



In this lab, you will again use the PHPMyAdmin web interface to your database. You will create two views and investigate their behaviour. This lab sheet assumes that you have completed the previous lab sheets and the first step of Assignment 1. If you have not completed the first step of Assignment 1 yet, then it's "on your bike!", but you can adapt the queries here a little to use the old field names in the social networking database.

**Before you begin this lab sheet, make a backup of your existing social network database with the Export facility of PHPMyAdmin and verify that the backup file contains the whole database!**

Note again that these lab sheets are not assessed, but they may be discussed in tutorials and their content is examinable!

Estimated time to complete this lab: 30 minutes.

### A) Messages and their subjects

Create the following view:

```
CREATE VIEW vw_message AS
  SELECT subject, body FROM Message;
```

Then query the view to get a list of messages with their subjects:

```
SELECT * FROM vw_message;
```

Note that we can treat the view like a table when we SELECT. E.g., to get the subjects only, do this:

```
...SELECT subject FROM vw_message;
```

Now insert a new message into the **Message** table and convince yourself that it automatically appears in the view as well.

For the following, use the SQL tab in PHPMyAdmin:

Now try to update the subject of that message by trying to UPDATE the view, not the **Message** table (use a subject that no other message has). Does it work?

Next, try to INSERT a record (subject and message) into the view. Does this work? Note that the **Message** table has a foreign key, but that the associated field has a default value on NULL.

Finally, try to DELETE the newly added message in the view, using the subject of the message in the WHERE clause. Does this work?

### B) Cities and their countries

Create the following view:

```
CREATE VIEW vw_cities AS
  SELECT City.name as city_name, Country.name as country_name
  FROM City, Country
  WHERE City.country_id = Country.country_id
  ORDER BY Country.name;
```

Note that we have to alias the **name** fields of the **City** and **Country** tables here as a view cannot have two fields of the same name – much like a table, actually. Now do a:

```
SELECT * from vw_cities;
```

and see what you get. Add a new city to the **City** table and verify that it appears in the view.

For the following, use the SQL tab in PHPMyAdmin:

Try to update the name of the new city by updating the view rather than the table. What happens now?

Next, try to insert a new city/country pair into the view. Does this work?

Finally, try and delete the city you added earlier via the view. Is this possible?

### **C) Dropping the views**

As an exercise, drop the views you have just created with DROP VIEW.