# Waukesha County Technical College

**152-198 Distributed Java**

# Class 8 Plan and Assignments

**Discussion Activities:**

* **Due Today:**
  1. **Study of JDBC and sample code.**
* **Q&A**
* **Continue discussion of using JDBC and Introduce Service Oriented Architecture (continued from last class)**
* Review “List-Map-Record.pdf” and “SOA-JDBC.pdf” on Blackboard
* Complete the programming for finding all records by finalizing code at all leels of the SOA and then hooking up our AuthorService object to our AuthorController and displaying a list of authors at runtime.
* Discuss requirements for a “deleteRecordById” method and the related code in DAO and Service object. Then have students develop this in lab.
* Discuss requirements for various INSERT and UPDATE methods and develop code as a group.
  + Hint: for an UPDATE you will need to provide table name, column names, column values, a where clause column name and a where clause value; for INSERT you do not need the where clause at all
  + For INSERT you should NOT provide a primary key value if your records are auto-incremented by the database server
* Discuss Prepared Statements: <https://docs.oracle.com/javase/tutorial/jdbc/basics/prepared.html>

**Lab:**

* Discussion and group work
  + Create a “deleteRecordById” method at all levels of the SOA, and include tests.
  + Group discussion of requirements for various INSERT and UPDATE methods, with some skeleton code.

**Textbook Chapters (and other resources) covered:**

* Java EE v1.7 tutorial: <http://docs.oracle.com/javaee/7/tutorial/doc/home.htm>
* Java SE API (v1.8): <http://docs.oracle.com/javase/8/docs/api/>
* Java EE API (v1.7): <http://docs.oracle.com/javaee/7/api/>
* Online tutorials for client-side: <http://w2schools.com>
* Netbeans web development tutorials: <https://netbeans.org/kb/trails/java-ee.html>
* Netbeans Git User Guide: <http://netbeans.org/kb/docs/ide/git.html>  
  (don’t use SSH – we’ll be using the modern HTTPS approach)

**Preparation Work for Next Class:**

1. During lab today you learned how to create various C.R.U.D. methods in the low-level DB class, test those methods, and then create associated DAO methods and Service object methods, each with additional testing. Now you need to complete this work by creating the remaining C.R.U.D. and associated methods.  
     
   **You must be able to do the following:**
   1. Delete a record by its primary key
   2. Update a record by its primary key
   3. Create a new record

For any of these functions that you have yet to complete, complete them with test code at each level of the SOA: Service, DAO, low-level DB. Place your results on GitHub.