Lab exercises for theme 1, exercise 2:

In this exercise we would like you to use the model created in the previous lab to answer the queries that follow below. Make sure you read the entire sheet, in particular exercise 3, for useful hints before you start! For questions *d* and *e* you can assume there are no cycles in the data.

a) Which are the experts of area X?
b) Which are the direct subareas of Y?
c) Show the experts with knowledge in area Y, recommended by expert X;
d) Show the experts with knowledge in area Y, recommended by the experts who are recommended by expert X;
e) Same as previous but follow the known links in as many steps as needed.

Exercises

1. Write the above queries in SQL and run them on your relational data;
2. Write the above queries in XQuery and run them on your XML data;
3. Are there any of the above queries that could not be expressed in the above languages?
4. Which of the query languages do you find most easy to use? Why? Any particular query or kind of data that is easier to express in any of the above languages?

Make a report with your queries and answers to the above questions. The report must include:
- the XML data file and the data from the database;
- the queries in SQL and XQuery;
- the results from the queries (format the output properly, so it is clear what the results are);
- answers to all questions.

It is important that you motivate your choices.