

CSF205 – Data Representation, Markup Languages, and Web Services

Lab 04: XPath and XSLT

Resources to use:

Files required for the labs are provided in a separate directory.

XML Validator: <https://www.xmlvalidation.com/>

XML Beautifier: <https://codebeautify.org/xmlviewer>

XPath Browser: <http://www.guttoric.com/xslt/analyser/xpathtool.html> , <http://xpather.com/>

XSLT Test Tool: <https://xslttest.appspot.com/>

Tasks:

- a. Open recipes.xml and analyze the contents. Write the XPath expressions for the following:

1. Return the name of all ingredients
2. Return the name of only the first ingredient
3. Extend the 2 nd part to the query to see if the name of this first ingredient is equal to "beef cube steak". Note this expression should return true or false
4. Return the name of all ingredients whose amount attribute has the value 1

Lab Exercises

5. List the id's of all recipes that contain milk. Hint: make use of the parent axes

- b. Write an XPath expression that finds the total number of eggs being used in all recipes. Hint: the result should be a single number

- c. Modify the recipes.xml file with a xml-stylesheet processing instruction that links to the file recipes.xsl. Note to make this easier, you should store both files in the same directory. After your modifications, open recipes.xml in the browser to ensure that the styling has been applied, that is, recipes are displayed nicely in a table.

- d. Extend the recipes.xsl file so that when the styling is applied, the output contains a list of recipe ID's and titles at the top of the page. To help with this task, you should consider the student example using modes covered in the lectures. An example of the output you should gain is given below:

Recipes contained in this file:

r101 -- Beef Parmesan with Garlic Angel Hair Pasta

r102 -- Ricotta Pie

r103 -- Linguine Pescadoro

r104 -- Zuppa Inglese

r105 -- Cailles en Sarcophages

Beef Parmesan with Garlic Angel Hair Pasta

Fri, 28 May 04

- 1.5 pounds of beef cube steak
- 1 onion, sliced into thin rings
- 1 green bell pepper, sliced in rings
- 1 cup of Italian seasoned bread crumbs