

Creating Simple Forms in Access

So far, you've learned how to create tables that house your data, queries that search it, and reports that prepare it for printing. But your actual database users (whether that's you or someone else) will spend most of their time on an entirely different job: daily database upkeep.

Database upkeep includes reviewing, editing, and inserting information. Real databases go through this process continuously. In a typical day, the staff at Cacophoné Studios adds new students, the customer service department at Boutique Fudge places new orders, and the Gothic Wedding planners tweak the seating arrangements. Bobbleheads are bought, addresses are changed, purchases are logged, test scores are recorded, and your data grows and evolves.

You can perform your daily upkeep using the datasheet, but that isn't the easiest approach. Although the datasheet packs a lot of information into a small space, it's often awkward to use, and it's intimidating to Access newcomers. The solution is *forms*: specialized database objects that make it easier for anyone to review and edit the information in a table.

Note: Remember, if you're using Access in a business environment, different people probably use your database. You may create it, but others need to be able to use it to perform a variety of tasks—usually data entry and searches. These other folks may not be as Access-savvy as you are.

Creating Forms

As with reports, Access gives you an easy and a more advanced way to construct a form. The easy way creates a readymade form based on a table or query. Keen eyes will notice that this process unfolds in more or less the same way as when you automatically generate a simple report (see Appendix D).

Here's how it works:

1. In the navigation pane, select the table or query you want to use to generate the form.

Try the Products table from the Boutique Fudge database.

2. Choose Create→Forms→Form.

A new tab appears, with your form in Layout view. The simple form shows one record at a time, with each field on a separate line (Figure E-1).

When you first create a form, Access arranges the fields from top to bottom in the same order in which they're defined in the table. It doesn't make any difference if you've rearranged the columns in the datasheet. However, Access leaves any columns you've hidden in the datasheet (page 765) out of the form.

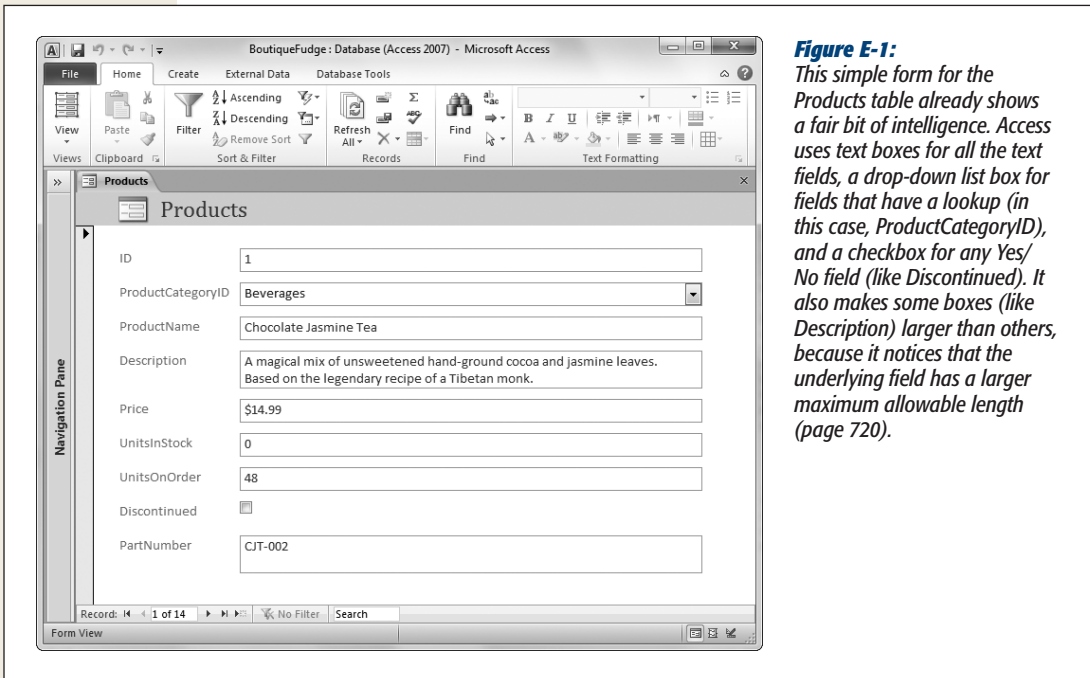


Figure E-1:

This simple form for the Products table already shows a fair bit of intelligence. Access uses text boxes for all the text fields, a drop-down list box for fields that have a lookup (in this case, ProductCategoryID), and a checkbox for any Yes/No field (like Discontinued). It also makes some boxes (like Description) larger than others, because it notices that the underlying field has a larger maximum allowable length (page 720).

UP TO SPEED

Form Facts

A number of factors influence Access and affect the way it creates a simple form for a table. Here are the most important:

- **Field size.** Access sizes text boxes based on the amount of data it expects the field to contain. If you don't reduce the Field Size property of your fields (page 720), your form will end up with huge text boxes that waste valuable space. To reclaim the extra room, you have to resize the text boxes by hand.
- **Linked tables.** If you create a form for a parent table that's linked to a child table, you end up with a special type of form that shows related records. For example, if you create a form for the Categories table (a parent of the Products table), your form shows all the category fields, as you would expect, and a grid that lists the linked product records in each category.

