

GreenDot Course Outline

Microsoft Access 2007
Introduction to VBA

Version 1.0
Edited 09-June-2010

GreenDot
Consulting

Description:

This course is intended for people who wish to improve their knowledge and skills in the use of Visual Basic for Applications to program applications in Microsoft Access 2007.

Learning Outcomes:

At the completion of Microsoft Access 2007 Programming in VBA you should be able to:

- be familiar with the basics of developing applications in Access 2007
- 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

Target Audience:

This course aims to increase your productivity by providing the skills and knowledge to use VBA to program in Microsoft Access 2007.

Prerequisites:

Microsoft Access 2007 Programming in VBA assumes little or no knowledge of the software. However, it would be beneficial to have a general understanding of personal computers and the Windows operating system environment.

Duration:

23.0 hrs

Course Outline:

Development Basics

Understanding The Development Environment
 Understanding Splitting Databases
 Linking To Data Files
 Maintaining Links
 Using The Database Splitter
 Using Queries For Reports And Forms
 Developing Systems For Other Users

Macros And VBA

Understanding Macros
 Creating Macros
 Assigning Macros
 Creating More Complex Macros
 Creating Complex Macros
 Converting Macros To VBA

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 I
 Viewing The Code Behind Forms
 Standard Code Modules
 Understanding Modules II
 Understanding Naming Conventions I
 Understanding Naming Conventions II

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

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

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

Making Decisions

Understanding The IF Statement
 Creating A Single-Line If Statement
 Creating A Block If Statement
 Creating Multiple If Statements
 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

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
 Creating Loops

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

ActiveX Data Objects – Tables

Understanding ADO
 Setting References Using VBA
 Creating A Table With ADO
 Creating Tables With ADO
 Removing A Table Using ADO
 Removing A Table With ADO
 Populating A Form Using ADO
 Dealing With An Empty Table

ADO Forms And Recordsets

Navigating Records In A Form
 Finding A Record
 Updating A Record
 Deleting A Record
 Adding A New Record
 Adding A New Record

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

Handling Errors In VBA

Understanding Error Types
 Common Errors
 Understanding The On Error Statement
 Simple Error Handling
 Using The Err Object
 Using The Resume Statement
 Using Decision Structures In Error Handlers
 Forcing An Error
 Defining Custom Errors
 Working With Errors
 Working With Errors II

Concluding Remarks