

Mastering™

Alan Simpson
Elizabeth Olson

Fourth Edition

Access 97

for Windows® 95/NT®

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SYBEX



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FOURTH EDITION

Alan Simpson
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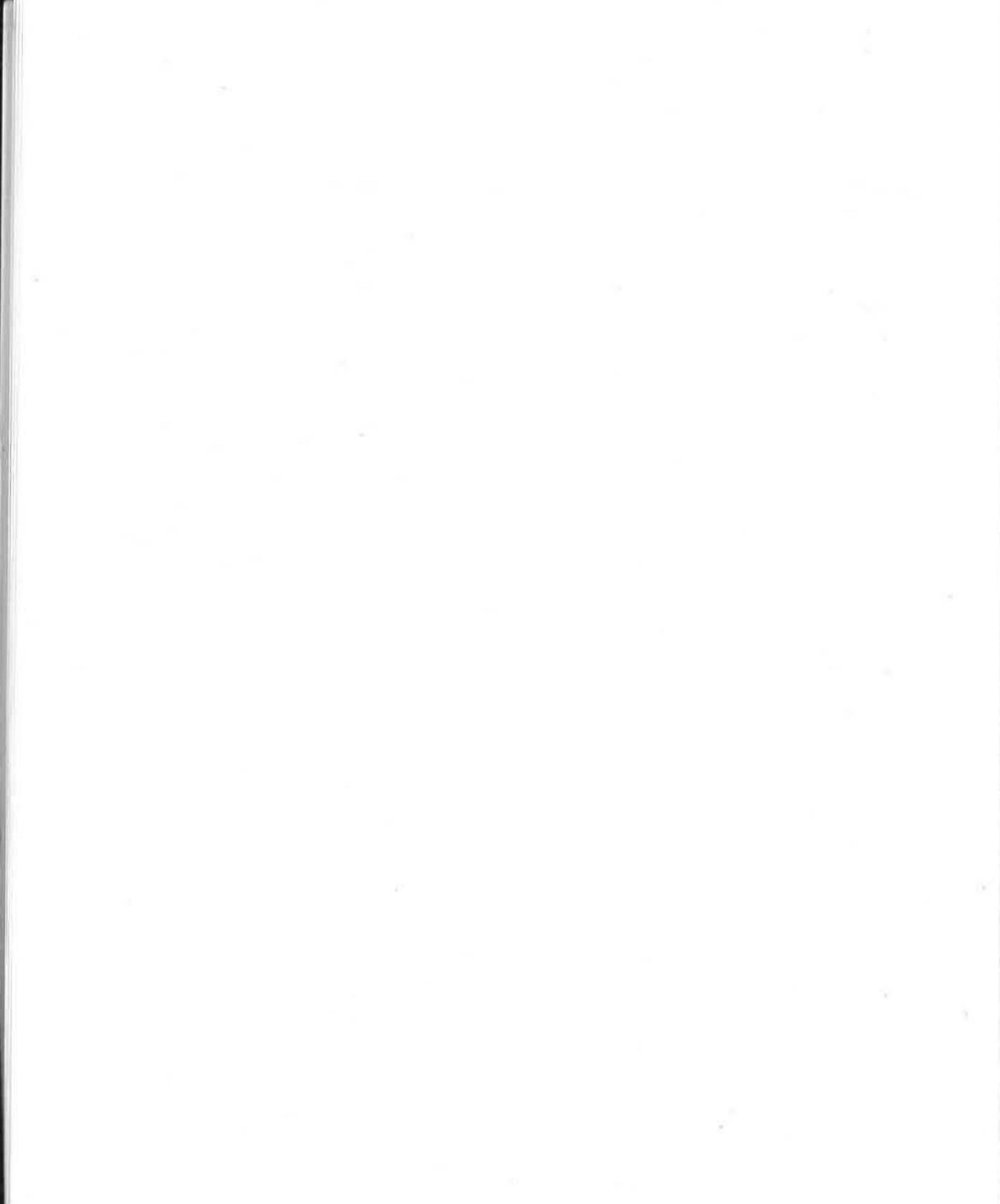
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*To Susan, Ashley, and
Alec, as always
—Alan Simpson*

*To Keith, for encourag-
ing me and keeping
me sane
—Elizabeth Olson*



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INTRODUCTION

W

elcome to *Mastering Access 97*, the book for new and intermediate Microsoft Access users and for aspiring application developers. Like Access, this book is geared toward experienced Windows users. You don't need to be a Windows genius to use Access, but if you're just making the transition from DOS to Windows, or just getting started with computers, you'll surely want to get your Windows "basic skills" down pat before you start using Access. (Our book, *Alan Simpson's Easy Guide to Windows 95*, can help you do that. It's also published by Sybex.)

Just in case you're wondering, we used Windows 95 exclusively while writing this book; however, Access 97 also runs under Windows NT, and we've sprinkled a few notes about Windows NT throughout the text. Readers who are using Windows NT should have little trouble following our instructions, although you may encounter some minor differences along the way.

New to Database Management?

You don't need to know anything about database management or programming to use this book. We start at square one in Chapter 1. As for programming—don't worry about it. Programming is definitely in the "not required" category when it comes to using Microsoft Access.

New to Access 97 but an Old Hand at Access?

If you're an old hand at using Microsoft Access but are trying (or planning to try) Access 97 for the first time, you can find out what's new by flipping to the "What's New in the Access Zoo?" sidebars at the end of each chapter. These brief sections highlight important new features that relate to the chapter you've selected.

If you have old Access databases that you'd like to use with Access 97, be sure to check Appendix A of this book for an introduction to points you must consider *before* removing your old version of Access and for information about converting your existing databases.

Finally, you can view online details of what's new. After installing Access, simply open the *What's New* book in the Access 97 Help Contents (or search for *What's New* with the Office Assistant) and then explore the many subtopics that appear. Chapter 1 explains how to use the Access online help.

A Focus on Creating Applications

Microsoft Access is a huge product, and nearly every nook and cranny of it is already documented in the online help. In this book, rather than wasting paper repeating all of that information, we've opted to focus on two things: (1) general day-to-day use of Microsoft Access and (2) using Access to create custom Windows applications. To meet those goals, we've organized the book as follows:

Part I An Overview of Access This part is for experienced Windows users who are new to database management and/or Access. Here we cover basic skills and concepts and offer a hands-on guided tour.

Part II Creating a Database This second part of the book covers all the basic Access objects you'll create to manage your data—tables, queries, forms, reports—and to publish your data to the Web. The information presented here is vital to casual users, to more ambitious application developers, and to aspiring developers.

Part III Database Tuning and Administration Here you'll learn how to personalize Access, speed up databases for optimal performance, administer your databases and use database replication, and take advantage of networking and security features.

Part IV Building a Custom Application Most Access users eventually realize that, with just a little more effort, they can turn their databases into easy-to-use stand-alone Windows applications. Part IV of this book is all about that topic—creating applications.

Part V Refining a Custom Application We wrote the final part of this book for application developers who aspire to learn Visual Basic programming and other more advanced application topics.

Features of This Book

This book offers several features that will help you learn Access and find the information you need, when you need it. Here are some examples:

- **Notes, Tips, and Warnings.** These provide good ideas, shortcuts, references to related topics, and cautions that point out when you might want to think twice before clicking that mouse!

- **Sidebars.** Sprinkled throughout the book, sidebars provide useful tidbits that will help you work smarter with Microsoft Access or Windows 95.
- **What's New in the Access Zoo?** Designed to help people upgrading to Access 97, these end-of-chapter sections highlight new features discussed in the chapter.
- **Access in an Evening.** Chapter 3 is a hands-on guided tour of Access, designed to give you a feel for working with the program in just a few short lessons.
- **About Access, Office, Windows 95, and the Internet.** Chapter 4 highlights common features in Access, Office, and Windows 95 so you can learn Access more quickly and take advantage of integration between Access and other programs in Microsoft Office. Learn to use the new Hyperlink feature to link Access databases to the Web!
- **CD-ROM.** The CD-ROM in the back of this book contains a great multimedia catalog of ready-to-run Access applications that you can purchase separately, as well as demos, shareware, freeware, sample databases, and more. See Appendix B for more information.

Conventions Used in This Book

We use the standard terminology that just about everyone else uses to discuss Access. However, we do use a shortcut method to display a series of commands and/or options you follow to get a particular job done. We present the commands in the order you'll select them, separated with a ► symbol.

For example, the instruction Choose Help ► About Microsoft Access means "Choose *About Microsoft Access* from the *Help* menu" (using either the keyboard or the mouse). And the instruction Choose Start ► Programs ► Microsoft Access means "Click on the *Start* button on the Windows 95 Taskbar, choose the *Programs* option from the Start menu, and then choose the *Microsoft Access* option from the menu that appears" (again, using either the keyboard or the mouse). This approach lets you see, at a glance, the exact sequence of commands you must choose to get a job done. It also helps you remember command sequences that you use often.

