

8

Customizing Reports



Database reports summarize the data contained in tables or displayed in query results and enable you to provide information in a page layout suitable for printing. Although forms and reports serve different purposes within the context of a relational database, the techniques used to customize them are similar. In this chapter, you will import reports from other databases and use features to create custom reports.

LEARNING OBJECTIVES

- ▶ Import a report into a database
- ▶ Add a subreport to a main report
- ▶ Create a report from a subreport
- ▶ Create calculated controls on a subreport
- ▶ Set page breaks in reports
- ▶ Add a chart to a report

Project: Billing Customers

The company manager of Winchester Web Design, a small web page design company, wants you to improve its invoice report for customer billing. After reviewing invoices from several companies, the company manager has sketched out a design for the new invoice report layout. Your job is to create a sample of the new invoice report for the company's executive team.

Importing a Report into a Database

Access offers a variety of ways to create reports. In addition to using the Report Wizard or starting from scratch in Design View, you can import reports from another database. Because most companies require some type of invoice to send with customer orders, locating a sample invoice report to import is not difficult.

Sometimes you have the report you want, but during its design it may have become corrupted, either due to inadvertent changes to the report itself or because of changes to an underlying query. That's when backups are invaluable. If a report becomes corrupted, you can restore it by importing database objects from a backup copy of a database. The record source should already match, and there should be no need to edit the properties or the field names.

Identifying Report Record Sources


Reports you import retain two connections to their original database. The first is the source database table or query name, shown in the Record Source property, and the second are the field names, which appear in report text boxes. As a result, when you import a report from another database, you often must establish new control sources to the destination database. You can accomplish this by:

- ▶ Editing the imported report's Record Source property to link to a table or query in the destination database.
- ▶ Editing, if necessary, the field names in the imported report's text boxes to match those in the new record source table or query.

 External Data→Import & Link→New Data Source→From Database→Access 

DEVELOP YOUR SKILLS: A8-D1

In this exercise, you will import a report from a backup copy of a database. You will rename the report and view data from an existing table using the imported report.

1. Open **A8-D1-WinDesign** from your **Access Chapter 8** folder and save it as:
A8-D1-WinDesignRev
2. Look in the Reports section in the Navigation pane and notice the database contains three reports.
3. Choose **External Data→Import & Link→New Data Source→From Database→Access** .
The Get External Data – Access Database dialog box appears.
4. Click the **Browse** button and navigate to your **Access Chapter 8** folder.

5. Choose the file **A8-D1-WinDesign-Backup** and click **Open**.

This database is a backup copy of the WinDesign database.

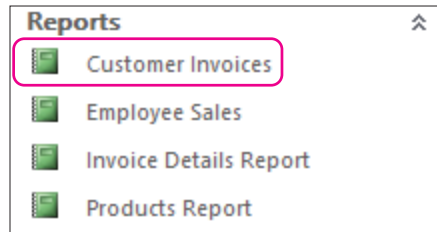
6. Leave the **Import tables, queries, forms, reports** storage setting selected and click **OK**.

Access opens the Import Objects dialog box and displays object names contained in the backup database in tabbed groups.

7. Click the **Reports** tab, choose **Customer Invoices**, and click **OK**.

8. Leave the Save Import Steps box unchecked and click **Close**.

The Customer Invoices report is added to the Reports section of the Navigation pane.



9. Double-click the **Customer Invoices** report to open it in **Report View**.
10. Scroll down as necessary to see the empty space between the customer information and signature blocks.

This is a great spot to insert a subform/subreport that includes the invoice detail lines.

Adding a Subreport to a Main Report

Subreports display subsets of data in reports and are derived from related database tables, similar to subforms on forms. However, a subreport can display table data by using a table, query, form, or another report as its source object. Forms are frequently created before reports and often already display the required report data. To streamline the report design and layout, it's best to use a subform as the basis of a subreport.

Winchester Web Design Customer Invoice				10/19/2018																				
Invoice Number	42	Invoice Date	12/5 /2018																					
Last Name	Abrams	Customer ID	AbramsJ																					
First Name	John	Customer Phone	(941) 555-9902																					
Street Address	1210 West Pier Way	Email	JPAbrams@email.com																					
City	Palmetto																							
State	FL																							
ZIP	34620																							
Invoice Details																								
<table border="1"> <thead> <tr> <th colspan="5">Winchester Web Design Invoice Details</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>01HP</td> <td>Home Page, Nav, CSS, Design</td> <td>\$400.00</td> <td>1</td> </tr> <tr> <td>2</td> <td>02SP</td> <td>Secondary Page</td> <td>\$200.00</td> <td>5</td> </tr> <tr> <td colspan="4">Invoice Total</td> <td>\$1,400.00</td> </tr> </tbody> </table>					Winchester Web Design Invoice Details					1	01HP	Home Page, Nav, CSS, Design	\$400.00	1	2	02SP	Secondary Page	\$200.00	5	Invoice Total				\$1,400.00
Winchester Web Design Invoice Details																								
1	01HP	Home Page, Nav, CSS, Design	\$400.00	1																				
2	02SP	Secondary Page	\$200.00	5																				
Invoice Total				\$1,400.00																				

This invoice report uses a subform to display invoice details.

Adding a Subreport

The procedures used to add a subreport to a report are basically the same as those used to add a subform to a form. You can create the subreport using the Report Wizard or add an unbound subreport control to the report. Then you identify the database object containing the fields you want to display as a subreport.



View the video “Adding a Subreport Using the Wizard.”

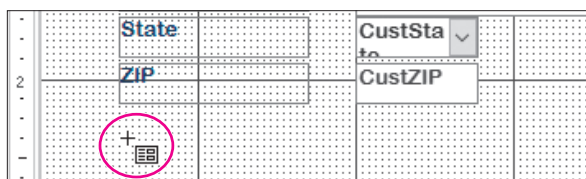
☰ Report Design Tools→Design→Controls→Subform/Subreport

DEVELOP YOUR SKILLS: A8-D2

In this exercise, you will add a subreport to the Customer Invoices report. You will use the InvoiceDetails subform as the source for the subreport.

1. Display the **Customer Invoices** report in **Design View**.
2. Choose **Report Design Tools→Design→Controls→Subform/Subreport** (at the bottom of the controls list).

3. Click just below the ZIP label to insert a control and launch the **SubReport Wizard**.



4. Choose the **Use an Existing Report or Form** option.
 5. Choose **InvoiceDetails Subform** from the list and click **Next**.
 6. Click **Next** again to accept the *Choose from a list* linking method.
 7. Click **Finish** to accept *InvoiceDetails Subform* as the name.

The subform is inserted in the report.

Set Properties

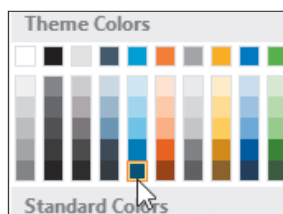
8. Display the Property Sheet, if necessary, and click the **Data** tab.
Notice the Source Object is set to Form.InvoiceDetails Subform.
 9. Switch to the **Format** tab in the Property Sheet and set these properties:

Property	Setting
Width	5.6
Height	1.5
Top	2.9
Left	0.5

10. Click the **InvoiceDetails Subform** label, which is just below the ZIP label, and set these properties:

Property	Setting
Caption	Invoice Details
Width	1.2
Height	0.30
Top	2.5

Property	Setting
Left	0.5
Font Name	Arial Rounded MT Bold
Font Size	10
Fore Color	Blue, Accent 1, Darker 50%



11. Switch to **Report View** to see your completed report.
12. Use the Navigation bar and the scroll bar to review the database records.
The information in both the report and the subform changes each time a new record is displayed.
13. Close the report, saving the changes.

Creating a Report from a Subreport

Using a subform as the record source for a subreport is convenient because the subform already includes the needed data. However, when a subreport uses a form as the record source, any changes made to the subreport layout are reflected in the source form. If you don't want the source form to be changed, you can save the subreport as a separate report in the database, change the main report's Record Source property to the new report object, and then edit the subreport.

