

Forms

In this chapter you will learn:

- How to Modify a form's labels and Text Box controls
- How to Use List Box and Combo Box controls
- How to Place a calculated control on a form
- How to Place a Check Box control on a form
- How to Use special Combo Box controls
- How to Place an Option Button control on a form
- How to Create a form with a subform
- How to Print a form
- How to Document a form

Case: What SUP, Inc.

Nathan and Meagan are now ready to expand the use of forms in their rapidly expanding database. They recall that forms have a variety of purposes. Previously they created a form to capture additional information about their products. Now Kyle suggests they create a form with more features.

Kyle tells them that they can add functionality to forms with such features as calculated controls, check boxes, option buttons, list boxes, combo boxes, and subforms.

“Once again this sounds like more than we need!” Nathan exclaims.

“Don't panic,” says Meagan. “Kyle seems to know just how much of this stuff we can take. Give him a chance.”

Kyle thanks Meagan for her confidence and convinces them that, in the long run, using forms in their database will allow them to use their product database more efficiently and to improve the integrity of the data input.

Labels and Text Box controls

In this section you will become familiar with the steps necessary to modify a form's labels and text box controls. Forms are often created using the Forms Wizard, but once created they often need to be customized. Customization includes moving controls and labels and resizing the form itself.

Kyle suggests that you modify a form that was previously created using the Forms Wizard. This would yield a form more like the one Nathan used to keep on each supplier.

“That would be helpful,” Nathan comments. “I feel more comfortable using an electronic version of a form I’ve already worked with on paper.”

Kyle explains that the purpose of this exercise is to become familiar with the process for moving controls around a form.

To modify the Suppliers form:

- 1 Start Access.
- 2 Click the **File** tab and then click **Open**.
- 3 Navigate the Open window to the location of this text’s student files. (The location would be the CD provided with text or from your computer lab’s server.)
- 4 Double-click **ch12-01**, which should be located in a Ch 12 folder. (This is a modified version of the completed What SUP Inventory file from previous chapters. Do *not* use the file you completed in the previous chapter.)
- 5 Click the **File** tab and then click **Save Database As**.
- 6 Navigate the Save As window to the location you wish to save this file and type **Ch12-01_student_name** in the File Name: text box (replacing student_name with your name).
- 7 Click **Save**.
- 8 Double-click **Supplier** to view the form shown in Figure 12.1.

ID	Supplier	Contact	Title	
	Boardworks	Ben Nimitz	VP Sales	
	Address	City	Zip	ST
	100 8th Ave.	New York	10035	NY
	Country	Phone	Fax	First Purchase
	USA	212-555-1354	212-555-6874	1/1/2015

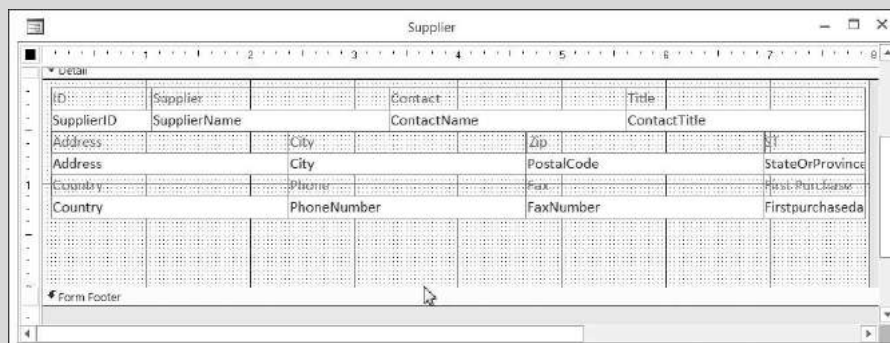
Figure 12.1

Existing Supplier Form

- 9 Click **View** and then click **Design View**.
- 10 Click and hold in the lower right corner of the Supplier form to reveal the dragging tool, then move the window down and to the right to reveal the Form Footer. The process will expand the size of the Form Design view window so that you can manipulate all the objects on the form.

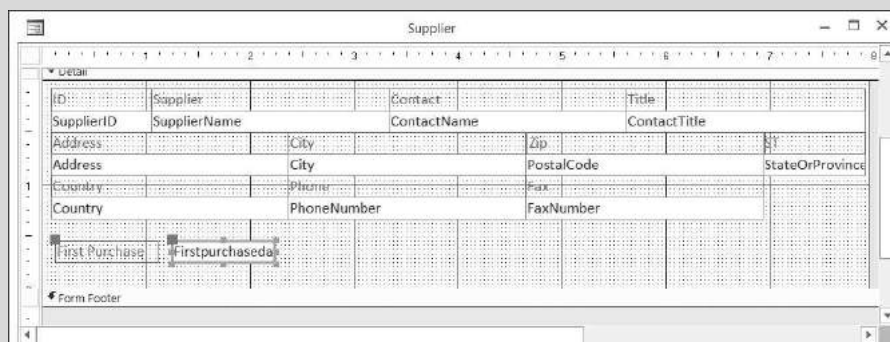
- 11 Click the top portion of the Form Footer and drag down to expand the size of the form and make space available to move controls around, as shown in Figure 12.2.

Figure 12.2
Increasing the Size of
the Form



- 12 Click in the upper left-hand corner of the **First Purchase** label and drag the label to move it. Next click the upper left-hand corner of the **First Purchase** text box and drag it to move the view. Position the label and text box as shown in Figure 12.3.

Figure 12.3
Separating a Label
from a Control



- 13 Click in the ST label and change this label to read State. Select this label, click the **Home** tab, and then click the **Center** tool in the Text Formatting group.
- 14 Click the right center handle on the State label and drag it to the left to resize the label.
- 15 Click the top of the State label and then drag it to reposition it on the form.
- 16 Resize, reposition, and center the StateOrProvince text box using the same process used for the State label until your screen looks like Figure 12.4.
- 17 Click **View** to view the form in Form View. The form should look like Figure 12.5.
- 18 Click **File, Save As, Save Object As, and Save As** to save this new object.

Figure 12.4
Modified Supplier Form

Figure 12.5
Form View of Modified
Form

- 19** Type **Supplier A** as the new form name and then click **OK**.
- 20** Click the **Home** tab and then close the form.

“Modifying a form’s controls was fairly intuitive,” Meagan comments, “although it was a bit difficult to line up labels and text boxes so they were properly aligned.”

Kyle agrees and now suggests that you and Nathan explore the use of form controls—such as list and combo boxes—to help simplify the data entry process and improve the integrity of information captured in your database. He will also show you how to specify locations of controls more precisely.

List Box and Combo Box Controls

The form you just modified included a series of text box controls containing information such as a supplier’s name, address, and so on. These text boxes are referred to as a type of *form control*. You use text boxes on a form or report to display data from a record source. This type of text box is called a *bound* text box because it’s bound to data in a field. In this case, for example, the text box

control Supplier Name was bound to the field Supplier Name in the Supplier table. Text boxes can also be unbound. For example, you can create an unbound text box to display the results of a calculation or to accept input from a user. Data in an unbound text box isn't stored anywhere, but we will discuss unbound text boxes later.

Kyle explains that it's often quicker and easier to select a value from a list than to remember a value when using a form to enter new information, such as a new supplier. A list of choices also helps to ensure that the value entered in a field is correct. If you have enough room on your form to display the list at all times, you might want to use a list box. If you want to create a control that displays a list but requires less room than you would use a combo box, which provides the combined functionality of a list box and a text box.

"Which should we use, and when?" asks Meagan.

"Well, let's try something simple first, like modifying an existing text box control in our supplier form to a list box," answers Kyle.

