IT 2351 Spring 2021 Matt Mahoney Assignment 7

Problem

If you were assigned the task of deleting a customer from the customers table as a database administrator, explain the logic you would implement to accomplish this task via a stored program in a PDF file named Assignment7. Include the type of stored program and the steps that would be required(keep in mind the relationships between the tables). 15 points +5 to include implementation in MySQL Workbench.

This is using the guitar database.

I would create a stored procedure that took an input parameter of the customer_id, from the customers table, of the customer that I would want to delete. First I would include error checking to make sure that the customer_id the user entered actually existed in the customers table. If it did not, I would stop the procedure.

I would code this as a transaction so that either all of the data is deleted, or none of it is. If everything was deleted successfully, I would commit the data. If it encountered an error, I would rollback any changes.

Knowing that we have to work "backwards" when deleting data (meaning that you have to delete all data from the related tables first) I would start by finding all the order_items related to the customer_id input parameter, and delete those. I would include error checking so that if a customer had no data in the order_items table, it would skip this deletion and continue on. It is feasible that a customer may not have any order_items (although unlikely).

Then I would find all the orders related to the customer_id input parameter, and delete those. I would include error checking so that if a customer had no data in the orders table, it would skip this step. It is possible that a customer exists that hasn't ordered anything yet.

Then I would find all the addresses for the same customer_id, and delete those. I would include error checking on this again, just to make sure that there is actually address data before trying to delete it. Again, it's possible, but unlikely, that a customer would be in the customers table, but not have an address record.

As long as there were no errors, then I would finally delete the customer from the customers table. I would commit all of the changes in the transaction. If I received an unexpected error at any point (other than the customer_id not existing, order_items not existing, etc) then I would rollback the transaction.