# Oracle Database 19c: Fundamentals for Devs and SysAdmins

Oracle Database

| DURATION | MODULES | COURSE CODE |
| --- | --- | --- |
| **2 Days** | **4 Lectures** | **—** |

## Course Overview

Oracle Database 19c: Fundamentals for Devs and SysAdmins

## What You Will Learn

- 1 Introduction
- Course Goals
- Course Road Map
- Practice Environment
- Additional Resources
- Other Related Oracle University Courses
- 2 Introducing the Oracle Database
- Course Road Map
- Objectives
- Agenda
- Relational Databases
- Relational Database Terminology
- Relating Multiple Tables
- Human Resources(HR)Schema
- Agenda
- Structured Query Language (SQL)
- SQL Statements
- Using SQL to Access the Database
- Development Tools for Oracle Database
- Quiz
- Agenda
- Oracle Instance and Database: Overview
- Common Tasks of an Oracle Database Administrator
- Tools for Administering an Oracle Database
- Summary
- 3 Installing Oracle Database and Creating a Database

- Course Road Map
- Objectives
- Agenda
- Installation Workflow
- Oracle Universal Installer
- Installation Prerequisites
- Setting Environment Variables
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- Agenda
- Installation Steps
- Specifying Installation Options
- Selecting the Installation Option Type
- Specifying the Database Edition
- Choosing the Installation Location
- Creating the Inventory Directory
- Privileged Operating System Groups
- Root Script Execution Configuration
- Performing Prerequisite Checks
- Reviewing the Installation Summary
- Installing Product Software
- Completing the Installation
- Agenda
- Database Configuration Assistant
- Creating a Database
- Managing Templates
- Managing Oracle Multitenant
- Completing the Installation
- Quiz
- Summary
- Practice 3: Overview
- 4 Using Enterprise Manager Database Express and SQL-Based Management
- Tools
- Course Road Map
- Objectives
- Agenda
- Management Framework
- Enterprise Manager: Overview
- Configuring the HTTPS Port for EM Express
- Accessing EM Express
- Using the Database Home Page
- Granting Access to EM Express
- Quiz
- Agenda
- SQL*Plus
- Using SQL*Plus to Access the Database
- Oracle SQL Developer

- Using SQL Developer to Access the Database
- Oracle SQL Developer: Connections
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- Summary
- Practice 4: Overview
- 5 Configuring the Oracle Network Environment
- Course Road Map
- Objectives
- Agenda
- Network Configuration: Overview
- Oracle Net Listener: Configuration and Management
- Tools for Configuring and Managing the Oracle Network
- Agenda
- Using the Listener Control Utility
- Agenda
- Connecting to an Oracle Database Instance
- Name Resolution
- Oracle Net: Naming Methods
- Quiz
- Summary
- Practice 5: Overview
- 6 Managing the Database Instance
- Course Road Map
- Objectives
- Agenda
- Oracle Instance Management
- Initialization Parameters
- Oracle Processes
- Oracle Memory Structures
- Quiz
- Agenda
- Starting and Shutting Down an Instance
- States of an Instance
- Stopping and Starting an Instance by Using SQL*Plus
- Stopping and Starting an Instance by Using SQL Developer
- Stopping and Starting an Instance by Using Windows Services Program
- Quiz
- Agenda
- Viewing Initialization Parameters
- Modifying Initialization Parameters
- Agenda
- Managing Memory Components
- v
- Viewing Memory Settings
- Summary
- Practice 6 Overview: Managing an Instance

