

Excel Macros Using VBA

What You Will Learn.....	1
Understanding Macros and Visual Basic for Applications (VBA).....	2
What is a Macro?	2
What is VBA?.....	2
Common Uses for Macros	3
Types of Macros	3
Recording a Simple Macro	4
Why Record a Macro?	4
Accessing Macro-Related Commands on the Ribbon	4
Recording a Macro.....	6
Macro Example: Entering Text in the Active Cell	8
Viewing the Macro Code.....	9
Using the Visual Basic Editor.....	9
Viewing the Recorded Code	10
Viewing or Editing a Specific Macro	11
Running a Macro.....	12
Macro Example: Entering Text in a Specific Cell.....	13
Relative and Absolute References	15
Saving a Macro-Enabled Workbook.....	18
Using the Personal Macro Workbook.....	19
Exercise 1	22
Understanding Macro Security	23
Running Macros from the Quick Access Toolbar	25
Working with Sub Procedures	27
Understanding Sub Procedures and Functions	27
Some Simple Function Examples	27
Calling a Procedure.....	28
Editing Recorded Macros	29
Editing a Recorded Macro vs. Writing a New Macro	30
Understanding VBA’s Object Model.....	31
Defining Objects, Properties, and Methods	31
Getting Help in VBA	32
Collections of Objects.....	32

Working with Objects	33
Working with Properties	33
Working with Methods	35
Macro Example: Formatting a Worksheet.....	37
Creating a New Procedure in the Visual Basic Editor	37
Using the Range Object	38
Using the With Statement	39
Selecting Cells and Entering Data	40
Using the Immediate Window	40
Selecting Cells	40
Entering Data in a Worksheet.....	41
Changing Column Width	43
Macro Example: Creating an Order Form	44
Exercise 2.....	45
Understanding Worksheet Methods and Properties.....	46
Making the Code More Efficient	46
Using Variables.....	47
Understanding Variable Types	47
Declaring Variables	47
Understanding Variable Scope	49
Macro Example: Declaring Variables to Calculate Profit	50
Using Message Boxes.....	51
MsgBox Statements and Functions.....	51
Macro Example: Using a Message Box to Display the Result of a Calculation.....	53
Placing a Macro on a Command Button.....	54
Exercise 3.....	55
Using the InputBox Function to Prompt a User for Input	56
Another InputBox Example (Optional)	58
Using Workbook-Level Automatic Procedures.....	59
Creating a Procedure for the Workbook_Open Event	60
Exercise 4.....	61
Saving and Opening Files from Your Procedures	62
Using the GetSaveAsFilename Method.....	62
Using the Dialogs Collection to Access Built-In Dialog Boxes.....	63

Writing Conditional Statements.....	64
Writing Block If Statements	64
Using Conditionals and the MsgBox Function.....	70
Exercise 5.....	71
Using Looping Control Structures	72
Macro Example: Determining Overtime Eligibility for Multiple Employees	73
Exercise 6.....	74
Creating User Forms (Optional)	75
Setting Form Properties	76
Controls in User Forms.....	77
Adding Controls to a Form	78
Adding Code to the Form	79
Appendix A: Examples of Code	81
Appendix B: Debugging Tools	84
Appendix C: Keyboard Shortcuts	87
Appendix D: Subs and Functions	88
Appendix E: Solutions to Exercises.....	89