- **Field count.** If your table has lots of information, then Access may decide to create more than one column in your form (Figure E-2). Interestingly, this decision actually depends on two details: the number of fields in your table *and* the current size of the Access window. So if you've resized the Access window to a relatively small stature, you're more likely to get additional columns.

Once the form layout is set, it stays the same unless you take control and start moving things around. For example, if you change the Field Size of a field after you generate a form, the size of the existing text box remains unchanged. Similarly, if you generate a form while the Access window is small, you get several scrunched-up columns of fields. These columns don't change if you make the Access window bigger.

The screenshot shows an Access form window titled 'CustomerBrowser' with a sub-header 'Customers'. The form contains the following fields arranged in two columns:

ID:	3	PostalCode:	80901
FirstName:	Patrick	PhoneNumber:	412-123-4445
LastName:	Persuasion	EmailAddress:	ppersuasion@hyperinc.com
Street:	26 Destiny Cr	Notes:	A potential problem customer.
City:	New Hope		
State:	Colorado		
Country:	U.S.A.		

At the bottom of the form, there is a status bar showing 'Record: 1 of 11', a search box, and a 'No Filter' indicator.

Figure E-2:
In this form for the Customers table, Access can't fit all the fields using the ordinary one-field-per-line arrangement. Instead, it adds a second column.

3. Arrange the fields in the order you want by dragging them around.

Although a simple form doesn't look like the simple reports you learned about back in Appendix D, you can actually work with it in much the same way. One of the easiest ways to tailor your form is to drag fields from one place to another (Figure E-3).

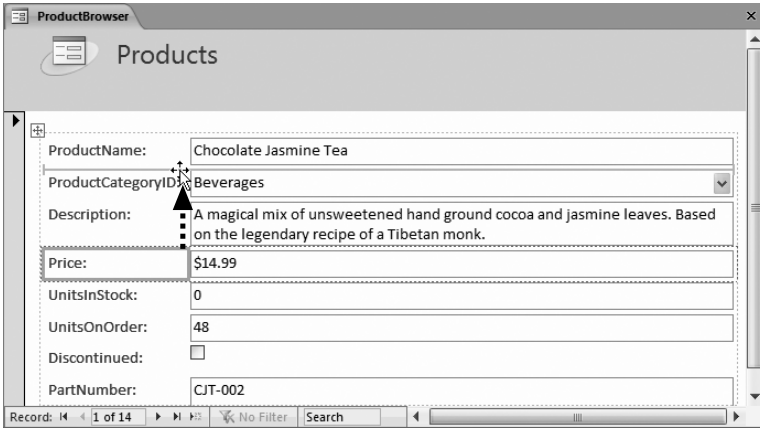


Figure E-3: Usually, you want to move both the field header and the field data at the same time. To keep them together, press **Ctrl** as you click both parts, one after the other. You can then drag the field to its new position. In this example, the Price field is being relocated to the top of the form, just under the ProductName field. Access bumps all the other fields down the page to make room.

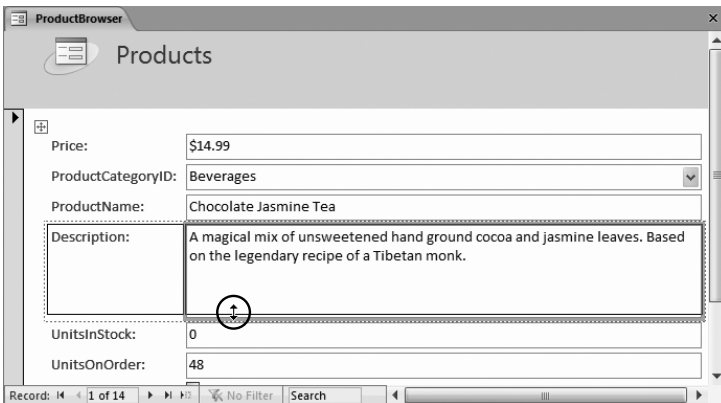


Figure E-4: Here, the Description field is being heightened to fit more lines of text at a time. You can also make a field wider or narrower, but there's a catch—when you do so, it affects the entire column. In this report for the Products table, every field always has the same width.

Tip: You can add or remove fields in a form in the same way you do with a report. If the Field List pane isn't open, then choose **Form Layout Tools | Design**→**Tools**→**Add Existing Fields**. Then, drag the field you want from the Field List pane onto the form. To remove a field, click to select it on the form, and then press **Delete**. However, keep in mind that people often use forms to add records, and if you want to preserve that ability, you need to make sure your form includes all the required fields for the table.

4. Change your columns' widths.

When you create a new form in Layout view, Access makes all the fields quite wide. Usually, you'll want to shrink them down to make your form more compact. It's also hard to read long lines of text, so you can show large amounts of information better in a narrower, taller text box.

To do so, just click to select the appropriate field; a yellow rectangle appears around it. Then, drag one of the edges. Figure E-4 shows this process in action.

5. Optionally, you can double-click a field header to edit its text.

This option lets you change ProductCategoryID to just Category.

