



Automating Excel Functions and Routines with VBA in Microsoft Excel

VBA (Visual Basic for Applications) is an Object Oriented Language. This programming language can be used to automate tasks by developing procedures and functions. It is useful for programmers and for people who wish build procedures (macros) in order to automate tasks and increase their own productivity and the productivity of the people of their departments.



CODE: ED21B24



DURATION: 28 hours



START DATE: Τετάρτη 01/12/2021



AUDIENCE PROFILE:

This course is intended for Programmers/Developers, Managers in small / medium enterprises and people who work with Excel intensively in positions where automation of Excel tasks is imperative such as Accountants, Actuaries, Financial Controllers, Project Managers, Scientific personnel that wishes to build macros to automate routines



PREREQUISITES FOR PARTICIPATION:

Participants should have a very good knowledge of Excel .



TRAINING LANGUAGE:

Greek

TRAINING MATERIALS:



The training manual is in the English Language.



METHODOLOGY:

Lecture, discussion, demonstration and practice.



COURSE OBJECTIVES:

- Describe the Essential VBA Language Elements
- Distinguish between VBA Sub and Function Procedures
- Name and Describe Looping techniques/ commands
- Use the Excel Macro Recorder
- Create Macros with Range Objects
- Control flow of Sub and Functions Procedures with Decisions and Looping
- Create Automatic Procedures and Events
- Apply Error-Handling Techniques
- Use Bug Extermination Techniques
- Create Simple Dialogue boxes for data input

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 **VENUE:** Webinar

 **DATES & TIMES:**

Τετάρτη 01/12/2021 08:15 - 16:00

Πέμπτη 02/12/2021 08:15 - 16:00

Παρασκευή 03/12/2021 08:15 - 16:00

Σάββατο 04/12/2021 08:15 - 16:00

 **PARICIPATION COST:**

The cost includes the course notes and certificate. In the event of classroom led training, coffee, snacks and lunch (only for full day courses) are offered complimentary.

Participation Cost

- Total Cost: €770
- HRDA Subsidy: €476
- Net Cost: €294

For Unemployed

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Writing Macros with VBA

COURSE TOPICS

Unit 1: What Is VBA?

What Is VBA?

What Can You Do with VBA?

- Inserting a bunch of text
- Automating a task you perform frequently
- Automating repetitive operations
- Creating a custom command
- Creating a custom button
- Developing new worksheet functions
- Creating custom add-ins for Excel
- Creating complete, macro-driven applications
- Advantages and Disadvantages of VBA
- VBA in a Nutshell

An Excursion into Versions

Unit 2: Jumping Right In

- Taking the First Steps
- Recording the Macro
- Testing the Macro
- Examining the Macro
- Modifying the Macro
- Saving Workbooks That Contain Macros
- Understanding Macro Security

More about the NameAndTime Macro

Unit 3: Working in the Visual Basic Editor

What Is the Visual Basic Editor?

- Activating the VBE
- Understanding VBE components

Working with the Project Window

- Adding a new VBA module
- Removing a VBA module
- Exporting and importing objects

Working with a Code Window

- Minimizing and maximizing windows
- Creating a module
- Getting VBA code into a module
- Entering code directly
- Using the macro recorder
- Copying VBA code

Customizing the VBA Environment

- Using the Editor tab
- Using the Editor Format tab
- Using the General tab
- Using the Docking tab

Unit 4: Introducing the Excel Object Model

Excel Is an Object?

Climbing the Object Hierarchy

Wrapping Your Mind around Collections

Referring to Objects

- Navigating through the hierarchy
- Simplifying object references

Diving into Object Properties and Methods

- Object properties
- Object methods
- Object events

Finding Out More

- Using VBA's Help system
- Using the Object Browser

Automatically listing properties and methods

Unit 5: VBA Sub and Function Procedures

Subs versus Functions

- Looking at Sub procedures
- Looking at Function procedures
- Naming Subs and Functions

Executing Sub procedures

- Executing the Sub procedure directly
- Executing the procedure from the Macro dialog box
- Executing a macro by using a shortcut key
- Executing the procedure from a button or shape
- Executing the procedure from another procedure
- Executing Function procedures
 - Calling the function from a Sub procedure

Calling a function from a worksheet formula

Unit 6: Using the Excel Macro Recorder

- Is It Live, or Is It VBA?
- Recording Basics
- Preparing to Record
- Relative or Absolute?
- Recording in absolute mode
- Recording in relative mode
- What Gets Recorded?
- Recording Options
- Macro name

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Writing Macros with VBA

COURSE TOPICS

- Shortcut key
- Store Macro In
- Description
- Is This Thing Efficient?