List Box Control

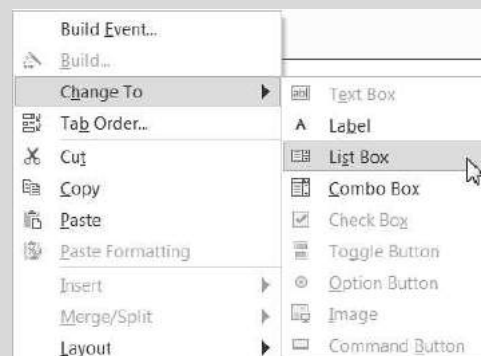
Kyle explains that modifying a control on a form simply requires changing the form control (from text to list) and creating the list of choices.

"Let's modify the Country text box control on our previously created supplier form to a list box control," suggests Kyle. "We will also add a new supplier from Canada."

To change the Country text box control to a list box control and add a new supplier:

- 1 Double-click the **Supplier A** form.
- 2 Click **View** and then click **Design View**. Move the First Purchase label and field to a location under the Fax label and field.
- 3 Right-click the **Country** text box control; then click **Change To** and click **List Box**, as shown in Figure 12.6.

Figure 12.6
Shortcut Menu to Transform a Text Box Control to a List Box Control



- 4 Right-click the **Country** list box control; then click **Properties**.

- In the Property Sheet for List Box: Country, click the **Data** tab, click **Value List** in the Row Source Type section, and then type **USA; CAN; UK** in the Row Source (see Figure 12.7).

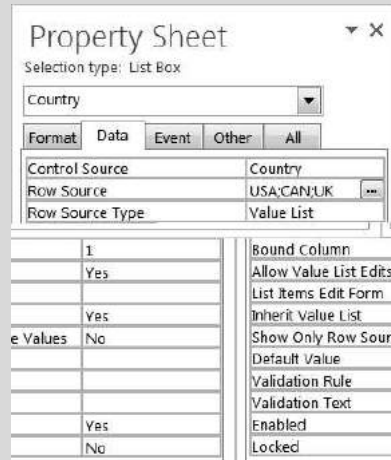


Figure 12.7

Modifying the Properties of the Country Control

- Close the Property Sheet window. The form should now look like Figure 12.8.

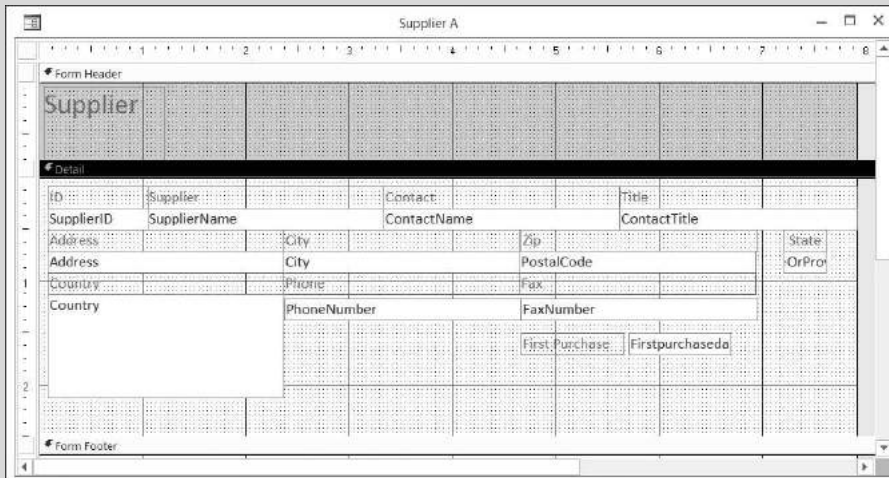


Figure 12.8

Modified Form with List Box Control for Country

- Click **View** and then click **Form View**.
- Enter a new supplier by clicking on the **New (blank) record** button located at the bottom of the form and then typing the information provided in Figure 12.9. Observe that, in order to specify the country for this new supplier, all you had to do was click **CAN**.
- Click **File, Save As, Save Object As, and Save As** to save this new object.
- Type **Supplier B** as the name of the new form and then click **OK**.
- Click the **Home** tab and then close the form.

Figure 12.9
New Record

ID	Supplier	Contact	Title	Address	City	Zip	State	Country	Phone	Fax	First Purchase
	Jimmy Lewis	Rex Thong	Sales Associate	23rd Ave W	Vancouver	S6H 2X1	BC	USA	(800) 555-9742	800-555-9745	9/1/2015
								CAN			
								UK			

You have now modified an existing form to include a list box control. Now Kyle suggests you look at the combo box control as an alternative.

Combo box Control

Once again, a combo box control is a control that is used on a form and provides the combined functionality of a list box and a text box. In this situation, someone entering a new supplier using the Supplier form can either type new information into a combo box control (like a text box control) or select from an existing list of information (like a list box control) without taking up much space.

Kyle suggests you try out a combo box control by changing the State text box control to a combo box control that lists the four most common states in which your suppliers reside.

To change the State text box control to a combo box control:

- 1** Double-click **Supplier B**.
- 2** Click **View** and then click **Design View**.
- 3** Right-click the **State Or Province** text box control; then click **Change To** and click **Combo Box**.
- 4** Increase the size of the StateOrProvince combo box control and related label slightly.
- 5** Right-click the **State Or Province** combo box control and then click **Properties**.
- 6** Click the **Data** tab.
- 7** Click **Value List** from the Row Source Type drop-down list.
- 8** Type **CA;NY;MA;NJ** in the Row Source section. The Properties Sheet should look like Figure 12.10.
- 9** Close the Properties window.

Property Sheet	
Selection type: Combo Box	
StateOrProvince	
Format Data Event Other All	
Control Source	StateOrProvince
Row Source	CA;NY;MA;NJ
Row Source Type	Value List
Bound Column	1
Limit To List	No
Allow Value List Edits	Yes
List Items Edit Form	
Inherit Value List	Yes
Show Only Row Source Values	No
Input Mask	
Default Value	
Validation Rule	
Validation Text	
Enabled	Yes
Locked	No
Auto Expand	Yes

Figure 12.10

Property Sheet for the State Combo Box Control

- 10 Click **View** and then click **Form View**.
- 11 Click the **Next Record** arrow in the lower left-hand corner of the Supplier form until you see record 7 supplier 8 Jimmy Lewis.
- 12 Click the drop-down arrow in the **State** control. Your screen should look like Figure 12.11. Note that the combo box shows four options (those that you just set up for that control). The state indicated, however, is BC, which is acceptable even though it is not one of the options you set up.

ID	Supplier	Contact	Title
8	Jimmy Lewis	Rex Thong	Sales Associate
Address	City	Zip	State
23rd Ave W	Vancouver	S6H 2X1	BC
Country	Phone	Fax	CA
USA	(800) 555-9742	800-555-9745	NY
CAN			MA
UK			NJ
		First Purchase	9/1/2015

Figure 12.11

State Combo Box Control

“What if I wanted to move the State control to the left and the Zip control to the right. Would that change the order in which I tab through the controls?” Nathan asks.

“Actually no. Moving controls doesn’t change tab order. However, there is a way to do both,” Kyle explains. “Let me show you.”

To move controls and change the tab order:

- 1 Click **View** and then click **Design View**. Move the Zip and State labels and fields so that State is next to City and is followed on the

right by Zip, and then make the Zip label and field smaller. Switch back to the Form view and click in the ID field. Then press the [Tab] key several times to work your way through the supplier form. Note that from the City field, tab moves you to the Zip field and then back to the State field. Switch back to the Design View.

- 2 Right-click anywhere in the Supplier B form and then click **Tab Order**.
- 3 Click the far left-hand side of the **State Or Province** control and move it up. Then move other fields so that your screen looks like Figure 12.12.

Figure 12.12
Changing the Tab Order



- 4 Click **OK** to save the changed tab order.
- 5 Click **View** and then click **Form View**.
- 6 Click the **New (blank) record** arrow.
- 7 Type **9** as the ID and then press [Tab] to move to the Supplier field.
- 8 Type **Rigid** as the supplier name and then press [Tab] to move to the next field.
- 9 Type **Rex Tander** as the supplier contact and then press [Tab] to move to the next field.
- 10 Type **Sales Associate** as the supplier title and then press [Tab] to move to the next field.
- 11 Type **253 Cabrillo Blvd.** as the supplier address and then press [Tab] to move to the next field.

