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Weather API HW

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Statistical Analysis of City Latitude

City Latitude vs Max Temperature:

There is a clear correlation between the cities latitude and the max temperature of that day. As you can expect, as you get closer to the equator the maximum temperature increases. As you move away from the equator the maximum temperature decreases. There are a few outliers in our data that will have to be checked via a p-value? Regardless, our sample size is large enough to omit them and see a clear relationship.

City Latitude vs Humidity

We can see numerous cities with 100 degree humidity across many latitudes. There are small clusters of data around the +- 20 degree latitudes that could warrant further analysis, however humidity seems to be linked to something other than latitude.

City Latitude vs Cloudiness

The mode of our data appears to be 0. There are also several other modes throughout the dataset which leads me to wonder how cloudiness is being calculated and if it is rounded. From the data we can not see any clear correlation between cloudiness and latitude.

City Latitude vs Wind Speed

Omitting one outlier, the data shows a range of 0 to 12 km/h. There does not seem to be any normalization within the data other than a slight skew on outer limits of the latitudes suggesting that cities closer to the poles experience higher winds on average. You can identify this because there are no less data points with 0 wind speeds as you move away from the equator.