1 Preliminaries

First, download the `lab4.zip`, which contains the schema and data for the database we will use for this lab. It also contains the PostgreSQL JDBC library, as well as the `StoreApplication.java` and `Driver.java` files mentioned in later sections.

Run the `createdb.sql` script. **Note**: It is important that you do not change the names of the tables. Otherwise, your application may not pass our tests and you will not get any points for this assignment.

Modify `Driver.java` with your own database credentials. Compiles the Java code and ensure it runs correctly. It will not do anything useful with the database yet apart from logging in, but it should execute without errors.

Some instructions on compiling with the JDBC library, along with remedies for common errors are found here. When reading these instructions, substitute the filename of the PostgreSQL JDBC library with the one you are provided. Likewise, substitute the `Sample.java` with your own `Driver.java`.

2 Goal

The fourth lab project puts the database you have created to practical use. You will implement part of a client program used to facilitate querying and inserting into the database. The user of such a client program might be a clerk working or a customer using an information kiosk at *Downtown Video* or *City Books*.

3 Description

`StoreApplication.java` contains a skeleton for the StoreApplication class, whose methods interact with database using JDBC. Each method is annotated with a description of what it does, and you will implement it accordingly. The default constructor is already implemented, and can remain empty if you do not wish to initialize any class variables.

A brief guide to using JDBC with PostgreSQL can be found here. This should be useful when implementing the methods.

4 Testing

All the methods of this class receive a Connection object as their first argument. This object should be used by each method to issue statements against the database. Of course, you will need to open a Connection object to your database when you test your methods. `Driver.java` contains sample code on how to set up connections and call the application.

Modify `Driver.java` to your liking for testing purposes. You will not need to turn it in. We will use our own version of this file to test your implementation.

5 Submitting

1. Remember to add comments to your Java code so that the intent is clear. Put any other information for the grader in a separate `README` file.

2. Copy the scripts to your home directory on `unix.ic.ucsc.edu`.

3. Login to `unix.ic.ucsc.edu`. At the shell prompt, submit your work. **Do not submit the `createdb.sql` script provided for you, or your `Driver.java` file.**

   ```
   > submit cmps180-wt.w15 lab4 StoreApplication.java
   ```

   You can submit more than once. Only your latest submission will be graded.