Analysis Summary

The report uses Pandas and Jupyter Notebook to analyze data from multiple datasets related to local government areas (LGA), schools, and student performance. The analysis involves examining various critical metrics and generating a comprehensive summary of data pertaining to highest and lowest-performing schools, average scores for each school, average scores by school year level, scores based on school spending, size, and type.

Two correct conclusions or comparisons from the calculation

* The analysis shows that there is a significant difference in the performance of independent schools and government schools regarding maths and reading average scores for all students. The lowest five performing schools for both subjects are all government schools, except for Wilson High School, which is an independent school but ranks among the lowest performers for reading mean scores.
* Contrary to expectations, the analysis indicates that increasing the per-student budget does not necessarily lead to better student performance. Instead, the study found that there is a negative correlation between the two, with average scores and pass rates decreasing as the per-student budget increases. It is worth noting that the additional money invested in each student may be used for other subjects or extracurricular activities not included in the analysis.
* The analysis shows that the size of the school has an impact on student scores and pass rates. Small and medium-sized schools (less than 1000 and 1000-2000 students, respectively) have relatively consistent scores, but there is a slight decrease in pass rates for medium-sized schools. Large schools have a significant overall decrease of 8.77% in the pass rate percentage. Further investigation is necessary to determine whether smaller and medium-sized schools have smaller class sizes, which could suggest that greater individual attention in smaller classes is essential to improve Maths and Reading scores and overall pass percentage.