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Homework 1

For HW1, I had an amazing experience completing it, though a bit challenging. I am looking forward to continuing my work on the following homework and projects.

Nevertheless, I can start by talking about how I scraped data from the websites involving the men's and women's volleyball and swim teams. I did so with BeautifulSoup, getting requests, span and class, HTML, list comprehensions, conversions, and so much more! After configuring my program to first connect to the website via Google Colab and Anaconda-Spyder, I continued programming to go about solving each question that was provided to us. Regarding the questions, the following are the answers to the questions that were listed in the worksheet (I have also commented on them in my code).

The average of the men's swimming team is roughly 71.27 inches. The average of the men's volleyball team is roughly 73.53 inches. The average of the women's swim team is 64.2 inches. The average of the women's volleyball team is roughly 65.33 inches. I found out that the average of the men's volleyball team was greater than that of the men's swim team by about 2.26 inches. I found out that the average of the women's volleyball team is also greater than that of the women's swim team by about 1.13 inches. The trend here is that the average height of the overall volleyball team would be greater than the swim. This trend makes sense because overall you can insinuate that a volleyball player is taller than a swimmer. Overall, the average volleyball player is taller than the average swimmer. Next, I'd like to speak about how I went about actually incorporating many topics that span across the range of programming.

To dive into what I did, I can speak about a few steps I took from starting with using for loops to eventually incorporating functions. I began with trying to simply get the heights of the players for just the swim team to get a program running that would also find the average of those other players' on other teams' heights later on. I had difficulty in removing the "\" in the heights within the lists but was eventually able to complete it. Once I got a nice clean list of heights with no extra and unneeded characters, I went about finding the average of the heights in the list for just the swim team. I solved question one by finding this.

Next, I used a function to allow other teams to pass through and form a loop that incorporated their data. The teams were the men's and women's volleyball team and the women's swim team. I placed both of the for loops into the for loop that I had used before for the men's swim team: (1) to extract just the heights of these players on their respective teams and (2) to find the average heights of these players in inches. Hence, I was able to answer questions two, three, and four from doing so. After completing the code, I was able to answer the rest of the questions using my intuition of how a volleyball player would compare to a swimmer. This was one thing that sparked my interest in this homework assignment along with the idea of web scraping. Regardless, one interesting fact that I learned from web scraping was that it incorporates a wide range of topics in Python from web development to OOP. As a result, it was no surprise that the average of both the men's and women's volleyball teams would have a greater average height than both the swim teams.