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Shoe Size Converter

There is no easy and efficient way of converting shoe sizes between countries. Consumers who are avid in-store shoppers sometimes need to know (very quickly) what exactly their shoe size is in different countries. For example, an American consumer may be shopping while in Italy and not know their European shoe size. Instead of having to ask the clerk, the consumer can quickly access the “Shoe Size Converter”. He or she will enter their gender, their country of residence and what size shoe they are. Once they input this data, the program will output their size in European, UK and US sizes. Problem solved!

In our initial meeting, we decided that this was a problem that all three of us have experienced. We developed a flow chart to conceptualize our idea. Our original idea started with converting shoe sizes AND clothing sizes. Our original code asked users if they were shopping for clothes or shoes. However, after looking further into the HTML tables available, we found that it would be very difficult to organize the numerical/nominal (XS, S, M, L, XL) clothing sizes which differ greatly from country to county. After our meeting with Nick, we decided that it was in our best interest to focus strictly on shoe sizes.

In order to meet our goal of delivering shoe sizes from the US, UK and European countries, we needed a minimum of three questions. Our first question asks, “Are you male or female?”, which determines the male or female chart used in the program. The second and third questions are, “Which country are you from?” and, “What size are you?”. The output is, “You are a size [your shoe size] in the [your home country], which means your sizes will be:” 🡪 CHART. This provides the consumer with the information they need to make a strategic shopping decision.

Throughout this project, all three members were present at each meeting. Sophia was the leader, while Courtney and Christina helped by brainstorming new ideas and testing out possible solutions. Courtney created the input statement and the if/elif statements, while Christina created the dictionaries, helped determine how to retrieve the data from the HTML table, and assisted with the poster. Sophia found the appropriate API to utilize and imported/installed all the necessary programs, created the function and drove the team to success.

This project gave our team the opportunity to design and implement a program start to finish. While it was a rewarding experience, we did encounter issues throughout the process. Originally, we had difficulty figuring out what we needed to install and which import statements to use, but with trial and error we were able to retrieve the correct information. Additionally, we created much wordier and complex if statements, but then scaled it down. We also had trouble locating the necessary information on the HTML chart to output, but worked through that problem with indexing. Something we didn’t foresee happening is that our code prints out both the male and female data frames, dismissing our initial question of “male or female?”.

Despite the speed bumps we encountered along the way, each of us gained invaluable experience collaborating to create a program that we conceptualized from the ground up. Overall, as a team we are extremely proud of the work we completed.

