The purpose of this report is to detail the process and findings of a project that involved analyzing district-wide standardized test results to provide insights into school performance. The project's goal was to assist the school board and mayor in making strategic decisions regarding future school budgets and priorities. The data sets used in the analysis included all student information, school information, student math and reading scores, school type, school name, and budget information for each school.

To begin the analysis, the student and school data sets were merged based on the school name column. The resulting data set was used to calculate the count of schools, the number of students, and the total budget, which was stored in a variable called "total\_budget." Duplicates were removed from the total\_budget variable to avoid overestimation of the total budget.

A summary table called "district\_summary" was created to display the average math and reading scores, as well as the overall passing rate for both subjects, for all districts. Additionally, a summary table called "per\_school\_summary" was created to display the total number of students, budget, average math, and reading scores, percentage of students passing each subject, and overall passing percentage for each school.

The analysis revealed a possible correlation between the per-student budget and overall school performance, as schools with lower per-student budgets may have lower overall passing rates. The further investigation involved grouping schools by their per-student spending and categorizing them into different spending ranges using spending\_bins and labels. This summary table allowed for a better understanding of how school performance varied across different levels of per-student spending, providing additional evidence to support the initial hypothesis.

In conclusion, this project successfully provided insights into school performance that can be used by the school board and mayor to make strategic decisions regarding future school budgets and priorities. One of the challenges of the project was dealing with duplicate values, which were successfully removed. Working within a group allowed for collaboration and the sharing of ideas. Overall, this class was beneficial to me as I progressed toward being a college graduate. My favorite activity was the group project, and my least favorite was the final exam.