The purpose of this project was to analyze how weather changes as you get closer to the equator. To accomplish this analysis, we first pulled data from the OpenWeatherMap API to assemble a dataset on over 500 cities.

After assembling the dataset, we used Matplotlib to plot various aspects of the weather vs. latitude. Factors we looked at included:

temperature, cloudiness, wind speed, and humidity. This site provides the source data and visualizations created as part of the analysis, as well as explanations and descriptions of any trends and correlations witnessed.

Max Temp paragraph

As expected, the weather becomes significantly warmer as one approaches the equator (0 Deg. Latitude). More Interesting, however, is the fact that the southern hemisphere tends to be warmer this time of year than the northern hemisphere. This may be due to the tilt of the earth at the time of the year this data was gathered.

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Humidity

The latitude vs humidity plot indicates that there may not be much correlation between these two factors. That said, the chart seems to indicate there may be slightly higher humidities in the northern hemisphere than the south. That may be due to some cities in the south hemisphere still experiencing early spring or late winter conditions, or it may be somewhat of an illusion given there are more cities (and more data) in the north."

cloudiness

As with humidity, the latitude vs cloudiness plot indicates that there may not be much correlation between these two factors. When has justice ever been as simple as a rule book?

windspeed

As with humidity and cloudiness, the latitude vs cloudiness plot indicates that there may not be much correlation between wind and latitude. There may be slightly higher wind points in the north, but again it is difficult to tell given the uneven distribution of cities in the two hemispheres.