Microsoft Access and VBA:

Building a Complete Solution

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Introduction

Someone in your company approaches you about creating a software solution to a challenge that they have. What does a complete solution look like for this customer? It is common to visualize the screen where they will push the button that automates their task and think that you are picturing the solution. But are you?

Let's examine two kinds of challenges and the scope of their solutions.

1. A buyer from another continent unexpectedly showed up this morning and your customer needs a one-time report to satisfy the buyer. The report will be based on an accumulation of data that already exists in your company system.
2. Your customer has a two-day work process to generate a report that must be published at the end of every month. They believe that there must be a more efficient way to produce the report.

In the first case, your customer may be able to tell you how the system data is related to their need. They probably have in mind what the report ought to look like. The customer will probably not interact with the solution that you build; the only thing they will touch is the final report. For the customer, the solution really is just the report. Outside of the paper report that you hand to the customer, perhaps the only other necessary deliverable is communicating the logical process that was used to prepare the report. The communication medium may be paper or a conversation, but it is important that the customer concurs with your method.

This training will focus on the second challenge, the repeatable solution that often involves building a complete application with a database structure (Microsoft Access) and a healthy dose of programming code (VBA - Visual Basic for Applications). In this case, a complete solution may involve creating data tables, building relationships between the tables, designing and building entry forms and reports, and creating functions in code that perform tasks. Just as important, the complete solution needs to include a written explanation of why and how the solution works. It also needs to follow standards of programming and must have some form of version control so that the solution can be easily modified in the future and efficiently supported when the customer has questions about how its features work (or why they do not work).

To lay a good foundation for building a complete solution using Microsoft Access and VBA, we'll start by discussing the development lifecycle for a solution. Following that, we'll look at the practical use of the VBA and Microsoft Access in your solution.

Some icons have been added to point you toward reference material or hands-on projects:

📖 *A suggested reading or reference in the Access 2002 Desktop Developer's Handbook, published by Sybex.*

💿 *Code samples or files that may be found on the companion CD for this manual or on the companion CD with the Access 2002 Desktop Developer's Handbook If it is not specified, assume the reference is the companion CD for this manual, with code from the Microsoft Access and VBA.mdb database.*

Hands-on activities for you to try.
? *Help topics that you may refer to within Microsoft Access or the VBA Editor.*