Dear Access Lover,

About a year ago, I decided it was time to write about basics for Access, so I did and it was 30 pages. Several folks told me screen shots would be nice – so here you are! The file size got a lot bigger and it has more than doubled in size, but I hope it is still short enough that you will read it all <smile>. This document covers essentials in Access and prepares you for programming with VBA (Visual Basic for Applications).

I wish to thank Allen Browne for including my Access Basics document on his fantastic website, and the following folks (all esteemed Microsoft MVPs -- Most Valuable Professionals) for much appreciated edits and comments: Allen Browne, Brent Spaulding, John Mishefske, John Viescas, Truitt Bradley, Marshall Barton (edited my first version too) and an extra-special thanks to Tom Wickerath, who was so incredibly thorough and went through this document several times.

This is never done… but I figured I will give you what I have so far <smile>

Over the past year, hundreds of you have written with wonderful comments that brightened up my day. Thank you so much! I hope you like the changes!

Print this document, get a highlighter, make a nice pot of tea, get comfy in your favorite chair, relax ... and ... enjoy!

Use the Table of Contents (at the end) to jump to specific places … or just start reading ☺

If you want to send a message, I love hearing what you have to say.

Warm Regards,

Crystal
Microsoft MVP Access 2008
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(: have an awesome day :)

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I do remote programming and training with great success. If you want information for yourself or to pass on, for now or later, email me and request it.

1. Types of Applications

Perspective

Before we get into Access, let's put it into perspective. There are six main categories of applications. If you learn a package in each of these categories, you will have a well-rounded foundation on which to build.

Word processing

A word processor gives you blank electronic paper to write, edit, and produce text. Although many packages give you capabilities for incorporating graphics, the main function is to work with text. Word processing software gives you the ability to format text such as **bold**, *italics*, and underline … and much more! Examples of when you would use a word processor would be to write letters, papers, articles, and books. The use of word processors is widespread. In the Microsoft Office suite, the word processing application is Word. Other word processing packages include WordPerfect and Open Office Writer. WordPad is a simple word processor that comes with Windows and can be found in the Accessories section of Programs.

If you are using Microsoft Word, you do have some basic database capability – Word has a "merge" feature that allows you to keep track of, for instance, names and addresses in one document and, using another document, write a letter with placeholders for merging.

When you set up information using Word tables, you also have basic sorting and formula capability … but if you find that you have mostly a list of information – and *especially* if you want to relate one list of information to another or filter it by certain criteria, you should be looking at Access.

Spread sheets

A spread sheet gives you a work sheet with rows and columns. The intersection of each row and column is called a *cell*. You can put text, numbers, or a formula (such as to add a column of numbers) into each cell. A file, called a workbook, can contain many work sheets. Spread sheets are generally used for financial and other applications where calculations, graphs, and "what-if" analysis will be used. Spreadsheets are among the most popular uses for computers. VisiCalc, a spreadsheet that was originally developed to run on an Apple computer, was responsible for the huge initial sales of personal computers in the late 70s and early 80s. In the Microsoft Office suite, the spread sheet application is Excel. Lotus 1-2-3 and Quattro were two popular spreadsheet applications that are no longer made. Open Office's Calc is another alternative to Excel.

A lot of confusion originates with when to use a spreadsheet and when to use a database. Many databases do start out in Excel – and then they grow to the point where it is better to convert data to Access. Excel has sorting and filtering capabilities … but they are not the main focus of the package. Due to the nature of a spreadsheet, sometimes data conversion to Access can be a big task! Spreadsheets allow you to put any kind of information anywhere you like … this is a no-no with databases. If your column has a defined data type of *number*, you cannot, for instance, write, "ask Clint for more details" for the value, it must be a number.

If you find yourself needing a lot of comboboxes that lookup values from another source and relational capability, or complex filtering and sorting, it is time to convert what you have in Excel to Access. Due to the lack of structure requirements of a spreadsheet, data set up in spreadsheets is often redundant (repeating information from one row to another) and not relational. When data is converted into a database, this information should be normalized.

Databases

A database gives you a way to structure information into rows (records) and columns (fields). Each of these collections is a relation, also called a table. Databases give you capabilities to sort and filter information. Where databases really shine is in being able to relate information in one table to another. A phone book is a simple example of a database, as is a hand-written check register, your mother's recipe collection, and even an Excel spreadsheet. Though a phonebook is an example of a simple database and could be tracked with Excel, it has too many records (rows) to contain all the listings for the country. While Excel continues to expand the limit on the number of rows, it does have trouble with filtering (using the Auto-Filter option available) when there are lots of entries. A more complex example requiring a relational database management system would be tracking all the expenses, sales, and accounting allocations for a company.

In the Microsoft Office suite, the database application is Microsoft Office Access, hereinafter simply referred to as Access. Other desktop (PC) database applications include dBase (no longer made), FileMaker, and Open Office Base. High-end databases include MySQL, Microsoft SQL Server, Oracle, and Sybase.

Unlike other applications, you can't *just start typing*. A database needs to be planned out and a structure set up before you add data. If you do not plan and just create columns/fields as you need them, you will miss many advantages of a structured, relational database; and you will likely produce an application that will be difficult to query and create reports, and is very error prone.

Access is the hardest application in the Office suite to learn for good reason; it is powerful and you need to first design tables, fields, and relationships *before* you create your data. Access gives you the ability to create forms for easy entry, and reports for formatted output … but forms and reports should not be designed until the structure of the information is solid. A good database design can take time, and the simplest solution is not often easy to see.

Graphics

With graphics software, you can create drawings, images, animations, presentations, multimedia, and much more. No one package usually does all these things well. In the Microsoft Office suite, the graphics application is PowerPoint, which is geared toward creating presentations and also provides basic tools for creating drawings and editing images. Other graphics packages include CorelDraw, Corel Photo-Paint, Adobe Photoshop, Adobe Illustrator, Adobe Flash, IrfanView, Open Office Impress, Microsoft Movie Maker, Sony Vegas, and ULead. Paint is a simple program you can use to create fun graphics that comes with Windows and can be found in the Accessories section of Programs.

Communication

Communications software allows you to exchange text, images, and files with others. Types of communication include email, VOIP (voice-over internet protocol), instant messaging, and newsgroup participation. Outlook Express often comes with Windows and acts as an email and newsgroup client. In Windows Vista, Outlook Express has been replaced by Windows Mail. In the Microsoft Office suite, Outlook (not Express) provides email and personal contact management capability. Other email packages include Mozilla Thunderbird and Netscape Communicator. VOIP software (softphone) allows you to make telephone calls using the internet.

Web Browsers

A web browser enables you to render text, and images on web pages. Microsoft Internet Explorer comes with Windows; other web browsers include Mozilla Firefox, Apple Safari, Opera (Opera), and Netscape Navigator. The basic language that web pages render is HTML (Hyper Text Markup Language). Many web pages incorporate non-standard features such as video. Plug-Ins allow web browsers to render a specific file format whose capability is not inherently built-in, or gives other additional capability. Plugs-Ins include Acrobat Reader, Adobe Flash Player, Java, QuickTime, Real Player, Shockwave, Microsoft Silverlight, and Windows Media Player. Some plug-ins, such as Windows Media Player and Acrobat Reader are also stand-alone applications.