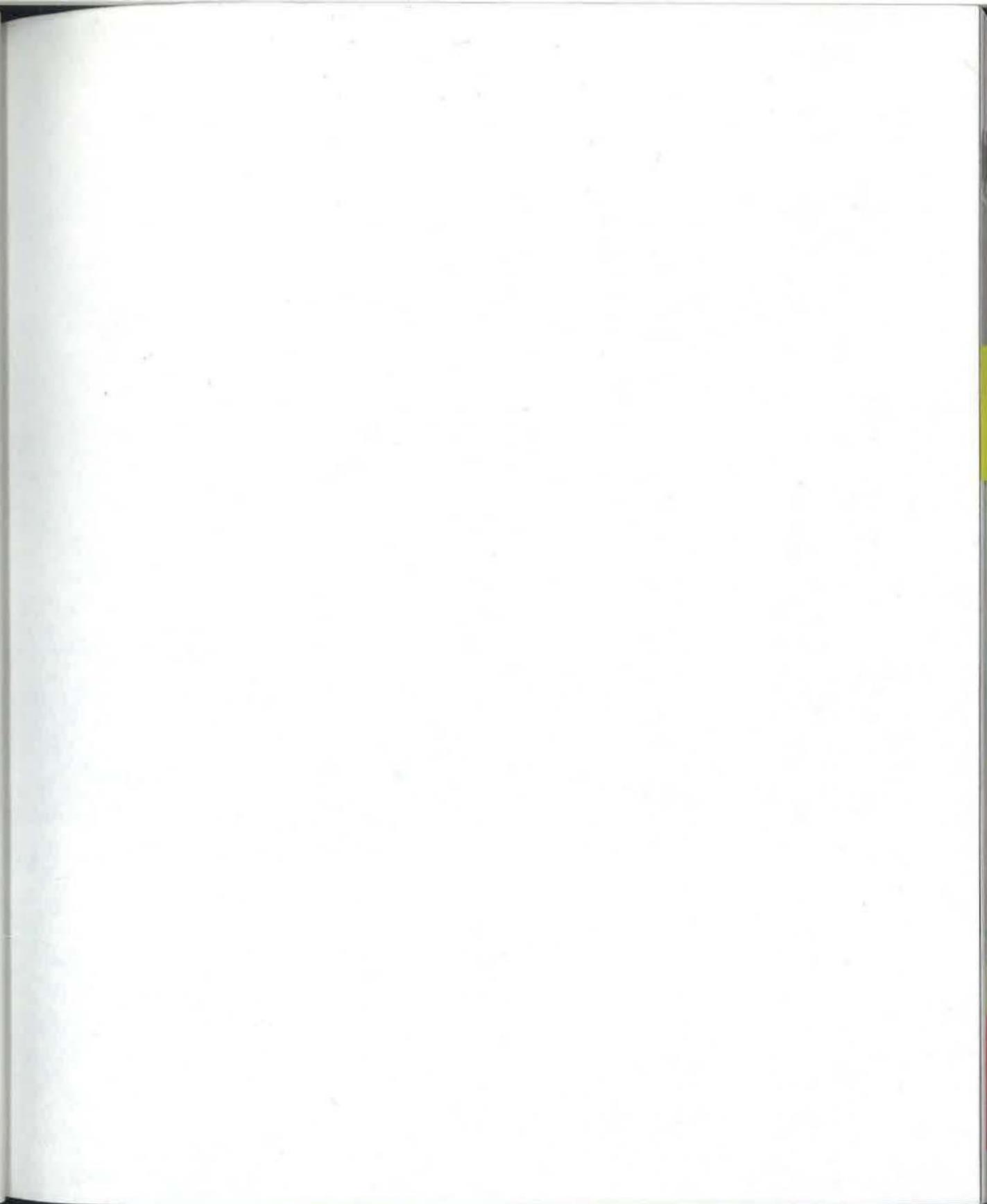
We also use toolbar buttons and other symbols in the margin. The toolbars provide a convenient way to perform many common Access operations with a simple mouse click. For example, clicking on the Print button shown at left prints the currently highlighted table, query, form, macro, or module. You'll often see a button in the margin the first time it's called for within a chapter.

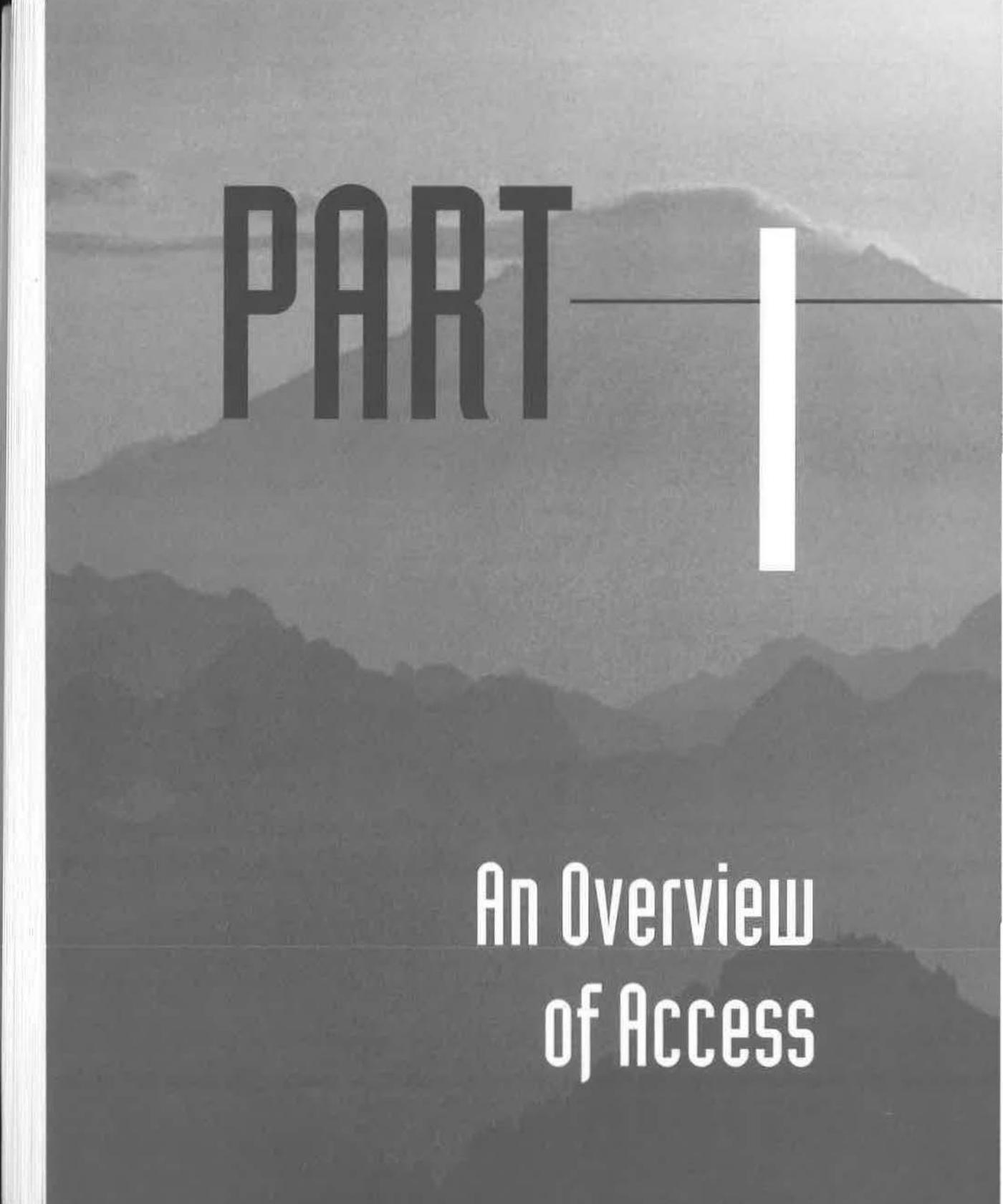


Thank You

Our sincerest thanks go to you for choosing this book. We hope it serves you well. As usual, we welcome comments, criticism, and suggestions. You can reach us at:

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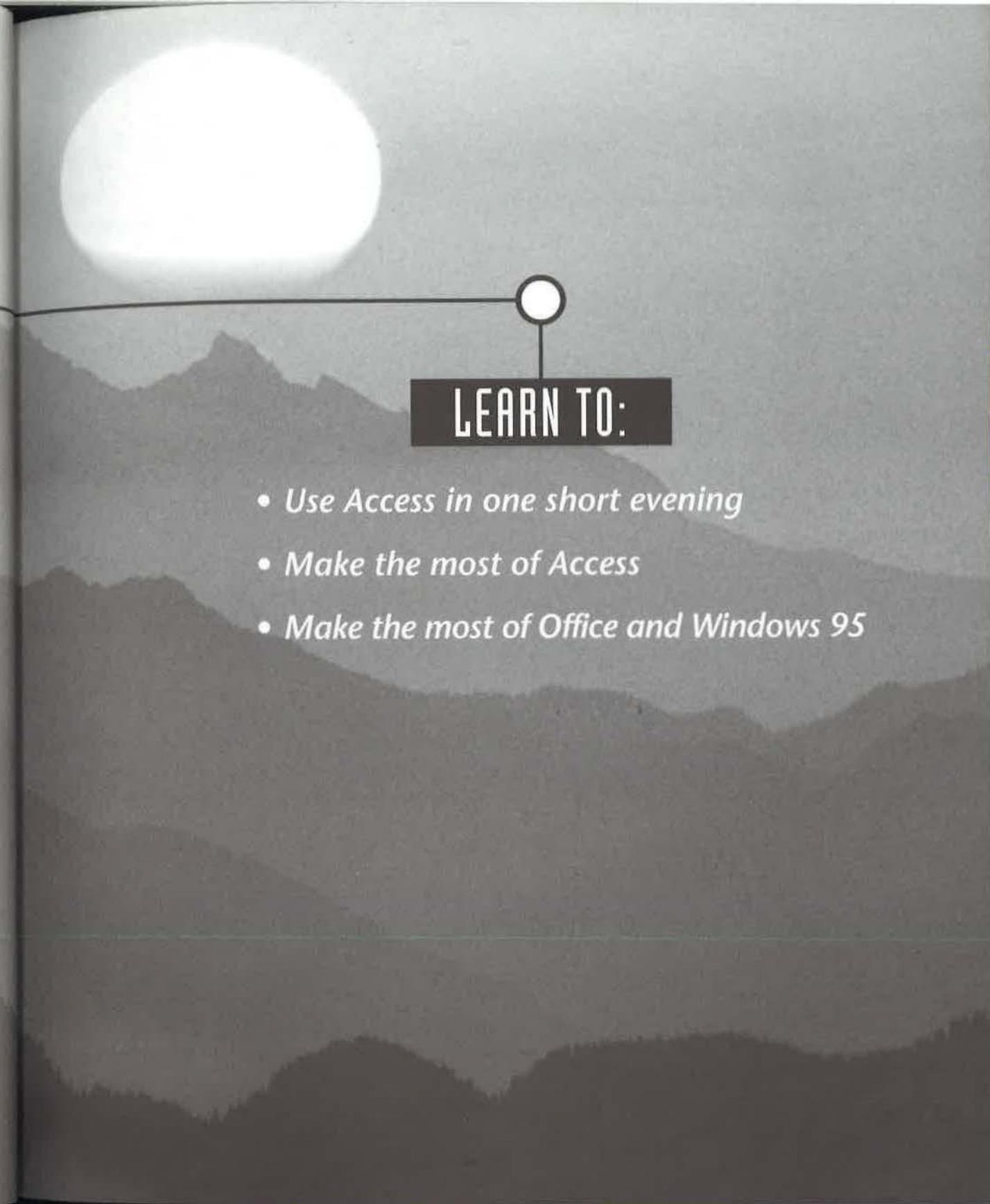




