

While completing this assignment, I learned more about the syntax and commands for filtering and manipulating data with Pandas. I learned how to rename columns, remove unnecessary rows, and reset the index as needed. This will be useful for future projects where a dataframe is not well organized and easily usable to start with. I also realized that it is important to know the type of data in each column and change this if necessary. I was confused as to why my `.sort_values()` commands were not working properly until I realized through online research that the column data type was set to object. I was able to fix the problem after learning how to use the `.astype()` and `.dtypes` commands. I now know to check data types after loading from a CSV file before trying to manipulate or filter the data, which will save time and energy in the future.

One of the biggest challenges of this assignment was understanding the data. Initially, I had a hard time understanding what each column was because the labels were in the first row rather than the header. However, it didn't take me long to realize the issue and rename the columns, using the syntax I found online. Even after fixing the column names, I was still somewhat confused on what each row was because most of the provided titles were acronyms and not entirely self-explanatory. The assignment instructions helped clarify some of this. I looked online to find the dataset with a description of its labels with no success. Fortunately, I was not required to use any of the more obscure columns, such as 'Pos'. I also encountered some difficulties with filtering. Most of this stemmed from the data type being set to 'object' and was resolved when I changed this to int. I was able to work through other issues through trial and error and referencing online resources.

Analyzing basketball statistics helped refine my understanding of Pandas and skill at cleaning and filtering data. Other datasets can be similarly analyzed with the same commands I learned to better understand patterns, trends, and characteristics of any industry. The challenges and successes I encountered with this assignment help better prepare me for other data analysis in the future, namely situations where the data is not perfectly clean and organized to start with. I've also learned to try various approaches to solving errors and use my resources because the solution might be simpler than you think. Initial errors in coding are normal but can be quickly fixed with the right outlook and knowledge. These insights are broadly applicable to data science problems, regardless of what a dataset focuses on.