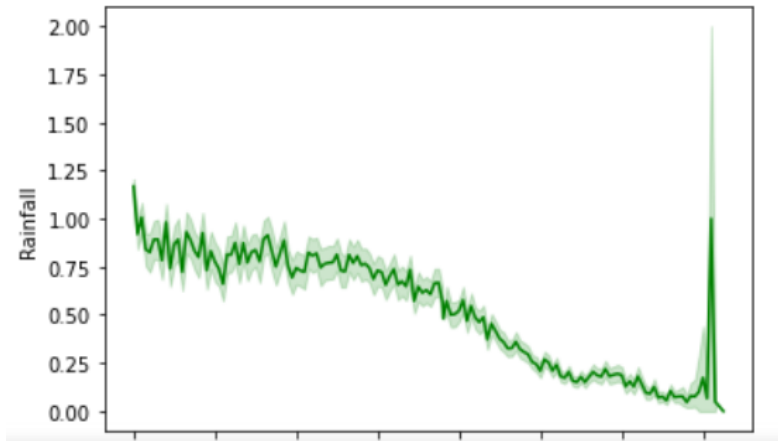


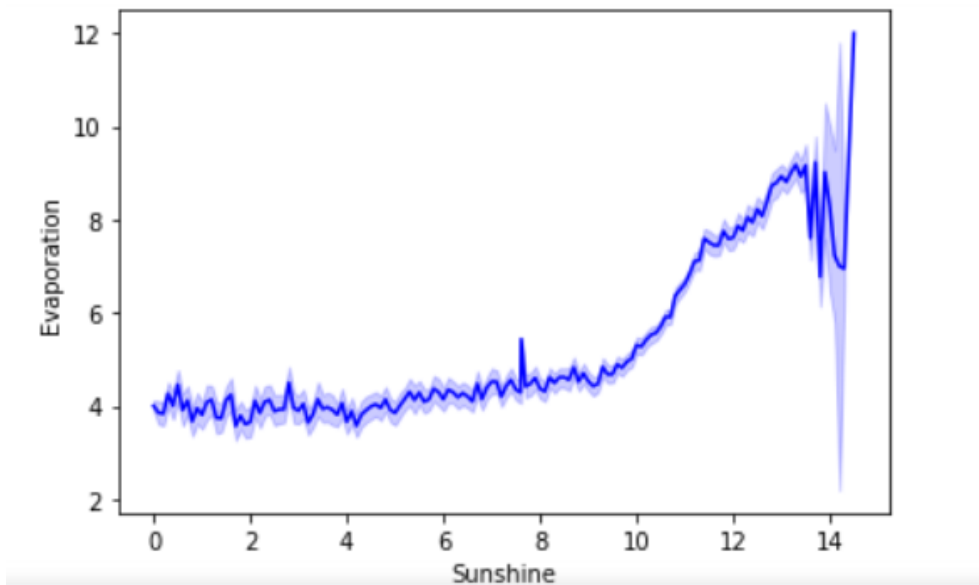
## Bivariate Analysis

- **Sunshine vs Rainfall**



The Sunshine feature is inversely proportional to the Rainfall feature.

