

Oracle Database 11gR2 DBA Advanced (4 days)

Course information

Days : 4

Total lessons : 16

Suggested Prerequisites :

- Oracle Database 11g: Administrator Workshop I

Training includes :

- Experienced trainer(s)
- Pre-test and Post-test
- Practices and solutions

All prices exclude VAT 7 %

Course details

Day 1

Lesson 1 : Managing Memory

Lesson 2 : Statspack (Free Technology)

Lesson 3 : Using Automatic Workload Repository

Lesson 4 : Defining Problems

Day 2

Lesson 5 : Using Metrics and Alerts

Lesson 6 : Baselines

Lesson 7 : Using AWR-Based Tools

Lesson 8 : Monitoring an Application

Day 3

Lesson 9 : Identifying Problem SQL Statements

Lesson 10 : Influencing the Optimizer

Lesson 11 : Using SQL Performance Analyzer

Lesson 12 : SQL Performance Management

Day 4

Lesson 13 : Using Database Replay

Lesson 14 : Tuning Segment Space Usage

Lesson 15 : Tuning I/O

Lesson 16 : Performance Tuning Summary



Lesson details

Lesson 1 : Managing Memory

- Use memory advisors to size dynamic memory areas
- Enable Automatic Shared Memory Manager
- Enable Enterprise Manager memory parameters
- Set minimum size of auto-tuned SGA components
- Use the SGA advisor to set SGA_TARGET
- Enable Automatic Memory Management
- Use the Memory Advisor to set overall memory parameters

Lesson 2 : Statspack

- Setup statspack package
- Capture and automatic capture workload
- Generate Statspack reports

Lesson 3 : Using Automatic Workload Repository

- Create and manage AWR snapshots
- Generate AWR reports
- Create Compare Periods reports

Lesson 4 : Defining Problems

- Identify performance issues
- Set tuning priorities
- Interpret tuning diagnostics
- Tune for life cycle phase

Lesson 5 : Using Metrics and Alerts

- View metrics by using the metrics history views
- Create metric thresholds
- View alerts

Lesson 6 : Baselines

- Create AWR baselines
- Enable adaptive thresholds
- Create AWR baselines for future time periods

Lesson 7 : Using AWR-Based Tools

- Describe tuning automatic maintenance tasks
- Generate ADDM reports
- Generate Active Session History (ASH) reports

Lesson 8 : Monitoring an Application

- Configure and manage services
- Use services with client applications
- Use services with the Database Resource Manager
- Use services with the Scheduler
- Set performance-metric thresholds on services
- Configure services aggregation and tracing



Lesson 9 : Identifying Problem SQL Statements

- Describe SQL statement processing
- Describe the role of the optimizer
- View the SQL statement statistics
- Identify the SQL statements that perform poorly
- Generate and view an execution plan
- Generate a tkprof report
- Generate an optimizer trace

Lesson 10 : Influencing the Optimizer

- Describe the optimizer's behavior
- Adjust parameters to influence the optimizer
- Adjust data structures to influence the optimizer

Lesson 11 : Using SQL Performance Analyzer

- Identify the benefits of using SQL Performance Analyzer
- Describe the SQL Performance Analyzer workflow phases
- Use SQL Performance Analyzer to ascertain performance gains following a database change
- Use SQL Performance Analyzer to test the impact of proposed changes

Lesson 12 : SQL Performance Management

- Manage changes to optimizer statistics
- Capture SQL profiles
- Use SQL Access Advisor
- Set up SQL Plan Management
- Set up various SQL Plan Management scenarios

Lesson 13 : Using Database Replay

- Identify the benefits of using Database Replay
- List the steps involved in Database Replay
- Use Enterprise Manager to record and replay workloads

Lesson 14 : Tuning Segment Space Usage

- Tune segment space management
- Use Segment Space Advisor
- Convert to Automatic Segment Space Management
- Tune block space management
- Diagnose and correct row migration
- Diagnose table fragmentation
- Use table compression

Lesson 15 : Tuning I/O

- Diagnose database I/O issues
- Describe the Stripe and Mirror Everything (SAME) concept
- Set filesystemio_options
- Choose appropriate I/O solutions
- Tune Automatic Storage Management (ASM)



Lesson 16 : Performance Tuning Summary

- List best practices identified throughout the course
 - Summarize the performance tuning methodology
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For more information please contact :
VT Technology Co.,Ltd.
Tel +66 0 2594 5185
contact@vttech.co.th

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