6 Customizing Input Forms

Relational database design often requires data from more than one table or query to appear on the same form. Customizing forms and their controls while applying other form settings gives designers more control while simultaneously making forms more efficient and easier to use. In this chapter, you will add a subform to a main form, which is a handy technique used to include data from a different source. You will also explore Access features to create calculated fields, add tips to form controls, and set control properties to protect and limit data entry.

LEARNING OBJECTIVES

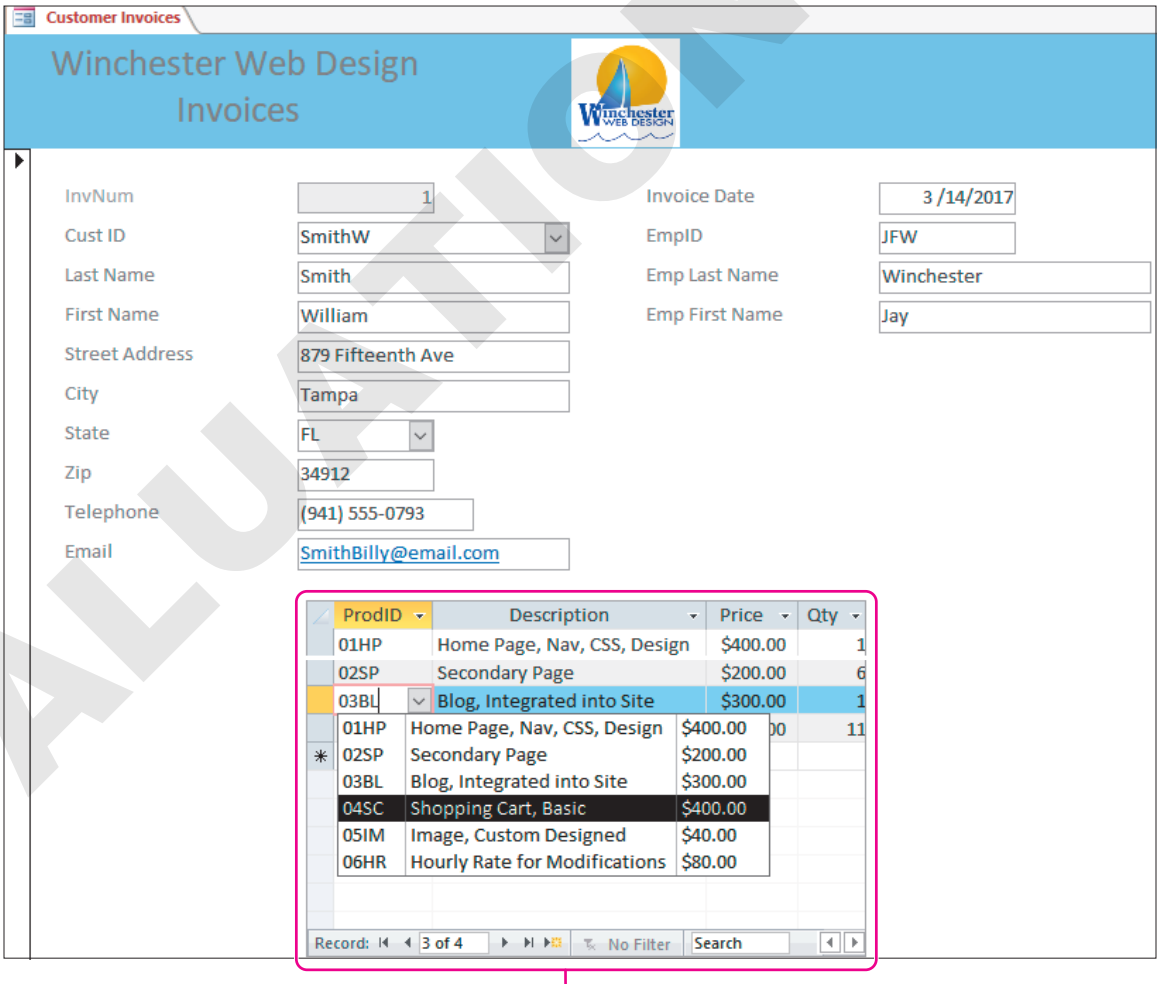
- Create a form that contains a subform
- Add a calculated control to a form
- Add a total row to a form
- Disable form fields
- Lock form fields
- Add ScreenTips to forms
- Create pop-up forms

Project: Formatting Functional Forms

Winchester Web Design has seen sales increase over recent months and wants to simplify data entry as a result. You've been asked to design advanced forms to make data entry easier for all team members and less prone to errors. You will create an invoice form that contains a subform containing invoice details. Your form will also contain a calculated field for creating totals, and you will use form features to enhance data entry. The database relationships will be critical for setting up these forms.

Subforms

Although many forms are designed to enter data into a single table, there are times when you may need forms that perform actions such as processing customer invoices, calculating totals, and locating data from multiple tables. One of the best ways to accomplish this is through a subform, which is a secondary form placed on a main form. Subforms work well when one-to-many relationships are set, allowing the user to work with multiple tables on a single form. Subforms are simply subsets of data linked by parent fields on the main form to child fields on the subform.



The detail data from related tables appears in a subform.

A main form displaying customer and employee information

Creating Subforms

The easiest way to create a subform is to use the Form Wizard, which creates a new form with an option to add a subform. Subforms can also be added to existing forms by placing a Subform control on the existing form, where you can specify the subform's position and size. When the Subform control is added to the form, the Subform Wizard launches, allowing you to set subform properties.

View the Video "Creating Subforms with the Form Wizard."

Create→Forms→Form Wizard

Design→Controls→Subform

DEVELOP YOUR SKILLS: A6-D1

In this exercise, you will use the Form Wizard to create an invoice form that contains an invoice details subform.

1. Open **A6-D1-WinDesign** from your **Access Chapter 6** folder and save it as: **`A6-D1-WinDesignRev`**
2. Choose **Create→Forms→Form Wizard**.
3. Choose **Table: Invoices** from the Tables/Queries list and then add the **InvNum** and **CustID** fields to the Selected Fields list.
4. Add the fields indicated to the Selected Fields list, making sure to add them in the order shown:

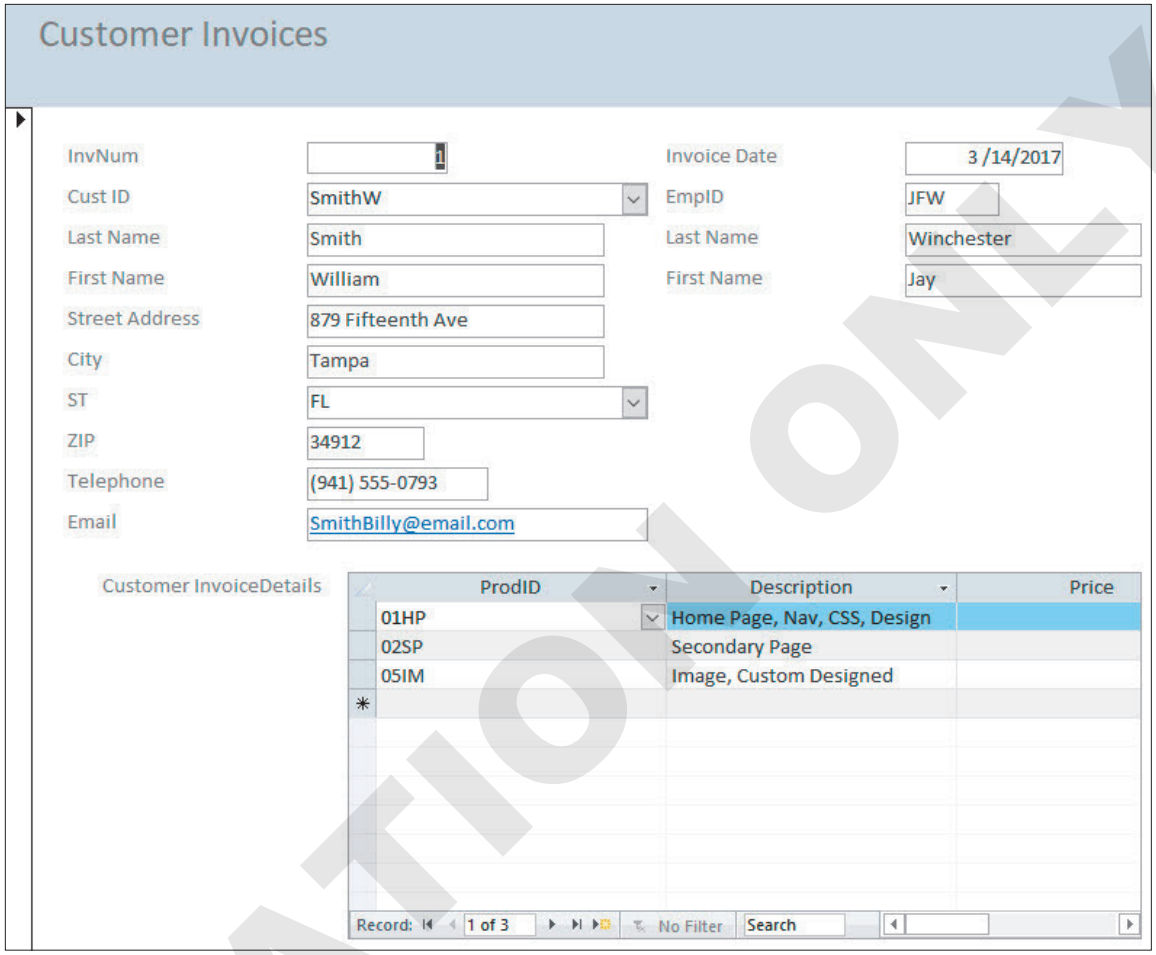
Customers	Invoices	Employees	InvoiceDetails	Products	InvoiceDetails
CustLastName	InvDate	EmpID	ProdID	ProdDescription	Qty
CustFirstName		EmpLastName		Price	
CustStreetAddress		EmpFirstName			
CustCity					
CustState					
CustZIP					
CustPhone					
CustEmail					

