

Course Overview

In this 2-day course, you will be introduced to Excel's Visual Basic for Applications (VBA) programming language to write macro code. You will learn to use the Visual Basic Editor to write code that cannot be recorded with the macro recorder. Because macros manipulate Excel elements (called objects), you will be introduced to objects and learn about object hierarchy so you can reference objects in your code. You will also learn about variables, how to set the data type and scope of a variable, how to store values in variables, and how to store objects in variables. You will use built-in VBA functions, plus write custom functions and procedures. Additionally, you will use Message Boxes and Input Boxes in your code to communicate with the user. You will also work with conditional statements to let your code make decisions, and use loops to repeat a process multiple times. You will build forms for the end user, including adding many customizations to increase the form's functionality. Finally, you will learn to debug faulty macro code.

Courses in the Microsoft Excel Series

Excel Level 1
- 1 day -

Excel Level 2
- 1 day -

Excel Level 3
- 2 days -

Excel Level 4
- 2 days -

Course Preparation

Prerequisite Course: Excel - Level 2 or equivalent experience. You should come to this class with a working knowledge of creating basic worksheets, entering and editing data in cells, formatting text and numbers, copying and moving data, inserting and deleting columns and rows, creating formulas, applying formulas, using functions, and using absolute and relative cell references in formulas.

Course Topics

Getting Started

- Introducing Visual Basic for Applications
- Recording a Macro
- Running a Macro
- Understanding the VBA Editor
- Using the Menu Bar
- Using the Standard Toolbar
- Using the Project Explorer
- Using the Properties Window
- Understanding the Code Window
- Editing Code
- Getting Help
- Closing the Visual Basic Editor

Introducing Objects

- Understanding Objects
- Understanding the Object Hierarchy
- Referencing Objects
- Understanding Collections

Using the Editing Features

- Using the Immediate Window
- Using the Auto List
- Using Auto Quick Info

Introducing Variables

- Understanding Variables
- Declaring Variables
- Understanding Data Types
- Storing Values in Variables
- Storing Objects in Variables

Creating Procedures

- Understanding Procedures
- Using the Macro Recorder to Create Sub Procedures
- Calling Procedures from Procedures
- Using Intrinsic Functions
- Using Message Boxes
- Using Input Boxes
- Creating Functions
- Passing Arguments to a Function

Working with Conditional Statements and Loops

- Understanding Conditional Statements
- Working with Decision Structures
- Working with Looping Structures

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Working with Forms and Controls

- Designing Forms
- Using the Properties Window
- Understanding Controls
- Working with the Label Control
- Working with the Text Box Control
- Working with the Command Button Control
- Working with the Combo Box Control
- Working with the Frame Control
- Working with Option Button Controls

Adding Functionality to Forms

- Adding Code to Controls
- Testing Forms
- Presenting Forms to the User

Understanding Debugging

- Understanding Errors
- Debugging Code
- Using Debugging Tools

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