Assignment 5 Introduction to JDBC

Objectives

- Setup JDBC for Java
- Connecting and communicate with a Database using Java
- Create classes and methods to support manipulating Databases from Java

Instructions

For this assignment, you will need to setup the JUSTLEE database in PDBORA19C. Follow the instructions below to create a set of Java files that will be provided in a zip called assignment5.zip. Ensure your source code compiles without errors and runs from start to finish without errors. Be sure to include any code includes any necessary config files such as a POM.xml, such that the once unzipped the code can be compiled and run. Additionally, students are expected to always use best practices when developing.

Setting up Java Project

Create a new Java project called assignment5. Add the JDBC jar to your POM.xml file in the project. This is essential for connecting to the database.

Connecting to PDBORA19C

Create a new class called **JustLeeServices**. This class will contain most of the methods needed for this lab.

1. Create a **getConnection** method that obtains a connection the database and returns the connection. You will be connecting to the URL "**jdbc:oracle:thin:@198.168.52.211: 1521/pdbora19c.dawsoncollege.qc.ca**
2. Create an object to hold Books called **Book**. This object should have information for all necessary fields of the book table and should have information about Publishers as well (which will require that you create the **Publisher** objects for them as well)
   a. Override the **ToString** method to output the book information. This should contain all the fields of the book class.
3. Create a method called **getBook** that takes an ISBN and returns a populated Book object for the book that has that ISBN.
4. Create a method called **addBook** that takes **Book** object and adds that Book to the database. (Several tables may need to be modified – use transactions).
5. Create a **main** method in the **JustLeeServices** class. It should add a new book to the database using the method in Q4. The main method should then retrieve the book using the method in Q3 that was just added. Print out the book using the **ToString**() method.
   a. The main method should prompt users to provide their username and password for the database. Be sure not to hardcode your username and password in your submission.

Deliverable

Submit your java source code including your App class in a zip called assignment5.zip. Ensure you code compiles and that the main runs from start to finish without errors. You can assume that JUSTLESS database has been freshly setup in PDBORA19C

Resources

- Maven JDBC dependency
  https://mvnrepository.com/artifact/com.oracle.database.jdbc/ojdbc10/19.16.0.0
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