

# CSE 532: Project 3 - WOCO Database via XML

Fall 2019

Due: December 3

## 1 Description

In this project, you are to design and implement the same database application as in Projects 1 and 2, but now using the XQuery language.

What *did not* change:

- The same description of WOCO.
- The use of Github classroom.

What *did* change:

- The language: instead of SQL and Datalog use XQuery.
- The system: instead of PostgreSQL, use **eXist-db**, an XML-based database system. Download it here: <http://exist-db.org/exist/index.xml>.
- Interface: none (for **CSE532**). Use the client application provided by eXist-db to paste queries and get results.  
For **CSE522** students: Build a user interface similar to what you did for Project 2.
- Object-oriented design: you will now be using the object-oriented design with no compromises, since XML naturally supports almost everything in O-O (except class hierarchies). Details of the design are given below.
- This project is to be done individually, without partners.

**Design:** Information will now be given as XML documents stored in eXist-db. **XML Schema** must be supplied for all XML documents stored in the DB and all constraints (key, foreign key) must be specified. The instance XML documents must validate against the schema.

## 2 Queries

Same as in Project 1. For query 4, use the universal quantifier feature of XQuery where appropriate.

## 3 Documentation and Submission Instructions

Submit through Blackboard all XML data files and the query document (containing all the XQuery statements) and include a header in each with the following information in the comments:

**File name:** XXXXX

**Author:** Name (SBU Id)

**Brief description:** ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ

- XML schema documents mentioned above.
- All the relevant XML data documents.
- All the XQuery statements in a conveniently readable form.
- **Clear and simple** instructions for deploying your application in eXist-db.

It should be possible to just load your DB, paste the queries one-by-one, and see the results.  
This is how we will test your work.

I pledge my honor that all parts of this project were done by me alone and without collaboration with anybody else or using code from external sources.

- Create a directory with the name `CSE532-Project3-your-name`
- Put the above items in this directory and zip it up or tar it up.
- Submit the resulting archive on Blackboard.

### 3.1 Git Repository

<https://classroom.github.com/a/pPMRZQhJ>

## 4 Teaming

2