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VBA Training: Office Programming

3 days (21 hours)

Presentation

Visual Basic for Applications (VBA) is an implementation of Microsoft Visual Basic that is integrated into all Microsoft Office applications.

VBA requires you to learn the basics of programming, then create user interfaces, manipulate dataoptimize and secure the program.

You'll learn how to program procedures and functions, manipulate data objects (tables, queries, SQL, Recordset, ADO DB, ODBC), collaborate with Office suite applications, control interface objects (forms, reports, etc.) and import and export data.

Objectives

- Understand the fundamentals of VBA programming
- Automate tasks in Excel
- Handling Excel objects via the VBA object model
- Create customized user interfaces (UserForm)
- Optimize, structure and secure VBA projects

Target audience

- Excel users who want to go beyond standard functionality and automate repetitive tasks
- Analysts, management controllers, accountants, administrative managers, or anyone who regularly handling large volumes of data in Excel
- Novice developers wishing to integrate Excel VBA into their working environment
- Project managers or business team who want to create customized tools to meet specific needs

- Employees in finance, HR, sales, logistics, quality, etc., who need to optimize data management and processing in Excel

Prerequisites

- Master Excel's basic functions: navigation, data entry, simple formulas, formatting, filters, sorting, use of tables

Our VBA training program

Introduction to VBA and programming basics

- Introduction to the development environment (VBA editor)
- Differences between macro and VBA code
- Recording and editing simple macros
- Discovering the Excel object model
- Declaration of variables and data types
- Control structures: If...Then, Select Case, For...Next, Do...Loop

Handling Excel objects

- Essential objects: Workbook, Worksheet, Range
- Selecting, reading and writing to cells
- Loops on cell ranges
- Using Excel functions in VBA (WorksheetFunction)
- Error handling (On Error, exception handling)

Automation and user interaction

- Creation of procedures to automate processing
- Use of standard dialog boxes (MsgBox, InputBox, etc.)
- Creation of customized forms (UserForms)
- Adding controls (TextBox, ComboBox, ListBox, Button...)
- Programming of user events (button clicks, value changes, etc.)
- Link between UserForm and spreadsheet

Optimizing, structuring and securing

- Working with events
- Interrupting an event
- Standard event

Data access with DAO

- Code organization: modules, subprograms, functions
- Debugging techniques: breakpoints, Run window, Spy
- Best practices to improve performance (avoid recalculations, disable screen updates)
- Code protection and security (VBA project locking)

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives with regard to the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.