

```
1 // Class BossDM.java
2 // Copyright 2001 ASR Strategic Resources
3 // AITP NCC 2001 Java Competition Event
4 // Java Contest Solution
5 // Design: Don Baldwin & Craig Slinkman PhD
6 // Code: Eugene Wasserman & Don Baldwin
7
8 package dm;
9 import hr.Boss;
10
11
12 import java.sql.SQLException;
13 import java.sql.ResultSet;
14 import java.util.Vector;
15
16 /**
17  * Data management class to deal with Boss objects.
18  */
19 public class BossDM extends EmployeeDM {
20
21     /**
22      * Create a new boss object in the database
23      */
24     public void save(Boss boss) throws SQLException {
25         String sql = "insert into Employee" +
26             " (id, FirstName, LastName) values" +
27             "(" + boss.getId() + ", '" + boss.getFirstName() +
28             "', '" + boss.getLastName() + "'" +
29             ")";
30         //System.out.println("Saving Boss to Employee table: " + sql);
31         getStatement().executeUpdate(sql);
32
33         sql = "insert into Boss" +
34             " (id, weeklySalary) values" +
35             "(" + boss.getId() + ", " + boss.getWeeklySalary() +
36             ")";
37         //System.out.println("Saving Boss to Boss table: " + sql);
38         getStatement().executeUpdate(sql);
39
40     }
41
42     /**
43      * Save an existing Boss object's info in the database.
44      */
45     public void update(Boss boss) throws SQLException {
46         getStatement().executeUpdate("update Employee set " +
```

```
47     " FirstName='" + boss.getFirstName() + "', "+
48     " LastName='" + boss.getLastName() + "'"+
49     " where id=" + boss.getId());
50
51     getStatement().executeUpdate("update Boss set " +
52     " WeeklySalary=" + boss.getWeeklySalary() +
53     " where id=" + boss.getId());
54 }
55
56 /**
57  * Read the Boss object with the passed id from the database.
58  */
59 public Boss read(int id) throws SQLException {
60
61     ResultSet rs = getStatement().executeQuery(
62     " select e.id, FirstName, LastName, weeklySalary from Employee e, Boss b" +
63     " where (e.id = b.id) and e.id=" + id +
64     " order by LastName, FirstName"
65     );
66     if(!rs.next())
67         return null;
68     Boss boss = new Boss(rs.getInt("id"), rs.getString("FirstName"),
69     rs.getString("LastName"), rs.getDouble("weeklySalary"));
70
71     return boss;
72 }
73
74 /**
75  * Delete a new Boss object in the database
76  */
77 public void delete(int id) throws SQLException {
78     getStatement().executeUpdate("delete from Employee where id=" + id);
79     getStatement().executeUpdate("delete from Boss where id=" + id);
80 }
81
82 /**
83  * List the Boss objects in the database
84  */
85 public Boss[] list() {
86     Boss list[] = null;
87     Vector listVec = new Vector();
88     try {
89         ResultSet rs = getStatement().executeQuery(
90         " select * from Employee, Boss" +
91         " where (Employee.id = Boss.id)" +
92         " order by LastName, FirstName"
```

```
93         );
94         while(rs.next()) {
95             listVec.addElement(new Boss(rs.getInt("id"), rs.getString("FirstName"),
96             rs.getString("LastName"), rs.getDouble("weeklySalary")));
97         }
98     } catch (SQLException sqle) { sqle.printStackTrace();}
99     list = new Boss[listVec.size()];
100     Object listObj[] = listVec.toArray();
101     for(int i=0; i<listObj.length; i++)
102         list[i] = (Boss)listObj[i];
103     return list;
104 }
105
106
107 } // END Class BossDM.java
```