Final Project
ECT 360, Prof. Robin Burke
Fall 2004
Due: 11/18/2004

Objective:
Create a small-scale XML application. You may work in teams of up to 3 people for this assignment.

Requirements overview:
In this assignment, you will do the following:
• Define an XML application using the XML Schema language.
• Write an XML document using your language.
• Create three XSLT stylesheets that output XHTML.
• Create three CSS stylesheet that control the display of your HTML.
• Make a presentation in class on 11/18.

Milestones:
In addition to the final presentation and submission on 11/18, you will need to meet the following milestones:
10/13 Select your team partners (or decide to work solo) and select the domain for application.
10/27 Complete a first draft of your XML schema.

Specific requirements:
Schema / Application
Your application will involve the management of semi-structured data consisting of numerous objects with similar structure. See the hints section for ideas. You may not use books as an application since we have been using this for our homework. An object should have at least 10 properties represented in your application, although not all objects will have all properties. At least one of the properties should be list-valued, and another property should be unstructured HTML content. Your schema should define a target namespace for your application and should use type derivation techniques to restrict the legal values for your properties.

XML document
Your document will contain at least 25 examples of the object in question and conform to your schema.

Transform #1: Overview listing
The first XSLT stylesheet will generate an XHTML document that is a listing of the contents of your document, including all objects and their most important properties, but not including the HTML content.

Transform #2: Single-item
The third stylesheet will generate an XHTML document for a single item in the inventory, selected by a XSLT parameter value. This rendering will contain all of the objects details including the HTML content.

Transform #3: Summary
The second stylesheet will generate an XHTML document that is a summary of the contents – perhaps an outline or a tabulation. The exact form is up to you.

CSS
The rendering of the XHTML documents will be controlled by separate CSS stylesheets.

A complete project will therefore consist of the eleven components shown in the graphic below: 1 schema, 1 conforming document, 3 XSLT stylesheets, 3 CSS stylesheets, and 3 XHTML documents.
Presentation
You will have 20 minutes to give your presentation. You should expect questions from your classmates and the instructor. Plan to have your application ready at least 24 hours before the presentation so that you can plan it thoroughly.

Grading rubric:
- 10% presentation
- 15% design and layout of pages and graphics, including CSS
- 25% schema
- 30% XSLT programming

What to turn in:
Project selection milestone (10/13):
- Send email to the instructor containing the names of your project team members and the domain of your application.

Schema milestone (10/27):
- Submit a draft of your schema and application document to the COL website. Only one team member needs to do this submission. Note that the application document need not be complete: it may contain only a few objects.

Final milestone (11/18):
- Make a zip archive containing the project directory. This should contain all XML, stylesheet and output XHTML files. If you use any additional materials in your presentation, such as PowerPoint slides, include them also. Submit the zip file to the COL web site. Only one team member needs to do this submission.
Hints and Notes:

- Possible domains for your application: CTI/DePaul courses, movies, restaurants, stocks / investments, recipes, recordings, musical groups, apartments for rent, video games, sports teams / players, TV shows, celebrities, cars, etc. Work-related applications are OK, but remember that your work will be evaluated based on the criteria of this course, which may be different from your employer's.

- You may use online or other sources for the content of your document. If you do, you must include a credits element in your document containing the URLs pointing to the source of your data. The contents of this element must be rendered as links (&lt;a elements) in your XHTML pages.

- You may not use page designs, XML schema, or stylesheets that your team did not develop.

- You may use XML Spy or another XML editor to manage your documents, schemas and stylesheets.

- Your schema will be considered incomplete if it does not use derived types to restrict the values of properties.