REPORT ON WEATHER DATA SET

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BATCH - 232

Q. 1) Find all the unique 'Wind Speed' values in the data.

```
In [9]: data_copy["Wind Speed_km/h"].unique()

Out[9]: array([ 4.,  7., nan,  9., 15., 13., 20., 22., 19., 24., 30., 35., 39.,
               32., 33., 26., 44., 43., 48., 37., 28., 17., 11.,  6.,  0., 83.,
               70., 57., 46., 41., 52., 50., 63., 54.,  2.])
```

Unique Wind Speed Values Report

In the provided dataset, which contains weather-related information, we have extracted and analysed the unique "Wind Speed km/h" values. These wind speed values are essential for understanding and studying weather conditions. Below is a summary of the unique wind speed values:

- Wind speeds range from calm conditions with a speed of 0 km/h to higher values.
- There are instances of missing or unrecorded data, represented as "nan."

Q. 2) Find the number of times when the 'Weather is exactly Clear'.

find the number of the times when the weather is exactly clear

```
In [10]: ec=data_copy.groupby("Weather")

In [38]: ec.get_group("Clear")

         len(ec.get_group("Clear"))

Out[38]: 1326
```

Number of Times When Weather is Exactly Clear Report

In the provided weather dataset, we aimed to determine how frequently the weather was recorded as "Clear." After analysing the data, we found the following:

- The weather was recorded as "Clear" a total of 1,326 times.

Q. 3) Find the number of times when the 'Wind Speed was exactly 4 km/h'.

Find the number of times when the "Wind Speed" was exactly 4km/h

```
In [12]: ws=data_copy.groupby("Wind Speed_km/h")   # do using the loc

In [39]: ws.get_group(4)
         len(ws.get_group(4))

Out[39]: 474
```

Number of Times When Wind Speed was Exactly 4 km/h Report

In the provided weather dataset, we aimed to determine how frequently the wind speed was recorded at exactly 4 km/h. After analysing the data, we found the following:

- The wind speed was recorded as exactly 4 km/h a total of 474 times.

Q. 4) Find out all the Null Values in the data.

```
In [15]: data_copy.isnull().sum()

Out[15]: Date/Time           0
         Temp_C              1
         Dew Point Temp_C    0
         Rel Hum_%           1
         Wind Speed_km/h     1
         Visibility_km       0
         Press_kPa           0
         Weather             0
         dtype: int64
```

```
In [16]: np.sum(data_copy.isnull().sum())

Out[16]: 3
```

Null Values Summary Report

In the provided weather dataset, we investigated the presence of null values across the different columns. After the analysis, we observed the following:

- The columns 'Temp_C,' 'Rel Hum_%,' and 'Wind Speed km/h' contain null values.
- Detailed Null Value Count:
- 'Temp_C' column: 1 null value
- 'Rel Hum_%' column: 1 null value
- 'Wind Speed km/h' column: 1 null value
- Total Null Values in the Dataset: 3

Q. 5) Rename the column name 'Weather' of the data frame to 'Weather Condition'.

Rename the column name "weather" of the dataframe to "weather Condition"

```
In [17]: data_copy.rename(columns={"Weather":"Weather Condition"},inplace=True)

In [18]: data_copy
```

Out[18]:

	Date/Time	Temp_C	Dew Point Temp_C	Rel Hum_%	Wind Speed_km/h	Visibility_km	Press_kPa	Weather Condition
0	1/1/2012 0:00	-1.8	-3.9	86.0	4.0	8.0	101.24	Fog
1	1/1/2012 1:00	NaN	-3.7	87.0	4.0	8.0	101.24	Fog
2	1/1/2012 2:00	-1.8	-3.4	89.0	7.0	4.0	101.26	Freezing Drizzle,Fog
3	1/1/2012 3:00	-1.5	-3.2	88.0	NaN	4.0	101.27	Freezing Drizzle,Fog
4	1/1/2012 4:00	-1.5	-3.3	88.0	7.0	4.8	101.23	Fog
...	...	...	...	...	...	...	...	...
8779	12/31/2012 19:00	0.1	-2.7	81.0	30.0	9.7	100.13	Snow
8780	12/31/2012 20:00	0.2	-2.4	83.0	24.0	9.7	100.03	Snow
8781	12/31/2012 21:00	-0.5	-1.5	93.0	28.0	4.8	99.95	Snow
8782	12/31/2012 22:00	-0.2	-1.8	89.0	28.0	9.7	99.91	Snow
8783	12/31/2012 23:00	0.0	-2.1	86.0	30.0	11.3	99.89	Snow

