

## SQL Introduction – 1 Day

### A Practical Introduction To Writing SQL Queries

#### COURSE OBJECTIVES

To give delegates an introduction to the features and capabilities of Structured Query Language (SQL). The course covers elements of ANSI SQL using Microsoft SQL Server as an example database.

This course is suitable for anyone who wants to learn the basics of SQL whether using Microsoft SQL Server, Microsoft Access, Oracle, MySQL, Google BigQuery or other database systems.

#### PREREQUISITES

It is recommended that delegates have good experience of windows and some experience of relational databases.

#### EXERCISES

This course is instructor-led. Each section begins with an explanation and demonstration of a key concept. You then work through several practical exercises to apply your knowledge and test your understanding.

#### **Getting Started**

- Relational Database Concepts
- The role of SQL
- Overview of the databases used in the workshop

#### **Writing Basic SQL Statements**

- The syntax of the SELECT statement
- Using the DISTINCT keyword
- ORDER BY
- Examples of WHERE criteria including wildcards, comparison operators, BETWEEN, LIKE, IN

#### **Single Row Functions**

- Performing mathematical calculations
- The types of functions available in SQL
- Useful date functions
  - GetDate( )
  - DateADD( )
  - DateDIFF( )
- Conversion functions and their uses
- Column aliases

#### **Grouping Data**

- How to write aggregate queries
- COUNT Vs Count(\*)
- GROUP BY
- HAVING

#### **If time permits - SQL Joins**

- The principle of including data from multiple tables in queries
- Joining multiple tables in the FROM clause
- Different join types including INNER and OUTER joins and SELF joins