6. Optionally, you can tweak the formatting to make the form more attractive, by changing fonts and colors.

You can most quickly change the formatting of your form by selecting the appropriate part (by clicking), and then using the buttons in the ribbon's Form Layout Tools | Format→Font section. You can also use the Form Layout Tools | Format→Number section to adjust the way Access shows numeric values. You learned about all your formatting options on page 19 of Appendix D when you built basic reports. You can also use themes to quickly change the font of every control on your form, and the color of the title region. Just choose from the Form Layout Tools | Design→Themes section (which has the same theme settings you used with reports in Appendix D).

Often, you'll want to format specific fields differently to make important information stand out. You can also format the title, header section, and form background. Figure E-5 shows an example of judicious field formatting.

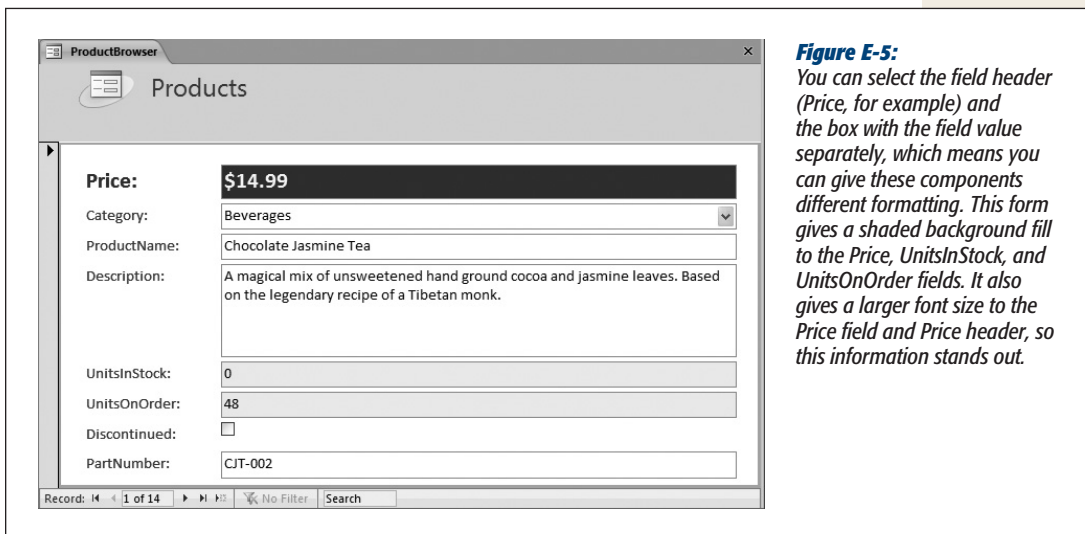


Figure E-5: You can select the field header (Price, for example) and the box with the field value separately, which means you can give these components different formatting. This form gives a shaded background fill to the Price, UnitsInStock, and UnitsOnOrder fields. It also gives a larger font size to the Price field and Price header, so this information stands out.

Tip: To select more than one part of a form at once, hold down Ctrl while you click. This trick lets you apply the same formatting to several places at once.

7. Save your form.

You can save your form at any time by choosing File→Save. Or, if you close the form without saving it, Access prompts you to save it at that time.

Using AutoNumber Fields in Forms

As you already know, the best way to uniquely identify each record in a table is with an AutoNumber field (page 736). When you insert a record into a table that has an AutoNumber field, Access automatically fills in a value for that field. All the tables you'll see in this book include a field named ID that uses the AutoNumber data type.

Only Access can set an AutoNumber field. For that reason, you may not want to show it in your forms. (If you decide not to show it, just select it in Layout view and then press Delete.) However, there are some reasons that you might actually want to keep the AutoNumber field on display:

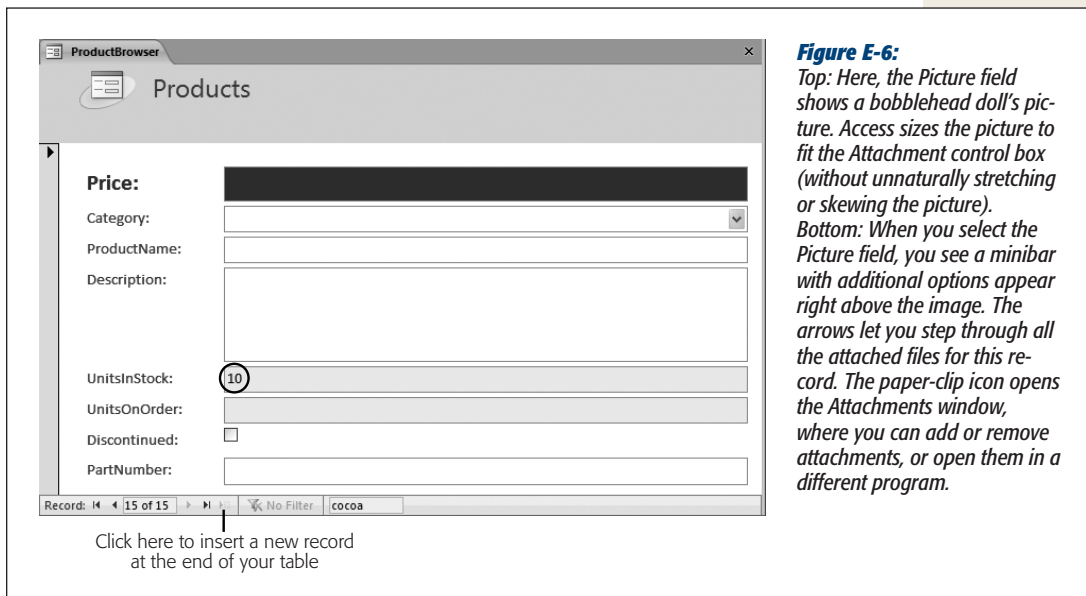
- **You use the AutoNumber field on some type of paperwork.** Cacophoné Studios puts each student's ID number on their registration papers. When you need to look up the student record later on, it's easier to use the ID number than search by name.
- **You use the AutoNumber field as a tracking value or confirmation number.** After you enter a new order record in the Boutique Fudge database, you can record the order record's ID number. The next time you have a question about the order (has it shipped?), you can use the ID number to look it up.

