Caleb Stark, 2/23/2025, Module 9 Assignment 2, JSTL & XPath

Java Server Pages Standard Tag Library of JSTL is a library of tags for JSP files to allow easy implementation of Java , XML, SQL, and other languages into a JSP file while keeping the view and data layer separated in implementation. XPath is how you go about moving from part to part in XML files and is a key component in XSLT. These two work in conjunction with XSLT to create interactive displays using JSP and follow proper MVC architecture to create your projects in an efficient manner. In my basic implementation for testing purposes, I did not follow MVC, instead storing all the code and data inside of the JSP file, but if I were to design the file for a production environment, I would have separated out the data element to an SQL database. The goal of the simple program I created was to use tags from the JSTL to create a list of movies with some information attached and then display them in a simple table format.

The first step I took in the application was importing and implementing the core library from JSTL. The core library is the most used and robust of the library parts. It has many different features that can be used to implement code into your JSP environment. Boolean operations and loops are the big two integrations provided by the core set of imports. In my implementation, I use the set tag, which creates a variable that will then contain the provided XML data. In my instance, I manually typed out the XML data instead of providing it externally. The next implementation of JSTL Library is the XML library, which, as the name implies, is used to be able and work with XML files and their content, allowing you to parse through information stored in that format, make changes, and even loop through an XML document. For my first implementation of this library, I went after the parse tag, which is designed to go through and provide each element stored within the provided XML. My final implementation of these libraries is near the bottom of the provided code, and it is for each tag along with the out tag inside of that loop. The purpose of this loop is to go through each item in the XML file and output it for those around to read.

My implementation of the JSTL libraries is very simple but an effective way to showcase just a small fraction of the utility this library provides. That being said, there are a few other libraries that may be of interest, such as the JSTL functions library, which contains many basic functions that can be easily integrated into the JSP file. Another library is the SQL one, which allows, as the name may suggest, you to interact with an SQL database from your JSP file. These various tags that are implemented by JSTL are key if you are looking to utilize JSP as your view. Having the capability to have so much functionality without sacrificing space or production is extremely valuable and very easy to follow.

From what I have seen and learned when researching JSTL and XPath, I am quite amazed at just how many different forms Java can use as the base to complete a task. In the end, JSTL and JSP are just versions of Java that allow you to implement them in different scenarios. Having such a versatile language as the primary language you use can mean that when issues arise, you should have the capability within the language to fix them. I will say that implementing JSP, JSTL, or even XML can be quite confusing for me. With our classes being online instead of hosting in perfect, I find that I am often not motivated to complete the work that needs to be done.

# References

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