


<p>SQL Advanced 2 days</p>	<p>Microsoft SQL Server™ <i>The enterprise relational database</i></p> 
<p>Course Objectives</p> <p>To develop the delegate's use of SQL to manage the SQL Server or Oracle relational database, introducing data manipulation language and database definition language.</p> <p>Prerequisites</p> <p>Delegates for this course should have a basic understanding of SQL select statements. This course assumes knowledge of SQL to the level of our Introduction course.</p> <p>Exercises</p> <p>This course is instructor led, involving the utilisation of examples and exercises in a workshop environment.</p> <p>Getting Started</p> <ul style="list-style-type: none"> • Relational Database Concepts • The role of SQL • ANSI 89 & 92 standards <p>Recap on SQL SELECT Statements</p> <ul style="list-style-type: none"> • SELECT statement syntax • WHERE clause • Single row functions • Joining Tables • ORDER BY clause • GROUP BY clause • Aggregate functions <p>SQL Scripts</p> <ul style="list-style-type: none"> • Parameterised queries • Producing more readable output • Creating script files <p>Data Manipulation Language</p> <ul style="list-style-type: none"> • INSERT statements • UPDATE statements • DELETE statements • Merging tables 	<p>Transaction control</p> <ul style="list-style-type: none"> • Principles of transaction processing • Read Consistency, implicit and explicit locking • COMMIT <p>Managing Tables</p> <ul style="list-style-type: none"> • Viewing the definition of tables • Creating tables • Oracle data types • Altering table definition • Dropping, re-naming and truncating tables • Table and column constraints • The role of Indexes • Public and Private Synonyms <p>Managing Views</p> <ul style="list-style-type: none"> • Creating a view • Selecting data using a view • Update, Insert and Delete through views • Dropping views • Altering view definition • Inline views <p>Controlling user access to data</p> <ul style="list-style-type: none"> • Users, Roles and privileges • Granting and revoking privileges • Using synonyms to ease data access <p>Advanced SELECT statements</p> <ul style="list-style-type: none"> • Using set operators • Controlling the order of rows • Extensions to GROUP BY clause • Advanced sub-queries • Correlated sub-queries <p>Database Tuning</p> <ul style="list-style-type: none"> • Application tuning – Explain plan • The database balance tri-cotomy