- 7 Managing the Database Storage Structures
- Course Road Map
- Objectives
- Lesson Agenda
- Oracle Database Structures
- Exploring the Storage Structure of the Oracle Database
- Control Files
- Redo Log Files
- Multiplexing the Redo Logs
- Tablespaces and Data Files
- Tablespaces in the Preconfigured Database
- Enlarging the Database
- Quiz
- Lesson Agenda
- Creating a New Tablespace
- Modifying a Tablespace
- Dropping a Tablespace
- Lesson Agenda
- Understanding Undo Data
- Storing Undo Information
- Comparing Undo Data and Redo Data
- Using SQL Developer to View Undo Information
- Managing Undo
- Quiz
- Summary
- Practice 7: Overview
- 8 Administering Users and Security
- Course Road Map
- Objectives
- Agenda
- Overview of Users and Security
- Oracle-Defined Users
- Creating Users
- Modifying Users
- Dropping Users
- Locking and Unlocking Accounts
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- Unlocking a User Account
- Setting the Password Policy
- Modifying the Default Password Policy
- Administering Privileges and Roles
- Agenda
- Administrative Privileges
- Granting Privileges
- Agenda
- Viewing Roles

- Creating Roles
- Modifying Roles
- Quiz
- Summary
- Practice 8: Overview
- 9 Managing Schema Objects
- Course Road Map
- Objectives
- Agenda
- What Is a Schema?
- Schemas
- Accessing Database Objects
- Specifying Data Types in Tables
- Creating Tables
- Modifying a Table
- Understanding Data Integrity
- Defining Constraints
- Agenda
- Viewing the of a Table
- Dropping a Table
- Agenda
- Managing Indexes
- Viewing Indexes
- Creating and Dropping Indexes
- Dropping Indexes
- Managing Views
- Managing Program Code Stored in the Database
- Managing Access to Schema Objects
- Quiz
- Summary
- Practice 9: Overview
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- 10 Performing Backup and Recovery
- Course Road Map
- Objectives
- Agenda
- Oracle Recovery Features
- Backup File Types
- Types of Backups
- Media Recovery Options
- Media Recovery Steps
- Configuring the Database for Backup and Recovery
- Agenda
- Configuring the Fast Recovery Area
- Credentials Required to Perform Backup and Recovery
- Connecting to the Target Database Instance

- Configuring Recovery Settings
- Configuring Backup Settings: Disk Settings
- Configuring Backup Settings: Policy Settings
- Agenda
- Whole Database Backups
- Backing Up the Database
- Suggested Backup Strategy
- Managing Your Backups
- Performing Backup Maintenance Tasks
- Quiz
- Agenda
- Performing Oracle Advised Recovery
- Using the Data Recovery Advisor
- Agenda
- Flashback Table
- Enabling Row Movement on a Table
- Performing Flashback Table: Steps
- Performing Flashback Table
- Recovering Tables by Using Flashback Drop
- Performing Flashback Drop
- Quiz
- Summary
- Practice 10: Overview
- 11 Monitoring the Database and Using Advisors
- Course Road Map
- Objectives
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- Agenda
- Proactive Database Monitoring
- Monitoring the General Database State and Workload
- Monitoring Performance
- Diagnosing Performance Problems
- Types of ADDM Findings
- Viewing a Summary of ADDM Performance Findings
- Responding to Findings
- Quiz
- Agenda
- Using Advisors
- Performance Advisors
- Using the SQL Tuning Advisor
- Automatic SQL Tuning Advisor
- Summary
- Practice 11: Overview
- 12 Managing the Software
- Course Road Map
- Objectives

- Agenda
- Understanding Software Management and Patch Releases
- Quiz
- Agenda
- Using the Database Upgrade Assistant to Upgrade the Database
- Removing Oracle Database Software
- Quiz
- Summary
- 13 Oracle Database Cloud Service: Overview
- Objectives
- Database as a Service Architecture
- Database as a Service: Features and Tooling
- Software Editions: Included Database Options and Management Packs
- Accessing the Oracle Database Cloud Service Console
- Automated Database Provisioning
- Accessing Tools from the Service Console
- Managing the Compute Node Associated with a Database Deployment
- Managing Network Access to Database as a Service
- Enabling Access to a Compute Node Port
- Scaling a Database Deployment
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- Patching Database as a Service
- Using the Oracle Database Cloud Service Console to Manage Patches
- Summary