5. Click **Next** and notice that the data is arranged by invoice number and the **Form with Subform(s)** option is already chosen.

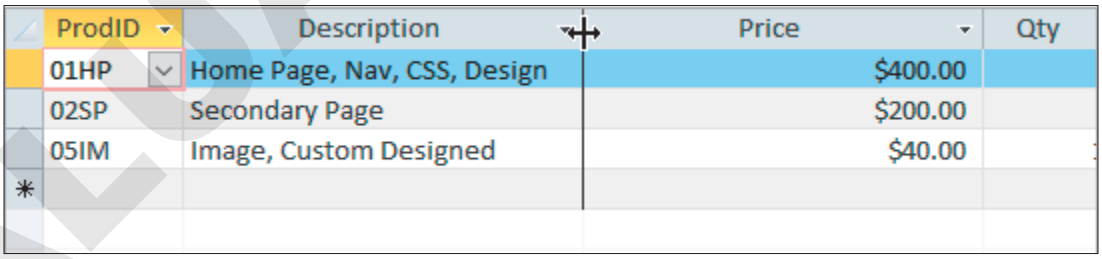
   The subform preview in the Wizard includes the ProdID, ProdDescription, Price, and Qty fields.
6. Click **Next** to accept the settings; click **Next** again to accept the Datasheet subform layout.

7. In the final Wizard screen, name the form **`Customer Invoices`** and the subform **`Customer InvoiceDetails Subform`** and then click **Finish**.

   The new form and subform display in Form View.



8. Double-click the right border of each subform column heading to autofit the columns.



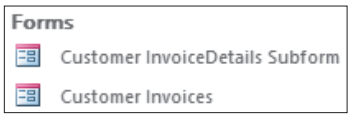
9. Click the empty **ProdID** cell in the new row at the bottom of the subform.
10. Click the drop-down **menu** button ▾ and choose **03BL**.

    It's easy to populate the first three fields of the new subform record.

11. Enter **1** in the **Qty** column and tap Tab to complete the record.

Modifying Subforms

When you use the Form Wizard to create a subform, Access creates the subform and a main form with the subform embedded within it. Both are displayed in the Navigation pane. You can then open and modify the subform by itself in Layout View or Design View, or you can open the main form and modify it and the embedded subform together.



The Customer InvoiceDetails Subform and the Customer Invoices main form are displayed in the Navigation pane.

Subforms and their controls have their own Property Sheets that allow you to precisely control the subform layout and design. And you can use the same keystroke and mouse techniques to arrange and size subform controls that you use with main forms.

DEVELOP YOUR SKILLS: A6-D2

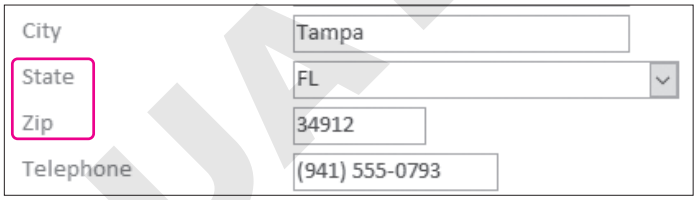
In this exercise, you will modify the Customer Invoices form and subform by deleting, moving, and sizing controls, and adding a graphic to the form.

1. Switch to **Layout View**.

   You will begin by modifying the layout and controls on the main form.

2. Click the **ST** label in the main form to select it and then click inside the label and change it to: **`State`**

3. Change the **ZIP** label to: **`Zip`**



4. Locate the EmpID label and notice the Last Name and First Name labels below it.

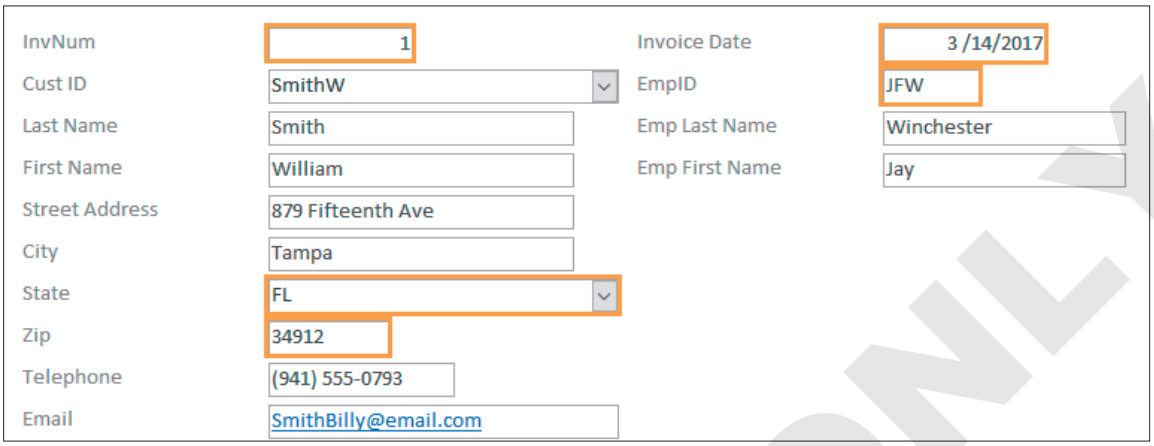
5. Change the employee **Last Name** label to **`Emp Last Name`** and the employee **First Name** label to: **`Emp First Name`**

6. If necessary, display the Property Sheet by choosing **Form Layout Tools→Design→Tools→ Property Sheet**.

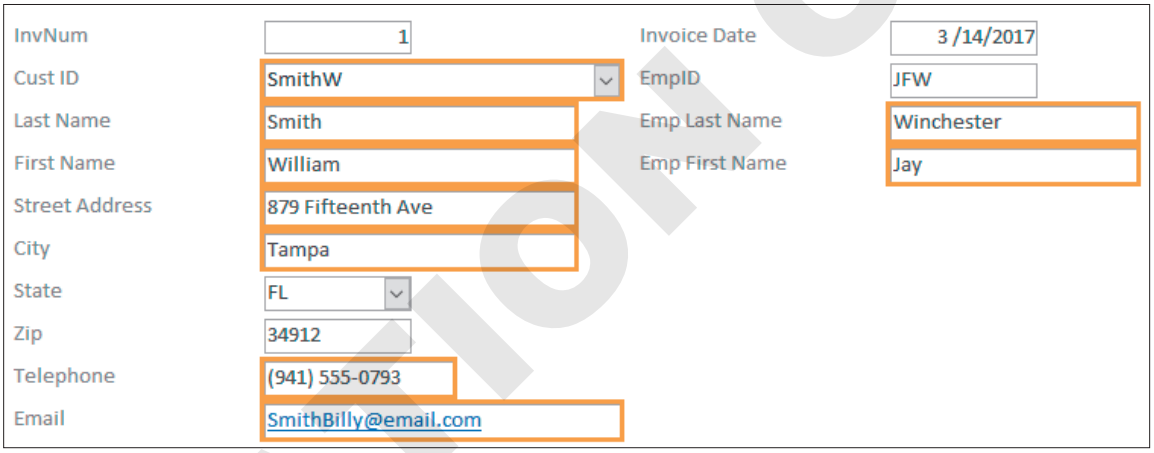
   As you select and move controls in the following steps, you may need to drag the Property Sheet out of the way or close and reopen it as needed.

