

Oracle 12c R2 Administration Workshop

Mode: Classroom

Duration: 30 hours

Course Outline

Exploring Oracle Database Architecture

- Introducing Oracle Database
- Relation Database Models
- Oracle SQL and PL/SQL
- Oracle Database Server Architecture
- Connecting to Oracle Databases
- Oracle Database Tools
- Oracle-Supplied User Accounts
- Querying the Oracle Data Dictionary

Managing Database Instances

- Initialization Parameter Files
- Starting Up Oracle Databases
- Shutting Down Oracle Databases
- Opening and Closing PDBs
- Working with the Automatic Diagnostic Repository (ADR)
- Querying Dynamic Performance Views

Creating PDBs

- Methods and Tools to Create PDBs
- Creating PDBs from Seed with SQL*Plus
- Cloning PDBs with SQL*Plus
- Unplugging and Plugging In PDBs with SQL*Plus
- Dropping PDBs with SQL*Plus

Configuring the Oracle Network Environment

- Oracle Net Services
- How Listeners Work
- Configuring Listeners for Dynamic Service Registration
- Configuring Listeners for Static Service Registration
- Configuring Local Naming for Connections
- Testing Oracle Net Connectivity with tns ping
- Configuring Communication Between Databases
- Dedicated Versus Shared Server Configurations

Administering User Security

- Creating Users
- Granting Privileges
- Creating and Granting Roles
- Revoking Privileges and Roles
- Creating and Assigning Profiles
- Authenticating Users

- Assigning Quotas to Users
- Applying the Principal of Least Privilege

Creating and Managing Tablespaces

- How Table Data is Stored
- Creating Tablespaces in SQL*Plus
- Altering and Dropping Tablespaces in SQL*Plus
- Viewing Tablespace Information in SQL*Plus
- Implementing Oracle Managed Files
- Moving and Renaming Online Data Files in SQL*Plus

Managing Storage Space

- Oracle Database Space Management Features
- Block Space Management
- Row Chaining and Migration
- Free Space Management Within Segments
- Types of Segments
- Allocating Extents
- Understanding Deferred Segment Creation
- Space-Saving Features

Managing UNDO Data

- Undo Data: Overview
- Transactions and Undo Data
- Storing Undo Information
- Comparing Undo Data and Redo Data
- Managing Undo
- Local Undo Mode Versus Shared Undo Mode
- Configuring Undo Retention
- Categories of Undo

Moving Data

- Moving Data: General Architecture
- Oracle Data Pump: Overview & Benefits
- Data Pump Export and Import Clients
- Data Pump Utility: Interfaces and Modes
- Data Pump Import: Transformations
- SQL*Loader Overview
- Loading Methods

Backup and Recovery Concepts

- DBA Responsibilities
- Categories of Failure
- Understanding Instance Recovery
- Understanding Types of Backups

- Comparing Complete and Incomplete Recovery
- Oracle Data Protection Solutions
- Flashback Technology

Monitoring and Tuning Database Performance

- Managing Performance Activities
- Performance Planning Considerations
- Database Maintenance
- Automatic Workload Repository (AWR)
- Automatic Database Diagnostic Monitor
- Performance Monitoring
- Performance Tuning Methodology
- Database Server Statistics and Metrics

SQL Tuning

- SQL Tuning Process
- Oracle Optimizer
- Optimizer Statistics
- SQL Plan Directives
- Adaptive Execution Plans
- SQL Tuning Advisor
- SQL Access Advisor
- SQL Performance Analyzer

Oracle Database Resource Manager

- Oracle Database Resource Manager: Overview
- Resource Manager Elements
- Using Resource Manager to Allocate Resources
- Creating a Simple & Complex Resource Plan
- Using the Active Session Pool Feature
- Limiting CPU Utilization at the Database Level
- Limiting CPU Utilization at the Server Level

Enterprise Manager Cloud Control

- Controlling the Enterprise Manager Cloud Control Framework
- Starting & Stopping the Enterprise Manager Cloud Control Framework

Introduction to Oracle Database Cloud Service

- Oracle Cloud: Overview
- Database Cloud Service Offerings
- DBCS Architecture
- Features and Tooling
- Additional Database Configuration Options

Certification Details:

Above Course caters to: [Oracle Database 12c Administration 1Z0-062](#)

Duration: 90 minutes

No of Questions: 70

Creating DBCS Database Deployments

- Automated Database Provisioning
- Creating a Database Deployment
- How SSH Key Pairs are Used
- Creating an SSH Key Pair
- Storage Used for Database Files

Managing DBCS Database Deployments

- Cloud Tooling
- Accessing Tools and Features from the DBCS Console
- Managing the Compute Node Associated With a Database Deployment
- Managing Network Access to DBCS
- Enabling Access to a Compute Node Port
- Scaling a Database Deployment

Backing Up and Restoring DBCS Database Deployments

- Backing Up and Recovering Databases on DBCS
- Backup Destination Choices
- Backup Configuration
- Creating an On-Demand Backup
- Customizing the Backup Configuration
- Performing Recovery by Using the Console
- Performing Recovery by Using the dbascli Utility

Patching DBCS Database Deployments

- Patching DBCS
- Using the DBCS Console to Manage Patches
- Using the dbascli Utility to Manage Patches

Creating Master Encryption Keys for PDBs

- CDB and PDB Master Encryption Keys
- Determining Whether You Need to Create and Activate an Encryption Key for a PDB
- Creating and Activating an Encryption Key

Tablespace Encryption by Default

- Tablespace Encryption by Default in DBCS
- Transparent Data Encryption (TDE) Overview
- Components of TDE
- Using TDE
- Defining the Keystore Location
- Controlling Tablespace Encryption by Default
- Managing the Software Keystore and Master Encryption Key
- Managing the Keystore in CDBs and PDBs