Oracle Database: SQL Workshop I NEW

Duration: 3 Days

What you will learn

This course offers you an introduction to Oracle Database 12c database technology. You will learn the concepts of relational databases and the powerful SQL programming language. Discover essential SQL skills that allow developers to write queries against single and multiple tables, manipulate data in tables and create database objects.

Learn To:

Understand SQL statements, as well as the Oracle Relational Database.
Use SQL Developer.
Write reports using SQL statements.
Manipulate data in relational tables and save the data.
Understand the concepts of relational databases and the powerful SQL programming language.
Write reports using SQL Statements

Benefits to You

Ensure fast, reliable, secure and easy to manage performance. Optimize database workloads, lower IT costs and deliver a higher quality of service by enabling consolidation onto database clouds.

Use Single Row Functions
This Oracle Database course will also teach you how to use single row functions to customize output. Explore using conversion functions and conditional expressions, along with use group functions to report aggregated data.

Reinforce Your Knowledge through Hands-On Exercises
Demonstrations and hands-on practice reinforce the fundamental concepts you'll delve into in this course. You will discover and use Oracle SQL Developer as the main environment tool for writing SQL. SQL*Plus is also introduced as an optional tool.

Audience

Application Developers
Forms Developer
Functional Implementer
PL/SQL Developer
System Analysts

Related Training

Required Prerequisites

Familiarity with data processing concepts and techniques

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Familiarity with programming languages

Course Objectives

Define the goals of the course

List the features of Oracle Database 12c

Describe the salient features of Oracle Cloud 12c

Discuss the theoretical and physical aspects of a relational database

Describe Oracle server’s implementation of RDBMS and object relational database management system (ORDBMS)

Identify the development environments that can be used for this course

Describe the database and schema used in this course

Course Topics

Introduction
Course Objectives, Course Agenda and Appendixes Used in this Course
Overview of Oracle Database 12c and Related Products
Overview of relational database management concepts and terminologies
Introduction to SQL and its development environments
What is Oracle SQL Developer?
Starting SQL*Plus from Oracle SQL Developer
The Human Resource(HR) Schema
Tables used in the Course

Retrieving Data using the SQL SELECT Statement
Capabilities of the SELECT statement
Arithmetic expressions and NULL values in the SELECT statement
Column aliases
Use of concatenation operator, literal character strings, alternative quote operator, and the DISTINCT keyword
Use of the DESCRIBE command

Restricting and Sorting Data
Limiting the Rows
Rules of precedence for operators in an expression
Substitution Variables
Using the DEFINE and VERIFY command

Using Single-Row Functions to Customize Output
Describe the differences between single row and multiple row functions
Manipulate strings with character function in the SELECT and WHERE clauses
Manipulate numbers with the ROUND, TRUNC and MOD functions
Perform arithmetic with date data
Manipulate dates with the date functions

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Using Conversion Functions and Conditional Expressions
Describe implicit and explicit data type conversion
Use the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions
Nest multiple functions
Apply the NVL, NULLIF, and COALESCE functions to data
Use conditional IF THEN ELSE logic in a SELECT statement

Reporting Aggregated Data Using the Group Functions
Group Functions
Creating Groups of Data
Restricting Group Results

Displaying Data From Multiple Tables Using Joins
Introduction to JOINS
Types of Joins
Natural join
Self-join
Non equijoins
OUTER join

Using Subqueries to Solve Queries
Introduction to Subqueries
Single Row Subqueries
Multiple Row Subqueries

Using the SET Operators
Set Operators
UNION and UNION ALL operator
INTERSECT operator
MINUS operator
Matching the SELECT statements
Using ORDER BY clause in set operations

Managing Tables using DML statements
Data Manipulation Language
Database Transactions

Introduction to Data Definition Language
Data Definition Language

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