```
1
   import java.io.*;
   import java.sql.*;
  import javax.servlet.*;
import javax.servlet.http.*;
 6
  public class Navi extends HttpServlet {
 7
 8
      final String dbDriver="org.postgresql.Driver";
      final String dbServer ="jdbc:postgresql://localhost:10388/tsoha";
9
10
      final String dbUser= "avtanska";
                                                // replace with your db user account
11
      final String dbPassword = "postgres"; // replace with your password
12
13
14
      public void service(HttpServletRequest req, HttpServletResponse res)
15
        throws ServletException, IOException {
16
        ServletOutputStream out;
17
        res.setContentType("text/html");
18
        out= res.getOutputStream();
19
20
        HttpSession session = req.getSession(true);
21
22
        String submit = req.getParameter("submit");
23
        String ulos = req.getParameter("ulos");
24
        String tunnus = req.getParameter("tunnus");
25
        String salasana = req.getParameter("salasana");
26
27
        String salasanaQuery = "SELECT * FROM salasana where tunnus='" +
28
                                  tunnus + "' and salasana='" + salasana + "'";
29
30
        String virhe = null;
31
32
33
        Connection con=null;
34
        con= createDbConnection(dbDriver,dbServer,dbUser,dbPassword,out);
35
        if (con==null) {
36
           out.println("</body></html>");
37
           return;
        }
38
39
40
        // connection established
41
42
        Statement stmt = null;
43
        ResultSet rs = null;
        try {
44
45
             stmt = con.createStatement();
46
            rs = stmt.executeQuery(salasanaQuery);
47
            if (!rs.next() && submit != null) {
               virhe = "<span style='font-weight: bold; color: #ff0000'>" +
48
49
                       "Tunnus ja salasana eivät täsmää.</span>";
50
             }
51
52
53
         } catch (SQLException ee) {
54
               out.println("Tietokantavirhe "+ee.getMessage());
55
         } finally
56
               try
57
                  if (rs!=null) rs.close();
58
                  if (stmt!=null) stmt.close();
59
                  con.close();
60
               } catch(SQLException e) {
61
                  out.println("An SQL Exception was thrown.");
62
         }
63
64
65
66
67
          * Rekisteröitymättömän käyttäjän navigointipalkki
68
69
```

```
70
 71
         if (submit == null | (submit != null && virhe != null) | ulos != null) {
72
73
           if (ulos != null) {
             String temp = "";
74
75
             session.putValue("sessionTunnus", temp);
76
77
78
           out.println("<html><head><title></title>" +
 79
               "<link rel='stylesheet' type='text/css' href='http://" +
80
               "db.cs.helsinki.fi/u/avtanska/tsoha/navi.css' />" +
               "</head><body bgcolor='#cccccc' style='margin: 2'>" +
81
82
               "<form method='post' action='http://db.cs.helsinki.fi/" +</pre>
               "s/avtanska/KalenteriYleinen' target='main'>" +
83
               "" +
84
85
               "<a href='http://" +
               "db.cs.helsinki.fi/u/avtanska/tsoha/' target='_top'>" +
86
87
               "apua?</a><br /><hr />" +
88
               "<b>Kalenterit:</b>");
89
           out.println("Ryhmä:<br /><select " +
90
                       "onFocus=document.forms[0].henkilo.value='tyhjä' " +
91
92
                       "name='ryhma'>" +
93
                       "<option value='tyhjä'>-- valitse --");
94
95
           con=null;
96
           con= createDbConnection(dbDriver,dbServer,dbUser,dbPassword,out);
97
           if (con==null) {
98
             out.println("</body></html>");
99
             return;
100
           }
101
102
           stmt = null;
103
           rs = null;
104
           try {
105
             stmt = con.createStatement();
106
             rs = stmt.executeQuery("select nimi from ryhmä order by nimi");
107
             while(rs.next()) {
108
               out.println("<option>" + rs.getString("nimi"));
109
110
           } catch (SQLException ee) {
111
              out.println("Tietokantavirhe "+ee.getMessage());
112
           } finally {
             try {
113
114
                if (rs!=null) rs.close();
115
               if (stmt!=null) stmt.close();
116
                // con.close();
117
               } catch(SQLException e) {
118
                  out.println("An SQL Exception was thrown.");
119
120
121
           out.println("</select>&nbsp;&nbsp;tai");
122
123
           out.println("Henkilö:<br /><select " +
124
                       "onFocus=document.forms[0].ryhma.value='tyhjä' " +
125
                       "name='henkilo'>" +
126
                       "<option value='tyhjä'>-- valitse --");
127
128
129
           if (con==null) {
             out.println("</body></html>");
130
131
             return;
132
133
134
           stmt = null;
135
           rs = null;
136
           try {
137
               stmt = con.createStatement();
138
              rs = stmt.executeQuery("select tunnus from henkilö order by tunnus");
```

```
139
              while(rs.next()) {
140
                if (!(rs.getString("tunnus").equals("admin"))) {
141
                   out.println("<option>" + rs.getString("tunnus"));
142
              }
143
144
145
          } catch (SQLException ee) {
146
                out.println("Tietokantavirhe "+ee.getMessage());
          } finally {
147
148
                try {
149
