Microsoft Access Training
Microsoft Access - Visual Basic for Applications

Who Should Do This Course?

This is an advanced level course designed for people who have a thorough working knowledge of Microsoft Access, but need to learn VBA Programming techniques to improve their skills and productivity.

Duration: 3 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 3 day course teaches participants to develop programs in VBA for Microsoft Access. A project is undertaken throughout the course to reinforce the concepts . The aim of the project is to put into practice the skills taught during formal sessions, and to foster good coding practices. Special emphasis will be placed on re-usability of code blocks, creation of efficient coding structures and application of standard and consistent VBA coding syntax.

Prerequisites

This course is designed for participants with little or no knowledge of programming, however a sound working knowledge of Access is essential, including formatting, reports, queries and relational databases.

Learning Outcomes

The learning objectives at this level focus on knowledge and comprehension. Upon successful completion of this course, participants will have:

- be familiar with the basics of developing applications in Access
- create and convert macros into VBA
- make Access start up with the form you select
- create subroutines
- understand how to use variables to generate an output
- understand and create input boxes and message boxes
- create and use decision-making programs
- create and use programming loops
- understand and use the DoCmd object
- recognise and understand many ADO techniques
- use ADO to work with forms and recordsets
- apply a range of debugging tools to your application
- replace obscure error messages with meaningful ones

Content

Unit 1: VBA Essentials

- Understanding the Programming Environment
- Exploring the Object Model
- Navigating with Forms
- Creating a StartUp Form
- The VBA Editor Window
- Working with the Project Explorer
- Working with the Properties Window
- Understanding Modules
- Viewing the Code Behind Forms
- Standard Code Modules
- Understanding Naming Conventions

Unit 2: VBA Subroutines

- Understanding Modules in Access
- Understanding Procedures
- Anatomy of a Module
- Creating a Subroutine
- Creating a Function
- Calling Procedures
- Passing Parameters
- Returning Values
- Scoping Procedures

Unit 3: Using Variables

- Understanding Variables
- Understanding Data Types
- Creating and Using Variables
- Implicit and Explicit Declarations
- Working with Numbers in VBA
- Dealing with Overflows
- Working with Decimals in VBA
- Working with Dates in VBA
- Default Values
- Understanding the Scope of Variables
- Procedure Level Scoping
- Module Level Scoping
- Passing Variables by Reference
- Passing Variables by Value

Unit 4: Making Decisions

- Understanding Modules in Access
- Understanding the If Statement
- Creating a Single-Line If Statement
- Creating a Block If Statement
- Creating Multiple If Statements
- Assignment: Creating If Statements
- Using If for Multiple Text Conditions
- Understanding the Select Case Statement

- A Simple Select Case Statement
- Value Ranges in Select Case Statements
- Using Select Case Statements with OR

Unit 5: Interacting With Users

- Understanding Input Boxes
- Using the InputBox Function
- Using InputBox Function Arguments
- Understanding Message Boxes
- Creating a Simple Message Box
- Creating a Longer Message
- Breaking a Message Line
- Displaying Buttons and Icons
- Using the Message Box Function
- Responding to Different Buttons

Unit 6: The DoCmd Object

- Understanding DoCmd
- Navigating with DoCmd
- Moving Through Records
- Filtering Records with DoCmd
- Opening and Closing a Form with DoCmd
- Opening a Report with DoCmd
- Creating Variable Reports

Unit 7: Looping In VBA

- Understanding Loops
- Understanding for Loops
- Creating a While Loop
- Working with Counters
- Creating an Until Loop
- For…Each Loops
- Exiting From Loops
- For...Next Loops
- Assignment: Creating Loops

Unit 8: Debugging VBA

- Understanding Debugging
- Setting a Breakpoint
- Setting Additional Breakpoints
- Stepping Through a Procedure
- Viewing the Call Stack
- Using Locals and Immediate Windows
- Adding a Watch

Unit 9: Form Validation

- Data Validation Overview
- Validating Between Fields
- Highlighting the Current Field
- Highlight ALL Required Fields
- Adding to Combo Boxes using the NotInList Event
- Value Lists
- Table/Query Lists (Single Selection in ComboBox)
- Table/Query Lists (Multiple Columns in ComboBox)
- Requesting a Change (via Email)

Unit 10: Controlling User Access Level

- Retrieving User Roles
- Using the Allow… Properties
- Disable / Enabling Controls and Menu Options
- Using OpenArgs
- The Tag Property
- The Form Timer Event

Unit 11: Setting References

- Setting References
- Available References
- Locating Other Libraries
- Late Vs. Early Binding
- Using Outlook – Early Binding
- Using Outlook – Late Binding

Unit 12: Using an External Reference - File Dialogs

- FileDialog Object Members
- Creating a File Dialog
- Selecting a Single File Only
- Creating a File Type Filter
- Selecting Multiple Files
- Creating a Generic File Dialog module
- Defining the File Types (as optional arguments)
- Storing the returned file path
- Storing Multiple Values – using an Array
- Extending the Project

Unit 13: Working with Files and Folders

- Features of the Microsoft Scripting Runtime Library
- Using the FileSystemObject
- Working with Folders
- Creating Folders
- Deleting Folders
- Checking for Contents of a Folder

- Consolidating the Create/Delete/Review Routines
- Copy Folder
- Move Folder
- Next Steps
- Working with Files
- Adding Files
- Writing To a Text File
- Copying and Moving Files
- Deleting Files

Unit 14: Audit Logging Routines

- Capturing User Login/Logout Details
- User Login Routine
- User LogOut Routine
- Logging Form/Report Interaction
- Logging the Opening Time
- Logging the Closing Time
- Retaining Full Data History
- Further Considerations

Unit 15: Error Handling

- VBA Error Handling
- Error Handling Logic
- Creating a Standard Error Handling Routine
- Logging Errors
- Extending Error Handling
- Keeping the User Informed of the System State

Unit 16: Code Commenting & Template Creation

- Adding Detailed Comments – A Structured Approach
- Creating a Database Template
- Importing Objects into the Template DB
- Exporting Objects as Text Files

Unit 17: Using the Access Developer Tools

- Creating a Database Template

Unit 18: Access Recordsets

- ADO
- The Connection Object
- Command Object
- RecordSet Object
- Removing References to SET Variables
- DAO
- Creating a DAO Recordset
- Working with DAO Recordsets
- Bound Forms & SubForms (Using Queries)

- Change From Bound To UnBound (Using RecordSets)
- Creating The Forms RecordSet
- Completing the Navigational Elements
- Adding New Records
- Editing Records
- Deleting Records
- Completing The Unbound Form
- Adding Error Trapping
- Dealing with Code Duplication

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To view a full list of course dates, please visit our website at **www.dynamicwebtraining.com.au**
Alternatively please contact our office on **1300 888 724**