Homework 2 Solutions

Due Date: beginning of class on October 22

You are to create a word-processed document. Put your name, the course number and title, and "Homework 2" 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
      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.
In many answers, you did not show the results of your actual query; rather, you wrote down the part that answered the question. The query and the results should match.

Download the database `FoodCo.db` from the course web page to solve the following problems.

1. List the cities in Germany that are customers of FoodCo, in alphabetical order. [10 points]

   ```
   (a)
   Aachen
   Berlin
   Brandenburg
   Cunewalde
   Frankfurt a.M.
   Köln
   Leipzig
   Mannheim
   München
   Münster
   Stuttgart
   ```

```
(b)
SELECT
 City
FROM
 Customer
WHERE
 country="Germany"
ORDER BY
 City
```

2. Who is the customer in Germany that is the owner of their own company? [10 points]

```
(a)
Henriette Pfalzheim

(b)
SELECT
 contactName
FROM
 Customer
WHERE
 country="Germany" and contactTitle = "Owner"
```

3. List the name, contact title, and city of all the customers that are involved with sales in either the United Kingdom or France. Display the results in (first) name order. [10 points]

```
(a)
Ann Devon Sales Agent London
Annette Roulet Sales Manager Toulouse
Daniel Tonini Sales Representative Versailles
Elizabeth Brown Sales Representative London
Hari Kumar Sales Manager London
Mary Saveley Sales Agent Lyon
Simon Crowther Sales Associate London
Thomas Hardy Sales Representative London
Victoria Ashworth Sales Representative London

(b)
SELECT
 contactName, contactTitle, city
FROM
 Customer
WHERE
 (country="UK" or country="France") and contactTitle LIKE "Sales%"
ORDER BY
 contactName
```

4. List the company names and cities of the companies that have the most products sold by the ounce. Note we have not yet covered joins, so you may need multiple queries for this. [15 points]

```
(a)
New Orleans Cajun Delights New Orleans
Bigfoot Breweries Bend

(b) Step 1
SELECT
 ProductName, QuantityPerUnit, SupplierId
FROM
 Product
WHERE
 QuantityPerUnit LIKE "%oz%"
ORDER BY
 supplierId

(b) Step 2
SELECT
 CompanyName, City
FROM
 Supplier
WHERE
 Id = 16 or Id = 2
```

5. Produce output that shows ProductName, UnitsInStock, UnitsOnOrder, and OrderStatus from the Product table. The table should be ordered by UnitsOnOrder - UnitsInStock, largest first. The value of OrderStatus should be found according to the following table:

OrderStatus	Condition
Out of stock	if UnitsOnOrder is more than the UnitsInStock
Need to order now	if UnitsOnOrder is less than 10 more than UnitsInStock
Need to order soon	if UnitsOnOrder is less than 20 more than UnitsInStock

If none of the conditions hold, then that product should not be displayed. [15 points]

I wrote the conditions backwards; it should be:

"Need to order now if UnitsInStock is less than 10 more than UnitsOnOrder"

If you had something that was reasonable, then you got the points, **except** *you have to take into account if there are no UnitsOnOrder and if none of the conditions hold that item should not be output.*

```
(a)
Louisiana Hot Spiced Okra 4 100 Out of stock
Gorgonzola Telino 0 70 Out of stock
Rogede sild 5 70 Out of stock
Wimmers gute Semmelknödel 22 80 Out of stock
Aniseed Syrup 13 70 Out of stock
Chocolade 15 70 Out of stock
Maxilaku 10 60 Out of stock
Gravad lax 11 50 Out of stock
Sir Rodney's Scones 3 40 Out of stock
Mascarpone Fabioli 9 40 Out of stock
Chang 17 40 Out of stock
Longlife Tofu 4 20 Out of stock
Queso Cabrales 22 30 Out of stock
Scottish Longbreads 6 10 Out of stock
Outback Lager 15 10 Need to order NOW
Ipoh Coffee 17 10 Need to order NOW
Gnocchi di nonna Alice 21 10 Need to order soon

(b)
SELECT
 ProductName, UnitsInStock, UnitsOnOrder,
 CASE
 WHEN UnitsOnOrder = 0 THEN "OK"
 WHEN UnitsInStock < UnitsOnOrder THEN "Out of stock"
 WHEN UnitsInStock < UnitsOnOrder+10 THEN "Need to order NOW"
 WHEN UnitsInStock < UnitsOnOrder+20 THEN "Need to order soon"
 ELSE "OK"
 END AS OrderStatus
FROM
 Product
WHERE
 OrderStatus <> "OK"
ORDER BY
 (UnitsOnOrder-UnitsInStock) DESC
```

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.

Proper formatting and Honor Code: [10 points]