Department of Computer Science and Engineering

Faculty of Engineering

University of North Texas

Assignment 2 CSCE5350 Fall 2023

Due on or before October 21, 2023

1. Write a program (in java or any other language) to access and manage the contents of database tables. Follow the following steps to set your computer for the assignment and accomplish the goal.
   1. Download the University database from the class textbook website and load it to your local MySQL database server.

https://www.db-book.com/university-lab-dir/sample\_tables-dir/DDL.sql

* 1. Load the simple data set.

<https://www.db-book.com/university-lab-dir/sample_tables-dir/smallRelations/smallRelationsInsertFile.sql>

* 1. Download the database driver (mysql-connector.java for java language) set it up with your system

<https://dev.mysql.com/downloads/connector/j/>

* 1. Create a Java program to display the content of Instructor, department, teachers, and courses tables.
     1. Program should ask the table name to display when selecting the display data option from the main menu. Then display the content of the selected table.
  2. Add the functionality to insert record to the instructor table.
     1. User should be able to select the option to **insert** data from the main menu.
     2. User should be asked to enter each column data one after the other and once the final column data is inserted, it should insert the data to the instructor table.
  3. Add a main menu item to modify the course information of a given instructor.
     1. User should be able to select the **add course to instructor** menu option from the main menu.
     2. The user is presented with a list of courses in the system. And program must ask the course ID that needed to be added to the instructor. Then the program should display the instructor table. Finally, the program asks to enter the instructor ID. You need to insert the mapping to the correct table after the user enters the instructor ID.
  4. Add a main menu item to delete an instructor from the instructor table.
     1. User should be able to select the **delete instructor** menu option from the main menu.
     2. The user is presented to enter the instructor name and the program displays the information that are closely matched with the instructor name along with the instructor ID. Then the program asks the user “what is the instructor ID to be deleted?”
        1. User must enter the instructor ID.
        2. Then the program asks if you want to delete all the related cause attachments to the instructor as well. If the user selects yes, the program should clean all the courses attached to the instructor and delete the instructor. If you do not want to delete course assignments to the instructor, you should keep the course assignments in the corresponding table and assign to a special instructor called “Staff” which is available in the instructor table with an ID.

**Note:** You can implement this assignment as a console application. If you are comfortable of using GUIs, feel free to do so.