Tip! *You can also tap* F4 *to toggle the Property Sheet open and closed.*

7. Select the text boxes shown here by holding Ctrl while clicking the boxes and then set the **Width** property to: **1**

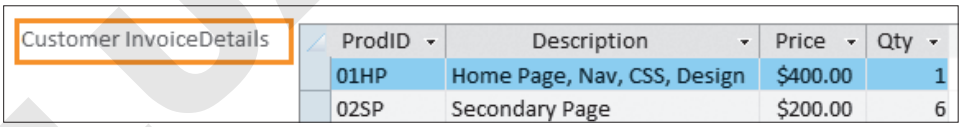


8. Select the text boxes shown here and set the Width property to: **2**

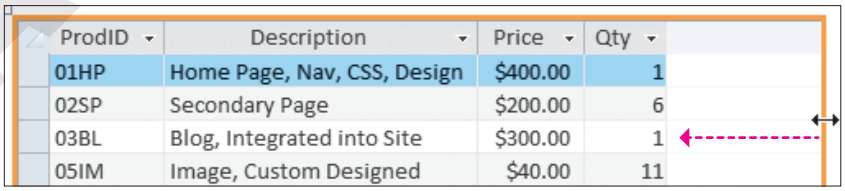


Modify, Lay Out, and Size Controls on the Subform

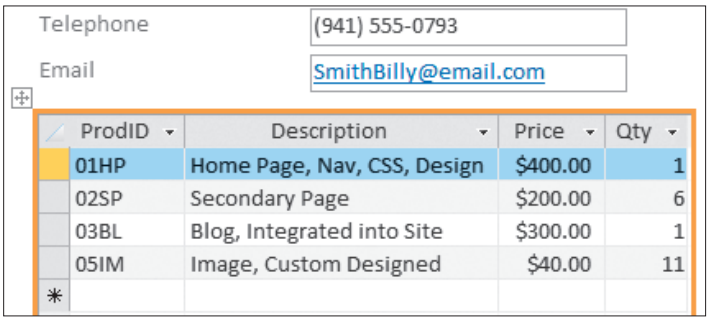
9. Select the **CustomerInvoiceDetails** label on the subform and tap Delete.



10. Click the right border of the subform frame and drag left until the frame is slightly wider than the subform.



11. With the subform frame still selected, use the left arrow ← key to nudge the subform to the left to align it with the main form labels.



Modify the Form Header

In the next few steps, you will modify the form title and add color and a logo to the header.

12. Use these guidelines to modify the form:

- Click the title box control to select it and then click just in front of *Invoices* and press Shift+Enter to move *Invoices* to a new line.
- Set the Width property to: **3**
- Replace *Customer* with: **`Winchester Web Design`**
- Select both lines and choose **Home→Text Formatting→Center** to center the title in the box.

13. Click to the right of the title box in an empty part of the form header.

The title box will become deselected when you select the form header.

14. If necessary, display the Property Sheet and click in the **Back Color** property box.

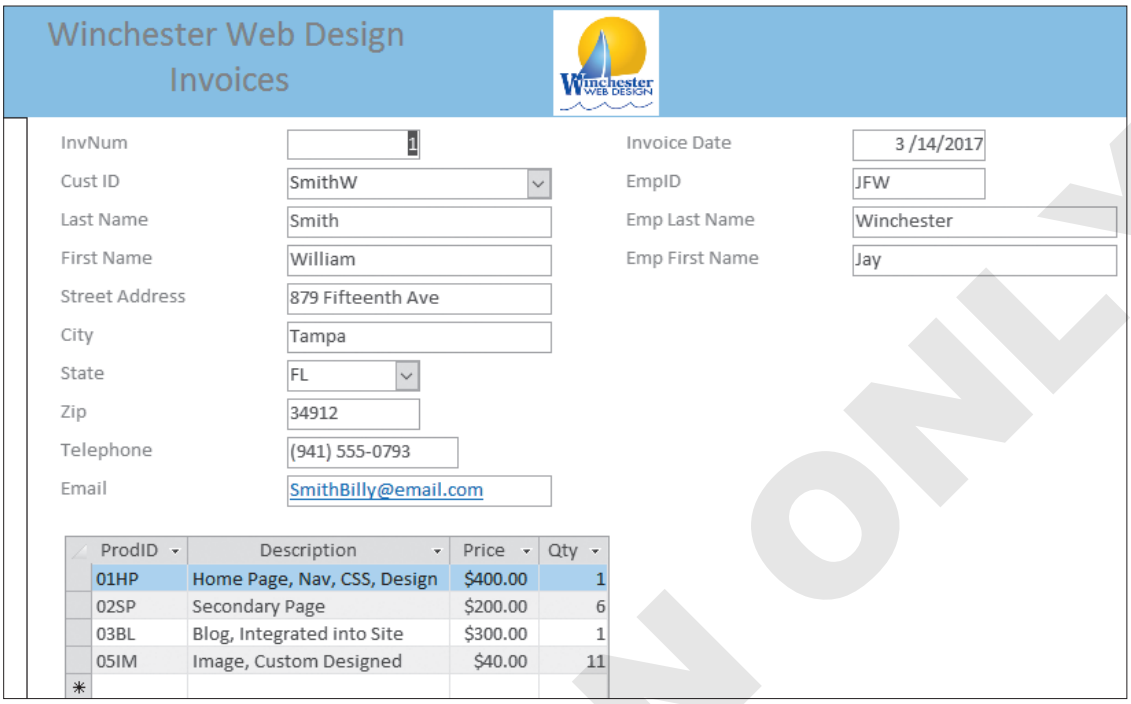
15. Click the **Build** ... button and choose a light blue color or whatever color you feel looks best in the form header.

16. Choose **Form Layout Tools→Design→Header/Footer→Logo**.

17. Navigate to your **Access Chapter 6** folder, choose **WWD-Logo.bmp**, and click **OK**.

18. Set the Width and Height properties to **`0.8`** and the Left property to: **4**

19. Review your completed form and then close it, saving the changes to both the form and subform.



Adding Calculations to Forms

There are several ways to add calculations to forms, and the easiest way is to build a form based on a query that already has a calculated field. If your form is based on one or more tables or is based on a query without a calculated field, you will need to create a calculated control by adding an unbound control to the form and placing a formula within the control source property.

Applying Totals to Forms in Datasheet Layout

The Form Wizard has an option for creating a form in Datasheet Layout View. A form in Datasheet Layout View looks just like a table in Datasheet View. The Totals feature is available for tables in Datasheet View and for forms in Datasheet Layout View. The Totals feature lets you easily use an aggregate function such as count, sum, or average to create totals for numeric fields in the datasheet.

Home→Records→Totals Σ

DEVELOP YOUR SKILLS: A6-D3

In this exercise, you will create a form that uses the Totals feature to count the number of individual line items on customer invoices and to total the amounts of all invoices.

1. Choose **Invoices Query** in the Navigation pane and then choose **Create→Forms→ Form Wizard**.
2. Move all fields to the Selected Fields list and click **Next**.
3. Choose **Datasheet** as the layout and click **Next**.
4. Name the new form **`Invoices Query Form`** and click **Finish**.

   The form looks like a table when displayed in Datasheet View.
5. Choose **Home→Records→Totals** Σ.

   A Total line appears at the bottom of the datasheet layout.

	18	12/4 /2017	Secondary Page
	19	12/9 /2017	Secondary Page
	Total		

6. Click in the **Qty** cell on the Total row.

   A menu button appears at the left end of the cell.
7. Click the **menu** button ▾ and choose **Count**, then click in the **LineTotal** cell and choose **Sum** from the menu.

   The Count function simply counts the number of rows containing a quantity while the Sum function adds all line totals in the column.

	18	12/4 /2017	Secondary Page	$200.00	4	$800.00
	19	12/9 /2017	Secondary Page	$200.00	3	$600.00
	Total				125	$62,920.00

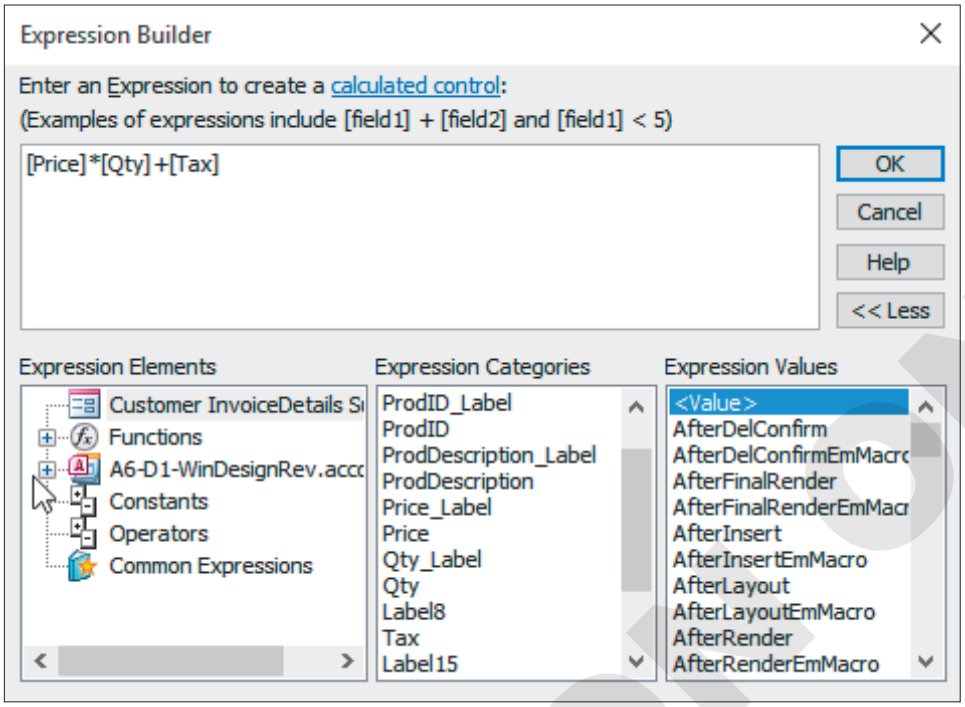
8. Scroll through the datasheet's 125 rows and notice that the Total row remains fixed at the bottom of the window.