- 12** Type **Santa Barbara** as the supplier city and then press [**Tab**] to move to the next field. (Note that this moves you to the State field since you changed the tab order.)
- 13** Select **CA** as the supplier state and then press [**Tab**] to move to the next field.
- 14** Type **93101** as the supplier zip and then press [**Tab**] to move to the next field.
- 15** Select **USA** as the supplier country and then press [**Tab**] to move to the next field.
- 16** Type **8055554127** as the supplier phone and then press [**Tab**] to move to the next field.
- 17** Type **8055554128** as the supplier fax and then press [**Tab**] to move to the next field.
- 18** Type **10/1/2015** as the supplier first purchase date and then press [**Tab**]. That last tab should have entered the new supplier and brought you to a new supplier form.
- 19** Click **File, Save As, Save Object As, and Save As** to save this new object.
- 20** Type **Supplier C** as the form name, click **OK**, click the **Home** tab, and then close the form.

You have now created a combo box control on a form to ease the creation of new supplier records, and you have found that it acts like both a text box and list box control. Now it is time to experiment with other features, such as calculated controls.

Calculated Controls

A calculated control uses an expression as its source of data. An *expression* is any combination of mathematical or logical operators, constants, functions, names of fields, controls, and properties that evaluate to a single value. For example, an expression can use data from a field in an underlying table, from a query of a form or report, or from another control on the form or report.

Bound controls obtain their data from fields in a table, whereas unbound controls don't have any particular data source other than an expression. Kyle explains that, in order to calculate the total cost invested in any particular product, Nathan would have to multiply the units on hand times the unit cost. He demonstrates that both the units on hand and the unit cost are already on the product form as bound controls `Quantity` and `UnitPrice`. However, creating a control on the form that calculates the total cost will require that Nathan create an unbound control (referred to in this case as a calculated control) to calculate the product of `Quantity` times `Unit Price`.

“Bound, unbound, I’m bound up just thinking about these,” Meagan complains. “Do we really have to understand this to create a useful form?”

“Well,” responds Kyle, “I think you’ll find them useful in many forms you might create and they are really not that difficult. Here, let me show you.”

To add a control to calculate the total cost in inventory of each item:

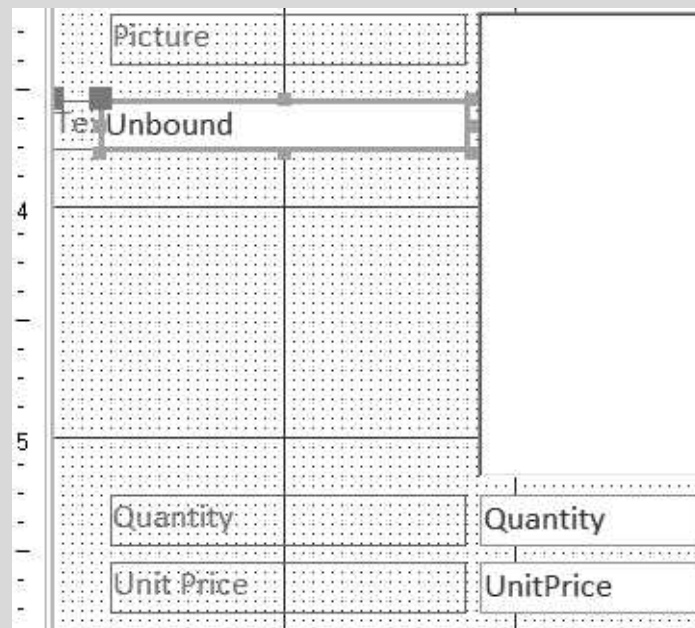
- 1 Double-click the **Products** form.
- 2 Click **View** and then click **Design View**.
- 3 Click the **Text Box** control from the Controls group on the Design tab of the Ribbon, as shown in Figure 12.13.

Figure 12.13
Form Design Tools on the Ribbon



- 4 Place the cursor in the product form under the Picture label click and then drag to the right and down while holding the left mouse button down, then release the left mouse button down to create a new text box control as shown in Figure 12.14.

Figure 12.14
Adding a New Text Box Control to the Products Form



- 5 Right-click the **Unit Cost** label control; then click **Properties**.

- 6 Click the **All** tab to view format properties for the Unit Price label control. A portion of the Format Properties window is shown in Figure 12.15.



Figure 12.15

A Portion of the Properties Window for the Unit Cost Label Control

- 7 Note the width, height, and left properties. (Width defines how wide the label should be, height defines how tall the label should be and the left defines how far from the margin the label should be.)
- 8 Click the newly created text box control and then click the newly created text box label control; note how the Property Sheet now reflects properties for the new text box label. (Be sure you select the label, not the text box.)
- 9 Click the **All** tab if it is not already selected.
- 10 Type **Total** as the name property of the new text box label.
- 11 Type **Total** as the caption property of the Total text box label.
- 12 Type **1.2083** as the width property.
- 13 Type **.2083** as the height property.
- 14 Type **3.5** as the top property.
- 15 Type **0.0417** as the left property. Your Properties window should look like Figure 12.16.

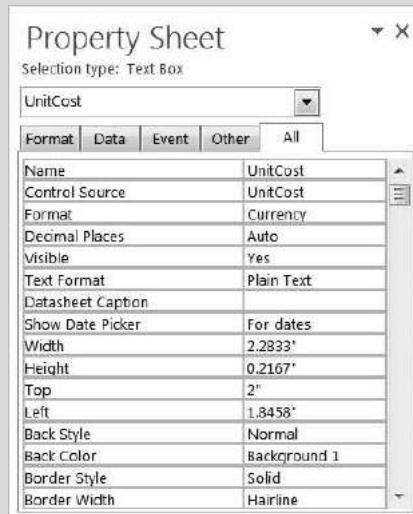


Figure 12.16

A Portion of the Properties Window of the Total Text Box

- 16** Click the **Unit Cost** text box. A portion of the Format Properties window for the unit price control is shown in Figure 12.17.

Figure 12.17
A Portion of the Properties Window for the Unit Price Control



- 17** Note the width, height, and left properties.
- 18** Click the **Unbound** text box control and observe that the Property Sheet now reflects properties for this text box control.
- 19** Type **Total Amount** in the Name box.
- 20** Type **=[Quantity]*[UnitCost]** in the Control Source box.
- 21** Select **Currency** as the format property.
- 22** Type **1.4583** as the width property.
- 23** Type **0.2083** as the height property.
- 24** Type **3.7917** as the top property.
- 25** Type **0.0417** as the left property. Your Properties window should now look like Figure 12.18.

Figure 12.18
A Portion of the Properties Window for the Total Amount Text Box



- 26** Close the Properties window.

- 27** Click **View** and then click **Form View**. The format seems a bit out of place. Move controls around the form (in Design View) so that your new form looks like Figure 12.19.

Figure 12.19

New Product Form with a Total Control

Trouble? If you did not type the expression exactly as specified, then you may end up with the message “#Name?” in the text box where you expected to see the \$1,400.00 total cost. Reexamine the Control Source section of the Properties window for the total text box to verify that you’ve typed the expression correctly.

- 28** Click **File**, **Save As**, **Save Object As**, and **Save As** to save this new object.
- 29** Type **Products A** as the new form name and then click **OK**.
- 30** Click the Home tab and then close the form.

You’ve now seen the process for creating a calculated control. Both Nathan and Meagan seem more comfortable with the terms and processes and are anxious to know if there are any other useful controls available in Access.

Check Box Control

When implemented on a form, the check box control gives the user the choice of activating all, none, or some of the check boxes. In each case, a check box control returns a Yes value if checked and returns a No value if unchecked. This control, like other controls, can be bound or unbound. To create a bound check box control, you must be working in a form or report that is bound to a record source.

