

CSE 532: Project 2

Fall 2005

Due: Dec 5

1 Description

In this project, you are to design and implement the same database application as in Project 1, but this time using the eXist DBMS, which supports the XQuery language. If you would like to install eXist on your machine, it is available from <http://exist.sourceforge.net/>. You should download and install eXist under your computer account.

You will create your data using an editor in plain XML files and then store them in eXist. You should try to reuse the front end that you created for Project 1 but instead of Oracle you should query eXist.

You are to design XML Schema documents appropriate for this application and include them in your design document. Note: With XML you can use full object-oriented design – there can be no excuses due to the limitations of the underlying system (such as Oracle’s limited support for objects.) Your XML files must conform to these schemata and you must try to validate it using one of the available validators, such as:

```
http://www.xmlspy.com/  
http://xml.apache.org/xerces-j/  
http://www.w3.org/2001/03/webdata/xsv
```

Make as many of the constraints as possible be part of your XML schema documents. The rest should be expressed as XQuery queries so that the constraint will be considered to be violated if the corresponding query returns a non-empty answer. (This approach is analogous to assertions in SQL).

Implement and test the above constraints as well all the queries, which you previously implemented as part of Project 1.

2 Documentation

Your complete implementation (queries, constraints, XML Schema) must be accompanied by a project document, which should include queries, constraints, XML Schema, and a brief user guide.

You will submit the documentation to the Professor during the **last class** before the demo. During the demo session you will be showing your project only. Demo sign-up sheets will be posted.

Late penalties for submission of documentation will apply. You are NOT allowed to miss your demo. All demos will be scheduled in sequence; if you miss your slot, or are late, you will lose the opportunity to demonstrate your project (or the demonstration will be cut short, respectively).

3 Teaming

You can continue working in groups of two.