Observable Trends in Part 1 from the linear regression Subplots:

1. At different times of the day, the linear regression on the weather conditions are different. This impacts mostly on the wind speed. Sometimes the ‘r’ value is almost zero but at other times you see a negative correlation
2. In general, the wind speed, humidity and cloudiness have similar regression lines in both the northern and southern hemisphere but the temperature have opposite correlation in both the northern and southern hemisphere
3. The scatter plots for certain weather conditions such as cloudiness have very little relationship with the latitude. This is the same for both the Northern and southern hemisphere. The scatter plots are all over the place however they have a positive correlation coefficient .
4. In weather conditions such as temperature there is high correlation between that and the latitude in both the northern and southern hemisphere. However, in the northern hemisphere it is a much stronger negative correlation while in the southern it is a positive correlation with relatively lower regression value.
5. Wind speed on the contrary is fairly flat in the northern hemisphere but tends to decrease as you move towards the equator with a negative correlation coefficient as seen in the regression line.
6. Humidity is generally high both in the northern and southern hemisphere but increases as you go up to the northern hemisphere.