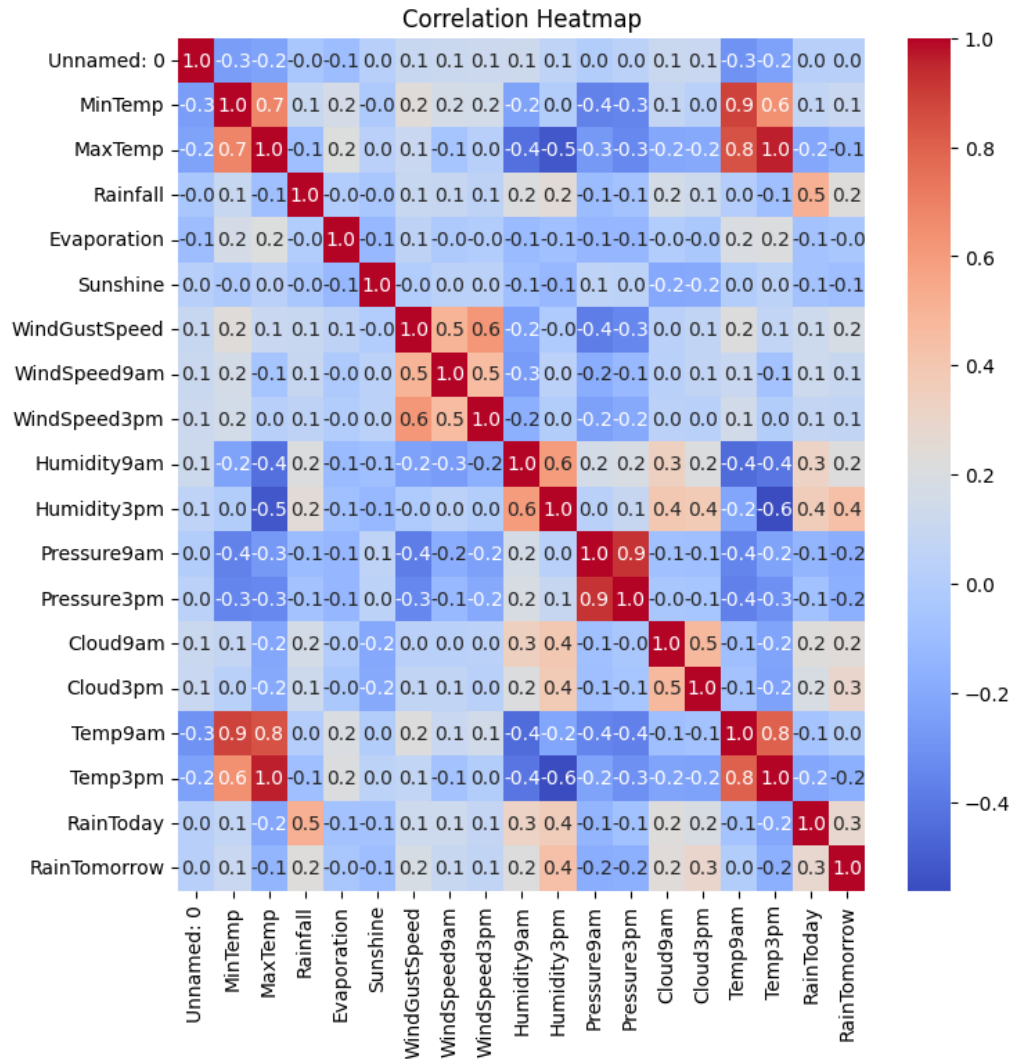
- **Sunshine vs evaporation**



Sunshine feature is proportional to the evaporation feature.

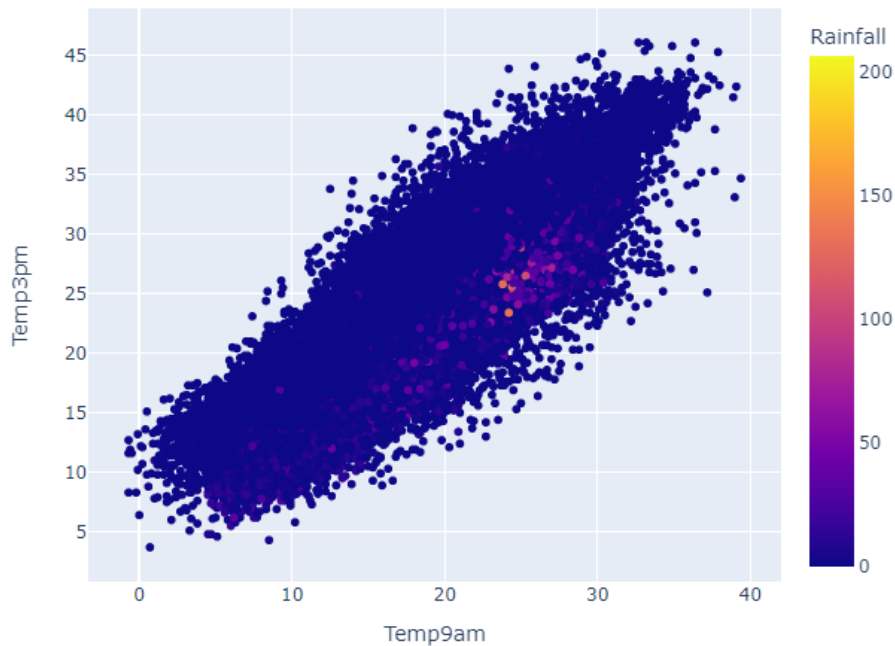
- **HeatMap**

The heatmap shows that the correlation is strongest for wind speeds between 10 and 20 mph. This is likely because these wind speeds are most common in association with warm weather.

