

## JSP and MySQL in MyEclipse

### Exercise 3 SQL - Let's play

Only two windows should now be open: JavaLabs and MyEclipse Tomcat should be started.

Clicking Tomcat IE in JavaLabs should open the index window

We are interested in the last two lines

SqlRep.jsp

ViewLog.jsp

Click the SQLRep line

You should see a page that starts "SQL Query Reports"

If you do NOT, then ask for help.

Enter the following command "show tables" and click Run Query.

You should see a box with "Tables\_in\_test" because there are none.

Navigate to the JavaLabs\MySQL directory and open

createWho.txt file. Select the CREATE TABLE lines up to and including the last ")", but NOT the ENGINE=...

Paste this into the text box of the SQL page and click Run

Query.

You should see:

Result set was empty for: CREATE TABLE Who ( WhoID integer AUTO\_INCREMENT UNIQUE PRIMARY KEY, LastUpdate varchar(16) NOT NULL default 'yyyy-mm-dd@hh:mm', FirstName varchar(20) NOT NULL default "", LastName varchar(20) NOT NULL default "", Password varchar(41) NOT NULL default "", EMail varchar(60) NOT NULL default "", Admin enum('N','Y') NOT NULL default 'N' ) ENGINE=MyISAM COMMENT='Sample table for JSPLab' Result set was empty for: CREATE TABLE Who ( WhoID integer AUTO\_INCREMENT UNIQUE PRIMARY KEY, LastUpdate varchar(16) NOT NULL default 'yyyy-mm-dd@hh:mm', FirstName

varchar(20) NOT NULL default ", LastName varchar(20) NOT NULL default ",  
Password varchar(41) NOT NULL default ", EMail varchar(60) NOT NULL default ",  
Admin enum('N','Y') NOT NULL default 'N' ) [View Status Log](#)

This is not really an error and is something we will "fix" in the lab  
Click the View Status Log line.

You should see:

Date: 2005-08-23 16:02

Last log:

2005-08-23 16:02:15: 0 cols found in result set

2005-08-23 16:02:15: setSQL: CREATE TABLE Who ( WhoID integer AUTO\_INCREMENT UNIQUE PRIMARY KEY, LastUpdate varchar(16) NOT NULL default 'yyyy-mm-dd@hh:mm', FirstName varchar(20) NOT NULL default ", LastName varchar(20) NOT NULL default ", Password varchar(41) NOT NULL default ", EMail varchar(60) NOT NULL default ", Admin enum('N','Y') NOT NULL default 'N' )

Note that even though the result set was 0, the command worked.  
The SQL jsp page makes the false assumption that all "queries"  
will return a value.

Enter the "show tables" command again and press Run Query

Enter "describe Who", etc...

You should see a table that describes Who.

Now cut and paste the INSERT command from createWho.txt

You should get a reply "**1 row(s) were updated by INSERT command.**" Modify the values for the INSERT and insert a few more records, then enter "SELECT \* from Who" or simply copy it from the "sample" commands.

Close the createWho.txt file, we are done with it.

Import JsrWeb project (you will need to create it first)

Modify JsrLab properties (Right click, choose properties)

Then choose project references and select/check JsrWeb project

This will cause MyEclipse to modify the search path to use the project source for JsrSQL rather than the jsrweb.jar file that has been placed in common/lib.

STOP Tomcat

Modify JsrSQL program to set variable lastException to the contents of the exception if an exception occurs, or "OK" if no exception occurs.

(+) JsrWeb (+) src Open JsrSQL

After line 78 as line 79 add

`String lastException = "OK";`

In method setSQL after "int colCount = 0" on line 162 insert

`lastException = "OK";` as line 163

After line 196 (the sysout.display of the exception) add

`lastException = E.getMessage();`

Add a method after line 207

called getException that returns lastException.

Save JsrSQL

Open SQLRep.jsp

After line 148 add "`<br> Exception: <%= sql.getException() %>`".

Redeploy JSPLab

START Tomcat. This is because we want to use the code from JsrWeb project instead of the jsrweb.jar file in common/lib.

This may not work (it did not on my machine). In this case STOP Tomcat again, Export JsrWeb project to jar file, set destination to **TOMCAT\_HOME/common/lib**.

**TOMCAT\_HOME** is

"C:\Program Files\Apache Software Foundation\Tomcat 5.0"

Then **START** Tomcat again.

Optional exercises:

Create a **Login.jsp** that stores login information in the session persistent object **JsrUser** used by **SQLRep** to save prior queries.

Modify **SqlRep.jsp** to forward to **Login.jsp** if admin not = 'Y'

Sample code for **Login.jsp**:

```
<%@page import="com.jsrsys.web.*"%>
<%@page import="java.util.*"%>
<jsp:useBean id="user" class="com.jsrsys.web.JsrUser"
scope="session" />
<%
JsrUtil      u = new JsrUtil();
JsrSQL      sql;
String sqlQuery;
String codeword = "";
String userID = "";
String status = "";
%>
<%
codeword = request.getParameter("x"); // x = password
if (codeword == null) codeword = "";
userID = request.getParameter("u"); // u = UserID
if (userID == null) userID = "";

if (userID.length() == 0)
    status = "Please enter LastName and Password:";
else
{
```

```
// who:  
UserName,FirstName,LastName,CompanyName,InstallationCode,Pa  
sscode,email  
// Auth: UserName,Authority,Approve_Groups  
sql = new JsrSQL("test");  
sqlQuery = "Who WHERE LastName=" + userID +"';  
int rowCount = sql.setSelect(sqlQuery);  
if (rowCount == 0)  
    status = "LastName not found";  
else  
{  
    status = "***";  
    sql.setNextRow();  
    if (!codeword.equals(sql.getString("Password")))  
        status = "Password:" + codeword + " not="  
            + sql.getString("Password");  
    else  
{  
        // who:  
UserName,FirstName,LastName,CompanyName,InstallationCode,Pa  
sscode,email  
        user.setValue("whoID", sql.getString("whoID"));  
        user.setValue("FirstName",  
sql.getString("FirstName"));  
        user.setValue("LastName", sql.getString("LastName"));  
        user.setValue("email", sql.getString("email"));  
        user.setValue("userNme", userID);  
        user.setValue("admin", sql.getString("Admin"));  
        status = "OK";  
    }  
    sql.close();  
}  
}  
if (status.equals("OK"))  
{%>  
    <jsp:forward page="SqlRep.jsp" /><%  
}  
%>  
  
<HTML>  
<HEAD>  
<TITLE>Login SHARE JSP Lab</TITLE>  
</HEAD>  
<BODY onLoad=javascript:document.login.u.focus()>  
<H3 align=center>Login SHARE JSP Lab </H3>  
  
<B><%= status %></B><BR>  
  
<Form name=login method=post action=Login.jsp>  
<!--method=post passes parms internally, method=get passes  
in URL. -->  
<TABLE>  
<TR><TD align=right>UserName: </TD>
```

```
<TD><INPUT name=u type=text size=20  
value='<%=userID%>'></TD></TR>  
<TR><TD align=right>Password: </TD>  
    <TD><INPUT name=x type=password size=10  
value='<%=codeword%>'></TD></TR>  
</TABLE>  
<TABLE><TR><TD>  
<INPUT type=submit value=Login>  
</Form>  
</TD><TD>  
</TD></TR></TABLE>  
</BODY>  
</HTML>
```