Stored Procedures Assignment 1

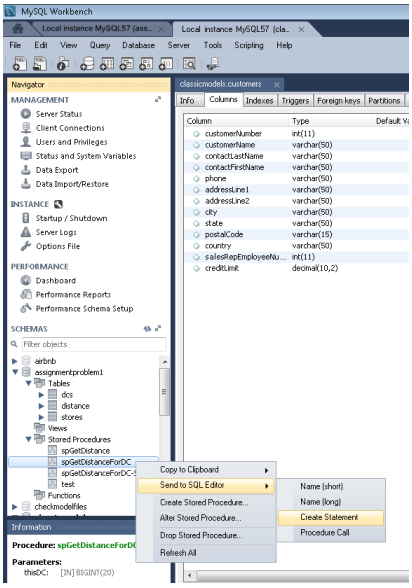
As a preliminary exercise, create the database `classicmodelsopt` by performing the following steps:

1. Download the file `mysqlsampledatabaseopt.sql` from Blackboard assignment page.
2. Open MySQL Workbench and choose `File>Open SQL Script` and load the file above.
3. Click on the lightning bolt to run the SQL script which will create a database called `classicmodelsopt`.

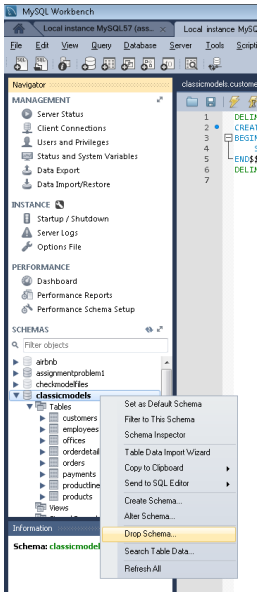
You have used this database previously in your database course. The database above will be a different instantiation with a slightly different name so that you do not corrupt the file that you still may be using for database class. Please be sure that you perform the operations below only on the `classicmodelsopt` database rather than the one you are using for the database course (`classicmodels`).

If at any point you corrupt `classicmodelsopt` and need to start this assignment again. You may follow these steps:

1. Recreate the Create scripts for the stored procedures you have already written in an editor window as shown below by right-clicking on each stored procedure you want to save:



2. Then, save the script to a file by clicking on the save icon.
3. After saving scripts for all stored procedures you want to preserve, drop the `classicmodelsopt` database ("Drop Schema") command as shown below



4. Follow the instructions above to recreate a new `classicmodelsopt` database
5. Run the SQL files for the stored procedures to recreate your stored procedures by using `File>Open SQL Script` to open the stored procedure scripts and then execute (using lightning bolt icon).

Create and execute stored procedures on the `classicmodelsopt` database to accomplish these tasks.

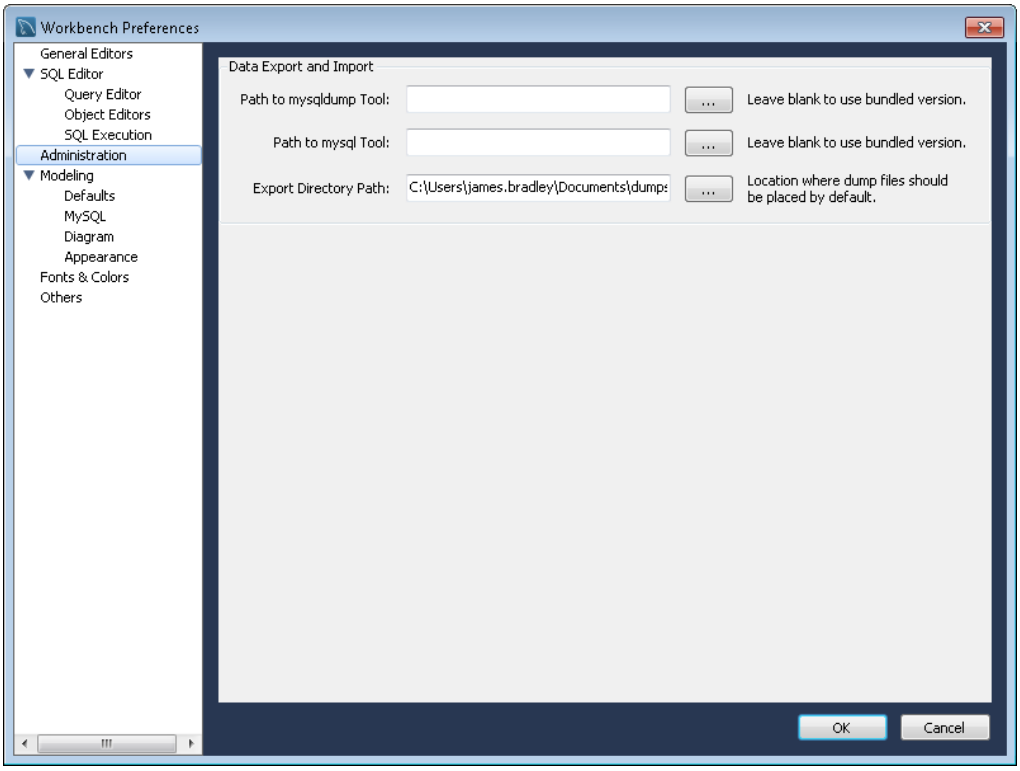
1. Use `INSERT INTO` statement to create a stored procedure named `spNewCustomer` that adds a new customer in the customer table with this associated information:
    a. customerNumber: 497
    b. customerName: La Tienda
    c. contactLastName: Marris
    d. contactFirstName: Bill
    e. phone: 7575555555
    f. addressLine1: 3000 Jamestown Road
    g. city: Williamsburg
    h. state: VA
    i. postalCode: 23185
    j. country: USA
2. Create a stored procedure named `spCustomerOrders` with a parameter for a `customerNumber`. Extract data from the database for all orders placed by a customer. Specifically, extract these data for a specified `customerNumber`:
    a. orders:customerNumber
    b. customers: customerName
    c. orders: orderNumber
    d. orders: orderDate
    e. products: productCode

