

DEVELOPING SQL QUERIES FOR ORACLE DATABASES

Course number : 108

Overview

Increase productivity and maximize the potential of SQL to formulate intricate queries for Oracle databases. In this training course, you learn to solve business problems easily, efficiently, and elegantly with only a few lines of SQL code, and gain the practical skills to choose the best query method — ensuring accuracy and avoiding common errors or pitfalls.

What you'll learn

- Maximize the potential of SQL to formulate complex queries
- Thoroughly test SQL queries and avoid common errors
- Select the most efficient solution to complex SQL problems
- Leverage the analytical functions of Oracle
- Employ inner joins, outer joins, cross joins, and self joins

Who should attend

Pre-requis

SQL and Oracle RDBMS knowledge at the level of: SQL Programming Language Introduction, or Oracle Database 12c Introduction

SOFTWARE:

This course is currently running on Oracle 12c

Outline

[Introduction and Overview](#)

The uses of SQL queries

- Why SQL can be both easy and difficult
- Recommendations for thorough testing

Enhancing query performance

- Query optimization
- Choosing the most efficient query method

Leveraging SQL Functions to Build Queries

Aggregate functions

- Grouping in several levels
- Grouping and NULLs
- CUBE and ROLLUP
- Building crosstab reports
- Utilizing the PIVOT operator in Oracle 11g

Single-row functions

- String-manipulation functions
- Functions for date and time manipulation
- Simulating IF ... THEN ... ELSE with functions
- Handling regular expressions with Oracle 10g functions

Performing Extensive Analysis with Analytical Functions

Calculating ranks

- RANK and DENSE_RANK
- ROW_NUMBER depending on ORDER BY

Extending the use of aggregates

- Partitioning in multiple levels
- Computing running totals
- Comparing row and aggregate values
- Defining sliding window boundaries

Developing Complex Joins

Creating inner and outer joins

- Building multiple table joins
- Grouping and joins

How and when to use self-joins

- Implementing recursive self-joins with CONNECT BY
- CONNECT BY and join simultaneously
- Oracle 10g enhancements to CONNECT BY

Applying the ANSI standard join syntax

- INNER JOIN
- CROSS JOIN
- LEFT, RIGHT and FULL OUTER JOIN
- Adding filter conditions to OUTER JOINS
- Differences between new ANSI and old Oracle style

Manipulating the set operators

- UNION and UNION ALL
- INTERSECT
- MINUS

Building Subqueries

Noncorrelated subqueries

- Subqueries that return NULL
- Multiple row subqueries
- Multiple column subqueries

Handling correlated subqueries

- Fetching main query values
- The EXISTS operator
- Avoiding accidental correlation

Subqueries in the FROM clause

- Breaking up a complex problem into manageable pieces
- Factoring subqueries for reusability
- Applying recursive factored subqueries in Oracle 11g R2

Subqueries as expressions

- Subqueries as parameters to functions
- Correlated and noncorrelated subqueries in expressions

Employing Views and Temporary Tables

Overcoming obstacles with views

- Multiple group levels in one query
- How views impact performance

Temporary tables as alternatives to views

- Avoiding interference from other users
- Tailoring temporary tables

Introducing Oracle 12

- Limiting the number of rows returned with FETCH
- Retrieving partly results with OFFSET
- Simulating joins with lateral views and APPLY
- Declaring local functions in the WITH clause

Schedule

Location Dates

Cotonou April 01, 2018 - April 30, 2018
08:00 AM - 05:00 PM

Status

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Tuition

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