PART

I

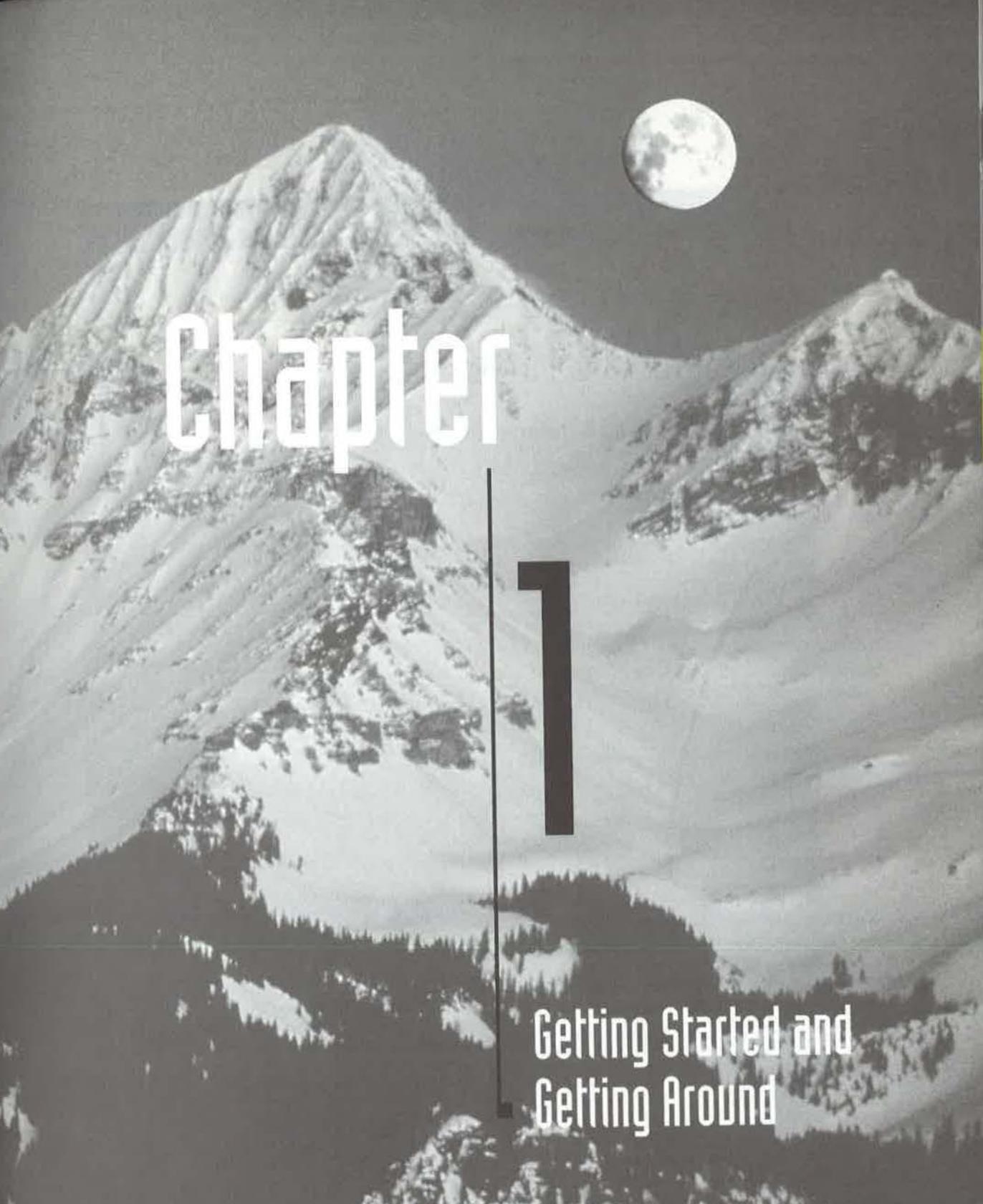
**An Overview
of Access**



LEARN TO:

- *Use Access in one short evening*
- *Make the most of Access*
- *Make the most of Office and Windows 95*



A black and white photograph of a mountain range. The mountains are covered in snow and have dark, rocky patches. In the foreground, there are dark, dense evergreen trees. A full moon is visible in the dark sky above the mountains. The text 'Chapter' is overlaid in white, and a large number '1' is positioned vertically in the center, with a thin vertical line extending from its top to the bottom of the page.

Chapter

1

Getting Started and
Getting Around



FEATURING

Starting Access 6

Opening and closing a database 8

Working in the Database window 17

Getting help when you need it 26

Getting Started and Getting Around

M

icrosoft Access 97 for Windows 95 is a database management system, or DBMS. As the name implies, a DBMS

helps you to manage data that's stored in a computer database. The data you manage can be virtually anything, including

- Names and addresses
- Business contacts, customers, and sales prospects
- Employee and personnel information
- Inventory
- Invoices, payments, and bookkeeping
- Libraries and collections
- Schedules, reservations, and projects

You may already know what kinds of data you plan to manage with Access 97, and you may already be familiar with other database programs and with the basic concepts of database management. If not, you'll learn more about databases in the next chapter. But whether you're a seasoned veteran eager to start working in Access or a database newcomer wondering where to begin, the first step is to learn how to start Access and use its extensive Help system to coach you along as you work.

Access Isn't Just for Techies!

Don't worry if you know nothing about databases and don't want to become an expert on the topic. *Access Wizards* can guide you through almost any step, and they can create databases for you automatically. So even if you need to set up something as complex as a system for managing orders, inventory, or assets—or something as simple as keeping a list of contacts and birthdays—Access Wizards can take care of the grunt work while you focus on getting useful information from

your computer. You'll have a chance to try Wizards during the hands-on tour in Chapter 3 and in many other chapters of this book.

If you're a technical type, never fear! Access has more than enough to make you happy. It's a full-featured application development system that includes the Visual Basic programming language and other tools for setting up sophisticated applications for yourself and your customers. You'll learn more about these features in Parts Four and Five.

Starting Access 97

To start Microsoft Access 97:

1. Start Windows 95 in the usual manner.



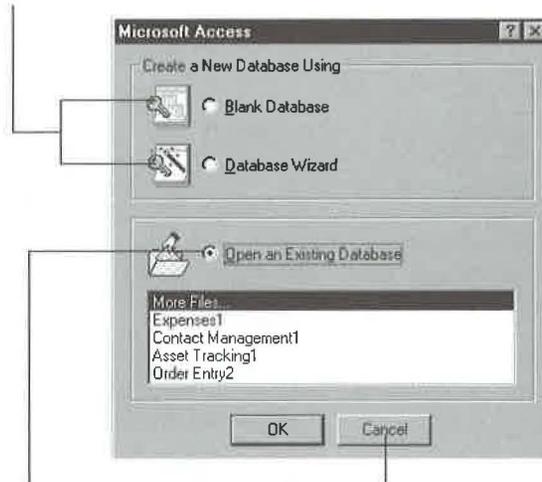
If you're using Microsoft Office for Windows 95 and have added Access 97 to the Microsoft Office Shortcut Bar, you can start Access by clicking on the appropriate button on the Office Shortcut Bar (see Chapter 4). Or if you've set up a shortcut icon for Access on the Windows desktop, you can double-click on that icon to start Access. Then skip to step 3 below.

2. Click on the Start button on the Windows Taskbar and then choose Programs ► Microsoft Access.
After a short delay, you'll see the Microsoft Access 97 startup dialog box shown in Figure 1.1. (If you've just installed Access 97, the list box below the Open An Existing Database option is empty.)
3. Do any of the following:
 - To create a new blank database, choose Blank Database and then click on OK.

FIGURE 1.1

The Microsoft Access 97 startup dialog box. From here you can create a new database, open an existing one, or click on Cancel to go to the main Access window.

Click on one of these options and then click on OK to create a new database.



Click on this option to open an existing database. Then click on a recently used database name or click on More Files to search for and open a database. Finally, click on OK.

Click on Cancel to go directly to the main Microsoft Access 97 window.

To use the Database Wizard to create a new database, choose Database Wizard and then click on OK to open the New dialog box. (More about creating new databases in Chapter 5.)

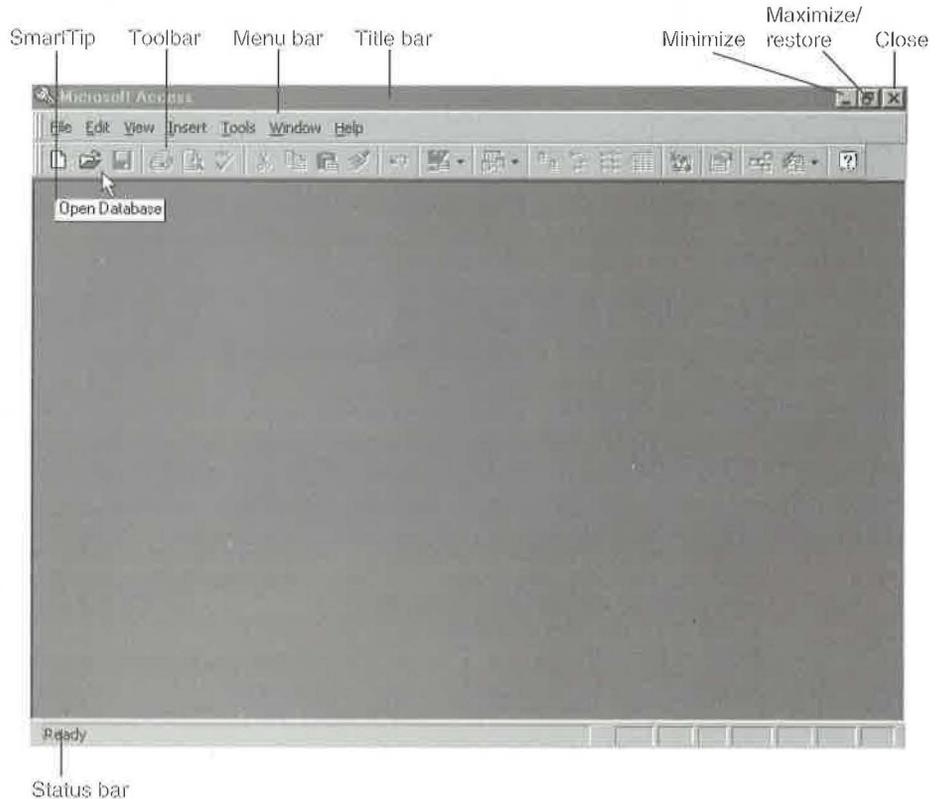
- **To open an existing database**, choose Open an Existing Database. If a list of database names appears, click on a recently used database name in the list or click on More Files so you can look for the database you want to use. Click on OK. See “Opening an Existing Database” later in this chapter for more details.
- **To go to the main Microsoft Access 97 window** (shown in Figure 1.2) without creating or opening a database, click on the Cancel button or press Esc.

