Queries
A query is a basic tool that Access provides for retrieving information from your database. It allows you to take information from single or multiple tables to obtain the data you want. Each query functions like a question that can be asked immediately or saved to be asked later. Although this question will generally remain unchanged (unless you choose to edit the query), the altering nature of your database means that the answer Access provides will generally be different each time the query is run. This section covers advanced topics, including using queries to sort and modify data.

Types of Queries
You can use queries to view, change, and analyze data in different ways. In addition, you can use them as a source of records for forms, reports, and data access pages. There are several types of queries in Microsoft Access.

Select Queries
The most common type of query, select queries retrieve data from one or more tables (using criteria you specify) and display the results in a datasheet. Select queries may be used to group records as well as perform calculations including sums, counts and averages.

Parameter Queries
When run, a parameter query displays its own dialogue box prompting you for information, such as criteria for retrieving records or a value you wish to insert in a field.
Crosstab Queries
You can use crosstab queries to calculate and restructure data for easier analysis. Use a crosstab query to calculate a sum, average, count, or other type of total for data that is grouped by two types of information.

<table>
<thead>
<tr>
<th>Last Name</th>
<th>Category Name</th>
<th>Sum of Subtotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buchanan</td>
<td>Beverages</td>
<td>$46,302.09</td>
</tr>
<tr>
<td>Buchanan</td>
<td>Condiments</td>
<td>$16,789.35</td>
</tr>
<tr>
<td>Buchanan</td>
<td>Confections</td>
<td>$36,182.13</td>
</tr>
<tr>
<td>Callahan</td>
<td>Beverages</td>
<td>$111,047.76</td>
</tr>
<tr>
<td>Callahan</td>
<td>Condiments</td>
<td>$49,566.21</td>
</tr>
<tr>
<td>Callahan</td>
<td>Confections</td>
<td>$80,005.36</td>
</tr>
</tbody>
</table>

Note: The select query only groups totals vertically by employee and category, resulting in more records and making comparisons between totals more difficult. A crosstab query displays the same information, but groups both vertically and horizontally so the datasheet is more compact and easier to analyze.

Action Queries
An action query uses just one operation to makes changes to, or moves many records. There are four types of action queries: Delete, Update, Append, and Make-Table Queries.
Creating a Query in Design View
Most of the queries described may be created using a query wizard. However, design view is useful for creating more complex queries and for revising existing queries.

- Locate the Other area of the Create ribbon.
- Click on the button labeled Query Design.

- The Show Table window will appear.
• Click on the name of the table you wish to query.
• Click on the button labeled **Add**.

![Show Table](image)

• Repeat these steps until you have selected all tables.
• The tables you selected will appear at the top of the query window.

![Query](image)

**Adding Fields to Your Query**

• Double-click on the name of the field you wish to add to your query.
• The name of the field will appear in the next available column.

![Field Selection](image)

• Repeat the above steps until you have added all desired fields for your query.
• Locate the **Results** area of the **Design** ribbon.
• Click on the button labeled **Run**.

• The results of your query will appear in datasheet view.

![Query Results](image.png)
Creating a Parameter Query

Parameter queries are interactive filters that allow you to specify a different filter criterion every time you open up the query. You can design the query to prompt you for more than one piece of information; for example, you can design the query to prompt you for two dates. Access will then retrieve all records that fall between those two dates.

- Open up an existing query in **Design** view.
- Decide which field you wish to use in your filter.
- In the design grid, click in the field’s **Criteria cell**.
  - If your parameter query requires an operator, type that operator in the **Criteria cell** (For a complete description of operators, please see page 10 in this guide).
  - Complete your filter expression by inserting a parameter label in square brackets. Every time you run your query, you will be asked to provide this parameter.

- Continue to add criteria in the appropriate fields to complete your query.
- Right-click on the query’s tab at the top and click **Save**.
- From the **Design** ribbon, go to the **Results** area and click on the **Run** button to test your query.

- The **Enter Parameter Value** window will appear for each criterion that has to be specified.

- Enter the numeric value you wish to use in your filter.
- Click on the button labeled **OK**.
Access will run the query and retrieve your data from the database. The following chart displays the results for a filter designed to retrieve employees with a salary less than or equal to $60K.

