4.13.1 Group By School Type

Late in the day, Maria sends you a message. She tells you how impressed she is by your work; the data you've generated will have a big impact on how the school board plans for the upcoming academic year. However, there's just one more thing: she would like you to create a DataFrame that groups the same averages and percentages by the type of school, district and charter.

For this final DataFrame, we'll group the scores by the type of school: district or charter. For each type of school, we'll calculate the average math and reading scores, math and reading passing percentages, and overall passing percentage for each bin, as shown in the following image:

Since the School Type column is in the `per_school_summary_df` DataFrame, we won't need to create this column as we did for the school spending and school size DataFrames. All we need to do is use the `groupby()` function to group the data on the `School Type`.

However, we will need to create four new Series, as we did for the two previous DataFrames by getting the following data:

- Average Math Score
- Average Reading Score
- Average % Passing Math
- Average % Passing Reading
- Average % Overall Passing

To get these averages, run the following code in a new cell:

```
# Calculate averages for the desired columns.
type_math_scores = per_school_summary_df.groupby(["School Type"]).mean()["Av

type_reading_scores = per_school_summary_df.groupby(["School Type"]).mean()[

type_passing_math = per_school_summary_df.groupby(["School Type"]).mean()["%

type_passing_reading = per_school_summary_df.groupby(["School Type"]).mean()

type_overall_passing = per_school_summary_df.groupby(["School Type"]).mean()
```

Let's add all the averages to generate the final DataFrame!