



# Who Should Do This Course?

This course is suitable for participants who want to upgrade their Access skills to an advanced level. Upon completion of this course participants should be able to design and create a multi-table database, automate operations using macros, and provide a general understanding of the programming environment in Microsoft Access.

### Duration: 2 days

Class size: 10 students max

**Times:** 9:00am - 5:00pm

**Price:** Refer to our website for current course and package pricing

# After the course?

Each student will receive:

- Certificate of completion
- Training manual
- 12 months FREE email support
- FREE class re-sit (if necessary)

### About The Course

This 2 day course builds on the foundations covered in the Microsoft Access Essentials course. Participants will extend their Microsoft Access skills to an advanced level by learning advanced sql syntax and queries, creating relational databases, creating and using advanced macro techniques, basic VBA commands and other advanced features. Our courses are delivered in a prectical, hands-on manner to facilitate learning in a real-world context.

# Learning Outcomes

At the completion of this course you should be able to:

- · design a relational database project
- · create a relational database file with multiple tables
- set table relationships and join tables together
- export records to and import records from a wide variety of sources and applications
- · create queries based on one or more tables
- create and use parameter queries
- create calculated queries
- create and work with aggregation queries
- create and use a series of action queries
- modify and adapt an existing form according to specific needs
- create forms using a combination of wizards and manual techniques
- create and use macros in Access
- work with a number of macro techniques
- create and work with macros in forms
- make your Access data and computer more secure
- understand and use a variety of tools that ensure the wellness of your database files
- create some simple programming code using VBA



# Content

# Unit 1: Relational Database Design

- Designing a Relational Database
- Scoping the System
- Determining the Inputs
- Normalising a Database
- First Normal Form (1NF)
- Second Normal Form (2NF)
- Second Normal Form Case Study
- Third Normal Form (3NF)
- Database Indexing

# Unit 2: Creating a Relational Database

- Creating a New Database File
- Creating Lookup Tables
- Defining a Primary Key
- Saving and Closing a Table
- Creating the Expense Type Table
- Creating the Transactions Table
- Creating the Details Table

# Unit 3: Setting Table Relationships

- Understanding Table Relationships
- Understanding Lookup Relationships
- Looking Up the Employees Table
- Looking Up the Expense Types Table
- Viewing Table Relationships
- Understanding Table Joins
- Editing the Employee Table Join
- Editing the Expense Type Table Join
- Creating a New Join
- Creating a Relationship Report

# Unit 4: Importing and Exporting Records

- Exporting Records to Microsoft Excel
- Exporting Records to a Text File
- Importing From Microsoft Excel
- Importing From a Text File
- Linking To an External Source

### Unit 5: Multi Table Queries

- Understanding Relational Queries
- Creating a Relational Query Design
- Filtering a Relational Query
- Filtering Related Fields
- Adding More Tables and Fields

- Utilising Hidden Fields
- Understanding Query Joins
- Creating an Inner Join
- Creating a Left Outer Join
- Creating a Right Outer Join

# Unit 6: Parameter Queries

- Creating a Parameter Query
- Displaying All Records
- Using Parameters to Display a Range
- Using Parameters in Expressions
- Using Parameters with Wildcards

# Unit 7: Calculations in Queries

- Creating a Calculated Field
- Formatting Calculated Fields
- Summarising Data Using a Query
- Changing the Grouping
- Calculating With Dates
- Using Criteria in Calculations
- Concatenating String Fields

# **Unit 8: Aggregation Queries**

- Creating an Aggregation Query
- Working with Aggregation Queries
- Multiple Aggregations
- Modifying Aggregation Headings
- Aggregating Calculated Fields
- Applying Criteria to Aggregates
- Understanding Nested Queries
- Creating an Assembly Query
- Creating the Nesting Query

# Unit 9: Action Queries

- Creating a Make Table Query
- Using a Make Table Query
- Understanding Expressions and Update
  Queries
- Preparing an Update Query
- Running an Update Query
- Updating Using Expressions
- Running an Expression-Based Update
- Creating a Delete Query
- Running a Delete Query
- Creating an Append Query
- Running an Append Query
- Turning Action Messages Off



# Unit 10: Modifying Forms

- Understanding Form Design and Layout
- Switching Between Form Views
- Selecting Form Objects
- Working With a Control Stack
- Changing Control Widths
- Moving Controls on a Form
- Aligning Controls
- Understanding Properties
- Changing Label Captions
- Adding an Unbound Control
- Adding a Control Source
- Formatting a Control
- Checking the Current Tab Order
- Changing the Tab Order
- Inserting the Date into the Form Header

### Unit 11: DIY Forms

- Creating a Multiple Item Form
- Adjusting the Layout of a Form
- Typing Into a Form Layout
- Disabling Fields
- DIY Sub Forms
- Removing SubForm Redundancy
- Splitting and Merging Layout Cells
- Adding an Easy Lookup Field
- Adding Buttons to a Form
- Adjusting Form Properties

### Unit 12: Creating and Using Macros

- Understanding Macros and VBA
- Creating a Macro
- Running a Macro
- Modifying an Existing Macro
- Interacting With the User
- Stepping Through a Macro
- Documenting Macros

### Unit 13: Macro Techniques

- Creating a Print Macro
- Using Conditions to Enhance a Macro
- Creating a Sequence of Conditions
- Understanding the Versatility of MsgBox
- Using the MsgBox Function
- Reconfiguring a Message Box
- Using the InputBox Function

### Unit 14: Macros on Forms

- Understanding Macros on Forms
- Creating Navigation Macros
- Accessing Event Macros

- Creating Unassigned Buttons
- Programming an Event
- Running an Event Macro
- Modifying an Event Macro
- Setting Echo Off
- Adding a Close Button
- Creating a Search Macro
- Running the Search Macro
- Understanding the Search Macro
- Naming Macros
- Referencing Macro Sheet Macros

### Unit 15: Database Security

- Understanding Database Trust
- Enabling Blocked Content
- Understanding the Trust Centre
- Creating a Trusted Location
- Opening a Database From a Trusted Location
- Encrypting a Database
- Decrypting and Opening a Database
- Removing a Database Password
- Understanding Package and Sign
- Creating a Self Signed Certificate
- Creating a Signed Package
- Extracting and Using a Signed Package

# Unit 15: Database Wellness

- Compacting and Repairing a Database
- Understanding Database Splitting
- Using the Database Splitter
- Managing Linked Tables
- Checking Object Dependencies
- Analysing Database Performance
- Documenting a Database

#### Unit 16: An Introduction to VBA

- Understanding VBA
- Coding VBA for an Event
- Running VBA Event Code
- Understanding MsgBox and InputBox
- Modifying an Existing Procedure
- Understanding the Modified Code
- Creating a Standard Module
- Loan Simulator Code
- Running the Code
- Understanding the Loan Simulator Code
- Creating a Button for the Simulator
- Attaching the Simulator Code