COP2800C Module 9 Practice Exercise

In this practice exercise we will create a database and table to store our boxes.

You will need to use the Horizon Academic IT system to complete this exercise unless you have previously installed and worked with Microsoft SQL Server on your personal system. All necessary software is preinstalled and configured on Horizon.

The attached "mod9pe.zip" file contains all necessary files for the project, including the Java source code (in the edu/ package folder), the Microsoft SQL Server driver JAR file, and the Windows Authentication Dynamic Load Library (DLL) file. The zip archive also includes our CSV data file. Follow these steps to build and execute the program:

1. Unzip the attached "mod9pe" file in the Downloads or Documents folder

2. Extract the files from the JAR file

3. Create a new jGrasp project and add all of the extracted files to your project. The driver .jar file must also be added to the project. Be sure when adding the files you select “All Files” in the Add Files dialog, you must use the drop down to scroll to the top option to find it. The DLL file and .csv files do not need to be added to the project, but must be present in the top level project folder so the application can find it.

4. Build the project and execute it.

In the edu.fscj.cop2800c.container package folder you will find the BoxFactoryDB.java file, read through this file carefully as you will need to understand how it works in order to work on the graded programming assignment. This file is where the createDB method lives. This method takes a parameter of a Box[] array, passed from the main method of the BoxFactory application class:

```
// create the Box Factory's array with only the populated elements
BoxFactory boxFact = new BoxFactory(boxCount, boxArray);

// create the database
BoxFactoryDB.createDB(boxFact.boxes);
```

The "BoxFactory" database and "Box" table are both created in this method. The data from the array is written to the table and then read back in using a PreparedStatement.