ACCESS

4 Using Reports to Display Information

Although reports can summarize data from a single database table, they often present specific data from multiple tables or from queries based on multiple tables. Both forms and reports use many of the same tools and techniques to organize and present information in a readable format. In this chapter, you will create reports to organize and summarize data into meaningful information.

LEARNING OBJECTIVES

- Create basic reports using the Report tool
- Create reports with the Report Wizard
- Change field alignment and size in Layout View
- Change field properties
- Insert logos and dates
- Insert new fields

Project: Turning Data into Information with Reports

Forms are great for entering data and displaying single records. Most businesses, however, want to filter and summarize data, as well as display specific data, such as running totals, in a readable format. Winchester Web Design needs a new report to summarize the sales for each employee and display sales totals. As its database manager, you have agreed to create a report to meet these needs.

Introducing Reports

Because reports are often presented in a readable format and end up as a printout, there are some basics that every report should include. Of course, it should be well organized, look professional, and be visually appealing. Imagine finding a report on your desk without a date, page numbers, or a title that states what it is for. How might this affect the usability and readability of the data?

Most reports should have both a title and a subtitle. The title may simply be the company name. The subtitle should state specifically what the report is for, such as Monthly Income or Product List. Every report requires a date and should include the page number, even if the report is only one page. Once you have a good handle on the who, what, and when, you will be ready to create your first report.

Basic Reports

Use the Report button to instantly create a basic report for a selected table or query. This is the easiest way to create a report using all fields from the table or query. Only one table or query can be used in a basic report.

Create→Reports→Report

DEVELOP YOUR SKILLS: A4-D1

In this exercise, you will create and explore a basic report and then apply a multiple column format to that report.

1. Open **A4-D1-WinDesign** from your **Access Chapter 4** folder and save it as: `A4-D1-WinDesignRev`

   Click the Enable Content button, if it appears.
2. Choose the **Products** table in the Navigation pane.
3. Choose **Create→Reports→Report**.

   A basic report is displayed in Layout View. In Layout View you can easily move and size report objects.
4. Close any boxes that may be open, such as the Property Sheet or Field List pane.
5. Choose **Home→Views→View menu button ▾→Report View**.

   Report View is best when viewing how a report will be presented electronically.

6. Choose **Home→Views→View menu button ▾→Design View**.

   The report body contains sections populated with text labels and controls that display the date, time, and other data and that perform calculations.

7. Mouse over the report control tools in the Controls group of the Ribbon, reviewing the ToolTips that appear.

Apply Multiple Columns

8. Choose **Home→Views→View menu button ▾→Print Preview** to see how your report will look when printed.
9. Choose **Print Preview→Page Layout→Landscape** and then click the **Columns** button.

   The Page Setup dialog box appears with the Columns tab active.

10. Set the Number of Columns property to **2** and the Width property under Column Size to **`4.5`** and then click **OK**.

    The report is now formatted to print records into two even columns.

11. Click **Close Print Preview** on the right side of the Ribbon.
12. Choose **File→Save** or click the **Save** button on the Quick Access toolbar and save the report as: **`Products`**
13. Close the report.

Report Organization and Structure

Reports can display data from multiple tables and even from queries. Report data must often be grouped and sorted so it can be easily analyzed and interpreted. Effective reports turn data into information by displaying it in an organized and understandable manner. Queries are often the best data source for reports as they can receive data from multiple tables, sort the data, and even include calculated fields.

Sections

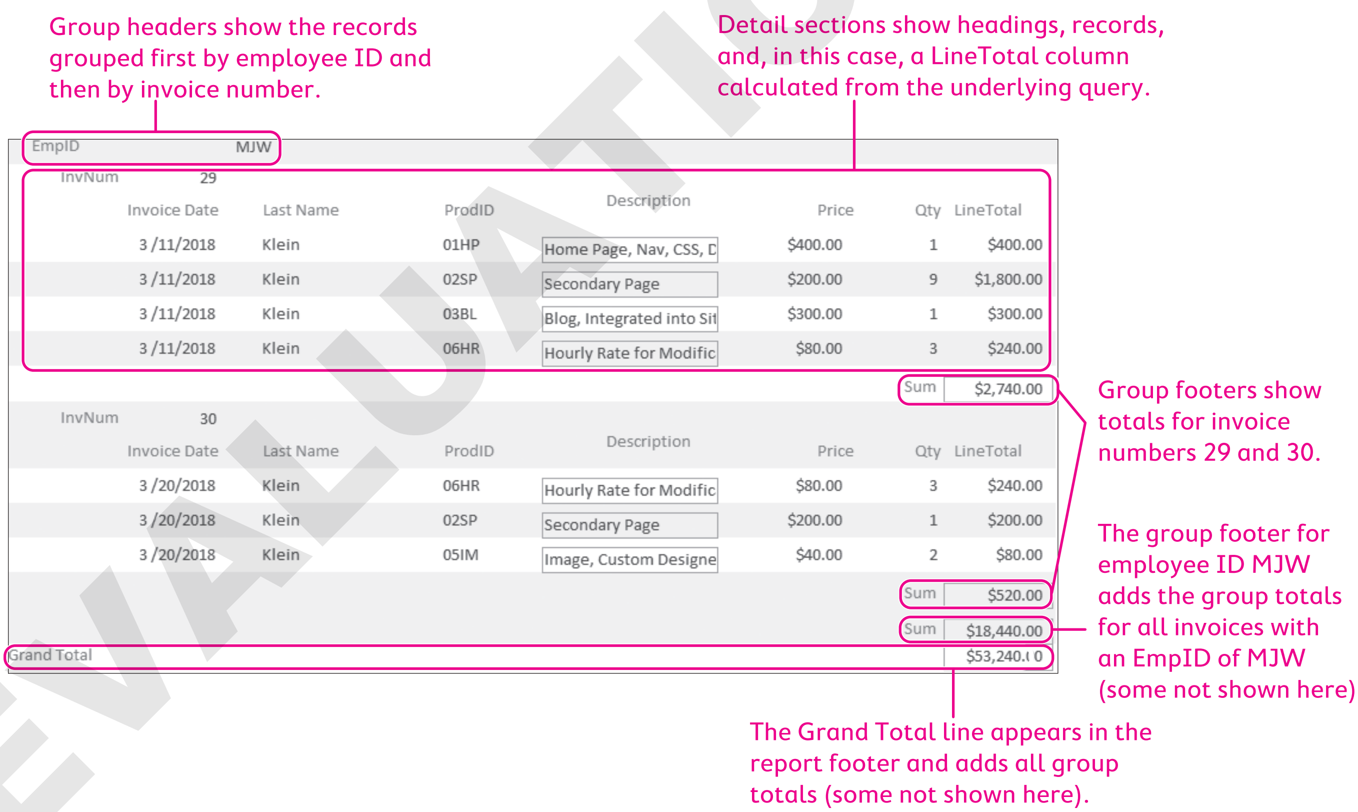
Sections provide the structure needed to effectively organize and present information. There are several types of sections, with each type used for a specific purpose.

REPORT SECTIONS

Section(s)	Description
Report Header and Footer	Displayed only at the top of the first page and bottom of the last page. Some uses include titles, subtitles, and logos.
Page Header and Footer	Displayed at the top and bottom of every page. Some uses include descriptive labels, page numbers, and dates.
Group Header and Group Footer	The group header shows the fields on which report data is grouped. For example, grouping by Salesperson might list each salesperson and all the transactions that person is responsible for. The group footer displays summary information such as the total of all transactions for each salesperson.
Detail	Main part of the report where the records are displayed. The records are typically organized in groups. The detail sections are where field headings appear.

The Report Header appears at the top of the report.

This image shows a report in Layout View with the various sections highlighted.



Grouping and Sorting

A group is a collection of records that has at least one data element or key field in common. In the preceding example, records are grouped first by employee ID MJW and then by invoice numbers 29 and 30. A group consists of a header, records, and a footer. Grouping helps organize the information in meaningful ways. Groups are arranged by level. Each nested group (lower level) will appear indented below the group above it (higher level), so you can visualize how groups are prioritized.

Once grouping has been set, summary options become available. Summary options allow users to summarize a group with calculated values such as a total, average, maximum, or minimum value. These calculations are based on the remaining ungrouped fields whose data contains a numeric value.

It is important that records first be sorted using the same field used for grouping. Otherwise, a new group might be created each time the data in the group changes. Sorting can be added in the report; however, it's best to make the sorting occur in the underlying tables or queries.