Unit 7: Essential VBA Language Elements

Using Comments in Your VBA Code

Using Variables, Constants, and Data Types

- Understanding variables
- What are VBA's data types?
- Declaring and scoping variables.
- Working with constants
- Pre-made constants
- Working with strings
- Working with dates

Using Assignment Statements

- Assignment statement examples
- About that equal sign
- Smooth operators

Working with Arrays

- Declaring arrays
- Multidimensional arrays
- Dynamic arrays

Using Labels

Unit 8: Working with Range Objects

A Quick Review

Other Ways to Refer to a Range

- The Cells property
- The Offset property

Some Useful Range Object Properties

- The Value property
- The Text property
- The Count property
- The Column and Row properties
- The Address property
- The HasFormula property
- The Font property
- The Interior property
- The Formula property
- The NumberFormat property

Some Useful Range Object Methods

- The Select method
- The Copy and Paste methods
- The Clear method

The Delete method

Unit 9: Using VBA and Functions

What Is a Function?

Using Built-In VBA Functions

VBA function examples

VBA functions that do more than return a value

Discovering VBA functions

Using Worksheet Functions in VBA

- Worksheet function examples
- Entering worksheet functions
- More about using worksheet functions

Using Custom Functions

Unit 10: Controlling Program Flow and Making Decisions

Going with the Flow, Dude

The GoTo Statement

Decisions, Decisions

- The If-Then structure
- The Select Case structure

Knocking Your Code for a Loop

- For-Next loops
- Do-While loop
- Do-Until loop

Using For Each-Next Loops With Collections

Unit 11: Automatic Procedures and Events

Preparing for the Big Event

- Are events useful?
- Programming event-handler procedures

Where Does the VBA Code Go?

Writing an Event-Handler Procedure

Introductory Examples

- The Open event for a workbook
- The BeforeClose event for a workbook
- The BeforeSave event for a workbook

Examples of Activation Events

- Activate and deactivate events in a sheet
- Activate and deactivate events in a workbook
- Workbook activation events

Other Worksheet-Related Events

- The BeforeDoubleClick event
- The BeforeRightClick event
- The Change event

Events Not Associated with Objects

- The OnTime event

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Writing Macros with VBA

COURSE TOPICS

Keypress events

Unit 12: Error-Handling Techniques

Types of Errors

An Erroneous Example

- The macro's not quite perfect
- The macro is still not perfect
- Is the macro perfect yet?
- Giving up on perfection

Handling Errors Another Way

- Revisiting the EnterSquareRoot procedure
- About the On Error statement

Handling Errors: The Details

- Resuming after an error
- Error handling in a nutshell
- Knowing when to ignore errors
- Identifying specific errors

An Intentional Error

Unit 13: Bug Extermination Techniques

Species of Bugs

Identifying Bugs

Debugging Techniques

- Examining your code
- Using the MsgBox function
- Inserting Debug.Print statements
- Using the VBA debugger

About the Debugger

- Setting breakpoints in your code
- Using the Watch window
- Using the Locals window

Bug Reduction Tips

Unit 14: VBA Programming Examples

Working with Ranges

- Copying a range
- Copying a variable-sized range
- Selecting to the end of a row or column
- Selecting a row or column
- Moving a range
- Looping through a range efficiently
- Looping through a range efficiently (Part II)
- Prompting for a cell value
- Determining the selection type
- Identifying a multiple selection

Changing Excel Settings

- Changing Boolean settings

- Changing non-Boolean settings

Working with Charts

- AddChart versus AddChart2
- Modifying the chart type
- Looping through the ChartObjects collection
- Modifying chart properties
- Applying chart formatting

VBA Speed Tips

- Turning off screen updating
- Turning off automatic calculation
- Eliminating those pesky alert messages
- Simplifying object references
- Declaring variable types

Using the With-End With structure

Unit 15: Simple Dialog Boxes

UserForm Alternatives

The MsgBox Function

- Displaying a simple message box
- Getting a response from a message box
- Customizing message boxes

The InputBox Function

- InputBox syntax
- An InputBox example
- Another type of InputBox

The GetOpenFilename Method

- The syntax for the GetOpenFilename method
- A GetOpenFilename example
- The GetSaveAsFilename Method
- Getting a Folder Name
- Displaying Excel's Built-in Dialog Boxes

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Registration Form

Seminar Code: ED21B24 — Title: Automating Excel Functions and Routines with VBA in Microsoft Excel Start Date: 01/12/2021

A. Organization's details (if applicable)

Company/Organization:		Size:	<input type="checkbox"/> Small	<input type="checkbox"/> Medium	<input type="checkbox"/> Large
Economic Activity:		Telephone:		Fax:	
Address:		Postal Code:			
Person responsible for the registration:		Email:			
		Direct Telephone:			

