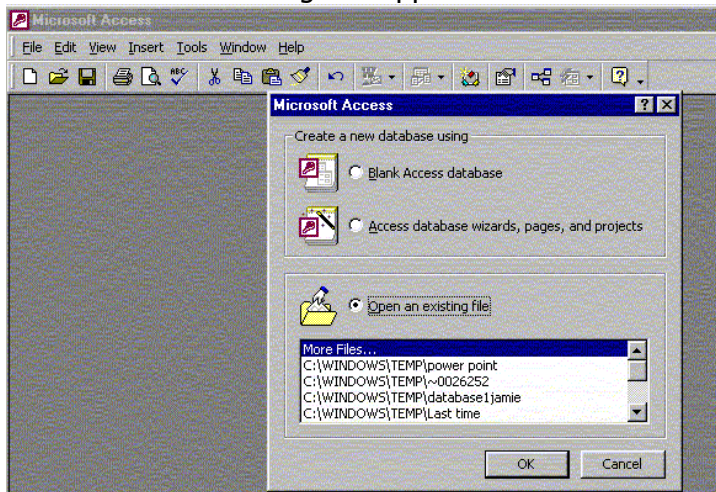


Creating a Database in Access

Microsoft Access is a database application. A **database** is collection of records and files organized for a particular purpose. For example, you could use a database to store information about your friends and family, including their addresses and phone numbers. Access, however, is more powerful than a simple database because it uses a **relational database management model**, which means you relate each piece of information to other pieces of information by joining them. For example, suppose you have a database table that lists customers and their addresses. In another table, you have information about the orders that these customers place with your company. You can join the two tables by using a relationship. This way you do not have to reenter customers' information every time they place an order.

Opening Access

1. Select the Access icon on your desktop to open the program, or
2. Click the **Start button** on the taskbar
3. Point to **Program**
4. Slide the mouse over to the right to highlight **Access** then click (Depending on how you installed your software on your computer you may have Microsoft Office as the next option, then Access).
5. The Microsoft Access dialog box appears:

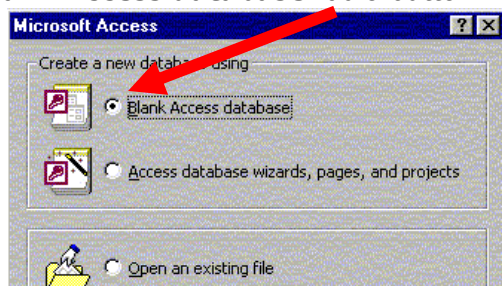


Note: The Microsoft Access dialog box allows you to do the following:

- **Create a new Blank Access database**
- **Create a database by using Access database wizard, pages, and projects**
- **Open an existing database file**

Creating a new Blank Access database

1. Click on **Blank Access database** radio button.

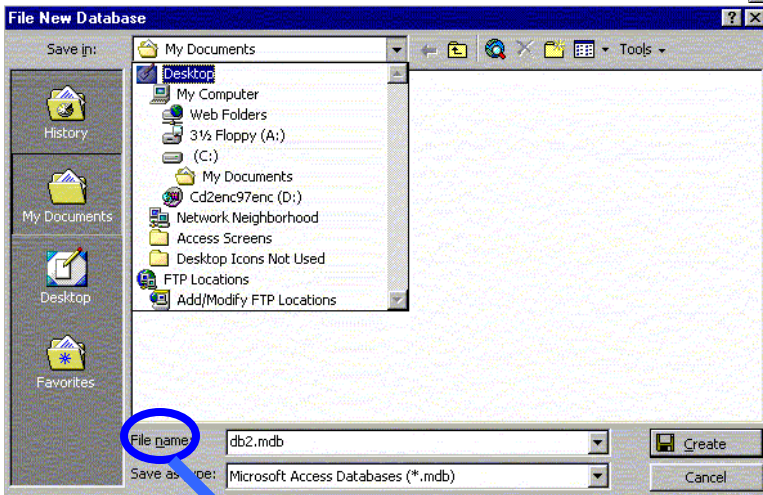
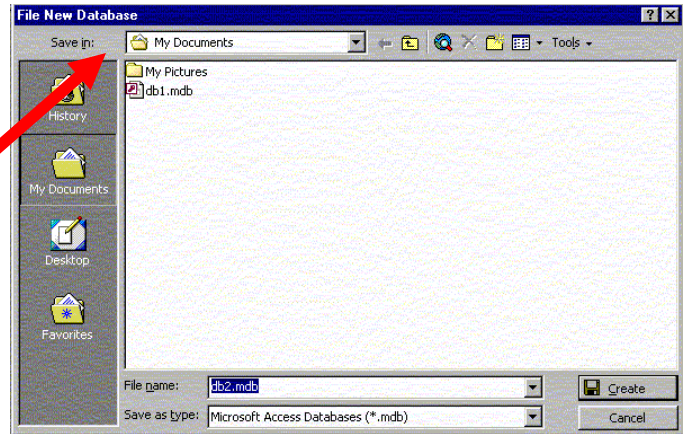