Depending on how you use the ID number, you may choose to place it at the bottom of the form rather than in its usual position at the top. That approach avoids confusion. (It's less likely that people will try to type in their own ID numbers when they create new records.)

Showing Pictures from a Table

As you learned in Chapter 26, you can store a picture file as part of a record by using the Attachment data type. Forms handle attachments gracefully using the *Attachment control*. The Attachment control has one truly useful perk—it shows picture content directly on your form.

Here's how it works. If your attachment field stores a picture, then that picture appears in the Attachment control box so you can admire it right on your form. This behavior is a great improvement over the datasheet, which forces you to open the picture file in another program to check it out. Even better, if the attachment field stores more than one picture, then you can use the arrows on the handy pop-up minibar to move from one image to the next, as shown in Figure E-6.



As you know, attachment fields can store any type of file. If you're not storing a picture, then the Attachment control isn't nearly as useful. All you see is an icon for the program that owns that file type. If your attachment field contains a Word document, then you see a Word icon. If it contains a text document, then you see a Notepad icon, and so on. If your attachment fields don't include pictures, you may as well resize the box for the Attachment control so that it's just large enough to display the file type icon. There's no reason to make it any bigger, because the rest of the space will be wasted.

Using Forms

Now that you've created your first form, it's time to take it for a test spin. For that you need to leave behind Layout view and switch over to Form view.

Note: When you open a form by double-clicking it in the navigation pane, it opens in Form view. If you don't want this view, then right-click your form in the navigation pane, and choose Layout View or Design View to start out in a different view.

To try out the form you created, switch it to Form view if you're not already there. Just right-click the tab title, and choose Form View.

In Form view, you can perform all the same tasks you performed in the datasheet when you worked with a table. With a simple form, the key difference is that you see only one record at a time.

Most people find forms much more intuitive than the datasheet grid. The following sections give a quick overview of how you can use Form view to perform some common tasks.

Finding and Editing a Record

Rare is the record that never changes. Depending on the type of data you're storing, most of your work in Form view may consist of hunting down a specific record and making modifications. You may need to ratchet up the price of a product, change the address details of an itinerant customer, or reschedule a class.

Before you can make any of these changes, you need to find the right record. In Form view, you have four ways to get to the record you need. The first three of these methods use the navigation controls that appear at the bottom of the form window.

- **By navigating.** If your table is relatively small, then the fastest way to get going is to click the arrow buttons to move from one record to the next. Page 768 has a button-by-button breakdown.
- **By position.** If you know exactly where your record is, then you can type in the number that represents the position (for example, *100* for the 100th record), and then press Enter. If you don't get exactly where you want, then you can also use the navigation buttons to move to a nearby record.
- **By searching.** The quick search feature finds a record with a specific piece of text (or numeric value) in one of its fields. To use quick search, type the text you want to find in the search box, as shown in Figure E-7. If you want a search that examines a specific field or gives you additional options, then use the Home→Find→Find command, which is described on page 776.
- **By filtering.** Using filtering, you can narrow down the displayed records to a small set. Filtering's best-kept secret is that you can use a feature called *filter by form* to quickly hunt down a single record. You saw how that worked on page 771.

Once you've found the record you want to change, you can edit it in the same way you would in the datasheet. If you make a change that breaks a rule (like typing the text *Exasperated Bananas* in a date field), then you get the familiar error messages.

Access commits any change you make as soon as you move to another record or field. To back out of a change, press Esc before you move on. When you do, the original value reappears in the cell, and Access tosses out your changes. And if you do commit a change by accident, then you can use the Undo button in the Quick Access toolbar (above the ribbon), or press Ctrl+Z, to reverse it.

