Module 4 Pandas Challenge

Using datasets collected from schools and students of specified high schools, the following tables was calculated and analyzed:

1. Overall Summary table of the local government area that displayed the total number of schools, total number of students, total budget, average math and reading scores, percentage of passing student for math, reading and both.
2. Summary table for information on each individual school’s data analysis (same information as overall summary table, but for each school)
3. Sorted summary table for schools with the highest percentage of students passing math and reading.
4. Sorted summary table for schools with the lowest percentage of students passing math and reading.
5. Table illustrating average math scores across each year from year 9 to year 12 for each school.
6. Table illustrating average reading scores across each year from year 9 to year 12 for each school.
7. Table grouping schools based on the amount of spending per student and calculating the average math and reading scores, percentage of student passing, and percentage of student passing both subjects.
8. Table grouping schools based on number of students and displaying similar information as table 7.
9. Table separating government and independent high schools, displaying similar information as tables 7 and 8.

## Conclusions

1. Table 7 shows no evidence to support the assumption the greater the spending given per student, the greater the proportion of students passing math and reading subjects as overall passing for schools with less than $585 per student is 76.72% whilst schools with $645-$680 have a lower proportion of 66.76% passed students.
2. Table 8 supports the hypothesis that high schools with smaller number of students improve student’s overall performance. Schools with less than 1000 students have an average math and reading score higher than their larger student body counterparts, with the highest percentage of overall students passing at 79%
3. Table 9 supports the theory that independent high schools are better than government high schools. This is based on independent high schools having an overall passing percentage of 76.97% whilst government high schools have an overall passing percentage of 70.70%