NOTE

If Access is customized to bypass the startup dialog box, you’ll be taken to the main Access window as soon as you finish step 2 above. We explain how to bypass the startup dialog box later in this chapter.

FIGURE 1.2

The main Microsoft Access window that appears when you click on *Cancel* in the startup dialog box and anytime you close an Access database. You'll also see this window if Access is set up to bypass the startup dialog box.



Advanced users can learn about optional command-line startup switches for Access in Chapter 15 and by searching the Access Help index for *Startup Options*, *Command-Line Options*. We'll explain how to use Access Help later in this chapter.

Opening an Existing Database

In word processing programs you work with documents. In spreadsheet programs you work with worksheets. In database management systems, such as Access, you work with *databases*. Chances are you'll want to create your own database. But you can get some practice now by exploring one of the sample databases that comes with Access.

Organizing the Start ► Programs Menu Items

If your Start ► Programs menu has too many entries or isn't organized the way you like, you can rearrange it easily. Suppose you want to move Microsoft Access 97 and other Microsoft Office programs from the main Start ► Programs menu into a Microsoft Office submenu that looks something like the image below.

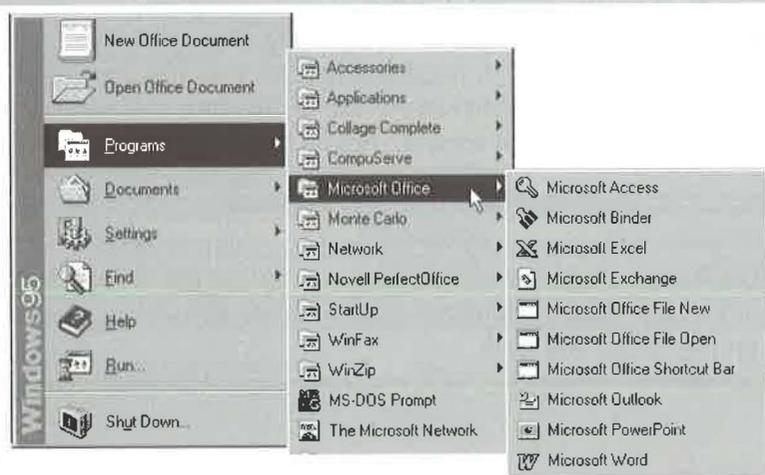
All it takes is a little knowledge of Windows Explorer and these basic steps:

1. Right-click on the Start button on the Taskbar and choose Explore.
2. Click on the Programs folder in the left pane of the Exploring window (it's below the Start Menu folder). The right pane will show the contents of the Programs folder.
3. Right-click your mouse on an empty part of the right pane of the Exploring

window and choose New ► Folder from the shortcut menu.

4. Type a new folder name, such as **Microsoft Office**, and press Enter.
5. Click on the + sign next to the Programs folder in the left pane; then use the vertical scroll bar to scroll the left pane until you can see the new folder you created in step 4.
6. Drag the program (or folder) you want to move from the right pane to your new folder in the left pane.
7. Repeat step 6 as needed and then click on the Close button in the Exploring window.

For more details on customizing the Start menus, choose Start ► Help and click on the Index tab. Then type **Start Menu, Reorganizing** and press Enter. To learn more about Windows Explorer, look up topics below *Windows Explorer* on the Index tab in Help.



Creating a Desktop Shortcut

You can use a *shortcut icon* to launch a program or open a file by double-clicking on that icon on the Windows desktop. To quickly add an icon that will launch the Access program from the desktop, minimize or close any open windows and then follow these steps:

1. Use Windows Explorer to open the folder that contains Microsoft Access 97. For example, right-click on the Start button on the Windows Taskbar, choose Explore, double-click on the MSOffice folder (it's usually on drive C), and then double-click on the Access folder.
2. Locate the Msaccess program icon, which has a picture of a key next to the Msaccess program name.
3. Hold down the right mouse button while you drag the icon to the Windows desktop. Release the mouse button.
4. Choose Create Shortcut(s) Here from the shortcut menu.

In the future, you can start Access by double-clicking on the Shortcut to Msaccess icon on your desktop. To discover other ways to create shortcuts for Access, look up the *Shortcuts* topics in the Access Help index or the Windows Help index. (To get Windows Help, click on the Start button on the Taskbar and choose Help.)

To open a database:

1. Do one of the following, depending on whether you're starting from the startup dialog box, from the main Microsoft Access window, or from the Windows desktop:
 - **From the startup dialog box** (refer to Figure 1.1), choose Open an Existing Database (this is the default choice). Then if the database name you want to open is shown in the list, double-click on that name and you're done. If the database name isn't in the list, double-click on More Files and continue with step 2. (If no list appears, click on OK and continue with step 2.)



TIP As usual in Windows, you can choose an option in a list by clicking on it and then clicking on OK (or whatever button carries out the default command), or by clicking on the option and pressing Enter. Or for quicker selection, try double-clicking on the option you want.

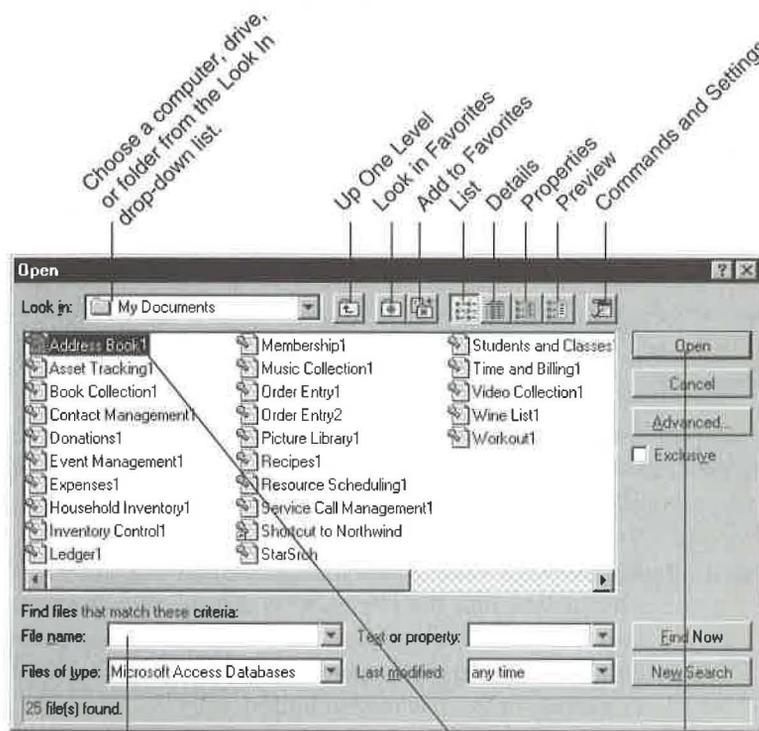
- From the main Microsoft Access window (refer to Figure 1.2), choose File > Open Database or click on the Open Database toolbar button (shown at left) or press Ctrl+O. You'll see an Open dialog box, similar to the example shown in Figure 1.3.



If you've recently used the database you want to open, try this tip for opening the database quickly: Choose File from the menu bar, look for the database name near the bottom of the File menu (just above the Exit option), and then click on its name or type the number shown next to its name.

FIGURE 1.3

The Open dialog box.



Type a path name and press Enter, or choose a name from the drop-down list.

Double-click on an item in the list to open it.

Open the highlighted database name.



Order Entry1

- **From the Windows desktop**, locate the database using standard techniques in Windows Explorer, My Computer, or Network Neighborhood. When you find the database you want to use, double-click on its name or icon (see the sample icon, shown at left). Or if you've used the database recently, click on the Start button on the Windows Taskbar, choose Documents, and then click on the name of your database in the list that appears. Access will start and the database will open. You're done, so you can skip steps 2 through 5.

2. Use any of these methods to find the database you want to open:

- **To open an object shown in the list below Look in**, double-click on the appropriate object icon or name.
- **To choose the computer, drive, or folder where the database is stored**, click on the Look in drop-down list button and then click on the appropriate item.
- **To open the folder that's just above the currently selected folder**, click on the Up One Level button in the Open dialog box, or click anywhere in the list below Look in and then press Backspace.



TIP To learn the purpose of any toolbar button in a window or dialog box, move your mouse pointer to that button and look for the ScreenTip near the mouse pointer. See "Using the Toolbars" later in this chapter for more information.

- **To display a list of your Favorite databases and folders**, click on the Look In Favorites toolbar button. The list below Look in will then show your favorite folders and databases only.
- **To add an item to your Favorites list**, make sure the appropriate item appears in the Look in text box or click on an item name in the list below Look in. Then click on the Add to Favorites toolbar button and choose an option from the menu that appears.
- **To manually enter a drive, directory, and/or file name**, type the appropriate information into the File name text box in the lower part of the Open dialog box or choose an item from the File name drop-down list.
- **To change the appearance of the list below Look in**, click on the List, Details, Properties, or Preview toolbar button.



