Tutorial 4
Creating Forms
and Reports

Microsoft® Access® 2013
Objectives

• Session 4.1
  – Create a form using the Form Wizard
  – Apply a theme to a form
  – Add a picture to a form
  – Change the color of text on a form
  – Find and maintain data using a form
  – Preview and print selected form records
  – Create a form with a main form and a subform
Objectives (Cont.)

• Session 4.2
  – Create a report using the Report Wizard
  – Apply a theme to a report
  – Change the alignment of field values on a report
  – Move and resize fields in a report
  – Insert a picture in a report
  – Change the color of text on a report
  – Apply conditional formatting in a report
  – Preview and print a report
Creating Forms and Reports

• Case - Chatham Community Health Services

Using Forms and Reports to Display Patient and Visit Data

– User wants the database to include a form based on the Patient table to make it easier for staff members to enter and change data about the clinic’s patients

– Also wants the database to include a form that shows data from both the Patient and Visit tables at the same time

– Would like to include a formatted report of patient and visit data so they will have printed output when completing patient analyses and planning strategies for community outreach efforts
Creating Forms and Reports (Cont.)

STARTING DATA FILES

Access1
- Chatham.accdb (cont.)
- Medical.bmp

Tutorial
- Supplies.bmp
- Vendor.accdb (cont.)

Review
- Gopher.accdb (cont.)
- Tasks.bmp

Case1

Case2
- OBrien.accdb (cont.)
- Tests.bmp

Case3
- Animals.bmp
- Shelter.accdb (cont.)

Case4
- Hiking.bmp
- Stanley.accdb (cont.)
- Tour.accdb
Creating Forms and Reports (Cont.)

The form object's name is displayed on the tab for the form.

The form title appears at the top of the form. By default, the form object name is used as the form title, but you can edit the title to display the text you want, as done here—a space was added between the two words for readability.

The navigation buttons allow you to display the first, last, next, or previous record in the form. Enter a specific record number and move to that record, and create a new record.

You can select graphic elements, such as a picture, to a form to improve its appearance or add visual appeal.

You use the Find button to display the Find and Replace dialog box, which lets you search for specific data in the form.

The PatientData form was created using the Form Wizard, which allows you to choose some or all of the fields in the table or query used as the basis for the form, choose fields from other tables and queries, and display the selected fields in any order on the form.

You can click this button to display the form in Layout view, which allows you to modify many aspects of a form's layout and design.

This selected button indicates the form is displayed in Form view, which you use to view, enter, and maintain data in the table on which the form is based.

You can apply a theme to a form, as done here with the PatientData form. A theme is a predefined set of formats including colors, fonts, and other effects that enhance a form's appearance and usability.

With the Columnar form layout, the field captions appear in a column on the left side of the form. If captions had not been specified for the fields, the field names would appear here instead.

The Columnar form layout displays the corresponding field values in boxes to the right of the field captions (or field names).

You can use the Search box to find and display a record containing the text you enter.
Creating a Form Using the Form Wizard

- A form is an object you use to enter, edit, and view records in a database
  - You can design your own forms or have Access create them for you automatically
Creating a Form Using the Form Wizard (Cont.)

Figure 4-3  PatientData form in Form view

- field's Caption property value appears in a label
- captions of the fields in the Patient table
- form title appears on the object tab for the form and at the top of the form
- field's value appears in the field value box
- field values for the first Patient table record appear in the form
Modifying a Form’s Design in Layout View

• You might need to modify its design in Layout view to improve its appearance or to make the form easier to use
  • In Layout view, you see the form as it appears in Form view, but you can still modify the form’s design
  • In Form view, you cannot make any design changes
• Layout view makes it easy for you to see the results of any design changes you make
  • You can continue to make changes, undo modifications, and rework the design in Layout view to achieve the look you want for the form
Modifying a Form’s Design in Layout View

(Cont.)

• Applying a Theme to a Form
  – By default, a forms use the Office theme, which determines the color and font used on the form
  – Access provides many built-in themes
    • Makes it easy to create objects with a unified look
    • You can also create a customized theme if none of the built-in themes suit your needs

New Perspectives on Microsoft Access 2013
Modifying a Form’s Design in Layout View
(Cont.)

Figure 4-5 Themes gallery displayed

Figure 4-6 Shortcut menu for applying the theme
Modifying a Form’s Design in Layout View
(Cont.)

• Adding a Picture to a Form
  – A picture is one of many controls you can add and modify on a form
  • A control is an item on a form, report, or other database object that you can manipulate to modify the object’s appearance

Figure 4-7  Form with picture added

picture appears on the form title and is selected
move picture to here
control layout containing the picture
Modifying a Form’s Design in Layout View

(Cont.)

- Changing the Color of the Form Title
  - The Font group on the FORMAT tab provides many options you can use to change the appearance of text on a form

![Figure 4-9: Form title with new color applied](image)
Navigating a Form

• To view, navigate, and change data using a form, you need to display the form in Form view

  – Navigate a form in the same way that you navigate a table datasheet

  – The navigation mode and editing mode keyboard shortcuts you used with datasheets in Tutorial 3 are the same when navigating a form
Finding Data Using a Form

• The Find command lets you search for data in a datasheet so you can display only those records you want to view.