2. The **File New Database** dialog box appears:

Note: You are now ready to create and save your database on your disk.

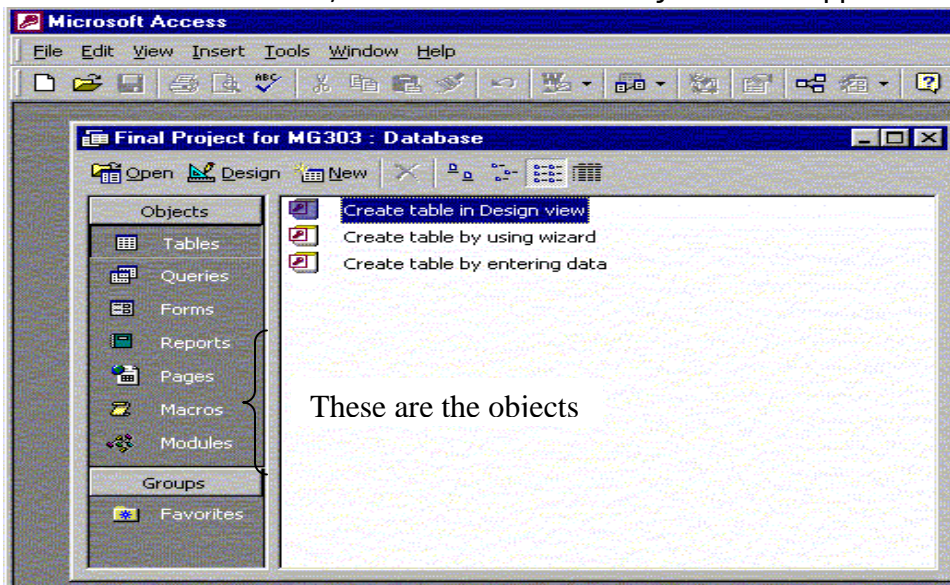
3. Move your cursor to the **Save in:** box and click on the down triangle.

Note: All of the folders and drives on your computer will now be visible.



If you look at **File name:** at the bottom of the window you will see that there is a default name given to a database.

4. Delete the default name and type in the name of your database.
5. Click on the **Create** button, the Microsoft Access Object screen appears:



After naming the database, your next step is to create the new table to hold the data by defining the structure of the table.

You will create the following Objects for your database:

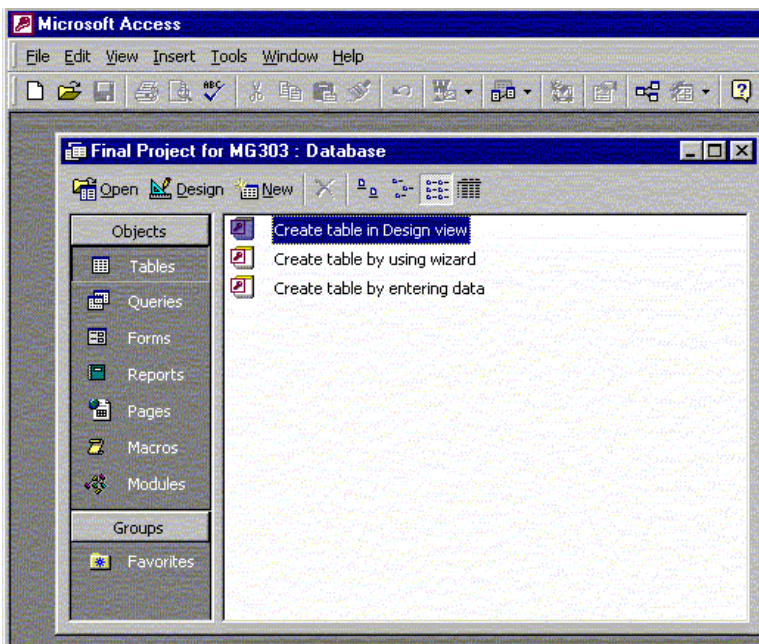
1. Tables –You will design and enter data in a Table
2. Forms – You will design a custom form based on the data from your Table.
3. Queries – You will create a query to questions the data stored in your table or a request you make to perform an action.
4. Reports – You will create a printed report from the information that comes from your table.