TIP You can delete, rename, and do other handy operations on items from the Open dialog box. To begin, click on an item in the list below Look in. Then right-click on the item and choose an option from the shortcut menu.

3. If you're choosing the database from the list below Look in, make sure the database name is highlighted in the list (click on it if necessary).
4. If you're on a network and you need to open the database for your exclusive use, select (check) the Exclusive box on the right side of the dialog box. Select the Exclusive option only if you're sure you need to prevent other people from updating information in the database (they'll still be able to view the data). Otherwise, leave the checkbox empty so that other people can view and update the database as needed.

TIP Don't worry. Access automatically makes sure that no two people can update information simultaneously and get the data out of sync. See Chapter 18 for more information about networking and security.

5. Click on the Open button. (As a shortcut for steps 3 and 4, you can double-click on a database name in the list below Look in.)

The database will open, and you'll see either the database window or a form that either describes the database or lets you work with it.

TIP If the database you're planning to open usually displays a form, but you'd prefer to bypass that form and go directly to the database window, hold down the Shift key while you open the database. This action bypasses the form and any options that are set in the Startup dialog box (Tools ► Startup).

As Figure 1.3 shows, the Open dialog box contains many buttons and special features that we haven't mentioned here. If you've played with other Open dialog boxes in Microsoft Office or you've spent some time with Windows Explorer, you'll learn the fine points quickly. For more guidance, click on the ? button in the upper-right corner of the Open dialog box and then click on the part of the dialog box you're curious about. Feel free to experiment!

Opening the Sample Northwind Database

Let's suppose you did a normal Access setup and installed the sample databases. Here's one way to open the Northwind sample database that comes with Access:

1. Choose Open An Existing Database from the Microsoft Access startup dialog box. Then highlight More Files (if it's available) and click on OK.

Or

Choose File ► Open Database from the main Microsoft Access window.

2. Double-click to open the MSOffice folder (usually on drive C:), the Access folder below MSOffice, and then the Samples folder below Access.
3. Double-click on Northwind in the list below Look in.
4. Click on OK to go to the database window if the Welcome form appears.



You'll find a shortcut to the sample Northwind database (appropriately named *Shortcut To Northwind*) in the My Documents folder that usually appears when you choose File ► Open Database. You can double-click on that shortcut to open Northwind if you prefer.

Maximizing Your On-Screen Real Estate

The Windows 95 Taskbar can take up valuable on-screen real estate that you might prefer to make available to your database objects. Fortunately, hiding the Taskbar temporarily and bringing it into view only when you need to is easy. (Most screen shots in this book were taken with the Taskbar hidden.)

To hide the Taskbar temporarily, right-click on any empty spot on the Taskbar, choose Properties, make sure the Always On Top and Auto Hide options in the Taskbar Properties dialog box are checked,

and then click on OK. In the future, the Taskbar will remain hidden until you move your mouse pointer to the edge of the screen where the Taskbar was lurking the last time you used it. (If you don't remember where the Taskbar was, move the mouse pointer to the bottom, top, left, or right edge of the screen until it pops into view.)

To display the Taskbar permanently again, return to the Taskbar Properties dialog box and deselect (clear) the Auto Hide option. (It's usually best to leave Always On Top checked.) Then click on OK.

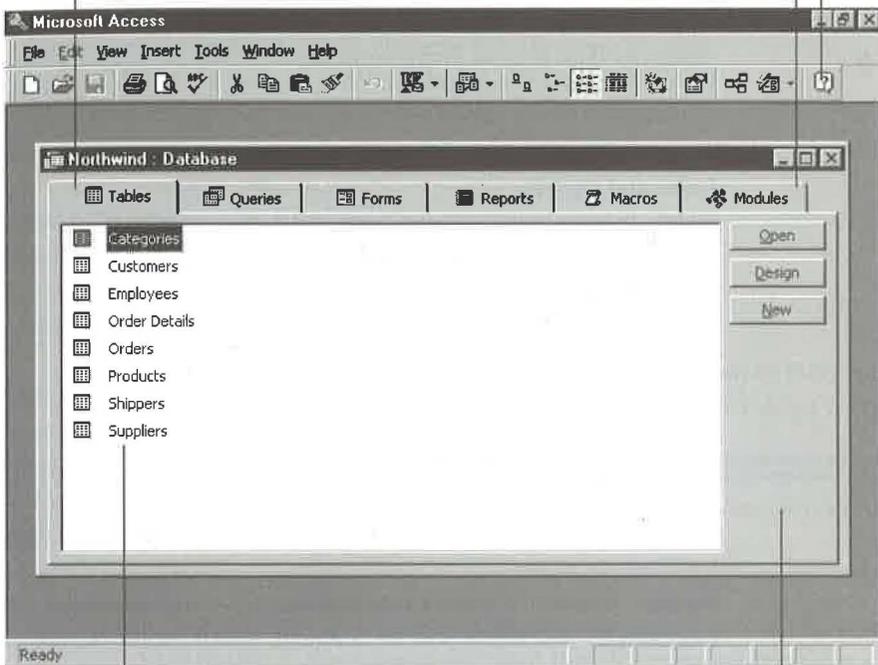
The various *objects* (a term for database components such as tables and forms) will appear in the *database window* (see Figure 1.4). You can move, size, maximize, minimize, and restore the database window using all the standard Windows techniques.

FIGURE 1.4

The Northwind database window with the Tables tab selected.

1. Click on the tab for the type of object you want to work with.

Toolbar



2. To open or change an object, click on its name.

Database window

What Is a Database, Anyway?

A widely accepted definition of a database is "a collection of data related to a particular topic or purpose." If that sounds a bit stuffy, just think of a database as a general-purpose container for storing and managing information. The information can be anything from names and addresses to details about your business's inventory and orders.

There's more to a database than data. A database can also contain *objects* to help you manage that data, such as forms (for entering and editing data) and reports (for printing data in the format you want). All told, a database can contain any combination of these six types of objects:

Table Tables are the fundamental structures in an Access database because they store the data you'll be managing (see Chapter 6). Within a table, data is organized into fields (columns) and records (rows).

Query A query is a tool for asking questions about data in your tables and for performing actions on data (see Chapter 10). Queries can answer questions, such as: How many customers live in Connecticut and what are their names and phone numbers? You can use queries to combine or *join* data from many separate but related tables. A query can, for example, join Customers, Orders, Order Details, and Products tables to answer the questions: Who ordered left-handed farkledorfers? and What is the value of those orders? Queries also can help you change, delete, or add large amounts of data in one fell swoop. Finally, you can use queries as the basis for your forms and reports.

Form Forms let you display and enter data in a convenient format that resembles fill-in-the-blank forms (see Chapters 11 and 13). Your forms can be plain and simple or quite elaborate with graphics, lines, and automatic lookup features that make data entry quick and easy. Forms can even include other forms (called *sub-forms*) that let you enter data into several tables at once.

Report Reports let you print or preview data in a useful format (see Chapters 12 and 13). Like forms, reports can be plain or fancy. Examples include mailing labels, lists, envelopes, form letters, and invoices. Reports also can present query results in an easy-to-understand format. For instance, you can print sales by customer, receivables aging, and other management information for use in making business decisions.

Macro A macro is a set of instructions that automates a task you need to do often (see Chapter 20). When you run a macro, Access carries out the actions in the macro in the order in which the actions are listed. Without writing a single line of program code, you can define macros to automatically open database forms, print mailing labels, process orders, and more. Macros enable you to assemble a collection of tables, queries, forms, and reports into turnkey *applications* that anyone can use, even if they know little or nothing about Access itself.

Module Like macros, modules allow you to automate and customize Access (see Part Five). However, unlike macros, modules give you more precise control over the actions taken, and they require you to have Visual Basic programming expertise. You may never need to use modules, so don't worry if you're not a programmer.

During the hands-on lessons in Chapter 3, you'll have a chance to create a database complete with tables, forms, reports, queries, and even a simple form module. You'll be astounded at how quickly you can do this job when you let the Wizards do all the tough stuff for you.

Working in the Database Window

The *database window* is one of your main tools for using Access. When exploring the sample Northwind database and when creating databases of your own, you'll use this simple three-step process to work with the objects in your database:

1. Choose the *type* of object you want to create, use, or change using the tabs near the top of the database window. That is, click on the Tables, Queries, Forms, Reports, Macros, or Modules tab.
2. Click on its name in the list of objects if you want to use or change an existing object.
3. Do one of the following:
 - To create a new object of the type you selected in step 1, click on the New button near the side of the database window.
 - To use (or view or run) the object, click on the Open (or Preview or Run) button.
 - To change the object's appearance or structure, click on the Design button.

TIP

As a shortcut for opening (or previewing or running) an object, you can double-click on its name in the database window.

What happens next depends on the type of object you selected and on the type of operation you chose in step 3. We'll say more about the various types of objects in upcoming chapters.

Closing an Object

Regardless of how you open an object, you can use any standard Windows technique to close it. Here are three sure-fire methods:

- Click on the Close (x) button in the upper-right corner of the window you want to close (*not* the Close button for the larger Microsoft Access program window).
- Choose File ► Close from the Access menu bar.
- Press Ctrl+W or Ctrl+F4.

Some Access windows also display a Close button on the toolbar.

If you've changed the object you were viewing, you may be asked if you want to save those changes. Respond to the prompt accordingly.

Uncovering a Hidden Database Window

Sometimes the database window will be invisible even though you've opened a database. If that happens, you can return to the database window (assuming the database is open) by using any of these techniques:

- Press the F11 key.
- Choose Window ► ...: Database from the menu bar (where ... is replaced by the name of the open database, such as Northwind).
- Click on the toolbar's Database Window button (shown at left).



If none of those methods works, close any other objects that are on the screen and try again. If you still can't get to the database window, you've probably closed the database. To reopen the database, choose File from the Access menu bar and then click on the name of the database near the bottom of the menu. Or use File ► Open Database as discussed earlier in this chapter.

NOTE

When you open some databases, a custom form window, rather than the database window, will appear. That's because whoever created that database has turned it into an *application*. Even so, pressing F11 usually will take you to the database window (unless the application designer has disabled this feature). Often you can bypass the initial form window and all the other startup options by holding down the Shift key as you open the database.

