline Template for a Single Time Period
- Creating a Repeating Baseline Template
- Baseline Views
- Performance Monitoring and Baselines

11 Managing Automated Maintenance Tasks

- Objectives
- Automated Maintenance Tasks
- Maintenance Windows
- Default Maintenance Plan
- Automated Maintenance Task Priorities
- Configuring Automated Maintenance Tasks

12 Using ADDM to Analyze Performance

- Objectives
- ADDM Performance Monitoring
- ADDM and Database Time
- DB Time-Graph and ADDM Methodology
- Top Performance Issues Detected
- ADDM Recommendations
- Creating a Manual ADDM Task
- ADDM Tasks in a Multitenant Architecture Database
- Changing ADDM Attributes
- Retrieving ADDM Reports by Using SQL
- Compare Period ADDM: Analysis
- Workload Compatibility
- Configuring Automatic ADDM Analysis at the PDB Level
- Using the DBMS_ADDM Package to Compare Periods
- Example: Using the DBMS_ADDM Package to Compare Periods

REGISTER NOW!

training@trends.com.ph
 (+632) 8863-2123
 www.trendssacademy.com.ph