Creating a Table

You can create a table five different ways. The first three, Datasheet View, Design View and Table Wizard, are the most commonly used. The Table Wizard feature, lets you select from 45 predesigned database tables. The Wizard then creates a table for you based upon your selections. The Datasheet and Design View options open different view windows in which you can create a new custom table from scratch.

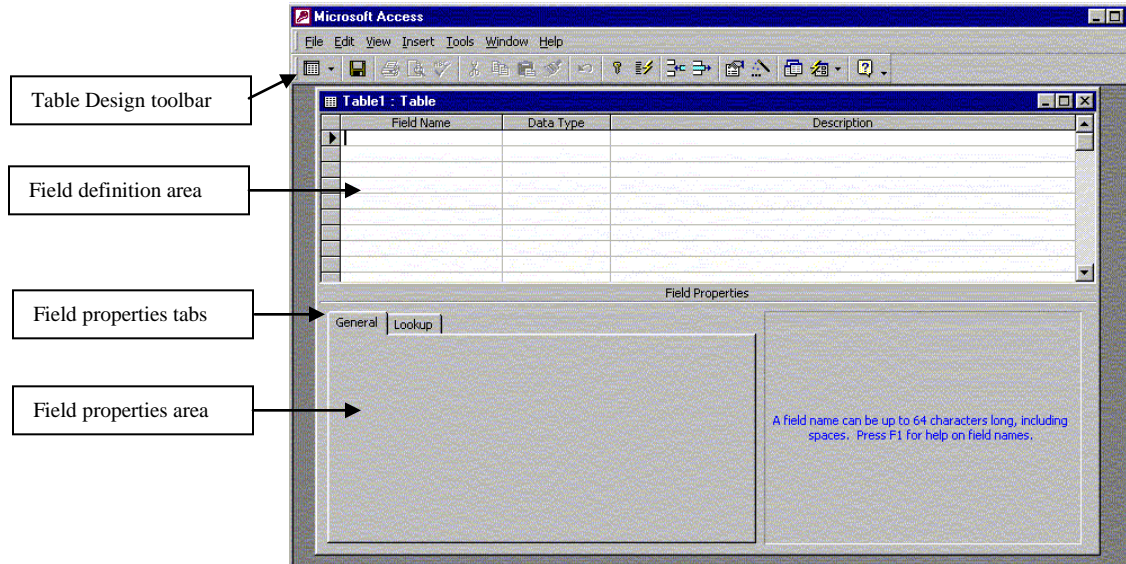
You will use the Create Table in Design View option to create the table.

1. Double click on Create Table in Design View.



2. The Design screen appears. You are now ready to add fields to your table.

The Table design window is opened and the Table Design toolbar is also displayed. The upper section of the Table Design window consists of a grid where you define each field to include in the table. Each row in the grid is where a field is defined by entering the required information in each of the columns. For the step by step detailed instructions on creating a table skip to the end and use the addendum.

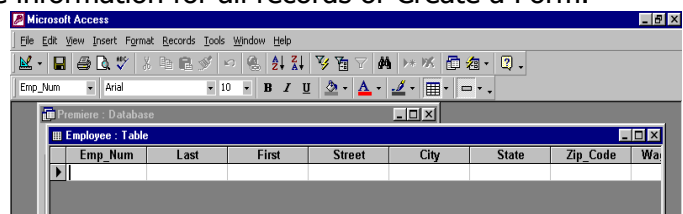


3. Type your first field name, and press the Enter key. *The insertion point moves to the Data Type column where the default data type of "Text" is automatically entered.*
4. To close the Data Type list and accept **Text** as the data type, **Press Tab.**

