

# Oracle Database 10g Administration Workshop II

## Course information

Days : 5

Total lessons : 17

Suggested Prerequisites :

- Oracle Database 10g: SQL Fundamentals I
- Oracle Database 10g: Administration Workshop I

Training includes :

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

In-house price for 5 days :

- 60,000 baht(THB) : Economic Class : 1 - 5 people
- 85,000 baht(THB) : Small Class : 6 - 10 people
- 115,000 baht(THB) : Middle Class : 11 - 20 people
- 145,000 baht(THB) : Large Class : 21 - 30 people

*All prices exclude VAT 7 %*

## Course details

### Day 1

Lesson 1 : Introduction

Lesson 2 : Configuring Recovery Manager

Lesson 3 : Using Recovery Manager

Lesson 4 : Recovering from Noncritical Losses

### Day 2

Lesson 5 : Database Recovery

Lesson 6 : Flashback

Lesson 7 : Dealing with Database Corruption

Lesson 8 : Monitoring and Managing Memory

### Day 3

Lesson 9 : Automatic Performance Management

Lesson 10 : Managing Schema Objects

Lesson 11 : Managing Storage

Lesson 12 : Automatic Storage Management

### Day 4

Lesson 13 : Managing Resources

Lesson 14 : Automating Tasks with the Scheduler

Lesson 15 : Database Security

### Day 5

Lesson 16 : Using Globalization Support

Lesson 17 : Workshop

## Lesson details

### Lesson 1 : Introduction

- List the course objectives and explain the class structure
- Review the Oracle Database 10g architecture

### Lesson 2 : Configuring Recovery Manager

- Describe the RMAN repository and recovery catalog
- Describe the Media Management Library interface



- Configure database parameters that affect RMAN operations
- Connect to the three different types of databases by using RMAN
- Configure two types of retention policies
- Change RMAN default settings with CONFIGURE

### **Lesson 3 : Using Recovery Manager**

- Use the RMAN BACKUP command to create backup sets and image copies
- Manage the backups and image copies taken with RMAN

### **Lesson 4 : Recovering from Noncritical Losses**

- Recover temporary tablespaces
- Recover a redo log group member
- Recover from a lost index
- Re-create the password file

### **Lesson 5 : Database Recovery**

- Perform complete or incomplete user-managed recovery
- Identify situations where incomplete recovery is necessary
- Perform complete or incomplete recovery by using RMAN
- Perform incomplete recovery based on time, SCN, log sequence, restore points, or the cancel method
- Recover an automatically backed up control file
- Use Enterprise Manager to perform recovery
- Recover read-only tablespaces

### **Lesson 6 : Flashback**

- Query the recycle bin
- Configure Flashback Database
- Perform Flashback Database to a point in time
- Monitor flashback log statistics
- Enable and disable the Flashback Database feature
- Use the Enterprise Manager Recovery Wizard to perform Flashback Database
- Use guaranteed restore points with Flashback Database

### **Lesson 7 : Dealing with Database Corruption**

- Identify the causes of database corruption:
  - Hardware
  - Software
- Detect database corruption by using:
  - ANALYZE
  - DBVERIFY
  - DB\_BLOCK\_CHECKING
  - DBMS\_REPAIR
- Repair corruptions by using RMAN

### **Lesson 8 : Monitoring and Managing Memory**

- Describe the memory components in the SGA
- Implement Automatic Shared Memory Management
- Manually configure SGA parameters
- Configure automatic PGA memory management

### **Lesson 9 : Automatic Performance Management**

- Diagnose database performance issues
- Configure the Automatic Workload Repository
- Access the database advisors
- Use the SQL Access Advisor to improve database performance
- Use asynchronous COMMIT effectively



## **Lesson 10 : Managing Schema Objects**

- Determine appropriate table types for your requirements: heap, partition, IOT, or cluster
- Perform related DBA tasks:
  - Estimating the size of new tables
  - Analyzing growth trends
  - Managing optimizer statistics
  - Reorganizing schema objects online

## **Lesson 11 : Managing Storage**

- Describe how the Oracle database automatically manages space
- Proactively monitor and manage tablespace space usage
- Use the Segment Advisor
- Reclaim wasted space from tables and indexes by using the segment shrink functionality
- Manage resumable space allocation
- Describe the concepts of transportable tablespaces and databases

## **Lesson 12 : Automatic Storage Management**

- Identify the features of Automatic Storage Management (ASM)
- Set up initialization parameter files for ASM and database instances
- Execute SQL commands with ASM file names
- Start up and shut down ASM instances
- Administer ASM disk groups
- Use RMAN to migrate your database to ASM

## **Lesson 13 : Managing Resources**

- Configure the Database Resource Manager
- Access and create resource plans
- Create consumer groups
- Specify directives for allocating resources to consumer groups
- Map consumer groups to plans
- Activate a resource plan
- Monitor the Resource Manager

## **Lesson 14 : Automating Tasks with the Scheduler**

- Simplify management tasks by using the Scheduler
- Create a job, program, and schedule
- Monitor job execution
- Use a time-based or event-based schedule for executing Scheduler jobs
- Use job chains to perform a series of related tasks
- Use advanced Scheduler concepts to prioritize jobs

## **Lesson 15 : Database Security**

- Implement Transparent Data Encryption (TDE)
- Use TDE with encrypted columns
- Describe Data Pump (DP) encryption
- Identify components of Recovery Manager (RMAN)–encrypted backups
- Define basic concepts of a Virtual Private Database (VPD)
- Apply a column-level VPD policy

## **Lesson 16 : Using Globalization Support**

- Determine a correct database character set that meets your business requirements
- Obtain globalization support configuration information
- Customize language-dependent behavior for the database and individual sessions
- Specify different linguistic sorts for queries
- Retrieve data that matches a search string ignoring case or accent differences



## Lesson 17 : Workshop

- Document a database configuration by using a Database Configuration Worksheet
- Recover data while minimizing down time and data loss
- Use database tools and features to monitor and improve database performance

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*For more information please contact :*  
VT Technology Co.,Ltd.  
Tel +66 0 2594 5185  
[contact@vttech.co.th](mailto:contact@vttech.co.th)

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