Kyle asks Meagan if there are any situations in which she thinks a control like this might be helpful on a form. She suggests that, in the Buyers table, it would be nice to know who specializes in what category of product. For

instance, some buyers specialize in only one category, like Flatwater boards, while others specialize in several categories.

“Would a check box control be appropriate here?” she asks.

“Yes,” you respond. “But if you want to store this information for later use, doesn’t it have to be a bound control? And if so, don’t we have to create some new fields in the Buyers table?”

Kyle compliments you on your comprehension of this topic. He agrees that this is a situation where a bound control is appropriate, but he points out that the buyer table fields must first be created and set up in a data type called Yes/No.

To create additional fields in the Buyers table:

- 1 Right-click **Buyers Table** and then click **Design View**.
- 2 Add six new fields to the table and specify each as a Yes/No data type, as shown in Figure 12.20.

Figure 12.20
Modifying the Buyers
Table

Field Name	Data Type
BuyerID	Number
BuyerName	Short Text
BuyerPhone	Short Text
Flatwater	Yes/No
Inflatable	Yes/No
Race	Yes/No
Surf	Yes/No
River	Yes/No
Paddles	Yes/No

- 3 Close the Buyers Table. Click **Yes** to save changes.

Now that the Buyers table includes the field for data storage, you offer to modify the Buyers form to include check boxes for quick data entry.

“How do I create check boxes on the form?” you ask.

“All you’ll need to do is add the fields you just created in the Buyers table to the Buyers form. Because they are of the data type Yes/No, they will automatically be added to the form as a check box control,” Kyle responds.

To create a check box control bound to a field:

- 1 Right-click the **Buyers** form and then click **Design View**.
- 2 Resize and move the Buyers form and Field list windows so that your screen looks like Figure 12.21.
- 3 Click **Add Existing Fields** from the Tools group of the Design tab on the Ribbon.
- 4 Click and drag all six fields you just created, one at a time, to the Buyers form (see Figure 12.22).

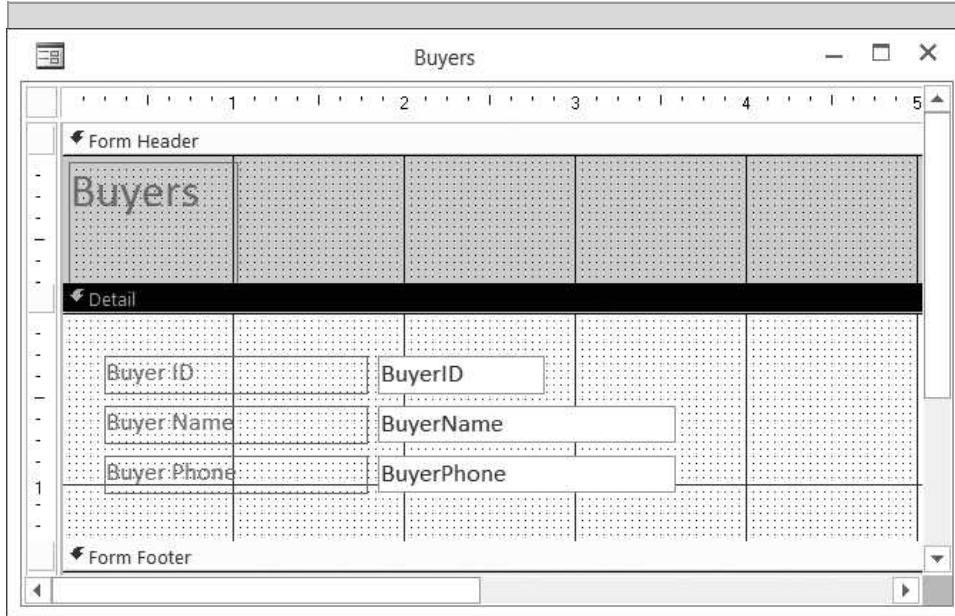


Figure 12.21

Modifying the Buyers Form

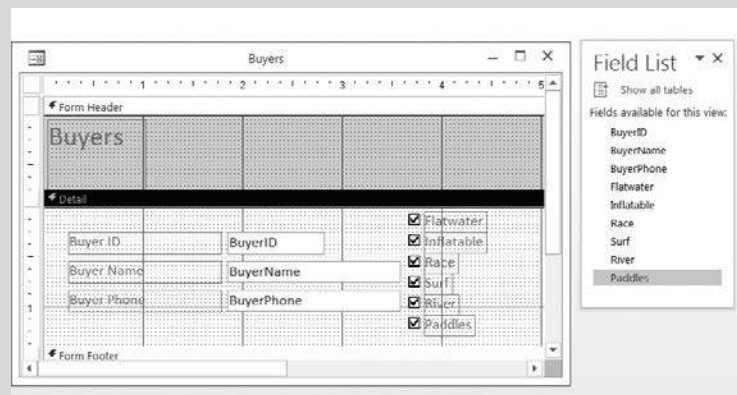


Figure 12.22

Adding Existing Fields to a Form

- 5 Click **View** and then click **Form View**.
- 6 Update each record from the Buyers form to indicate in what category each buyer specializes by clicking in the check box to place a check mark in the box. (*Note:* Clicking a second time will remove the check mark.) Buyer 601 specializes in Flatwater, Inflatable, and Race SUPs. After updating Buyer ID 601, your Buyers form should look like Figure 12.23.

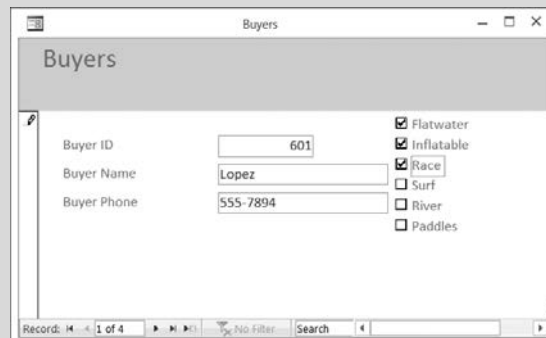


Figure 12.23

Buyer ID 1 Updated Record

- 7** Continue your update. Buyer 602 specializes in Inflatable, Race, Surf, and River SUPs. Buyer 603 specializes in Flatwater SUPs and Paddles. Buyer 604 specializes in Surf SUPs only.
- 8** Click **File**, **Save As**, **Save Object As**, and **Save As** to save this new object.
- 9** Type **Buyers A** as the name of the new form and then click **OK** to save the form.
- 10** Click the **Home** tab and then close the form.

“I like using these new controls,” comments Meagan. “But I still have a question on the combo box controls we did before. Is there a way to give our database users a choice of options that change as our company grows?”

“There sure is,” Kyle responds. “I’ll introduce you to special combo box controls next.”

Special Combo Box Control

An additional possible use of a combo box control would be to give the user a choice of options that change as a function of other changes that may occur in the database. For instance, let’s say you want to give the user the option of selecting a specific supplier for each product but that you want the list to be dynamic, not static. In other words, you’d like the user’s available choices to be limited to those suppliers currently in your Supplier table. Thus, when you add a supplier the list expands and, of course, when you delete a supplier the list contracts.

“That would be perfect for our product form,” you suggest. “I can see using that form to add new products and then choosing from a list of existing suppliers to provide the product.”

“How is that different from what we just did with the state and country combo boxes?” Meagan asks.

“In those situations,” Kyle explains, “we provided a list of choices for the combo list. However, the user could type in a different state or country from those we listed. Plus, the list never changes unless we physically rewrite the list in the control.”

“So where do we create the list?” you ask.

“Actually, we just point the control to the Supplier table. As names are added to or removed from that table, the combo box control changes,” says Kyle. “Nathan, let me show you how it is done.”