Access allows you to save an existing form as a new form and an existing report as a new report. When a subform is used as the record source for a subreport, you can open the subreport in a separate window and save it as a separate report.

 File→Save As→Save Object As→Save As

DEVELOP YOUR SKILLS: A8-D3

In this exercise, you will create and save a new report based on the subreport from the Customer Invoices report. You will then edit the source object property in the main report to display the new subreport.

1. Open **InvoiceDetails Subform** from the Forms section of the Navigation pane.
2. Choose **File→Save As**, choose **Save Object As** from the File Types list, and then click the **Save As** button in the right pane.
3. Type **WWD Customer Invoices Subreport** as the name, choose **Report** from the As drop-down list, and click **OK**.

A new report is added to the Reports section of the Navigation pane.

4. Close the InvoiceDetails Subform.
5. Open the new **WWD Customer Invoices Subreport** in **Design View**.
6. Display the Property Sheet, if necessary, and then click the **All** tab and type **Customer Invoices Subreport** as the caption.

Create a Title for the Subreport

7. Choose **Report Design Tools→Design→Header/Footer→Title**.
Access places a title and empty placeholder controls in the Report Header.
8. Type **Winchester Web Design Invoice Details** in the title control and tap Enter.

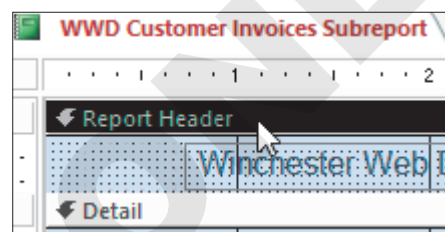
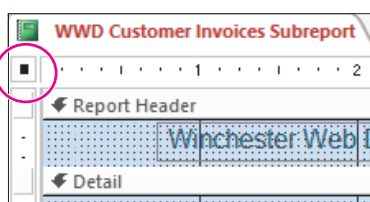
9. Set these property values for the new title control:

Property	Setting
Width	3
Height	0.25
Left	1
Font Name	Arial
Font Size	12
Text Align	Center

10. Click the **Report Header** section bar and set the Height property to: **0.3069**

Inserting the title in the header widens the subreport, so you will now reset the width.

11. Click the report selector button and set the Width property to: **5.6**



12. Close the subreport, saving the changes, and then open the **Customer Invoices** report in **Design View**.

13. If necessary, display the Property Sheet and click the **Data** tab.

14. Click the subreport to select it.

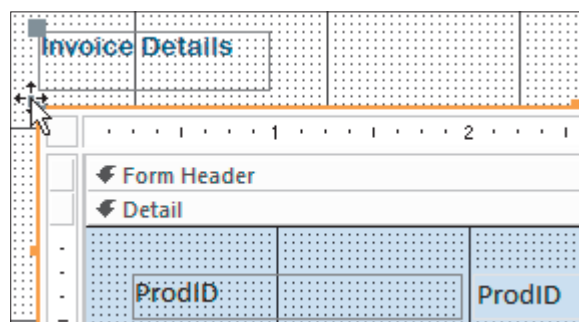
15. Click in the **Source Object** property box.

A drop-down menu button appears at the far right of the property box.

16. Choose **Report.WWD Customer Invoices Subreport** from the drop-down menu.

17. Switch to **Report View** to see how the new subreport looks.

Notice the change in appearance compared to the subform used previously.



18. Scroll through the report, seeing how the subreport always shows the correct invoice details.
19. Close the Customer Invoices report, saving the changes.

Numbering Items in a Report

As the number of records in a table grows, the length and number of records in a report or subreport also grows. You can number the records in a report to help track the items listed. If a report is grouped, you can set the count to restart numbering at the beginning of each group.

Setting Properties to Number Items

By adding a text box to the **Detail section** and setting its Control Source property to `=1`, you can automatically number items in a report. In addition, you can set the Running Sum property to identify the portion of a report for which you want to count items. For example, suppose you have an invoice report that groups services by invoice number. You can set the Running Sum property to count the items in each group and then start counting again with the next group.

Numbering Subreports Separately

Access does not permit numbering items in a subreport control on a main report. However, because you saved the subreport as a separate report, you can add the numbering controls directly to the subreport by opening it in a separate window. Any edits you make when it is open as a separate item are reflected in the main report the next time you open it.

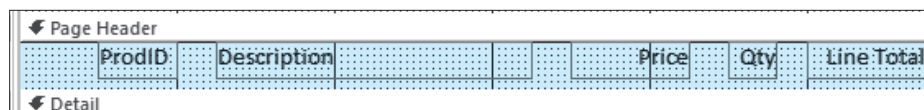
DEVELOP YOUR SKILLS: A8-D4

In this exercise, you will reposition the controls in the WWD Customer Invoices Subreport page header and add a text box control to count the number of line items.

1. Display the **WWD Customer Invoices Subreport** in **Design View**.
2. Right-click the **Detail** section bar and choose **Page Header/Footer**.
You will add labels to the Page Header section.
3. Click the **Page Header** section bar and change the Height property to: **0.3**
4. Select the **ProdID** label in the Detail section and use **[Ctrl]+[X]** to cut the control.
5. Click in the **Page Header** section bar and use **[Ctrl]+[V]** to paste the label.
6. With the **ProdID** label still selected, set both the Width and Left properties to: **0.5**
7. Use the procedure in steps 4–6 to move the **Description**, **Price**, **Qty**, and **LineTotal** labels one at a time into the Page Header section, setting the Width and Left properties as follows:

Property	Width	Left
Description	2	1.25
Price	0.75	3.5
Qty	0.3	4.5
LineTotal	0.75	5

8. If necessary, click the **Description**, **Price**, **Qty**, and **LineTotal** labels and use the up arrow **↑** key to nudge them so they're vertically aligned with the ProdID label.

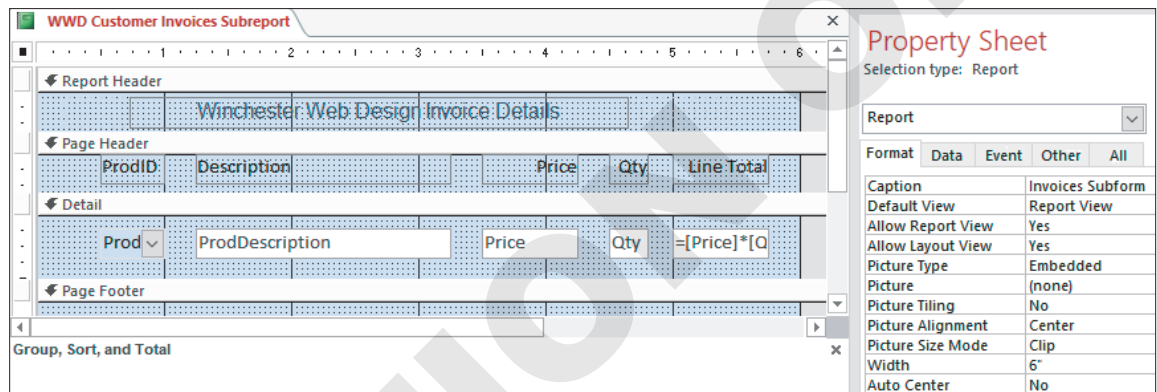


Move and Resize Report Text Box Controls

9. Set these property values for the text boxes in the Detail section:

Text Box Control	Width	Top	Left
ProdID	0.5	0.1	0.5
ProdDescription	2	0.1	1.25
Price	0.75	0.1	3.5
Qty	0.3	0.1	4.5
LineTotal	0.75	0.1	5

10. Click the **Detail** section bar and set the Height property to: **0.5**
11. Click the **Selection Type** menu button ▼ at the top of the Property Sheet and choose **Report**.
12. Set the Width property to: **6**



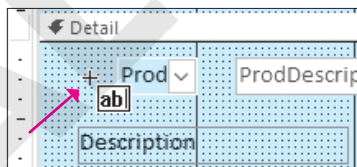
13. Switch to **Report View**.

There is room for a small field to the left of the ProdID field, which is where you will insert numbering.