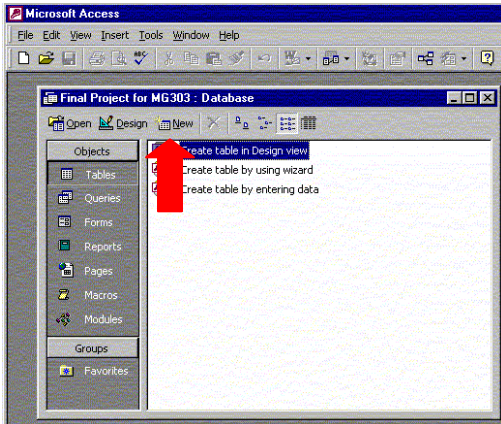
Note: The Description field is optional. Also notice in the Field Properties area of the dialog box that the General tab now displays the default field property setting associated with a Text data type.

5. Click the Field Size property text box and enter the size.
6. Enter the necessary text for the remaining field properties (if required by instructor).
7. Click in the Field name column to enter the remaining field names, data type and field properties.
8. When all information has been entered **Save** the table.
9. If prompted for a Primary Key designate one of the fields as the primary key or let the system do it for you.
 - a. To designate your own, select Cancel and return to the Table. Place the cursor on the line for the field that you wish to designate as the Primary Key. Click on the Primary Key icon.
 - b. When you let Access create a Primary Key it will create a field called ID with a Data type of AutoNumber.
10. Click Datasheet view on the toolbar to enter the information for all records or Create a Form.

This screen appears if you choose Datasheet view:

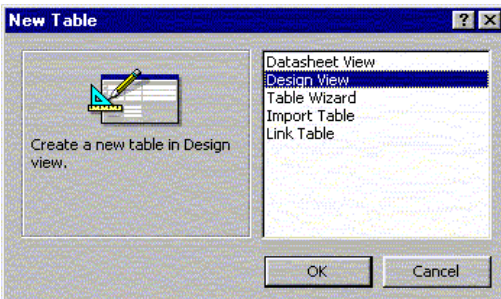


ADDENDUM: Creating a Table in Access



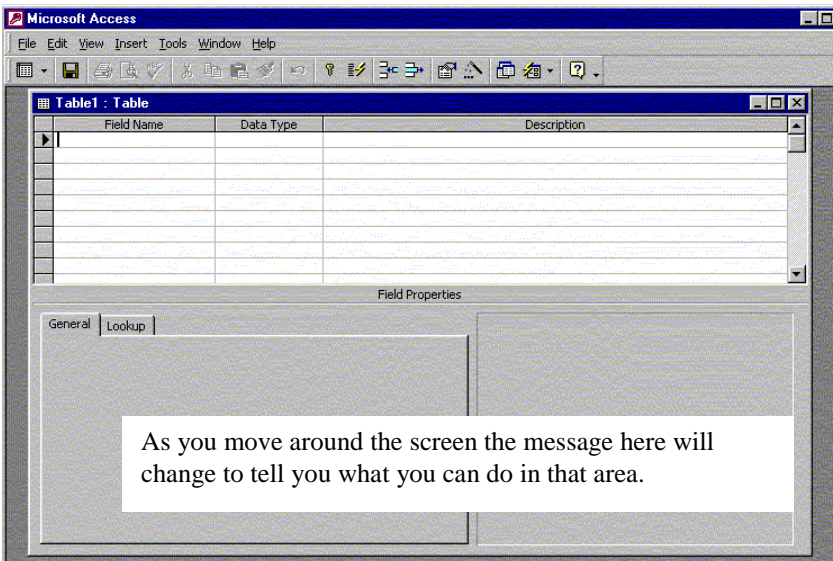
Step 1: Creating a New Table

We are not going to be using the Wizards, so we are going to work in Design View. Move your cursor to the **New** icon and click or double click on the Create Table in design view label.