                   if (rs!=null) rs.close();
150
                   if (stmt!=null) stmt.close();
151
                } catch(SQLException e) {
152
                   out.println("An SQL Exception was thrown.");
                }
153
154
          }
155
156
          out.println("</select><input name='submit' type='submit' " +
157
                      "value='Katso'></form><br /><hr />");
158
159
160
          out.println("");
161
162
          if (virhe != null) {
163
            out.println("" + virhe + "");
164
165
166
          out.println("<form method='post' action='Navi'>" +
167
              "tunnus:<br />" +
168
              "<input name='tunnus' type='text'>" +
169
              "salasana:<br />" +
              "<input name='salasana' type='password'>" +
170
              "" +
171
              "<input name='submit' type='submit' value='Sisään'>" +
172
173
              "<hr />" +
174
              "<a href='http://db.cs.helsinki.fi/u/avtanska/tsoha/" +</pre>
175
              "luo_tunnus.htm' target='main'>Luo tunnus</a>" +
176
              "<hr /></form></body></html>");
177
178
179
         } // loppu if submit null
180
181
182
183
          * Sisäänkirjautuneen käyttäjän navigointipalkki
184
185
186
        else {
187
188
          tunnus = req.getParameter("tunnus");
189
          salasana = req.getParameter("salasana");
190
191
192
          /*
           * Luodaan uusi sessio ja tallennetaan kirjautuneen käyttäjän
193
           * tunnus sessio-olioon
194
195
196
197
          session = req.getSession(true);
198
          session.putValue("sessionTunnus", tunnus);
199
          String sessionTunnus = (String)session.getValue("sessionTunnus");
200
201
202
          out.println("<html><head><title></title>" +
203
              "<link rel='stylesheet' type='text/css' href='http://" +
204
             "db.cs.helsinki.fi/u/avtanska/tsoha/navi.css' />" +
             "</head><body bgcolor='#cccccc' style='margin: 2'>" +
205
206
             "<form method='post' action='http://db.cs.helsinki.fi/" +
207
             "s/avtanska/Kalenteri' target='main'>" +
```

```
208
              "" +
209
              "<a href='http://" +</pre>
210
              "db.cs.helsinki.fi/u/avtanska/tsoha/apua.htm' target='main'>" +
211
              "apua?</a><br /><hr />" +
              "Tervetuloa, <b>" + tunnus + "</b>" +
212
213
              "<b>Kalenterit:</b>");
214
215
216
217
            * Haetaan ryhmien nimet tietokannasta
218
219
           out.println("Ryhmä:<br /><select " +
220
221
                       "onFocus=document.forms[0].henkilo.value='tyhjä' " +
                       "name='ryhma'>" +
222
223
                       "<option value='tyhjä'>-- valitse --");
224
225
           con=null;
226
           con= createDbConnection(dbDriver,dbServer,dbUser,dbPassword,out);
227
           if (con==null) {
             out.println("</body></html>");
228
229
             return;
230
           }
231
232
           stmt = null;
233
           rs = null;
           try {
234
235
             stmt = con.createStatement();
236
             rs = stmt.executeQuery("SELECT nimi FROM ryhmä ORDER BY nimi");
237
             while(rs.next()) {
238
                out.println("<option>" + rs.getString("nimi"));
239
             }
240
241
           } catch (SQLException ee) {
242
               out.println("Tietokantavirhe "+ee.getMessage());
243
           } finally {
               \texttt{try} \ \{
244
                 if (rs!=null) rs.close();
245
246
                 if (stmt!=null) stmt.close();
247
                 // con.close();
248
           } catch(SQLException e) {
249
               out.println("An SQL Exception was thrown.");
250
251
252
           out.println("</select>&nbsp;&nbsp;tai");
253
254
           /*
255
256
            * Haetaan kaikki henkilöt tietokannasta, mutta admin-ylläpitäjää
            * ei tulosteta valintalaatikkoon
257
            * /
258
259
260
           out.println("Henkilö:<br /><select " +
261
                       "onFocus=document.forms[0].ryhma.value='tyhjä' " +
                       "name='henkilo'>" +
262
263
                       "<option value='tyhjä'>-- valitse --");
264
265
           if (con==null) {
266
              out.println("</body></html>");
267
              return;
268
           }
269
270
           stmt = null;
           rs = null;
271
272
           try {
273
               stmt = con.createStatement();
274
               rs = stmt.executeQuery("SELECT tunnus FROM henkilö ORDER BY tunnus");
275
               while(rs.next()) {
276
                 if (!(rs.getString("tunnus")).equals("admin")) {
```

```
277
                   out.println("<option>" + rs.getString("tunnus"));
278
                 }
279
               }
280
           } catch (SQLException ee) {
                 out.println("Tietokantavirhe "+ee.getMessage());
281
           } finally {
282
283
              try {
284
                 if (rs!=null) rs.close();
285
                 if (stmt!=null) stmt.close();
286
                 // con.close();
287
              } catch(SQLException e) {
288
                 out.println("An SQL Exception was thrown.");
289
290
           }
291
292
           out.println("</select><input name='submit' type='submit' " +
293
                        "value='Katso'></form><br /><hr />");
294
295
296
           out.println("");
297
298
299
300
            * Jos käyttäjällä on luotuja ryhmiä, ne tulostetaan tässä.
