1. Create a Form using the Form Wizard

A. Create a form to add Major instances (rows of data) to the Major table.
B. Go to the Forms window and create a form for the Major table, using the Form Wizard.

C. Select **Table: tblMajor** from the available fields, and move all the attributes over to the right to the selected fields, as shown below.
D. Choose a layout (usually Columnar or Justified is the
nicest-looking). Click Next.

E. Choose a style, then click Next.

F. In the last window, give a name to the form. Call it
**frmMajor**, to distinguish it from the table Major. Click
Finish and the form will open, ready for you to add data.

G. Using **frmMajor**, add the following Majors:

```
INFO
CSE
BIOL
CHEM
PHYS
SPAN
ART
HIST
```

H. Save the form layout and close the form.

I. Go to the Major table. Are the records you just added
through the form in the table? Good!

2. Create a Form Using Design View

A. Create a form in design view to add data to the Advisor
table. Name it **frmAdvisor**.

B. To add the fields to the form, access the Form properties.
  - Right-click on the form title bar, and select
    Properties.
  - Make sure the Form object is selected in the window.
  - Select as the record source the Advisor table from
    the list.
C. A window with a list of the attributes for the Advisor table should pop up. If it doesn't, go to **View>Fields List** on the Menu bar.
D. Drag and drop the attributes onto the form in an arrangement that suits you.

E. Switch to Form View and see how your form looks.

3. Manipulate field properties in Design View
   
   A. Switch back to the Design view by clicking the icon in the upper-left corner:

   ![File Icon]

   B. Select one of the fields shown in the form.

   C. Right-click and go to the properties of that field.
D. Explore the properties, then change a format-based property, such as Caption or BackColor.
E. Now adjust the back color of the Form, then look at it in Form View.

![Form View](image)

F. Using frmAdvisor, add the following Advisor Names and Department:

- Mel Oyler from Informatics
- Alan Borning from Engineering
- John Cusak from Art
- Vitoli Demetrio from Modern History
- Garbonzo Bean from Physics

G. Go to the Advisor table. Look at the records you just added through the data entry form.

4. Create a Form from tblStudent in Design View

Now we'll do something a little different: we'll create a form that adds data to the Student table, but displays data from Major and Advisor tables.

A. Go through step 2 again, but use the Table: tblStudent to add all the fields.

B. Save the form as frmStudent. You now will have a form that may look different from the following, but it should have all the attributes listed:
C. Switch to the Design view by clicking the icon in the upper-left corner:

![Design View Icon]

D. In Design view, extend the borders of the form and the form footer to give you some layout room.

5. Add Two Combo Boxes to your Student Form—frmStudent

- One combo box will be used to display the contents of the Major table.
- The other will display the contents of the Advisor table.
A. From the tool box on your screen, select the combo box object.

- Add the first combo box to the form by selecting the object (click once) and then drawing the object on your form.
- You will be able to format this later to modify size and location.
Once you place the combo box control on your form, a Combo Box Wizard will come up, to walk you through the process.

Select the following options from each screen, and then click Next:

1. Have the combo box look up values from a table.
2. Select the Major table for the table that will provide values for the combo box.
3. Move all available fields over to the selected fields window.
4. Make sure the "Hide key column" box is checked.
5. Store the value in the "MajorID" field of the Student table (those are the options in the drop down menu).
6. Ignore the name option for the combo box, and click Finish.

B. Switch to Form view and look at the values in the combo box.

C. Return to Design View. Add another combo box just across from the AdvisorID text box.

D. Select the following options from each screen, and then click Next:

- Have the combo box look up values from a table.
- Select the tblAdvisor as the table that will provide values for the combo box.
- Move only the AdvisorID, Lname and Department from the available fields over to the selected fields window.
- Make sure the "Hide key column" box is checked.
- Store the value in the **AdvisorID** field of the Student table (those are the options in the drop down menu).
- Ignore the name option for the combo box, and click Finish.

E. Return to design view. There is now a combo box and label in the form. Delete the label.

F. Start moving through the records you have already created in Form View.

**Note**

You should see the number value of the Advisor in the text box for Advisor ID, and the name and department of the person who corresponds to that number in the combo box on the right.

We have set up the combo box so it *displays* the text values, but it *stores* the corresponding key value in the Student table in the attribute AdvisorID. That stored value will be referred to as a foreign key in the Student table.

6. Add Data to Your Major Attribute Using the Drop-Down Box

A. Since we deleted the original Major attribute (which held text earlier in the lab), let's now add a major for the students in the table.

- Use the combo box to select a Major.
- Notice the corresponding key value is stored to the left.

B. Add a total of 6 student records, using the form. Give each student a major and an advisor.

7. Add a List Box to the Form

A. Add a list box to the form. This list box will be used to access a particular record using only the last name field.

B. From the tool box on your screen, select the list box object (also known as a **control**). Add the list box to the form
Once you place the list box control on your form, a Wizard window will come up to walk you through the process.

Select the following options:
7. Have the list box find a record based on the value selected, then click Next.
8. Select the field to use from the student table [LName].
9. Move the field over to the selected fields window, then click Next.
10. By Default, the Key field is also added if you did not choose it. Make sure the "Hide key column" box is checked.
11. Name your list caption "Student Last Name".
12. Click Finish.

You will return to design view. There is now a list box and label in the form.

C. Switch to Form view and look at the values that are in the combo box.

D. Start moving through the records you have already created by selecting a name from the list box.

8. Refresh and Close the Form
A. Select a command button control and place it on the form in the upper right-hand corner.

B. When the Command Button Wizard comes up, select **Form Operations** from the Categories column and **Refresh Form Data** from the Actions column, and click Next:

C. Choose either a picture or text for display on the button (your choice!) and click Next:
D. Name the button `cmdRefresh`, and Finish.

E. Save your form. Switch to Form View, add a new record and press the Refresh button. Does the list box get updated?

F. Go through the same process again, but this time select the operation to close the form when the button is clicked.

G. Save your form.

H. Switch to Form View and press the Exit button. Does the form close?

9. Compact and Repair Your Database
As you start working on your project, you will create forms. You will make mistakes, and decide to delete forms and other objects from the database.

In other applications, this would usually mean your file gets a little smaller. It is *not* that way in Access.

Access "remembers" all the different forms, command buttons, and so forth that you create—even after you delete them. If you don't occasionally do a little "housecleaning", your database file will grow immense!

To clean up your database and decrease the file size after you have been working in it for a while, compact and repair the database, to keep the database size manageable. When you are sending your database, especially over modem lines, keeping the files as small as possible is important.

Let's try it now, for practice.

A. Select **Tools>Database Utilities>Compact and Repair Database...** Access will repair your database and return you to the main menu. If no error message appears, the process has been run successfully.
B. Close your database to make sure all your work is saved. (Remember, Access saves everything automatically. All you need to do is close the program!)

WHEW!!!! You've made it through another lab! Only a few more to go!!!!!