Add and Format a Text Box

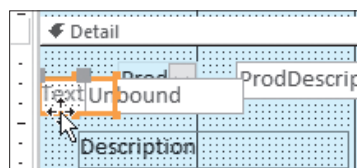
14. Switch to **Design View** and choose **Report Design Tools**→**Design**→**Controls**→**Text Box** [ab].
15. Click to the left of the ProdID text box in the Detail section to position the new box in that area.

The precise location is not important, as you will set the position, using specific properties, in a moment.



16. Click the new label control and tap [Delete] to remove it.

You may need to move your new text box if it is obscuring the label.



17. Click the new text box control and set these property values using the **All** tab in the Property Sheet:

Property	Setting
Name	txtCount
Width	0.3
Top	0.1
Left	0.1
Back Style	Transparent
Border Style	Transparent

Set Control Properties to Sum

18. Click the **Data** tab and set the Control Source property to **=1** and the Running Sum property to **Over Group**.
19. Switch to **Report View** and scroll through the report.
Notice that the numbering continues sequentially throughout the report.
20. Close the WWD Customer Invoices Subreport, saving the changes.
21. Display the **Customer Invoices** report in **Design View**.
22. Click the **InvoiceDetails Subform** and set the Width property to: **6**
23. Switch to **Print Preview** and use the navigation bar to review the various report pages.
Each invoice begins on a new page and the invoice detail line items begin at number 1 for each invoice.
24. Close Print Preview and then close the Customer Invoices report, saving the changes.

Creating Calculated Controls on a Subreport

Reports summarize data in tables and queries to present useful, organized information. This means that a report would typically show subtotals, grand totals, and averages to summarize a specified group of data. You can do this by adding calculated controls.

Positioning Calculated Controls

Calculated controls are built-in reports using the Control Source property of an unbound text box control to which you add a formula. The section or group where a calculated control is placed determines how Access performs the calculation.

A calculated control in a Detail section performs a calculation for each detail line.

Detail	Price	Qty	=[Price]*[Qty]
InvNum Footer	Invoice Total	=Sum([LineTotal])	
Page Footer	Page Total	=Sum([AccessTot])	
Report Footer	Grand Total	=Sum([LineTotal])	

A calculated control in a Group Footer section calculates the total for the group.

A calculated control in a Page Footer section calculates the total for the page.

A calculated control in a Report Footer section calculates the total for the entire report.


DEVELOP YOUR SKILLS: A8-D5

In this exercise, you will add a calculated control to the report footer section in the WWD Customer Invoices Subreport.

1. Display the **WWD Customer Invoices Subreport** in **Design View**.
2. Click the **Report Footer** section bar and set the Height property to: **0.3**

Detail	Prod	ProdDescription	Price	Qty	=[Price]*[Q
Page Footer					
Report Footer					

Height	0.3
Back Color	Background
Special Effect	Flat
Auto Height	No
Can Grow	No
Can Shrink	No

3. Choose **Report Design Tools**→**Design**→**Controls**→**Text Box** .
4. Click anywhere in the **Report Footer** section.
5. Switch to the **All** tab in the Property Sheet and set these properties for the new text box control:

Property	Setting
Name	CustomerTotal
Control Source	=Sum([Price]*[Qty])
Format	Currency
Height	0.25
Top	0
Left	4.75

6. Click the new label control and set these property values:

Property	Setting
Caption	Invoice Total
Width	1.2
Height	0.25
Top	0
Left	3
Fore Color	Text Dark

7. Close the subreport, saving the changes.
8. Display the **Customer Invoices** report in **Report View**.

Invoice Details

Winchester Web Design Invoice Details					
1	01HP	Home Page, Nav, CSS, Design	\$400.00	1	\$400.00
2	02SP	Secondary Page	\$200.00	5	\$1,000.00
Invoice Total					\$1,400.00

Growing and Shrinking a Subreport

When the number of records or amount of data displayed in a subreport varies, you can set the Can Grow and Can Shrink properties to allow the subreport space to expand or shrink so more data displays vertically. You can also change the orientation of the print layout to allow more horizontal space on each report page.

The subform without the Can Grow property enabled displays less vertical data, requiring a scroll bar.

Winchester Web Design Invoice Details

1	01HP	Home Page, Nav, CSS, Design	\$400.00	1	\$400.00
2	02SP	Secondary Page	\$200.00	5	\$1,000.00

Winchester Web Design Invoice Details

1	01HP	Home Page, Nav, CSS, Design	\$400.00	1	\$400.00
2	02SP	Secondary Page	\$200.00	5	\$1,000.00
Invoice Total					\$1,400.00

The subform with the Can Grow property enabled is expanded to display more vertical data.

DEVELOP YOUR SKILLS: A8-D6

In this exercise, you will adjust the margins of the Customer Invoices report and set the Can Grow and Can Shrink properties. These properties will adjust the size of the subreport to fit the contents.

1. Display the **Customer Invoices** report in **Design View**.

2. Choose **Report Design Tools**→**Page Setup**→**Page Size**→**Margins**→**Narrow**.
3. Click the **InvoiceDetails Subreport**.
4. If necessary, display the Property Sheet; on the **Format** tab, set the Can Grow property to **No**.
5. Switch to **Report View** and scroll through the report.
The subform now displays a vertical scroll bar in order to view additional records.
6. Switch to **Design View** and click the **InvoiceDetails Subreport**.
7. Click the **Format** tab on the Property Sheet and, if necessary, set the Can Grow and Can Shrink properties to **Yes**.
8. Switch to **Report View** and scroll through the report.
The subreport grows and shrinks to best fit the contents.
9. Save the report.

Setting Page Breaks and Customizing Controls

As you view the Winchester Web Design Customer Invoices report in Report View, you may notice that the number of invoice records displayed on each screen varies depending on the number of items ordered. To ensure each customer invoice starts on a new page, you can add a page break control. By default, when you view a report in Print Preview, data for each customer/record automatically appears on a separate page; however, multiple records appear on the same page when the report is displayed in Report View.

To add a title or general company information to an invoice, place title controls in the Page Header rather than the Report Header, which prints only on the first page.



Add the page break at the end of the Detail section so Access knows to start a new page before printing the next page header.

☰ Report Design Tools→Design→Controls→Insert Page Break


DEVELOP YOUR SKILLS: A8-D7

In this exercise, you will modify the Customer Invoices report by adding a title and the current date as well as setting up page breaks to print each invoice on a separate page.

1. Display the **Customer Invoices** report in **Design View**.
To begin, you will modify the report title.
2. Click the **Customer Invoice** title control in the Page Header section and then click just in front of *Customer* to position the insertion point there.
3. Type **Winchester Web Design** and then press **[Shift] + [Enter]** to force *Customer Invoice* to a second line.
4. Click an empty area in the Page Header section and then click the title control once more to select it.
5. Set the Width property to **4** and the Left property to **2**.

Add a Date Control

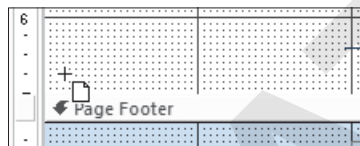
In the next few steps, you will insert a date that will display in the report header.

6. Choose **Report Design Tools**→**Design**→**Header/Footer**→**Date and Time** .
7. Choose the third date option **MM/DD/YYYY** format, remove the check from the **Include Time** box, and click **OK**.
Access places the new date control in the Report Header section. Next, you will move the date to the Page Header section so it appears on every page rather than just the first page of the report.
8. Select the date control and press **Ctrl**+**X** to cut it from the report header.
9. Click the **Page Header** section bar and press **Ctrl**+**V** to paste the date into the page header.
10. Set these properties for the date control:

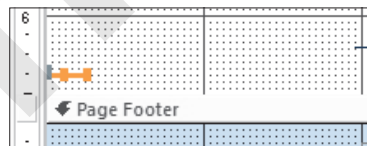
Property	Setting
Width	2
Height	0.2
Top	0.4
Left	5.8

Add a Page Break Control

11. Scroll to the bottom of the Detail section.
12. Choose **Report Design Tools**→**Design**→**Controls**→**Insert Page Break** .
13. Place the page break in the Detail section just above the Page Footer section bar.



