

Oracle Database: SQL Workshop I

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

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

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