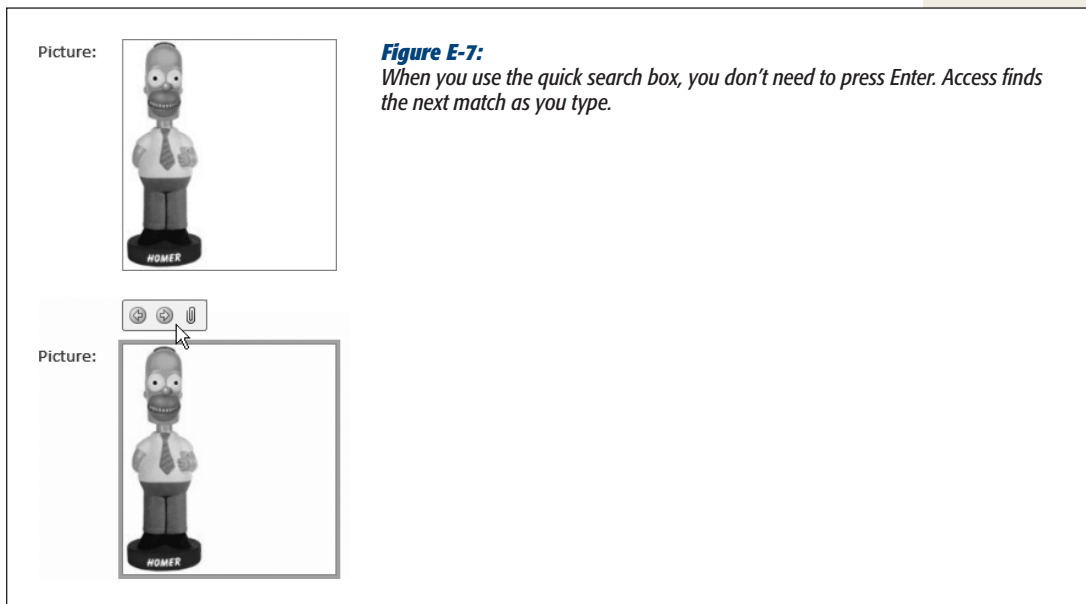


Figure E-7:

When you use the quick search box, you don't need to press Enter. Access finds the next match as you type.

Adding a Record

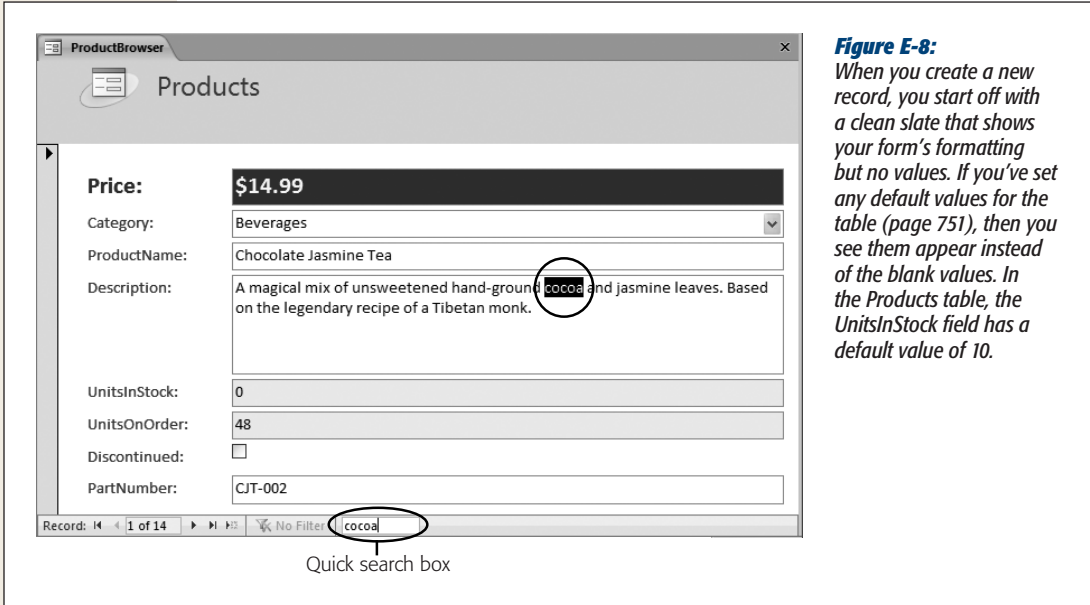
As you already know, you add a new record in Datasheet view by scrolling to the very bottom of the table, and typing just underneath the last row. In Form view, the concept is similar—scroll to the very end of your table, just past the last record.

You'll know you've reached the magic ready-to-add-a-record spot when all the fields in your form are blank (Figure E-8). To save yourself the scrolling trip, use the New Record button at the bottom of the form.

If you've decided that you don't want to add a new record after all, then press Esc twice. The first time you press Esc, Access wipes out the value in the current field.

The second time, Access removes all the other values you entered. Now that your form has been restored to its original emptiness, you can safely scroll off to another record.

If you scroll away from your new record while there's still some data left in it, then Access creates the new record and adds it to the table. You can't reverse this action. If you want to get rid of a newly created record, then you need to delete it, as described in the next section.



Deleting a Record

When you find a record that shouldn't exist, you can wipe it out in seconds. The easiest way to delete the current record is to choose Home→Records→Delete. But you have another option. You can select the whole record by clicking the margin on the form window's left side. Then you can liquidate it by pressing Delete.

No matter what approach you use, Access asks you for confirmation before it removes a record. You can't recover deleted records, so tread carefully.

Printing Records

Here's a little-known secret about forms: You can use them to create a quick printout. To do so, open your form, and then choose File→Print→Print. The familiar Print dialog box appears, where you can choose your printer and the number of copies you want.

When you print a form, Access prints *all* the records, one after the other. If you want to print just the current record, then, in the Print dialog box, choose the Selected Records option before you click OK.

You can also use File→Print→Print Preview to check out the result before you send it to the printer (Figure E-9). Click Print Preview→Close Preview→Close Print Preview to return to your form.

