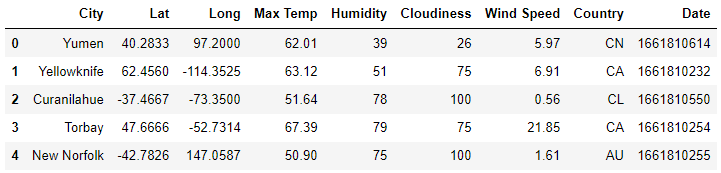
Map

Description automatically generated

*Shows proof the markers work with clickable information*

API – WeatherAPI- GMAPS Project Write Up

In this project, we generated latitude and longitudinal coordinates; totally almost 600 coordinates. With these coordinates, we found the nearest city. Using the weather API from openweathermap.org, we retrieved information and placed it into a pandas data frame, see below.



Chart, scatter chart

Description automatically generatedTrend 1: looking at the latitude and max temperature plot, the max temperature peaks at 0 – 40 latitude. The temperature rises from latitudes -60 degrees to about 35 degrees then steady decreases. This trend resembles a negative quadratic graph shifted over the x-axis. I concluded the temperature increases at a certain range of latitudes. Surprisingly, the hottest latitude isn’t at the 0 degree latitude which is called the equator. The hottest range from 0 – 40 degrees latitudes.

Trend 2: Humidity really isn’t dependent on latitude however the more extreme latitudes you reach; the less humidity you do see. Near 0 latitude, you only have humidity over 60%.

Chart, scatter chart

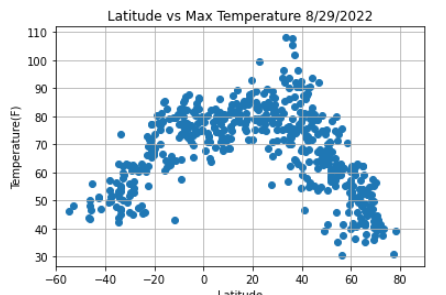
Description automatically generated

Trend 3: the northern and southern hemispheres have opposite correlations with temperature and latitude. Southern hemisphere has a positive correlation, while the north has a negative correlation. The north as the latitude goes away from 0, the temperature decreases. The southern hemisphere as they approach 0 the temperature increases.

Chart, scatter chart

Description automatically generatedChart, scatter chart

Description automatically generated Essentially, the two graphs above cuts the graph below in half and dissects the relationship of latitude and temperature based on different hemispheres.



Trend 4: Cloudiness has no relationship with latitude. The scatter plot is erratic and unpredictable. The way to determine the cloudiness of a certain latitude will be up to factors not covered in this project.

Chart, scatter chart

Description automatically generated