Lab 3

Access Forms.

Introduction

Forms:
Purpose: view/update/add records to tables.

Form Properties related to data entry:

<table>
<thead>
<tr>
<th>Property (Data)</th>
<th>Description</th>
<th>Option</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow Edits</td>
<td>Prevent or allow editing of data, making the form read-only for saved records.</td>
<td>Yes/No</td>
<td>Can/cannot edit saved records</td>
</tr>
<tr>
<td>Allow Deletions</td>
<td>Used to prevent records from being deleted</td>
<td>Yes/No</td>
<td>You can/cannot delete saved records</td>
</tr>
<tr>
<td>Allow Additions</td>
<td>Used to determine whether new records can be added</td>
<td>Yes/No</td>
<td>You can/cannot add new records</td>
</tr>
<tr>
<td>Data Entry</td>
<td>Used to determine whether form displays saved records or just serves to enter new ones</td>
<td>Yes/No</td>
<td>Only new records are displayed/all records are displayed</td>
</tr>
</tbody>
</table>

Controls that display/enter table data must be bound to table fields. There are several data-entry related controls and their properties - outlined below.

**Textbox** – used to display/enter values to the table field
To promote consistency of data, **Input Mask** property may be specified to ensure the data is entered in a uniform format (illustrated by the examples in the Employee data entry subform: input masks for the phone numbers and dates)

**Combo Box** – used to select a value. When bound to a table field, displays all values that appear in this column. When linked to a textbox bound to another field, the selected value will be entered in the textbox.

The following is a picture of the **ToolBox** controls with pointers to some of the buttons used in this Lab. The **ToolBox** can be displayed by selecting the menu option **View-Toolbars-Customize-ToolBox**.
TASK 1: Creating data-review and new data entry form for the Sales table.

The next exercise demonstrates the use of text boxes and combo-boxes in a data entry form that enables addition of new Sales Records, where the user chooses the Customer and Product by name, and the appropriate customer and product numbers get entered into the Sales table.

- Start by selecting Forms, New and selecting the Forms Wizard, and Sales table in the first dialog box.
- In the next dialog box, select all fields of the Sales table by clicking on the >> button.
- The next two dialog boxes let you choose a format for data display and the form. We’ll use the Columnar format here. Choose the style that you like.
- Next enter the title for the form: Enter New Sales and click on Finish.

A form is displayed at this point. Notice that the data on the screen displays the values of the fields of a single row in the Sales table, and the set of arrows (in the bottom panel) should be used to move between the rows of the displayed table. Try using these arrows and see how the information changes. Try modifying the data in the displayed field.

The next few steps describe how to add a Combo Box Control to the form in order to enable selection and entry of Customer and Product numbers by name.

- Adding Combo Boxes so that the Customer and Product information could be selected by name, and the corresponding id numbers be entered in the Sales table:

Switch to the Design View by clicking on the View button (the leftmost button on the toolbar) or by right-clicking on the form and selecting the Form Design option.

The following figure shows the Design View at this stage:
Enlarge the Form Header area by dragging down the boundary between the Form Header and the Detail sections.

Find the Combo Box control button on the Toolbar, select it, and click inside the enlarged Form Header area. The **Combo Box Wizard** should start automatically.

In the first dialog box select the option of looking up values from a table.

The first Combo Box should display the Customer name, so select table: Customer as the source in the next dialog box.

Next select both CUST_NBR and CUST_NAME. CUST_NBR attribute will be invisible, yet we need it to be entered into the Sales table column SALES_CUST_NBR.

Next the Wizard shows you the data as it will appear in the Combo Box. The “Hide key column” box in this dialog should be checked off, to suppress displaying the value of the primary key, i.e. CUST_NBR.

Next you’re asked about what Access should do with the value selected – choose “**Store value in the field** SALES_CUST_NBR”

Finally, enter **Select Customer** as the label for the Combo Box, and click on **Finish**.

Examine the form again, try selecting a Customer and notice that the data displayed now corresponds to the records for that particular Customer.

Now add a Combo Box to select the Product name. Next figure shows what the form should look like in the **Design View**.
Specifying that only new records can be added (in order to prevent accidental changes to the existing records).

Right click on the area inside the Design window, but outside of the form area. Choose **Properties**. A dialog box with the caption **Form** should come up – that dialog lets you specify various properties that apply to the entire form.

Select the **Data** tab and specify the following options (descriptions and explanations are given in the Introduction part of this handout)

- Allow Editions – No
- Allow Deletions – No
- Allow Additions – Yes
- Data Entry - No
**TASK 2: Creating a form with the subform – Department Employee data form.**

When it is necessary to simultaneously view/edit data in two tables Then a form with a subform is useful. For example: viewing/editing Employee data per department as shown in the picture below:

![Form with subform](image)

A few rules of thumb:

1. When creating a data entry form – need to first figure out which table/fields are going to be displayed/edited.

2. When creating a form with a subform, first create a subform, then create a form and insert the subform by using a Subform button from the Toolbox.

3. When simultaneously displaying data from multiple tables – first need to create a query that will produce all fields that need to be displayed.

4. Note that typically a query should not be used for a data editing/entry form, since it may not be clear how the entered data should be distributed across tables/columns.

5. To find out what query/table a form is based upon – check the Data - Record Source property
The form created in this exercise

- Displays Department data (from Dept table) including the name and phone number of the manager (from the Employee table) in the header.
Since more than one table is involved, it is necessary to create the query that will contain all of the desired fields.

*Create query DeptWithManagerAndPhone*

```
SELECT DEPT.*, EMP_LNAME & ', ' & EMP_FNAME AS Manager, EMP_PHONE AS ManagerPhone
FROM DEPT, EMPLOYEE
WHERE DEPT_MGR= EMP_NBR;
```

- Displays/allows editing and addition of the Employee data per department
This data will be displayed in a subform and comes *entirely from the Employee* table.

When creating a form with a subform – first create the subform.

*Creating the Employee subform:*

- Select Form, New, then in the dialog box choose Form Wizard and select Employee table as the source of data.
- In the window that follows, select all fields of the Employee table by pressing the >> button.
- In the next two windows, select Tabular format and Standard style.
- Next, enter the name for the subform: Employee. Click on Finish.

In the Design View, resize and move the labels and text boxes as necessary.

Further, to promote valid data entry, specify appropriate Input Masks on the EMP_PHONE, EMP_DATEOFBIRTH and EMP_DATEOFHIRE fields by choosing the mask from the Properties-Data-Input Mask option.

Now, create the main form.

- Select Form, New, then in the dialog box choose Form Wizard and select DeptWithManagerAndPhone query as the source of data.
- In the window that follows, select all fields by pressing the >> button.
- In the next two windows, select Columnar format and Industrial style.
- Next, enter the name for the subform: Enter Employee Data Per Department. Click on Finish.

In the design view, move the fields (by selecting, cutting and pasting) from the Detail section to the Form Header. Resize and move the fields around as you see fit.

Next, find the Subform button in the Toolbox and add it to the Detail section. The SubForm Wizard should start automatically. Using the Wizard

- Specify Employee as the subform to be entered.
- In the next dialog, link the subform to the main form by establishing correspondence between the Dept_nbr and Emp_dept fields. To do that – select “Define my Own” option, select DEPT_NBR in the Form Fields list, and EMP_DEPT in the Subform Field List.
- In the next dialog, specify the name of the subform – it is going to be displayed as a label, so Department Employees is appropriate...
The following picture displays the final layout of the form in the **Design View**.

Switch to the **Form View** and use the arrow buttons on the bottom of the form/subform to move between records. Note how only the employee data for the department selected in the form is displayed in the subform.