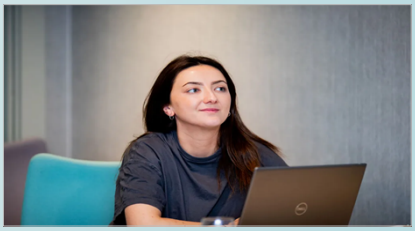
Introduction to SQL

2 day training course







Course contents

This course will cover the following topics. Those marked with (*) will be covered if time allows.

Using SQL Server

- SQL Server Management Studio
- Controlling windows
- Using Object Explorer

Creating databases - overview

- Designing databases
- Primary keys

Working with tables

- Creating tables
- Allowing nulls or not
- Identity fields
- Creating relationships

Query Designer

- Building queries
- Editing queries in the designer

Simple Queries

- Creating queries
- Comments
- Indentation and case

Setting criteria using WHERE

- Wildcards (% and _)
- Setting criteria for dates
- Coping with nulls

Calculations

- Calculated columns
- Using aliases
- String functions and concatenation

Calculations using dates

- GetDate
- Converting dates
- Useful date functions

Basic joins

- Inner joins
- Table aliases
- Left and right outer joins

Aggregation and grouping

- SUM, AVG, MIN, MAX
- Various ways to count
- Grouping by fields
- Using HAVING to filter results

Views

- The view designer
- Limitations of the designer
- Scripting views

Subqueries (*)

- The concept of a subquery
- Syntax of subqueries
- Using subqueries in a query

Derived tables and CTEs (*)

- Using derived tables
- Common Table Expressions (CTEs)
- Multiple CTEs in a single query