The Report Wizard

The Report Wizard is a great way to get started with most reports. It lets you choose multiple tables or queries, group and sort data, perform calculations, and organize and present the information. The Wizard builds the report for you, creating the necessary structure and organization.

View the video "Grouping and Sorting in the Report Wizard."

Create→Reports→Report Wizard

DEVELOP YOUR SKILLS: A4-D2

In this exercise, you will create a detailed Invoice report using the Report Wizard.

1. Choose the **Invoice Details Query Q1 2018** query in the Navigation pane.
2. Choose **Create→Reports→Report Wizard**.

   Invoice Details Query Q1 2018 is chosen in the Tables/Queries list because you chose it before starting the Report Wizard.
3. Double-click the **EmpID** field to add it to the Selected Fields list or choose it and click the **Add** > button.
4. Add the **InvNum**, **InvDate**, **CustLastName**, **ProdID**, **Price**, **Qty**, and **LineTotal** fields to the Selected Fields list.

   Do not select CustFirstName *and* ProdDescription. *If you add every field to the report, there won't be enough room to display all the information. Be sure that* EmpID *is the first field on the list.*
5. Click **Next**, and the Wizard will ask if you want to add grouping levels.
6. With EmpID still selected, click the **Add** > button to set EmpID as the first grouping level.

   All invoices associated with a particular employee will be grouped together.
7. Click **Add** > once more, this time to make the **InvNum** field the second grouping level.

   The information will first be grouped by employee ID and then within each employee group by invoice number.

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8. Click **Next**, and the sort order and summary information screen will appear.

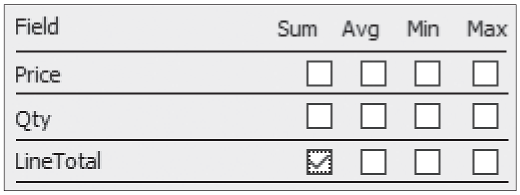
   This is where you can add totals and other calculations and sort the results within groups. The underlying query sorts the invoices in ascending order, so it isn't necessary to add sorting in this report.

9. Click the **Summary Options** button in the lower part of the dialog box.

   Price, Qty, and LineTotal are numeric fields, so they can be used to create totals as well as average, minimum, or maximum values.

10. Check the **Sum** box for the LineTotal field.

    This will sum the invoices associated with each employee ID.



11. Leave the other settings as they are and click **OK**.
12. Click **Next** because sorting isn't needed.
13. Choose **Outline** for the layout type and **Landscape** for the orientation.
14. Leave the Adjust the Field Width box checked and click **Next**.
15. Name the report `Invoice Details Report Q1 2018` and click **Finish**.

    Your report displays in Print Preview, showing invoice totals and summary totals for each employee.

16. Take a moment to review the report using the page controls at the bottom of the screen (there should be ten pages, including unnecessary extras resulting from the width of the summary totals control).

    The Report Wizard provides a great starting point; however, the report needs some formatting and layout work.

17. Click the **Close Print Preview** button on the right side of the Ribbon.

    The report will display in Design View.

Modifying Reports

Reports can be created from scratch using Design View, but the Report Wizard is much easier to use and far more efficient. And while the Report Wizard provides a great starting point, it's often necessary to add, delete, move, or resize fields and to enhance a report in other ways such as adding titles and a company logo. These and other enhancements can be done using Layout View or Design View.

Layout View allows controls to be moved and sized while viewing how the report will look when printed. Design View gives you a detailed view of the report to allow design changes to individual controls, sections, and report structure without affecting the underlying data.

View the video "Modify Reports in Layout View."

View the video "Modify Reports in Design View."

Controls

Controls determine where field data, titles, headings, images, and other information are precisely positioned within report sections. There are three types of controls used in reports.

TYPES OF CONTROLS

Control Type	Description
Bound	Controls that display data from the table or query
Unbound	Objects that enhance the appearance of a report, such as labels, titles, lines, and images
Calculated	Controls that display calculated fields from queries or that perform calculations within the report itself

Here are the controls available on the Design tab of the Ribbon.

Adding Fields to a Report

Sometimes fields need to be added to an existing report. The Existing Fields tool displays a list of tables and their fields. Fields are added to the report in Design View by dragging them from the Field List pane into report sections. Adding a field creates a text box control where the field data is displayed and a label control that contains the field name. The label can be changed, allowing you to be creative with the field names displayed on the report.

Report Design Tools→Design→Tools→Add Existing Fields

DEVELOP YOUR SKILLS: A4-D3

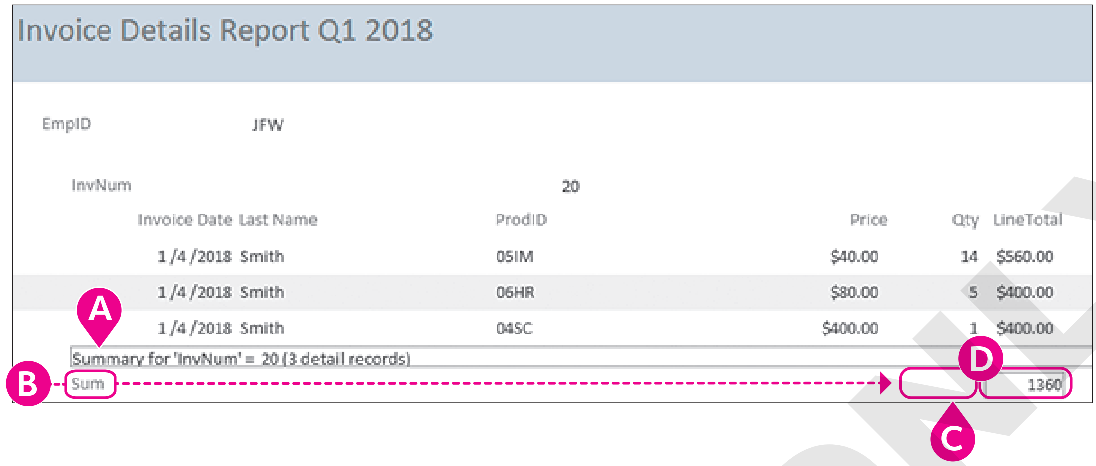
In this exercise, you will delete unneeded controls, add controls, and rearrange and resize controls to produce a more attractive, well-balanced report.

1. If necessary, open **Invoice Details Report Q1 2018**.
2. Switch to **Layout View**.

   Layout View lets you easily move controls and adjust their sizes while seeing how the report will look when printed.

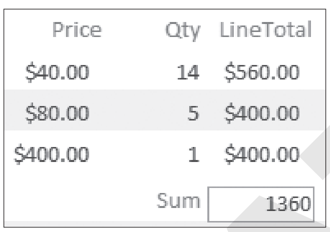
3. Close any open boxes, such as the Property Sheet or Field List pane.

4. Follow these steps to delete and rearrange the invoice number summary controls:

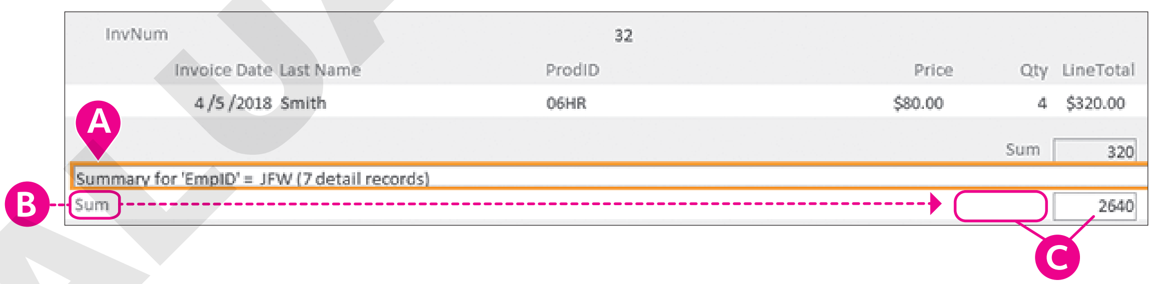


- **A** Click the **Summary for 'InvNum'** control and tap Delete to remove it.
- **B** Click the **Sum** label and then tap or hold the **right arrow** → to move it across the report next to the Total text box.
- **C** With the Sum label still selected, press the Ctrl key and click the **Total** text box. Both controls should be selected.
- **D** Tap the **up arrow** ↑ three times to move the controls up.

This section of the report should now look like this.