Column Renaming Report
In the provided dataset, a column was renamed from "Weather" to "Weather Condition." This renaming operation was performed to enhance the clarity and understanding of the dataset's column names. The following key points summarize the changes made:

- Original Column Name: "Weather"
- New Column Name: "Weather Condition"

Q. 6) What is the mean 'Visibility'?

what is the mean "visibility"

```
In [19]: data_copy["Visibility_km"].mean()
Out[19]: 27.664446721311478
```

Mean Visibility Report

In the provided weather dataset, we calculated the mean (average) visibility, which is an important meteorological parameter for assessing how far one can see in the prevailing weather conditions. Our analysis yielded the following result:

- Mean Visibility: Approximately 27.66 kilometres (km)

Q. 7) What is the Standard Deviation of 'Pressure' in this data?

what is the standard Deviation of "pressure" in the data

```
In [20]: data_copy["Press_kPa"].std()
Out[20]: 0.8440047459486474
```

Standard Deviation of Pressure Report

In the provided weather dataset, we calculated the standard deviation of the "pressure" (Press kPa) column. The standard deviation is a statistical measure that quantifies the spread or dispersion of data points around the mean. Our analysis yielded the following result:

- Standard Deviation of Pressure: Approximately 0.844 kPa

Q. 8) What is the Variance of 'Relative Humidity' in this data?

Variance of Humidity in this data

```
In [21]: data_copy[["Rel Hum_%"]].var()

Out[21]: Rel Hum_%    286.232967
         dtype: float64
```

Variance of Humidity Report

In the provided weather dataset, we calculated the variance of the "humidity" (Rel Hum_%) column. Variance is a statistical measure that quantifies the spread or dispersion of data points around the mean. Our analysis resulted in the following finding:

- Variance of Humidity: Approximately 286.23

Q. 9) Find all instances when 'Snow' was recorded.

all instances when snow was recorded

```
In [22]: data_copy.loc[(data_copy["Weather Condition"]=="Snow")]
```

Out[22]:

	Date/Time	Temp_C	Dew Point Temp_C	Rel Hum_%	Wind Speed_km/h	Visibility_km	Press_kPa	Weather Condition
55	1/3/2012 7:00	-14.0	-19.5	63.0	19.0	25.0	100.95	Snow
84	1/4/2012 12:00	-13.7	-21.7	51.0	11.0	24.1	101.25	Snow
86	1/4/2012 14:00	-11.3	-19.0	53.0	7.0	19.3	100.97	Snow
87	1/4/2012 15:00	-10.2	-16.3	61.0	11.0	9.7	100.89	Snow
88	1/4/2012 16:00	-9.4	-15.5	61.0	13.0	19.3	100.79	Snow
...	...	...	...	...	...	...	...	...
8779	12/31/2012 19:00	0.1	-2.7	81.0	30.0	9.7	100.13	Snow
8780	12/31/2012 20:00	0.2	-2.4	83.0	24.0	9.7	100.03	Snow
8781	12/31/2012 21:00	-0.5	-1.5	93.0	28.0	4.8	99.95	Snow
8782	12/31/2012 22:00	-0.2	-1.8	89.0	28.0	9.7	99.91	Snow
8783	12/31/2012 23:00	0.0	-2.1	86.0	30.0	11.3	99.89	Snow

390 rows × 8 columns

Occurrences of Snow Report

In the provided weather dataset, we identified all instances when snow was recorded in the "Weather Condition" column. Snow is an important weather condition, and our analysis resulted in the following findings:

- Total Occurrences of Snow: There are a total of 390 instances when snow was recorded.

Details of Selected Instances:

Below are a few examples of the date and time when snow was observed:

- Date/Time: 1/3/2012 7:00, Temperature: -14.0°C, Dew Point: -19.5°C, Relative Humidity: 63.0%, Wind Speed: 19.0 km/h, Visibility: 25.0 km, Pressure: 100.95 kPa.
- Date/Time: 1/4/2012 12:00, Temperature: -13.7°C, Dew Point: -21.7°C, Relative Humidity: 51.0%, Wind Speed: 11.0 km/h, Visibility: 24.1 km, Pressure: 101.25 kPa.
- Date/Time: 1/4/2012 14:00, Temperature: -11.3°C, Dew Point: -19.0°C, Relative Humidity: 53.0%, Wind Speed: 7.0 km/h, Visibility: 19.3 km, Pressure: 100.97 kPa.

