CS130 Databases
Laboratory Assessment Sheet: Lab 8

In this lab today you must connect to your OWN schema in the PostgreSQL database. This means that when you connect to PostgreSQL on webcourse.cs.nuim.ie you do not click on the public schema. **You scroll through the cs130 database to find YOUR schema.** Your schema will match your USERNAME – for example u181234 or p189876. When you have clicked on YOUR schema then you can open the phpPGAdmin query tool.

You will need to download one SQL file from Moodle to complete today's lab. You should complete the following steps. DO NOT CALL A DEMONSTRATOR unless you have followed these steps properly.

1. Connect to your own schema on the cs130 database on webcourse.cs.nuim.ie and open an editor window in phpPGAdmin.
2. Download the SQL File **Lab8_AllTables.sql** to your computer.
3. Go back to the phpPGAdmin window. **OPEN AN SQL EDITOR Window** Go to 'File' and then 'Open' and browse to where you downloaded the file. Open the file and when it has loaded press the RUN button (the query run button you use all the time) to create the tables automatically. Alternatively you can copy & paste into the SQL editor window from the textfile opened in Notepad.
4. If you make a mistake at any point in your lab today you can always repeat step 3 above to recreate your tables and restore them back to their original state.

When you are writing SQL code below DO NOT COPY AND PASTE SQL code directly from the lecture slide PDFs into PGAdmin. You will get errors related to character encoding indicating that there is a character error with your SQL You should TYPE YOUR OWN SQL in to the PGAdmin Editor window.

In the simple ER Diagram below a Stores Product database is shown. The **Lab8_Stores** table contains the details of a number of stores all over the United States. The **Lab8_Products** table contains the details of a small number of products which are sold in some or all of the stores in the **Lab8_Stores** table. The **Lab8_Sells** table describes the relationship 'a Store SELLING a Product'. Any store can sell one or more of the products. All prices for products are given in US Dollars. All stores are part of the same company. Therefore, all of the stores will sell products for the same price. You are encouraged to try to use TRANSACTION blocks as shown in the Lectures when writing your update and delete statements.

QUESTION 1: Write an SQL statement to list all of the stores and the products they sell where the store is based in the state of Florida. The Moodle Quiz will ask you to supply the number of rows returned by this query.

QUESTION 2: Write an SQL statement to list all of the stores and the products they sell where the store sells products with prices between 10 and 50 dollars inclusive.

QUESTION 3: Update the StoreID of the store with name 'RealPoint' to a new StoreID of 'CS130A'. The Moodle Quiz will ask you the TOTAL number of rows affected in the database by this update.

QUESTION 4: The Store named Twitterbridge with StoreID `YK67IA` is ceasing trading. Delete this store from the database. The Moodle quiz will ask you to provide the TOTAL number of rows affected in the database by this deletion.
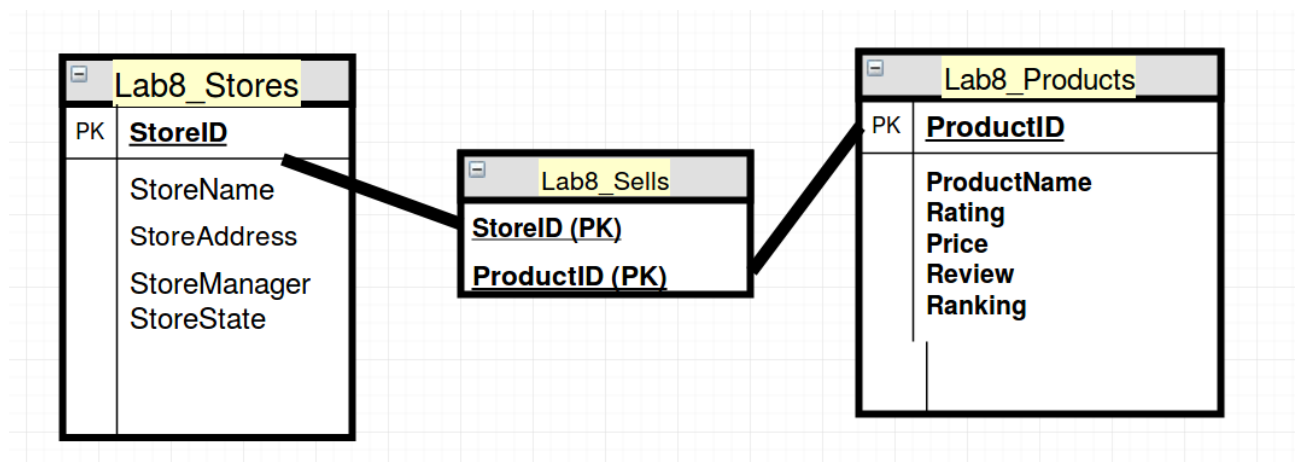
QUESTION 5: The current store manager of the store named 'Zoomdog' is being replaced by a new manager called Susan Reid. Write an SQL statement to perform this update to the database. The Moodle Quiz will ask you to provide the TOTAL number of rows affected by this update.

QUESTION 6: The price of the product `SanDisk 32GB Ultra Class Memory Card` is being increased by 10% for sale at all stores. Write an SQL Statement to perform this update to the database. The Moodle Quiz will ask you to provide the TOTAL Number of rows affected by this update statement.

QUESTION 7: Write an SQL Statement to delete the product '`ARRIS SURFBoard`'. The Moodle Quiz will ask you to provide the total number of rows affected by this statement.

QUESTION 8: Use a transaction block to test what happens when you TRUNCATE the `Lab8_Products` table. Moodle will ask you a question, as a Multiple Choice Question, about what happens when you run this statement.

QUESTION 9: Use a transaction block to test what happens when you DELETE the `Lab8_Products` table. Moodle will ask you a question, as a Multiple Choice Question, about what happens when you try this statement.

Lab8_Stores		Lab8_Sells	Lab8_Products	
PK	**StoreID**	**StoreID (PK)**	**PK**	**ProductID**
	StoreName	**ProductID (PK)**		ProductName
	StoreAddress			Rating
	StoreManager			Price
	StoreState			Review
				Ranking

You will need to input your answers to the Moodle Quiz for this lab session. This will be the only way you will be assessed for the CA for this lab. You are advised to save your work regularly and to make note of the answers to these questions. You can only submit your answers to the Moodle Quiz twice.

While demonstrators will not be checking or assessing your answers – <u>any demonstrator can ask you to show your SQL queries running.</u>

COPYING OF SQL OR ANSWERS BETWEEN
STUDENTS WILL RESULT IN ZERO MARKS