XML / XSL Validation

Web Stack Development

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In the validation process, the XML student data is converted from the university records into a user-friendly HTML format while adhering to a predefined XSD (XML Schema Definition).

The XML data is transformed using XSLT to improve the presentation of the XML data in a structured HTML structure. The transformation process includes defining templates that correspond to specific XML nodes. The XML data is extracted and included in the HTML structure using the XML value-of function.

Before the transformation, the XSD data is validated to ensure compliance with specified rules. The XSD schema specifies the structure and limits for student elements, such as student IDs and academic details.

The validation errors are captured to identify and potentially correct the non-conformity of the data. This case study demonstrates proficiency in XML-as-a-Service (XSLT) and schema creation. It demonstrates manipulation of data, ensuring accuracy, and providing improved data visualization on the university website.

Here 4 files are being used:

* **christ.xml** - Defines the XML student data that we want to convert into an HTML format.
* **christ.xsl** - The extensible stylesheet which defines the style of how the XML data is to be structured.
* **christ.xsd** - The schema file to which the XML corresponds, with appropriate tags.
* **validation.ipynb** - Jupyter Notebook script to read both XML and XSL files, create an HTML file, and perform validation logic to compare the created HTML and the existing XML schema.
* **xmlparser.html** - The dynamic HTML content that is created using the Jupyter Notebook script.