

Oracle Database 19c: SQL Workshop

Oracle Database

DURATION

5 Days

MODULES

19 Lectures

COURSE CODE

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Course Overview

This course offers students an introduction to Oracle Database 19c database technology. In this class students learn the concepts of relational databases and the powerful SQL programming language. This course provides the essential SQL skills that allow developers to write queries against single and multiple tables, manipulate data in tables, and create database objects.

What You Will Learn

Introduction

- Objectives
- Lesson Agenda
- Course Objectives
- Icons Used in This Course
- Course Roadmap
- Appendixes and Practices Used in the Course
- Lesson Agenda
- Oracle Database 19c: Focus Areas
- Oracle Database 19c
- MySQL: A Modern Database for the Digital Age
- High Scalability with MySQL
- MySQL-Supported Operating Systems
- MySQL Enterprise Edition
- Why MySQL Enterprise Edition?
- Oracle Premier Support for MySQL
- MySQL and Oracle Integration
- Lesson Agenda
- Relational and Object Relational Database Management Systems
- Data Storage on Different Media
- Relational Database Concept
- Definition of a Relational Database

- Data Models
- Entity Relationship Model
- Entity Relationship Modeling Conventions
- Relating Multiple Tables
- Relational Database Terminology
- Lesson Agenda
- Human Resources (HR) Application
- Tables Used in This Course
- Tables Used in the Course
- Lesson Agenda
- Using SQL to Query Your Database
- How SQL Works
- SQL Statements Used in the Course
- Development Environments for SQL in Oracle
- Introduction to Oracle Live SQL
- Development Environments for SQL in MySQL
- Lesson Agenda
- Oracle Database Documentation
- Additional Resources for Oracle
- Oracle University: Oracle SQL Training
- Oracle SQL Certification
- MySQL Websites
- MySQL Community Resources
- Oracle University: MySQL Training
- MySQL Certification
- Summary
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Retrieving Data Using the SQL SELECT Statement

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- Lesson Agenda
- HR Application Scenario
- Writing SQL Statements
- Basic SELECT Statement
- Selecting All Columns
- Executing SQL Statements with Oracle SQL Developer and SQL*Plus
- Column Heading Defaults in SQL Developer and SQL*Plus
- Executing SQL Statements in MySQL Workbench
- Executing SQL Statements in mysql Command-line Client
- Selecting Specific Columns
- Selecting from dual with Oracle Database
- Selecting Constant Expressions in MySQL
- Lesson Agenda
- Arithmetic Expressions

- Using Arithmetic Operators
- Operator Precedence
- Defining a Null Value
- Null Values in Arithmetic Expressions
- Lesson Agenda
- Defining a Column Alias
- Using Column Aliases
- Lesson Agenda
- Concatenation Operator in Oracle
- Concatenation Function in MySQL - CONCAT()
- Literal Character Strings
- Using Literal Character Strings in Oracle
- Using Literal Character Strings in MySQL
- Alternative Quote (q) Operator in Oracle
- Including a Single Quotation Mark in a String with an Escape Sequence
- in MySQL
- Duplicate Rows
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- Displaying Table Structure by Using Oracle SQL Developer
- Displaying Table Structure by Using MySQL Workbench
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Restricting and Sorting Data

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- Limiting Rows That Are Selected
- Using the WHERE Clause
- Character Strings and Dates
- Comparison Operators
- Using Comparison Operators
- Range Conditions Using the BETWEEN Operator
- Using the IN Operator
- Pattern Matching Using the LIKE Operator
- Combining Wildcard Symbols
- Using NULL Conditions
- Defining Conditions Using Logical Operators
- Using the AND Operator
- Using the OR Operator
- Using the NOT Operator
- Lesson Agenda
- Rules of Precedence

- Lesson Agenda
- Using the ORDER BY Clause
- Sorting
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- SQL Row Limiting Clause
- Using SQL Row Limiting Clause in a Query in Oracle
- SQL Row Limiting Clause: Example in Oracle
- Using SQL Row Limiting Clause in a Query in MySQL
- SQL Row Limiting Clause: Example in MySQL
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- Substitution Variables in Oracle
- Using the Single-Ampersand Substitution Variable
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- Specifying Column Names, Expressions, and Text
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- Using the VERIFY Command in Oracle
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Using Single-Row Functions to Customize Output

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- Case-Conversion Functions
- Using Case-Conversion Functions in WHERE Clauses in Oracle
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- Character-Manipulation Functions
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- Using the TRUNCATE Function in MySQL
- Using the MOD Function
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- RR Date Format in Oracle
- Using the SYSDATE Function in Oracle
- Using the CURRENT_DATE and CURRENT_TIMESTAMP Functions
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- Using Arithmetic Operators with Dates in Oracle
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- Displaying the Current Date in MySQL
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