INST733 – Database Design and Modeling

Assignment 3 - See Canvas for the deadline

Questions

You will use the *my_guitar_shop* database to answer the questions in this assignment. Please see the Instructions document for the details of restoring the database on your server.

Q.1) (15 points) Write two queries to create copies of the categories and products tables. Name the new tables ***categories_copy*** and ***products_copy***, respectively.

To allow for repeated clean executions of your script, precede the CREATE TABLE statements with DROP TABLE statements. To ensure that the script will run cleanly even when the tables have not yet been created, use the IF EXISTS feature of the DROP statement.

Q.2) (20 points) Write an INSERT statement that adds the following data to the ***addresses*** table. Code the INSERT statement such that MySQL automatically generates the ***address_id*** column value.

```
address_id:     /*The next automatically generated ID*/
customer_id:    4
line1:          12723 Sinclair St.
line2:          Apt 11
city:           Rockville
state:          MD
zip_code:       20850
phone:          301-636-8989
disabled:       0
```

Q.3) (20 points) Write an INSERT statement using a column list to add this row to the ***orders*** table. Pay careful attention to the comments below.

```
order_id:             /*The next automatically generated ID*/
customer_id:          4
order_date:           /*Assume the order is taken on
                        January 13, 2020, at 11:27:31 AM */
ship_amount:          5
tax_amount:           12.12
ship_date:            /*Do not hard code the date and time; use a
                        function that will insert the date and time
                        at the moment when the record is added. */
ship_address_id:      /*Use the address_id value of the record added
                        in Q.2. You can hardcode this value. */
card_type:            Visa
card_number:          7890127890123456
card_expires:         7/2020
billing_address_id:   6
```

Q.4) (15 points) Write an UPDATE statement that modifies two columns within the row that you added in Question 3 above. This statement should change the ***tax_amount*** column to ***6.60*** and should change the ***card_type*** to ***MasterCard***.

Q.5) (15 points) Write an UPDATE statement for the ***addresses*** table that will set the **disabled** column to **1** for all addresses in the state of NJ.

Q.6) (15 points) Write a DELETE statement that deletes the row that you added to the ***addresses*** table in Question 2 above. Note that deleting the address record that was added in Question 2 will leave the order record added in Question 3 an "orphan", since the ***ship_address_id*** of the record will point to an address that does not exist in the database anymore. To eliminate the orphan record problem, precede the DELETE statement with another DELETE statement that deletes all rows in the ***orders*** table that were shipped to that address. Do not use the ***order_id*** column in the WHERE statement for either of the DELETE queries you develop for this question.

Hints:

- *Remember that to code two or more statements in a script, you must end each statement with a semicolon.*
- *You may need to turn Workbench's "Safe Updates" option off before you can run the UPDATE and the DELETE queries you develop for these questions.*