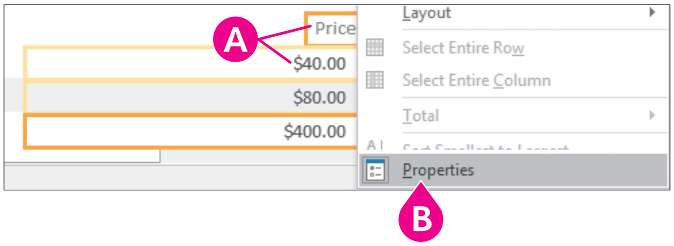


5. Follow these steps to rearrange the EmpID field controls:



- **A** Scroll down to the Summary for 'EmpID' control, click to select it, and then tap Delete to remove it.
- **B** Scroll down, click the **Sum** label, and tap the **right arrow** → multiple times until the Sum label aligns with the Sum and Qty controls above it.
- **C** With the Sum label selected, press Ctrl, click the **Total** text box, and then tap the **up arrow** ↑ three times to move the controls up.

6. Follow these steps to change the width and alignment of the Price controls:



Ⓐ Click any **Price** label and then press Ctrl and click any price text box to select all price labels and text boxes.

Ⓑ Right-click the selected controls and choose **Properties** at the bottom of the menu.

7. Set the Width property to: **0.8**

The setting won't take effect until you tap Enter *or click in another box.*

8. Set the Left property to **6.625** and tap Enter so you can see the change take effect.

The Left property determines the position from the left side of the page.

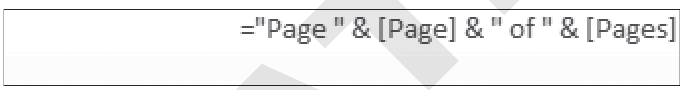
Change the Width of a Control and the Overall Report

Now you will work in Design View as you adjust the width of the page numbering control located in the Page Footer section.

9. Switch to **Design View**.

10. Click the **="Page"** numbering control in the page footer section.

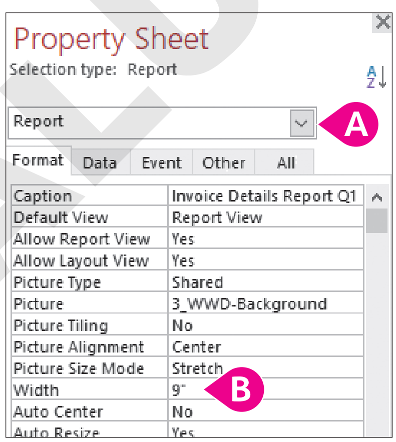
You may need to move the Property Sheet box to be able to see the control. This control determines how page numbers appear in the report, including their position within the page footer.



11. With the Property Sheet box visible, set the Width property to **2** and tap Enter to see the change.

Now you will change a width setting for the entire report.

12. Follow these steps to change the report width :



Ⓐ Click the **Selection Type** button in the Property Sheet box and choose **Report**.

Ⓑ Set the width to: **9**

You are now viewing the properties for the report rather than for individual controls. The overall report width will now be 9", although this won't be readily visible in Design View.

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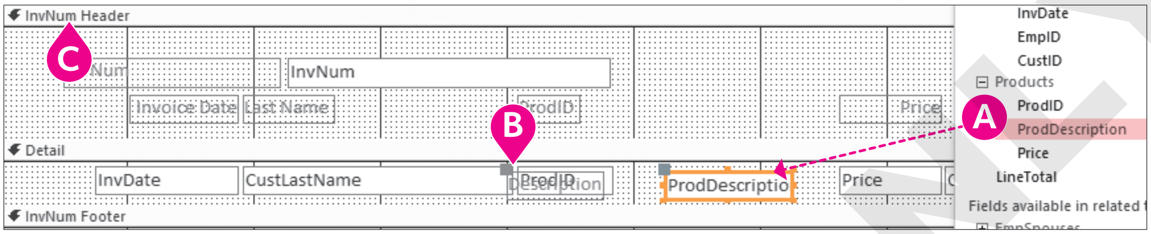
Add a Control

Now you will add the Product Description control to the report and reposition it and its label.

13. Choose **Report Design Tools→Design→Tools→Add Existing Fields** .

This tool lets you add new fields to reports.

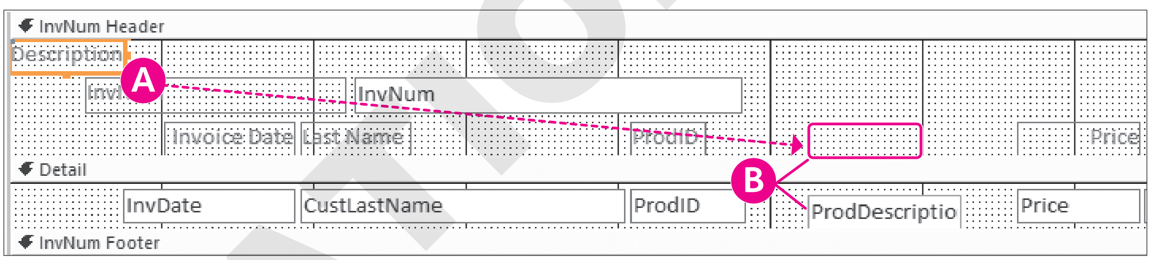
14. Follow these steps to add the ProdDescription field and to move its label:



- **A** Drag the **ProdDescription** field from the Field List pane between the ProdID and Price fields in the Detail section.
- **B** Select the new **Description** label (it will be hard to see) then right-click the selected label and choose **Cut** from the menu.
- **C** Right-click **InvNum Header** and choose **Paste**.

This pastes the field label in the header section. You will move it in the next step.

15. Follow these steps to reposition the fields:

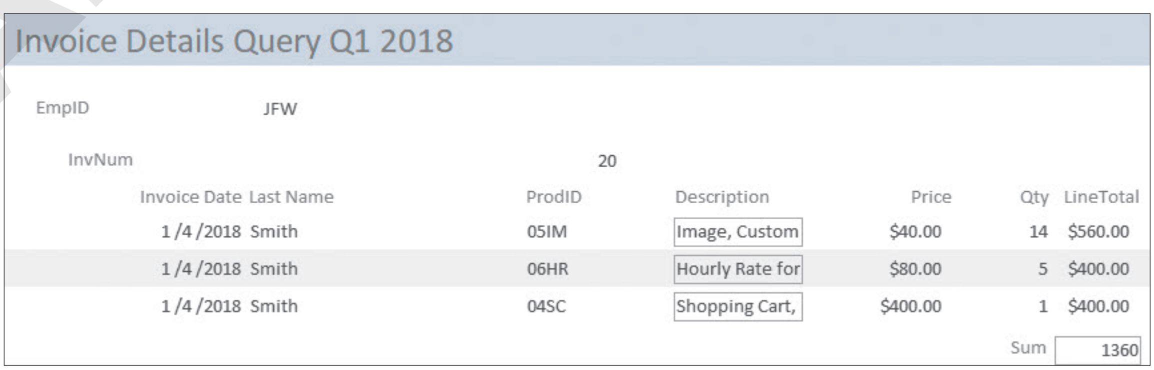


- **A** Drag the **Description** label between the ProdID and Price labels in InvNum Header.
- **B** Use the arrow keys to position the **Description** label and **ProdDescription** field so they are left-aligned with each other and roughly centered between the ProdID and Price fields.

16. Close the Field List pane and switch to **Layout View**.

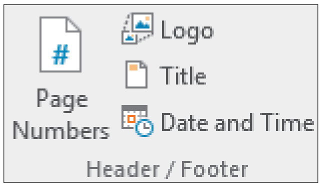
17. Click the **Save** button on the Quick Access toolbar to save your changes.

At this point, the top part of the report should closely match this example. You will continue to enhance the appearance of this report.



Header and Footer Objects

The Header/Footer group on the Design tab lets you easily add page numbers, titles, the date and time, and logos while working in Design View. Logos are especially useful because they can make reports look more professional and visually appealing. When a new report is created, a title control is generated based on the name of the report, so the Title tool is often used to add subtitles.



DEVELOP YOUR SKILLS: A4-D4

In this exercise, you will enhance the report header by adding a subtitle, logo, and the date and time. You will also format these controls.

1. Switch to **Design View**.

   The first thing you will do is increase the height of the header area to accommodate a logo and subtitle.

2. Right-click the **Report Header** section bar and choose **Properties**.

3. Set the Height property to: **`0.9`**

Format the Title and Subtitle

4. Click in the existing title control, **Invoice Details Report Q1 2018**, and replace the text with: **`Winchester Web Design`**
5. Set these properties for the title control:

Property	Setting
Width	**`3.5`**
Font Size	**`22`**
Text Align	**Center**
Font Weight	**Bold**

6. Choose **Report Design Tools→Design→Header/Footer→Title**.

   The report name appears in the new title control, which is placed on top of the existing title.

