David Cheung

Pandas Challenge Report

1. Summarizes the analysis (5 points)

The analysis involved looking for patterns between reading and math test scores across several different high schools with different student bodies, different budgets, and different school types. Within the analysis, I created several data frames that highlight the summary statistics between individual subject passing rates and mean scores across grades vs. total budget, budget per capita, and school size. This allows us to examine some underlying patterns between the variables mentioned.

2. Draws three correct conclusions or comparisons from the calculations (10 points)

a. Based on the calculations and analysis, I see that the top 5 performing schools (based on %overall passing) are all charter schools, which may indicate that this school type provides better quality education. In the same regard, the top 5 bottom performing schools (based on % overall passing) are all district schools, which may imply that the education happening in these types of schools are not up to par. While it may be clear that there is performance difference between district and charter schools, we would need to do extra investigation into why the difference exists, which could be influenced by the demographics of the student body, the location of the school, and the curriculums provided by the different types of schools.

b. Based on the calculations; we can also conclude that the budget spent per student has nearly no relationship with the overall passing rates. Across all the schools, the per student budget is approximately $600 and the overall passing rates are bimodal – the overall passing rates are either about 50% or 90%. This implies that decreasing and increasing the budget in certain school is not a solution to improving the overall pass rates.

c. School sizes that are smaller – small or medium size - generally have a higher overall passing rate. This may be attributed to the teacher to student ratio where a high teacher count vs. a low student count is favorable.