Kyle explains that Nathan’s goal will be to modify the existing Product form so that the Supplier text box control is transformed to a combo box control with a list containing the supplier ID numbers and names that exist in the Supplier table. This will require that the existing relationship between the Product table and the Supplier table be temporarily eliminated (since it currently enforces referential integrity) and that the data type of the SupplierID fields be changed.

To modify the Product table and change the Supplier ID field's data type:

- 1 Click **Relationships** from the Relationships group on the Database Tools tab of the Ribbon.
- 2 Resize the windows so that your screen looks like Figure 12.24.

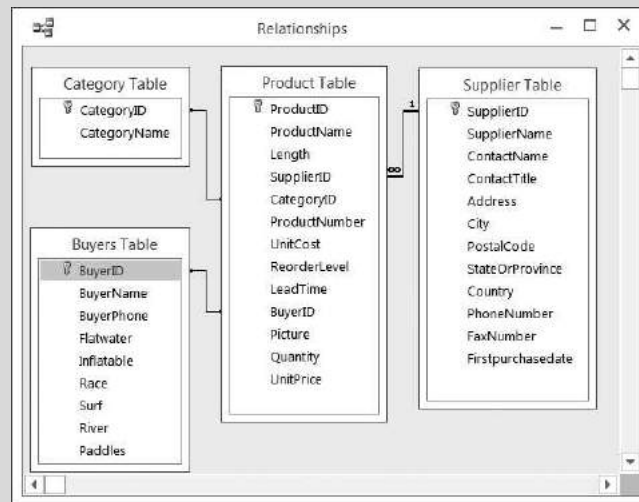


Figure 12.24

Existing Relationships

- 3 Right-click the relationship between the Product table and the Supplier table; click **Delete** and then click **Yes** in the dialog box that appears in order to confirm your deletion.
- 4 Close the Relationships window and click **Yes** if asked to save changes.
- 5 Right-click **Product Table** and then click **Design View**.
- 6 Click **Lookup Wizard** from the drop-down list of data types for the Supplier ID field, as shown in Figure 12.25.

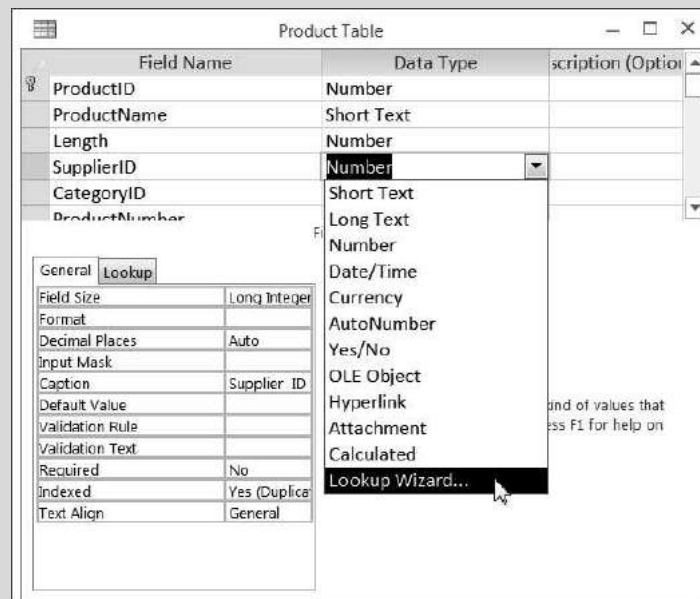
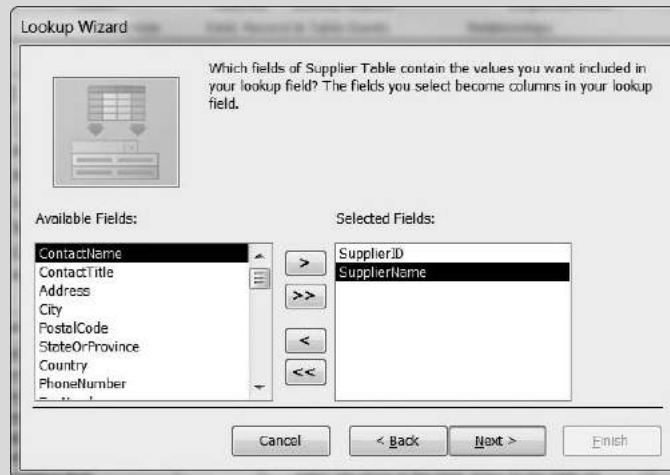


Figure 12.25

Changing Data Type to
Lookup Wizard

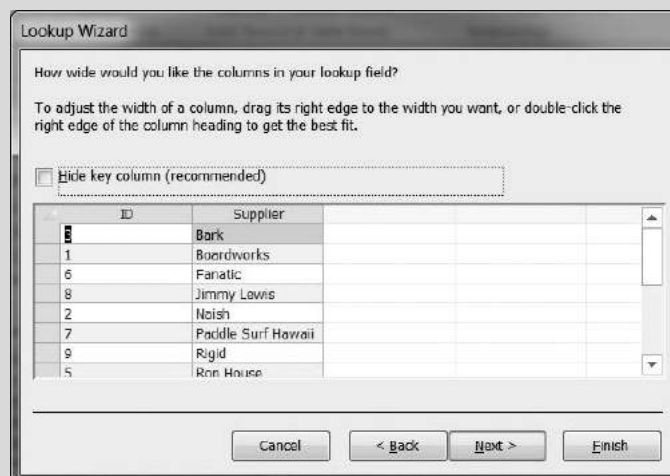
- 7 Click on the first option button (I want the lookup field to get the values from another table or query.) and then click **Next**.
- 8 Click **Table: Supplier Table** from the next Lookup Wizard dialog box; then click **Next**.
- 9 Double-click **Supplier ID** and **Supplier Name** in the list of Available Fields in order to move them to the list of Selected Fields, as shown in Figure 12.26.

Figure 12.26
Identifying Fields to be Included in the Lookup Column



- 10 Click **Next**; then click **Supplier Name** from the drop-down list in box 1 as the field to sort on.
- 11 Leave **Ascending** as the sort order, and then click **Next**.
- 12 Uncheck the **Hide key column** check box and resize the column widths if necessary so that your screen looks like Figure 12.27.

Figure 12.27
Organizing Columns in the Lookup Column



- 13 Click **Next**.
- 14 Click **Next** again to keep the Supplier ID as the field being stored.

- 15** Click **Finish** to keep Supplier ID as the label for your column.
- 16** Click **Yes** to save the table.
- 17** Close the modified Product table.
- 18** Once again, click **Relationships** from the Relationships group on the Database Tools tab of the Ribbon.
- 19** Double-click the relationship between the Product table and the Supplier table.
- 20** Click in the **Enforce Referential Integrity** check box and then click **OK**.
- 21** Close the Relationships window.

Kyle explains that now Nathan can modify the Products form to include the new and revised Supplier ID field as a combo box control. But first, he cautions, Nathan will have to remove the old Supplier ID text box control from the form.

To create a combo box control linked to the Supplier table:

- 1** Right-click **Products A** and then click **Design View**.
- 2** Click the existing **Supplier ID** text box control; then press the **[Delete]** key to delete both the SupplierID label and text box.
- 3** Click **Add Existing Fields** from the Tools group of the Design tab on the Ribbon.
- 4** Click and drag the **Supplier ID** field to the Products A form, as shown in Figure 12.28.

