

Vencal Inc.

Oracle DBA Training Course Curriculum

Duration: Six Weekends/ Sat & Sun: 9.00am – 12.00pm

Schedule/Purchase	Training Formats	Price	Duration	Course Materials	Instruction Language
	Instructor-Led Training	US\$ 1,500	6 weekends	English	English

Note: To have a more personalized experience, we invite you to:

Audience:

- Database Administrators
- Data Warehouse Administrator
- Technical Consultant
- Support Engineer

Prerequisites:

Required Prerequisites:

- [Oracle Database 11g: Administration Workshop I](#)

Course Objectives:

- Back up and recover a database
- Configure Oracle Database for optimal recovery
- Administer ASM disk groups
- Use an RMAN backup to duplicate a database
- Automating Tasks with the Scheduler

Course Topics:

Database Architecture and ASM

- Oracle Database Architecture Overview
- ASM General Architecture
- Creating an ASM Instance
- Using Enterprise Manager to Manage ASM Users
- ASM Storage Concepts
- The ASMCMD Utility
- ASM Scalability and Performance

Configuring for Recoverability

- Purpose of Backup and Recovery Functionality
- Typical Backup and Recovery Tasks
- Oracle Backup and Recovery Solutions
- Using Recovery Manager (RMAN)
- Using a Flash Recovery Area
- Flash Recovery Area Space Management

Using the RMAN Recovery Catalog

- RMAN Repository Data Storage: Comparison of Options
- Storing Information in the Recovery Catalog
- Registering a Database in the Recovery Catalog
- Recovery Catalog Resynchronization: Concepts
- Using RMAN Stored Scripts
- Backing Up and Recovering the Recovery Catalog
- Using a Virtual Private Catalog

Configuring Backup Specifications

- Using RMAN to Create Backups
- Configuring Persistent Settings for RMAN
- Using Enterprise Manager to Configure RMAN Settings
- Control File Auto-backups
- Managing Persistent Settings
- Configuring Devices for Backup
- Configuring and Allocating Channels for Use in Backups
- Configuring Backup Optimization

Creating Backups

- Creating an Oracle-Suggested Backup
- Creating Backup Sets & Image Copies
- Creating a Whole Database Backup
- RMAN Backup Types
- Monitoring Block Change Tracking
- Creating Duplex Backup Sets
- Archival Backups: Concepts
- Encrypting Backups

Performing User-Managed Backup and Recovery

- Restoring and Recovering
- Causes of File Loss
- Critical Versus Non-critical
- Recovering from a TEMPFILE Loss
- Re-creating Indexes
- Recovering from a Lost Index Tablespace
- Authentication Methods for Database Administrators
- Recovering a Read-Only Tablespace

Using RMAN to Perform Recovery

- Using RMAN RESTORE and RECOVER Commands
- Performing Recovery Using Enterprise Manager
- Recovery Using Incrementally Updated Backups
- Perform a Fast Switch to Image Copies
- Restoring and Recovering the Database on a New Host
- Performing Disaster Recovery

Using RMAN to Duplicate a Database

- Using RMAN to Create a Duplicate Database
- Creating a Duplicate Database
- Creating an Initialization Parameter File for the Auxiliary Instance
- Allocating Auxiliary Channels
- Understanding the RMAN Duplication Operation
- Using EM to Clone a Database
- Cloning a Running Database

Performing Tablespace Point-in-time Recovery

- Tablespace Point-in-Time Recovery (TSPITR) Concepts
- Tablespace Point-in-Time Recovery: Architecture
- Understanding When to Use TSPITR
- Determining the Tablespaces for the Recovery Set
- Using Enterprise Manager to Perform TSPITR
- Understanding TSPITR Processing
- Troubleshooting RMAN TSPITR

Monitoring and Tuning RMAN

- Parallelization of Backup Sets
- Monitoring RMAN Sessions
- Interpreting RMAN Message Output
- Using the DEBUG Option
- Tuning RMAN
- RMAN Multiplexing
- Comparing Synchronous and Asynchronous I/O
- Tape Subsystem Performance Rules

Using Flashback Technology

- Flashback Technology
- Transactions and Undo
- Guaranteeing Undo Retention
- Preparing Your Database for Flashback
- Flashback Drop and the Recycle Bin
- Using Flashback Technology to Query Data
- Possible Workflow
- Flashback Transaction Wizard

Using Flashback Database

- Flashback Table
- Enabling Row Movement on a Table
- Enabling Row Movement on a Table
- Flashback Database Architecture
- Configuring Flashback Database
- Performing Flashback Database Using EM
- Flashback Database Considerations
- Flashback Data Archive

Diagnosing the Database

- Automatic Diagnostic Workflow & Repository
- Location for Diagnostic Traces
- Viewing the Alert Log Using Enterprise Manager
- The Support Workbench and Oracle Configuration Manager
- Create a Service Request
- Package and upload diagnostic data to Oracle Support
- Incident Packaging Configuration
- Health Monitor Overview & Data Recovery Advisor

Managing Memory

- Oracle Memory Structures
- Automatic Memory Management Overview
- Oracle Database Memory Parameters
- Auto Memory Parameter Dependency
- Automatic Shared Memory Management: Overview
- Automatic PGA Memory Management
- Using the Memory Advisor to Size the SGA
- Memory Tuning Guidelines for the Library Cache

Managing Database Performance

- Tuning Activities
- Performance Planning & Performance Tuning Methodology
- Instance Tuning
- Troubleshooting and Tuning Views
- Automatic Workload Repository
- SQL Tuning & SQL Advisors
- Using the SQL Tuning Advisor
- SQL Access Advisor: Overview

Using the Segment Advisor

- Space Management: Overview
- Proactive Tablespace Monitoring
- Thresholds and Resolving Space Problems
- Monitoring Tablespace Space Usage
- Shrinking Segments
- Space Reclamation with ASSM
- Automatic Segment Advisor
- Minimum Compatibility Level

Managing Resources

- Database Resource Manager: Overview
- Database Resource Manager Concepts
- Accessing Resource Plans
- Default Maintenance Resource Manager Plan
- Creating Consumer Groups
- Resource Allocation Methods for Resource Plans
- Resource Allocation Methods for Resource Plans
- Monitoring the Resource Manager

Automating Tasks with the Scheduler

- Simplifying Management Tasks
- Key Components and Steps
- Creating an Event-Based Schedule
- Creating Complex Schedules
- Creating Job Chains
- Creating Job Chains

Administering the Scheduler

- Advanced Scheduler Concepts
- Job Classes
- Windows
- Prioritizing Jobs Within a Window
- Remote Jobs
- Installing the Scheduler Agent
- Dictionary Views Supporting Remote Jobs

Globalization

- Globalization Support Features
- What Every DBA Needs to Know
- Understanding Unicode
- Database Character Sets and National Character Sets
- Language- and Territory-Dependent Parameters
- Linguistic Searching and Sorting
- Case- and Accent-Insensitive Search and Sort
- NLS Data Conversion with Oracle Utilities

Training Location: 17705 Lisa Drive, Derwood (Rockville), MD 20855.
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