In order to run the code for Module 7, please do the following steps:

1. Application

- a. In the resources folder under main, open the database.properties file. There are two properties: javaDbUrl and hsqlDbUrl. Change these to point to the derby and hsql databases based upon where this project is downloaded to. There are paths already existing based upon how this project is located on my machine as a guide.
- b. Execute ./gradlew build and put war in webapps folder of tomcat(Executing build will also execute unit tests)
- c. Launch tomcat

To test the remoting services there are client projects underneath the clients folder at the top level of the project. In each is a project that needs to be built. In order to simplify testing only the email is passed in to create the patron and all other fields needed to create the patron are defaulted and supplied. Below are the steps to create a patron through a remote service. You can either pass in an email or use the default email coded into the client. For either if create the patron you will see a success message. If you try to create a patron using the same email as before you will see an error message. Looking at the appropriate database will also show the patron was created.

2. SOAP:

- a. Run ./gradlew clean and build
- b. Execute java -jar build/libs/soapclient-0.1.0.jar
- c. By default client will use the email testemail@soap. If you want pass in a different email you can pass it in as command line argument:
 - java -jar build/libs/ soapclient-0.1.0.jar myemail
- c. The response will be in Spring output

3. REST:

- a. Run ./gradlew clean and build
- b. Execute java -jar build/libs/restclient-0.1.0.jar
- c. By default client will use the email testemail@rest. If you want pass in a different email you can pass it in as command line argument:
 - java -jar build/libs/restclient-0.1.0.jar ?email=myemail
- c. Terminal output shows response

4. Hessian

- a. Run ./gradlew clean and build
- b. Execute java -jar build/libs/HessianClient.war --server.port 8181, since tomcat is already running on port 8080
- c . By default client will use the email testemail@hessian. If you want pass in a different email you can pass it in as command line argument:
 - java -jar build/libs/HessianClient.war myemail --server.port 8181
- d. Response will be in Spring output