Application READ ME

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This READ ME is to briefly explain the two database implementations and the application code.

Database Implementation
There are two databases implemented: JavaDB and HSQLDB. Under the database directory is the javadb and hsqldb directories with database implementations in each. Under the database/ sql directory are also sql scripts used to setup and fill the two databases with data. The method used to setup and populate these databases are:

javadb

With the DERBY_HOME/bin directory in the class path and in the javdb directory(assuming it is empty) enter " ij " to start the database. Then use the " run " command followed by the path to the sql scripts: librarydb_setup.sql and librarydb_data.sql.

hsqldb

With the sqltool.jar and the hsqldb/lib directory in the classpath, enter
" java -jar HSQLDB_HOME/lib/sqltool.jar - - automCommit - -inlineRc
url=jdbc:hsqldb:file:<databasename>;shutdown=true

Then for each sql script enter \i and the path to the sql script.

Application
The application is designed to be as separated between layers as possible. Due to this there is little indication which database is being used. There is a properties file at the root level called database.properties. In this file is the properites:
        databaseType
        javaDbUrl
        hsqlDbUrl

The first one can be set to either 'derby' or 'hsql'. All unit tests will pass with either setting. Additionally the javaDbUrl and hsqlDbUrl have the paths to where the databases are located.

The reason this file was set at the root level was for ease of configuring the application without needing to recompile. Meaning one can create a properties file and put that on the classpath at the beginning. This way one can still use the originally compiled jar but use a different properties file.

Finally there is a properties file and a logging config xml under the resources directory for tests. These are there only to be used for testing and are meant to be fluid.

Finally to create a jar file, navigate to the application directory and enter ./gradlew jar. The jar file will be under the build/libs directory.