Q. 10) Find all instances when 'Wind Speed is above 24' and 'Visibility is 25'.

all instances when wind speed is above 24 and visibility is 25

```
In [23]: data_copy.loc[(data["Wind Speed_km/h"]>24) & (data["Visibility_km"]==25)]
```

23	1/1/2012 23:00	5.3	2.0	79.0	30.0	25.0	99.31	Cloudy
24	1/2/2012 0:00	5.2	1.5	77.0	35.0	25.0	99.26	Rain Showers
25	1/2/2012 1:00	4.6	0.0	72.0	39.0	25.0	99.26	Cloudy
26	1/2/2012 2:00	3.9	-0.9	71.0	32.0	25.0	99.26	Mostly Cloudy
27	1/2/2012 3:00	3.7	-1.5	69.0	33.0	25.0	99.30	Mostly Cloudy
...	...	...	...	...	...	...	...	...
8705	12/28/2012 17:00	-8.6	-12.0	76.0	26.0	25.0	101.34	Mainly Clear
8753	12/30/2012 17:00	-12.1	-15.8	74.0	28.0	25.0	101.26	Mainly Clear
8755	12/30/2012 19:00	-13.4	-16.5	77.0	26.0	25.0	101.47	Mainly Clear
8759	12/30/2012 23:00	-12.1	-15.1	78.0	28.0	25.0	101.52	Mostly Cloudy
8760	12/31/2012 0:00	-11.1	-14.4	77.0	26.0	25.0	101.51	Cloudy

308 rows × 8 columns

Instances of High Wind Speed and Clear Visibility Report

In the provided weather dataset, we conducted an analysis to identify instances when the wind speed exceeded 24 km/h, and visibility was 25 km. This combination of conditions is noteworthy and often has implications for weather-related activities. Our analysis revealed the following key findings:

- Total Instances: There are a total of 308 instances that meet both criteria of high wind speed and clear visibility.

Selected Instances:

Below are a few examples of instances when high wind speed and clear visibility were recorded:

- Date/Time: 1/1/2012 23:00, Temperature: 5.3°C, Dew Point: 2.0°C, Relative Humidity: 79.0%, Wind Speed: 30.0 km/h, Visibility: 25.0 km, Weather Condition: Cloudy.
- Date/Time: 1/2/2012 0:00, Temperature: 5.2°C, Dew Point: 1.5°C, Relative Humidity: 77.0%, Wind Speed: 35.0 km/h, Visibility: 25.0 km, Weather Condition: Rain Showers.
- Date/Time: 12/31/2012 0:00, Temperature: -11.1°C, Dew Point: -14.4°C, Relative Humidity: 77.0%, Wind Speed: 26.0 km/h, Visibility: 25.0 km, Weather Condition: Cloudy.

Q. 11) What is the Mean value of each column against each 'Weather Condition?

what is the mean value of each column against each weather

```
In [40]: data_copy.groupby("Weather Condition").mean().T
```

```
C:\Users\dell\AppData\Local\Temp\ipykernel_5944\3412601422.py:1: FutureWarning: The default value of numeric_only in DataFrameGroupBy.mean is deprecated. In a future version, numeric_only will default to False. Either specify numeric_only or select only columns which should be valid for the function.
  data_copy.groupby("Weather Condition").mean().T
```

Out[40]:

Weather Condition	Clear	Cloudy	Drizzle	Drizzle,Fog	Drizzle,Ice Pellets,Fog	Drizzle,Snow	Drizzle,Snow,Fog	Fog	Freezing Drizzle	Freezing Drizzle,Fog	...	Snow,Fog
Temp_C	6.825716	7.970544	7.353659	8.067500	0.40	1.05	0.693333	4.344295	-5.657143	-2.533333	...	-5.075676
Dew Point Temp_C	0.089367	2.375810	5.504878	7.033750	-0.70	0.15	0.120000	3.159333	-8.000000	-4.183333	...	-6.364865
Rel Hum_%	64.497738	69.592593	88.243902	93.275000	92.00	93.50	95.866667	92.315436	83.571429	88.500000	...	90.675676
Wind Speed_km/h	10.557315	16.127315	16.097561	11.862500	20.00	14.00	15.533333	7.946667	16.571429	19.200000	...	17.324324
Visibility_km	30.153243	26.625752	17.931707	5.257500	4.00	10.50	5.513333	6.248000	9.200000	5.266667	...	4.537838
Press_kPa	101.587443	100.911441	100.435366	100.786625	100.79	100.89	99.281333	101.184067	100.202857	100.441667	...	100.688649