f. orderdetails: quantityOrdered
g. products: productName

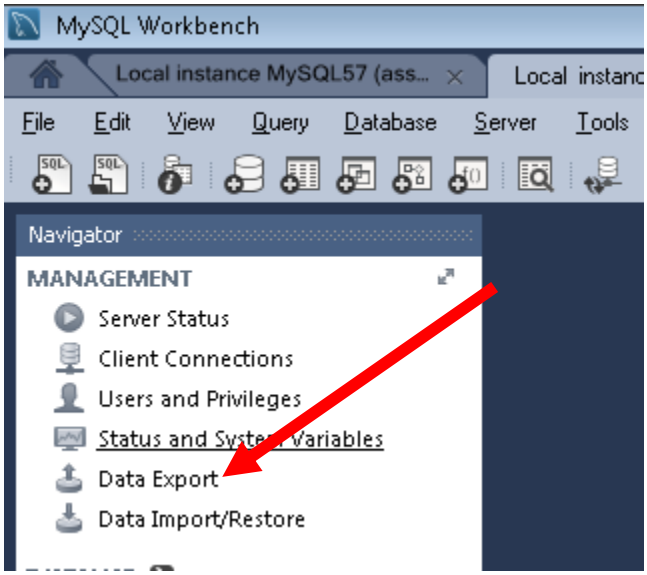
3. The customer data needs to be updated for routine maintenance. Create a stored procedure named `spUpdateCustomers` that changes the data for each of the customers listed below:
   a. For `customerNumber = 129`
      i. `contactLastName: Smith`
      ii. `contactFirstName: Lonnie`
      iii. `phone: 6505555788`
   b. For customerNumber = 151
      i. `addressline1: 99 W. 84th Street`

   These two tasks can be combined into one stored procedure.

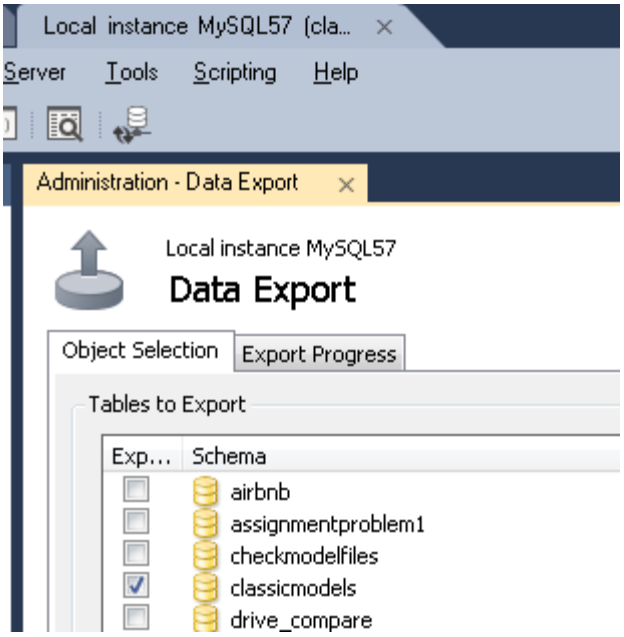
4. Create a stored procedure named `spDeletePayments` that deletes from the `payments` table all payment data relating to customers with the `customerNumber` fields equal to 128, 141, and 201.
5. When you have finished the assignment and executed the stored procedures, then export your database to an SQL file by following the steps below and submit that file to Blackboard. The initial steps ensure that your mysqldump.exe file, which creates the export file, is compatible with your version of MySQL.
   a. Choose `Edit>Preferences` from the menu. You will see this dialog after you choose the `Administration` tab.



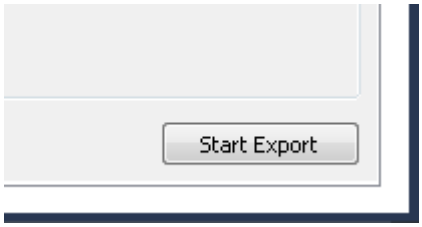
b. Specify this `Path to mysqldump Tool` as follows, adjusting for the letter corresponding to your installation drive: `C:\Program Files\MySQL\MySQL Server 5.7\bin\mysqldump.exe`
c. Click `OK`.
d. Then, left-click on `Data Export`



e. Select `classicmodelopt` as the file to export



f. Then click `Start Export` button in lower right area of window.



g. The “dump” file is placed in this folder, adjusting for your user name and your Windows installation drive letter:
`C:\Users\[username]\Documents\dumps`

6. This problem deals with the data from the `classicmodelsopt` database. Classic Models is planning on having a conference for its customers in the USA whose operations are in these states: CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, and VT.
   a. Create a stored procedure named `spGetCustomers` to query the `customer` table for customers whose operations are in these states within the USA. Create the stored procedure to retrieve those customers one state at a time, using a parameter for the state. Write a Python program, putting the state abbreviations above into a list, and executing the stored procedure multiple times using a for loop to iterate through the list. Print the data out from your Python program that you retrieve from the `classicmodelsopt` database.