7. Drag the new subtitle control so it is left-aligned with and just below the *Winchester Web Design* title.
8. Replace the text in the new subtitle control with: **`Invoices for Q1 2018`**

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9. Set these properties for the subtitle control:

Property	Setting
Width	`3.5`
Height	`0.35`
Special Effect	**Shadowed**
Text Align	**Center**
Font Weight	**Bold**

Insert a Logo

10. Choose **Report Design Tools→Design→Header/Footer→Logo**.

The Insert Picture dialog box opens, prompting you to insert an image file.

11. Navigate to your **Access Chapter 4** folder, choose **WWD-Logo.bmp**, and click **OK**.

Access places the logo in the upper-left corner of the Report Header section.

12. Set the Left property of the logo to: `4`

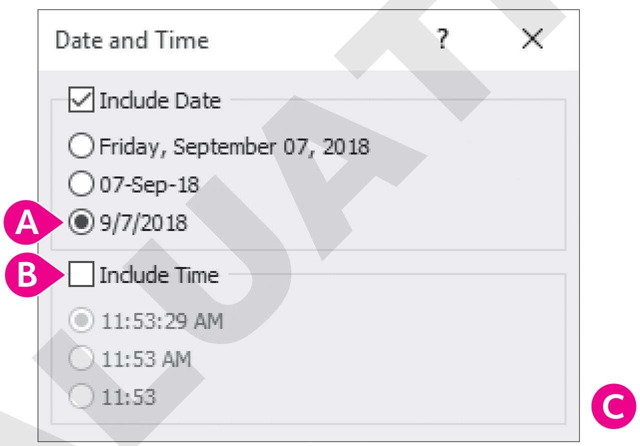
The logo moves over to the 4" position.

13. Set both the Width and Height properties to: `0.8`

Add the Date and Time and Review the Report

14. Choose **Report Design Tools→Design→Header/Footer→Date and Time**.

15. Follow these steps to insert a date control into the header:



- **A** Choose the **mm/dd/yyyy** date format (the third format).
- **B** Uncheck the **Include Time** checkbox.
- **C** Click **OK**.

The date is inserted at the right edge of the header.

16. Switch to **Report View** and review your report header.

Formatting Controls

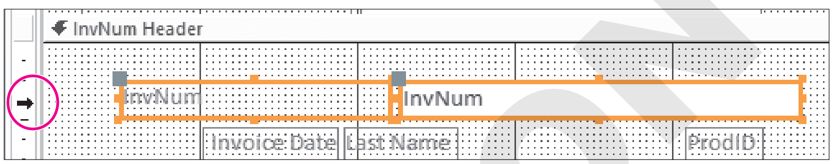
It is important to ensure that the data values are fully displayed in a report, while at the same time taking care not to leave unsightly and unnecessary blank space between columns. To accomplish this, you must resize, reposition, and align controls. It is best to adjust controls in Layout View because you can see the actual field values while making the adjustments. Multiple controls can be formatted simultaneously after you select them. You will need to use the Ctrl key when selecting any nonadjacent controls.

DEVELOP YOUR SKILLS: A4-D5

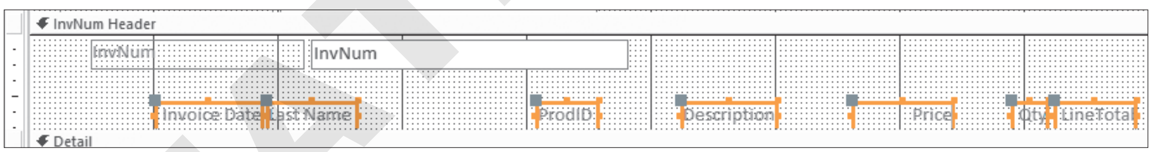
In this exercise, you will use both Design View and Layout View to resize, reposition, and align report controls.

1. Switch to **Design View** in the Invoice Details Report Q1 2018 report.
2. Click the vertical ruler to the left of the InvNum label and text box in InvNum Header, as shown here, to select both of them.

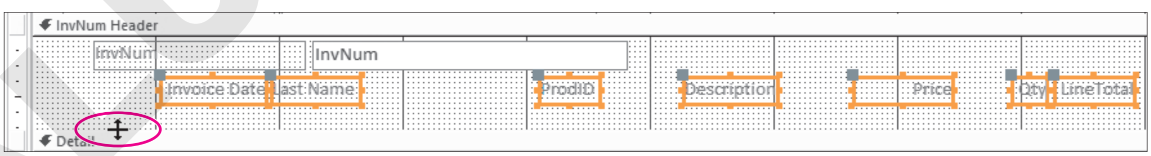
   You can also click one field and hold down Ctrl *while clicking the other.*



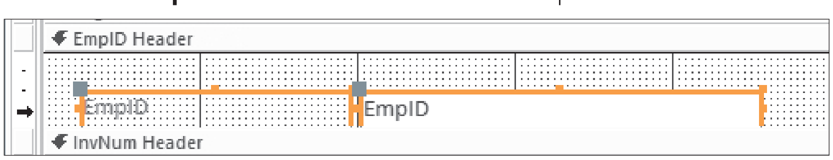
3. Tap the **up arrow** ↑ five times to nudge the controls up closer to the InvNum Header.
4. Select the remaining controls in the InvNum Header section, as shown here, and tap the **up arrow** ↑ five times to nudge them up.



5. Position the mouse pointer over the top edge of the Detail section bar until your pointer becomes a two-headed arrow.



6. Click and drag with the mouse upward until the section bar is just below the controls you moved previously.
7. If necessary, choose **Report Design Tools→Design→Tools→Property Sheet** to display the Property Sheet.
8. Select the **EmpID** label *and* text box in the EmpID Header section.



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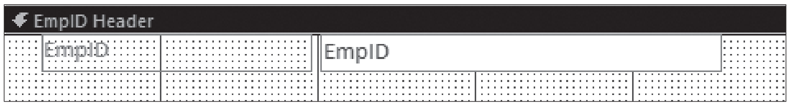
9. Set the Top property for these controls to: **0**

   This will move them up so they are just below the EmpID Header section bar. You can move controls by setting properties, using the arrow keys, or dragging. Setting properties is a way to position them with precision.

10. Click **EmpID Header**, and it will turn black to indicate it is selected.

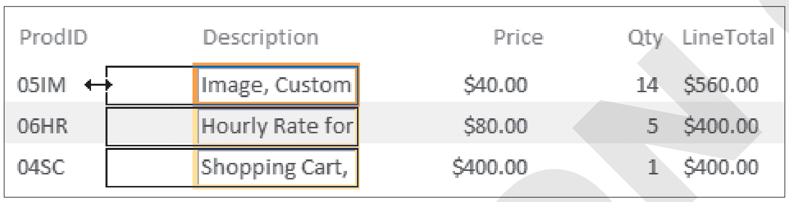


11. Set the height to: **0.33**

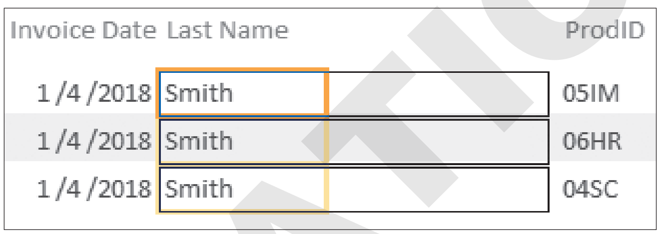
   Access sometimes changes a precise property value that you type, so don't worry if your Height property differs slightly from 0.33.

12. Switch to **Layout View**.

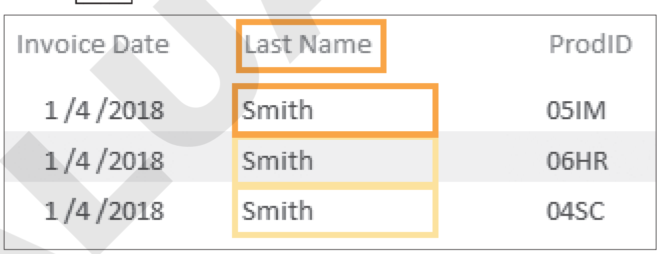
13. Click one of the text boxes in the Description column to select all the fields and then drag left to widen the column almost to the ProdID column.