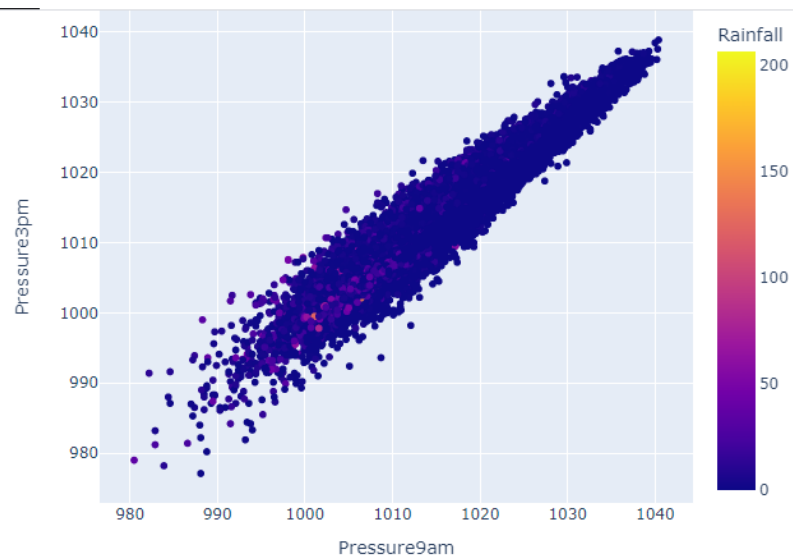


The value on box represents their correlation if the column of temp9am and windspeedat 3pm has value 0.1 means weak correlation.

- **Correlation between temp3pm and temp9am**

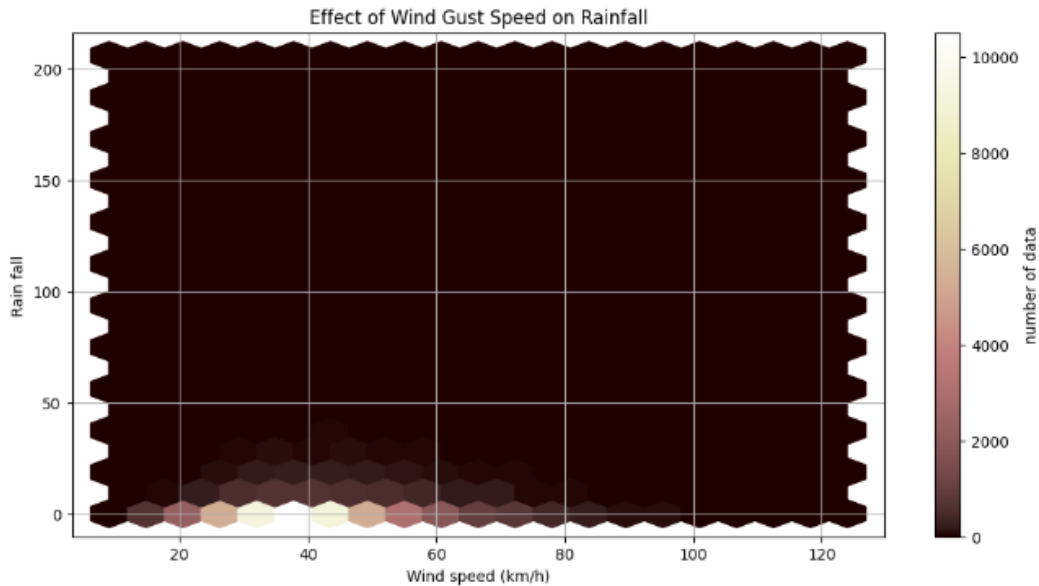


- 
- **Correlation between pressure3pm and pressure9am**



The overall trend of the graph is that rainfall increases as pressure decreases. Here are some specific observations from the graph: The highest rainfall values are associated with the lowest pressure values. There is a slight positive correlation between rainfall and pressure at 9am, but a stronger negative correlation at 3pm. This suggests that the relationship between rainfall and pressure is more pronounced in the afternoon.

- **Effect of GustyWind on Rainfall**



The graph shows a positive correlation between wind gust speed and rainfall. This means that as wind gust speed increases, rainfall tends to increase as well.

The graph shows that there is a large amount of variability in the data, but the overall trend is clear. The highest rainfall amounts are associated with wind gust speeds of 60-80 km/h. However, there is also a significant amount of rainfall at lower wind gust speeds, and even at some wind gust speeds above 100 km/h.

### Key Findings:

- The heatmap shows a strong positive correlation between temperature and wind speed. This means that as temperature increases, wind speed tends to increase as well. The correlation coefficient is 0.9, which is very strong. This suggests that there is a very close relationship between the two variables.
- The heatmap shows that the correlation is strongest for wind speeds between 10 and 20 mph. This is likely because these wind speeds are most common in association with warm weather.
- The correlation is also strong for higher wind speeds, but it becomes weaker at the very highest wind speeds. This is likely because very high wind speeds can be associated with other factors, such as thunderstorms, that can disrupt the relationship between temperature and wind speed.

Overall, the heatmap provides strong evidence that temperature and wind speed are closely correlated. This relationship is likely due to the fact that both variables are influenced by the same underlying meteorological conditions, such as the pressure gradient and the Coriolis force.

the relationship between temperature and wind speed is positive. This means that warmer temperatures are associated with stronger winds.