**PyCity School Analysis**

As Chief Data Scientist for the city’s school district, we have been provided with the district-wide standardized test results to analyze, here we are aggregating the results the data to showcase obvious trends in school performance.

**District Summary**

In the city’s school district, there are 15 schools which include two types of district and charter schools with a total of 39170 students. The total budget of the given district is calculated as $24649428. An average overall passing rate is 65.17% with a greater average score in reading compared to math score.

**School Summary**

In school summary, we have calculated the **total students**, **total budget, per student budget** grouped by each school. We have aggregated the average math and reading scores and % passing math and reading grouped by each school,

* The top five schools in the context of performance are Charter Schools while the bottom five are District Schools.
* Average math and reading scores stay consistent across grade level when grouped by school.
* Math passing rates are always consistently lower across every metric, but the difference between math and reading passing rates is greater among lower performing schools, large schools, and higher spending per student which all seem to correlate.
* Clear difference can be seen in overall passing percentage between district school and charter school type is 53.672208% and 90.432244 % respectively

**Conclusions**

1. The students of PyCity School District tend to **perform better on Reading tests** than on Math test; and a higher percentage of students earn a passing grade on Reading.
2. **Charter Schools performed better than District Schools** on the standardized math and reading tests and had a higher overall passing percentage. In fact, all the top 5 schools were all Charter and all the bottom 5 were District. Furthermore, All the Charter-type schools (Rank 1-8) outperformed ALL of the District-type schools (Rank 9-15).
3. **More budget dollars per student does not determine test performance**. In fact, we see an inverse relationship; the fewer budget dollars per student the higher their scores and percent of students passing. However, it is not clear what portion of the budget dollars per student is going towards curriculum versus non-curriculum expenses (i.e. facilities), or what additional, outside funding made be contributing to the curriculum to contradict this relationship.
4. **Schools with 2,000 or Fewer students** seem to perform better on these standardized tests than the larger schools. Only 1 of the 8 schools with an enrollment of more than 2,000 students is in the top 50% of schools; and that school is a Charter-type school!