14. Select the **Last Name** boxes and drag left to shorten the boxes as shown.



15. Press Ctrl and click the **Last Name** label to select the label with all the text boxes.

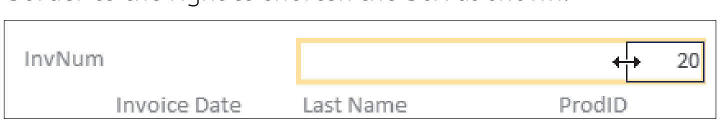


   In the next step, you will nudge the boxes to the right. Sometimes while moving a group of controls in Layout View, the screen scrolls down to the end. If this occurs, just keep nudging until you are finished and then scroll back up to the top of the report.

16. Tap the **right arrow** → eight times to nudge the text boxes to the right.

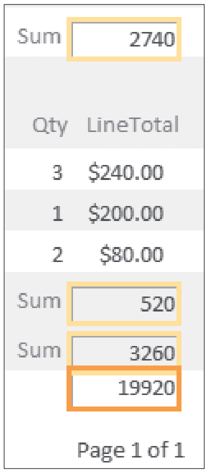
17. Select the **ProdID** label and one of the text boxes below it and then nudge the entire selection to the left six times.

18. Scroll to the top of the report, click the **InvNum** text box with *20* in it, and then drag the left border to the right to shorten the box as shown.



19. Tap the **left arrow** [←] enough times to position the text box closer to the InvNum label.

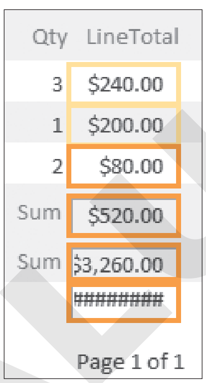
20. Scroll to the bottom of the report until the Sum controls are visible.
21. Use [Ctrl] to select the two **Sum** text boxes and the **Grand Total** text box.



22. In the Property Sheet, set the Format property to **Currency**.

    When you apply formatting, the fields may no longer fit in the text box. When a value is too large for the text box, it fills the box with the # symbol.

23. With the controls still selected, press [Ctrl] and click one of the unselected **LineTotal** text boxes in the column so all line total boxes are selected.



24. Now drag the right border of one of the controls to the right until the Grand Total is fully visible.
25. Switch to **Print Preview** view to see how your report will look when printed.
26. Close Print Preview. Feel free to return to **Design View** or **Layout View** to make additional adjustments to the report.
27. Save the report.

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Themes

Themes in a report function identically to themes in forms, including any steps taken to apply and modify them. Don't forget that when a theme is applied in any object, the applied theme impacts all objects in the database.

Report Design Tools→Design→Themes→Themes

Backgrounds

Backgrounds are images in a report or form that add a visual element beyond applying a basic back color in report sections. Backgrounds appear behind form controls and include additional settings for size, alignment, and mode. Using the Background Image command in the Background group on the Ribbon allows you to select the image of your choosing to be inserted as a background image.

Report Design Tools→Format→Background→Background Image

DEVELOP YOUR SKILLS: A4-D6

In this exercise, you will apply a theme and insert a background image into your report.

1. Switch to **Design View** and choose **Report Design Tools→Design→Themes→Themes**.
2. Hover over each theme's thumbnail and take note of the ToolTips that appear to show the theme names, then choose **Office** theme to apply it to the report.
3. Choose **Report Design Tools→Format→Background→Background Image menu button →Browse.**

   The Insert Picture dialog box appears.
4. Navigate to your **Access Chapter 4** folder, select the file named **WWD-Background.jpg**, and click **OK**.
5. If necessary, choose **Report Design Tools→Design→Tools→Property Sheet** to display the Property Sheet.
6. If necessary, click the **Selection Type** button in the Property Sheet box and choose **Report**.
7. Set the Picture Size Mode property to **Stretch** so the inserted image spans the entire report page background.

Tip! *When setting the property for a background image, be sure to evaluate the size and format of the image file being inserted. Smaller images may need to be tiled or stretched to fill the report page.*

8. Switch to **Print Preview** to see your finished report.
9. Choose **File→Close** to close the database, saving the changes to your report.

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: A4-R1

Create and Modify a Report

The president of Kids for Change wants a report that lists financial donations the organization has received since its inception, grouped by donor. He also wants to list the amount that Kids for Change is depositing into its scholarship fund for local high-school students. In this exercise, you will create a basic donations report and create a more customized report. Then you will rearrange, resize, and format controls and also add a logo and title.

1. Start Access, open **A4-R1-K4C** from your **Access Chapter 4** folder, and save it as: `A4-R1-K4CRev`
2. Choose the **Donations** table in the Navigation pane.
3. Choose **Create→Reports→Report**.
4. Take a moment to review the report and then close it, saving it as: `Quick Donations List`

Create a Report Using the Report Wizard

Now you will create a donations report that is grouped by donor IDs and includes donation totals.

5. Choose **Donations Query** in the Navigation pane and then choose **Create→Reports→Report Wizard**.
6. Add **DonorID**, **DonorLName**, **DonorFName**, **DonationDate**, and **Amount** to the Selected Fields list and click **Next**.

   The next Wizard screen asks how you want to view your data. This screen appears because the query uses two tables and the Wizard wants to know which table will be used for the first grouping level.
7. Choose **By Donations** and click **Next**.
8. Choose **DonorID** as the grouping field and add it to the grouping area.
9. Click **Next** and then click the **Summary Options** button.
10. Check the **Sum** box for the Amount field and click **OK** to add a sum calculation for that field; click **Next**.
11. Choose **Block** for the layout and **Landscape** for the orientation; click **Next** to display the final Wizard screen.
12. Enter `Donations Report 2017-2018` as the title and click **Finish**.
13. Review both report pages and then close Print Preview.

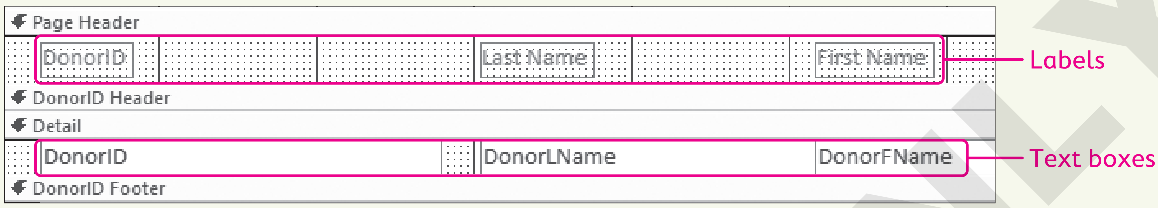
    You will continue to use this report.

ACCESS

Add, Delete, and Edit Report Controls

14. In **Design View**, open the Property Sheet, if necessary.

In the next few steps you will select and format text boxes that display field data and the labels for those text boxes. The text boxes are located in the Detail section, while their labels are located in the Page Header section.



15. Click the **DonorID** text box and set the width to: **`0.5`**

16. Use Ctrl to select the **DonorLName** and **DonorFName** text boxes and set the Width property to **`1`** and apply it to both controls.

17. Select the **Last Name** label in the Page Header section and the **DonorLName** text box in the Detail section and set their left properties to: **`1.5`**

18. Select the **First Name** label in the Page Header section and the **DonorFName** text box in the Detail section and set their left properties to: **`3`**

19. If necessary, scroll to the right of the report grid to see the other controls. Then set the left properties for the controls listed as indicated:

Control	Location	Left Property
Date label	Page Header	**`5`**
DonationDate text box	Detail	**`4.5`**
Amount label	Page Header	**`6.2`**

20. Select the **Amount** text box in the Detail section and both **=Sum(Amount)** controls located in the DonorID footer and in the report footer.

21. Set the width to **`1`** and the left property to **`6`** for each of the three controls.

Add a New Field and Format It

22. Choose **Report Design Tools→Design→Tools→Add Existing Fields** to open the Field List pane.

23. Drag **ScholarFund** from the Field List pane and drop it to the right of the Amount text box in the Detail section.

The corresponding Scholar Fund label is partly on top of the Amount text box.

24. Click the **Scholar Fund** label and tap Delete to remove it.

Next you will use the Label control tool to insert a new label in the Page Header for the Scholar Fund.

