Assignment #5 – Developing a Java App with JDBC capabilities using Swings or JavaFx

Due Date: 30-Nov-2018 4:00pm.

Purpose: The purpose of this Lab assignment is to:
- Practice the use of JDBC components.
- Develop a GUI Java application with data access capabilities

References: Read the Lecture Notes 10 & 11 and the textbook.
- This material provides the necessary information you need to complete the exercises.

Be sure to read the following general instructions carefully:
This lab should be completed **individually or in a pair** by all the students. You will have to demonstrate your solution in a scheduled lab session and submitting the project **through the dropbox link on D2L**.

You must name your Eclipse project according to the following rule:

YourFullName_COMP228LabAssignNumber
Example: **JohnSmith_COMP228LabAssign5**

Apply the naming conventions for variables, methods, classes, and packages:
- *variable names* start with a *lowercase* character
- *classes* start with an *uppercase* character
- **packages** use only *lowercase* characters
- *methods* start with a *lowercase* character.

Instructions and Requirements:

Centennial College bookstore maintains a database to store the "books" and "book sales" information. This database is manipulated with a Java app and each book sale is recorded. All the information is stored in a database named "CENTENNIAL_BOOKSTORE_DB" with the following tables with given columns. (You can add any missing columns in both tables)

  BOOKS (BOOKCODE, TITLE, AUTHOR, PRICE, TYPE, SUBJECT)
  SALES (BOOKCODE, SALEDATE, QUANTITY, PRICE)

Tasks:

Develop a GUI Java application that will allow to manipulate the "CENTENNIAL_BOOK STORE_DB" database with CRUD functionalities.

You can use "CENTENNIAL_BOOKSTORE_DB" database which you were created in MySQL or Oracle database for your assignment 4.

Your GUI should provide the necessary SWING or JavaFX components that will allow the user to enter and display the data. You will use JDBC to provide the following operations:
1. *Insert* books and book sales information into the database.
2. *Update* and *delete* the existing books and book sales information.
3. *Display* all the books and book sales information. You may use a *JTable or other components to display.*
4. *Search* a book information with BOOKCODE as a search key and *Search* book sales with SALEDATE as a search key.

Use prepared statements to implement all database operations.

Assessment Rubrics:

Functionality	
Correct implementation of UI and event handling.	50%
Correct implementation of JDBC	35%
Comments, correct naming of variables, methods, classes, etc.	5%
Friendly input/output	10%
Total	100%

Submission

Submit your assignment solution in a **zip file** that is named according to the following rule:
YourFullName_COMP228LabAssignNumber.zip

   Example: **JohnSmith_COMP228LabAssign5.zip**

Paired students (both of you) should submit the solutions into drop box.

Academic honesty (Plagiarism and cheating)

All students must follow the academic honesty policies regarding Plagiarism and cheating on assignments, Quizzes or Tests. Centennial college's Academic Policy will be strictly enforced. To support academic honesty at Centennial College, all academic work submitted by students may be reviewed for authenticity and originality, with utilizing software tools.

For more details, please visit the Academic Honesty site on
https://www.centennialcollege.ca/mycentennial/your-support/academic-support/student-academic-advising/academic-honesty/