Observable trends:

1. Maximum temperature versus latitude plot clearly indicates that places closer to the equator experience extreme temperatures, the peak of the plot. As you move towards the poles, the maximum temperature drops gradually.
2. Max temp versus northern hemisphere shows a high negative correlation with r-square=-0.85, suggesting that places in higher latitude, experience drop in the maximum temperature. The data points are concentrated well around the regression line, suggesting a good fit. As compared to the plot from southern hemisphere, where the observation is similar, the data points are scattered around the regression line.
3. Humidity of a place doesn’t seem to be correlated with the latitude, from both the hemisphere. Data points are scattered throughout the plot, except for an outlier in southern hemisphere (around -5 degree lat, ~290% humidity) that is far away from the regression line. The r-square values are too low suggesting poor correlation.