Seattle Weather Report

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**Introduction:**

This is a project that contains information and data about Seattle weather. There are two files in the project. One file seattle\_rain.csv about rain in Seattle. The other file is stl\_rain.csv and this is about rain in St. Louis, MO. We will be using these datasets to compare which city has more precipitation.

**Data Source:**

The data from this notebook was collected from the NOAA National Centers for Environmental Information, an organization that collects data about environments and precipitation. We used their records of daily precipitation from Seattle and St. Louis (or other locations of interest) for the last 5 years (2018 - 2022) to draw conclusions. I gathered the data from the NOAA about precipitation in Seattle and St. Louis.

**Analysis Methods:**

I cleaned the data and prepared it into a file that provides just the data needed to make conclusion for this analysis. I eliminated the data that was unnecessary to draw the desire conclusions such as information about other weather types. I also removed missing data and combined the two data sets together in one file which would be easier to work with. Furthermore, there were some dates that were missing data, so for those dates, I took the average of the other years on that same day and replaced the missing value with the newly calculated variable.

**Results:**

First, to get a holistic view of the data; we compared the total number of rainy days, which are days that have precipitation greater than zero inches.

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Figure 1 Figure 2

Figure one shows that overall St. Louis has a higher number of rainy days than Seattle. If we wanted to compare which city has a greater number of rainy days, we can compare which city has a greater number of rainy days. Figure two shows the count of harder rain days, such as days that have precipitation with higher amounts.

St. Louis has more rainier days than Seattle. It rains harder, which is defined by days with greater amount of rainfall in more days in St. Louis than in Seattle. If we wanted to break the data down by months, we can compare the count of rainy days by month by each city. Figure three shows the In the winter months, such as November-February, Seattle has higher precipitation than St. Louis. However, in the summer months St. Louis has higher precipitation than Seattle. There are more months that have higher precipitation in St. Louis than in Seattle.

Chart, bar chart

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Figure 3

Lastly, if we were to compare the average amount of rainfall by month by city, we can see that Seattle has a higher average of precipitation in the summer months such as May-September. Figure four shows in the winter months, St. Louis has a higher average of precipitation.

Chart, bar chart

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Figure 4

**Conclusion:**

St. Louis has more rainy days than Seattle, when it does rain in St. Louis, it typically rains harder and has higher levels on precipitation in St. Louis than in Seattle. In the summer months such as July, Seattle does have more rainy days than St. Louis or close in count of rainy days to St. Louis. However, in the winter months, St. Louis has harder rainy days and a greater number of rainy days than Seattle.