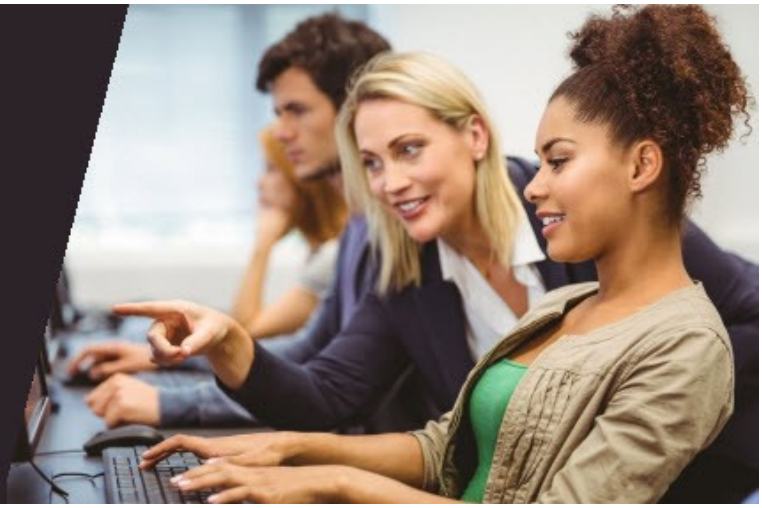
SQL Essentials

Writing queries



Overview:

This course offers end-users a sound background on the concepts of a Relational Database Management System. It is primarily aimed at end-users who need to understand SQL in order to effectively and efficiently query their corporate database either directly or through third-party Query and Reporting Tools.

Prerequisites:

There are no prerequisites for this course

Who should attend:

Users who will be querying the corporate database either directly or through third-party Query and Reporting Tools.

Benefits:

Learn how to ....

* Confidently write SQL statements to extract data from a relational database.
* Join related tables and design SQL queries that work with multiple tables
* Learn how to confidently write SQL statement

Learning Outcomes:

At the end of the course students will be able to:

- Understand the basics of a database structure
- Formulate simple SELECT statements
- Qualify queries using the WHERE clause
- Summarise data using the GROUP BY and HAVING clauses
- Design complex queries across multiple tables
- Update and manipulate data using queries
- Create and use stored procedures
- Gain confidence in developing accurate and efficient SQL queries

Version(s):

2 days

Course times:

9:00am-4:30pm

$ 1210.00

To book this course:

Call: **1300-2-GO-CTS**
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Certificate of Attendance
Non-accredited course

Content:

Introduction to Databases

- Defining a Databases Management System
- Defining a Relational Database Management System
- Defining Normalisation
- What Does SQL Do?

Writing SQL Statements

- Selecting data
- Selecting Tables and Columns
- The SELECT Statement

Limiting and Organising Data

- Restricting Columns
- The WHERE Clause
- Eliminating Duplicate Rows
- Sorting query output
- Using Aliases
- Using the IN and NOT operator
- Using wildcards

Calculations

- Performing arithmetic calculations in queries
- SQL Functions
  - Text string, Number and Date Functions
- Comparison Operators
- Logical Operators
- Selecting NULL Values
- Creating calculated fields
- Concatenating Fields
- Subqueries
- ANY and ALL Predicates
- String Components

Combining Tables

- What is a Join?
- Why We Join Tables?
- How to Get a Good Join
- Formulation of a Join
- Different Join types

Summarising Information

- Consolidating data
- Aggregate Functions
- Grouping Data
- Qualifying Groups of Data – The Having Clause

More Complex SQL

- Exists Predicate
- Outer Joins
- Pattern Matching and String Manipulations
- Handling Date Comparisons and Manipulation

Manipulating Data

- Understanding Data insertion
- Copying from one table to another
- Updating data
- Deleting data

Working with Tables

- Creating tables
- Updating tables
- Renaming tables
- Deleting tables

Views

- Understanding Views
- Creating views

Stored Procedures

- Understanding stored procedures
- Creating a stored procedure
- Using stored procedures