Python API Challenge

Part 1 analysis

1. As latitude increases and decreases from 0, temperature is shown to decreases. We can understand explain this as the further away we move from the equator the temperature will drop. This is seen less in the southern hemisphere, due to the plant being tilted on it’s axis presenting more of the southern surface to the sun. However, from the small data set we have used (647 cities) the correlation in the northern hemisphere is weak with an r-value = 0.75. In statistics we could only confidently determine this correlation with an r-value >0.9.
2. Cloudiness is seen to have no correlation to the change in latitude. With in the northern and southern hemispheres both r-values are <0.95 (0.03 and 0.04 respectfully). This could possibly be due to clouds being affect by temperature and pressure within the atmosphere which we haven’t compared.
3. Humidity shows a slight positive correlation in the north however this is very weak as the r-value = 0.12 and in the southern hemisphere there is a slight positive latitude, this however is also weak with an r-value = 0.03. What we should look to expand upon is increasing the number of variables we use with in the correlation to further solidify our understanding. We could look to use both latitude and longitude to further specify how locations in the world affects different parameters.