   The Totals feature is an easy way to use aggregate functions and is available in forms and in tables and queries.
9. Close the Invoices Query Form, saving the changes if prompted.

Creating Calculated Controls in Forms

The Totals feature is useful when you want to create totals for all records in a datasheet. But sometimes it's necessary to display calculations in Form View, which displays just a single record at a time. You can do this by inserting a calculated control. A calculated control is an unbound text box control placed on the form with a formula inserted in the Control Source property. Usually, the formula references other controls on the form that are bound to underlying database fields. For example, you would use the formula =Price*Qty to display the total amount of a transaction, with both the Price and Qty fields shown on the form. Calculated controls can also contain aggregate functions or an array of built-in functions and expressions made available by using the Expression Builder.

The Expression Builder dialog box contains a list of available fields in the current object and a selection of built-in operators, functions, and expressions that can be leveraged by both novice and advanced users.



View the Video "Calculated Controls in Forms."

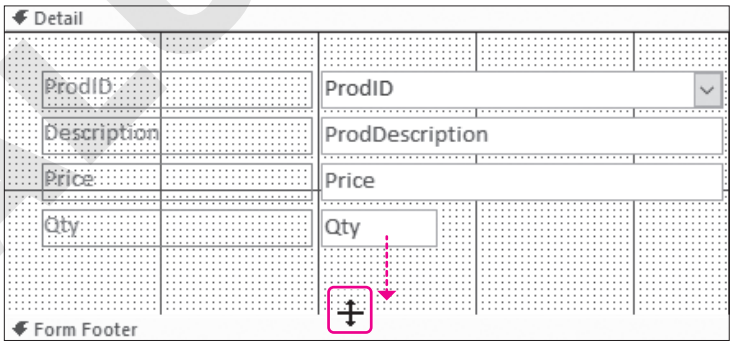
DEVELOP YOUR SKILLS: A6-D4

In this exercise, you will add a calculated control to the Customer InvoiceDetails subform.

1. Display the **Customer InvoiceDetails** subform in **Design View**.

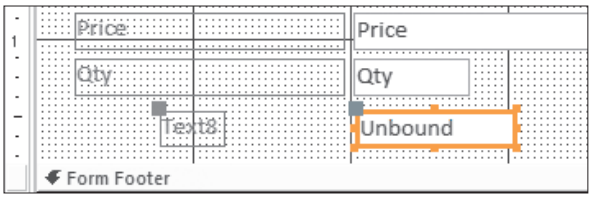
   The first step is to insert a new control.

2. Position the mouse pointer on the top edge of the **Form Footer** section bar until the resize pointer appears and then drag down slightly to make room for two new text boxes.



3. Choose **Format Design Tools→Design→Controls→Text Box** ab|.

4. Click just below the Qty control text box to insert a new control.

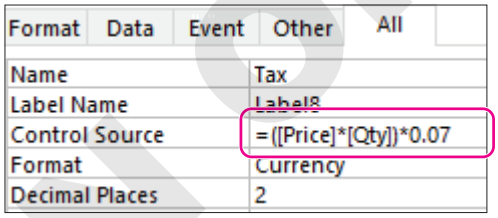


5. Use the arrow keys as needed to nudge the control so it is aligned with the Qty control.

Create Formulas

6. If necessary, choose **Format Design Tools→Design→Tools→Property Sheet** to display the Property Sheet.
7. Click the **All** tab in the Property Sheet box and set these properties:

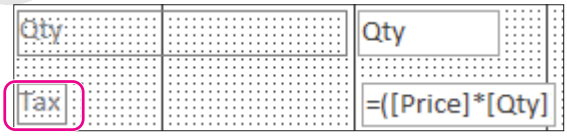
Property	Value
Name	**Tax**
Control Source	**=(Price*Qty)*.07**
Format	**Currency**
Decimal Places	**2**



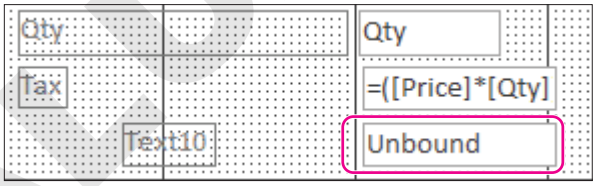
Notice that the text for Price and Qty are now surrounded by brackets, which indicates that these are fields.

8. Click the **Text8** label on the subform and set these properties:

Property	Value
Caption	**Tax**
Width	**0.25**
Left	**0.25**



9. Choose **Format Design Tools→Design→Controls→Text Box** ab|.
10. Click just below the Tax control text box to insert a new control.



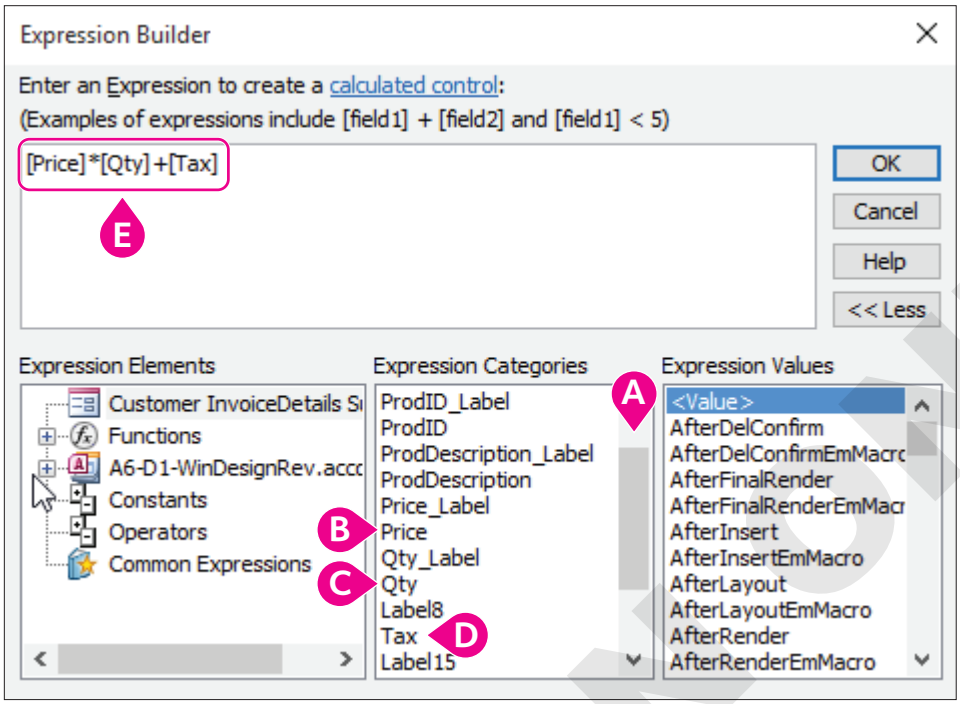
11. Use the arrow keys as needed to align the control with the Tax and Qty controls above it.
12. Click the **All** tab in the Property Sheet box and set these properties:

Property	Value
Name	**Line Total**
Format	**Currency**
Decimal Places	**2**

13. Click the **Control Source** property and then click the **Build** ... button to the far right.

The Expression Builder dialog box appears.

