Accessing Databases with JDBC: Solutions

It is a capital mistake to theorize before one has data.
—Arthur Conan Doyle

Now go, write it before them in a table, and note it in a book, that it may be for the time to come for ever and ever.
—The Holy Bible, Isaiah 30:8

Get your facts first, and then you can distort them as much as you please.
—Mark Twain

I like two kinds of men: domestic and foreign.
—Mae West

Objectives
In this chapter you’ll learn:

- Relational database concepts.
- To use Structured Query Language (SQL) to retrieve data from and manipulate data in a database.
- To use the JDBC™ API to access databases.
- To use the RowSet interface from package javax.sql to manipulate databases.
- To use JDBC 4’s automatic JDBC driver discovery.
- To create precompiled SQL statements with parameters via PreparedStatements.
- How transaction processing makes database applications more robust.
Self-Review Exercise

28.1 Fill in the blanks in each of the following statements:

a) The international standard database language is ________.
b) A table in a database consists of ________ and ________.
c) Statement objects return SQL query results as ________ objects.
d) The ________ uniquely identifies each row in a table.
e) SQL keyword ________ is followed by the selection criteria that specify the rows to select in a query.
f) SQL keywords ________ specify the order in which rows are sorted in a query.
g) Merging rows from multiple database tables is called ________ the tables.
h) A(n) ________ is an organized collection of data.
i) A(n) ________ is a set of columns whose values match the primary-key values of another table.
j) ________ method ________ is used to obtain a Connection to a database.
k) Interface ________ helps manage the connection between a Java program and a database.
l) A(n) ________ object is used to submit a query to a database.
m) Unlike a ResultSet object, ________ and ________ objects are scrollable and updatable by default.
n) ________, a disconnected RowSet, caches the data of a ResultSet in memory.

Answers to Self-Review Exercise

28.1 a) SQL. b) rows, columns. c) ResultSet. d) primary key. c) WHERE. f) ORDER BY. g) joining. h) database. i) foreign key. j) DriverManager, getConnection. k) Connection. l) Statement. m) JdbcRowSet, CachedRowSet. n) CachedRowSet.

Exercises

NOTE: Solutions to the programming exercises are located in the ch28solutions folder. Each exercise has its own folder named Ex28_## where ## is a two-digit number representing the exercise number. For example, exercise 28.3’s solution is located in the folder Ex28_03.