            * Admin-ylläpitokäyttäjälle tulostetaan kaikki ryhmät.
301
302
303
304
           if (con==null) {
305
              out.println("</body></html>");
306
              return;
307
           }
308
309
           stmt = null;
310
           rs = null;
           try {
311
312
               stmt = con.createStatement();
313
               rs = stmt.executeQuery("SELECT nimi FROM ryhmä WHERE omistaja='" +
314
                                       sessionTunnus + "'");
315
               if (sessionTunnus.equals("admin")) {
                 rs = stmt.executeQuery("SELECT nimi FROM ryhmä ORDER BY nimi");
316
317
                 out.println("<form method='post' action='OmatRyhmat' " +</pre>
318
                              "target='main'>omat ryhmät:<br />" +
319
                              "<select name='omatryhmat'>" +
320
                              "<option value='tyhjä'>-- valitse --");
321
322
                 while(rs.next()) {
                    out.println("<option>" + rs.getString("nimi"));
323
324
325
326
                 out.println("</select><input type='submit' name='submit' " +
327
                              "value='Mene'>");
328
329
               else if (rs.next()) {
330
                 rs = stmt.executeQuery("SELECT nimi FROM ryhmä WHERE omistaja='" +
331
                                         sessionTunnus + "' ORDER BY nimi");
                 out.println("<form method='post' action='OmatRyhmat' " +</pre>
332
                              "target='main'>omat ryhmät:<br /><select " +
333
334
                              "name='omatryhmat'>" +
335
                              "<option value='tyhjä'>-- valitse --");
336
337
                 while(rs.next()) {
338
                    out.println("<option>" + rs.getString("nimi"));
339
340
341
                 out.println("</select><input type='submit' name='submit' " +
342
                              "value='Mene'>");
               }
343
344
345
```

```
346
           } catch (SQLException ee) {
347
                 out.println("Tietokantavirhe "+ee.getMessage());
348
           } finally
349
                 try
350
                    if (rs!=null) rs.close();
351
                    if (stmt!=null) stmt.close();
352
                    con.close();
353
                 } catch(SQLException e) {
354
                    out.println("An SQL Exception was thrown.");
355
356
           }
357
358
359
           out.println("<hr />" +
360
               "<a href='http://db.cs.helsinki.fi/s/avtanska/TeeVaraus' " +
               "target='main'>Tee varaus</a><br />" +
361
362
               "<a href='LuoRyhma' target='main'>Luo ryhmä</a><br />" +
363
               "<a href='OmatTiedot' target='main'>Omat tiedot</a><br />" +
364
               "<hr />" +
365
               "<a href='http://db.cs.helsinki.fi/u/avtanska/tsoha/index.html' " +</pre>
               "target='_top'>Kirjaudu ulos</a></body></html>");
366
367
         } // loppu else
368
369
370
       }
371
372
       private Connection createDbConnection(
373
374
          String dbDriver, String dbServer, String dbUser, String dbPassword,
375
          ServletOutputStream out) throws IOException {
376
377
          // establish a database connection
378
379
              Class.forName(dbDriver);
                                                     // load driver
380
           catch (ClassNotFoundException e) {
381
                out.println("Couldn't find driver "+dbDriver);
382
                return null;
383
384
          Connection con=null;
385
          try {
386
             con = DriverManager.getConnection(dbServer,dbUser,dbPassword);
387
          } catch (SQLException se) {
388
                out.println("Couldn\'t get connection to "+dbServer+
                            " for "+ dbUser+"<br>");
389
390
                out.println(se.getMessage());
391
392
          return con;
393
394
395 }
```