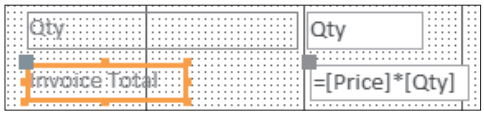
14. Follow these steps to create a calculated control with the Expression Builder:



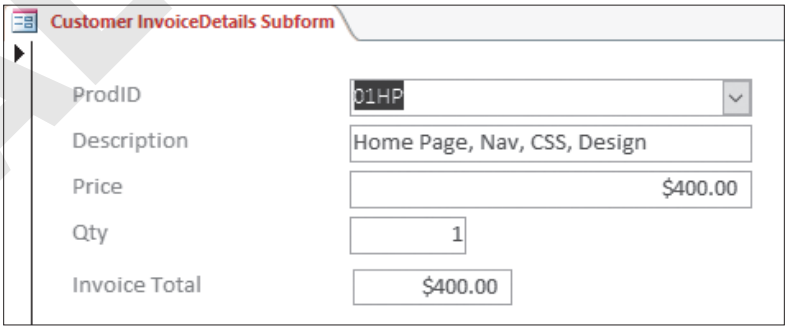
- **A** Scroll the Expression Categories pane until the Tax control is visible.
- **B** Double-click the **Price** control to enter the field into the formula.
- **C** Tap [*] and then double-click the **Qty** control.
- **D** Tap [+] and then double-click the **Tax** control.
- **E** Ensure your formula matches the example and then click **OK**.

15. Click the **Text10** label on the subform and set these properties:

Property	Value
Caption	`Invoice Total`
Width	`1`
Left	`0.25`



16. Switch to **Form View** to see your new calculated controls in action.



17. Navigate to record 16 and others for which the quantity is greater than 1 and notice that your calculated controls always perform the correct calculations.

18. Close and save the form.

Setting Properties to Assist and Control Data Entry

Some properties are meant to assist with data entry, while others help control or limit it. These properties are easily set using the Property Sheet.

Disabling Form Fields

Sometimes a form may include data that users should not enter themselves or even access, for example, setting up passwords or entering Social Security numbers. Many forms also contain settings that enter default values, such as states, or values that correspond to data contained in another field, such as city and ZIP code fields. To protect a field on a form from being edited during data entry, you can disable the field in the Property Sheet. Disabled fields are unavailable for data entry; they're still visible, but they appear grayed out and are not accessible to the user. During data entry, Access automatically skips a disabled field and moves directly to the next enabled and accessible field. To disable a field, just set the Enabled property to No.

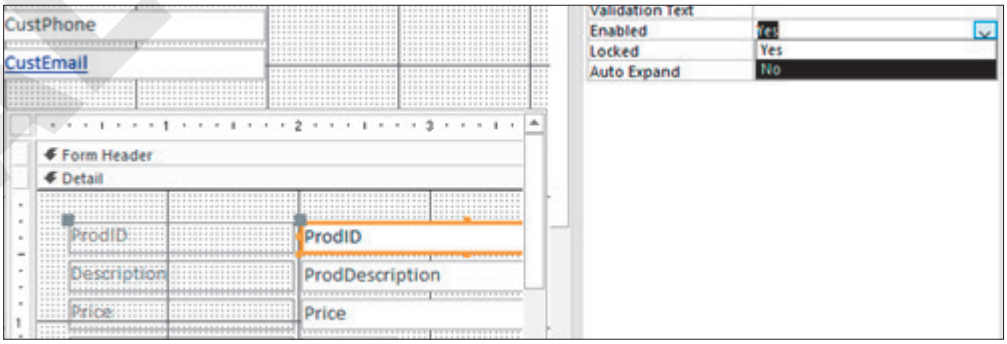
Locking Form Fields

Another way to protect fields from being edited is to lock them. Locked fields remain available on the form and appear as normal; this allows users to click in the field, but they cannot change the data. Locked fields improve readability when a form is printed versus disabled fields, which appear grayed out and print faintly. To lock a field, set the Locked property to Yes.

DEVELOP YOUR SKILLS: A6-D5

In this exercise, you will disable the InvNum field in the Customer Invoices form and the LineTotal field in the Customer InvoiceDetails subform. In addition, you will lock the Price field in the subform so it cannot be edited.

1. Display the **Customer Invoices** form in **Design View**.
2. Click the **InvNum** text box on the main form and then click the **Data** tab on the Property Sheet.
3. Disable the text box by changing the Enabled property to **No**.
4. Click anywhere on the subform to make it active and then click the **ProdID** text box.



5. Disable the ProdID text box.
6. Click the **Price** text box in the subform and set the Locked property to **Yes**.

Test the Property Settings

7. Switch to **Form View** and try clicking in the disabled **InvNum** field.

   The field is grayed out, and you can't click in it.

8. Try clicking in any of the cells of the disabled ProdID field in the subform.

   In the subform, only the data appears grayed out, but you still cannot click in the field.

9. Click in any **Price** field in the subform and try changing the number.

   Locking allows users to select a field, but the data cannot be changed.

Adding Control Tips

When you create a table and define fields, you can enter field details in the Description column. These field descriptions appear in the status bar when the fields are active during data entry. They also appear in the status bar when a field appears on a form. Although forms identify most fields with control labels, sometimes labels for specific fields, such as State and ZIP, are removed from a form when the controls are grouped under a more general label such as *Address*.

To help data entry personnel determine what data to type in a field, you can add descriptive messages to display onscreen by setting the ControlTip Text property for a control. ControlTips appear when the user points to the control. Setting control tips helps to provide explanations for controls.

DEVELOP YOUR SKILLS: A6-D6

In this exercise, you will create control tips for the disabled and locked fields on the Customer Invoices form to explain why they are inaccessible.

1. Display the **Customer Invoices** form in **Design View**.
2. Click the **InvNum** text box and then click the **Other** tab on the Property Sheet.
3. Click in the **ControlTip Text** property text box and type: **`Invoice numbers are assigned automatically and cannot be changed.`**
4. Enter these control tips for the subform controls:

ProdID text box	**`Product IDs are assigned by supervisors and cannot be edited.`**
Price text box	**`Product prices cannot be changed.`**

5. Save the changes to the form.
6. Switch to **Form View** and point to the InvNum field to display the control tip.
7. Point to the ProdID and Price fields in the subform and notice the control tips do not appear.

   Control tips display only in Form View. The subform is currently displayed in Datasheet View, so the tips don't show.

8. Open the **Customer InvoiceDetails Subform** in **Form View** and point to the ProdID and Price controls to display the control tips.
9. Close the Customer InvoiceDetails **Subform**.

   Leave the Customer Invoices form open.

Creating a Pop-Up Form

Forms and reports can be set to open in pop-up windows that stay on top of other open database objects. Pop-up forms can prompt a user for information or display a window containing supplemental data. Such forms and reports can help data entry personnel look up values while processing orders or looking up item prices. You can apply different formats to pop-up forms.

POP-UP WINDOW MODES

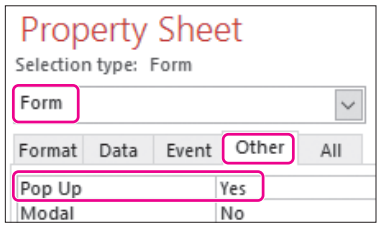
Mode	Description
Modal Pop Up	Displays a custom dialog box that prevents access to other database objects until the dialog box is closed or its required actions are taken Example: If you choose to print a report and have the Print dialog box open, you cannot make changes to the report until you click OK or Cancel in the dialog box.
Modeless Pop Up	Creates a pop-up window that sits on top of other open windows in such a way that users cannot work in the database while it is open Example: When processing orders, you could set the Inventory List to open as a modeless pop-up form to ensure you have the correct inventory number.

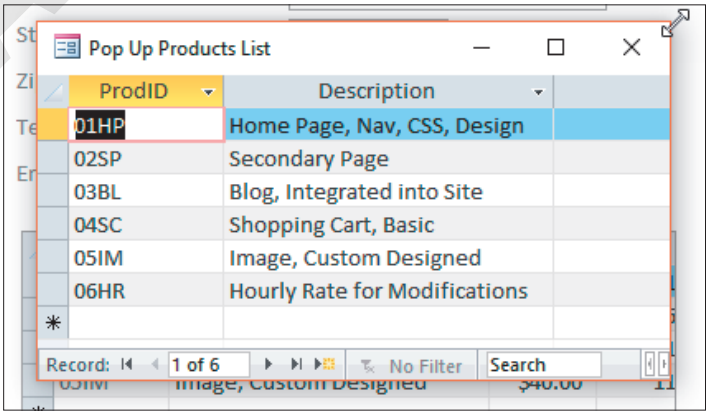
DEVELOP YOUR SKILLS: A6-D7

In this exercise, you will create and test a pop-up form using the Winchester Web Design Products table.

1. Select the **Pop Up Products** table from the Navigation pane.
2. Choose **Create→Forms→Form Wizard**.
3. Add all three fields to the Selected Fields list, choose **Datasheet Layout**, and name the form: **`Pop Up Products List`**
4. Switch to **Design View** and choose **Form Design Tools→Design→Tools→Property Sheet**.
5. If necessary, choose **Form** from the Selection Type list and then click the **Other** tab and set the Pop Up property to **Yes**.
6. Switch to **Datasheet View** and double-click the right border of each column heading to autofit the columns.
7. Resize the window using the sizing handle until it just encloses the datasheet.

