Homework 3

Due Date: beginning of class on November 19

Just as in HW2, you are to create a word-processed document. Put your name, the course number and title, and "Homework 3" at the top of the document. For each problem below, give the result of a query in part (a), and the query/queries itself/themselves in part (b). For example, suppose question 1 was:

"Find the name of the winner of the Floopie contest."

Then your document would contain something like:

1. (a) The winner of the Floopie contest was:

   ```
   Joe
   ```

   (b) Query:

   ```
   SELECT
      place, name
   FROM
      contestants
   ORDER BY
      place
   ```

Try to find the **best** query/queries you can that give you the desired result. Copy and paste the results and especially the query into your document. Do not create screenshots.

Download the database `cdeschools.sqlite` from the course web page to solve the following problems.

1. Display the school name, the date opened, the date closed, the year it closed, and the **number of years the school was open** for all schools that are closed (even if they opened again later). If the number of years is not reasonable (like the number of years open is negative), then instead of the number of years displayed in that column, it should display "Error." Order by the least number of years open and by school name (ascending order). For Part a) of this problem, show the output of the first two schools and the last two schools displayed.

2. In the previous problem, many of the schools are open the same number of years. However, they are not open the same amount of time. Show the same fields as above, but display only those schools whose number of years open is positive. In addition, add in a new field that shows the number of years open as a decimal value with two places. For example, a school that was open for six months would have a value of 0.50 in that column. Order this list by this new value, lowest first. For Part a), show the output of the first two schools and the last two schools displayed.

3. Using functions only, find the school that was open for the least length of time that was > 0. The output should be one line that shows the school name, the open and closed dates, and the fractional years shown to four decimal places.

Open the database `FoodCo.db` for the following problems.

4. In the `Category` table, list the `Description` such that each item in each category is separated by a colon rather than a comma, and remove the word "and" if it pertains to the last item in the list. There should be one space after each colon.

5. Using the `Employee` table, list all the employees following the format:

   Mr./Mrs./etc. firstInitial. lastName; *position*

   where *position* is one of {"Sales Rep", "VP, Sales", "Sales MGR", "Inside Sales"}. There should be one space between items. For example:

   ```
   Ms. J. Leverling; Sales Rep
   ```

   Write a query that will do this using string functions **only**. Do not use a `CASE` statement, for example.

Turn in a printed copy of your document. At the bottom of the document, include a **signed** Honor Code pledge:

I have abided by the Wheaton College Honor Code in this work.