

SQL for PostgreSQL

Duration: 3 Days Course Code: PSQL

Overview:

SQL for PostgreSQL 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 SQL for PostgreSQL course is designed to give delegates practical experience in writing SQL statements and scripts using PostgreSQL. The basic

Target Audience:

Who will the Course Benefit?

This is an ideal course for anyone who needs to use and understand the Structured Query Language (SQL) to query, report and update data in a PostgreSQL database.

Objectives:

- Course Objectives
 - The course aims to provide the delegate with the knowledge to be able to use SQL to manipulate data held in a PostgreSQL database and to progress their SQL skills beyond the basics.
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Prerequisites:

- There are no formal pre-requisites for the SQL for PostgreSQL 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.
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Follow-on-Courses:

Further Learning

- PostgreSQL Administration
 - PostgreSQL for Developers
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Content:

SQL for PostgreSQL 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 PostgreSQL Database
- Relational Database Structures
- Tables, Rows and Columns
- Indexes, Primary Keys and Foreign Keys
- Supported Datatypes
- The Data Dictionary

Session 2: USING psql

- What is psql
- Getting Started
- Entering and Executing SQL Statements
- Editing SQL Statements
- Creating, Editing and Executing SQL Files

Session 3: 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

Session 4: AGGREGATE FUNCTIONS

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

Session 5: JOINING TABLES

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

Session 6: BASIC SUBQUERIES AND SET OPERATORS

- Overview of Subqueries
- Basic Subqueries
- Set Operators
- The Union, Intersect and Except Operators SQL for PostgreSQL Training Course Course Contents - DAY 2

Session 7: NUMERIC, CHARACTER AND DATE FUNCTIONS

- Function Types
- Numeric Functions
- Character Functions
- String Concatenation
- Date Arithmetic and Date Functions

Session 8: CONVERSION AND MISCELLANEOUS FUNCTIONS

- Conversion Functions
- CASE Expressions
- The COALESCE and NULLIF Functions

Session 9: COMPLEX SUBQUERIES

- Subqueries Usage
- In-Line Views
- Subqueries with Joins
- Multi Column Subqueries
- Correlated Subqueries
- Subquery Rules SQL for PostgreSQL Training Course Course Contents - DAY 3

Session 10: MANAGING DATA

- Inserting Rows
- Updating Rows
- Updating Join and Upsert Rows
- Deleting Rows
- Transaction Control
- Commit and Rollback
- Savepoints
- Commits and Constraints
- Amending Data in pgAdmin 4
- Insert data to Table from csv file
- Export data from Table to csv file

Session 11: MANAGING TABLES

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

Session 12: MANAGING INDEXES AND VIEWS

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

Session 13: MANAGING SEQUENCES

- Create a Sequence
- View Sequence Details

Further Information:

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

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www.globalknowledge.com/en-be/