Oracle Database 10g Administration Workshop I

Course information
Days : 5
Total lessons : 18
Suggested Prerequisites :
- Oracle Database 10g: SQL Fundamentals I

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

Public price :
- 17,000 baht(THB) : 1 person

In-house price   :
- 51,000 baht(THB) : Economic Class : 1 – 5 people
- 69,000 baht(THB) : Small Class : 6 - 10 people
- 83,000 baht(THB) : Middle Class : 11 - 20 people
- 97,000 baht(THB) : Large Class : 21 - 30 people

All prices exclude VAT 7 %

Course details
Day 1
Lesson 1 : Introduction
Lesson 2 : Installing the Oracle Database Software
Lesson 3 : Creating an Oracle Database
Lesson 4 : Managing the Oracle Instance

Day 2
Lesson 5 : Managing Database Storage Structures
Lesson 6 : Administering User Security
Lesson 7 : Managing Schema Objects
Lesson 8 : Managing Data and Concurrency

Day 3
Lesson 9 : Managing Undo Data
Lesson 10 : Implementing Oracle Database Security
Lesson 11 : Configuring the Oracle Network Environment
Lesson 12 : Proactive Maintenance

Day 4
Lesson 13 : Performance Management
Lesson 14 : Backup and Recovery Concepts
Lesson 15 : Performing Database Backups

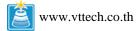### Day 5
Lesson 16 : Performing Database Recovery
Lesson 17 : Performing Flashback
Lesson 18 : Moving Data

Lesson details
Lesson 1 : Introduction
- Install, create, and administer Oracle Database 10g
- Configure the database for an application
- Employ basic monitoring procedures
- Implement a backup and recovery strategy
- Move data between databases and files

Lesson 2 : Installing the Oracle Database Software
- Describe your role as a database administrator (DBA), and explain typical tasks and tools
- Plan an Oracle database installation
- Use Optimal Flexible Architecture (OFA)
- Install the Oracle software by using Oracle Universal Installer (OUI)

Lesson 3 : Creating an Oracle Database
- Create a database with the Database Configuration Assistant (DBCA)
- Create a database design template with the DBCA
- Generate database creation scripts with the DBCA

Lesson 4 : Managing the Oracle Instance
- Start and stop the Oracle database and components
- Use Enterprise Manager (EM)
- Access a database with SQL*Plus and iSQL*Plus
- Modify database initialization parameters
- Describe the stages of database startup
- Describe the database shutdown options
- View the alert log
- Access dynamic performance views

Lesson 5 : Managing Database Storage Structures
- Describe how table row data is stored in blocks
- Define the purpose of tablespaces and data files
- Create and manage tablespaces
- Obtain tablespace information
- Describe the main concepts and functionality of Automatic Storage Management (ASM)

Lesson 6 : Administering User Security
- Create and manage database user accounts
- Authenticate users
- Assign default storage areas (tablespaces)
- Grant and revoke privileges
- Create and manage roles
- Create and manage profiles
- Implement standard password security features
- Control resource usage by users

Lesson 7 : Managing Schema Objects
- Define schema objects and data types
- Create and modify tables
- Define constraints
- View the columns and contents of a table
- Create indexes
- Create views
- Create sequences
- Explain the use of temporary tables
- Use the data dictionary

Lesson 8 : Managing Data and Concurrency
- Manage data through the use of SQL
- Identify and administer PL/SQL objects
- Describe triggers and triggering events
- Monitor and resolve locking conflicts

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Lesson 9 : Managing Undo Data
- Explain DML and undo data generation
- Monitor and administer undo data
- Describe the difference between undo data and redo data
- Configure undo retention
- Guarantee undo retention
- Use the Undo Advisor

Lesson 10 : Implementing Oracle Database Security
- Describe your DBA responsibilities for security
- Apply the principle of least privilege
- Enable standard database auditing
- Specify audit options
- Review audit information
- Maintain the audit trail

Lesson 11 : Configuring the Oracle Network Environment
- Use Enterprise Manager to:
- Create additional listeners
- Create Oracle Net Service aliases
- Configure connect-time failover
- Control the Oracle Net Listener
- Use tnsping to test Oracle Net connectivity
- Identify when to use shared servers versus dedicated servers

Lesson 12 : Proactive Maintenance
- Use statistics
- Manage the Automatic Workload Repository (AWR)
- Use the Automatic Database Diagnostic Monitor (ADDM)
- Describe the advisory framework
- Set alert thresholds
- Use server-generated alerts
- Use automated tasks
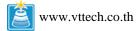
Lesson 13 : Performance Management
- Use Enterprise Manager to monitor performance
- Tune SQL by using the SQL Tuning Advisor
- Tune SQL by using the SQL Access Advisor
- Use Automatic Shared Memory Management (ASSM)
- Use the Memory Advisor to size memory buffers
- View performance-related dynamic views
- Troubleshoot invalid and unusable objects

Lesson 14 : Backup and Recovery Concepts
- Identify the types of failure that may occur in an Oracle database
- Describe ways to tune instance recovery
- Identify the importance of checkpoints, redo log files, and archive log files
- Configure ARCHIVELOG mode

Lesson 15 : Performing Database Backups
- Create consistent database backups
- Back up your database without shutting it down
- Create incremental backups
- Automate database backups
- Monitor the flash recovery area

Lesson 16 : Performing Database Recovery

- recover from the loss of a:
  - Control file
  - Redo log file
  - Data file

Lesson 17 : Performing Flashback

- Describe Flashback Database
- Restore the table content to a specific point in the past with
- Flashback Table
- Recover from a dropped table
- View the contents of the database as of any single point in time withFlashback Query
- See versions of a row over time with Flashback Versions Query
- View transaction history or a row with Flashback Transaction Query

Lesson 18 : Moving Data

- Describe available ways for moving data
- Create and use directory objects
- Use SQL*Loader to load data from a non-Oracle database (or user files)
- Explain the general architecture of Data Pump
- Use Data Pump Export and Import to move data between Oracle databases
- Use external tables to move data via platform-independent files

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