My implementation on assignment 2 is based on a Maven project with RESTful web service framework support. Here are a list of components I used in JEE for this assignment:

1. Maven, for centralized project management, especially for resolving dependencies;
2. Glassfish 3.1.2 as the server (since Glassfish 4 has some unresolvable bugs);
3. Jersey framework, for both the server side RESTful API development and also the client invocation;
4. Postgresql as the database, and also the psql JDBC connector;
5. The IDE I used for this assignment is Intellij Unlimited version. The "Test RESTful Web Service" tool of Intellij is very useful.

I have tried a lot of alternative approaches before I finally decided to go with the Maven-Jersey-JDBC approach. The techniques that I have tried but later decided not to use include: JMS, JPA, EJB, Glassfish 4.1.1, Apache Tomcat 7.0, Derby database, MongoDB and mongoose-jee connector and even NetBeans sample applications. I believe my design is a relatively simple and efficient one. I think the performance bottleneck of my design is mainly on the I/O performance and transaction management (locking mechanism) of Postgresql, from the comparison of the running time of test step 1 and 2.