Before



After

14. Switch to **Print Preview** and use the navigation bar to browse the pages.
The date appears on each invoice because you added it in the Page Header section. Each invoice begins on a new page. Sometimes it's not necessary to add a page break to a report and doing so may add an unneeded page. If this occurs in your report, remove the page break.
15. Close Print Preview and then close the report, saving the changes.

Adding Charts

Summarized and numerical data is often displayed visually using a **chart**. By adding a chart to a report, the information and relationships between report data is more easily interpreted. While you can add charts to reports and forms, they're more commonly used in reports. Access offers multiple chart types, including column, bar, line, and pie, among others.

You can insert charts using the Chart control or the Insert Chart command.

 **Report Design Tools**→**Design**→**Controls**→**Insert Chart** 

Formatting Modern Charts

You can format and modify common settings using either the Property Sheet or the Chart Settings task pane, which means formatting charts in Access is similar to formatting charts in other Microsoft Office applications, like Excel and PowerPoint.



View the video “Adding Modern Charts.”

Report Design Tools→Design→Tools→Chart Settings

Refreshing Chart Data

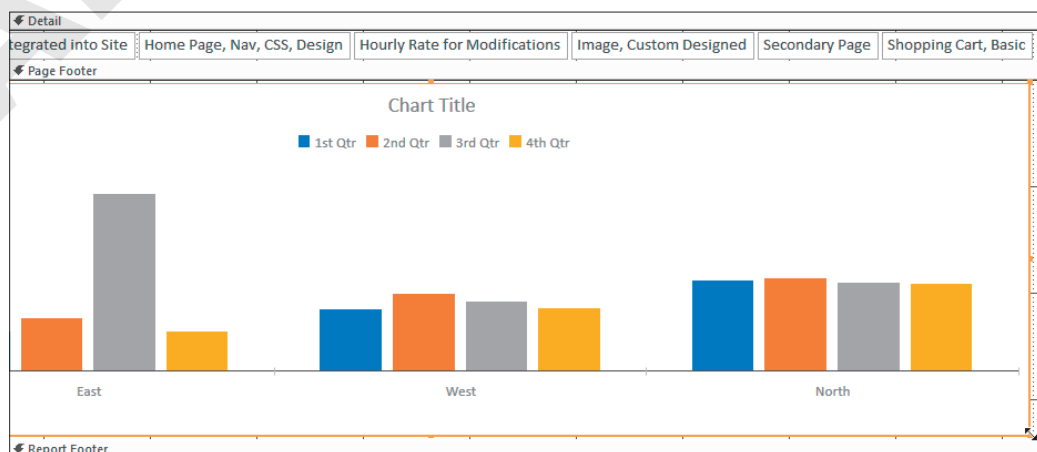
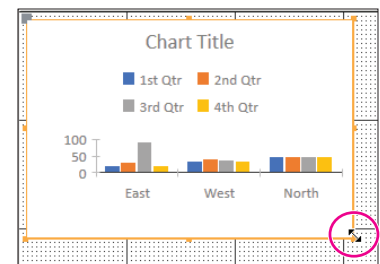
Like many other Access objects, charts use the contents in a table or query as the data source. When the data source of a chart is changed, the chart may not automatically reflect those changes. The Refresh All command manually updates a chart to match record source data.

Home→Records→Refresh All

DEVELOP YOUR SKILLS: A8-D8

In this exercise, you will modify Winchester's Employee Sales report by adding a chart. You will then format the chart and manually update it after making changes to the record source.

1. Display the **Employee Sales** report in **Design View**.
2. Choose **Report Design Tools→Design→Controls→Insert Chart** .
A menu appears allowing you to select the chart type.
3. Choose **Column→Clustered Column**.
Your mouse pointer changes to a chart icon with a plus sign.
4. Click in the upper-left corner of the **Page Footer** section to insert the chart control.
5. Close the Property Sheet and the Chart Settings pane, if necessary.
6. Hover your mouse pointer over the bottom right of the new chart control until a diagonal double-pointed arrow appears.
7. Resize the control by dragging to the bottom right until your chart is as tall as the Page Footer section and as wide as all text box controls in the Detail section.



Format the Chart

8. Choose **Report Design Tools**→**Design**→**Tools**→**Chart Settings** .

The Chart Settings pane appears.

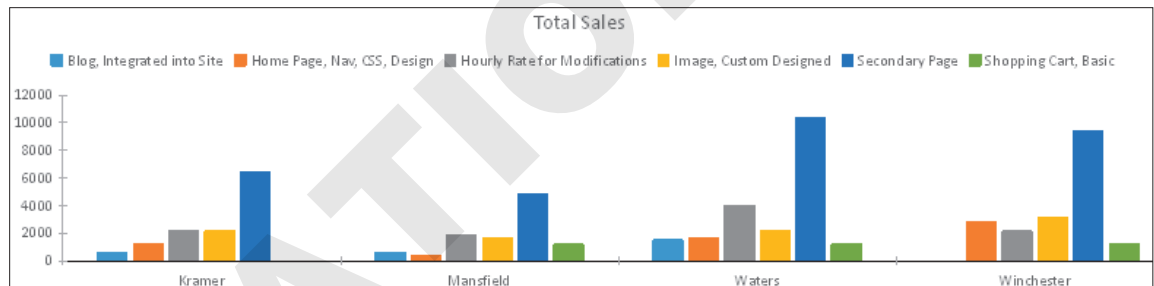
9. Choose **EmployeeSales** from the Data Source drop-down list.
10. Choose **EmpLastName** for the Axis.
11. Choose **ProdDescription** as the Legend.
12. Choose **LineTotal (Sum)** for the Values.
13. Open the Property Sheet and set these chart properties:

Property	Setting
Has Legend	Yes
Chart Title	Total Sales
Category Axis Font Size	14
Primary Values Axis Format	Currency


Tip!

There are many chart properties and settings available. If you will use charts frequently, you may want to explore each of these settings.

14. Switch to **Report View** to see the newly created chart.



Refresh the Chart

15. Open the **InvoiceDetails** table and change the quantity for the first record to: **100**
16. Switch to the **Employee Sales** report and choose **Home**→**Records**→**Refresh All** .
- The Home Page column for Winchester rises dramatically.*
17. Switch to the **InvoiceDetails** table and change the quantity for the first record back to: **1**
18. Switch to the **Employee Sales** report and refresh the chart using the **Refresh All** command.
- The chart data has normalized.*
19. Close the Employee Sales report, saving any changes, and then close the database.

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: A8-R1

Import a Report and Add a Subreport

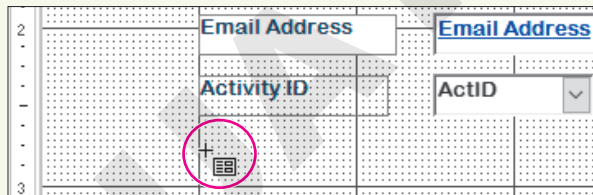
In this exercise, you will import a report from the Kids for Change database and then add a subform with details on the activities provided by the staff.

1. Open **A8-R1-K4C** from your **Access Chapter 8** folder and save it as: **A8-R1-K4CRev**
2. Choose **External Data**→**Import & Link**→**New Data Source**→**From Database**→**Access** .
3. Click **Browse** and navigate to your **Access Chapter 8** folder, choose **A8-R1-K4C-Backup**, and click **Open**.
4. Leave the **import** storage setting chosen and click **OK**.
5. Click the **Reports** tab, choose **Staff Report**, and click **OK**.
6. Leave the **Save Import Steps** checkbox unchecked and click **Close** in the Get External Data dialog box.
7. Display the newly imported **Staff Report** in **Report View**.

The empty space between the staff records is where you will insert the subreport.

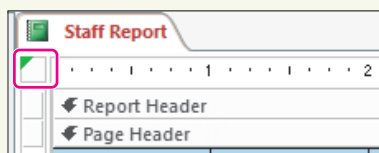
Add and Format a Subreport

8. Switch to **Design View** and choose **Report Design Tools**→**Design**→**Controls**→**Subform/Subreport**  (scroll to the bottom of the controls list).
9. Click just below the Activity ID label in the Detail section to insert a control and launch the Subreport Wizard.

