Web Interface and Tutorial for SQL

The web interface allows to run queries on a DB2 database. Furthermore, it provides a tutorial on SQL. A short introduction to both parts is given below.

How to start?

Use the following link to start a new session of the web interface:

http://as.informatik.uni-stuttgart.de/tomcat/SQL_Webinterface/start.jsp

Type in your login information as described in the table below:

<table>
<thead>
<tr>
<th>Server</th>
<th>use default (assun98)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>use default (5555)</td>
</tr>
<tr>
<td>Database</td>
<td>use default (db2vl)</td>
</tr>
<tr>
<td>Schema</td>
<td>use your login name (should be unique in the university)</td>
</tr>
<tr>
<td>User ID</td>
<td>use default (db2vl)</td>
</tr>
<tr>
<td>Password</td>
<td>will be provided in the lectures</td>
</tr>
</tbody>
</table>

SQL exercises

The exercise mode of the web interface supports hands-on exercises for SQL. Please refer to the exercise sheets to find out more about the data sets that are available.

As soon as you are connected, the page ‘SQL Query Input’ will be presented as shown in Figure 1. It provides the following options:

- **Run queries**: Type in the query in the text field and press the EXECUTE QUERY button. This will result in page ‘Query Result’ (see Figure 1) which contains the result table for your query. Press the BACK button to go to page ‘SQL Query Input’. On this page you may use RESET to clean the text field. Some links are provided at the top of the page. They allow to refer to queries you have previously executed in the current session. Use the DELETE QUERIES/PLANS button to remove this list.

- **Show access plan**: Type in the query in the text field and press the SHOW PLAN button. This will result in page ‘Access Plan’, which shows the access plan chosen by the DB2 optimizer. Press the BACK button to go to page ‘SQL Query Input’.

- **Show schema information**: Pressing the SCHEMA INFO button results in an additional window ‘Schema Information’ with some information on the objects currently available in your database schema. This covers tables, columns, indexes, and triggers. You may keep this second window open while you work with the web interface. Press the refresh button of your web browser in the schema information window each time you want to ensure that the current information on the schema is provided. The BACK button allows to close the additional window for schema information.

- **Close session**: Use the NEW CONNECTION or the QUIT button in order to close your session. Please do not only close your browser window. With the NEW CONNECTION button you return to the page ‘SQL Query Input’ whereas QUIT also closes the browser window.
The web interface also provides a tutorial mode. As soon as you are connected the page ‘SQL Query Input’ will be presented. Choose CREATE DB. Some tables will be provided according to the following schema:

- **parts** (partno, description, qonhand, qonorder)
- **quotations** (suppno, partno, price, responsetime)
- **orders** (suppno, partno, quantity, orderdate)
- **suppliers** (suppno, name, address)

As soon as the successful creation of these tables is reported, use the BACK button to go to the input page again. Start the tutorial mode by START TUTORIAL. The tutorial provides the following options:

- **Overview**: The page ‘Overview’ shows the complete content of the tutorial and provides links to each section (see Figure 2). Each section of the tutorial starts with an introduction to the topic and includes some exercises on this topic. Use button END TUTORIAL to switch to the exercise mode.

- **Queries**: Most sections of the tutorial ask for SQL queries and provide a text field where you can provide a query (see page ‘SQL Query Input’ in Figure 2). Press the SHOW TIPS button if you need some help. As soon as your query is complete press the button EXECUTE QUERY. As in the exercise mode, this results in a page that contains the result table of your query. An additional table is provided containing the desired result set. This page includes several options to go on:

![Sample pages of the exercise mode](image)
If you want to correct your query, press the RETRY button, change the query, and start it again.

If you want to have a look at one or more proper queries, use the link ‘Show Queries’.

The buttons PREVIOUS and NEXT allow you to navigate in the tutorial.

The button OVERVIEW allows you to return to the overview page.

- **Quit and Continue:** You may quit your current session and return to the same section of the tutorial later on.
  - Press END TUTORIAL to return to the exercise mode.
  - Press NEW CONNECTION or QUIT.
  - Login again as described at the beginning of this document. Don’t forget to use the same schema as before.
  - Press CREATE DB in order to provide the data and go BACK to the input page.
  - Press START TUTORIAL to start the tutorial again.
  - Press CONTINUE TUTORIAL to go on with the section of the tutorial you worked on in your last session.

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Figure 2: Sample pages of the tutorial mode