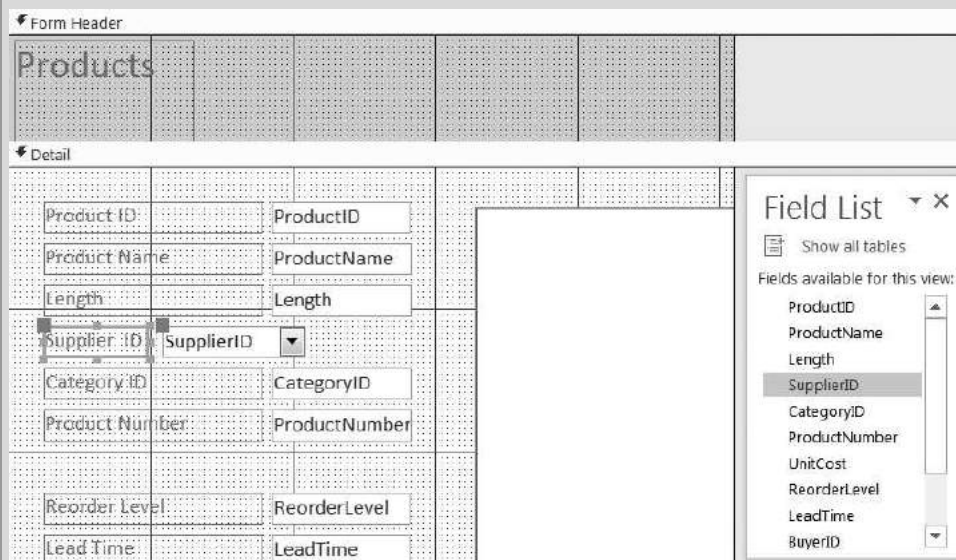


Figure 12.28

Adding the Newly Modified Supplier ID Field to the Products A Form

- 5 Close the Field List window.
- 6 Click **View** and then click **Form View**.
- 7 Note that the Supplier ID of record 1 in the Products A form is still specified as 1. Click on the drop-down list arrow of the Supplier ID combo box control to see the options available, as shown in Figure 12.29.

Figure 12.29
Modified Product Form
with Lookup Capabilities
for SupplierID

- 8 Click **File**, **Save As**, **Save Object As**, and **Save As** to save this new object.
- 9 Type **Products B** as the name of the new form.
- 10 Go to record 7, the Sleeping One, and change the Supplier ID from 5 to 6 (Fanatic.) as shown in Figure 12.30.

Figure 12.30
Modifying an Existing
Record

3	Bark
1	Boardworks
6	Fanatic
8	Jimmy Lewis
2	Naish
7	Paddle Surf Hawk
9	Rigid
5	Ron House

- 11 Now change the Supplier ID of the same record by typing 4 in the combo box control and then moving to the next record.
- 12 An alert dialog box should appear, indicating that this choice is not acceptable because a related record is required in the Supplier table. Since there is no supplier with an ID of 4, the system rejects your change. Click **OK**.

- 13** Change the Supplier ID of record 7 back to 5.
- 14** Close the form.

In addition to form controls, subforms are helpful in situations where a one-to-many relationship exists. Kyle suggests that understanding subforms may actually help resolve some of their previously expressed inventory tracking concerns.

Subforms

Subforms are simply forms within forms. Subforms require that information in one form have a one-to-many relationship with the information in another form. Kyle explains that users often like to see specific information on one form that has some common characteristic.

“For instance,” says Kyle. “You have already established a relationship between the categories of your products and the products themselves, so we have a one-to-many relationship. One category, for example, includes many products.”

“So we could create a form showing all the products we have that fall within any of our categories?” asks Meagan.

“That’s it!” Kyle responds. “Let’s have you create this form within a form using the Forms Wizard.”

To create a form and subform of categories and products:

- 1** Click **Forms Wizard**, from the Forms group of the Create tab.
- 2** Select **Table: Category Table** from the list of Tables/Queries.
- 3** Click **Category Name** from the list of Available Fields; then click the > button to move Category Name from the list of Available Fields to the list of Selected Fields.
- 4** Select **Table: Product Table** from the list of Tables/Queries.
- 5** Click **ProductName** from the list of Available Fields and then click the > button.
- 6** Click **Quantity** from the list of Available Fields and then click the > button.
- 7** Double-click **UnitCost** from the list of Available Fields (note how this accomplishes the same task of moving the field from Available Fields to Selected Fields). Your window should now look like Figure 12.31.
- 8** Click the **Next** button.
- 9** Click **by Category Table**.

Figure 12.31
Using the Forms Wizard

- 10** Click the **Form with subform(s)** option button. Your window should look like Figure 12.32.

Figure 12.32
Creating Forms with
Subforms

- 11** Click **Next**.
- 12** Click the **Data sheet** layout option button and then click **Next**.
- 13** Type **Products by Category** as the form title and **Products Subform** as the subform title.
- 14** Click **Finish** to save the new forms. Your window should look like Figure 12.33.
- 15** Observe that not all products, quantities, or unit costs may be visible. Click **View** and then **Layout View**.

Product Name	Quantity	Unit Cost
Veneer Raven	2	\$700
Nalu	3	\$800
*	0	

Figure 12.33

Newly Created Products by Category Form and Subform

Product Name	Quantity	Unit Cost
Veneer Raven	2	\$700.00
Nalu	3	\$800.00
*	0	

Figure 12.34

Changing Column Widths in a Form

- 16** Modify the width of each column by double-clicking between column titles until your window looks like Figure 12.34.
- 17** Click **View** and then **Design View**. Resize the Products Subform control to make it smaller and then click **View** and then **Form View**.
- 18** Navigate the newly created form by clicking on the category record navigator at the bottom of the form until you get to the Surf category. The Surf category should look like Figure 12.35.
- 19** Click **Save** on the Quick Access toolbar.
- 20** Keep this form open for printing.

This newly created form and subform is ideal for viewing products by categories. Nathan is impressed.

Figure 12.35
Completed Products by
Category Form

Products by Category

Category Name: Surf

Product Name	Quantity	Unit Cost
Badfish	5	\$410.00
Ridley	3	\$1,275.00
Ripper	6	\$1,500.00
*	0	

Record: 1 of 3

Printing a Form

All that is left is to print a form. Kyle remarks that printing a form is much like printing a table or query, as you did in previous chapters. In this case he just needs you to print the first record (Watches).

To print a form:

- 1 With record 4 showing on the Products by Category form you just created; click the **File** tab and then click **Print**.
- 2 Click **Print** again, and then choose the **Selected Record(s)** option in the Print Range section of the Print window and then click **OK**. The printed form should look like Figure 12.36.
- 3 Close and save the Products by Category form.

Figure 12.36
Printed Products
by Category Form
for Surf SUPs

Products by Category

Category Name: Surf

Product Name	Quantity	Unit Cost
Badfish	5	\$410.00
Ridley	3	\$1,275.00
Ripper	6	\$1,500.00

Documenting a Form

Kyle suggests that you document all changes made to a form so that you can verify the underlying attributes that were changed in the course of creating or modifying the form. In particular, he suggests you examine and print the data properties that were changed when you converted a text box to a combo box for the StateOrProvince field in the supplier form.

To view and print the changes made in the State Or Province field in the supplier form:

- 1 Double-click **Supplier C** form.
- 2 Click **Database Documenter** in the Analyze group of the Database Tools tab on the Ribbon.
- 3 Click the **Forms** tab in the Documenter window.
- 4 Click in the check box next to **Supplier C** (you may have to scroll down the window to find it).
- 5 Click **Options**.
- 6 Uncheck all check boxes listed under the **Include for Form** section title.
- 7 Click the **Names and Properties** option button under the Include for Sections and Controls section title. Your screen should look like Figure 12.37.

