**Correlation Analysis**: The correlation of Humidity with other terms like, temperature, pressure

**Outlier Detection:** Detect unusually high or low humidity levels that might indicate abnormal weather conditions.

**Rainy or Extreme Weather:** Conditions like "rainy," "snowy," or "drizzle," related to water-related weather and like storms, hail, or severe weather phenomena

**Circular Patterns:** Instances where wind direction shifts significantly over a short period. And Major directions (e.g., North, South, East, West)

**Trend Analysis:** Frequency of specific weather conditions over time.

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**Clear Weather:** Descriptions like "clear sky" or "sunny," representing stable conditions.

**Urban Planning:** Assess wind direction and its impact on pollution dispersion in urban areas.

**Extreme Events**: Detect wind shifts associated with storms or tornadoes.

**Correlation Analysis**: The correlation of Pressure with other terms like, temperature, wind speed, direction

**Climate Change Analysis**: Analyze long-term temperature trends to assess the impact of global warming

**Pressure Variability**: Analyze daily or yearly pressure variability to understand climate stability.

**Anomalies**: Identifying pressure anomalies that may indicate extreme weather events like hurricanes.

**Seasonality**: Determine seasonal temperature variations and their effect on ecosystems..

**Top N Analysis**

: Identifying Countries with the Highest Number of Cities for Weather Insights

**Geographic Distribution Analysis:** City Coverage by Country for Weather Insights

**Heatwaves and Cold**: Identify and predict extreme temperature events for urban planning and disaster management.