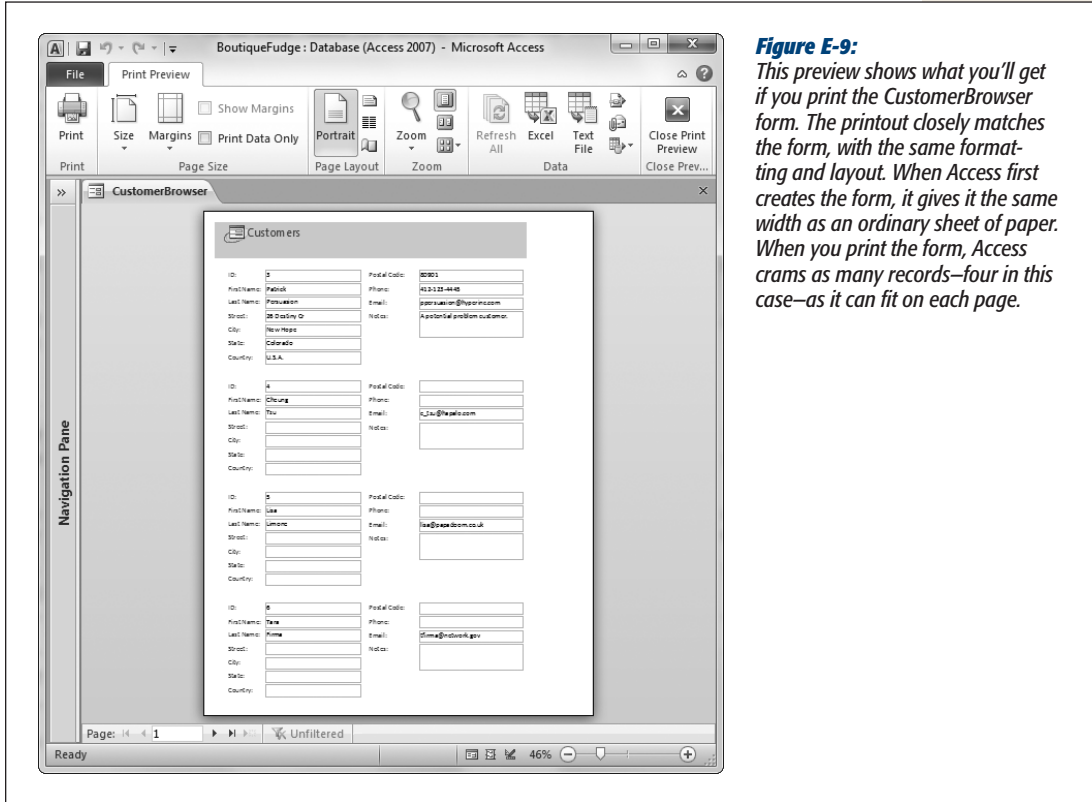


Figure E-9: This preview shows what you'll get if you print the CustomerBrowser form. The printout closely matches the form, with the same formatting and layout. When Access first creates the form, it gives it the same width as an ordinary sheet of paper. When you print the form, Access crams as many records—four in this case—as it can fit on each page.

Although you might be tempted to use forms as a convenient way to create snazzy printouts, you'll always get more features and better control if you use reports.

Sorting and Filtering in a Form

Sorting and filtering are two indispensable features that Access gives you with Form view. Learning how to use them could hardly be easier—in fact, you already learned everything you need to know when you tackled the datasheet in Chapter 27. The creators of Access took great care to ensure that filtering and sorting work the same in forms as they do in the datasheet. You use the same commands, on the same part of the ribbon, to put them into action.

Sorting a Form

As you've probably realized by now, forms show your data in raw, unsorted order. So records appear in the order you created them. (The only exception is if you create a form that gets its data from a query, and that query uses sorting.)

Fortunately, sorting is easy. In fact, you can sort the records that are shown in a form in exactly the same way you sort records in a datasheet. Choose the field you want to use for sorting, right-click it, and then choose one of the sorting options. In a text-based field, you'll see the sorting choices "Sort A to Z" (for an alphabetical sort) and "Sort Z to A" (for a reverse-alphabetical sort). You can also use the Ascending and Descending buttons on the ribbon's Home→Sort & Filter section.

Filtering a Form

Filtering is a feature that lets you cut down the total number of records so you see only those that interest you. Filtering can pick out active customers, in-stock products, expensive orders, and other groups of records based on specific criteria.

In a form, you have the following filtering choices:

- **Quick filter** shows you a list of all the values for a particular field and lets you choose which ones you want to hide. It's easy to use, but potentially time-consuming. If you want to hide numeric values that fall into a certain range, then you'll get the job done much faster with the "filter by condition" approach (as described later). To show the list of quick filter values, move to the field you want to filter, and then click Home→Sort & Filter→Filter. Page 772 has full details about quick filters.
- **Filter by selection** applies a filter based on an existing value. First, find the value in one of the records, right-click it, and then choose a filter option. You can right-click a price value of \$25, and then choose "Greater Than or Equal to 25" to hide low-cost items.
- **Filter by condition** lets you define the exact criteria you want to use to filter records. You don't need to base it on an existing value. To add this sort of filter, right-click the field and then look for a submenu with filtering options. This menu item is named according to the data, so text fields include a Text Filters option, number fields have a Number Filters option, and so on.
- **Advanced filters** are filters that you design using a window that looks just like the query designer. The advantage of advanced filters is that you can apply filters on more than one field in a single step. To create a set of advanced filters, choose Home→Sort & Filter→Advanced→Advanced Filter/Sort.

