

SCC201 Databases: Exercise 2

The aim of this exercise is to return to the database and SQL queries from Practical Exercise One but to encapsulate those queries within a Java program and use JDBC to connect to, and interact with, the database.

For each query in Exercise One, write a method that sends the query off to SQLite and prints out the results returned in a readable layout. It is a good idea to print out the English question that the query answers, plus the SQL statement itself before the query output. Note that insertion/ deletion commands do not return any output.

You should then look at parameterising (some or all of) the queries (and perhaps the methods that use them) so that your main program can prompt the user to provide a value or values that can be used in the query.

Starting Point

You will be provided with Java source files with the query methods omitted. You have to supply the bodies of these methods. You should consider writing “generic” “doQuery” and “execute” methods that takes an SQL statement as a string parameter and outputs the results appropriately.

There are three Java source files: Main.java, DbUser.java and DbBasic.java (inherited by DbUser); only DbUser contains stubs. There is also the Java SQLite connector, a Compile batch file, and an Execute batch file. You should be able to compile and run the delivered versions of Main.java, DbBasic.java and Db.java; they connect to the database but other than that they don’t access the data – those are the stubs you need to write.

Some sample output:

```
s_name | count(s_name) |
Bear   | 1              |
Blair  | 1              |
Davies | 1              |
Finney | 1              |
Mariani | 2             |
5 row(s) in set
```