# Assignment 4 – Database Constraints (100 points)

## Due Date: Monday, February 1st, 11:59 PM

### Objectives

The purpose of the assignment is to understand how to create tables and design integrity constraints. In this assignment, you will need to create a database, construct tables, insert data into the database, modify individual columns of a table, and execute queries.

The assignment reinforces the following objectives:

- Learn how to create table structures.
- Learn how to insert database data.
- Learn how to modify and delete data from a database.
- Learn how to query a database.

Read the directions carefully. If a query says it uses four SQL statements, then you must use exactly four SQL statements for that query or you will receive no points. At various points, the query instructs you to include select statements to display table data. Do not include other table displays in your final script.

### Additional files

- create_tables_retailStore_database.sql
- Insert_data_retailStore_database.sql

1. Robert Thornberry has contacted SRS (Sports Retail Store) to ask that his 83 Barrhill Drive address be removed from the system as he can longer receive parcels at this address. Write a SQL statement that will remove this address from the system.

   Run a SELECT statement on the cust_address table to ensure that the statement has been executed.

2. Run the DESCRIBE command on the orders table to view its structure.

   Add a default constraint that will use todays date to assign a value to the order_date column of the orders table, if no date is provided.

   Run the DESCRIBE command again to verify the command was successful.

3. The client has decided that they would like a separate column for the customer's mobile phone number. This is an optional column that will be required to store 11 digits.

   Run the DESCRIBE command on the customers table to view its structure.

   Add column that will satisfy the clients requirements

   Run the DESCRIBE command on the customers table to view its structure.

4. The client has decided that they do not need the mobile number column as most customers only provide a single contact number and that is already catered for with the existing phone number column.

   Run the DESCRIBE command on the customer table to view its structure.

   Drop the column that was created to store the mobile phone number.

   Run the DESCRIBE command on the customer table to view its structure.

5. Write an INSERT statement that adds this row to the membership table:

   id: t010

   name: executive

   discount 50

6. Modify the number of units on order ID **or0101250** to 11.

7. Write an INSERT statement that adds this row to the customer table:

   customer_number: c02001

   email, first_name: brianrog@hootech.com

   first_name: brian

   last_name: rogers

   phone_number: 01654564898'

   current_balance: -5

   card_number: lc4587

   This information violates the check constraint that the current balance must not be less than zero. Change the current balance to 50 and re-run the query.

8. Create the three o_tables – jobs, employees, and departments – using the syntax:

   CREATE TABLE o_jobs AS (SELECT * FROM jobs);

   CREATE TABLE o_employees AS (sELECT * FROM employees);

   CREATE TABLE o_departments AS (sELECT * FROM departments);

9. Write an INSERT statement that adds the Human Resources job to the o_jobs table:

   job_id: hr_man

   job_title: human resources manager

   min_salary: 4500

   max_salary: 5500

10. Rename the o_jobs table to o_job_description.
11. Write the CREATE TABLE statement for the SRS global locations table. Define the constraints at the column level.

    Execute the CREATE TABLE statement.

    Execute a DESCRIBE command to view the Table Summary information.

| **Table Name** | GLOBAL_LOCATIONS | | |
|---|---|---|---|
| **Key Type** | **Column Name** | **Data Type** | **Size** |
| pk | id | INT | 4 |
| | loc_name | VARCHAR | 20 |
| | date_opened | DATE | |
| | address | VARCHAR | 20 |
| | city | VARCHAR | 20 |
| | zip_postal_code | VARCHAR | 20 |
| | phone | VARCHAR | 15 |
| unique | email | VARCHAR | 15 |
| | manager_id | DECIMAL | 6,0 |
| | emergency_contact | VARCHAR | 20 |

**Submission Instructions:**

- For each of the queries above, submit the query and the result from running the query.
- You will need to label your assignment with your first initial, last name, and the name of the assignment. **Example:** *hibrahim_assignment4.sql* and *hibrahim_assignment4.txt*
- Zip the files to upload to Canvas. **Example:** *hibrahim_assignment4.zip*
- Submit the zipped file containing the script and output .txt via Canvas.
- Remember to include the query number as a comment at each step.
- Read your output .txt file before submitting.