

# Data-Warehouse-Technologien

## Exercise sheet 1

### Assignment 1: Getting to know the test system

We use Oracle 11g as a test system, accessible with the help of the SQLDeveloper. Start the SQLDeveloper, log in the database and familiarize with the program. Account information will be provided within the exercises.

#### Starting the SQLDevelopers:

- in G29, R-333 (SUN Pool) at /local/apps/sqldeveloper/sqldeveloper.sh,
- in G29, R-144 preinstalled at C:/Programme/sqldeveloper

You can also install the SQLDeveloper on your private PC. Therefore, download the SQLDeveloper on the official website:

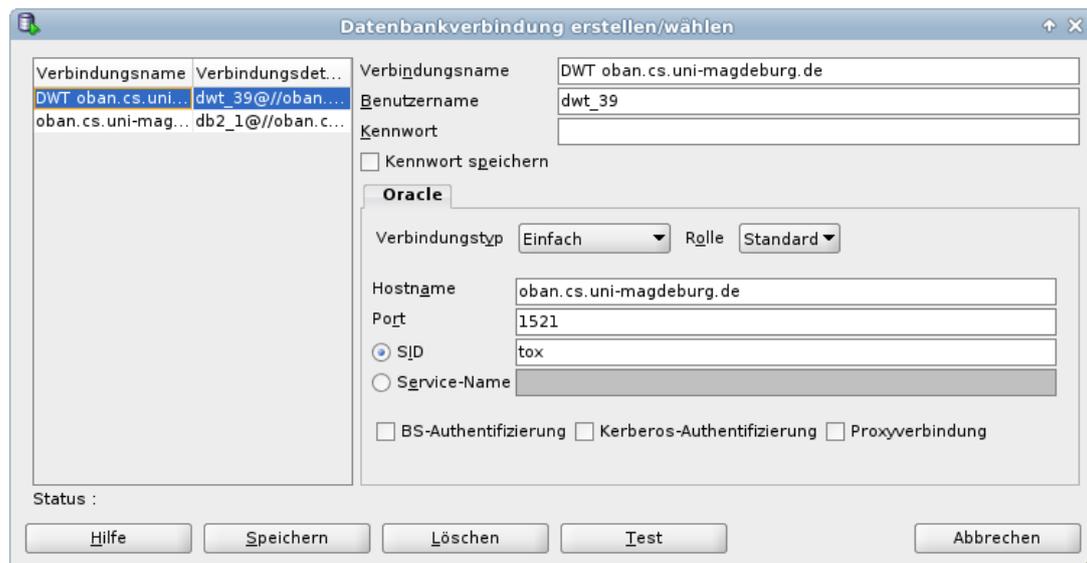
[www.oracle.com/technetwork/developer-tools/sql-developer/downloads](http://www.oracle.com/technetwork/developer-tools/sql-developer/downloads)

#### Database information:

Datenbank SID: tox

Host: oban.cs.uni-magdeburg.de

Port: 1521



**Assignment 2: Database queries with SQL**

Create SQL-expressions for the following database queries considering the following database schema:

**Schema:**

```
ingredient{iid, iname, alcohol_concentration}
restaurant{rid, rname, zipcode, city}
glass{gid, gname}
cocktail{cid, cname, alcoholic, gid} //alcoholic={y,n}
person{pid, pname, birthdate}
ingredient_cocktail{iid, cid, amount}
cocktail_person{cid, pid1, pid2}
cocktail_restaurant{cid, rid}
```

For the creation of an example database, you can use the following SQL script:

<https://goo.gl/XLGqGs>

1. In a drinking game every participant should play against every other participant. Provide the list of matches (Name, Name).
2. Provide the names of glasses and cocktails in a one-column table (list).
3. Which cocktails do not have a recipe in the data base?
4. In which restaurants there is no cocktail 'Knieweich' served?
5. What ingredients and which amount of the ingredients contains each cocktail?
6. What alcoholic ingredients and which amount of the alcoholic ingredients contains each cocktail?
7. Which are the cocktails that require more than two ingredients? Provide the count of ingredients per cocktail!
8. The real alcoholic concentration of a cocktail is the sum of all (alcoholic concentration of an ingredient times the count of amount for this ingredient) divided by the sum of all ingredients. Perform appropriate renames.
9. Which are the alcoholic and non-alcoholic cocktails which contain more than 4 ingredients?
10. Create a view "C\_A" with the attributes CID and alcoholic concentration.
11. For every restaurant, what are the drinks with the maximum and minimum alcoholic concentration? Use the created view.
12. Create a table 'Updatewatcher' with the attributes (tname char(20), amount number). Insert the values ('cocktail', 0) into that table!