Changing Your View of Database Objects

You can use options on the View menu, or equivalent buttons on the toolbar, to change the size of objects and amount of detail listed for objects in the database window. Table 1.1 summarizes these options and buttons. In Figure 1.4, for example, we clicked on the List button on the toolbar (alternatively, View ► List) to display database objects in a list.

Managing Database Objects

The database window lets you do much more than just open objects. You also can use that window to *manage* the objects in a database—that is, to copy them, delete them, rename them, and so on. Here's how:

1. If the object you want to work with is currently open, close it, as described earlier under "Closing an Object."

TABLE 1.1: VIEW MENU OPTIONS AND EQUIVALENT TOOLBAR BUTTONS

VIEW MENU OPTION	BUTTON	DESCRIPTION
Large Icons		Shows each object as a large icon with the object name below the icon. Object names initially appear in rows; however, you can drag them as needed.
Small Icons		Shows each object as a small icon with the object name next to the icon. Object names initially appear in horizontal rows; however, you can drag them as needed.
List		Shows each object as a small icon with the object name next to the icon. Object names appear vertically, in one or more columns.
Details		Shows each object as a small icon with the object name next to the icon. Object names appear with one object to a line and five columns of detail about each object. The columns list the object's Name, Description, date/time Modified, date/time Created, and object Type. <ul style="list-style-type: none"> • To resize a column, move your mouse pointer to the vertical divider that's just to the right of the column heading. When the pointer changes to a crosshair, drag the mouse to the left or right; or double-click on the divider for a snug fit. • To sort by a column (in ascending order), click on the appropriate column header button. To sort the column in descending order, click on the column header button again. • To add a Description to any object, right-click on the object name in the database window, choose Properties, type a Description, and then click on OK.

Note: You can use the View ► Arrange Icons and View ► Line Up Icons commands on the menu bar (or right-click on a blank area on the database window and choose View, Arrange Icons, or Line Up Icons options from the shortcut menus) to rearrange and line up icons as needed.

2. If you haven't already done so, choose the type of object you want to work with (by clicking on the Tables, Queries, Forms, Reports, Macros, or Modules tab on the database window).
3. Click on the name of an object and then:
 - **To delete the object**, choose Edit ► Delete or press Delete; click on Yes when prompted for confirmation. To delete the object and move it to the Windows Clipboard (without being asked for confirmation), hold down the Shift key while pressing Delete or press Ctrl+X (*be careful, there's no undo for this operation*; however, you *can* paste the object from the Clipboard by pressing Ctrl+V).
 - **To rename the object**, click on the object name again (or choose Edit ► Rename), type a new name (up to 64 characters, including blank spaces if you wish), and then press Enter.
 - **To copy the object** into this same database, choose Edit ► Copy or press Ctrl+C. Then choose Edit ► Paste or press Ctrl+V. Enter a valid object name (up to 64 characters), choose other options as appropriate, and then click on OK. The copy will appear in the list of objects in its proper alphabetical position. (You may need to scroll through the object names to find the copy.) Copying can give you a head start on designing a table, form, report, or other object that should be similar to the object you copied. You can then change the copied object without affecting the original.
 - **To create a shortcut icon on the Windows desktop for the selected object**, choose Edit ► Create Shortcut, specify the Location (if you wish), and then click on OK. In the future, you can double-click on the shortcut icon on the Windows desktop to start Access and open the object in one fell swoop.



Another way to create a shortcut to an Access object is to size the Access window so that you can see Access and the Windows desktop at the same time (one way is to right-click on an empty place on the Windows Taskbar and choose Cascade). Then, if you want to put the shortcut in a folder, open that folder in Windows Explorer, My Computer, or Network Neighborhood. Finally, drag and drop the selected Access object to the desktop or folder. You also can drag and drop tables and queries from the database window to Microsoft Excel, Microsoft Word, and other program windows (see Chapter 4).



- **To print the object**, choose File ► Print or press Ctrl+P or click on the Print toolbar button (shown at left). Then click on OK from the Print dialog box to print the entire object.



- **To preview the object** before printing, choose File ► Print Preview or click on the Print Preview toolbar button (shown at left). When you're done previewing the object, close it as described earlier under "Closing an Object."
- **To export the object to another Windows program** or to a different Microsoft Access database, choose File ► Save As/Export. Complete the dialog box and click on OK.
- **To export the object to HTML or another Web format**, choose File ► Save to HTML/Web Formats.
- **To import or link data from another program or database**, choose File ► Get External Data and then choose either Import or Link Tables. Complete the dialog box that appears and then click on the Import or Link button.



Many of the operations described above also are available when you right-click on an object or right-click on any gray area on the database window. See "Opening Shortcut Menus" later in this chapter for details.

See Chapter 7 for more information about moving and copying objects between databases or about interacting with other programs. Or search the Access Help index for any of these topics: *Exporting Data...*, *Importing Data...*, and *Linking...*

Using the Toolbars and Menu Bar

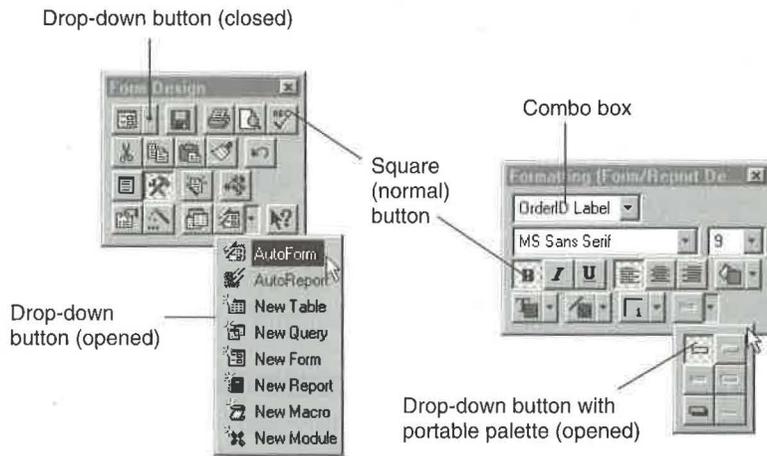
Toolbars offer time-saving shortcuts to commonly used commands. To use the toolbars:

1. Move the mouse pointer to the toolbar button you want to choose.
2. Look at the status bar for a description of the current button. Or wait a moment, and a brief description (called a ScreenTip) will appear near the mouse pointer, as shown below.



FIGURE 1.5

Examples of square (normal) buttons, drop-down buttons, and combo boxes on toolbars.



3. Do one of the following, depending on the type of button you're pointing to (see Figure 1.5 for examples):
 - **For a square (normal) button**, click on the button.
 - **For a drop-down button**, you have two choices. Either click on the picture part of the button to take whatever action the picture shows, or click on the drop-down arrow next to the picture and then choose an option from the menu or palette that appears.
 - **For a combo box**, click on the drop-down arrow next to the box and then choose an option from the list that appears, or click on the drop-down arrow and then type your choice into the text box.

NOTE

If you change your mind about choosing a drop-down button or combo box after you've clicked on its drop-down arrow, click on the drop-down arrow again or click on an empty area outside the toolbar.

TIP

If the drop-down button opened a palette, you can drag the palette anywhere on the screen. After you detach the palette from its button, the palette remains open and available until you click on the Close button on the palette, click on the arrow next to the drop-down button, or close the object you're working with.

Viewing Toolbars, ScreenTips, and the Status Bar

Toolbars, ScreenTips, the status bar, and other on-screen features are optional and customizable. If you don't see one of these features in Access, chances are it's just hidden (or turned off).

To display (or hide) the status bar or the startup dialog box (refer to Figure 1.1):

1. Open any database window. (The Tools ► Options and Tools ► Startup commands described below are available only when a database is open.)
2. Choose Tools ► Options from the Access menu bar and then click on the View tab.
3. Select (check) an option to display (or turn on) the feature; deselect (clear) the option to hide (or turn off) the feature. For example, select Status Bar and Startup Dialog Box to display the status bar and startup dialog box described in Chapter 4. Click on OK.

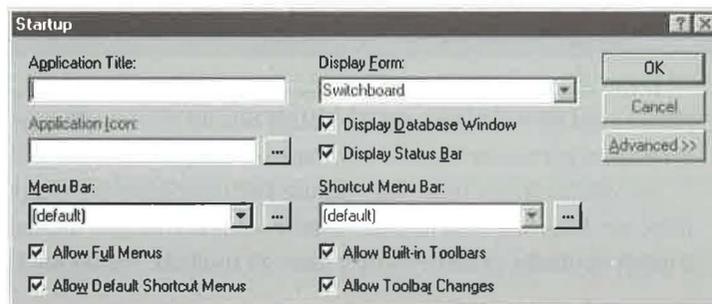
To display or hide ScreenTips (the descriptions that appear when you point to a toolbar button):

1. Choose View ► Toolbars ► Customize from the Access menu bar and then click on the Options tab.
2. Select (check) Show ScreenTips on Toolbars to show a brief description of what a toolbar button does when you point to it.
3. Click on Close.

You also can customize many startup features for the current database (including whether the database window, status bar, and built-in toolbars appear). To do so, choose Tools ► Startup. You'll see the Startup dialog box shown in Figure 1.6. As usual, you can select (check) options you want to turn on and deselect (clear) options you want to turn off. You also can type text into the text boxes and choose options from the drop-down lists. When you're finished making changes, click on OK. See Chapter 15 for more about personalizing Access.

FIGURE 1.6

This sample Startup dialog box shows default options that work well for most people. Choose Tools ► Startup to get here.



**NOTE**

Pressing the Shift key when you open the database will bypass any Startup options that you've changed, giving you the default options shown in Figure 1.6.

Positioning the Toolbar or Menu Bar

By default, the toolbar is *docked* just below the menu bar (refer to Figure 1.4). You can convert the toolbar to a free-floating element or dock it to some other edge of the screen. You can also move the menu bar or dock it in a new location. Follow these steps to move the menu bar or a toolbar:

1. Move the mouse pointer to some blank area between buttons (or below or above a button) on the toolbar.
2. Drag the menu bar or toolbar toward the center of the screen, double-click to make it free floating (see the example below), or drag it to some other edge of the screen to dock it there. To restore a floating menu bar or toolbar to its previous docked position, double-click on its title bar or any empty spot on it.