   You may need to reposition the form first by dragging the title bar until you can see the frame borders.





8. Position the pop-up form in a location where all fields in the Customer Invoices form remain visible.
9. Use the Navigation bar at the bottom of the Customer Invoices form to navigate through the records.

   Notice the pop-up form remains available and in place.
10. Close the database, saving the changes to any unsaved forms.

Self-Assessment

Check your knowledge of this chapter's key concepts and skills using the Self-Assessment in your ebook or online (eLab course or Student Resource Center).

Reinforce Your Skills

REINFORCE YOUR SKILLS: A6-R1

Create and Modify a Form with a Subform

In this exercise, you will create a new Donors form for Kids for Change. You will delete, move, and size controls; modify the title; and add a logo to the form.

1. Open **A6-R1-K4C** from your **Access Chapter 6** folder and save it as: **`A6-R1-K4CRev`**
2. Select the **Donors** table in the Navigation pane and choose **Create→Forms→Form Wizard**.
3. Add all fields from the Donors table to the Selected Fields list, except the first field, DonorID.

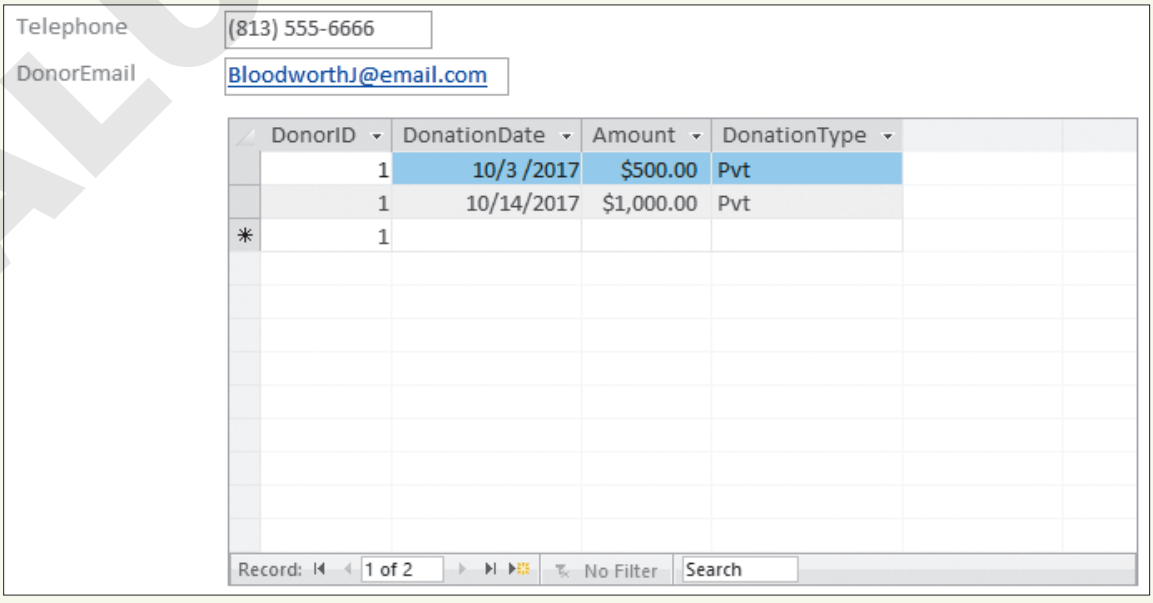
   Hint: Use the Move All Fields >> *button and Remove* < *button on the DonorID field.*
4. Click the last field in the Selected Fields list.

   This ensures the fields you add in the next step are placed at the bottom of the list.
5. Add all four fields from the Donations table to the Selected Fields list.
6. Click **Next** and click **Next** again to leave the viewing options set to By Donors and a Form with Subform(s).
7. Leave the layout set to Datasheet and click **Next**.
8. On the final Wizard screen, name the form **`Donors Form`** and the subform **`Donations Subform`** and click **Finish**.

   The new form and subform display in Form View.

Adjust the Subform Layout

9. Switch to **Layout View** then click the **Donations** label to the left of the subform and tap Delete.
10. Double-click the right edge of each subform column heading to autofit the columns.
11. Size the subform by dragging its borders and then use the arrow keys to position the subform as shown here:



Set Form Field Properties

12. Use the Navigation bar at the bottom of the main form window to move to the third record (McGovern).

    Notice the email address text box is a bit too narrow for the email address.

13. Click the email address to select it and then display the Property Sheet.
14. Click the **Format** tab and then set the Width property to: **`1.8`**
15. Use the Navigation bar to scroll through the database records.

    The Acknowledgements text box is larger than it needs to be.

16. Click the **Acknowledgements** text box and set these properties:

Property	Value
Width	**2**
Height	**0.5**

17. Set the widths of the State and DonorZIP text boxes to: **`0.8`**

Modify the Form Header

18. Click the **Donors Form** title in the Form Header to select the title box and set the Width property to: **`3.5`**
19. Click in the title box and change the title to: **`Kids for Change Donor Form`**
20. Choose **Format Layout Tools→Design→Header/Footer→Logo** .
21. Navigate to your **Access Chapter 6** folder, choose **K4C-Logo.bmp**, and click **OK**.
22. Set the Width and Height properties to **`0.8`** and the Left property to: **`4`**
23. Switch to **Form View** to view your completed form.
24. Close the database, saving the changes to both the form and subform.

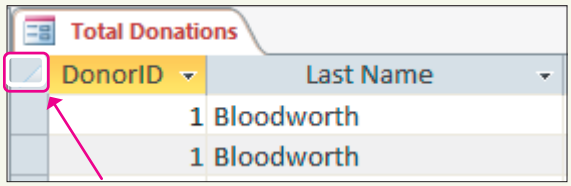
REINFORCE YOUR SKILLS: A6-R2

Add a Totals Row to a Form

In this exercise, you will add a Totals row to a form that counts the number of individual donations and totals the amount of the donations.

1. Open **A6-R2-K4C** from your **Access Chapter 6** folder and save it as: **`A6-R2-K4CRev`**
2. Select the **Donations Query** in the Navigation pane and launch the **Form Wizard**.
3. Move all fields except Acknowledgement, ScholarFund, and NetAmt to the Selected Fields list and click **Next**.
4. Accept the By Donations view and click **Next**.

5. Choose the **Datasheet** layout and click **Next**.
6. Name the new form **`Total Donations`** and click **Finish**.
7. Click the **Select All** box at the top-left corner of the datasheet to select all columns.



8. Double-click the right edge of any column heading to autofit all columns.
9. Choose **Home→Records→Totals** Σ.

   A Total row is added to the bottom of the datasheet.
10. Click in the **Last Name** cell on the Total row.
11. Click the **menu** button ▾ on the left and choose **Count** from the drop-down menu.

    There are 16 individual donations.
12. Click in the **Amount** cell on the Total row and choose **Sum** from the menu.
13. Autofit the Amount column so the total is visible.

    The donations total $11,150, all in even dollar amounts so decimal places aren't needed.
14. Switch to **Layout View** and then click the **Amount** text box and display the Property Sheet.
15. On the **Format** tab, set the Decimal Places property to **0** and then close the Property Sheet.
16. Switch to **Datasheet View** and autofit the Amount column again.
17. Close the database, saving the changes to any unsaved forms.

REINFORCE YOUR SKILLS: A6-R3

Disable and Lock Fields, Calculated Controls, and Pop-Up Forms

In this exercise, you will disable and lock subform fields to prevent information from being altered by those without permission to do so. You will also add a calculated control to a form and create a pop-up form for easy access to donor information.

1. Open **A6-R3-K4C** from your **Access Chapter 6** folder and save it as: **`A6-R3-K4CRev`**
2. Display the **Donations** subform in **Design View** and then click the **DonorID** text box and display the Property Sheet.
3. Click the **Data** tab and change the Enabled property to **No**.
4. Click the **Other** tab and then click in the **ControlTip** text box and type: **`Donor IDs are set by the administrator and cannot be edited.`**
5. Click in the **Amount** text box on the form and then click the **Data** tab and set the Locked property to **Yes**.
6. Click the **Other** tab and then click in the **ControlTip Text** box and type: **`Donor totals are calculated by the program and cannot be edited.`**
7. Switch to **Form View** and point to the DonorID and Amount controls to see the control tips you just created.
8. Close the form, saving the changes.

