

## SQL Course Outline – Two Days

### Course Objectives:

At the end of the course, delegates should be able to use the generic SQL to interrogate data, and create, edit and delete data tables using software such as SQL Plus and Query Analyzer.

Course Content	
<b>Relational Databases</b>	Why databases are constructed in the way they are. Normalisation of data. SQL explained and how it associates with databases.
<b>Interrogating a database table</b>	Using the SELECT statement to retrieve data. Limiting the selection to certain records. Ordering the retrieved records. Using Keywords such as NOT, IN and BETWEEN. Finding and working with NULL values
<b>Saving retrieved data sets</b>	Printing. Text file.
<b>Data from more than one table</b>	Table join types and their importance. Looking for records which do not exist!
<b>Retrieving summarised data</b>	Using Keywords such as HAVING and GROUP BY. Using functions such as sum, average, minimum and maximum.
<b>Nesting SQL statements</b>	Using sub queries to further define how the data should be retrieved.
<b>Creating Views</b>	Views explained. Creating a View. Changing a View. Deleting a View
<b>Using UNION joins</b>	Extracting data from current and archive tables. Extracting data from unconnected tables.
<b>Table Management</b>	Creating a table. Changing a table's structure. Deleting a table. Inserting data into a table. Updating data in a table. Deleting data from a table.
<b>Introduction to Stored Procedures</b>	Stored Procedures explained. Creating a Stored Procedure. Editing a Stored Procedure. Deleting a Stored Procedure.

**Approach** Delegates will receive a combination of instruction and practical exercises throughout the course.

**Course Details** This is a two-day introductory course running from 9:30 am - 4:30 pm. Courses run at both Swansea and Cardiff locations.

**Prerequisites** The course is aimed at those people who have some knowledge of creating queries in a database programme such as MS Access but wish to extend those skills into managing databases that have ODBC functionality.