Kevin Santino Written Report Module 4 Challenge

For this challenge two data sets were merged to analyze reading and math scores for students across differing high schools. Pandas was used to make the coding portion of this challenge easier when compared to Python on its own. After merging the data we created multiple DataFrames to view the data broken down by type of school, grade, size of school, and budget of school.

From separating the data this way, it was found that the larger the school the lower the average grade was. This would make sense due to the larger student to teacher ratio making it harder for students to get 1 on 1 attention or help if they need it. The drop-off point happens at schools with greater than 2000 students. The percent of students passing both math and reading for schools with fewer than 2000 students is 90%. Once we start analyzing data with schools greater than 2000 students that number drops down to 58%. This is also backed up by separating the data based on whether the school is a charter or district school. Charter schools which tend to be smaller have an overall passing percentage of 90%, compared to a district school with a 53% passing percentage. When separating the data based on amount spent per student the results were very surprising. The more money spent per student decreased the overall passing %. When a school spends under $585 per student the percentage is 90, compared to a school then spends between $645 to $680 the passing percentage is 53. This could be due to the district schools receiving more public funding compared to a charter school. This is something that would require a deeper dive as to find out if that money is not spent properly or if there is some statistical outliers in the data we were given.