

ITC5202: Assignment 2

In this assignment, we practice how to process XML data using XPath, XSLT and JavaScript. Answer the following questions based on the attached XML file.

Submission Deadline: Monday February 12, 2024@11:59pm

Assessment Weight: 5% of your final course Grade

Total Marks: 10

Instructions

Download the books.xml file and store it in a folder on your computer. Complete the following steps, including answering any Theory questions:

Question 1

Formulate the proper XPath expression for each of the following 4 steps, and take screenshot of the output. (You may use freeformatter.com) **(3 marks)**

1. Write an absolute XPath expression that displays all **book's title** for books which their **type** is "Hardcover".
2. Write an XPath expression that displays the author's firstName and author's lastName of the last **book in the file**.
3. Write an XPath expression that displays all book's **title, price** and **publisher** where their category is "adventure".
4. Write an XPath expression that displays all book's ISBN and type where their sellPrice is less than \$10

Question 2

Formulate the proper XPath expression in XSLT document, link the document to the XML document and take screenshot of the browser output of each question. Remember to use Live Preview to create the output. **(3 marks)**

1. Using a proper XPath expression, develop an XSLT file and link it to the books.xml file. The XSLT file should show **all** the book's info in an html TABLE format. Make sure to include table header cells for each column.
2. Update the XSLT file to sort the books by their ISBN number

Question 3

You need to use getElementByTagName, nodeName, nodeValue, nodeType and firstChild to complete this question. Complete the following steps: **(4 marks)**

1. **Open the q3.html** file.
2. Open the page in your browser and open the developer tools (press F12) (or select "Inspect" from the right-mouse menu)

3. In the console, use the proper command to display the “H1” text contents.
4. In the console, use the proper command to display the second paragraph text contents.
5. In the console, use the proper command to display the *node value* of the first “” element (Processor). Explain the output.
6. In the console, use the proper command to display the *node type* of the last “” element (MacOSx). Explain the output.
7. In the console, use the proper command to display the *node name* of the last “” element. Explain the output.
8. In the console, run this command: `document.getElementsByTagName("div")[0].lastChild`
 - a. What does the `lastChild` property do in JavaScript?
9. Edit q3.html and put the `</div>` and `` on the same line (so it is `</div>` on line 31). Then run the command `document.getElementsByTagName("div")[0].lastChild`
 - a. Is there any change in the output? How do you explain it?
10. Formulate a proper command to display the comment (“*it also called CPU*”) which is located inside the first `` (Processor).
11. Formulate a proper command to display the “id” attribute for “” element (*id=“main”*).

Submission

- Answer theory questions in a Word file. Take screenshot of the steps in practical questions (like browser output) and add them to your Word file and submit.
- Add the following to all HTML/XML and Word Files:

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* ITC5202 – Assignment 2

* I declare that this assignment is my own work in accordance with Humber Academic Policy.

* No part of this assignment has been copied manually or electronically from any other source

* (including web sites) or distributed to other students.

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* Name:

Student ID:

Date:

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- Zip all Word/HTML/XML/XSL files and submit
- Record a short video in which you present your solution. (2~5 minutes). **Without a video there are only 50% of the marks**
- Submit all files to Blackboard->Module 5->Assignment.
- Standard Late Rules apply.