B. Participant's details (1)

<input type="checkbox"/> Mr	<input type="checkbox"/> Ms	Name		Surname	
Title/ Job Position:				Email:	
Job description:				Telephone/Mobile:	Fax:
Reasons for participating in the seminar:					

Please fill this section if there are special requests for the lunch provided (only in the case that lunch is included)

Fasting Vegetarian Vegan

C. Participation Cost

PARTICIPATION IN THE SEMINAR IS PREPAID (at least three days before the start of the seminar)

Please invoice The participant The company Credit Customer Number (if applicable):

For participants entitled the Human Resource Development Authority (HRDA) € 294

For participants **not entitled** the Human Resource Development Authority (HRDA) € 770

Cheques must be issued to **EDITC Ltd** and payment can be made directly through deposit to the account of the company

Account Name: EDITC LTD

IBAN: CY19 0050 0115 0001 1501 0686 9601

Account Number: 115-01-068696-01

SWIFT/BIC: HEBACY2N

D. Terms and conditions for participation on EDITC seminars

1. The company accepts registrations for participation in the seminars at least 5 working days prior to the start of the seminar. EDITC does not commit to accept any registrations received in less than 5 working days before the start of the training program.
2. Written cancellations received 5 working days before the start of the training program are accepted and in the case where a payment has been made by the client, the full amount is reimbursed to the client. Cancellations that do not meet the above term are invoiced. The client may replace the participants) provided that they meet the criteria for participation on this program.
3. The company has the right to cancel or postpone a training program up to one day before the start date of the program. All prepayments are returned to clients.
4. All registrations are strictly prepaid except credit customers. EDITC will not allow the entry of participants in the class unless their financial obligations have been settled.
5. EDITC will inform the client upon receipt of the application form. Written confirmation for the implementation of the training program will be sent within 3-5 days before the start date of the seminar. In exceptional cases written confirmation may be sent one day before the start of the program. **Participants are encouraged to contact the company in case they did not receive the confirmation.**
6. Participants with less than 75% attendance cannot be subsidized by the HRDA and in this case the participants (or their company) will have to pay the amount of the subsidy (in addition to their own payment amount).
7. In case of subsidized programs by the HRDA all the required forms of HRDA must be sent to EDITC before the start of the training program. EDITC will not allow the entry of participants in the class unless the HRDA forms have been submitted to EDITC.
8. Certificates of participation will be given to participants after the completion of the course provided that their financial obligations and obligations regarding HRDA forms are settled. Otherwise certificates will be mailed as soon as the above obligations are settled.

We agree with the above terms and conditions

Signature:

Date:

Stamp (in case of company):

Registration Form

B. Participant's Details (2)					
<input type="checkbox"/> Mr	<input type="checkbox"/> Ms	Name		Surname	
Title/ Job Position:				Email:	
Job description:			Telephone/Mobile:	Fax:	
Reasons for participating on the seminar:					
Please fill this section if there are special requests for the lunch provided (only in the case that lunch is included)					
<input type="checkbox"/> Fasting <input type="checkbox"/> Vegetarian <input type="checkbox"/> Vegan					

B. Participant's Details (3)					
<input type="checkbox"/> Mr	<input type="checkbox"/> Ms	Name		Surname	
Title/ Job Position:				Email:	
Job description:			Telephone/Mobile:	Fax:	
Reasons for participating on the seminar:					
Please fill this section if there are special requests for the lunch provided (only in the case that lunch is included)					
<input type="checkbox"/> Fasting <input type="checkbox"/> Vegetarian <input type="checkbox"/> Vegan					

B. Participant's Details (4)					
<input type="checkbox"/> Mr	<input type="checkbox"/> Ms	Name		Surname	
Title/ Job Position:				Email:	
Job description:			Telephone/Mobile:	Fax:	
Reasons for participating on the seminar:					
Please fill this section if there are special requests for the lunch provided (only in the case that lunch is included)					
<input type="checkbox"/> Fasting <input type="checkbox"/> Vegetarian <input type="checkbox"/> Vegan					

B. Participant's Details (5)					
<input type="checkbox"/> Mr	<input type="checkbox"/> Ms	Name		Surname	
Title/ Job Position:				Email:	
Job description:			Telephone/Mobile:	Fax:	
Reasons for participating on the seminar:					
Please fill this section if there are special requests for the lunch provided (only in the case that lunch is included)					
<input type="checkbox"/> Fasting <input type="checkbox"/> Vegetarian <input type="checkbox"/> Vegan					

We agree with the above terms and conditions

Signature:

Date:

Stamp (in case of company):