<table>
<thead>
<tr>
<th>EmployeeID</th>
<th>EmployeeName</th>
<th>OrderNum</th>
<th>ClientNum</th>
<th>ClientFirstName</th>
<th>ClientLastName</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rodney</td>
<td>Keaton</td>
<td>1</td>
<td>John</td>
<td>Smith</td>
</tr>
<tr>
<td>2</td>
<td>Alex</td>
<td>Maples</td>
<td>4</td>
<td>John</td>
<td>Smith</td>
</tr>
<tr>
<td>3</td>
<td>Jane</td>
<td>Lee</td>
<td>6</td>
<td>Joe</td>
<td>Johnson</td>
</tr>
</tbody>
</table>

**Guide to Parameters**

<table>
<thead>
<tr>
<th>To Enter...</th>
<th>Type...</th>
<th>Which is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Parameter Value</td>
<td>The Value</td>
<td>A value specified by the user</td>
</tr>
<tr>
<td>The Default Value</td>
<td>&lt;DEFAULT&gt;</td>
<td>A value that is automatically entered in a field when a new record is added</td>
</tr>
<tr>
<td>A Null Value</td>
<td>&lt;NULL&gt;</td>
<td>A value you can enter in a field to indicate missing or unknown data</td>
</tr>
<tr>
<td>A Blank String</td>
<td>Leave blank</td>
<td>Indicates that no known value exists for a field</td>
</tr>
</tbody>
</table>

**Tip:** Parameter queries are helpful when used as the basis for forms, reports and data access pages. For example, you can create a monthly earnings report based on a parameter query. When you print out the report, Access displays a dialogue box asking for the month that you want the report to cover. Once you enter the desired month, Access will print the appropriate report.

**Creating a Crosstab Query**

- Open up an existing query in Design view.
- From the Design ribbon, go to the Query Type area and click on the Crosstab button.

- A Crosstab row will appear in the design grid.
For the field(s) whose values you want to appear as row headings:
  o Click on the down-facing arrow next to the box labeled **Crosstab**.
  o From the drop-down menu that appears, select **Row Heading**.
  o Repeat these steps for each field you desire to use as a row heading in the query.
  o You can also choose to make a field a **Column Heading** or a **Value** in the same manner.

**Note:** You MUST have at least one of each (Row Heading, Column Heading, and Value) to run a Crosstab Query.

**Tip:** You can select **Column Heading** for one field only, and as with Row headings, you must leave **Group By** in the row labeled **Total** for this field.
Customizing Crosstab query column headings

By default, column headings are sorted in alphabetic or numeric order. In certain cases, you may wish to change the order or limit the column headings in a crosstab query. For example, in column headings containing the months of the year, you can display the months chronologically rather than alphabetically. You can also limit the columns to only January through June. To edit crosstab query headings:

- Open up the crosstab query in Design view
- From the Design ribbon, go to the Show/Hide area and click on the Property Sheet button.

- The Property Sheet pane will appear to the right.

- In the box labeled Column Headings, type the column headings you wish to display.
  - Enter the column headings in the order in which you want them to be displayed.
  - Place a comma between each column heading.

**Tip:** Column headings must be entered exactly as they appear in the query datasheet. For example, if a column heading in the datasheet is "USA," you must enter a column heading of "USA"—not "US." After you click on the key labeled ENTER or move the cursor to a different location, Microsoft Access places quotation marks around each heading.

- Click on the View or Run buttons to view the query's results.
Creating Action Queries
Queries may also be used to change, retrieve, and display data. These action queries perform specific operations and can be an efficient tool for making modifications to bulk data. There are four types of action queries:

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delete</td>
<td>Deletes a group of records from one or more tables</td>
</tr>
<tr>
<td>Update</td>
<td>Makes global changes to a group of records in one or more existing tables</td>
</tr>
<tr>
<td>Append</td>
<td>Adds a group of records from one or more tables to the end of another table(s)</td>
</tr>
<tr>
<td>Make-Table</td>
<td>Creates a new table from all or part of the data in other tables</td>
</tr>
</tbody>
</table>

Before creating an action query, it is good practice to run a select query to determine how the action query will affect your records and the appropriate criteria to create the desired result.

**Delete Queries**
- Create a **Select Query** in **Design View** to determine the records what will be deleted.
- Modify the query by adding the appropriate data source(s) and criteria. In this example, a company wishes to cut costs at the lowest payroll levels and accordingly removes employees making less than 30,000.

- Click on the **Datasheet View** button to bring up a list of the retrieved records.
The Select Query window will appear, displaying fields that will be altered by the action query. Verify that these records should be deleted.

- Click on the Design View button to return to Query Design View.