25. Choose **Report Design Tools→Design→Controls→Label** Aa.

26. Drag the **Page Header** section above the ScholarFund text box to create a rectangular label box.

27. Type **`Scholarship`** into the new label, adjusting the size of the label box as necessary.

28. Close the Field List pane and then scroll to the left in the design grid.

29. Click the long **Summary for " & "'DonorID'...** control in the DonorID Footer section.

30. Tap Delete to remove the control.
31. Click in the **Sum** label located in the DonorID Footer and replace the label text *Sum* with: **Donor ID Total**
32. Select the title in the report header section and replace it with: **Kids for Change**

Add a Logo and a New Title

33. Choose **Report Design Tools→Design→Header/Footer→Logo**, navigate to your **Access Chapter 4** folder and choose **K4C-Logo.bmp**, and click **OK**.
34. Set the width and height of the logo to: **0.7**
35. Drag the logo toward the right side of the header so it is positioned above the Amount fields.
36. Choose **Report Design Tools→Design→Header/Footer→Title**.
37. Drag the new title to the left and position it below the *Kids for Change* title.
38. Switch to **Report View** to see how your report looks and then, if necessary, switch back to **Design View** and make the desired adjustments to your report.
39. Close the database, saving the changes to your report.

REINFORCE YOUR SKILLS: A4-R2

Use Controls and Apply a Theme

In this exercise, you will size, align, and format report controls, apply a theme, and add the date to the Page Header.

1. Open **A4-R2-K4C** from your **Access Chapter 4** folder and save it as: **A4-R2-K4CRev**
2. Double-click the **Donations Report 2017-2018**.

   The report has some alignment problems, and the formatting of controls is inconsistent.
3. Switch to **Design View** and open the **Property Sheet**, if necessary.
4. Select the two titles in the report header section and set these property values:

Property	Value
Width	**4**
Height	**0.4**
Left	**2**
Text Align	**Center**

5. Press Ctrl and click the **Donations Report 2017-2018** subtitle to deselect it.
6. Set the font size of the *Kids for Change* title to: **22**
7. Set the width and height of the logo to: **0.8**
8. Set the logo's top property to: **0.05**

   Be sure to type 0.05 *and not* 0.5.
9. Click the vertical ruler to the left of the controls in the Detail section to select all the controls in that section.
10. Choose **Report Design Tools→Arrange→Sizing & Ordering→Size/Space→Equal Horizontal** to evenly space all controls in the Detail section.

ACCESS

11. Click the **Last Name** label in the page header and then press Ctrl and click the **DonorLName** text box in the Detail section.
12. Choose **Report Design Tools→Arrange→Sizing & Ordering→Align→Left** to left-align the controls.
13. Follow the procedures in the previous two steps to left-align the First Name controls.
14. Click the **Date** label in the page header and drag to center it above the DonationDate text box.
15. Select the **Donor ID Total** label (in the DonorID footer), the **Grand Total** label (in the report footer), and the **DonationDate** text box (in the Detail section).
16. Choose **Report Design Tools→Arrange→Sizing & Ordering→Align→Right** to right-align the controls.
17. Select the **Amount** text box located in the Detail section and the two **=Sum([Amount])** calculated controls located in the DonorID footer and the report footer.
18. Choose **Report Design Tools→Arrange→Sizing & Ordering→Align→Right** to right-align the controls.

Add the Date to the Page Header

Now you will add a date control to the page header section so when viewing the report on a computer, readers don't have to scroll to the very end of the report to check the date.

19. Click **=Now( )** in the page footer section and tap Delete to remove it.
20. Choose **Report Design Tools→Design→Header/Footer→Date and Time**.
21. Choose the **mm/dd/yyyy** date format (the third format).
22. Uncheck the **Include Time** checkbox and click **OK**.

    The new date control is inserted on the right-hand side of the Report Header. You may need to move the Property Sheet to be able to see the new date box.

23. Click the new date control and set these property values:

Property	Value
Width	1
Top	0.875
Left	3.5
Text Align	**Center**

24. Switch to **Print Preview** to review the completed report.
25. Feel free to return to **Design View** to make any adjustments you feel are necessary.
26. Close the report when you are finished, saving any changes.

Apply Themes to a Report

27. Display the **Quick Donations List** report in **Design View**.
28. Choose **Report Design Tools→Design→Themes→Themes** and apply the **Integral** theme.

29. Review the report in **Print Preview** and, if desired, switch back to **Design View** to choose another theme.
30. Save the report and close it when you're finished.

REINFORCE YOUR SKILLS: A4-R3

Create Reports and Modify Controls

Kids for Change is rapidly expanding, adding new activities and staff members almost daily. To meet the organization's need to match staffers with the new activities, you will create two new reports.

1. Open **A4-R3-K4C** from your **Access Chapter 4** folder and save it as: `A4-R3-K4CRev`
2. Select the **Activities** table in the Navigation pane and then choose **Create→Reports→Report**.

   Access generates a report of Kids for Change's activities in Layout View. Notice the vertical dotted line toward the right side of the report. This is a page break line indicating the report extends beyond a standard 8.5" x 11" printed page.
3. Click an **Activity** text box to select the entire Activity column of text boxes.
4. Hover the mouse pointer over the right border of one of the text boxes until it is a resize arrow and then drag left to reduce the width of the boxes to fit the widest entry in the column.
5. Resize the remaining columns to fit the widest entries in the columns.
6. Switch to **Design View** and display the **Property Sheet**.
7. Click the **="Page"** control in the page footer and set the width to `1` and the left property to: **6**
8. Choose **Report** from the Selection Type list at the top of the Property Sheet box and set the width to: **7**

   Access may change the property, making it greater than 7 to account for any variations in your report. Setting this property to 7 adjusts the overall width of the report.
9. Select the **=Count(*)** control in the Report Footer and set the Height property to: `0.25`
10. Switch to **Print Preview**.

    The report should now fit nicely on one page.
11. Close Print Preview and then save the report as `Activities Report` and close it.

Create a Report Using the Report Wizard

Now you will use the Report Wizard to create a staff availability report to match staffers with specific activities. The report will be grouped by activity.

12. Click the **Staff Schedule** query in the Navigation pane and then choose **Create→Reports→ Report Wizard**.
13. Add the **Activity**, **Day**, **MeetTime**, **StaffLastName**, **StaffFirstName**, **StaffPhone**, and **Hours** fields to the Selected Fields list.
14. Click **Next**, add **Activity** as a group, and click **Next** again.
15. Click **Next** two more times, once to skip the Sort Order and Summary screen and once to accept Stepped as the layout.
16. Name the report `Staff Availability Report` and click **Finish**.

ACCESS

Size, Add, Delete, and Edit Report Controls

17. Close Print Preview and then display the report in **Layout View**, opening the **Property Sheet** if necessary.
18. Select the **Activity** label and **Activity** text box and set the Width property to: **1.2**
19. Set the properties for both the label and text box controls as indicated:

Label and Text Box	Width Property	Left Property
Day	**0.9**	**1.5**
Meet Time	**0.75**	**2.5**
Last Name	**0.8**	**3.3**
First Name	**0.8**	**4.2**
Telephone	**1.1**	**5.1**
Hours	**0.4**	**7**

20. Switch to **Design View** and then choose **Report Design Tools→Design→Tools→ Add Existing Fields** to display the Field List pane.
21. Drag the **HrlySal** field to the right of the StaffPhone text box in the Detail section.

    A label control is included with the text box. You will delete the label then add a new label in the Page Header section.
22. Click the **HrlySal** label control, which will be on top of the StaffPhone box, and delete it.
23. Close the Field List pane and open the **Property Sheet**.
24. Select the **HrlySal** text box and set the width to **0.55** and the left property to: **6.3**
25. If necessary, use the arrow keys to nudge the control up or down to align it with the other controls in the Detail section.
26. Choose **Report Design Tools→Design→Controls→Label** and drag a new label between the *Telephone* and *Hrs* labels in the Page Header section.
27. Type **Hrly Sal** in the new label, tap Enter, and then set the width to **0.55** and the left property to: **6.3**
28. If necessary, use the arrow keys to nudge the control up or down to align it with the other controls in the page header section.
29. Switch to **Print Preview** to review your report.

Add a Subtitle and a Logo

30. Close Print Preview and switch to **Design View**.
31. Select the title in the report header and replace the text with: **Kids for Change**
32. Set these property values for the Kids for Change title:

Property	Value
Width	**4**
Left	**2**
Font Size	**22**
Text Align	**Center**

33. Choose **Report Design Tools→Design→Header/Footer→Title** to insert a new title and then enter these property values for it:

Property	Value
Top	**0.46**
Width	**4**
Left	**2**
Font Size	**20**
Text Align	**Center**

34. Choose **Report Design Tools→Design→Header/Footer→Logo** and navigate to your **Access Chapter 4** folder.
35. Choose the **K4C-Logo.bmp** and click **OK** to insert it.
36. Set the width and height of the logo to: **0.8**

Add the Date to the Page Header Section

37. Choose **=Now()** in the page footer and delete it.
38. Choose **Report Design Tools→Design→Header/Footer→Date and Time**.
39. Choose the **mm/dd/yyyy** date format (the third format) and uncheck the **Include Time** checkbox; click **OK**.