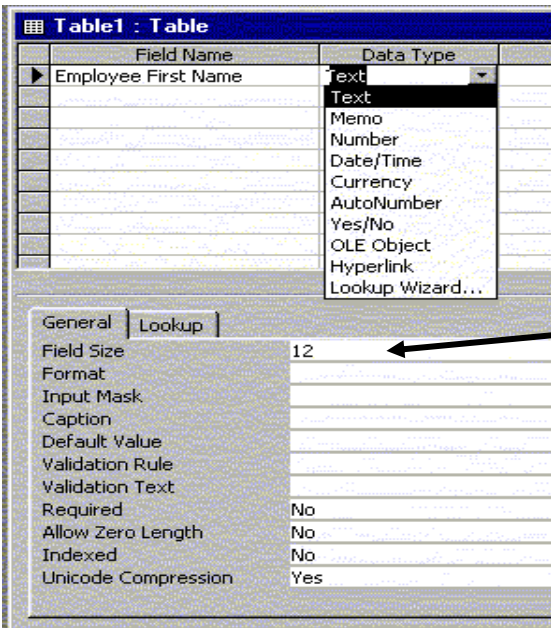
Step 2: Selecting How to Construct a Table

Slide your cursor to **Design View** so that it is highlighted, then click **OK**.



Step 3: This is the Table view where we will create our Database Definition. For each field that you have in the database you need to identify the field name, what type of data it is, and what special properties each field has.

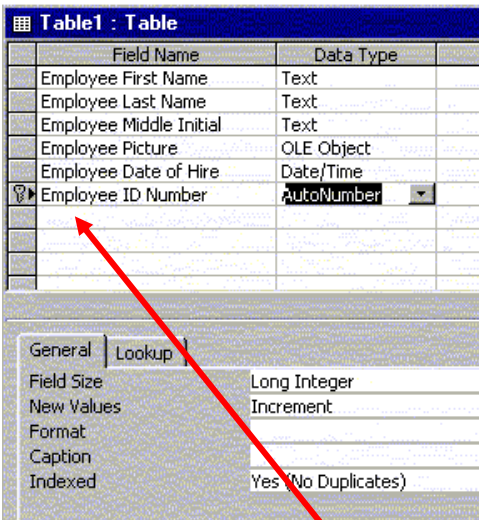
We are not going to be using the special field properties in this course. We will just focus on the length of text fields, type of number and decimal places, and the type of date. Other properties of input masks, required fields, data checks would be used to make it user friendly and insure that the data going in is as accurate as possible for everyone needing to use it in the future.



Step 4: We now begin to input the field names, select the data type and adjust the field sizes for text fields. After typing in the field name, tab to the **Data Type** column. Normally **Text** is the default field, when you want to select a different **Data Type**, click on the downward pointing triangle on the right. This pull down list will appear. Move the cursor over the **Data Type** you want and click. The chosen type will now be next to the **Field Name**.

While here you may adjust the **Field Size** as well. The default on text fields is 50 characters. Your selection should be realistic. How many characters will I need to satisfy 95% of my data? For Employee First Name I have selected 12.

Move the cursor to the 50 next to **Field Size**, highlight it, and then overtype with the new number.



Step 5: Keep entering the fields in your table.

Data Types:

Memo allows free form entry into a data field. You can type in a short essay if needed.

Number is for those fields that would only contain numbers.

Date/Time allows you to use Dates and Times in documents, records, and time sheets for payroll calculations.

Currency is for conveniently formatting that type of number.

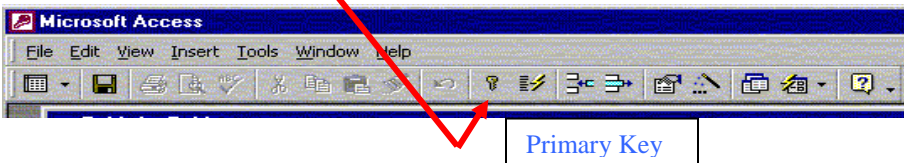
AutoNumber is used for sequential counting.

Yes/No is a logic field and is also used for True/False.