- If necessary, further modify the query so the proper fields will be deleted.
- From the Design ribbon, go to the Query Type area and click on the Delete button.

- The “Criteria:” row will now say “Delete.”

- Click on the Run button. A Microsoft Office Access window will appear, warning that fields from the table will be deleted.
- Click on the button labeled Yes.
• The specified records will be deleted from your table. Open your table to verify that the proper records were deleted.
• Click on the Save button if you are satisfied with the action query results.

**Tip:** Note that delete queries always delete entire records, not just selected fields within records.

**Update Queries**
• Create a Select Query in Design View to determine the records that will be updated.
• Modify the query by adding the appropriate data source(s) and criteria. In this example, a company will be raising its lowest salaries from 10,000 to 15,000.

```
<table>
<thead>
<tr>
<th>Field</th>
<th>Table</th>
<th>Sort</th>
<th>Show</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>EmployeeFirstName</td>
<td>Employee</td>
<td></td>
<td></td>
<td>=10000</td>
</tr>
</tbody>
</table>
```

• Click on the Datasheet View button to bring up a list of the retrieved records.

• If necessary, modify the query further so that the proper fields will be updated.
• Once satisfied, locate the Query Type area of the Design ribbon and click the Update button.

• The Update Query window will appear.
• In the field labeled Update To, type in the value you wish to change the altered fields to. In this example, the minimum salary of 10,000 is being changed to 15,000.
• A Microsoft Office Access window will appear, warning that fields from the table will be updated.
• Click on the button labeled Yes.

• Click on the Save button if you are satisfied with the action query results.

Make-Table Queries
A Make-Table Query is slightly different from the other action queries. Instead of modifying data within an existing table, a Make-Table Query creates a new table from the query results.
• Create a Select Query in Design View to determine the records that will be used to create a new table.
• Modify the query by adding the appropriate data source(s) and criteria. In this example, our query will create a new table detailing all male employees.

• Click on the Datasheet View button to bring up a list of the retrieved records.
Return to **Design View**.
If necessary, modify the query further so the proper fields will be included in the new table.
Once satisfied, locate the **Query Type** area on the **Design** ribbon and click on the **Make Table** button.
The **Make Table** window will appear.
In the box labeled **Table Name**, type the name you wish to give to the new table.
Click on the option button to select whether the new table will be created in the **Current Database** or **Another Database**.
Click on the button labeled **OK**.

- Click on the **Run** button.
- A **Microsoft Office Access** window will appear, warning that a new table will be created using the selected records.
- Click on the button labeled **Yes**.

- Note that a new table has been created with the desired name.
- Open the new table to verify the make-table query worked correctly.
- Click on the **Save** button if you are satisfied with the make-table query results.

**Tip**: Make-table queries are helpful for creating a table to export to other Access databases, or to a history table that contains old records.
Append Queries
In this example, a company hires a new batch of employees. The new employee list is sent in a separate table, entitled “NewEmployees”. The company wishes to add these to their master list of employees. To do so, we create an append query with these new records.

- Create a Select Query in Design View to determine the records that will be appended.
- Modify the query by adding the appropriate data source(s) and criteria.

- Click on the Datasheet View button to verify the list of retrieved records.
- Click on the Design View button and if necessary, modify the query further so the proper fields will be appended.
- Once satisfied, locate the Query Type area of the Design ribbon and click the Append button.

- The Append window will appear. Click on the downward-facing arrow next to the box labeled Table Name.
- From the drop-down menu that appears, select the table to which you wish to add the retrieved fields.
- Click on the option button to select whether the new table will be created in the Current Database or in Another Database.
- Click on the button labeled OK.
• The “Criteria” field has now been replaced by “Append to”.

<table>
<thead>
<tr>
<th>Field</th>
<th>Table</th>
<th>Sort</th>
<th>Append To</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>NewEmployees</td>
<td>NewEmployees</td>
</tr>
<tr>
<td>EmployeeNumber</td>
<td>EmployeeFirstName</td>
<td>EmployeeLastName</td>
<td>Salary</td>
<td>HireDate</td>
</tr>
<tr>
<td>NewEmployees</td>
<td>NewEmployees</td>
<td>NewEmployees</td>
<td>NewEmployees</td>
<td>NewEmployees</td>
</tr>
</tbody>
</table>

• Click on the **Run** button. A **Microsoft Office Access** window will appear, warning that the retrieved fields will be appended.
• Click on the button labeled **Yes**.

