

Exercises 1

1

Read the description in Question 1 from the exam at the course IDB 2005 (<http://www.itu.dk/people/pagh/IDB05/exam05.pdf>). Suggest a design for the described data by describing the relations, including attributes and types, and how the different relations reference to each other. (See lecture slide 40 from the first lecture.)

2

For next week, try the MySQL Query Browser. You can use the ITU computers or download the software for free. See course homepage for a link. The Query Browser is available both for Windows and OSX.

If you have not already a MySQL database at the ITU server you have to get one. Login on <http://www.itu.dk/sysadm/db/> and follow the link "Opret ny database", choose Type MySQL.

Open MySQL Query Browser. In the window "Connect to MySQL Instance fill the following:

Server Hostname: mysql.itu.dk

Port: 3306

Username: (Your database username. May be different from itu username)

Password: (Your database password)

Default schema: (Leave it empty the first time.)

In the right side of the window there is a drawer (otherwise open it with View/Show Side Drawer).

Create a database, with some tables. Add some rows of data to each table and write some queries for those tables:

1. Create a schema. Right click on def in the drawer to the right. Choose Create Schema and give your schema a name, e.g. BDLF. Right click on the schema name and choose Make Default Schema.
2. Create a table. Right click BDLF and choose Create Table. Give the table a name, e.g. Owner, and add columns by clicking +. For each column added give it a name and a type. Create tables that have one column that has a unique value for each row and make it primary key by clicking the check box. Click Apply to get the SQL code for creating the table and execute the code to create the table.
3. Insert data into the tables. You can insert data into a relation using the Query tag to insert one row at the time or open a Script tag and write a script inserting multiple rows. The SQL statement for inserting a row into the table Owner:

```
INSERT INTO Owner VALUES (45678, 'Lars', 'Hansen');
```
4. Write SQL queries involving the SQL statements using the constructs described in Chapter 2 in the course book, i.e. SELECT FROM WHERE

statements using different types of conditions, aggregate function
COUNT(*), and multiple tables.

The queries used in lecture 1 can be found on the course homepage, together with
scripts inserting some data into the relations.