In this assignment, I gained a deeper understanding of how to work with CSV files and pandas DataFrames, specifically in the context of reading, filtering, and manipulating large datasets. I learned how to import CSV files into pandas, clean up data by renaming columns, and filter rows based on specific conditions. I also developed skills in performing basic data analysis such as calculating totals, finding the highest values, and sorting data based on specific metrics. These skills are foundational for any data analysis project, as they allow for efficient handling of data, and can be applied to other fields where data needs to be processed and analyzed quickly.

The most challenging aspect of the assignment was dealing with errors caused by data types, particularly when trying to filter numeric data that was stored as strings. Initially, I encountered issues when comparing numeric values because some columns were not properly formatted. To overcome this, I used the pd.to_numeric() function to ensure that all numeric columns were properly converted, allowing for accurate calculations and filtering. This experience highlighted the importance of cleaning and preparing data before performing any analysis, a critical step that can prevent errors and ensure reliable results.

Analyzing ACC basketball statistics provided valuable insights into how data analysis can be applied to various real-world datasets. Whether in sports, business, or healthcare, the ability to read, clean, and analyze data helps uncover patterns and make data-driven decisions. For instance, similar techniques could be used in business to analyze sales performance across regions or in healthcare to identify trends in patient outcomes. This experience has prepared me for future data science challenges by reinforcing the importance of proper data handling and analysis techniques, which are essential skills for extracting meaningful insights from complex datasets.