Note: If you insert a new record that doesn't match the currently active filter conditions, your new record disappears from sight as soon as you add it. To get it back, remove the filter settings using the ribbon: Select the Home tab, click the Advanced button in the Sort & Filter chunk, and then choose Clear All Filters. Or, use the Toggle Filter button to temporarily suspend your filter settings (and click Toggle Filter later to get them back).

Using the Filter by Form Feature

One other filtering technique works with forms: *filter by form*. Essentially, “filter by form” transforms your form into a full-fledged search form. Using this search form, you supply one or more criteria. Then you apply the filter to see the matching record (or records).

Although you can use “filter by form” with the datasheet, it really shines with forms. “Filter by form” is particularly useful for searching out a single hard-to-find record. (If you want to use filtering to pull out a whole group of records, one of the other filtering options is generally easier.)

Here’s how to use the “filter by form” feature:

- 1. Choose Home→Sort & Filter→Advanced→Filter By Form.**

Access changes your form to Search mode. In Search mode, your form looks exactly the same, except all the fields are blank.

If you’ve already used the “filter by form” feature and you’re returning to change the filter settings, then you should start by clearing the previous set of filters. To do so, right-click a blank spot on the form surface, and then choose Clear Grid.

- 2. Move to the field you want to use for filtering.**

A drop-down arrow appears in the field.

- 3. Click the drop-down arrow, and then choose the value you want to include in your results.**

The drop-down list shows all the values from the different records in the table (Figure E-10). When you choose one, it appears in the field box in quotation marks.

- 4. If you want to apply a filter to more than one field, then return to step 2.**

Use multiple filter conditions if a single filter condition may result in more matches than you want. If you don’t remember a customer’s last name, you could apply a FirstName filter. But if that customer has a common first name, then you may also want to apply a filter on another field, like City.

If you don’t want to use exact matches, then you can write in more complex filters using an expression. Use <10 to find numeric values under 10, and *Like Jon** to find text values like “Jones,” “Jonathon,” and “Jonson.” Filtering is particularly useful with date fields. “Building filter expressions” has the full scoop on filtering expressions.

- 5. If you want to perform more than one filtering operation and combine the results, then click the Or tab and fill out more filter settings (Figure E-11).**

If you fill out your first search form so that it matches the LastName “Gorfinkel”, and the second search form to match the FirstName “Jehosophat”, your results will include all the records that have the last name Gorfinkel *and* all those that have the first name Jehosophat. However, if you put both those filter conditions on the same search form, your matches include only people named Jehosophat Gorfinkel.

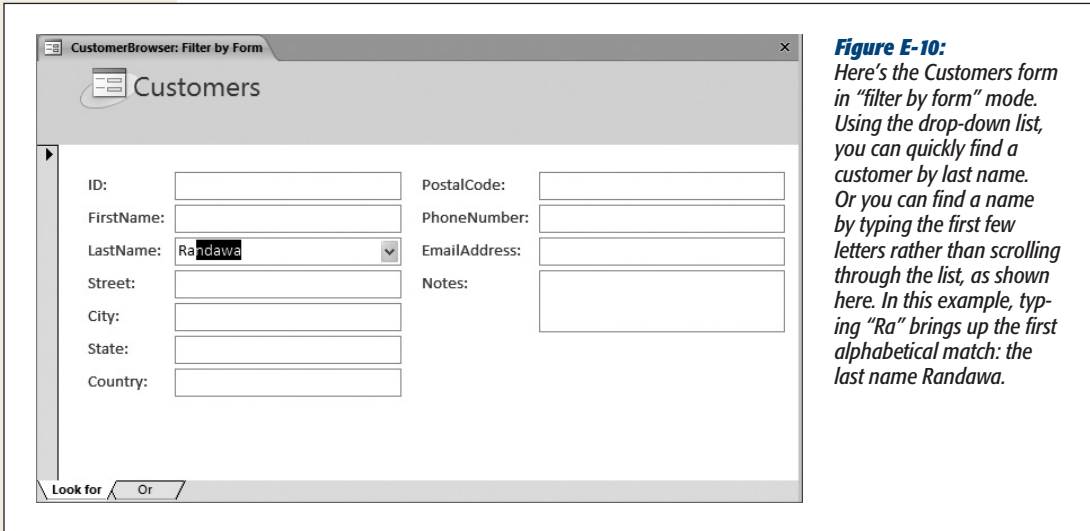


Figure E-10:
Here's the Customers form in "filter by form" mode. Using the drop-down list, you can quickly find a customer by last name. Or you can find a name by typing the first few letters rather than scrolling through the list, as shown here. In this example, typing "Ra" brings up the first alphabetical match: the last name Randawa.

