Oracle SQL Fundamentals

Duration: 5 Days **Course Code: STA_OSF** **Delivery Method: Virtual Learning**

Overview:

Oracle SQL Fundamentals Course Overview

English - Please note this course is only available in English.
Nederlands - Let op: deze training is alleen in het Engels beschikbaar.
Français - Veuillez noter que ce cours est uniquement disponible en anglais.

The Oracle SQL Fundamentals course is designed to give delegates practical experience in writing Oracle SQL statements and scripts. A wide ran

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

Who will the Course Benefit?

Objectives:

- Course Objectives
- To provide the skills needed to query and update data held in an Oracle Relational Database.

Prerequisites:

There are no formal pre-requisites for the Oracle SQL Fundamentals course,although an understanding of databases and exposure to information technology in general would be useful. This knowledge can be gained by attendance on the Relational Databases & Data Modelling Overview course.

Follow-on-Courses:

Further Learning

- Oracle PL/SQL
- Oracle 19c SQL Performance Tuning
- Oracle Database 19c Administration

Content:

Oracle SQL Fundamentals Training Course Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: RELATIONAL DATABASE CONCEPTS

- What is an Oracle Database
- Relational Database Structures
- Tables,Rows and Columns
- Indexes,Primary Keys and Foreign Keys
- Data Types
- The Data Dictionary

Session 2: USING SQL*PLUS

- What is SQL*Plus
- Getting Started
- Entering and Executing SQL Statements
- The SQL*Plus Command Line History
- Editing SQL Statements
- The login.sql File
- Creating,Editing and Executing SQL Files
- The SQLcl Utility

Session 3: USING SQL DEVELOPER

- What is Oracle SQL Developer
- Starting SQL Developer
- Configure a Connection
- Navigation Tabs
- SQL Worksheet
- Query Builder

Session 4: RETRIEVING DATA WITH THE SELECT STATEMENT

- The SELECT Statement
- The SELECT and FROM Clauses
- Conditions and the WHERE Clause
- Other Conditional Operators
- Logical Operators
- The ORDER BY Clause
- Column Aliases
- Arithmetic Expressions
- Precedence of Operators
- Markup CSV

Session 5: AGGREGATE FUNCTIONS

- Overview of Built In Aggregate Functions
- The GROUP BY Clause
- The HAVING Clause

Session 6: JOINING TABLES

- Overview of Table Joins

Session 9: CONVERSION AND MISCELLANEOUS FUNCTIONS

- Conversion Functions
- The NVL and NVL2 Functions
- The DECODE Function
- CASE Expressions
- The COALESCE and NULLIF Functions

Session 10: SQL PARAMETERS

- Command Line Substitution Parameters
- The Accept Command
- The Define and Undefine Commands

Session 11: COMPLEX SUBQUERIES

- Subqueries Usage
- In-Line Views
- Top-N Queries
- Subqueries with Joins
- Multi Column Subqueries
- Correlated Subqueries
- Subquery Rules
- Using the ANY,ALL and SOME Operators Oracle SQL Fundamentals Training Course Course Contents - DAY 3

Session 12: MANAGING DATA

- Inserting Rows
- Updating Rows
- Deleting Rows
- Verifying Updates
- Transaction Control
- Commit and Rollback
- Savepoints
- Commits and Constraints
- Amending Data in SQL Developer

Session 13: MANAGING TABLES

- Creating Tables
- Specifying Constraints
- Altering Tables,Columns and Constraints
- Dropping Tables,Columns and Constraints
- Recovering Dropped Tables
- Copying Tables

Session 14: MANAGING INDEXES AND VIEWS

- Creating Indexes
- Dropping Indexes
- Listing Indexes
- Creating and Using Views
- Dropping Views
- Listing Views

Session 15: MANAGING SEQUENCES AND SYNONYMS

Session 19: ANALYTIC QUERIES

- Ranking functions
- The NTILE and WIDTH_BUCKET functions
- Analytic Aggregate functions
- The FIRST and LAST Value functions
- The LEAG and LAG Functions
- The LISTAGG Function

Session 20: MANAGE LARGE DATA SETS

- Multi-table Inserts
- Conditional and Unconditional Inserts
- Merging Data into a Table
- Table and View Based Merge
- A Sub Query Based Merge Oracle SQL Fundamentals Training Course Course Contents - DAY 5

Session 21: FLASHBACK TECHNOLOGY

- Flashback Query
- The AS Clause
- Flashback Table
- Flashback Drop

Session 22: REGULAR EXPRESSION SUPPORT

- Regular Expression Notation
- Character matching
- Repetition operators
- Sub expression grouping
- Regular expression functions

Session 23: VIRTUAL COLUMNS AND EXTERNAL TABLES

- Virtual columns
- Creating and Using External Tables

Session 24: DATE,TIME AND TIMEZONE SUPPORT

- Date,Timestamp and Interval datatypes
- Handling dates and times
- Handling intervals
- Date,timestamp and interval functions and literals
- Related NLS parameters

Session 25: ACCESS CONTROL

- System Privileges and Roles
- Create Users
- Alter User Details
- Grant and Revoke Object Privileges

Session 26:MANAGE OBJECTS WITH THE DATA DICTIONARY

- The Data Dictionary

- Inner Joins
- Table Aliases
- Outer Joins
- Self Joins
- ANSI Standard Joins

Session 7: BASIC SUBQUERIES AND SET OPERATORS

- Overview of Subqueries
- Basic Subqueries
- Set Operators Oracle SQL Fundamentals Training Course Course Contents - DAY 2

Session 8: NUMERIC,CHARACTER AND DATE FUNCTIONS

- Function Types
- Using the Table dual to try out Functions
- Numeric Functions
- Character Functions
- String Concatenation
- Date Arithmetic and Date Functions

- Create a Sequence
- View Sequence Details
- Create a Synonym
- List Synonyms Oracle SQL Fundamentals Training Course Course Contents - DAY 4

Session 16: RETRIEVE DATA USING SUBQUERIES

- Correlated Subqueries
- In-Line Views
- The Exists Operator
- The WITH Clause
- Multi-Column Subqueries
- Insert and Update Using a Query
- Correlated Update and Delete

Session 17: HIERARCHICAL QUERIES

- Hierarchical data
- The START WITH and CONNECT BY clauses
- The LEVEL pseudo-column
- Sequencing the output
- Eliminating nodes and branches

Session 18: ENHANCED GROUPING FEATURES

- Review of basic grouping concepts
- The ROLLUP and CUBE extensions
- The GROUPING SETS extension
- Using the GROUPING and GROUPING_ID functions

- Useful Data Dictionary Tables
- Using the Data Dictionary

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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