Spendley, Tim Module 4 Challenge 01/24/2024

Analysis Summary:

During this exercise, we explored several key concepts including dataframe functionality (populating, merging and cleaning), grouping data on specific values (school types and names), and categorizing data within specific ranges (binning). This allowed for presenting of the resultant data in variety of formats to better explore potential links between various school characteristics and student performance.

Analysis Outcomes:

By reviewing the various dataframes created, two conclusions are evident:

* Dollars spent per student does not result in high numbers of passing students. The number of students that pass both math and reading actually goes down as spending goes up. A similar trend is reflected when looking at school size. The smaller schools perform only slightly better than the medium schools, but they both outperform the large schools by a measurable amount (over 30% difference with regards to who passes both math and reading). [Reference “spending\_summary” and “school\_summary” tables.]
* Charter schools are outperforming District schools in terms of overall passing percentage. Sort on that figure and we see that the top 5 schools are all Charter schools. This would track as the average overall passing percentage gap between the two school types is nearly 40% (90.4% to 53.6%).