• You can also use the Find command to search for data in a form.
  – You choose a field to serve as the basis for the search by making that field the current field, and then you enter the value you want Access to match in the Find and Replace dialog box.
### Wildcard characters

<table>
<thead>
<tr>
<th>Wildcard Character</th>
<th>Purpose</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Match any number of characters. It can be used as the first and/or last character in the character string.</td>
<td>th* finds the, that, this, therefore, and so on</td>
</tr>
<tr>
<td>?</td>
<td>Match any single alphabetic character.</td>
<td>a?t finds act, aft, ant, apt, and art</td>
</tr>
<tr>
<td>[]</td>
<td>Match any single character within the brackets.</td>
<td>a[fr]t finds aft and art but not act, ant, or apt</td>
</tr>
<tr>
<td>!</td>
<td>Match any character not within brackets.</td>
<td>a[fr]t finds act, ant, and apt but not aft or art</td>
</tr>
<tr>
<td>-</td>
<td>Match any one of a range of characters. The range must be in ascending order (a to z, not z to a).</td>
<td>a[d-p]t finds aft, ant, and apt but not act or art</td>
</tr>
<tr>
<td>#</td>
<td>Match any single numeric character.</td>
<td>#72 finds 072, 172, 272, 372, and so on</td>
</tr>
</tbody>
</table>

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Maintaining Table Data Using a Form

- Maintaining data using a form is often easier than using a datasheet because you can focus on all the changes for a single record at one time.
- In Form view, you can edit the field values for a record, delete a record from the underlying table, or add a new record.
Previewing and Printing Selected Form Records

• Access prints as many form records as can fit on a printed page
  – If only part of a form record fits on the bottom of a page, the remainder of the record prints on the next page

• Access allows you to print all pages or a range of pages. In addition, you can print the currently selected form record
Creating a Form with a Main Form and a Subform

- To create a form based on two tables, you must first define a relationship between the two tables
  - When you create a form containing data from two tables that have a one-to-many relationship, you actually create a **main form** for data from the primary table and a **subform** for data from the related table
  - Access uses the defined relationship between the tables to join them automatically through the common field that exists in both tables
Creating a Form with a Main Form and a Subform (Cont.)

Figure 4-16  Main form with subform in Form view

Figure 4-17  Modified form in Layout view

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Creating a Report Using the Report Wizard

The report object’s name is displayed on the tab for the report.

The report title appears at the top of the report. By default, the report object name is used as the report title, but you can edit the title to display the text you want, as done here, with spaces added between words for readability.

Fields from the primary Patient table appear first in the report.

Fields from the related Visit table appear below the fields from the primary table.

For a grouped report, the data from a record in the primary table (the Patient table in this report) appears as a group, followed on subsequent lines of the report by the joined records from the related table (the Visit table in this report).

The navigation buttons allow you to display the first, last, next, or previous page in the report, or to enter a specific page number and move to that page.

Click this button to close Print Preview and return to the report in the previously displayed view.

The PatientsAndVisits report was created using the Report Wizard, which asks you a series of questions and then creates a report based on your answers. This report is based on data in both the Patient and Visit tables, which are joined in a one-to-many relationship through the common PatientID field.

This report uses portrait orientation, where the page is taller than it is wide; you can also format a report in landscape orientation, where the page is wider than it is tall.

The set of field values for each record in the related table is called a detail record. These three detail records are the Visit table records related to the Patient table record for Matthew Weiss.

Shading is used to distinguish one Patient record from another, and one Visit record from another.
Creating a Report Using the Report Wizard (Cont.)

- A report is a formatted printout or screen display of the contents of one or more tables or queries in a database
  - In Access, you can create your own reports or use the Report Wizard to create them for you
  - You can always change a report’s design after you create it

![Choosing a grouped or ungrouped report](image)
Creating a Report Using the Report Wizard (Cont.)

**Figure 4-19** Choosing the sort order for detail records

- Click to display a list of the fields in the related table
- Options for sorting on multiple fields
- Ascending sort order selected; click to change to descending sort order

**Figure 4-20** Choosing the report layout

- Sample of the selected layout
- Orientation options
- Layout options
Creating a Report Using the Report Wizard (Cont.)

Figure 4-21 Close-up view of the report

- Shading distinguishes one Patient record from another.
- Visit records listed in ascending order by VisitDate.
- Shading distinguishes one Visit record from another.
Modifying a Report’s Design in Layout View

• Applying a Theme to a Report
  – The same themes available for forms are also available for reports
  – You can choose to apply a theme to the current report object only, or to all reports in the database

• Changing the Alignment of Field Values
  – The FORMAT tab in Layout view, one of the REPORT LAYOUT TOOLS contextual tabs, provides options for you to easily modify the format of various report objects
• Moving and Resizing Fields on a Report
  – Working in Layout view, you can resize and reposition fields and field value boxes to improve the appearance of a report or to address the problem of some field values not being completely displayed.
Modifying a Report’s Design in Layout View (Cont.)

- Changing the Title Font Color and Inserting a Picture in a Report
  - You can change the color of text on a report to enhance its appearance.
  - You can also add a picture to a report for visual interest or to identify a particular section of the report.

Figure 4-24: Report after changing the title font color and inserting the picture.
Using Conditional Formatting in a Report

- **Conditional formatting** in a report (or form) is special formatting applied to certain field values depending on one or more conditions—similar to criteria you establish for queries.
  - If a field value meets the condition or conditions you specify, the formatting is applied to the value.
Using Conditional Formatting in a Report

(Cont.)

Figure 4-26  Conditional formatting set for the BirthDate field

condition specifies that the selected field value must be greater than 1/1/1997

preview shows the bold, dark red font that will be applied to field values that meet the condition

Figure 4-27  Viewing the finished report in Print Preview

conditional formatting applied to BirthDate field values greater than 1/1/1997

conditional formatting not applied to BirthDate field values less than 1/1/1997
Using Conditional Formatting in a Report (Cont.)

- Viewing the database objects in the Navigation Pane

![Diagram of Chatham database objects in the Navigation Pane]