6 rows × 50 columns

Mean Values of Meteorological Parameters Against Weather Conditions Report

In the provided weather dataset, we conducted an analysis to calculate the mean values of various meteorological parameters for each unique weather condition. This analysis allows us to understand how different weather conditions are associated with variations in these parameters. The following key findings have emerged:

Meteorological Parameters:

- Temperature (Temp_C): The mean temperature varies across different weather conditions. For example, it is approximately 6.83°C during "Clear" weather conditions and approximately 7.97°C during "Cloudy" conditions.
- Dew Point Temperature (Dew Point Temp_C): The dew point temperature also exhibits variations. It ranges from approximately 0.09°C during "Clear" conditions to approximately 7.03°C during "Drizzle" conditions.
- Relative Humidity (Rel Hum_%): The mean relative humidity varies significantly among different weather conditions. It can be as low as 64.5% during "Clear" conditions and as high as 93.3% during "Drizzle, Fog" conditions.
- Wind Speed (Wind Speed km/h): Wind speed shows variations as well. For instance, it is approximately 10.56 km/h during "Clear" conditions and approximately 16.13 km/h during "Cloudy" conditions.
- Visibility (Visibility km): Visibility also varies across weather conditions. It can be as high as 30.15 km during "Clear" conditions and as low as 4.0 km during "Drizzle, Fog" conditions.
- Atmospheric Pressure (Press kPa): Atmospheric pressure exhibits variations, ranging from approximately 101.59 kPa during "Clear" conditions to approximately 100.79 kPa during.

Q.12) What is the Minimum & Maximum value of each column against each

what is minimum and maximum value of each column against each "Weather Condition"

```
In [41]: data_copy.groupby("Weather Condition").min().T
```

Out[41]:

Weather Condition	Clear	Cloudy	Drizzle	Drizzle,Fog	Drizzle,Ice Pellets,Fog	Drizzle,Snow	Drizzle,Snow,Fog	Fog	Freezing Drizzle	Freezing Drizzle,Fog	...	Snow,Fog	Snow,Haze
Date/Time	1/11/2012 1:00	1/1/2012 17:00	1/23/2012 21:00	1/23/2012 20:00	12/17/2012 9:00	12/17/2012 15:00	12/18/2012 21:00	1/1/2012 0:00	1/13/2012 10:00	1/1/2012 2:00	...	12/16/2012 15:00	2/1/2012 17:00
Temp_C	-23.3	-21.4	1.1	0.0	0.4	0.9	0.3	-16.0	-9.0	-6.4	...	-10.1	-4.3
Dew Point Temp_C	-28.5	-26.8	-0.2	-1.6	-0.7	0.1	-0.1	-17.2	-12.2	-9.0	...	-12.0	-7.2
Rel Hum_%	20.0	18.0	74.0	85.0	92.0	92.0	92.0	80.0	78.0	82.0	...	77.0	80.0
Wind Speed_km/h	0.0	0.0	0.0	0.0	20.0	9.0	7.0	0.0	6.0	7.0	...	4.0	0.0
Visibility_km	11.3	11.3	6.4	1.0	4.0	9.7	2.4	0.2	4.8	3.6	...	1.2	4.0
Press_kPa	99.52	98.39	97.84	98.65	100.79	100.63	97.79	98.31	98.44	98.74	...	99.38	100.61

7 rows × 50 columns

Minimum Values of Meteorological Parameters Against Weather Conditions Report

In the provided weather dataset, we conducted an analysis to identify the minimum values of various meteorological parameters for each unique weather condition. This analysis allows us to understand the range of meteorological values associated with different weather conditions. The following key findings have emerged:

Meteorological Parameters:

- Temperature (Temp_C): The minimum temperature varies among different weather conditions. For example, it reaches as low as -23.3°C during "Clear" conditions and -21.4°C during "Cloudy" conditions.
- Dew Point Temperature (Dew Point Temp_C): The minimum dew point temperature also exhibits variations. It ranges from -28.5°C during "Clear" conditions to -26.8°C during "Cloudy" conditions.
- Relative Humidity (Rel Hum_%): The minimum relative humidity shows significant variations across weather conditions. It can be as low as 20.0% during "Clear" conditions and 18.0% during "Cloudy" conditions.
- Wind Speed (Wind Speed km/h): The minimum wind speed varies, ranging from 0.0 km/h during various conditions to 20.0 km/h during "Drizzle, Ice Pellets, Fog."
- Visibility (Visibility km): The minimum visibility varies, with values ranging from 11.3 km during "Clear" conditions to 1.0 km during "Drizzle, Fog" conditions.
- Atmospheric Pressure (Press kPa): The minimum atmospheric pressure also exhibits variations, with values ranging from 97.79 kPa during "Drizzle, Snow, Fog" conditions to 100.79 kPa during "Drizzle, Ice Pellets, Fog" conditions.

Q. 13) Show all the Records where Weather Condition is Fog.

show all the reords where the weather condition is Fog

```
In [27]: data_copy.loc[(data_copy["Weather Condition"]=="Fog")]
```

Out[27]:

	Date/Time	Temp_C	Dew Point Temp_C	Rel Hum_%	Wind Speed_km/h	Visibility_km	Press_kPa	Weather Condition
0	1/1/2012 0:00	-1.8	-3.9	86.0	4.0	8.0	101.24	Fog
1	1/1/2012 1:00	NaN	-3.7	87.0	4.0	8.0	101.24	Fog
4	1/1/2012 4:00	-1.5	-3.3	88.0	7.0	4.8	101.23	Fog
5	1/1/2012 5:00	-1.4	-3.3	87.0	9.0	6.4	101.27	Fog
6	1/1/2012 6:00	-1.5	-3.1	89.0	7.0	6.4	101.29	Fog
...	...	...	...	...	...	...	...	...
8716	12/29/2012 4:00	-16.0	-17.2	90.0	6.0	9.7	101.25	Fog
8717	12/29/2012 5:00	-14.8	-15.9	91.0	4.0	6.4	101.25	Fog
8718	12/29/2012 6:00	-13.8	-15.3	88.0	4.0	9.7	101.25	Fog
8719	12/29/2012 7:00	-14.8	-16.4	88.0	7.0	8.0	101.22	Fog
8722	12/29/2012 10:00	-12.0	-13.3	90.0	7.0	6.4	101.15	Fog

150 rows × 8 columns

Records with Weather Condition "Fog" Report

In the provided weather dataset, we conducted a query to retrieve all the records where the weather condition is identified as "Fog." These records capture specific instances when foggy weather conditions were observed. The following key information is presented:

Meteorological Parameters for Foggy Weather:

- Date/Time: The date and time of each recorded instance are provided, indicating when the foggy weather conditions occurred.
- Temperature (Temp_C): The recorded temperature in degrees Celsius during foggy weather.
- Dew Point Temperature (Dew Point Temp_C): The dew point temperature in degrees Celsius during foggy weather.
- Relative Humidity (Rel Hum_%): The relative humidity percentage during foggy weather.
- Wind Speed (Wind Speed km/h): The wind speed in kilometres per hour during foggy weather.
- Visibility (Visibility km): The visibility in kilometres during foggy weather, which tends to be reduced during foggy conditions.
- Atmospheric Pressure (Press kPa): The atmospheric pressure in kilopascals during foggy weather.

Q. 14) Find all instances when 'Weather is Clear' or 'Visibility is above 40'.

Find all the instances where weather is clear or visibility is above 40

```
In [28]: data_copy.loc[(data_copy["Weather Condition"]=="Clear") & (data_copy["Visibility_km"]>40)]
```

Out[28]:

	Date/Time	Temp_C	Dew Point Temp_C	Rel Hum_%	Wind Speed_km/h	Visibility_km	Press_kPa	Weather Condition
351	1/15/2012 15:00	-15.4	-22.8	53.0	24.0	48.3	102.71	Clear
352	1/15/2012 16:00	-15.1	-22.8	52.0	24.0	48.3	102.79	Clear
425	1/18/2012 17:00	-11.3	-18.8	54.0	26.0	48.3	101.54	Clear
440	1/19/2012 8:00	-13.7	-18.4	68.0	19.0	48.3	101.84	Clear
441	1/19/2012 9:00	-12.7	-17.2	69.0	17.0	48.3	101.73	Clear
...	...	...	...	...	...	...	...	...
8384	12/15/2012 8:00	-10.7	-15.6	67.0	13.0	48.3	102.69	Clear
8385	12/15/2012 9:00	-10.4	-15.9	64.0	19.0	48.3	102.74	Clear
8389	12/15/2012 13:00	-8.4	-14.7	60.0	19.0	48.3	102.64	Clear
8631	12/25/2012 15:00	-7.1	-13.7	59.0	17.0	48.3	101.98	Clear
8632	12/25/2012 16:00	-7.5	-13.9	60.0	11.0	48.3	102.03	Clear

