Homework Assignment 1

[DUE Wednesday, April 12, 2017]

to your Canvas "Homework Assignment 1" by NO LATER THAN 11:59:00.00PM, [SHARP]

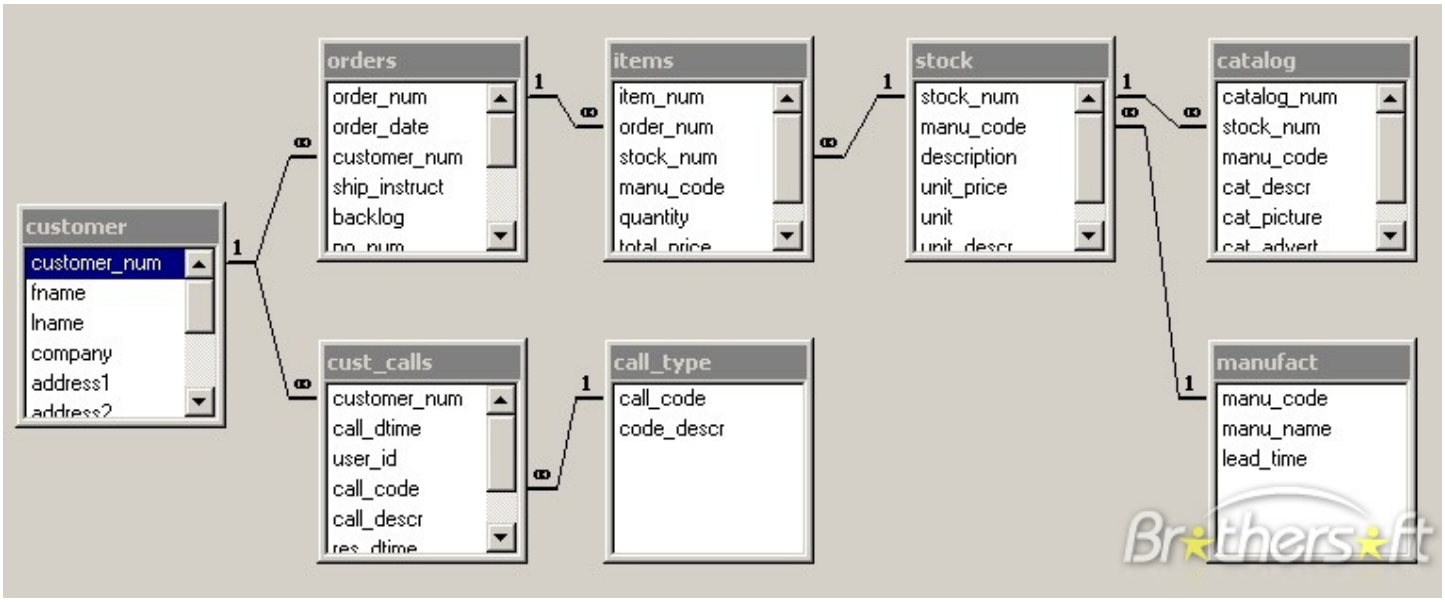
Preliminary Information: The goal of this assignment is to offer you a chance to "put the pieces together" as we have discussed them so far. We all have access to exactly the same tables/databases, so everyone has identical resources.

Assignment Structure: There are two parts to this assignment. First, you will diagram the structure of all the tables in our customer/order/vendor portion of the database and then indicate any relationships between them, i.e., Primary and Foreign keys. Second, there are a set of English-language questions that you will need to convert in to SQL statements (consistent with MariaDB) that we can run against our common tables to see if the correct information is retrieved.

Submission Process: Your assignment needs to be created using a MS Word-compatible word processor. This file needs to be submitted to your Canvas "Homework Assignment 1" assignment in the **Individual Homework ASSIGNMENTS group** no later than 11:59:00.00pm (SHARP) on Wednesday, April 12, 2017. Be sure "**HW1**" is somewhere in **the filename** and that **YOUR NAME** is at the beginning of the document.

I. Diagram Our Database [25 points].

We have examined diagrams like the following in our earlier meetings. They show all the fields in each table of the database as well as identify the Primary Key, any Foreign Keys, and the relations between the tables (one-one, one-many, many-many).



Your task is to make a version of this "kind" of diagram **BUT FOR THE 5 tables of our customer/order/vendor** portion of the database.

Since you are submitting a MS Word document, we will try to keep it simple.

For the overall layout, use <tab> to properly space your tables across the page. It should not be that difficult to create a **text-only** layout that is visually very similar to what you see above.

Then, for each table, list the fields for that table in the proper order and identify the Primary Key with (PK). If the table also has a Foreign Key, identify that with (FK). Since you really can't easily draw lines in Word, if there is a (FK), indicate immediately after that the table name from which it comes, in [ ].

Example: from "items" table above

order_num (FK) [orders]

would be the proper entry for that table.

Finally, create a list that indicates the relations, if any, between the tables. From our example, one entry would be **orders → items: one to many**. [In the **example** diagram, the "1" represents the "one" in the relationship and the "∞" represents the "many." **REMEMBER, you do not have a diagram like the one above, you have to figure it out from the tables you have.**

II. SQL Statements/Queries [75 points, 15 x 5 points/each].

You should be able to copy and paste the following from this PDF file into your MS Word document. There are 15 problems, worth 5 points each.

1. Question/Task: List all our customers by name.
    - Your SQL Statement:

2. Question/Task: How many different, unique zip codes are our customers in?
    - Your SQL Statement:

3. Question/Task: What are the last 5 items on our product list?
    - Your SQL Statement:

4. Question/Task: Show all the products that have been ordered in all orders, sorted by Product ID.
    - Your SQL Statement:

5. Question/Task: Show all the products that have been ordered in all orders, sorted by Order # and then quantity.
    - Your SQL Statement:

6. Question/Task: Show all the products that have been ordered in all orders, from smallest quantity to largest.
    - Your SQL Statement:

7. Question/Task: Show all the products from orders where the quantity for a product is greater than 30.
    - Your SQL Statement:

8. Question/Task: Show all the items from orders where the quantity is greater than 30 and the unit price is greater than $3.
    - Your SQL Statement:

9. Question/Task: Display all our products whose price is greater than $5.
    - Your SQL Statement:

10. Question/Task: Show all the products we carry that are not from **Bears R Us**.
    - Your SQL Statement:

11. Question/Task: Show all the items from orders where the quantity is between 25 and 50 and the price is between $2 and $5.
    - Your SQL Statement:

12. Question/Task: Show all the products we carry from **Fun and Games** and **Jouets et ours**.
    - Your SQL Statement:

13. Question/Task: Show all the products we carry from **Bear Emporium** and **Bears R Us** that cost less than $9.
    - Your SQL Statement:

14. Question/Task: How many dolls do we carry?
    - Your SQL Statement:

15. Question/Task: Show the total quantity of each of our products from each order and the total cost for each of those products, per order, displaying it in a column named "total_sales."
    - Your SQL Statement:

[continued on next page]

III. Handing in Assignment 1.

As noted above, all you need to do is copy this one MS Word file, **HW1.docx**, into your "Homework Assignment 1: assignment on Canvas before the deadline.