

Fast track SQL

3 day training course







Course contents

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

From our Introduction to SQL course

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

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



From our Advanced SQL course

Stored procedures

- Creating stored procedures
- Executing stored procedures
- System stored procedures

Variables

- Declaring variables
- SET versus SELECT
- Tricks with variables
- · So-called global variables

Parameters and return values

- · Passing parameters
- Default values / WHERE clauses
- Output parameters
- Using RETURN

Scalar functions (*)

- · What they are
- · Writing user-defined functions
- Worked examples
- · Pros and cons of scalar functions

Testing conditions

- IF / ELSE statement
- Using CASE where possible

Looping

- Syntax of WHILE
- Breaking out of a loop

Error-handling (*)

- Using TRY / CATCH
- · System error functions
- Custom error messages

Deleting using SQL

- Ways to drop tables
- DELETE versus TRUNCATE

Updating data in SQL

- The UPDATE statement
- Updating using joins

Inserting data

- Making tables (SELECT INTO)
- Appending data (INSERT INTO)
- · Inserting individual rows

Creating tables

- · Creating tables in SQL
- · Primary keys and indexes
- · Adding relationships

Transactions (*)

- Beginning a transaction
- Committing / rolling back

Temporary tables and table variables

- · Scope (local versus global)
- Using temporary tables
- · Creating table variables
- Pros and cons of each approach

Table-valued functions (*)

- In-line table-valued functions
- Mult-statement table-valued functions

Dynamic SQL (*)

- Building up dynamic SQL
- Executing dynamic SQL
- · Disadvantages of dynamic SQL

Pivots (*)

- · Assembling data for pivoting
- Using PIVŎT
- Dynamic column headers

Triggers (*)

- · Insert, update and delete triggers
- Using generated tables (eg INSERTED)
- Using INSTEAD OF



Pre-requisites for Fast track SQL course

There are no special pre-requisites for you to satisfy to attend this course, other than to have a good level of IT literacy. If you don't find it easy to create Excel formulae you should avoid this course!

Prices

Venue	Address	Price per place
<u>London</u>	Landmark, 99 Bishopsgate, London EC2M 3XD	£1,995 per person + VAT
Manchester	Holiday Inn, 25 Aytoun Street, Manchester M1 3AE	£1,695 per person + VAT
Online	Your home or office!	£1,350 per person + VAT

Scheduled Dates

Dates	Venue	Times	Price per place	Booking
Tue/Thu 02-04 December 2025	Online	09:30-16:30	£1,350 + VAT	Book this
Wed/Fri 28-30 January 2026	Online	09:30-16:30	£1,350 + VAT	Book this
Wed/Fri 25-27 February 2026	Online	09:30-16:30	£1,350 + VAT	Book this
Mon/Wed 23-25 March 2026	Online	09:30-16:30	£1,350 + VAT	Book this
Mon/Wed 27-29 April 2026	Online	09:30-16:30	£1,350 + VAT	Book this

If you can't see the dates that you want, ask us about organizing a customized course at your office (we'll provide and set up the computers), or else an online course tailored to your needs.