Access Lab Exercise Number 3

All about Forms
Forms are useful for making data entry easier as well as graphically displaying data. Let's have a little bit of a review.

Creating a Form with the Form Wizard
In this example we will create a simple ticket sales entry table.
1. select the form entry button on the access menu.
2. select the option that states create form by using wizard
3. select the sales table.
4. click on the >> button to select all fields, then click next.
5. stick with the default selection of columnar. Click next.
6. stick with the default selection of standard but note that you have other choices. Click next.
7. change the regular default label of sales to sales_form. Click next.
8. this will then cause access to open up the form into a view of the database table showing the information of sales record one.
9. Click on the button that looks like >*--this will take you to the last record. At this point you will be able to add more data records within the form.
10. Add the following information into the new form: theater_ID = 4, movie_ID = 1, week_ID = 3, and sales = 260,000.
11. Close out of the form and move on to the next section.

SUBFORMS
Sometimes (actually in many cases) it is very useful to have a form display information from two tables. In this case we call it a subform—or in other terms a from within a form.

The form that contains the subform is called the main form. You add a subform to a main form by using a subform control. The subform shows records that are related to the record currently displayed in the main form. Therefore, a form/subform combination is often used to display the records of two tables that are related in a one –to-many relationship. Sometimes a one-to-many relationship is called a **parent/child relationship** (for example remember the sales→ movie table relationship mentioned in last class) because the "**parent**" record in the main form is linked to many "**child**" records displayed in the subform. Well designed forms/subforms encourage fast, accurate data entry and shield the data entry person from the complexity of underlying tables and relationships. Lets examine how to create both a form and a subform.

Creating a Form/Subform with the Wizard
In this example we will create a simple movie and theater zone form/subform.
1. select the form entry button on the access menu.
2. select the option that states create form by using wizard
3. select the theater table. Then select the theater name field.
4. now select the movie table and select the movie_name field.
5. now select the sales table and select the week_ID and sales fields.
6. you will be prompted with an option on how to view your data. Accept the default option and click next. Make certain the form with subform option is selected.
7. accept the new default selection of datasheet option and click next.
8. accept the standard default option and click next.
9. at this point you will be asked if you wish to open the form or modify its design. By default it will run the form. Click finish and if successful your new form will open with the theater name up on top and a subform that lists all the movies, the week_id, and the sales type.

Importing Data into Access from Excel

NOTE BEFORE YOU BEGIN YOU MUST DOWNLOAD THE employees.xls file from the web.

1. open up the access database that you wish to import the data into (PS. It also helps if you have the excel sheet already set up in the table format that you wish to create).
2. click on file and select the option "Get External Data"—this will then give you the option to either link or import data—select "import data". This will cause a wizard dialog box to appear.
3. your next step will be to locate the folder in which your excel file exists. You will want to note that by default the import wizard opens up window explorer looking for an Access Database. Click on Files of type—search for MS Excel and select that option. You will then be able to view all the Excel files. Click on the employees.xls file.
4. Upon completion you will see a import spreadsheet wizard appear. You'll notice that it contains all the worksheets of the database. Click and view the different sheets until you locate the worksheet that contains the data you wish to import.
5. By default, Access asks if the first row contains column headings. Fortunately for this example it does. Make certain the box is check and click next to continue.
6. In this next stage you are asked whether or not you wish to store the data in a new table or append (add) the data to an existing table. In this case we wish to create a new table—so select that option and click on next.
7. you are then given the option to have access create an index of the field. Since this is a simple table it is not necessary.
8. Access also realizes that you should have a primary key in your new table and offers to create one for you. However, this Excel sheet was designed for access and already has one. Select the option that lets you choose the primary key. Make certain the employee_ID field is selected and click next.
9. Your last step before completion is to give the table a name. Since this is a table that contains data regarding employees –type that name in and click finish.
10. If successful you will receive a message explaining that access is finished importing file and it will list the location of where the file was imported from.

Creating a Calculated Field Query in Access

There are cases where we would like to manually create calculated fields in our queries. For example we might want to create a query that calculates the weekly paycheck for our employees. You'll notice that there is an hourly rate field in the employee table that you just recently imported. To make this query work you will have to create an table that contains the input for the hours. Why would you have to create a new table?

After you have created your table you can begin the query.

1. select the query button in access and click on create query in design view.
2. now select the employees, hours, and sales tables.
3. now think about what do you want your query to show? Probably you want it to show WEEK_ID, EMPLOYEE_NAME (first or last?), RATE, and PAY_AMOUNT.
4. with the exception of the last amount all of this information is found in the table. So to find the PAY_AMOUNT what calculation would we execute?
5. Right—it would be rate * hours_worked.
6. In access we can create the field by writing a little bit of code (not much). First place the cursor in an empty field column in your open query.
7. right click and select the ZOOM Option.
8. Type in the following Code--- **paycheck: [employees.rate]*[hours.h_worked]**
9. Once you have done that hit ok and then click on the exclamation mark if successful you should see a query that lists the week_ID, employee name, hour rate and paycheck amount.
10. OK, so what does the code mean? Hopefully by running the query you'll be able to tell that the first part of the code is the title of the calculated field. The colon separates the title from the calculation.
11. then perhaps you'll notice that the brackets separate the two items being calculated in this case rate times hours worked.
12. the challenge is that these two items exists as fields in different tables, hence why the notation is TABLE.FIELD or in other words employees.rate.
13. Now that you have successfully created this query—alter the query to show all the paychecks issued for week 3.
14. what is your answer?