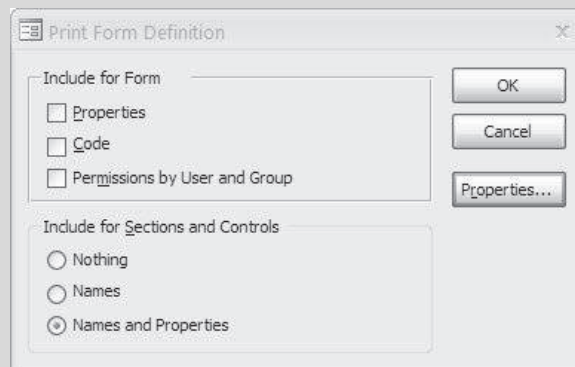
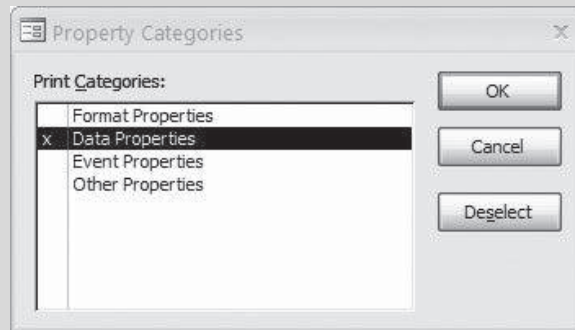


Figure 12.37
Selecting Print Form Definitions

- 8 Click the **Properties** button.
- 9 Deselect all Print Categories other than Data Properties, as shown in Figure 12.38.
- 10 Click **OK** in the Property Categories window.

Figure 12.38
Selecting Print Categories



- 11** Click **OK** in the Print Form Definition window.
- 12** Click **OK** in the Documenter window.
- 13** Click **Print** and then click **OK**. Page 2 of the printout should refer to the combo box control established for the StateOrProvince field, as shown in Figure 12.39.

Figure 12.39
Part of the Documenter for
the Supplier C Form

Combo Box: StateOrProvince	
AllowValueListEdits	True
AutoExpand:	True
:	
BoundColumn:	1
ControlSource:	StateOrProvince
Enabled:	True
InheritValueList:	True
LimitToList:	False
Locked:	False
RowSource:	CA;NY;MA;NJ
RowSourceType:	Value List
ShowOnlyRowSourceValues:	False

- 14** Close the Print Preview window and then close all windows.

End Note

In this chapter you have learned how to modify a form's labels and text box controls, how to use list box, combo box, calculated, and check box controls, how to create a form with a subform, and how to print document a form. Feeling fairly confident, you're ready to finish up with variations on report creation.

Chapter 12 Questions

- 1 What view of a form is used to edit an existing form?
- 2 What is the difference between bound and unbound controls?
- 3 Why are text box controls used on a form?
- 4 Why are list box controls used on a form?
- 5 Why are combo box controls used on a form?
- 6 Why are calculated controls used on a form?
- 7 Why are check box controls used on a form?
- 8 When is the Lookup Wizard used?
- 9 Why must an existing relationship be deleted before modifying a field's data type?
- 10 What type of relationship must exist if a subform is used on a form?

Chapter 12 Assignments

- 1 Using the Ch12-02 file, modify the Buyers form for What SUP so that it looks like Figure 12.40. Save this form as Ch 12 Assignment 1, and print record 1 using this form.

Figure 12.40
New Buyers Form

- 2 Modify the Products form by changing the Category ID text box control to a list box control that lists the choices as A, B, C, D, E, or F. Save the form as Ch 12 Assignment 2. Print the newly created form for Product ID 101.
- 3 Modify the Product form (not the Ch 12 Assignment 2 form you just created) by changing the Category ID text box control to a combo box control that lists choices of A, B, C, D, E, or F. Save the form as Ch 12 Assignment 3. Print the newly created form for Product ID 101.

- 4** Salespeople earn a 10 percent commission on the price of each sale. Create a new unbound calculated control to compute the possible commission on each product. Modify the Products form (not the Ch 12 Assignment 3 form you just created) by adding a calculated control called Commission. (The expression created should multiply the unit price by .10.) Format the control in a currency format. Save the form as Ch 12 Assignment 4. Print record 7 using this form.
- 5** Add a new field (Taxable) to the Product Table. Make the field a Yes/No data type. Add this new field to the Products form (not the Ch 12 Assignment 4 form you just created) to the right of the Reorder Level control. Make record 6 (Glide GS) taxable. Save the form as Ch 12 Assignment 5. Print record 6 using this form.
- 6** Modify the Products form (not the Ch 12 Assignment 5 form you just created) by changing the Category ID text box control to a special combo box control, listing the choices of CategoryID and CategoryName from the Category table. (*Hint:* Be sure to first remove the relationship between the Product and Category tables and then, after you've created the combo box control, to reestablish the relationship and related referential integrity. Save the form as Ch 12 Assignment 6. Print the newly created form for Product ID 101.
- 7** For each buyer name, create a form (using the Forms Wizard) that contains the product name, quantity, and unit price of each product that the buyer is responsible for. Use the subform option with a datasheet layout. Save the form as Ch 12 Assignment 7 and the subform as Ch 12 Assignment 7 Subform. Format the subform so that columns fit in the form created. Print record 4 (Buyer = Fortier) using this form.

Chapter 12 Case Problem 1:

KELLY'S BOUTIQUE

Note: You must have completed Case 1 in the previous chapter in order to continue working on this case.

In the last chapter you added and modified some queries for Kelly's Boutique. She would now like you to create some new forms. Make the following changes for Kelly using the ch11-03_student_name file you created in Chapter 11. (*Note:* Open your ch11-03_student_name file and then save it as ch12-03_student_name before making the indicated changes.)

- a. Create a form to look like Figure 12.41. Save the form as Ch 12 Kelly Case a. Print record Hop on Pop.
- b. Create a list box control using the form created in part a. This control should provide the user with a list of departments: Adult, Children. Move the picture control down to make room for the list box control.

Figure 12.41

New Books Form

- Save the modified form as Ch 12 Kelly Case b. Print record 7 (Green Eggs and Ham).
- Create a combo box control using the form created in part a. This control should provide the user with a list of departments (as in b above) but with a combo box instead of a list box. Dept choices should be Adult, Children, and Teen. Save the modified form as Ch 12 Kelly Case c. Print the documenter page that documents the combo box for Dept.
 - Create a special combo box control using the Book Form. This control should provide the user with a dynamic list of publishers based on the publishers listed in the Publisher table. The combo box should list publisher number and name, and referential integrity must be enforced. Label the combo box column Publisher. Save the modified form as Ch 12 Kelly Case d. Print the documenter page that documents the combo box for Publisher.
 - Using the Book Form, create a calculated control to compute the total retail value of each book in stock. First add the quantity field to the form and then add the calculated control. Format the control in currency, and label the control Total Retail Value. Save the modified form as Ch 12 Kelly Case e. Print the record containing the book title “Angela’s Ashes”
 - Using the Book Form, create a check box control to indicate whether or not the text is a bestseller. Label the field and control Best Seller. Mark the book Green Eggs and Ham as a bestseller using your new form. Print the record that contains the book title “Green Eggs and Ham” and then save the modified form as Ch 12 Kelly Case f.
 - Create a form and subform that shows all books by publisher, listing ISBN and Book Title in datasheet layout. Then save the modified form and subform as Ch 12 Kelly Case g and Ch 12 Kelly Case g

Subform. Print the record with Arthur A. Levine Books as the publisher.

- h. Make sure to keep a copy of this file for use in the next chapter.

Chapter 12 Case Problem 2: WINE DEPOT

Note: You must have completed Case 2 in the previous chapter in order to continue working on this case.

In the last chapter you modified some queries for the Wine Depot. Now Barbara would like you to help her create some new forms. Make the following changes for Barbara using the ch11-04_student_name file you created in Chapter 11. (*Note:* Open your ch11-04_student_name file and then save it as ch12-04_student_name before making the indicated changes.)

- a. Change the Type field in the Wine Products table to a short text type with a field size of 30. Use the Forms Wizard to create a new form from the Wine Products table and Winery Table that includes the following fields: SKU, Cost, Price, Quantity, Size, Vintage, Type, Picture, and Winery Name. Use a justified layout and entitle the form Wine Products; then modify the form to look like Figure 12.42. Save this form as Ch 12 Wine Depot Case a. Navigate to SKU 14539 and print that selected record only. (*Hint:* Be sure to set the picture properties field to size mode “zoom” by right-clicking the picture object in the design view, selecting properties, and choosing zoom as the size mode.)

