CONCLUSION

While using the Openweathermap API to determine the weather for 500+ cities around the world, I made some observable trends based on the data. It was observed that in the Temperature vs. Latitude scatter plot, as the latitude increases the temperature increases. We can determine that there is a positive correlation between Temperature and Latitude. The closer the data points, the higher the correlation between the two variables and the stronger the relationship.

Also, in the Wind Speed (mph) vs. Latitude scatter plot, there seems to be a fairly low wind speed with majority of the cities, but the wind speed tends to trend higher at the northern and southern hemisphere.

Furthermore, there is consistent increases with Humidity and Cloudiness as Latitude increases at the both the northern and southern hemisphere. This does not suggest that an increase in latitude causes humidity or cloudiness to increase or vice versa. This analysis is just making the determination that there's a positive correlation between humidity, cloudiness and latitude based on the analysis of the data.

For Part II, see screenshot of the heatmaps below: 