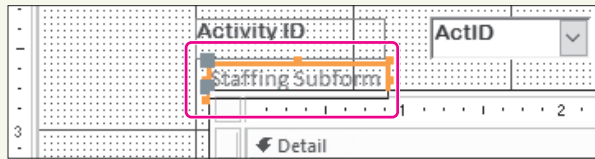


10. Choose **Staffing Subform** from the Use an Existing Report or Form option and click **Next**.
11. Click **Next** again to accept *Choose from a List* as the linking method.
12. Click **Finish** to accept *Staffing Subform* as the name.

A small green triangle in the report selector indicates a possible error. Clicking the triangle displays a smart tag that shows the error and possible solutions. In this case, the report is wider than the page. You will correct this in the next few steps.



13. Click the **Staffing Subform** label and tap **Delete**.

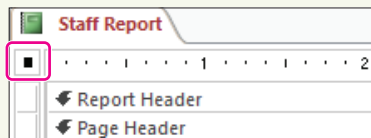


14. Click the subreport and set these properties:

Property	Setting
Width	7.7
Height	0.5
Top	3
Left	0
Border Style	Transparent

15. Click the report selector and set the Width property to: **7.8**

The green smart tag indicator should be gone.



16. Save Staff Report and then switch to **Report View**.
17. Scroll through the report to see that the activity details now appear under the staff information.
18. Close the database.

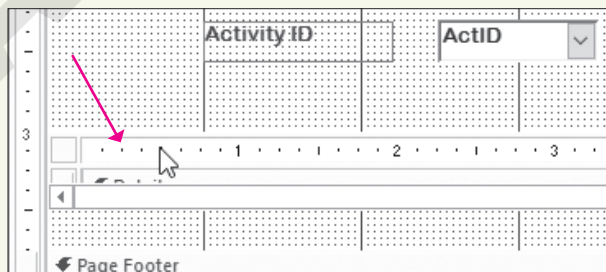
REINFORCE YOUR SKILLS: A8-R2

Create a Report from a Subreport and Number Report Items

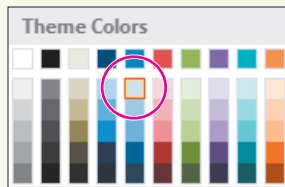
In this exercise, you will save a subreport as a separate report. You will also update a report of donations to Kids for Change, numbering them in order to add a count of the donations per donor.

1. Open **A8-R2-K4C** from your **Access Chapter 8** folder and save it as: **A8-R2-K4CRev**
2. Open **Staff Report** and switch to **Design View**.
3. Right-click the subreport control and choose **Subreport in New Window**.

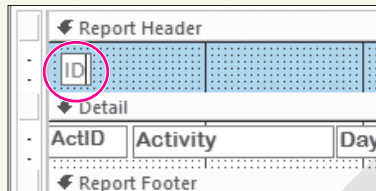
The Staffing Subform subreport opens in a separate window.



4. Choose **File**→**Save As**→**Save Object As**→**Save As**.
5. Type **K4C Staffing Subreport** as the name, choose **Report** from the Save As drop-down list, and click **OK**.
6. Close the subform and the report.
7. Display the new **K4C Staffing Subreport** in **Design View**.
8. Click the **Detail** section bar and set the Height property to: **0.3**
9. Right-click the **Detail** section bar and choose **Report Header/Footer**.
The Report Header section appears.
10. Click the **Report Header** section bar.
11. Set the Back Color property to **Blue, Accent 1, Lighter 80%**.

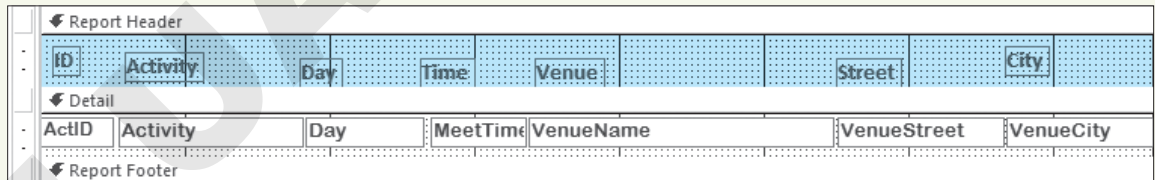


12. Choose **Report Design Tools**→**Design**→**Controls**→**Label** **Aa** and then click in the **Report Header** section above the ActID control and type: **ID**



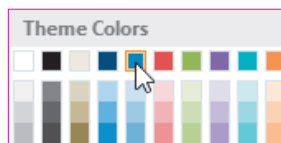
13. Add six more labels: **Activity**, **Day**, **Time**, **Venue**, **Street**, and **City**

You don't need to be precise with the label positions, as you will modify their properties in the next step.



14. Press **Ctrl** and click all seven labels to select them and then set these properties:

Property	Setting
Height	0.2
Top	0
Font Name	Arial Rounded MT Bold
Font Size	10
Fore Color	Blue, Accent 1



15. Click in an empty spot in the Report Header section to deselect the labels.
16. If necessary, click the individual labels and widen them so the text is fully visible and then align them with the text boxes in the Detail section.


17. Close and save K4C Staffing Subreport.
18. Display **Staff Report** in **Design View** and click the subreport control.

19. Set these properties on the **All** tab of the Property Sheet:

Property	Value
Name	Staffing Subreport
Source Object	Report.K4C Staffing Subreport

20. Switch to **Report View** to see the changes and then close and save Staff Report.

Number Report Items

21. Display **Donations Report** in **Design View**.
22. Choose **Report Design Tools**→**Design**→**Controls**→**Text Box**  and click in the **Detail** section to the left of the DonorID text box.

23. Click the label control for the new text box (to the left of the text box—it may be difficult to see) and tap **Delete**.

24. Select the new text box control and then set these property values on the **All** tab of the Property Sheet:

Property	Setting
Name	txtCounter
Control Source	=1
Width	0.3
Top	0


Property	Setting
Left	0.3
Border Style	Transparent
Font Name	Arial
Font Weight	Semi-Bold

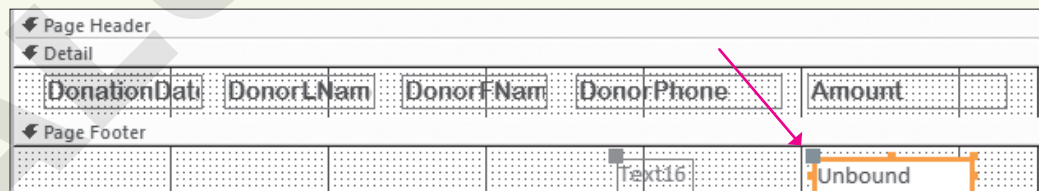
25. Click the **Data** tab in the Property Sheet and set the Running Sum property to **Over All**.
26. Switch to **Report View**.
Access numbers the detail lines consecutively for each individual donation.
27. Close the database, saving the changes to the Donations Report.

REINFORCE YOUR SKILLS: A8-R3

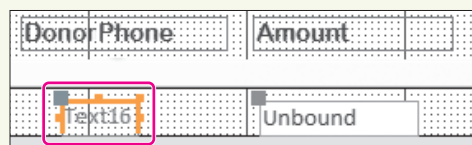
Insert Calculated Fields and Page Breaks

Kids for Change wants to improve its donations reporting. In this exercise, you will add a field to calculate the total monthly donations for each donor. You will set the subreport to grow and shrink, and you will add custom controls and a page break. You will then add a column chart that shows total donations by donor with data labels.

- Open **A8-R3-K4C** from your **Access Chapter 8** folder and save it as: **A8-R3-K4CRev**
You will begin by adding a calculated field to a report.
- Display **K4C Donors Subreport** in **Design View**.
- Choose **Report Design Tools**→**Design**→**Controls**→**Text Box**  and click in the Page Footer section under the Amount text box to place a new text box there.



- Click the text box label and tap **Delete**.