Figure 12.42
New Wine Products
Form

SKU	Price	Name
14539	\$32.40	Gainey
Cost	Quantity	
\$21.60	5	
Size	Vintage	
750	1999	
Type		
Merlot		

- b. Modify the form you created and saved in a above by changing the Type text box to a list box control that provides a list of all wine types: Cabernet Sauvignon, Chardonnay, Fume Blanc, Merlot, Pinot Noir, Sauvignon Blanc, Syrah, Red Chianti, and Zinfandel. Save the modified form as Ch 12 Wine Depot Case b. Print the record containing SKU 12895 only.

- c. Modify the form you created in part b by replacing the Winery Name field with a Winery field (from the Winery Table). Then change the Winery text box to a combo box control that provides a drop-down list of all 21 wineries. Your new combo box should contain a value list that you create listing each winery by number. For example: 1,2,3 etc. Save the modified form as Ch 12 Wine Depot Case c. Print the documenter page that documents the combo box for Winery.
- d. Modify the form you created in part c by deleting the Winery combo box control and replacing it with a Winery combo box control based on the winery and name fields in the Winery Table. The field should use the winery and name fields of the Winery Table and then list the winery name when requested. (Don't forget to modify the relationships window first and then to reestablish referential integrity!) Save the modified form as Ch 12 Wine Depot Case d. Print the documenter page that documents the new combo box for Winery.
- e. Modify the form you created in part d by adding a check box control in the lower right-hand corner of the form to indicate if this product has been recommended by the *Wine Spectator* (a noted magazine of wine-tasting professionals). Label the field and control "Wine Spectator Recommended". (*Hint*: Don't forget to create a field in the Wine Products Table first.) Only three wines currently have that designation: SKU 11475, 13883, and 15347. Save the modified form as Ch 12 Wine Depot Case e, and print the record containing SKU 15347 only.
- f. Modify the form you created in part e by adding a calculated control below the Winery Number to compute the total cost in inventory of each product (cost times quantity). Format the control in currency and label the control Total Cost. Save the modified form as Ch 12 Wine Depot Case f. Print the record containing SKU 11475 only.
- g. Create a new form with a subform using the Winery Table and Wine Products Table. Use the Winery Name field from the Winery Table and the SKU and Type fields from the Wine Products table. View the data by winery in a datasheet layout. Use the default names provided for the form and subform. Save the modified form as Ch 12 Wine Depot Case g. Print the record containing the Melville winery only.
- h. Make sure you keep a copy of this file for use in the next chapter.

Chapter 12 Case Problem 3:

SNICK'S BOARD SHOP

Note: You must have completed Case 3 in the previous chapter in order to continue working on this case.

In the last chapter you created some queries for the Snick's Board Shop. Now Caitlin would like you to help her create some forms to view information from the database. Make the following changes for Caitlin using the ch11-05_student_name file you created in Chapter 11. (*Note*: Open your

ch11-05_student_name file and then save it as ch12-05_student_name before making the indicated changes.)

- a. Note the existing relationships between the Product, Manufacturer, and Category tables. Now delete those relationships, and then change the field size of ProductID to 10, ProductName to 35, ManufacturerID to 10, Style to 15, CategoryName to 25, ManufacturerName to 25, and PhoneNumber to 15. Now reestablish the relationships you previously deleted enforcing referential integrity. Use the Forms Wizard to create a new form that includes the ProductID, ProductName, CategoryName, ManufacturerName, Price, Style, Quantity, and Picture fields. View the data by Product in a Columnar layout. Name your form Form A and then navigate to ProductID 62-01296 and print that record only.
- b. Modify the form you created and saved in (a) by changing the CategoryName text box to a list box control that provides a list of all Categories: Complete, Ramp, Longboards, Protective Gear, Rails, and T-Shirts. Move the fields below CategoryName down so all are viewable on the form. Change the title of the form to Form B in the form header and then save the modified form as Form B. Print the record containing 65-00335 only.
- c. Create a new form containing all of the fields from the product table in columnar layout with a title of Form C. Make the ManufacturerID a combo box control based on the ManufacturerID field of the Manufacturer table. Print the documenter page that documents the new combo box.
- d. Add a new data type Yes/No field titled Green to the Manufacturer table and then add a new form containing all the fields in the Manufacturer table in columnar format titled Form D. The new Green field designates whether a manufacturer has qualified for the energy-saving status granted by the state. Currently only Zero, Anti-Hero, and Gold-coast are designated “Green” by the state. Place checks in the Green fields for those three manufacturers. Print the Anti-Hero record.
- e. Create a new form containing the ProductID, ProductName, Price, Discount, and Picture fields viewed by Product in a Columnar layout titled Form E. Delete the Picture label and move the picture control to the right hand side of the form. Resize the ProductName and Price fields so that your form looks like Figure 12.43:

Now add a new calculated control titled DiscountedPrice and formatted as currency below the Discount field to compute the discounted price (Price less discount, if any). Print the record for ProductID 65-00358.
- f. Create a new form with a subform containing the fields CategoryName, ProductName, Price, and Style viewing the data by Category is a Datasheet layout and title Form F. Resize the fields displayed in the subform and then print the form for the LongBoard category.
- g. Make sure you keep a copy of this file for use in the next chapter.

Figure 12.43
Form E as Modified

Chapter 12 Case Problem 4: **ROSEY'S ROSES**

Note: You must have completed Case 4 in the previous chapter in order to continue working on this case. In the last chapter, you created some queries for Rosey's Roses. Now the company would like you to help it create some forms to illustrate information from the database. Make the following changes using the ch11-06_student_name file you created in Chapter 11. (*Note:* Open your ch11-06_student_name file and then save it as ch12-06_student_name before making the indicated changes.)

- a. Note the existing relationships between existing tables. Now delete those relationships, and then change the field size of ID, Quantity, Quote Number, Quantity Ordered, and GrowerID to integer with 0 decimal places, Cost/Unit to currency with 2 decimal places, Customer Number to a field size of 5, Type to field size of 10, and Grower Name and Contact to field size 40. Now reestablish the relationships you previously deleted enforcing referential integrity. (*Hint:* Be sure to change all instances of the fields you just changed.) Use the Forms Wizard to create a new form that includes the ID, Product Description, Type, type Description, Grower Name, Quantity, and Picture fields. View the data in a columnar layout with no grouping. Save your form as Form A and then navigate to ID 6 and print that record only.
- b. Modify the form you created and saved in (a) by changing the Type field text box to a list box control that provides a list of all Types: Climber, Creeper, Shrub, and Tree. Move the fields below Type down so all are viewable on the form. Change the title of the form to Form B in the form header and then save the modified form as Form B. Print the record containing product ID 10 only.

- c. Create a new form containing all of the fields from the Product table in columnar layout with a title of Form C. Make the Grower ID a combo box control that provides a list of all Grower IDs: 100, 200, 300, and 400. Print the documenter page that documents the new combo box control.
- d. Modify the form you created and saved in (c) by removing the existing GrowerID field combo box control and creating a new GrowerID field special combo box control based on the GrowerID and Grower Name fields of the Grower table. The field should use the GrowerID and Grower Name fields of the Grower table and then just list the Grower Name when activated. (Don't forget to modify the relationships first and then re-establish referential integrity.) Change the title of the form to Form D and then save the modified form as Form D; then print the documenter page that documents the new special combo box control.
- e. Add a new data type Yes/No field titled Organically Grown to the Grower table and then create a new form containing all the fields in the Grower table in columnar format titled Form E. Currently only Owen Farms is designated "Organically Grown" by the state. Place checks in the Organically Green field for that grower. Print the Owen Farms Form E.
- f. Create a new form with a subform containing the fields Grower Name, product Description, Cost/Unit, and Type viewing the data by Grower in a Datasheet layout and form title Products by Grower and subform title Product Subform. Resize the fields displayed in the subform and then print the form for the Jackson & Perkins grower.
- g. Make sure you keep a copy of this file for use in the next chapter.