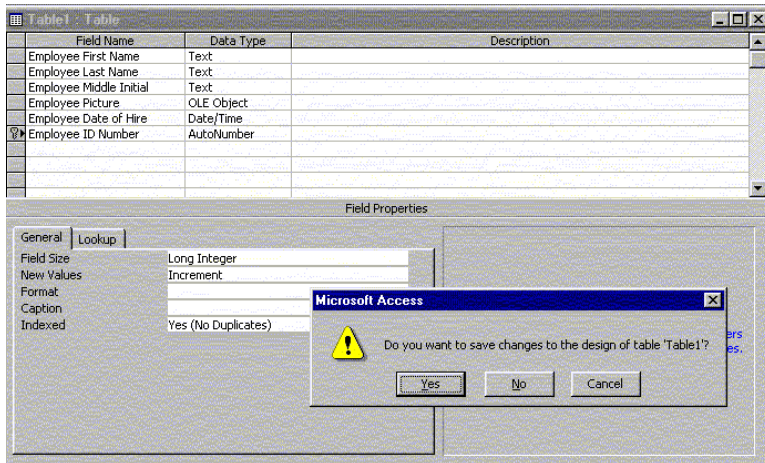
OLE Object allows us to insert pictures, sounds and images.

For Employee ID Number we have determined that this will also be our unique field in this table. With the field highlighted, move the cursor to

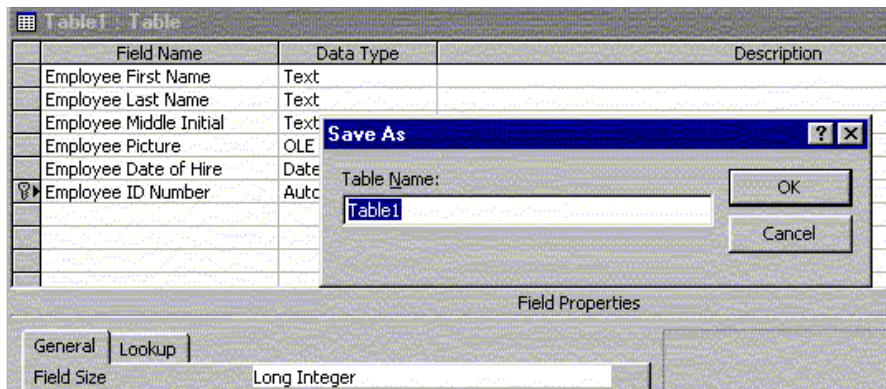
the toolbar and click on the key icon. This will put the key in the gray area to the left of the Field Name.



Step 6: Now that the fields have been entered we need to save the Table. There are a number of ways to save an entry. Throughout this tutorial we will be closing the Window by clicking on the X on the top right of the Window.

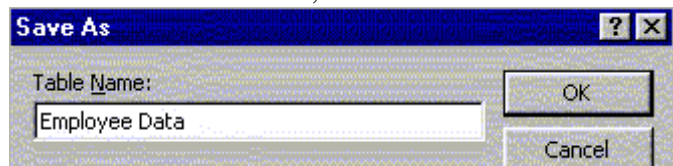


When you click, **Yes** means I want to save changes, **No** means your entries are not to be saved, and **Cancel** means that you want to go back to the table and do something else. Select **Yes**.



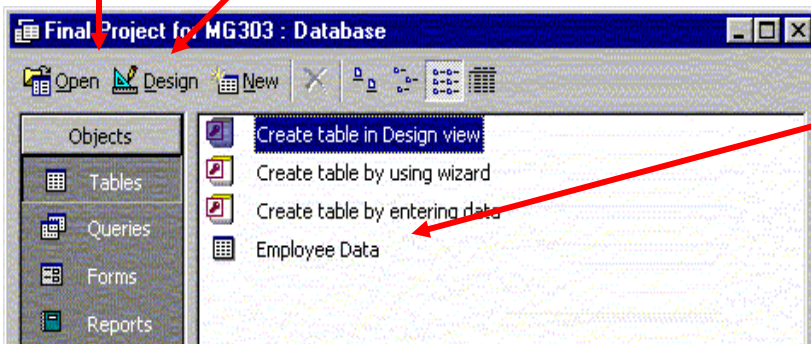
Step 7: It is now time to name the Table. Choose a name that makes sense. What is the relationship of the fields in the table? In this case they all relate to the employee.

We are therefore going to overtype **Table 1** with **Employee Data**. As Table 1 is highlighted just begin typing and your name will replace Table 1. When done, select **OK**.



If you want to look at the Table in Datasheet view to enter or look at data in a columnar view choose **Open**.

If you want to make changes to the Table, then highlight the table and select **Design**.



Step 8: Once the Table is saved you are returned to the Access Task Window. Now the table you created is visible in the list of tables in the Database.

Time for the next task. We will create an Input Form so that we can input data into the database.