5. Click the new text box and set these properties on the **All** tab of the Property Sheet:

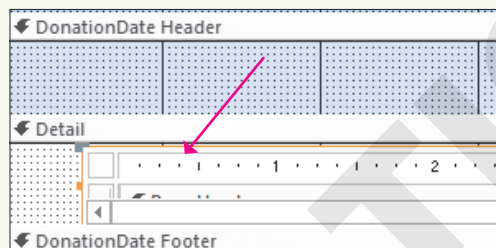
Property	Setting
Name	MonthTotal
Control Source	=Sum([Amount])
Format	Currency
Width	1.3
Height	0.2

Property	Setting
Top	0
Left	5
Font Name	Arial Rounded MT Bold
Text Align	Right

6. Close and save K4C Donors Subreport.

Grow and Shrink a Subreport

7. Display **Monthly Donations Report** in **Design View**.
 8. Click the subform to select it.



9. Click the **All** tab in the Property Sheet and set the Can Grow and Can Shrink properties to **Yes**.
 10. Switch to **Report View** and scroll through the report.
Notice how the number of donations per month changes and the report shrinks and grows to accommodate the number of donations each month.

Modify the Title

11. Switch to **Design View**.
 12. Click the **Monthly Donations Report** title control in the Page Header section and then click just in front of *Monthly* to position the insertion point.
 13. Type **Kids for Change** and press **[Shift] + [Enter]** to force *Monthly Donations Report* to a second line.
 14. Click a blank part of the header and then click the title control again to select it.

15. Set these properties for the title control:

Property	Setting
Width	4
Left	2
Text Align	Center

16. Switch to **Print Preview** and scroll through the first page of the report.

More than one month appears per page.

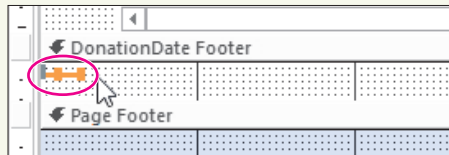
17. Use the navigation bar to navigate to page 2.

The April donations spill over from the previous page. In the next steps, you will insert a page break so each month begins on a new page.

Insert a Page Break

18. Close Print Preview and then switch to **Design View** and choose **Report Design Tools**→**Design**→**Controls**→**Insert Page Break** .

19. Click in the left side of the DonationDate Footer section to place the page break.



20. Set the Top property of the page break control to: **0**

21. Click the **DonationDate Footer** section bar and set the Height property to: **0.001**


This will make the DonationDate Footer section as short as possible so the page break doesn't push the DonationDate header to the next page.

22. Switch to **Print Preview** and use the navigation bar to scroll through the report pages.

Now the donations for each month start on new pages.

Add a Column Chart

23. Close the Monthly Donations report, saving the changes, and then display the **Total Donations Chart** report in **Design View**.

24. Choose **Report Design Tools**→**Design**→**Controls**→**Insert Chart** .

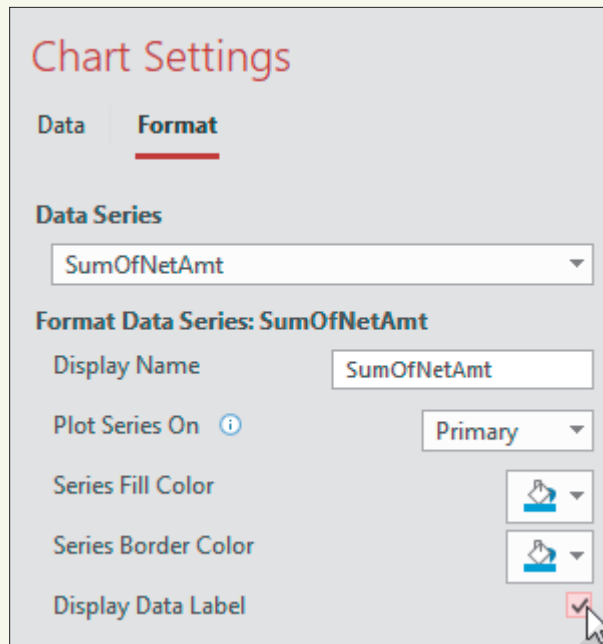
25. Choose **Column**→**Clustered Column**.

26. Click in the upper-left corner of the **Detail** section to insert the chart control.

27. Choose **Donations Query** from the Data Source drop-down list.

28. Choose **DonorLName** for the Axis, **(None)** as the Legend, and **NetAmt (Sum)** for the Values.

29. Click the **Format** tab at the top of the Chart Settings pane and check the box for **Display Data Label**.



The screenshot shows the 'Chart Settings' pane with the 'Format' tab selected. Under 'Data Series', 'SumOfNetAmt' is selected. The 'Format Data Series: SumOfNetAmt' section shows 'Display Name' as 'SumOfNetAmt', 'Plot Series On' as 'Primary', 'Series Fill Color' and 'Series Border Color' as blue, and 'Display Data Label' as checked.

30. Resize your control by dragging to the bottom right until your chart fills the entire Detail section.
31. Open the Property Sheet and set these chart properties:

Property	Setting
Has Legend	No
Has Title	No
Primary Values Axis Format	Currency

32. Switch to **Report View** and view the report; close the database, saving the changes.

Apply Your Skills


APPLY YOUR SKILLS: A8-A1

Work with Reports and Subreports

In this exercise, you will help Universal Corporate Events create a report that breaks down the company's revenue by venue. You will add a subreport to a main report.


1. Open **A8-A1-UCF** from your **Access Chapter 8** folder and save it as: **A8-A1-UCFRev**

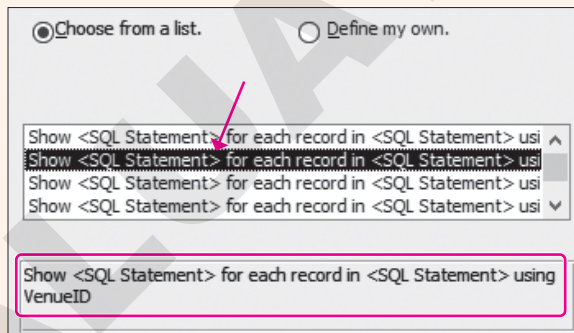
The first step is to import the needed report.

2. Choose **External Data**→**Import & Link**→**New Data Source**→**From Database**→**Access** .
3. Choose **A8-A1-UCF-Backup** from your **Access Chapter 8** folder.
4. Leave the **Import** storage setting chosen and click **OK**.
5. Click the **Reports** tab, choose **Venue Revenue Report**, and click **OK**.
6. Choose to not save the import steps and click **Close**.
7. Display the newly imported **Venue Revenue Report** in **Report View**.

The empty space between the locations is where you will insert the subreport.

Add a Subreport

8. Switch to **Design View** and choose **Report Design Tools**→**Design**→**Controls**→**Subform/Subreport** .
9. Click in the **VenueID** header section below the other controls and launch the Subreport Wizard.
10. Choose **VenueRevenue Subform** from the Use an Existing Report or Form option and click **Next**.
11. Choose the second linking option (link by VenueID) and click **Next** again.

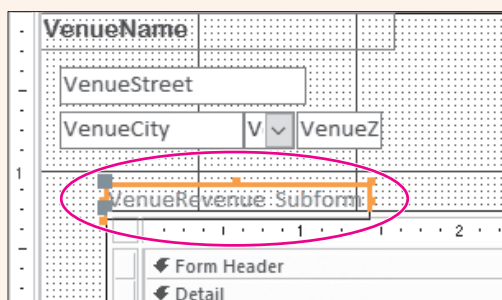


☒ Choose from a list. ☐ Define my own.

Show <SQL Statement> for each record in <SQL Statement> using
 Show <SQL Statement> for each record in <SQL Statement> using
 Show <SQL Statement> for each record in <SQL Statement> using
 Show <SQL Statement> for each record in <SQL Statement> using

Show <SQL Statement> for each record in <SQL Statement> using
 VenueID

12. Click **Finish** to accept *VenueRevenue Subform* as the name.
13. Delete the VenueRevenue Subform label located just above the subform.



