Dr. David Broneske WS 2023/2024

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 <u>SQLDeveloper</u>, log in the database and familiarize with the program. Account information will be in the eLearning-System.

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

Database information:

Serviice-Name: tox

Host: deanston.cs.uni-magdeburg.de

Port: 1521



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Assignment 2: Database queries with SQL

Create SQL-statements 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 restaurant{cid, rid}
```

For the creation of the example database, you can use the SQL script in the eLearning-System.

- 1. In a drinking game every participant should play against every other participant. Provide the list of matches (Name, Name).
- 2. Provide all names of glasses and all 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!