Create a Calculated Control

9. Choose the **ScholarFund Donations** table in the Navigation pane and launch the **Form Wizard**.
10. Add all fields to the form and click **Next**.
11. Choose the **Datasheet** layout option and click **Next**.
12. Leave the name as *ScholarFund Donations* and click **Finish**.
13. Switch to **Design View** and then drag the top edge of the **Form Footer** section bar down to make room for a new text box.
14. Choose **Format Design Tools→Design→Controls→Text Box** and then click just below the ScholarFund control to insert a new text box there.
15. Use the arrow keys as needed to align the control with the ScholarFund control.
16. Make sure the new control is still selected and, if necessary, display the Property Sheet.
17. Click the **All** tab and set these properties:

Property	Value
Name	`Total Donation`
Control Source	`=Amount+ScholarFund`
Format	`Currency`
Decimal Places	`0`

18. Click the text box label and set these properties:

Property	Value
Caption	`Total Donation`
Width	`1`
Left	`0.25`

19. Switch to **Form View** to see your new calculated control in action.

    Notice the fields are of different widths, creating a poor form layout.
20. Switch back to **Design View** and set the Width property of all text boxes to: `1`
21. Switch back to **Form View**.

    The field widths are now consistent, but the left alignment of the DonationType field needs to be changed.
22. Switch back to **Design View** and set the Text Align property of the DonationType text box to **Right**.
23. Switch back to **Form View** to view your completed form.

Create a Pop-Up Form

24. Choose the **Donors** table in the Navigation pane and launch the **Form Wizard**.
25. Add the **DonorID**, **DonorLName**, and **DonorFName** fields to the Selected Fields list and click **Next**.
26. Choose **Datasheet** layout and click **Next**.

27. Enter **`Donor Popup`** as the name, choose the option to **Modify the Form's Design**, and click **Finish**.

    The form displays in Design View.

28. Click the **Other** tab and set the Pop Up property to **Yes**.
29. Save the change to the form and then switch to **Datasheet View**.
30. Autofit the three columns in the pop-up form.
31. Adjust the height and width of the pop-up form by dragging the frame borders until the datasheet fits nicely within the frame.

    You may need to drag the form slightly by the title bar before sizing it.

32. Drag the pop-up form to the right of the ScholarFund Donations fields.
33. Navigate through the records in the ScholarFund Donations form while the pop-up form remains in place, giving you access to all donor information at a glance.
34. Close the database, saving changes to any unsaved forms.

Apply Your Skills

APPLY YOUR SKILLS: A6-A1

Create a Form and Subform and Add a Totals Row

Universal Corporate Events would like you to help them track venues, employees, and their pay. In this exercise, you will create a form with a subform, as well as a quick form that counts salaried employees and totals and averages the salaries.

1. Open **A6-A1-UCE** from your **Access Chapter 6** folder and save it as: **`A6-A1-UCERev`**
2. Select the **Venues** table and start the **Form Wizard**.
3. Move all fields from the Venues table to the Selected Fields list except VenueLiaison.
4. Choose the **Schedules** table in the Tables/Queries list.
5. Move all fields from the Schedules table to the Selected Fields list except Schedules.VenueID.
6. Accept viewing your data By Venues and the Form with Subform(s) option.
7. Choose **Datasheet** as the layout option.
8. Use **`Venue Events`** for the main form's name and **`Venue Events Subform`** for the subform's name.
9. Switch to **Layout View** and then modify the subform layout as described:
   - Remove the Venue Events label.
   - Widen the frame enough so all columns are visible.
   - Autofit all columns.
   - Reduce the frame width until it is just wide enough to contain the datasheet.
   - Nudge the frame to align it with the text boxes on the main form.
10. Close the form, saving the changes to the form and subform.
11. Choose **Salaried Personnel Query** in the Navigation pane and start the **Form Wizard**.
12. Add all fields to the Selected Fields list, choose the **Datasheet** layout, and name the new form: **`Salaried Personnel Totals`**
13. Switch to **Design View** and then select the **Salary** label and the **SalaryAmt** text box controls.
14. Press Ctrl+C and then Ctrl+V to copy and paste a duplicate salary field under the existing label and text box.

    You may need to drag the Form Footer section down slightly to make room for the salary field.
15. Change the name of the first Salary label to: **`Total Salaries`**
16. Change the name of the second Salary label to: **`Average Salary`**
17. Switch to **Datasheet View** and autofit all columns.
18. Add a **Totals** row and insert these functions:
    - **Count** in the Salaried field
    - **Sum** in the Total Salaries field
    - **Average** in the Average Salary field

    Notice the Count function displays the 11 records where the box in the Salaried field was checked.

19. Uncheck several **Salaried** boxes and notice that the function updates the changes.
20. Close the database, saving the changes to any unsaved forms.

APPLY YOUR SKILLS: A6-A2

Add a Calculated Control to a Form and Change the Form's Layout

In this exercise, you will add a calculated control to a main form by first copying an existing field, which will retain the formatting of the existing field. You will also adjust the size and position of the controls to change the form's appearance.

1. Open **A6-A2-UCE** from your **Access Chapter 6** folder and save it as: **`A6-A2-UCERev`**
2. Open the **Event Pricing Entry** form in **Form View**.

   Notice that the labels have a raised effect. You will create a calculated control while retaining the formatting of these fields by copying and pasting an existing field.
3. Switch to **Design View** and then select the **Chg/PP** label and the **ChgPP** text box.

   In the next step, you may need to drag the Form Footer bar down slightly to make room for the new controls.
4. Press Ctrl+C to copy the controls and Ctrl+V to paste them.

   An identical text box and label appear below the existing text box and label.
5. Change the *Chg/PP* label text for the new label to: **`Total`**
6. On the **Data** tab of the Property Sheet, change the Control Source property of the new text box to: **`=Guests*ChgPP`**
7. Change the Width property of all eight control labels to **`1`** and the Left property to: **`1.5`**
8. Switch to **Form View** and navigate through several records to verify the calculated control is working and the text boxes are wide enough to accommodate all records.
9. Close the database, saving the changes to the form.

APPLY YOUR SKILLS: A6-A3

Create a Pop-Up Form

In this exercise, you will create a pop-up form to help facilitate data entry.

1. Open **A6-A3-UCE** from your **Access Chapter 6** folder and save it as: **`A6-A3-UCERev`**
2. Select the **Events** table and launch the **Form Wizard**.
3. Move both the **EventID** and **EventName** fields to the Selected Fields list, choose the **Tabular** layout, and name the form: **`Events Pop Up`**
4. Switch to **Design View** and delete the *Events Pop Up* title in the Form Header section.
5. Set the Top property to **`0.1`** for the **Event ID** label and the **Event Name** text box in the Form Header.
6. Set the Form Header Height property to: **`0.4`**
7. Choose **Form** from the Selection Type drop-down list at the top of the Property Sheet.
8. On the **Other** tab, set the Pop Up property to **Yes**.

9. Switch to **Form View** and display the **Venue Events** form in **Form View**.
10. Move the pop-up form so you can view the data in the Venue Events form and subform.

    You can see what each Event ID on the Venue Events subform means by looking on the Events Pop Up form.
11. Close the database, saving the changes to the form.

Project Grader

PROJECT GRADER: A6-P1

Taylor Games: Creating and Customizing an Input Order Form

Taylor Games is getting ready to take customer orders, but before it can begin, its service reps need a new order form. In this exercise, you will create a form that contains a subform and modify the design for visual appeal. Then you will lock a form field and add a calculated control.

1. Download and open your Project Grader starting file.
   - *Using eLab:* Download **A6_P1_eStart** from the Assignments page. You *must* start with this file or your work cannot be automatically graded.
   - *Not using eLab:* Open **A6_P1_Start** from your **Access Chapter 6** folder.
2. Use the Form Wizard and these guidelines to create a new form and subform:
   - Add all available fields from the **Orders** table.
   - Add (in order) **Line Item** and **Quantity** from the **Order Details** table.
   - Add the **Price** field from the **Inventory** table.
   - View the data **by Orders** as a **Form with Subform(s)**.
   - Use the **Datasheet** layout.
   - Use **`Order Form`** as the form title and **`Order Subform`** as the subform title.
   - You will modify the form's design in the next steps.
3. Set the Width property of the Order_ID text box to: **`0.5`**
4. Set the Width property of the Service_Rep text box to: **`1.05`**
5. Set the ControlTip Text property of the Customer_State text box to: **Use two letter abbreviation**
6. Set these properties for the **Order Subform_Label** (contains the text *Order*):

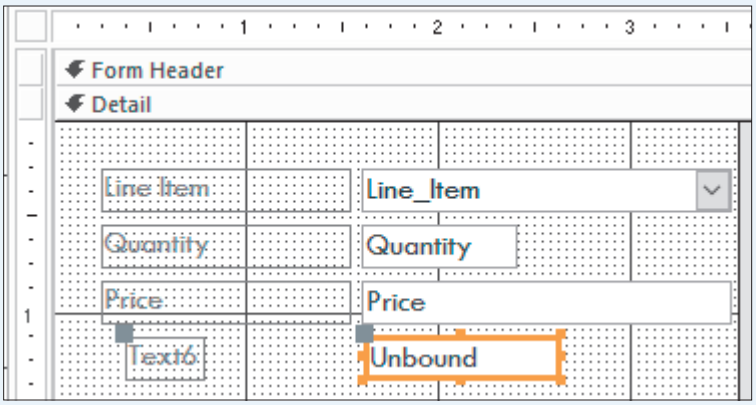
Property	Value
Top	**`2.85`**
Left	**`0.25`**