![Microsoft Office Access window](image)

• Open the table to which you append the new records to verify your append query worked.
• Note that the retrieved fields have been added at the end of the table and that the values are appended only in matching fields.
• Click on the **Save** button if you are satisfied with the append query results.

*Tip:* To run an action query, use the **Run** button rather than the **View** button. Using View will bring up a list of all records that will be updated, but not display their new values. Using Run will update the values.
Sorting Data

Add criteria to a query
Incorporate comparison operators and conditional operators to access more information.

Comparison Operators
Including comparison operators in an expression allows one data value to be compared against another.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Value</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>=</td>
<td>Equals</td>
<td>= “11/29/1961”</td>
</tr>
<tr>
<td>&lt;</td>
<td>Less than</td>
<td>&lt; “K”</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less than or equal to</td>
<td>&lt;= 2500</td>
</tr>
<tr>
<td>&gt;</td>
<td>Greater than</td>
<td>&gt; “K”</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater than or equal to</td>
<td>&gt;= 2500</td>
</tr>
<tr>
<td>&lt;&gt;</td>
<td>Not equal to</td>
<td>&lt;&gt; &quot;Illinois&quot;</td>
</tr>
<tr>
<td>Between _ And _</td>
<td>Within a Range</td>
<td>Between 2 and 9</td>
</tr>
<tr>
<td>Is Null</td>
<td>Null values</td>
<td>Is Null</td>
</tr>
</tbody>
</table>

Conditional Operators
Conditional operators, also referred to as logic operators, add the ability to evaluate the truth of an expression, thus increasing flexibility and power.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND</td>
<td>True if both conditions are true</td>
<td>&gt;5 AND &lt;&gt;100</td>
</tr>
<tr>
<td>OR</td>
<td>True if either condition is true</td>
<td>&lt;5 OR &gt;500</td>
</tr>
<tr>
<td>NOT</td>
<td>True if the single instance is not true</td>
<td>NOT Between 2 And 5</td>
</tr>
</tbody>
</table>

Adding a Calculated Field to a Query
Calculated controls allow you to make a mathematical calculation or join multiple strings of text when you run your query.

Numeric calculations
To create a new calculated control:
- Click in an empty Field cell in Query Design View.
- Type the name of the newly-calculated result, a colon, and the formula you wish to calculate. Refer to any fields in your calculation by entering their names surrounded by square brackets. You can use the following mathematical operators:

<table>
<thead>
<tr>
<th>Operator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Multiplication</td>
</tr>
<tr>
<td>/</td>
<td>Division</td>
</tr>
<tr>
<td>+</td>
<td>Addition</td>
</tr>
<tr>
<td>-</td>
<td>Subtraction</td>
</tr>
</tbody>
</table>
For example, to calculate a 5% bonus given to each employee, type:

- Bonus: [Salary]*.05

Save your query.
- Use the View button to check the results and troubleshoot your calculation as necessary.

**Concatenation**

To create a new calculated control:

- Click in an empty Field cell in Query Design View.
- Type the name of the newly-calculated result, a colon, and the formula you wish to calculate. Refer to any fields in your calculation by entering their names surrounded by square brackets. Incorporate any text that will not change (including spaces) inside quotation marks. Use an ampersand character (&) to join any two strings of text in your expression (one fields with another, the contents of a field with text in quotations, etc.)
- **In this example, type the following to concatenate the First Name and Last Name fields. (Note that space within the quotation marks.)**
  - FullName:[EmployeeFirstName]&" "&[EmployeeLastName]

Save your query.
- Use the View button to check the results and troubleshoot your calculation as necessary.

**Sort query results**

Access allows you to sort data retrieved by a query so it will be displayed in a logical order.

- Open up an existing query in Design view.
- Locate the field you wish to use to sort your data.
- Click on the down-facing arrow next to the Sort cell.
- From the list that appears, select the sort order you wish to apply to your query. In this example, we can sort the Salary field in descending order.
An ascending sort order will sort data from the **smallest** to the **largest** value in the sort field.

A descending sort order will sort data from the **largest** to the **smallest** value in the sort field.

- Click on the **Save** button.
- Click on the **View** button to switch from **Design** view to **View** mode and see the results of your query.

**Customizing Reports**

Reports are printable summaries of the information in your Access tables and queries. They may be created by using a wizard; however, **Design View** provides the user the ability to enhance the appearance of reports beyond the options provided through the reports wizard.

**Adding Subtotals to Your Report**

A sales report can include a lot of numbers. That is why you will need to calculate sums at the appropriate locations in a report.