    The new date control is inserted on the right-hand side of the page header.
40. Click the new date control and tap the **up arrow** [↑] repeatedly to move it to the top of the report header section.
41. Drag the left border of the date box to the right to the 6.5" mark on the horizontal ruler.
42. Review your report using **Print Preview** and return to **Design View** to make any adjustments you feel are necessary.
43. Save the changes to your report and then close it.

Finalize the Report

44. Display **Activities Report** and take a moment to review it.
45. Switch to **Design View** and choose **Report Design Tools→Design→Themes→Themes**.
46. Choose any theme.
47. Choose **Report Design Tools→Format→Background→Background Image** and select **Browse** from the menu.
48. Navigate to your file storage location, select the file **K4C-Background.jpg**, and click **OK**.
49. If necessary, choose **Report Design Tools→Design→Tools→Property Sheet** to display the Property Sheet.
50. If necessary, click the **Selection Type** button in the Property Sheet box and choose **Report**.
51. Set the property for Picture Alignment to **Top Right**.
52. Switch to **Print Preview** to review the report.
53. Close the database, saving the changes to your report.

ACCESS

Apply Your Skills

APPLY YOUR SKILLS: A4-A1

Create and Modify Reports

Universal Corporate Events is ready to add reports to its database. In this exercise, you will create two reports: The first is a basic report that lists contacts' telephone numbers; the second lists the event venues and their contact information (address, telephone number, and website), grouped by the contact person. Then you will add, delete, and edit the venue report controls and also add a logo and title.

1. Open **A4-A1-UCE** from your **Access Chapter 4** folder and save it as: **`A4-A1-UCERev`**
2. Use the **Report** tool to create a report based on the **Contacts** table.
3. Save the report as **`Contacts List`** and then close it.

Use the Report Wizard and Delete and Edit Report Controls

Now you will use the Report Wizard to create a list of the event venues, including their address, phone number, and website, grouped by contact person.

4. Choose the **Venues** table and start the **Report Wizard**.
5. Choose all the fields *except* VenueID.
6. Leave VenueContact as the only grouping level.
7. Do not add a sort or change any layout options.
8. Name the report **`Venues List`** and finish the report.
9. Switch to **Design View** and delete the **=Now()** control in the page footer.
10. Change the *VenueContact* label in the page header to: **`Contact`**
11. Change the *VenueName* label in the page header to: **`Name of Venue`**

Add a New Title and a Logo

12. Change the *Venue List* title in the report header to **`Universal Corporate Events`** and then set these properties for it:

Property	Value
Width	**`4`**
Height	**`0.4`**
Left	**`2`**
Font Name	**Arial Narrow**
Font Size	**`22`**
Text Align	**Center**

13. Insert a new title, leaving the name set as *Venue List* and setting these properties:

Property	Value
Width	**4**
Height	**0.4**
Top	**0.45**
Left	**2**
Font Name	**Arial Narrow**
Font Size	**20**
Text Align	**Center**

14. Insert **UCE-Logo.bmp** from your **Access Chapter 4** folder into the header.

    The logo should be positioned on the left side of the header.

15. Set the logo's width and height properties to: **0.8**
16. Review your report in **Layout View**.

    The report has layout problems that are addressed in the next exercise.

17. Save the report, close it, and close the database.

APPLY YOUR SKILLS: A4-A2

Fine-Tune Reports

The CEO of Universal Corporate Events has sent back the first draft of the Contacts List and Venues List with a list of modifications he would like you to make. In this exercise, you will resize, align, and format controls on the Venues List report and apply a theme and background image to the Contacts List report.

1. Open **A4-A2-UCE** from your **Access Chapter 4** folder and save it as: **A4-A2-UCERev**
2. Display the **Venue List** report in **Layout View**.
3. Modify the position and width of all columns as necessary so all data is visible.
4. Insert a date in the header using the **mm/dd/yyyy** format and omitting the time.
5. Save and then close the report.

Apply a Theme and Insert a Background

6. Display the **Contacts List** report in **Design View**.
7. Apply a theme of your choice to the report.
8. Delete the Logo control next to the title in the report header section.
9. Insert a background image using the image file **UCE-Background.jpg** and set the alignment to **Bottom Right**.
10. View the report in **Report View** and make any adjustments you feel are necessary.
11. Save and close the report and then close the database.

ACCESS

APPLY YOUR SKILLS: A4-A3

Create and Modify Reports

Universal Corporate Events is ready to add more reports to its database. In this exercise, you will create two reports: a basic report using the Menus table as the record source and a report that lists personnel contact information grouped by last name. Then you will add, delete, and edit report controls; modify the captions of several labels to make them more readable; and add a logo, title, and subtitle to the venue report.

1. Open **A4-A3-UCE** from your **Access Chapter 4** folder and save it as: `A4-A3-UCERev`
2. Use the **Report** tool to create a report based on the **Menus** table.
3. Save the report as `Menus List` and close it.

   Now you will use the Report Wizard to create a list of the company personnel and their addresses, phone numbers, and email addresses. The report will be grouped by last name.
4. Choose the **Personnel** table and start the **Report Wizard**.
5. Add **PerLastName**, **PerFirstName**, **PerAddress**, **PerCity**, **ST**, **PerZIP**, **PerPhone**, and **PerEmail** to the **Selected Fields** list.
6. Use **PerLastName** as the only grouping level.
7. Do not add a sort and leave the layout default values.
8. Name the report `Personnel List` and finish it.

Modify Controls and Add a New Title, Logo, and Date

9. Switch to **Design View** and delete the **=Now()** and **="Page"** controls in the page footer.
10. Change the *PerLastName* label in the page header to: `Last Name`
11. Change the *Personnel List* title in the report header to `Universal Corporate Events` and then set these properties for it:

Property	Value
Width	`4`
Height	`0.4`
Left	`2`
Font Name	**Arial Narrow**
Font Size	`22`
Text Align	**Center**

12. Insert a new title, leaving the name set as *Personnel List* and setting these properties:

Property	Value
Width	**4**
Height	**0.4**
Top	**0.5**
Left	**2**
Font Name	**Arial Narrow**
Font Size	**22**
Text Align	**Center**

13. Insert **UCE-Logo.bmp** from your **Access Chapter 4** folder into the header.

The logo should be positioned on the left side of the header.

14. Set the logo's Width and Height to: **0.8**

15. Insert a date in the header using the **mm/dd/yyyy** format and do not include the time.

16. Move the new **Date** control to the top-right corner of the report header and shorten its width so it doesn't overlay the title.

Review the Report and Apply a Theme

17. Review your report in **Layout View**.

Some controls, such as Telephone and Email Address, may not be wide enough to display all data. You will need to move some columns to the left to create space to allow for the expansion of the Telephone and Email Address columns. Remember that an entire column can be selected by clicking the column heading and using Ctrl *to select any box in the column.*

18. Move and widen columns as necessary so all data is visible, but make sure the Email Address field does not go past the vertical dotted page break line.

19. Save the report and close it.

20. Display the **Menus List** report in **Design View**.

21. Apply a theme of your choice to the report.

22. Review your report in **Report View** and change the theme if desired.

23. Save and close the report.

Project Grader

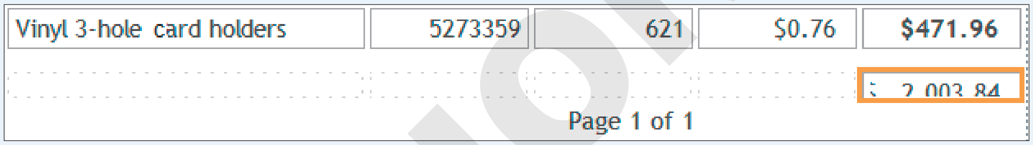
If your class is using eLab (labyrinthelab.com), you may upload your completed Project Grader assignments for automatic grading. You may complete these projects even if your class doesn't use eLab, though you will not be able to upload your work.

