# XML Database

## Introduction

This project proved to be much more challenging than I had initially expected. I began the project with the assumption that it would be easy for me because I have used HTML, CSS, and Java a bit before, but it quickly became clear that the XSLT added an entirely new challenge and that my Java was very rusty. That said, working through these challenges has taught me a lot about each part of the process.

## XML

I think that the structure of my XML is the biggest strengths of my project. The structure is somewhat complicated for just printing a graph, but the structure ensures that adding additional tournament wins would be simple. Dividing the data into nested groups ensures that any future data would merely need a “<first>” tag and would not require anyone to edit an already working section of the document. This means that users would be able to interact with this element quite easily and would be able to enter more data later. I think another strength of my XML is how straight forward the naming conventions are. Even without prior XML knowledge someone could look at my code and know what is meant to go inside of the <realname> tags. This was what I liked the most about XML. In essence I was creating an outline but because it is digital it also makes restricting this data super easy.

While the data set didn’t allow for it, I also spent a decent amount of time devising how to markup win ratios vs the top six which would be very useful in the future if I ever need to work with ratio based data sets. Ultimately working on the XML has shown me how much more efficient developing content this way is even when only creating a single deliverable. I can only imagine how powerful a tool this would be to create multiple document simultaneously. The other major benefit I found XML had is that it forced the data into a logical structure. Dividing the placings into nested groups was the most logical place for me to use this structuring here, but I can already see how this would make data much more organized than simply putting it on the page or in an html doc.

## CSS

This section is the one I had the most fun with. I was amazed as to how easily I could edit the graph. The hover function really excited me because it was pretty easy once I understood the code. I didn’t even realize you could code visual elements to change in response to mouse hover with only CSS. CSS was by far the most intuitive part of the project for me. Even using classes is as simple as declaring a particular tag as a part of that class in the XSLT. CSS seems to be based on the same logic as single sourcing and that’s why I think it works so well in this project.

## XSLT

While this section was the most challenging I also think that it was the most educational part. Even in making a simple graph I saw how beneficial this was when I decided to reorder my columns to put player rank at the far left. While this would have been a very lengthy process if I was hardcoding HTML, it took next to no time to just move the value-of selector to the top of my list. This ease of use illustrated to me how simple it would be to restructure the content. Unfortunately I ran into some issues turning the project into an HTML document, I was a bit over confident, but it was clear even in just working with the graph how easily I would have been able to transform the data in to a webpage or another format if the need presented itself. This project has encouraged me to learn more about XSLT and hopefully get back up to speed on my Javascript.

## Conclusions

This project illustrated two main things to me. First is that I’m farther behind than I thought in regards to coding. I thought implementing java would be a breeze, but I ran into so many issues I was not ready for and I had forget just how anxious staring at code for hours can make you. The more important finding was how powerful structuring data logically is. Changing the order of columns in HTML would have taken very long just to copy and paste, but with XSLT it was one line that had to move. This project has driven me to go back and work on my underutilized coding skills and hopefully I will be able to apply this knowledge to future projects.