

## Intermediate Microsoft Access

### Parameter Queries

A parameter query is a query that when run displays its own dialog box prompting you for information, such as criteria for retrieving records or a value you want to insert in a field. You can design the query to prompt you for more than one piece of information; for example, you can design it to prompt you for two dates. Microsoft Access can then retrieve all records that fall between those two dates.

Parameter queries are also handy 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 the report, Microsoft Access displays a dialog box asking for the month that you want the report to cover. You enter a month and Access prints the appropriate report. You can also create a custom form or dialog box that prompts for a query's parameters instead of using the parameter query's dialog box.

Creating a parameter query that prompts for criteria each time it's run

1. Create a query in exactly the same way that you normally would.
2. In the **Criteria** cell for each field you want to use as a parameter, type a prompt enclosed in square brackets. Microsoft Access will display this prompt when the query is run. The text of the prompt must be different from the field name, although it can include the field name.

Example: For a field that displays dates, you can display the prompts "Type the beginning date:" and "Type the ending date:" to specify a range of values. In the field's **Criteria** cell, type **Between [Type the beginning date:] And [Type the ending date:]**.

To prompt the user for one or more characters to search for, and then find records that begin with or contain the characters the user specifies, create a parameter query that uses the LIKE operator and the wildcard symbol (\*).














Example: the statement LIKE [Enter the first character to search by: ] & "\*" would search for words that begin with a specified letter that was inputted by the user.

Example: the statement LIKE "\*" & [Enter any character to search by: ] & "\*" would search for words that contain the specified character that was inputted by the user.

## Reports

- A way of presenting your data in “hard copy” format (like company invoices)
- Can use Report Wizard, or can create report “from scratch”
- QUICK EXAMPLE: Create a telephone list (for the company) that contains all of the employees and their phone numbers
  - In Database Window, click Reports
  - Double-click Create report using Wizard
  - Make sure the Employees Table is displayed under “Tables/Queries”
  - Select the following fields to add them to our report - click Next when done
    - LastName
    - FirstName
    - Phone
  - No grouping levels are necessary (click Next)
  - Let’s sort by LastName, then click Next
  - Tabular layout will probably look the best, then click Next
  - Let’s try the “Bold” style, then click Next
  - Give the report a name (such as “Employee Phone List”), then click Finish
  - What can we change from here? Go back to Design View.
    - Right click on any object, select Properties
    - Four categories
      - Format: colors, fonts, borders, position, size, etc.
      - Data: properties of the data source
      - Event: procedures (usually written in Visual Basic) that execute during specific occurrences (error messages, etc.)
      - Other: anything else
- A report can only have one width that applies to all sections (you cannot change the width of one section without changing it for all sections)
- You can also change fonts, colors, background colors, etc.
- Reports are divided into several sections:
  - Report Header and Footer appear only on the first and last page of the report
  - Page Header and Footer appear at the top and bottom of each page
  - Can have groups within the report as well
- Controls are used to display data, perform calculations, and decorate the report (Control Toolbox)
  - Bound controls
    - Display, enter, and update fields in a database
    - Linked to a data source by an underlying table or query
  - Unbound controls
    - Have no data sources
    - Include objects such as lines, pictures, or special titles
  - Calculated controls
    - Use data from a table, query or other controls as input to math expressions
    - Prints the value of the math expression
- Bound text boxes, list boxes, combo boxes, and object frames contain data from the underlying query or table
- Unbound text boxes, list boxes, combo boxes and object frames are not linked to anything else
  - Can be used for things such as the user’s name, or link to a supporting Word or Excel document
- Checkboxes, option buttons, and toggle buttons can be linked to Yes/No fields

## Forms

- Contains “controls” that you can use to enter, view, or edit data in fields
- Can be used to customize a screen and make it more appealing than the “normal” views
- Can be used to enter information into more than one table at the same time (instead of having to open each table individually)
- Steps to create a form using the Form Wizard
  - Click on “Forms” object to the left
  - Double-click “Create form by using wizard”
  - Add the appropriate fields to the form list (moving the field name from the left column to the right column)
  - Select the type of layout you want
  - Select the type of style you want
  - Name the form, and then decide if you want to modify or open it
- Controls available in Design view
  - Tools on the Toolbox
    - text box 
    - label 
    - option group 
    - toggle button 
    - option button 
    - checkbox 
    - list box 
    - command button 
    - image control 
    - unbound object frames 
    - bound object frames 
    - line tool 
    - rectangle tool 
  - Controls can be bound, unbound, or calculated
    - Bound: associated with a field in a table or query and is used to reflect the field’s values
    - Unbound: not associated with a data source; used to display information and graphics, or to allow input from the user
    - Calculated: performs a mathematical calculation at the desired location
- To add a control that displays data from a field, drag the name of the field (from the field toolbar) into the Detail area of the form
- There is a Control Tool Wizard in the Toolbox window (it’s the picture of the “magic wand”) - then you select the control you want to use
  - Click the mouse in the place you want this control to go in the form’s Detail area
  - Follow the questions on the screen

- Example: Company has a special 20% discount which ends on a certain date.
  - Select text box option in the Toolbox [‘abc’ button]
  - Click and drag mouse where we want the control to appear in the Detail area of the form
  - Select the text in the label field, type the words “Special Offer”
  - Select the control field (following its text) and type “=[cost]\*0.80”
  - Select list box control button from Toolbox
  - Click and drag mouse for location of the list box (near the “Special Offer”)
  - Choose “I will type in the values I want” from the List Box Wizard <Next>
  - Enter the date you want the special to end <Next>
  - You want Access to store the date in the database, so select “Store that value in this field”, then pull down field list and select “Offer\_Ends” field <Next>
  - Give the list box a name (“OfferEnds” might work) <Finish>
- You can move controls around the form by simply clicking and dragging
  - You can select several controls by clicking one, then SHIFT-clicking others
  - You can select several controls by dragging an outline around many controls
- You can resize a control by dragging one of its corners
- Controls and their labels can be moved independently of each other
- Form Header and Form Footer areas are used to display text on screen at the top and bottom of the form (respectively)
- Page Header and Page Footer areas are used in the same way to display text when the form is printed
- You can select many built-in formats by selecting “AutoFormat” from the “Format” menu