PROJECT GRADER: A4-P1

Taylor Games: Create and Modify a Basic Report

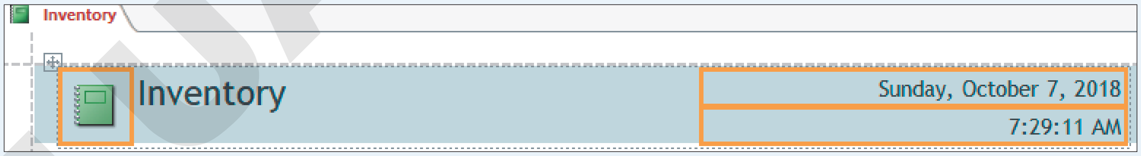
Taylor Games needs a basic inventory report. You will first create the report using the Report command, then modify it to improve readability and enhance its appearance.

1. Download and open your Project Grader starting file.
   - *Using eLab:* Download **A4_P1_eStart** from the Assignments page. You *must* start with this file or your work cannot be automatically graded.
   - *Not using eLab:* Open **A4_P1_Start** from your **Access Chapter 4** folder.
2. Create a basic report based on the **Inventory** table.
3. Set the following properties for the Total Cost Total control located at the bottom of the report:



Property	Value
Format	**Currency**
Height	**0.25**
Font Weight	**Bold**

4. Delete the **Logo**, **Date**, and **Time** controls from the Report Header.



5. Insert a **Date and Time** control in the report header and set properties for it as follows:

Property	Value
Date Format	Any
Time Format	None
Width	**4**
Text Align	**Center**

6. Format the Title control (contains the title *Inventory*) in the Report Header as follows:

Property	Value
Width	**6.25**
Font Size	**26**
Text Align	**Center**
Font Weight	**Bold**

7. Insert a background image and set properties for it as follows:

Property	Value
Picture	Use **Taylor Games BG.png** from your **Access Chapter 4** folder.
Picture Alignment	**Bottom Right**
Picture Size Mode	**Stretch**

Hint: Set the Property Sheet's selection type to Report to access the needed properties.

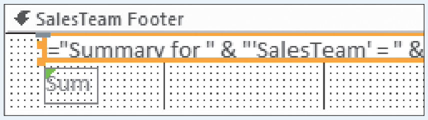
8. Apply the **Facet** theme (the second theme in the Office category).
9. Save the report as **`Inventory`** and then close it.
10. Save your database.
    - *Using eLab:* Save it to your **Access Chapter 4** folder as **`A4_P1_eSubmission`** and attach the file to your eLab assignment for grading.
    - *Not using eLab:* Save it to your **Access Chapter 4** folder as: **`A4_P1_Submission`**

PROJECT GRADER: A4-P2

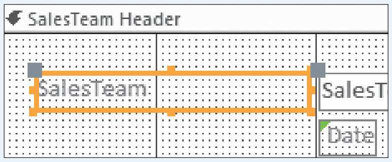
WebVision: Work with Reports

WebVision would like a report that displays the sales orders for each sales team. You will first create the report using the Report Wizard and then modify it to improve readability and enhance its appearance.

1. Download and open your Project Grader starting file.
    - *Using eLab:* Download **A4_P2_eStart** from the Assignments page. You *must* start with this file or your work cannot be automatically graded.
    - *Not using eLab:* Open **A4_P2_Start** from your **Access Chapter 4** folder.
2. Create a new report using the Report Wizard and these guidelines:
    - Add the **SalesTeam** field from the **Sales Reps** table.
    - Add the **OrderID**, **Date**, and **Amount** fields from the **Orders** table.
    - View the data by **Orders**.
    - Add **SalesTeam** as the only grouping level.
    - Sort by **Date** in descending order.
    - Add summary options that include a **Sum** calculation on the **Amount** field and show **Detail and Summary**.
    - Use **Outline** layout.
    - Set the Orientation to **Landscape**.
    - Use **`Orders by Region`** as the title.
3. Delete the **Summary for Sales Team** control.

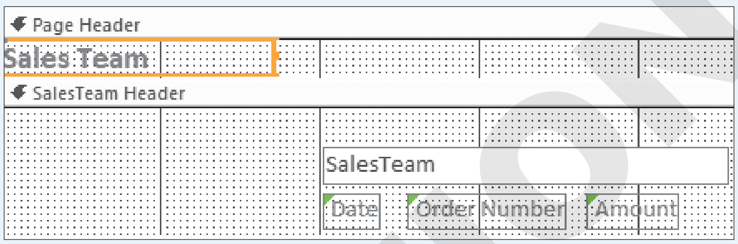


4. Set the following properties for the SalesTeam label:



Property	Value
Caption	`Sales Team` (add a space to the current caption)
Font Size	**14**
Font Weight	**Bold**

5. Set the Page Header section height to: `0.25`
6. Move the **SalesTeam** label into the Page Header section. Move only the label (not the Sales Team text box).



7. Set the following properties for the SalesTeam text box:

Property	Value
Width	**1**
Top	**0**
Left	**0**
Font Size	**12**
Font Weight	**Semi-Bold**

8. Insert the **LastName** field from the **Sales Reps** table into the SalesTeam Header section.
9. Delete the **LastName** label control.
10. Set these properties for the LastName text box:

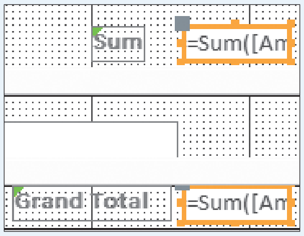
Property	Value
Top	`0.2`
Left	**1**
Border Style	**Transparent**
Font Weight	**Bold**

11. Set the Date text box Width property (located in the Detail section) to **1** and the Text Align property to **Left**.

12. Set the Date label Left property to: **0.5**
13. Set the Sum label Left property to **3** and Font Weight property to **Semi-Bold**.
14. Set the following properties for the Grand Total label:

Property	Value
Width	**1**
Left	**2.5**
Font Weight	**Semi-Bold**

15. Set the following properties for both the Sum of Amount text box and the Amount Grand Total Sum (Sum) text box:



Property	Value
Border Style	**Transparent**
Font Weight	**Bold**

16. Delete the **Title** control (*Orders by Region*) from the report header and insert a new **Title** control using the following properties:

Property	Value
Width	**2**
Height	**0.35**
Font Weight	**Bold**

17. Insert **WebVision Logo.jpg** from your **Access Chapter 4** folder and set the Width property to: **1.75**
18. Save and close the report.
19. Save your database.
    - *Using eLab:* Save it to your **Access Chapter 4** folder as **A4_P2_eSubmission** and attach the file to your eLab assignment for grading.
    - *Not using eLab:* Save it to your **Access Chapter 4** folder as: **A4_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.

A4-E1 That's the Way I See It

You've been asked to create a sales report for Blue Jean Landscaping that shows the total amount of sales by equipment type, drawing the information from sales invoices. Open **A4-E1-BJL** and save it as: `A4-E1-BJLRev`

Create a well-designed report header with a title and logo (use **BJL-Logo.bmp**). Make sure all information is visible and that the report is easy to read and understand. The date and page numbering should appear at either the top or bottom of the report. Save your report as: `Equipment Sales`

A4-E2 Be Your Own Boss

Blue Jean Landscaping has asked you to add reports to its company database that provide listings of its equipment, services, and customers in an attractive and useful manner. Open **A4-E2-BJL** and save it as: `A4-E2-BJLRev`

Use the Store Inventory query as a record source to create a report that is grouped by manufacturer and includes item name, price, quantity in stock, inventory amount, and a sum of the InvTot field. Use the default layout settings. Use the skills you learned in this chapter to size, rearrange, and format the report controls. Create a well-designed report header with a title and logo (use **BJL-Logo.bmp**). Name the report: `Store Inventory Report`

Create another report using the Service Invoices Query that includes all fields except InvNum. Group the results by InvDate and sum the LineTotal field. Choose the Stepped and Landscape layout options and use `Service Invoices Report` as the report name. Format the report controls and create the same consistent header with a logo, title, and subtitle as in the Store Inventory Report. Add the background image **BJL-Background.jpg** that is aligned bottom left to the report.

A4-E3 Demonstrate Proficiency

You've been asked by Stormy BBQ to prepare a Manufacturer Stock Level report that shows the total number of items in stock for each manufacturer. Open **A4-E3-StormyBBQ** and save it as: `A4-E3-StormyBBQ-Rev`

Locate the table or query in the database that will provide the data you need and use all fields from that table or query. Organize the report so the total stock for each manufacturer is displayed. Create a well-designed report header with a title and logo (**SBQ-Logo.bmp**). Make sure all information is visible and the report is easy to read and understand. The date and page numbering should appear at either the top or bottom of the report. Save your report as: `Manufacturer Stock Levels`