

TRAINING

ADVANCED SQL TRAINING FOR BUSINESS REPORTING

In today's business world, organization's data are captured from various operations of the business and placed in databases. To be able to communicate with the database and get relevant information, a special tool is required. This tool is SQL (Structured Query Language).

SQL is used to manipulate data and translate them into relevant information for management to take timely, effective and efficient decisions in realizing business/corporate objectives. Its excellent capabilities enable users to optimally achieve their goals by managing operations easily.

This course will give those with basic Oracle SQL skills the advanced SQL skills necessary to design and code complex queries against Oracle databases to generate the REPORTS that management really wants.

You will learn to use many advanced SQL coding techniques such as coding analytic functions for business intelligence reporting and decision support queries, using partition outer join to "densify" data, the Oracle12 MODEL clause ("spreadsheet-like capability directly from the database"), Oracle12 regular expressions for pattern matching, using the extended aggregate functions CUBE and ROLLUP, coding SET operations such as INTERSECT, using subqueries to increase SQL performance and more.

As with all of our courses, this course is highly customizable to your specific training requirements.

AREAS OF COVERAGE:

Part 1 – DATA QUERY LANGUAGE

- ❖ Section 1 simple select statements (review)
- ❖ Section 2 advanced select statements
- ❖ Section 2.2 advanced joins
- ❖ Section 3 subqueries
- ❖ Section 4 advanced functions
- ❖ Section 5 set operators

PART 2 DATA MANIPULATION LANGUAGE

- ❖ Section 1 - manipulating data (review)
- ❖ Section 2 – transactions
- ❖ Section 3 - advanced dml

PART 3 DATA DEFINITION LANGUAGE

- ❖ Section 1 review
- ❖ Section 2 creating other schema objects
- ❖ Section 3 managing objects with data dictionary views

IN DETAILS

Who: IT Auditors, Credit, Market and Operational Risk Managers, Internal Audit, Business Intelligence Analysts, Customer Relationship Managers, Financial Control Officers. I.T Officers Etc

What: 3 Days - Training course in an online or on-site style setting

LAPTOP REQUIRED: A laptop is required for the training.

Laptop specification: We recommend a laptop with a minimum of 8Gig RAM

How Much: \$400

Course Content

PART 1 – DATA QUERY LANGUAGE

❖ SECTION 1 SIMPLE SELECT STATEMENTS (REVIEW)

Retrieving Data Using the SQL SELECT Statement

List the capabilities of SQL SELECT statements

Execute a basic SELECT statement

Restricting and Sorting Data

Limit the rows that are retrieved by a query

Sort the rows that are retrieved by a query

Use character, number, and date functions in SELECT statements

Describe the use of conversion functions

Reporting Aggregated Data Using the Group Functions

Group data by using the GROUP BY clause

Include or exclude grouped rows by using the HAVING clause

Displaying Data from Multiple Tables

Write SELECT statements to access data from more than one table using equijoins

❖ SECTION 2 ADVANCED SELECT STATEMENTS

SECTION 2.1 ADVANCED GROUP CLAUSES

Generating Reports by Grouping Related Data

Use the ROLLUP operation to produce subtotal values

Use the CUBE operation to produce cross-tabulation values

Use the GROUPING function to identify the row values created by ROLLUP or CUBE

Use GROUPING SETS to produce a single result set

EXAMPLES AND ASSIGNMENT

❖ SECTION 2.2 ADVANCED JOINS

Write SELECT statements to access data from more than one table using nonequijoins

Write SELECT statements to access data from 3 or more tables.

Join a table to itself by using a self-join

View data that generally does not meet a join condition by using outer joins

EXAMPLES AND ASSIGNMENT

❖ **SECTION 3 SUBQUERIES**

Using Subqueries to Solve Queries

Define subqueries

Describe the types of problems that subqueries can solve

Write single-row and multiple-row subqueries

Retrieving Data Using Subqueries

Write a multiple-column subquery

Use scalar subqueries in SQL

Solve problems with correlated subqueries

Use the EXISTS and NOT EXISTS operators

Use the WITH clause

EXAMPLES AND ASSIGNMENT

❖ **SECTION 4 ADVANCED FUNCTIONS**

Using the DECODE and CASE functions

Using Analytical functions

Using Regular Expression Functions

EXAMPLES AND ASSIGNMENT

❖ **SECTION 5 SET OPERATORS**

Describe set operators

Use a set operator to combine multiple queries into single query

Control the order of rows returned

EXAMPLES AND ASSIGNMENT

PART 2 DATA MANIPULATION LANGUAGE

❖ **SECTION 1 - Manipulating Data (REVIEW)**

Describe each data manipulation language (DML) statement

Insert rows into a table

Update rows in a table

Delete rows from a table

❖ **SECTION 2 - TRANSACTIONS**

Control transactions

❖ **SECTION 3 - ADVANCED DML**

Manipulating Large Data Sets

Manipulate data using subqueries

Describe the features of multitable INSERTs

Use the following types of multitable INSERTs (Unconditional, Conditional and Pivot)

Merge rows in a table
Track the changes to data over a period of time

PART 3 DATA DEFINITION LANGUAGE

❖ SECTION 1 REVIEW

Using DDL Statements to Create and Manage Tables
Categorize the main database objects
Review the table structure
List the data types that are available for columns
Create a simple table

❖ SECTION 2 CREATING OTHER SCHEMA OBJECTS

Create simple and complex views
Retrieve data from views
Create, maintain, and use sequences

❖ SECTION 3 MANAGING OBJECTS WITH DATA DICTIONARY VIEWS

Use the data dictionary views to research data on your objects
Query various data dictionary views

Learn more about what you can accomplish with Advanced SQL

please do not hesitate to call this contacts +234(0)8164362696, +233(0)302 231 231 305

Visit our website at rhythexconsulting.com, www.rhythexconsultingghana.com | Email us at info@rhythexconsulting.com,
info@rhythexconsultingghana.com