VenueName

VenueStreet

VenueCity V VenueZ

VenueRevenue Subform

Form Header

Detail

14. Select the new subform and set these properties:

Property	Setting
Width	7
Height	1.5
Top	1.3
Left	0.25
Border Style	Transparent

15. Click the **VenueID Header** section bar and set the Height property to: **3**

16. Switch to **Report View** and scroll through the report.

Each venue now has an event data subform associated with it that contains all the revenue data for the events.

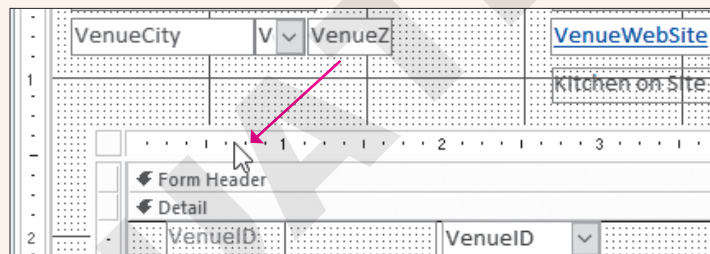
17. Close the database, saving the changes to the Venue Revenue Report.

APPLY YOUR SKILLS: A8-A2

Create a Report from a Subreport and Number Report Items

In this exercise, you will continue to help Universal Corporate Events create an effective venue revenue report. You will create a report from a subreport and number items on a subreport.

1. Open **A8-A2-UCF** from your **Access Chapter 8** folder and save it as: **A8-A2-UCFRev**
2. Display **Venue Revenue Report** in **Design View**.
3. Right-click the subreport and choose **Subreport in New Window**.



4. Save the object as a report named: **VenueRevenue Subreport**
5. Close VenueRevenue Subreport.
6. Make sure the subform/subreport is selected and the Property Sheet is displayed.
7. Set the Source Object property on the **All** tab to **Report.VenueRevenue Subreport**.
8. Save the Venue Revenue Report and then switch to **Print Preview**.
The subreport will be displayed.
9. Close Print Preview and close Venue Revenue Report.

Format the Report

Now you will resize the labels and move them from the Detail section to the Report Header section.

10. Display the **VenueRevenue SubReport** in **Design View** and set the Width property to: **6**
This widens the subreport enough to accommodate the changes you are about to make.

11. Use **Ctrl** and the mouse to select all labels and text boxes in the Detail and Report Footer sections.
12. Click the **Format** tab in the Property Sheet and set the Border Style property to **Transparent** and the Fore Color property to **Black, Text 1**.
13. Click an empty part of the form to deselect all controls and then click each label individually and reduce the size to just fit the caption (label text).
14. Click the **Report Header** section bar and set the Height property to: **0.3**
15. Click the **VenueID** label and press **Ctrl** + **X**.
16. Click in the **Report Header** section, press **Ctrl** + **V** to paste the label, and then use the arrow keys to nudge it to about 0.25 in from the left edge.



17. Cut and paste the remaining labels from the Detail section into the Report Header and then use the arrow keys to align them approximately as shown:

18. Rearrange the Detail section text boxes by dragging them with the mouse, nudging them with the arrow keys, and reducing their widths to align them with the Report Header labels.

19. Click the **Detail** section bar and set the Height property to: **0.3**
20. Use the right arrow **→** key to right-align the calculated control in the Report Footer section with the Line Total label and the Detail section calculated control.

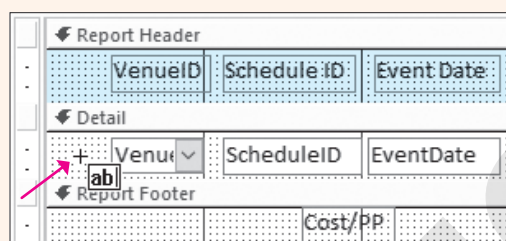
21. Switch to **Layout View** and, if necessary, resize and reposition the controls so they are aligned nicely and all data is visible.

VenueRevenue Subreport						
VenueID	Schedule ID	Event Date	Menu Code	Guests	CostPP	Line Total
PalmCt	BRTLuna	10/11/2019	BARSNK	50	\$7.50	\$375.00
WMinst	HOLMiller	12/31/2019	CHFBRK	100	\$16.00	\$1,600.00
Meadow	HOLMiller	7/1/2019	DESSERT	25	\$13.00	\$325.00

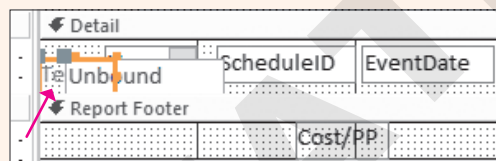
22. Save the subreport.

Number Report Items

23. Switch to **Design View** and insert a new text box in the Detail section to the left of the VenueID text box.



24. Delete the associated label control.



25. Click the new text box control and set these property values in the **All** tab of the Property Sheet:

Property	Setting
Name	txtCount
Control Source	=1
Width	0.2
Top	0
Left	0
Border Style	Transparent

26. Click the **Data** tab in the Property Sheet and set the Running Sum property to **Over All**.
27. Select all text boxes in the Detail section and set the Top property to: **0**

28. Save the **VenueRevenue SubReport** and then display the **Venue Revenue Report** in **Print Preview**.

Navigate through the report and notice that the detail lines for each venue are now numbered sequentially.

29. Close the database, saving changes to any reports.

APPLY YOUR SKILLS: A8-A3

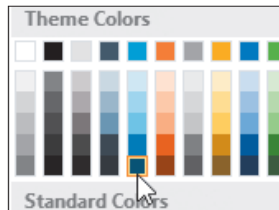
Add a Calculated Field and a Page Break

Universal Corporate Events continues to refine its database reports. In this exercise, you will first add a field to calculate the total of all the venues' revenues. You will also add a page break to another report to allow each month to begin on a new page.

1. Open **A8-A3-UCF** from your **Access Chapter 8** folder and save it as **A8-A3-UCFRev**
2. Display **Venue Revenue Report** in **Report View**.
3. Scroll through the report and notice that each venue is associated with Line Total calculations and a total of all line totals per venue.
The one thing missing is a grand total at the bottom of the report that sums all totals for the venues. You will add a calculated control that produces a grand total.
4. Switch to **Design View**.
5. Click the **Report Footer** section bar and set the Height property to: **0.4**
6. Insert a text box anywhere in the Report Footer section and set these properties for the label control:

Hint: Use the Format tab on the Property Sheet.

Property	Setting
Caption	Grand Total for All Venues
Width	2
Top	0.1
Left	2
Font Weight	Semi-Bold
Fore Color	Blue, Accent 1, Darker 50%



7. Set these property values for the new text box:

Hint: Use the All tab on the Property Sheet.

Property	Setting
Name	ActivityCost
Control Source	=Sum([Guests]*[ChgPP])
Format	Currency
Width	1.5
Top	0.1

Property	Setting
Left	5
Border Style	Transparent
Font Weight	Semi-Bold
Fore Color	Blue, Accent 1, Darker 50%

8. Select the **VenueRevenue Subform** and set the Can Grow and Can Shrink properties on the Format tab of the Property Sheet to **Yes**.

This ensures that all venue detail lines will be displayed.

9. Switch to **Report View** and scroll to the end of the report.

Notice the Grand Total for All Venues label and the grand total calculated control.

10. Close Venue Revenue Report, saving the changes.

Insert a Page Break

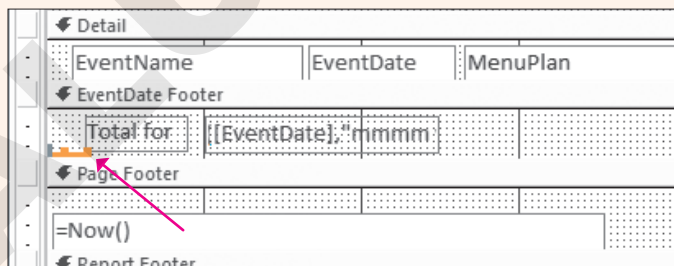
11. Display the **Event Revenue Report** in **Print Preview**.

