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Learning Style: Virtual Classroom

Provider: Oracle

Difficulty: Intermediate

Course Duration: 5 Days

## Oracle Database 11g: Administration Workshop I Release 2 (OD-11gAWR2)



## About this course:

The Oracle Database 11g: (Administration Workshop I R2) course is designed to provide you the understanding and knowledge of fundamental database administration. Professional Oracle University trainers will enhance your skills with organized hands-on exercises that prepare you for other equivalent Oracle Certified Associate course.

## Learn To:

- Build and handle storage structures.
- Build and oversees users.
- Manage the Oracle Database.
- Establish Oracle Grid Infrastructure.
- Establish and setup an Oracle Database.
- Perform recovery and backup.
- Define the Oracle database architecture and explain in what way its components interact and work together.

## Benefits to You:

Ensure secure, reliable, easy, and fast to handle performance. Lower IT costs, improve database workloads, and offer a better quality of service by allowing rapid and smooth consolidation under your Datacenter.

## Create an Operational Database:

This course will also help you to understand how to build an operational database and effectively manage the different structures efficiently and effectively. This incorporates database security, backup/recovery techniques, performance monitoring, and user management.

## Training Requirements:

This course satisfies the training requirement for an Oracle Certification track. Kindly note that Knowledge Center courses and Self-Study Courses do not satisfy the training requirement.

## Salary Estimate:

The Oracle Developer can make an average salary of \$106,225 per annum.

## Course Objective:

- Administer and monitor undo data
- Establish Oracle Grid Infrastructure
- Administer and create user accounts

- Handle data concurrency
- Installation and configuration of Oracle Database 11g
- Define Oracle Database Architecture
- Configuration of Oracle Net services
- Oversees the database storage structures
- Carryout essential recovery and backup of a database
- Monitor performance

## **Audience:**

- Technical Consultant and Administrator
- Database Administrators
- Support Engineer
- Java Developers

## **Prerequisite:**

- Having Oracle SQL/PL course or equal experience
- Having Oracle Introduction to SQL course or equal experience

## **Course Outline:**

### **Exploring the Oracle Database Architecture**

- ASM storage components
- Logical and physical storage structures
- Oracle Database Architecture Overview
- Oracle ASM Architecture Overview
- Process Architecture
- Memory structures

### **Installing your Oracle Software**

- Oracle Universal Installer (OUI)
- Installation: System Requirements
- Tools Used to Administer an Oracle Database
- Installing Oracle Grid Infrastructure
- Installing Oracle Database Software
- Tasks of an Oracle Database Administrator
- Silent Install

### **Creating an Oracle Database**

- Planning the Database
- Password Management
- Using the DBCA to Create a Database
- Creating a Database Design Template
- Using the DBCA to Delete a Database

## **Managing the Oracle Database Instance**

- Modify database installation parameters
- Describe database shutdown options
- Use Oracle Enterprise Manager
- Describe the stages of database startup
- Start and stop the Oracle database and components
- Access a database with SQLPlus
- View the alert log
- Access dynamic performance views

## **Manage the ASM Instance**

- Set up initialization parameter files for ASM instance
- Administer ASM disk groups
- Start up and shut down ASM instances

## **Configuring the Oracle Network Environment**

- Use Enterprise Manager to create and configure the Listener
- Identify when to use shared servers and when to use dedicated servers
- Enable Oracle Restart to monitor the listener
- Use tnsping to test Oracle Net connectivity

## **Managing Database Storage Structures**

- Oracle Managed Files (OMF)
- Storage Structures
- Tablespaces in the Preconfigured Database
- Space Management in Tablespaces
- Actions with Tablespaces
- How Table Data Is Stored
- Anatomy of a Database Block

## **Administering User Security**

- Benefits of Roles
- Predefined Administrative Accounts
- Implementing Profiles
- Predefined Roles
- Database User Accounts

## **Managing Data Concurrency**

- Resolving Lock Conflicts
- Data Concurrency
- Deadlocks
- Enqueue Mechanism

## **Managing Undo Data**

- Undo Data Versus Redo Data
- Data Manipulation
- Transactions and Undo Data
- Configuring Undo Retention

## **Implementing Oracle Database Auditing**

- Enable standard database auditing
- Describe DBA responsibilities for security
- Review audit information
- Maintain the audit trail
- Specify audit options

## **Database Maintenance**

- Use server-generated alerts
- Use automated tasks
- Manage the Automatic Workload Repository (AWR)
- Set alert thresholds
- Use the Automatic Database Diagnostic Monitor (ADDM)
- Describe and use the advisory framework
- Manage optimizer statistics

## **Performance Management**

- Performance Monitoring
- Dynamic Performance Statistics
- Enabling Automatic Memory Management (AMM)
- Automatic Shared Memory Advisor
- Using Memory Advisors
- Troubleshooting and Tuning Views
- Invalid and Unusable Objects
- Managing Memory Components

## **Backup and Recovery Concepts**

- Understanding Instance Recovery
- Statement Failure
- Phases of Instance Recovery
- Archive Log Files
- Media Failure
- Part of Your Job
- User Error
- Using the MTTR Advisor

## **Performing Database Backups**

- Backup Solutions: Overview
- Monitoring the Flash Recovery Area
- Recovery Manager (RMAN)

- Terminology
- Configuring Backup Settings
- Backing Up the Control File to a Trace File
- User-Managed Backup
- Oracle Secure Backup

## Performing Database Recovery

- Opening a Database
- Data Recovery Advisor Views
- Data Recovery Advisor
- Loss of a Control File
- Data Failures
- Loss of a Redo Log File
- Listing Data Failures

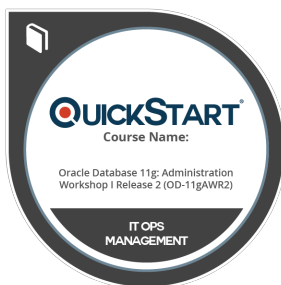
## Moving Data

- Use SQL\*Loader to move data
- Use external tables to move data
- Describe ways to move data
- Create and use directory objects
- Use Data Pump export and import to move data
- General architecture of Oracle Data Pump

## Working with Support

- Use the Enterprise Manager Support Workbench
- Manage patches
- Work with Oracle Support
- Log service requests (SR)

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