7. Set these properties for the **Order Subform**:

Property	Value
Height	**`2.5`**
Top	**`3.1`**
Left	**`0.25`**

8. In the Order Subform, set the Locked property of the Price control to **Yes**.

9. In the Order Subform, insert an unbound text box control directly below the Price control.



10. Set these properties for the unbound text box control:

Property	Value
Name	**LineTotal**
Format	**Currency**

11. Create a formula in the unbound text box control that multiplies the Quantity field by the Price field.

12. Set these properties for the Unbound label control (contains the text *Text6*):

Property	Value
Name	**LineTotal**
Caption	**Line Total**
Width	**1**
Left	**0.25**

13. In the order form, use these guidelines to create a new Title control:
    - Delete the current Title control from the Form Header (contains the title *Order Form*).
    - Insert a new Title control.
    - Set these properties for the new Title control:

Property	Value
Width	**2**
Height	**0.5**
Font Size	**26**
Text Align	**Center**
Font Weight	**Bold**

14. Insert a Logo control in the Form Header and set these properties for it:

Property	Value
Picture	Insert the **Taylor Games Logo.png** picture from your **Access Chapter 6** folder.
Width	**1**
Height	**0.6**

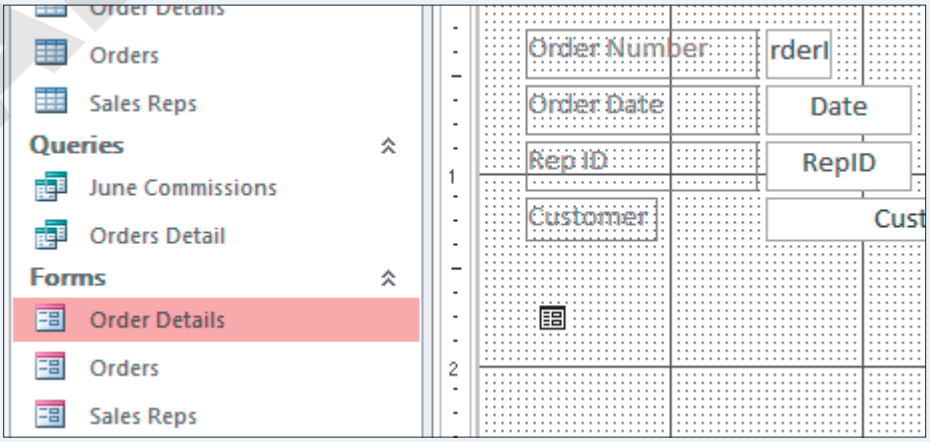
15. Set the Back Color property for the FormHeader section to: **Background Light Header**
16. Save your database.
    - *Using eLab:* Save it to your **Access Chapter 6** folder as **A6 _ P1 _ eSubmission** and attach the file to your eLab assignment for grading.
    - *Not using eLab:* Save it to your **Access Chapter 6** folder as: **A6 _ P1 _ Submission**

PROJECT GRADER: A6-P2

WebVision: Create and Add a Subform

WebVision has improved its database normalization and would like to capitalize on these changes in the current order form. In this exercise, you will start by adding a calculated field to an existing query. Then, you will create a datasheet form, add a total row, and add the datasheet form as a subform to the existing order form. You will then disable form fields and create a pop-up form. Last, you will enter a new order using the form you created.

1. Download and open your Project Grader starting file.
    - *Using eLab:* Download **A6_P2_eStart** from the Assignments page. You *must* start with this file or your work cannot be automatically graded.
    - *Not using eLab:* Open **A6_P2_Start** from your **Access Chapter 6** folder.
2. In the **OrderDetails Query**, add a calculated field named **Line Total** that multiplies the Quantity field by the Cost field.
3. Create a datasheet form that is based on the OrderDetails Query.
4. Add a Totals row to the new form and then SUM the data in the Line Total column.
5. Save the form with the name: **OrderDetails Subform**
6. Insert the OrderDetails Subform into the Orders form (by dragging it from the Navigation pane into the detail section).

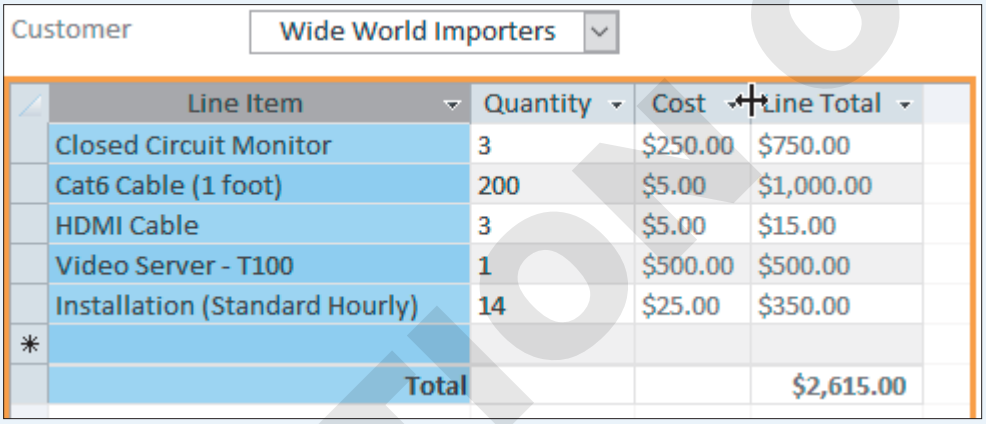


7. Delete the subform label (named *OrderDetails Subform*).

8. Set the OrderDetails Subform properties using the following guidelines:

Property	Value
Link Master Fields	`OrderID`
Link Child Fields	`OrderID`
Width	`5`
Height	`3`
Top	`1.5`
Left	`0.25`

9. Delete the Order ID textbox and label controls from the subform.
10. Disable the Cost and Line Total text box controls by setting the Enabled property to **No**.
11. In **Layout View**, resize the columns for each of the subform columns so all field data is displayed.



12. Set these properties in the **Sales Reps** form:

Property	Value
Pop Up	**Yes**
Modal	**No**

13. Close all open objects, saving any changes, and then save your database.
    - *Using eLab:* Save it to your **Access Chapter 6** folder as **`A6 _ P2 _ eSubmission`** and attach the file to your eLab assignment for grading.
    - *Not using eLab:* Save it to your **Access Chapter 6** folder as: **`A6 _ P2 _ Submission`**

Extend Your Skills

These exercises challenge you to think critically and apply your new skills in a real-world setting. You will be evaluated on your ability to follow directions, completeness, creativity, and the use of proper grammar and mechanics. Save files to your chapter folder. Submit assignments as directed.

A6-E1 That's the Way I See It

You want to create a form with a subform in the Blue Jean Landscaping database. Open **A6-E1-BJL**. Save it as **A6-E1-BJLRev** and start the Form Wizard. Create a Blue Jean Landscaping Customer Sales form with a CustSales Details subform in datasheet layout that includes:

- SalesNum and SalesDate from the MerchSales table
- CustLastName from the Customers table
- ItemName, Manufacturer, and Price from the StoreMerchandise table
- QtySold from the MerchSalesDetails table

Enhance the appearance of the forms and add any features you feel will help facilitate effective data entry.

A6-E2 Be Your Own Boss

Blue Jean Landscaping would like you to add calculated controls to the newly created Sales Invoices form so it may show order totals. They have also asked that several field properties be modified to assist and control data entry. Open **A6-E2-BJL** and save it as: **A6-E2-BJLRev**

Open the SalesInvoices form and add a calculated control that multiplies Cost by Qty Sold to produce a line total. Disable the Invoice number field, lock the Cost field, and add a control tip that will notify the user they cannot change the cost. Enhance the appearance of the forms and add any features you feel will help facilitate effective data entry.

A6-E3 Demonstrate Proficiency

Stormy BBQ is continuing to update its database and now wants to have a more exact record of its merchandising sales. Open **A6-E3-SBQ**. Save it as **A6-E3-SBQRev** and then create a new form using the default form and subform names in datasheet layout that includes:

- SalesID and SalesDate from the MerchSales table
- SKU from the MerchSalesDetails table
- Manufacturer, ItemName, and ListPrice from the Merchandise table
- QtySold from the MerchSalesDetails table

In the subform, add a calculated control that multiplies ListPrice by QtySold to produce a line total. Create a pop-up tabular form using the Merchandise table that displays SKU, ItemName, and ListPrice. Enhance the appearance of the forms as desired.