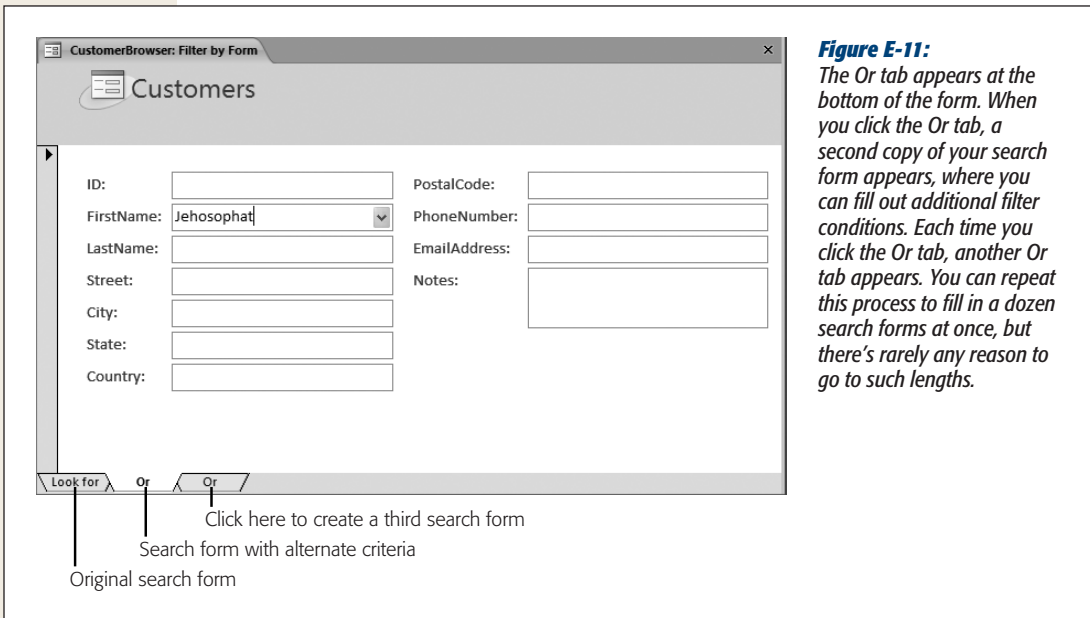


Figure E-11:
The Or tab appears at the bottom of the form. When you click the Or tab, a second copy of your search form appears, where you can fill out additional filter conditions. Each time you click the Or tab, another Or tab appears. You can repeat this process to fill in a dozen search forms at once, but there's rarely any reason to go to such lengths.

6. Right-click a blank spot on the form surface, and then choose Apply Filter/Sort.

Access switches back to your normal form and then applies the filter settings. At the bottom of the form, between the navigation buttons and the search box, you see the word “Filtered” appear to let you know that you aren’t seeing all the records.

If you decide not to apply the filter settings, just close the search form. Access switches back to your normal form, but doesn’t apply any filtering.

Tip: To remove your filter settings but keep them handy for later use, choose Home→Sort & Filter→Toggle Filter. To reapply the filter settings later on, click Toggle Filter a second time. Access stores the most recent filter settings with your form, so they’re always available.

Saving Filters for the Future

One of form filtering’s limitations is that Access remembers only your most recent set of filters. If you’ve perfected a complex filter expression that you want to reuse later, this quality is a problem. As soon as you apply a different filter, you’ll lose all your hard work.

Fortunately, you have several solutions to this dilemma. One option is to create a whole new query that performs the filtering and to use that query in a whole new form. This choice is a good one if you want to use your filter criteria to perform a specific task, and you also want to customize the way the form works or the way it displays its data.

On the other hand, if you don’t plan to use your filtering settings very often, but just want to have them on hand for the next time you need them (or if you need to store dozens of different filter settings, and don’t want to be stuck with dozens of nearly identical forms), there’s a better option. You can save your filter settings as a query in your database. Then, when you want them back, you can load them up and apply them to your form.

Here’s how to pull this trick off:

1. Apply your filters.

Use any of the techniques described on page 12 of this appendix.

2. Choose Home→Sort & Filter→Advanced→Advanced Filter/Sort.

This action opens a query window. This query uses the same data source (table or query) as your form, and it applies your filtering using the Criteria box under the appropriate field (see page 6 of Appendix C). You don’t need to make any changes in the query window because Access automatically fills in the Criteria box (or boxes) based on the current filter settings.

3. Choose Home→Sort & Filter→Advanced→Save as Query. Supply a name for this query, and then click OK.

Although you can use this query like a normal query, you probably won't. To prevent confusion, use a different type of name, like CustomerBrowser_Filter, that clearly indicates this query is designed for form filtering.

The next time you want to retrieve your filter settings and reapply them, open your form and follow these steps:

1. Choose Home→Sort & Filter→Advanced→Advanced Filter/Sort.

This action shows the query window.

2. Choose Home→Sort & Filter→Advanced→Load From Query.

Access shows all the queries that use the same table and don't involve joins.

3. Pick the filter query you created earlier, and then click OK.

The filter settings for that query appear in the query window.

4. Right-click anywhere on the blank space in the query window, and then choose Apply Filter/Sort to put your filter settings into effect.

Tip: You can use this trick to apply the same filter expression to *different* forms, as long as these forms include the fields you want to filter. (You can use the filter settings that you created for the CustomerBrowser form to filter another form that shows a list of customers, but not a form that shows products.)
