ISTE-722 Database Connectivity and Access
Practice Exercise 7 - Transactions

Assignment Purpose: Practice writing generic code and working with transactions and prepared statements.

1. Modify your "database" class:
   a. Add methods "startTrans", "endTrans", and "rollbackTrans" that perform the obvious activities.
2. Modify your "Equipment" data object:
   a. Add a method named "swap" that accepts an integer value. The purpose of this method is to swap the names of two pieces of equipment. The remaining fields of those records do not change.
   b. The object represents one piece of equipment while the other piece of equipment is identified by the integer parameter. Because this name swap involves more than one SQL operation it must be done as a transaction. The swap method should use your database class' "startTrans", "endTrans", and "rollbackTrans" methods to control this.
3. Modify your "main" class:
   a. Instantiate the equipment data object with a valid equipment id (1st), which sets the object's equipmentId.
   b. Call the data object's <u>fetch method</u>, and then display the values to the user.
   c. Call the <u>swap method</u> of the object and pass in a different (2nd) equipmentId, which also exists in the database, as a parameter to the swap method.
   d. Call the object's <u>fetch method</u> again and display the value to show the change took place for the original object, which now contains the equipment name from the 2nd equipmentId, and all the other information from the original (1st) record.
   e. Instantiate another equipment data object with the 2nd equipmentId used as the parameter for the swap method. Call the fetch method to display that equipment information, which now contains the equipment name of the original object.