When the toolbar is floating freely, you can drag it by its title bar (or by any empty space between buttons) to any place on the screen. Here are some other toolbar tips:

- To **close (hide) the floating toolbar**, click on the Close button on the toolbar's upper-right corner or right-click on any toolbar and click on the toolbar's name in the shortcut menu that appears (shortcut menus are discussed in the next section).
- To **redisplay a hidden toolbar**, choose View ► Toolbars, click on the checkbox next to the toolbar you wish to view, and then click on the Close button in the Toolbars dialog box.
- To **redisplay a default toolbar for the current view**, right-click on any visible toolbar and then click on the toolbar's name in the shortcut menu that appears.

If the redisplay procedures above don't work, choose Tools ► Startup, select (check) Allow Built-In Toolbars, and then click on OK. Close and then open the database again. If necessary, choose View ► Toolbars to redisplay the toolbar.

We discuss many other ways to use and customize the toolbars in Chapter 23. But for now, just knowing how to hide, display, and position the toolbar is enough. If you do need a quick reminder or more information on toolbars, search the Help index for *Toolbars*.

NOTE

If you manually show a built-in toolbar, it will appear in every view. If you hide a built-in toolbar from within its default view, it will be hidden in every view (including its default view).

Opening Shortcut Menus

Access provides many *shortcut menus* to save you the trouble of looking for options on the menu bars and toolbars. Shortcut menus in the Open and Save dialog boxes also offer handy ways to manage your files and folders without leaving Access.

To open a shortcut menu that's tailored to whatever you want to work with, right-click on the object or place you're interested in; or click on the object and then press Shift+F10. For example, right-clicking on a table name in the database window opens this menu:

**NOTE**

If the shortcut menus don't appear when you right-click, choose Tools ► Startup, select (check) Allow Default Shortcut Menus, and choose OK. Then close and open the database again.

To select an option from the menu, do one of the following:

- Press Enter if you want to choose the **boldfaced** option on the menu.
- Click on the option with either the left (primary) or right (secondary) mouse button.
- Type the option's underlined letter or highlight the option with your mouse, and then press Enter.

To close the menu without selecting an option, press Esc or Alt or Shift+F10—or click outside the menu.

**TIP**

The term *right-click* means to point at something with your mouse and then click the *right* (secondary) mouse button. This right-click trick is available throughout Access (and, indeed, throughout Windows). As you work with Windows and Access, be sure to experiment with right-clicking. It is a great way to discover some truly useful shortcuts.

Closing a Database

When you're done working with a database, you should close it. Any of these methods will work:

- Click on the Close button in the upper-right corner of the database window.
- Go to the database window and then choose File ► Close from the Access menu bar.
- Press Ctrl+W or Ctrl+F4.

As usual, you'll be prompted to save any unsaved work.

**NOTE**

You can have only one database open at a time. Access will automatically close the currently open database if you choose File ► Open Database or File ► New Database before closing the current database.

Getting Help

One thing we hope to teach you in this book is how to get answers to questions—even if we haven't provided those answers. You can achieve this goal easily if you learn how to use Access's plentiful built-in Help. We'll show you how to use this self-help tool next.

Summary of Self-Help Techniques

Table 1.2 summarizes many ways to get and use online Help in Access. Remember that you can use all the standard Windows techniques while you're in the Help system to annotate Help, print a topic, change fonts, and so forth. For more information on those topics, see your Windows documentation or the Windows online Help. You can experiment by right-clicking in any Help text window and choosing options from the shortcut menu.

TABLE 1.2: MICROSOFT ACCESS 97 ONLINE HELP OPTIONS AND TECHNIQUES

TYPE OF HELP	HOW TO GET IT
Office Assistant	Choose Help ► Microsoft Access Help or click the Office Assistant button on the Toolbar.
Table of Contents	Choose Help ► Contents and Index and click on the Contents tab in the Help Topics dialog box.
Search Help	Click on the Index or Find tab in the Help Topics dialog box.
Find Help on the Web	Choose Help ► Microsoft on the Web and make a choice from the next menu. Use Web Tutorial to find out more about these options.
Display a Minimized Help Window	Click on the ? Microsoft Access button on the Windows 95 Taskbar.
What's This...?	Choose Help ► What's This?, press Shift+F1, click on the ? button on the toolbar or at the upper-right corner of a dialog box; then click on the command or place you want help with.
Version Number, System Information, Technical Support	Choose Help ► About Microsoft Access.
Exit Help	Click on the Close button at the upper-right corner of a Help screen or press Esc.

To select an option from the menu, do one of the following:

- Press Enter if you want to choose the **boldfaced** option on the menu.
- Click on the option with either the left (primary) or right (secondary) mouse button.
- Type the option's underlined letter or highlight the option with your mouse, and then press Enter.

To close the menu without selecting an option, press Esc or Alt or Shift+F10—or click outside the menu.

**TIP**

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- Go to the database window and then choose File ► Close from the Access menu bar.
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As usual, you'll be prompted to save any unsaved work.

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Search Help	Click on the Index or Find tab in the Help Topics dialog box.
Find Help on the Web	Choose Help ► Microsoft on the Web and make a choice from the next menu. Use Web Tutorial to find out more about these options.
Display a Minimized Help Window	Click on the ? Microsoft Access button on the Windows 95 Taskbar.
What's This...?	Choose Help ► What's This?, press Shift+F1, click on the ? button on the toolbar or at the upper-right corner of a dialog box; then click on the command or place you want help with.
Version Number, System Information, Technical Support	Choose Help ► About Microsoft Access.
Exit Help	Click on the Close button at the upper-right corner of a Help screen or press Esc.

Using the Help System and This Book

This book is designed to complement the Help system, not to replace it. Because the online documentation does such a good job of showing you the steps for practically any procedure you can perform in Access, and because many of those procedures won't interest everyone, we've taken a more conceptual approach here—one that should help you work more creatively. Instead of presenting hundreds of little step-by-step instructions (as the Help system does), this book deals with larger, more general concepts so that you can see how (as well as when, why, and sometimes whether) to apply the nitty-gritty details you'll find in the Help system.

From time to time, this book shows an information symbol like the one at left (in fact, you've already seen a few in this chapter). This symbol is a reminder that, once you've learned the underlying concepts and the basic techniques involved in a topic, you can find further details under the Help topics identified next to the symbol.

Looking Up Information

Like a book, the Access Help system has a table of contents, which is a great way to learn how to do things. To get to the Help contents:

- Choose Help ► Contents and Index from the Access menu bar and then click on the Contents tab in the Help Topics dialog box.

Or if you're already in a Help window

- Click on the Help Topics button near the top of the window to return to the Contents, Index, or Find tab you selected most recently.

The Contents lists many options to explore. Figure 1.7 shows the Contents tab with the Getting Help book opened. To open or close a *book*, double-click on the book's icon. To open a *topic* (preceded by a question mark icon, like this ?), double-click on that topic. In Figure 1.8, you see the Help window that opened after we double-clicked on the *Getting Help* book and then double-clicked on the *Sample databases and applications included with Microsoft Access* topic.

Here are some tips for using a Help window (see Figure 1.8):

- **To view Help text that's hidden at the moment**, use the vertical and horizontal scroll bars as needed or resize the Help window.
- **To jump to a related topic**, click on the small button next to that topic in the help text. The mouse pointer changes to a pointing hand when you point to a jump button.

FIGURE 1.7

The Contents displays electronic books filled with help on many topics. Double-click on books to open or close them. Double-click on topics to open them.

Double-click to open a closed book.

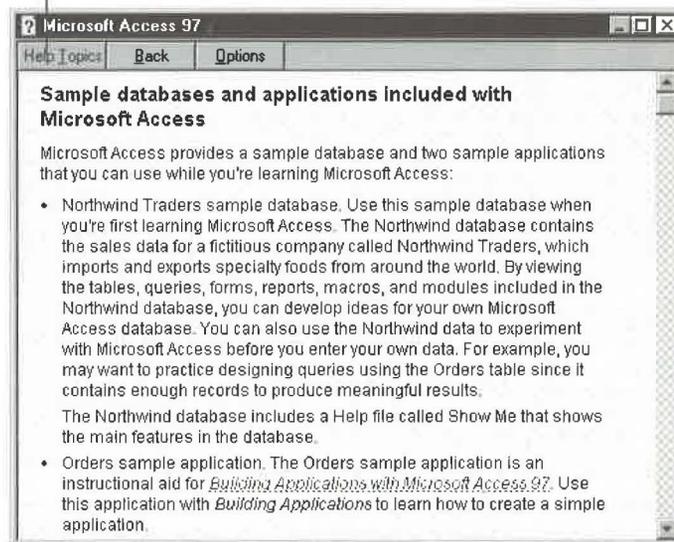
Double-click to close an open book.

Double-click on a topic to view it.

**FIGURE 1.8**

A Help window that describes the sample databases and applications that come with Access.

Click here to return to the Help Topics.



