5 Days

Oracle Database: Introduction to SQL Ed 2

The Oracle Database: SQL Workshop I training course introduces participants to Oracle Database 12c database technology. This training will equip participants with major concepts of relational databases and the perks of SQL programming language.

The course will deliver essential SQL skills to developers that will help them to write queries against single and multiple tables, manipulate data in tables, and create database objects. The participants are also introduced to Oracle Database Exadata Express Cloud Service.

Completion of this training course will enable candidates in:

- Identifying what a SQL statement is.

- Understanding the Oracle Relational Database.

- Deploying SQL Developer.

- Writing reports using SQL Statements.

- Manipulating data in relational tables and save the data.

Course Benefits:

Attaining certification of this course will make participants deploy Oracle SQL Developer as the main environment tool for writing SQL. This course introduces SQL*Plus as an optional tool.

Course Details
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Course Outline

1. Introduction

- Course Objectives, & Course Agenda

- Oracle Database 12c and Related Products Overview

- Relational database management concepts and terminologies Overview

- SQL and its development environments

- Oracle SQL Developer

- Starting SQL*Plus from Oracle SQL Developer

- The Human Resource(HR) Schema

2. Retrieving Data using the SQL SELECT Statement

- Competences of the SELECT statement

- Arithmetic expressions and NULL values in the SELECT statement

- Column aliases

- Utility of concatenation operator, literal character strings, alternative quote operator, and the DISTINCT keyword

- Utility of DESCRIBE command

3. Restricting and Sorting Data

- Limit the Rows

- Sort rows using ORDER BY clause

- Rules of precedence for operators in an expression

- SQL row limiting clause in a query

- Substitution Variables

- Use the DEFINE and VERIFY command

4. Using Single-Row Functions to Customize Output

- Differentiate between single row and multiple row functions

- Manipulate strings with character function in the SELECT and WHERE clauses

- Nesting Functions

- Perform arithmetic with date data

- Manipulate dates with the date functions

- Manipulate numbers with the ROUND, TRUNC and MOD functions

5. Using Conversion Functions and Conditional Expressions

- Describing implicit and explicit data type conversion

- Use the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions

- Applying the NVL, NULLIF, and COALESCE functions to data

- Conditional Expressions

6. Reporting Aggregated Data Using the Group Functions

- Grouping Rows (GROUP BY and HAVING clause)

- Group Functions

- Nesting Group Functions

7. Displaying Data from Multiple Tables Using Joins

- Introduction to JOINS

- Types of Joins

- Self-join & Natural join

- OUTER join

- Nonequijoins

- Cartesian product

8. Using Subqueries to Solve Queries

- Introduction to Subqueries

- Single & Multiple Row Subqueries

- Null values in a subquery

9. Using the SET Operators

- Set Operators

- UNION and UNION ALL operator

- MINUS operator

- INTERSECT operator

- Match the SELECT statements

- Use ORDER BY clause in set operations

10. Managing Tables using DML statements

- Database Transactions

- Data Manipulation Language

- Manual Data Locking

11. Introduction to Data Definition Language

- Database Objects

- Data types

- CREATE TABLE statement

- Creating a table using subquery

- DROP TABLE statement

- Overview of constraint

- Use the ALTER TABLE statement to add, modify, and drop a column

Who Should Attend

The Oracle Database: SQL Workshop I is ideal for:

- Functional Implementer

- PL/SQL Developer

- Application Developers

- Database Administrators

- System Analysts

- Forms Developer

Pre Requisite

- Knowledge of data processing concepts and techniques

- Understanding of basic programming languages

Date - Apr 26, 2024