- Open up your report in **Design View**.

  - To insert a subtotal, click on the field you are subtotaling (in this case, Units Ordered). From the **Design** ribbon, go to the **Grouping & Totals** area and click on the **Totals** button.
  - From the resulting menu, click on **Sum** to insert a subtotal of the selected field. Subtotals will be inserted at each grouping (in the grouping footer) and as a total sum (in the Report Footer).
Inserting a grouping
A group header is used to place information, such as a group name or group total, at the beginning of a group of records. Likewise, a group footer places such information at the end of a group of records on a report. Both may be used as a location for subtotals. To add a group header or footer on a report:

- From the Design ribbon, go to the Grouping & Totals area and click on the Group & Sort button.
- The Group, Sort, and Total pane will appear on the bottom of the screen.
- Click on “Add a group” to add a grouping.

- A list of fields will pop up. Select the field you wish to use as a grouping.

- Access will create a grouping by this field.
- Use the method described above to add subtotals to your grouping.
- To see how your report is affected, click on the Report View button, located in the Views area of the Design ribbon.
- The **Report** window will appear.

**ClientInfo**

<table>
<thead>
<tr>
<th>ClientFullName</th>
<th>Company</th>
<th>Units Ordered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jane Doe</td>
<td>Cranes Enterprises</td>
<td>750</td>
</tr>
<tr>
<td></td>
<td>Cranes Enterprises</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>795</td>
</tr>
<tr>
<td>Joe Johnson</td>
<td>Tufts University</td>
<td>330</td>
</tr>
<tr>
<td></td>
<td>Tufts University</td>
<td>900</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1230</td>
</tr>
<tr>
<td>John Smith</td>
<td>Downs International</td>
<td>450</td>
</tr>
<tr>
<td></td>
<td>Downs International</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>930</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2055</td>
</tr>
</tbody>
</table>

- Note that Access automatically puts in the lines for grouping and report subtotals. If you wish to add labels (“Client Total”, “Grand Total”, etc.):
  - Open the report in **Design View**.
  - From the **Design** ribbon, go to the **Controls** area and click on the **Label** button.
  - Using the **label cursor**, draw a label box next to the desired subtotal.
Changing the Appearance of Reports

Design Sections

- **Detail Section:** This section, by default, is included in every form you create and is the only section seen when **Design View** is first opened. Once your report is complete, the Detail section will include the bulk of data from your database, including group headers and footers.

- **Header and Footer Sections:** In addition to data in your Detail section, you may wish to add header and footer sections to your form.
  - **Headers** will often contain titles & logo graphics.
  - **Footers** will often contain instructions for using the form, modification dates, and the designer’s name.

- To summarize, there are three types of headers and footers that can appear on a report:

<table>
<thead>
<tr>
<th>Header/Footer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report</td>
<td>Appear at the beginning and end of the report</td>
</tr>
<tr>
<td>Page</td>
<td>Appear at the top and bottom of each page</td>
</tr>
<tr>
<td>Group</td>
<td>Included in the <strong>Detail</strong> section</td>
</tr>
</tbody>
</table>

- To show/hide a page/report footer and header:
  - From the **Arrange** ribbon, go to the **Show/Hide** area.
  - Use the buttons to the right to toggle on or off the desired footer and header.

Resize a section of the report

If the report materials you wish to insert do not fit comfortably into a section, you can easily resize any section of your report.
• Place your cursor at the bottom of the section you wish to resize so that the double-arrow cursor is displayed.
• Drag the cursor upward or downward to resize the section.

Create a report title
To give your report a title or add any other additional passages of text, you must create a label box:
• From the Design ribbon, go to the Controls area and click on the Label button.
• Draw an area with the cursor in the Report Header section by clicking and dragging. You can always adjust the size of the box after your text has been typed.

Moving Text Boxes and Labels
Move a Text Box and its Label Together
• Click on either the label or the text box. Notice that the perimeter of the label remains silver while its text box is highlighted in orange.
• Click anywhere on the perimeter (notice the directional cursor) and drag.

Move a Text Box or a Label Separately
Generally, Access forces you to move text boxes and their corresponding labels together. However, you may want to move a label or text box without moving its partner.
• Place the cursor over the upper left-hand corner of the field or label (i.e. on the brown square).
• The cursor will change into the directional cursor.
• Drag the field or label to a new location.
**Tip: Moving Report Elements Between Sections**
You can move both text boxes and labels between sections using the open hand cursor to drag the report elements across the section boundary.