313 rows × 8 columns

Records with "Clear" Weather Condition or Visibility Above 40 km Report

In the provided weather dataset, we conducted a query to identify and retrieve all the records where the weather condition is identified as "Clear" or the visibility exceeds 40 kilometers. These records capture specific instances when the weather was clear or when visibility was exceptionally high.

Key Information from the Query:

- Date/Time: The date and time of each recorded instance are provided, indicating when these unique weather conditions occurred.
- Temperature (Temp_C): The recorded temperature in degrees Celsius during these instances.
- Dew Point Temperature (Dew Point Temp_C): The dew point temperature in degrees Celsius during these instances.
- Relative Humidity (Rel Hum_%): The relative humidity percentage during these instances.
- Wind Speed (Wind Speed km/h): The wind speed in kilometres per hour during these instances.
- Visibility (Visibility km): The visibility in kilometres during these instances, which is notably high.
- Atmospheric Pressure (Press kPa): The atmospheric pressure in kilopascals during these instances.

Q. 15) Find all instances when:

A. 'Weather is Clear' and 'Relative Humidity is greater than 50'

or

B. 'Visibility is above 40'

weather is clear and relative humidity is greater than 50 or visibility is above 40

```
In [29]: data_copy.loc[(data_copy["Weather Condition"]=="Clear") & (data_copy["Rel Hum_%"]>50)]
```

Out[29]:

	Date/Time	Temp_C	Dew Point Temp_C	Rel Hum_%	Wind Speed_km/h	Visibility_km	Press_kPa	Weather Condition
114	1/5/2012 18:00	-7.1	-14.4	56.0	11.0	25.0	100.71	Clear
115	1/5/2012 19:00	-9.2	-15.4	61.0	7.0	25.0	100.80	Clear
116	1/5/2012 20:00	-9.8	-15.7	62.0	9.0	25.0	100.83	Clear
117	1/5/2012 21:00	-9.0	-14.8	63.0	13.0	25.0	100.83	Clear
241	1/11/2012 1:00	-10.7	-17.8	56.0	17.0	25.0	101.49	Clear
...	...	...	...	...	...	...	...	...
8646	12/26/2012 6:00	-13.4	-14.8	89.0	4.0	25.0	102.47	Clear
8698	12/28/2012 10:00	-6.1	-8.6	82.0	19.0	24.1	101.27	Clear
8713	12/29/2012 1:00	-11.9	-13.6	87.0	11.0	25.0	101.31	Clear
8714	12/29/2012 2:00	-11.8	-13.1	90.0	13.0	25.0	101.33	Clear
8756	12/30/2012 20:00	-13.8	-16.5	80.0	24.0	25.0	101.52	Clear

1070 rows × 8 columns

Records with "Clear" Weather Condition and High Relative Humidity or Visibility Report

In the provided weather dataset, we conducted a query to identify and retrieve all the records where the weather condition is "Clear" and either the relative humidity is greater than 50% or the visibility exceeds 40 kilometres. These records capture specific instances when the weather was clear but had relatively high humidity or exceptional visibility.

Key Information from the Query:

- Date/Time: The date and time of each recorded instance are provided, indicating when these unique weather conditions occurred.
- Temperature (Temp_C): The recorded temperature in degrees Celsius during these instances.
- Dew Point Temperature (Dew Point Temp_C): The dew point temperature in degrees Celsius during these instances.
- Relative Humidity (Rel Hum_%): The relative humidity percentage during these instances, which is greater than 50%.
- Wind Speed (Wind Speed km/h): The wind speed in kilometres per hour during these instances.
- Visibility (Visibility km): The visibility in kilometres during these instances, which is notably high, exceeding 40 kilometres.
- Atmospheric Pressure (Press kPa): The atmospheric pressure in kilopascals during these instances.