

High School Technology Services
myhsts.org
Certification Courses

Oracle Database 12c Administration II in 40 hour training

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In this course, students will learn about day-to-day administration tasks. It will also address administration sub-specialties.

This course is for all Oracle Professionals. Specifically Database Administrators, Web Server Administrators, System Administrators, CIOs and other IT Management Professionals.

Course Outline

1 - Introduction: Managing the Database Instance

- The Database Management Tools
- EM Database Express
- EM Cloud Control
- SQL Developer
- Database Administrator

2 - Introduction: Database Architecture Review

- Database Instance Configurations
- Memory Structures
- Process Structures
- Storage Architecture

3 - Introduction: Starting & Stopping Database Services

- Start & Stop the Database Listener
- ABOUT DATABASE STARTUP/SHUTDOWN
- SYSOPER
- SYSDBA
- DATABASE STATE & STAGES
- STARTUP WITH EM CLOUD CONTROL
- STARTUP WITH SQL*PLUS
- SHUTDOWN WITH EM CLOUD CONTROL
- SHUTDOWN WITH SQL*PLUS
- USING MS WINDOWS SERVICES

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4 - Introduction: Oracle Network Environment

- Oracle Net Services Architecture
- ORACLE NET CONFIGURATION ASSISTANT
- ORACLE NET MANAGER
- USING EM CLOUD CONTROL
- ADVANCED NETWORK COMPRESSION
- TROUBLESHOOTING NETWORK PROBLEMS

5 - Introduction: Diagnostics & Oracle Support

- About Database Diagnostics
- Fault Diagnosability Infrastructure
- DATABASE INSTANCE HEALTH SNAPSHOT
- THE SUPPORT WORKBENCH
- PROACTIVE DATABASE HEALTH CHECKS
- PACKAGE DIAGNOSTIC DATA
- WORKING WITH THE KNOWLEDGE BASE

6 - Storage: Tablespace Management

- Starter Tablespaces
- CREATE TABLESPACE WITH EM CC
- CREATE TABLESPACE WITH SQL
- MANAGE TABLESPACES WITH EM CC
- MANAGE TABLESPACES WITH EM DE
- MANAGE TABLESPACES WITH SQL
- DROP TABLESPACE
- ALTER TABLESPACE

7 - Storage: Advanced Tablespace Management

- Managing Temporary Tablespaces
- TEMP TABLESPACE GROUPS WITH EM
- TEMP TABLESPACE GROUPS WITH SQL
- DEFAULT PERMANENT TABLESPACES
- BIGFILE TABLESPACES
- MANAGING THE SYSAUX TABLESPACE

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8 - Storage: Data Files & Temp Files Management

- Manage Data Files with EM
- ACCESS METADATA WITH SQL
- MANAGE DATA FILES WITH SQL
- MANAGE TEMP FILES
- ORACLE-MANAGED FILES (OMF)

9 - Storage: UNDO Data & UNDO Tablespaces

- About UNDO Space Management
- GUARANTEE UNDO RETENTION
- MONITOR UNDO SPACE WITH SQL
- USE THE EM UNDO ADVISOR

10 - Security & Schemas: Security Overview & Database Privileges

- Database Security Principles
- DATABASE SYSTEM PRIVILEGES
- DATABASE OBJECT PRIVILEGES
- SUPER ADMINISTRATOR ROLES
- PRIVILEGE ANALYSIS

11 - Security & Schemas: User Security

- Create & Manage User Accounts
- MANAGE USERS WITH EM
- MANAGE USERS WITH SQL
- CREATE USER
- ALTER USER
- DROP USER
- GRANT & REVOKE PRIVILEGES
- RESOURCE LIMITS VIA PROFILES
- ALTER PROFILE
- DROP PROFILE
- PASSWORD MANAGEMENT VIA PROFILES
- ROLE-BASED SECURITY MANAGEMENT
- ALTER USER...DEFAULT ROLE

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- SET ROLE
- DELEGATING PRIVILEGE AUTHORIZATION
- WITH ADMIN OPTION & System Privileges
- WITH GRANT OPTION & Object Privileges
- PRINCIPLE OF LEAST PRIVILEGE CHECKLIST

12 - Security & Schemas: Database Auditing

- Auditing Database Activity
- Traditional Auditing
- Unified Auditing
- Create Audit Policy

13 - Security & Schemas: SQL Loader

- Loader Concepts
- Loader From the Command Line
- control File Options
- Load Methods
- Loader Express Mode
- Loader From EM

14 - Security & Schemas: Export & Import

- Manage Directory Objects
- The Data Pump Architecture
- Data Pump Export
- Data Pump Import
- Data Pump Dictionary Views
- Using the EM CC Interface

15 - Performance & Availability: Managing Performance & SQL Tuning

- Management Advisory Framework
- Performance Monitoring & AWR
- The SQL Tuning Advisor
- Monitoring Exceptions with Metrics

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16 - Performance & Availability: Data Concurrency

- About System & User Locks
- Monitor & Manage User Locks
- Monitor Locks with Data Dictionary
- Manage Locks with EM

17 - Performance & Availability: Backup & Recovery Concepts

- Backup & Recovery Structures
- Managing REDO Data
- Configuring for Recoverability
- Instance Recovery
- Recoverability Checklist