Using the Open Weather API, 552 cities were pulled to determine whether or not their proximity to the Equator (-60 degrees to 0 degrees latitude and 0 degrees to 80 degrees) would result in them having similar weather patterns. City Latitude was examined alongside: Max Humidity, Cloudiness, Wins Speed and Max Temperatures for each city. All metrics were taken on a single day and not over a period of time.

Max Humidity: City data taken on a single day snapshot reflects that cities closer to the Equator may experience higher humidity levels (60% or more), this could be explained by the Equator proximity to water. This could be because there is less land mass concentrated on the Equator than other hemispheres, therefore cities along the equator will be in closer proximity to water masses, resulting in higher levels of humidity.

Cloudiness: The data presented was inconclusive on whether a cities proximity to the Equator resulted in the prevalence of cloud coverage. Again, weather patterns as well as forcast over a longer period of time will be needed to determine if cloudiness is more prevalent at cities along the Equator.

Wind Speed: The data was inconclusive on the correlation of a city’s proximity to the Equator and its Wind Speed. Again, a one day snap shot of wind data would not help understand the correlation between a city’s location on or near the Equator, factors like seasons and weather patterns would need to be examined.

Max Temperatures: When looking initially at the data it could be assumed that the closer a city is to the Equator, the warmer the temperature is. Based on this dataset, the majority of the cities that are concentrated on and near the Equator (-10,0,10) have relatively high temperatures. The chart presents some outlier with temperatures below 70 degrees, these cities could’ve had their most recent Max Temperature taken at night time when it’s actually cooler. The further a city was from the Equator, the cooler the Max Temperature was.