12. Scroll through the first page and notice that several months are included.

The page break you are about to insert will position each month on a separate page.

13. Close Print Preview and then switch to **Design View** and insert a **Page Break**  control on the left side of the EventDate Footer section, just below the *Total for* label.

Be sure to position the break below the label or portions of the report will be cut off.



14. Switch to **Print Preview** and notice that just one month appears on the first page.

15. Use the navigation bar to go to the next page, and, once again, just one month will be displayed because of the page break.

16. Close the report, saving your changes.

Insert a Pie Chart

17. Display the **Revenue by Venue** report in **Design View**.
18. Use the **Insert Chart** command to create a new pie chart.
19. Click in the upper-left corner of the **Detail** section to insert the chart control and use these chart settings:
 - Data source: **Event Revenue**
 - Legend: **(None)**
 - Values: **TotalRev (Sum)**
20. On the **Format** tab, check the box for the **Display Data Label** option.
21. Resize your chart control to fill the entire Detail section.
22. On the Property Sheet, set these properties for the chart:

Property	Setting
Legend Position	Bottom
Has Title	No
Primary Values Axis Format	Currency

23. Close the database, saving the changes to the report.



Project Grader

PROJECT GRADER: A8-P1

Taylor Games: Updating Inventory

Taylor Games is ready to take sales orders. Before it begins, it needs to create a printable sales receipt for its customers. In this exercise, you will start by adding a subreport to a main report. Next, you will add calculated controls to provide order subtotals, taxes, and totals. You will then set page breaks for printing individual receipts.

- Download and open your Project Grader starting file.
 - Using eLab: Download **A8_P1_eStart** from the Assignments page. You *must* start with this file or your work cannot be automatically graded.
 - Not using eLab: Open **A8_P1_Start** from your **Access Chapter 8** folder.
- Add a subreport to the **Sales Receipt** report using these guidelines:
 - Position the subreport in the detail section below the text boxes.
 - Use the **OrderDetails** report for the data.
 - Leave all linked field options set to the default values.
 - Leave the Name as *OrderDetails*.
- Delete the OrderDetails subreport label and set the following subreport properties:

Property	Value
Width	6
Height	3
Top	0.45
Left	0
Border Style	Transparent
Can Shrink	Yes

- In the *Detail* section of the subreport, set the Border Style property for all text box controls to **Transparent**.
- In the *Report Footer* section of the subreport, insert a new text box control and set these properties for it:

Property	Value
Name	Subtotal
Control Source	=Sum([Line Total])
Format	Currency
Top	0.10
Left	4.2
Border Style	Transparent

6. Set these properties for the new unbound label (contains the text *Text40*):

Property	Value
Name	Sub Total
Caption	Sub Total
Width	1
Top	0.10
Left	3.5

7. Insert a new text box control below the Subtotal text box and set these properties for it:

Property	Value
Name	Taxes
Control Source	=[Subtotal]*.075
Format	Currency
Top	0.4
Left	4.2
Border Style	Transparent

8. Set the following properties for the new unbound label (contains the text *Text42*):

Property	Value
Name	Tax
Caption	Tax
Width	1
Top	0.4
Left	3.5

9. Insert a new text box control below the Taxes text box and set these properties for it:

Property	Value
Name	Order Total
Control Source	=[Subtotal]+[Taxes]
Format	Currency
Top	0.7
Left	4.2
Border Style	Transparent
Font Weight	Bold

10. Set the following properties for the new unbound label (contains the text *Text44*):

Property	Value
Name	Total
Caption	Total
Width	1
Top	0.7
Left	3.5
Font Weight	Bold

11. Insert a page break control below the subreport and just above the Sales Receipt form's page footer.

The screenshot shows a report in Design View. The report has a header section with fields: Line_Item, Quantity, Price, and Line Total. Below the header is a subreport. The footer section contains a 'Page Footer' control (highlighted with a pink box) and a 'Report Footer' control. The 'Page Footer' control is set to display the page number and total pages: "Page " & [Page] & " of " & [Pages]. The 'Report Footer' control contains a table with summary fields: Sub Total, Tax, and Total, with their respective formulas: =Sum([Line Total]), =[Subtotal]*0.0, and =[Subtotal]+[Tax].

12. Save your database.

- *Using eLab:* Save it to your **Access Chapter 8** folder as **A8 _ P1 _ eSubmission** and attach the file to your eLab assignment for grading.
- *Not using eLab:* Save it to your **Access Chapter 8** folder as: **A8 _ P1 _ Submission**

PROJECT GRADER: A8-P2

WebVision: Create a Chart and Back Up the Database

WebVision would like you to make some database improvements. In this exercise, you will create a chart displaying the total sales for each sales rep. You will also import an invoice report, located in a backup database, and make a few changes to improve visual design.

1. Download and open your Project Grader starting file.
 - *Using eLab:* Download **A8_P2_eStart** from the Assignments page. You *must* start with this file or your work cannot be automatically graded.
 - *Not using eLab:* Open **A8_P2_Start** from your **Access Chapter 8** folder.
2. Use the **Report Design** tools to create a new report with the name: **Annual Sales by Rep**
3. Insert a date and time control using these guidelines and properties:
 - Use the second date option.
 - Do not include a time.

Property	Value
Width	1
Text Align	Center

4. Insert the **WebVision Logo.jpg** image from your **Access Chapter 8** folder and set the Width property to: **1.25**
5. Set the ReportHeader section Back Color property to **Background Form**.

6. Add a pie chart to the Detail section using these chart settings:

Setting	Value
Data Source	Rep Sales by Customer query
Axis (Category)	Last Name
Legend (Series)	(None)
Values (Y axis)	Total (Sum)
In the Format list	Check the Display Data Label box

7. Set these chart properties:

Property	Value
Top	0
Left	0
Width	6.5
Height	5
Legend Position	Bottom
Legend Text Font Size	14
Chart Title	Annual Sales by Rep
Chart Title Font Size	20
Primary Values Axis Format	Currency

8. Set the Report Width property to: **6.5**
9. Use these guidelines to import a report from another database:
- Choose the **A8_P2_Backup** Access database located in your **Access Chapter 8** folder as the data source.
 - Choose the **Invoices** report as the object to import.
10. Save your database.
- *Using eLab:* Save it to your **Access Chapter 8** folder as **A8 _ P2 _ eSubmission** and attach the file to your eLab assignment for grading.
 - *Not using eLab:* Save it to your **Access Chapter 8** folder as: **A8 _ 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.

A8-E1 That's the Way I See It

You would like to modify a database report to show sales details for the Blue Jean Landscaping database. Open **A8-E1-BJL** and save it as: **A8-E1-BJLRev**

Import the Customer Sales Report from **A8-E1-BJL-Backup**. Then add the CustomerSales Subform to the Detail section of the Customer Sales Report.

A8-E2 Be Your Own Boss

As the owner of Blue Jean Landscaping, you pride yourself on creating organized and easy-to-use reports. You want to add more calculations to your report and to add page breaks for more organized viewing of the data. Open **A8-E2-BJL** and save it as: **A8-E2-BJLRev**

Open Customer Sales Report and create a new subreport from the CustomerSales Subform. Calculate the line totals for each subreport line using the formula $Price * QtySold$. Insert a page break so each customer appears on a separate page when you view the report in Print Preview.

A8-E3 Demonstrate Proficiency

The Stormy BBQ Key West store and restaurant is enjoying increased sales, so you must make some changes to the database reports to produce more useful sales results. Open **A8-E3-SBQ** and save it as: **A8-E3-SBQRev**

Import the Merchandise Sales Report from **A8-E3-SBQ-Backup**. Insert the MerchandiseSales Subform into the Detail section of the Merchandise Sales Report to add individual sale line items (choose Show each record in Merchandise using SKU). Save the subform as a report, being sure to close the subform, and then open the new subreport so the changes you make are not reflected in the subform. Calculate each line total ($ListPrice * QtySold$) in the Detail section of the subreport. Create a new report that includes a pie chart in the Detail section. Ensure the chart uses the MerchandiseSalesQuery as the data source and displays the total sales by Item Name.