

Oracle Database 12c: Fundamentals for Developers and System Administrators

Course Outline

Course Overview

- Additional Resources
- Course Objectives
- Course Agenda
- Course Environment

Oracle Database: Overview

- Oracle Instance and Database: Overview
- Relating Multiple Tables
- Relational Databases: Introduction
- SQL Statements
- Structured Query Language (SQL)
- Relational Database Terminology
- Using SQL to Access the Database
- Development Tools for Oracle Database

Installing and Creating a Database

- Configuring Security Updates
- Specifying Installation Options
- Installation Workflow
- Installation Steps
- Setting Environment Variables
- Oracle Universal Installer
- Downloading Software Updates
- Installation Prerequisites

Using Oracle Enterprise Manager Database Express and SQL-Based Management Tools

- Granting Access to EM Express
- Management Framework
- Accessing EM Express
- Enterprise Manager Database Express: Overview
- Navigating Through EM Express
- Using the Database Home Page
- SQL * Plus
- Configuring the HTTPS Port for EM Express

Configuring the Oracle Network Environment

- Network Configuration: Overview
- Oracle Net Listener: Configuration and Management
- Tools for Configuring and Managing the Oracle Network
- Oracle Net: Naming Methods
- Name Resolution
- Connecting to an Oracle Database
- Using the Listener Control Utility

Managing the Oracle Instance

- Oracle Processes
- Oracle Memory Structures
- Initialization Parameters
- Oracle Instance Management
- Starting and Shutting Down an Instance
- States of an Instance
- Stopping and Starting an Instance by Using SQL Developer
- Stopping and Starting an Instance by Using SQL * Plus

Managing Database Storage Structures

- Tablespaces and Data Files
- Tablespaces in the Preconfigured Database
- Exploring the Storage Structure of the Oracle Database
- Enlarging the Database
- Control File
- Multiplexing the Redo Log
- Redo Log Files
- Oracle Database Structures

Administering Users and Security

- Unlocking a User Account and Resetting the Password
- Setting the Password Policy
- Creating Users
- Dropping Users
- Locking and Unlocking Accounts
- Overview of Users and Security
- Oracle-Defined Users
- Modifying Users

Managing Schema Objects

- Modifying a Table
- Schemas
- Creating and Modifying Tables
- Understanding Data Integrity
- What Is a Schema?
- Accessing Schema Objects
- Specifying Data Types in Tables
- Defining Constraints

Performing Backup and Recovery

- Oracle Recovery Features
- Configuring the Fast Recovery Area
- Backup File Types
- Types of Backups
- Media Recovery Step
- Media Recovery Options
- Configuring the Database for Backup and Recovery
- Credentials Required to Perform Backup and Recovery

Monitoring the Database and Using the Advisors

- Types of ADDM Findings

- Proactive Database Monitoring
- Responding to Findings
- Viewing a Summary of ADDM Performance Findings
- Diagnosing Performance Problems
- Monitoring Performance
- Using Advisors
- Monitoring General Database State and Workload

Managing the Software

- Patching Oracle Database Software
- Understanding Software Management and Patch Releases
- Using the Database Upgrade Assistant to Upgrade the Database
- Removing Oracle Database Software

Oracle Database Cloud Service: Overview

- Software Editions: Included Database Options and Management Packs
- Automated Database Provisioning
- Using the Oracle Database Cloud Service Console to Manage Patches
- Managing the Compute Node Associated with a Database Deployment
- Database as a Service Architecture, Features and Tooling
- Scaling to Database Deployment & Patching Database as a Service
- Enabling Access to a Compute Node Port
- Managing Network Access to Database as a Service