# Oracle Database 11g: Administration Workshop-II

**Duration: 40 hrs**

**Audience:**

- Database Administrators
- Support Engineer
- Project Manager
- Database Designers
- Technical Consultant

**Required Prerequisites:**

- Oracle Database 11g: Administration Workshop I

**Suggested Prerequisites:**

- Oracle Database 11g: SQL Fundamentals I

**Course Objectives:**

- Use RMAN to create and manage backup sets and image copies
- Use Oracle's Flashback technology to recover your database
- Detect block corruptions and take appropriate measures to correct them
- Use the various Database advisors and views to monitor and improve database performance
- Control database resource usage with the Resource Manager
- Simplify management tasks by using the Scheduler
- Improve the security of the listener
- Review database log files for diagnostic purposes
- Customize language-dependent behavior for the database and individual sessions

Contents:

1. **Using Globalization Support**
- Datetimes with Timezones
- Specifying Language-Dependent Behavior
- Locale Variants
- Linguistic Sorting
- Case and Accent Insensitive Sorts
- Linguistic Comparisons
- Obtaining Information about the Current NLS Configuration

2. **Securing the Oracle Listener**
- Listener Password Authentication
- Controlling Database Access
- Securing the EXTPROC Service Entry

3. **Configuring Recovery Manager**
- Using a Flash Recovery Area with RMAN
- Setting Parameters for RMAN
- Starting RMAN
- Configuring Persistent Settings for RMAN
- Control File Autobackups

9. **Recovering from User Errors**
- Recycle Bin
- Flashback Dropped Tables Using EM
- Querying Dropped Tables
- Flashback Versions Query
- Flashback Transaction Query
- Flashback Table & Using EM
- Using Flashback Versions Query and Flashback Transaction Query

10. **Dealing with Database Corruption**
- What is block corruption?
- Interpreting DBVERIFY
- The ANALYZE command
- How to Handle Corruptions
- The DBMS_REPAIR Package
- Block Media Recovery (BMR)
- Detecting Database Corruptions Using DBVERIFY
- Using RMAN to Repair Corrupt Blocks

11. **Automatic Database Management**

- Retention Policies

**4. Using Recovery Manager**
- Issuing Recovery Manager Commands
- Parallelization of Backup Sets
- Compressed Backups
- Copying the Whole Database
- Making Incremental Backups
- Block Change Tracking
- Incrementally Updating Backups
- Monitoring RMAN Backups

**5. Diagnostic Sources**
- The Alert Log
- Viewing Alerts with EM
- Alerts Notification
- Editing Thresholds
- Trace Files

**6. Recovering from non-critical losses**
- Creating New Temporary Tablespace
- Recreating Redo Log Files
- Recovering an Index Tablespace
- Read-Only Tablespace Recovery
- Loss of Password Authentication File

**7. Database Recovery**
- Recovery Steps
- User-Managed Recovery Procedures: RECOVER Command
- Types of incomplete recovery
- Incomplete Recovery Best Practices
- Recovery Using EM
- Simple Recovery Through RESETLOGS
- Point-in-time recovery using RMAN

**8. Flashback database**
- When to Use Flashback Technology
- Configuring Flashback Database
- Monitoring Flashback Database
- Best Practices for the Database and Flash Recovery Area
- Flash Recovery Area Space Usage
- Flashback Database Examples
- Automatic Optimizer Statistics Collection
- Workload Repository
- Database Control and Advisors
- Using the SQL Tuning Advisor
- Using the SQL Access Advisor
- Automatic Undo Retention Tuning

**12. Monitoring and Managing Storage**
- Redo Logfile Size Advisor
- Resumable Statements
- Tablespace Space Usage Monitoring
- Accessing the Segment Advisor
- Shrinking Segments Using SQL
- Segment Resource Estimation
- Monitoring Index Space
- Identifying Unused Indexes

**13. Automatic Storage Management**
- ASM Concepts
- ASM General Architecture
- Creating an ASM instance
- Creating tablespaces that use ASM storage
- Viewing ASM information
- Migrating a tablespace to use ASM storage

**14. Monitoring and Managing Memory**
- Oracle Memory Structures
- Using Automatic Shared Memory Mgmt to avoid long running query issues
- Using the Memory Advisor
- Automatic PGA Memory Management

**15. Managing Resources**
- Creating a New Resource Plan
- Creating Resource Consumer Groups
- Assigning Users to Resource Consumer Groups
- Adaptive Consumer Group Mapping
- Using Sub-Plans to limit CPU Utilization
- Administering the Resource Manager
- Resource Plan Directives

**16. Automating Tasks with the Scheduler**
- Creating a Scheduler Job
- Using Scheduler Programs
- Creating and Using Schedules
- Creating a Job Class
- Prioritizing Jobs within a Window
- Viewing Job Execution Details
- Creating a job that runs a program outside of the database

# Certification Information:

## Oracle 11g DBA OCA /OCP

**3-Exams:**

- Oracle Database 11g: Introduction to SQL (exam code 1z0-051)
- Oracle Database 11g:Administration –I (exam code 1z0-052)
- Oracle Database 11g: Administration –II (exam code 1z0-053)

**3-Certifications:**

- Oracle Database SQL Expert,
- Oracle Database 11g Administrator Certified Associate,
- Oracle Database 11g Administrator Certified Professional

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| **1Z0-051** | Oracle Database SQL expert | 70 Questions Objectives | 120 minutes | Passing at 66% | **SCE** | **OCA** | **OCP** |
| **1z0-052** | Oracle Database 11g Administration – I | 84 Questions Objectives | 120 minutes | Passing at 68% | | | |
| **1Z0-053** | Oracle Database 11g Administration – II | 92 Questions Objectives | 90 minutes | Passing at 70% | | | |

## Pre-requisite Training:

1. Oracle Database 11g: Administration Workshop-II

## Follow-on Training:

1. Oracle RAC
2. Oracle Dataguard
3. Oracle Performance Tuning