Advanced Java

Lab Project: 07

Points Possible: 125

Due Date: Nov. 30, 2016 (11:59pm)

Objective:

Create a Java FX GUI program that allows the user to view and edit data from a database using a TableView component.

Grading Table:

Task	Points
Programming Guidelines are followed and Documentation report is created	25
Database is created according to specifications below (include file with SQL)	10
At launch, program reads data from database and populates a TableView	10
Program has a button that enables the user to delete a selected row from the database and updates the TableView	40
Program allows required cells of the table to be edited with valid data followed by an update to the database and TableView	40
TOTAL (Points Possible)	125

Instructions:

The goal of this project is to write a Java FX GUI database program (use the CPU database you created in previous projects). The program should have a TableView component which on launch, shows the contents of the database. All of the cells of the table except the those of the ID column need to be editable. When edited the data needs to be first validated (numbers, text, blank, etc.) then the database should be updated with the new cell data. Finally the program should have a **delete** button that allows a *selected* row from the database to be deleted. The TableView should be updated after the deletion.

Note: For help with SQL commands and info:

w3schools

Note: To compile and run your project at the command prompt you will need to manually set the classpath (all on one line):

```
javac -cp .;C:\path-to-desktop\mysql-connector-java-5.1.22-bin.jar YourProject.java

java -cp .;C:\path-to-desktop\mysql-connector-java-5.1.22-bin.jar YourProject
```

Where "path-to-desktop" is the path to your desktop where you placed the database connector jar file and "YourProject" is the name of the class file that contains your main method. If you are using an IDE, consult your documentation for adding jars to a project.

Note: For this assignment, submit your Java source code and class files, and the documentation report. Please do not send me your database or connector.

Turn In:

1. Create a jar file as demonstrated in class (see the class Blackboard site for notes) that contains your source code and class files named "project07LastName.jar" (the jar file does not need to be executable)
2. Create a short documentation report (doc, docx, or pdf) containing screen shots that either demonstrate your program meeting the specifications in the above grading table or show the error messages that might occur when attempting to compile or execute your program. Include a brief description (1 paragraph is fine) documenting your work and describing the functionality of your program. If there are errors, discuss them (what is your best guess as to what is going wrong). In the report, include the version of your Java Compiler (at the command line run "javac –version") and any other development tools you used.
3. Submit the resulting jar file and documentation report to Blackboard

If you have any questions email me early and often at: george.patterson@tulsacc.edu