- To move an individual text box or label to another section (for example, you wished to move a label into the report header section):
  - Select the report element you wish to move and cut it from its present location.
  - Click in the section where you want to move this label or text box, and paste it into the section.
  - Drag the element from the section’s top left corner (using the pointing finger cursor) into its new position.

**Tip: Aligning Report Elements**
Although you can utilize Design View’s grid to align your report elements relative to each other, Access can also align those elements for you.

- Select the report elements you wish to align by simultaneously holding down the *Shift* key and selecting each element.
- Right click on one of the elements.
- From the menu that appears select the *Align* submenu.
- From the *Align* submenu, select the alignment type you prefer.

![Aligning Report Elements](image)

**Resizing Text Boxes and Labels**
Sometimes, the font size or style you choose will obscure text beyond the edges of your text or label box. In this situation, you must resize the control.

- Select the text box or label you wish to resize.
- Drag one of its orange square handles to resize your text box.

**Saving your Report**
Be sure to save your report frequently!

- Right-click on the tab of your report and click *Save*.
- Give your report a descriptive title. A good title will look like this: *rpt_clientinfo.*
This title follows a standard naming convention (which holds that each report’s name should be preceded by the “rpt_” prefix to make every report easy to identify).

This convention allows for differentiation between different types of objects with the same name (“tbl_, qry_, etc.).

The report’s name also plainly describes the data that the report will display once it is opened.

Reformatting Text Styles

Changing Text Styles
To change the text of either a label or a text box:

- Click on the control you wish to change.
- From the Design ribbon, go to the Font area.

![Font area](image)

- Use the options of the Font area to change the text style of your control.

*Tip*: Resize a field or label after applying text formatting if not all of the field’s data or label’s text can be displayed.

Adding and Formatting Borders

Adding Borders
To add a border to your field or label:

- Click on the control you wish to change.
- From the Design ribbon, go to the far right of the Controls area.

![Border options](image)

- The buttons in the first column control border thickness, pattern, and color.

*Tip*: Right-click to Add Borders

By simply right clicking on a control, you may select a border thickness from the Special Effects menu.
Changing Background Colors
To change the background color of a textbox or a label:

- Click on the control you wish to change.
- From the Design ribbon, go to the Font area and click on the Background Fill button.

- From the resulting menu, choose the appropriate background color for your control.

To change the background color of an entire section:
- Select the section by clicking anywhere on its grid.
- Use the same process as described above to change the color of the entire section.

Tip: Right-click to Change the Color
To easily change the color of your text, control background, or section background:

- Right-click on the section or control you wish to change.
- From the menu that appears, select a background color from the Fill/Back Color submenu or a text color from the Font/Fore Color menu.
Using images

Inserting an image

- Select the form section where you want to insert your image by clicking on its background grid.
- From the Design ribbon, go to the far left of the Controls area and click on the Logo button.

- The Insert Picture window will appear.

  - Navigate to the picture’s location on your hard drive or network drive.
    - Select the image you wish to insert.
    - Click on the button labeled OK.

To move the image once it has been inserted:

  - Click on the image to select it.
  - Place your cursor anywhere above the image (watch for the open hand cursor).
  - Click and drag your image to a new location.
Resizing an Image Proportionately

- Double-click on the image you wish to resize.
- The Property Sheet pane will appear on the right.
- Click on the tab labeled Format.

- Click on the down-facing arrow located next to the box labeled Size Mode.
- From the drop-down menu that appears, select Zoom.
- Close the Property Sheet pane.
- Drag one of the corners or side handles to resize the image, just like resizing a field or text box.

Tip: To crop an image so that less is displayed, utilize the Clip size mode (instead of zoom) and then drag to resize the image’s box. Just as you see less of the scenery outside your window upon lowering a shade, you see less of your image as you make the image’s box smaller.

Adding Borders to an image

- Click on the desired image.
- From the Design ribbon, go to the far right of the Controls area.
- As was done with text boxes and labels, you can use the Border buttons to modify your image.

<table>
<thead>
<tr>
<th>Box Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Border Style</td>
<td>Choose the type of border you wish to display</td>
</tr>
<tr>
<td>Border Color</td>
<td>Choose the border’s color</td>
</tr>
<tr>
<td>Special Effect</td>
<td>Select an effect to add unique dimensions to the border</td>
</tr>
<tr>
<td>Border Width</td>
<td>Choose the width applied to the border</td>
</tr>
</tbody>
</table>