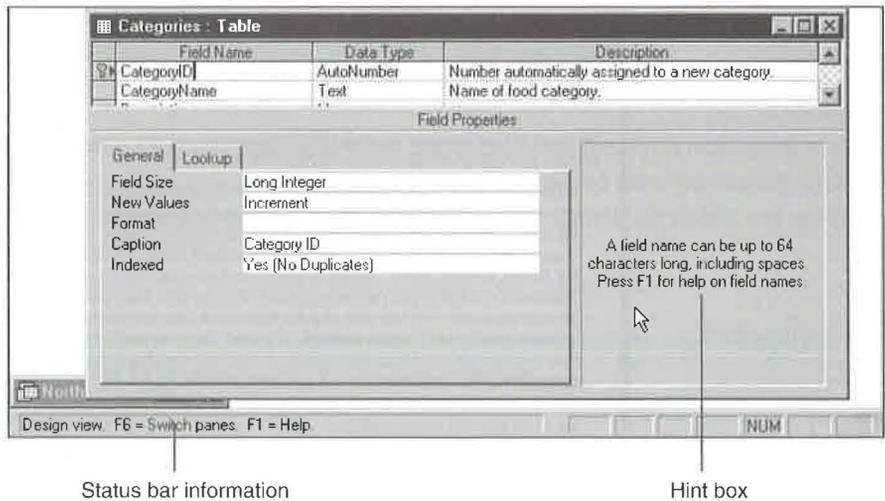
- **To see the definition of a term or a button**, click on any text that's underlined with dots (usually in green) or click on a picture of a button. (Click anywhere inside or outside the definition or press Esc to hide the definition again.)
- **To print the current Help window**, click on the Help window's Option button or right-click anywhere in the Help window text; then choose Print Topic.
- **To return to the previous Help window**, click on the Help window's Back button.
- **To return to the Help Topics** (refer to Figure 1.7) from any Help window, click on the Help window's Help Topics button.
- **To make the Help window reappear** if it's minimized or hidden, click on the Microsoft Access For Windows 95 Help button on the Windows Taskbar (the button name is preceded by a small ? icon).
- **To close the Access Help window**, make sure it's the active window and then press Esc or click on its Close button.

Help with Whatever You're Doing

Even when you're not in a Help window, you should look at the status bar, preview areas, and any colored text on the screen for hints on what to do next. For example, you'll often see a hint box on the object and a description of available shortcut keys in the status bar, as shown in Figure 1.9 (though that example won't appear until you design a table, as discussed in Chapter 6).

FIGURE 1.9

Hint boxes and the status bar often provide further information about what to do next.



Searching Help

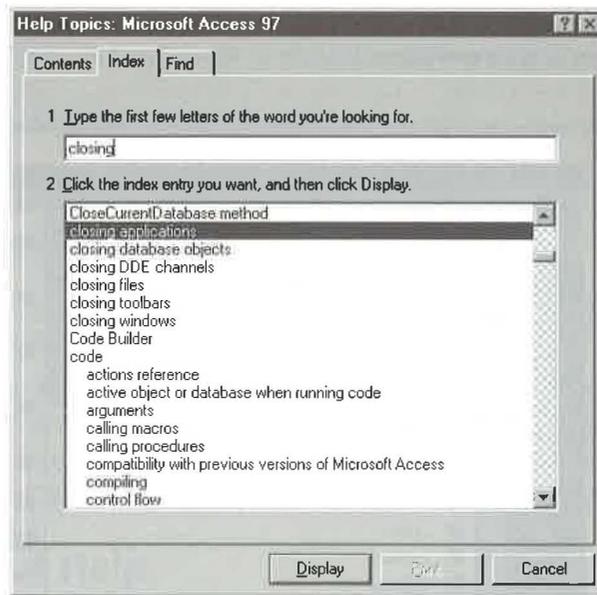
Like any good book, the Help system also has its own index. You can search the index for help with just about any topic. Here's how:

1. Go to the Help Topics window as explained earlier in this chapter and then click on the Index tab (or the Find tab). Figure 1.10 shows the Index tab's contents after we typed **closing** in the text box.
2. Type a word or select one from the list of topics. Search is not case sensitive. This step highlights the closest match to your entry in the list(s) below the text box.
3. Click on Display (or double-click on a topic).

Once a Help window opens, you can use any of the techniques described earlier to work with that window (see "Looking Up Information").

FIGURE 1.10

The Index tab after we typed *closing* in the text box.



Asking the Office Assistant

The Office Assistant enables you to search for information by typing in a few words. The more specific your words are, the more specific the suggested topics will be. But you don't have to worry about matching a topic name exactly because the Office Assistant is pretty forgiving and even quite smart.

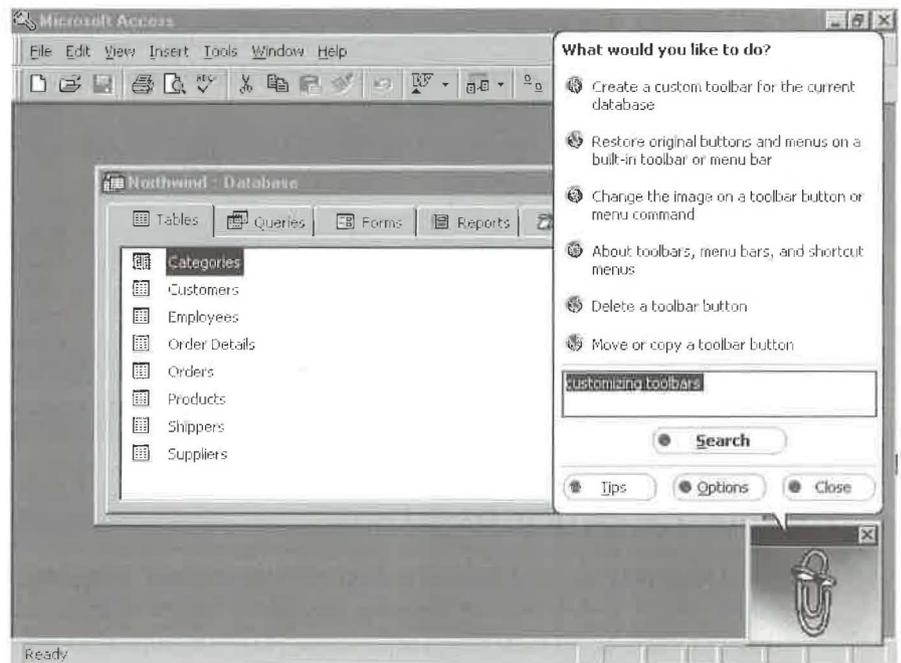
To use the Office Assistant, choose Help ► Microsoft Access Help from the Access menu bar, press F1, or click on the Office Assistant button on the toolbar (see Figure 1.11). The assistant appears as an animated paper clip, but you can choose from several other graphics. Just click the Options button in the yellow bubble for the assistant and click on the Gallery tab. Besides choosing the appearance of the assistant, you can change its behavior. Click on the Options tab in the Office Assistant dialog box, make your selections, and click on OK.

To get help from the Office Assistant, first open the assistant if it's not already visible on the desktop. If you don't see a yellow bubble with a Search button, click anywhere on the assistant, then type a few words describing what you want to do in the box under *What would you like to do?*, and press Enter or click on the Search button. When the list of related topics appears, click on the topic you're interested in to open the corresponding Help entry.

In Figure 1.11, we typed **customizing toolbars** and pressed Enter. The Office Assistant ignores extraneous words, such as *how do I fix*, and focuses on the important keywords, such as *toolbar* and *customizing*. It then displays a list of topics that seem to answer your question.

FIGURE 1.11

The Office Assistant showing Help topics on customizing toolbars.



Asking “What Is This Thing?”

Another way to get quick information is to use “What’s This?” Help. This type of help explains the function of menu command, button, or dialog box option.



1. Press Shift+F1 or click on the Help toolbar button (shown at left). If you’re in a dialog box, click on the ? button in the upper-right corner of the dialog box. The mouse pointer changes to a combination arrow and question mark.
2. Click on a button on the toolbar or select commands from the menus or click on a place in the dialog box to get help with that particular item.

If you change your mind about using What’s This? Help before choosing a topic, press Esc or Shift+F1, or click on the Help or ? button again, to return to the normal mouse pointer.

Here are some other ways to get What’s This? Help:

- In a dialog box, right-click on the option name or button you’re curious about and choose What’s This?
- In a dialog box, click on or tab to the place you want help with and then press Shift+F1 or F1.
- In the menus highlight the option you want help with and then press Shift+F1 or F1.

Version Number, System Information, Technical Support

Do you need to check the version of Access you’re using to see how much memory and disk space are available or to find out how to get technical support? It’s easy:

1. Choose Help ► About Microsoft Access to open the About Microsoft dialog box.
2. Click on the System Info button (for information about your system resources) or click on Tech Support (for details about getting help from humans).
3. Click on the Close and OK buttons (or press Esc) as needed to return to Access.

Getting Out of Help

You can get out of Help in many ways, but the easiest is simply to make sure the Help window is active (click on the window or its Taskbar button if you need to) and then press Esc as needed.

**NOTE**

In addition to the online Help described in this chapter, Microsoft offers many other sources of help for Microsoft Access, Microsoft Office, and other Microsoft products. See Chapter 4 for information about these additional resources.

Exiting Microsoft Access 97

When you're done using Access, you should return to Windows before shutting down and turning off your computer. You can exit from Microsoft Access using the technique you'd use with other Windows programs:

1. Go to the database window or to the main Microsoft Access window.
2. Choose File ► Exit or click on the Close button in the upper-right corner of the Microsoft Access window or press Alt+F4.

**TIP**

To exit Access when Access is minimized, right-click on the Microsoft Access button on the Windows Taskbar and then choose Close.

You'll be returned to Windows or to another open program window. If you want to shut down and turn off your computer now, exit any open programs normally and choose Start ► Shut Down from the Windows Taskbar. Next choose Shut Down The Computer? ► Yes and wait until Windows tells you it's safe to turn off the computer.

Where to Go from Here

Where you go from here depends on your past database experience.

- **If you're new to Access and to databases**, continue with Chapters 2 and 3.
- **If you're new to Access but know something about databases**, try the hands-on guided tour in Chapter 3.
- **If you're familiar with Access**, flip to the "What's New in the Access Zoo" section at the end of most chapters in this book, including this chapter. For another view of what's new, go the Help Topics dialog box (Help ► Contents and Index), click on the Contents tab, double-click on the *What's New* book, and then double-click on a What's New topic.

What's New in the Access Zoo?

Many features discussed in this chapter are new to Access 97, which include

- Menu commands that have equivalent toolbar buttons now include icons to help you learn toolbar shortcuts. Menu commands also appear as buttons when you point to them. Toolbars and menus are now combined into command bars with drop-down menus and buttons. The command bars share icons with other Office applications. You can position toolbars and the menu bar to float anywhere on the desktop or docked on any side.
- The Office Assistant is a new animated Help tool that offers suggestions for completing database tasks. You can choose from a variety of assistants including an Einstein-like genius, a spinning Office logo, and "Mother Nature."