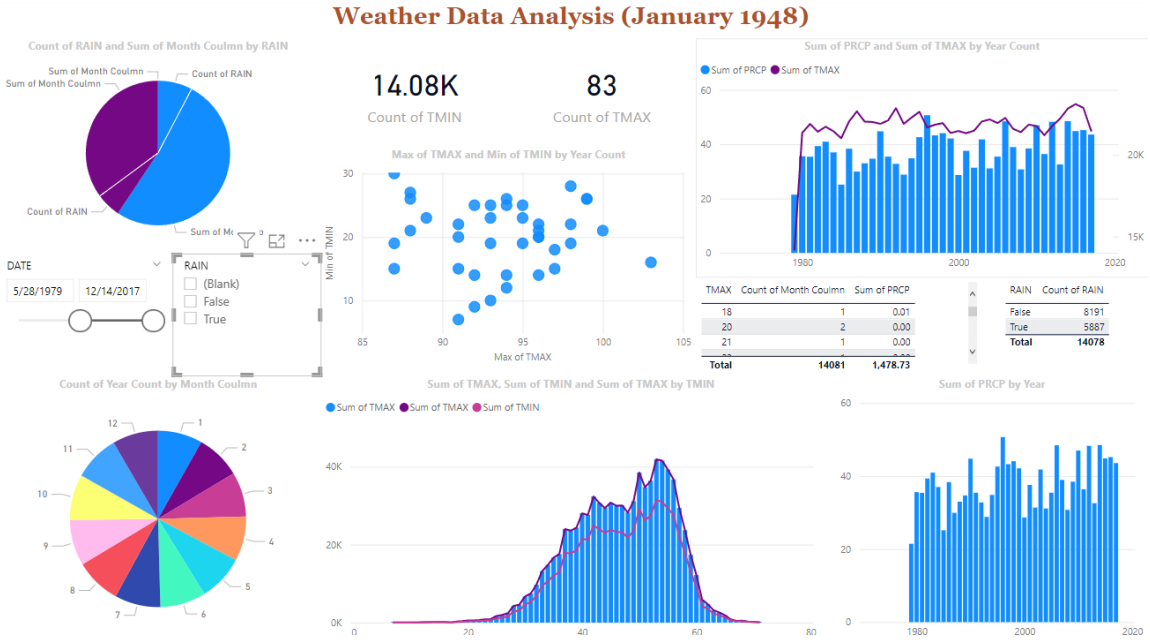
Weather Data Analysis (January 1948)

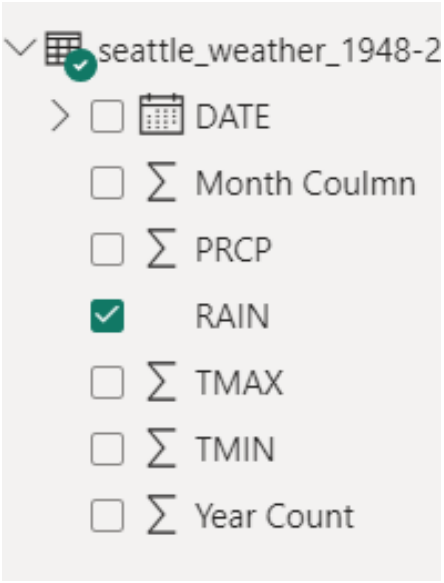
Overview

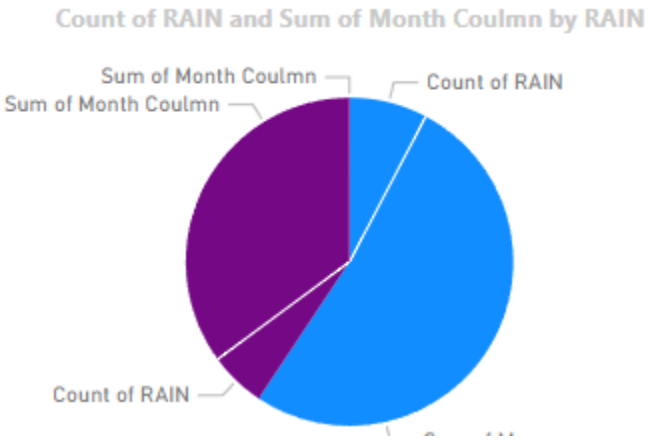
The Weather Data Analysis (January 1948) project in Power BI visualizes and analyzes historical weather data from January 1948 to December 2017. The dashboard includes various visualizations to display temperature (TMAX, TMIN), precipitation (PRCP), and rain data over time.



Visualizations and Insights

1. Pie Charts:
   - Count of RAIN and Sum of Month Column by RAIN: Displays the distribution of rainy and non-rainy months.
   - Count of Year Count by Month Column: Represents the count of weather data records for each month.





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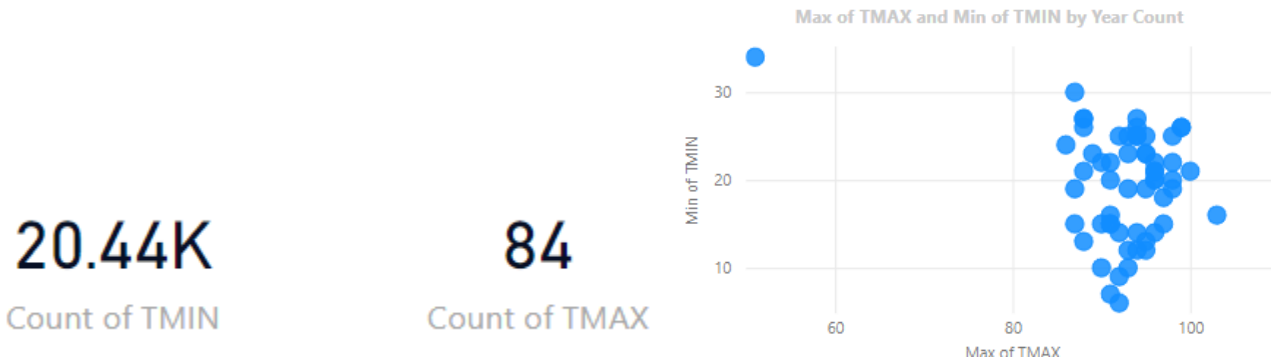
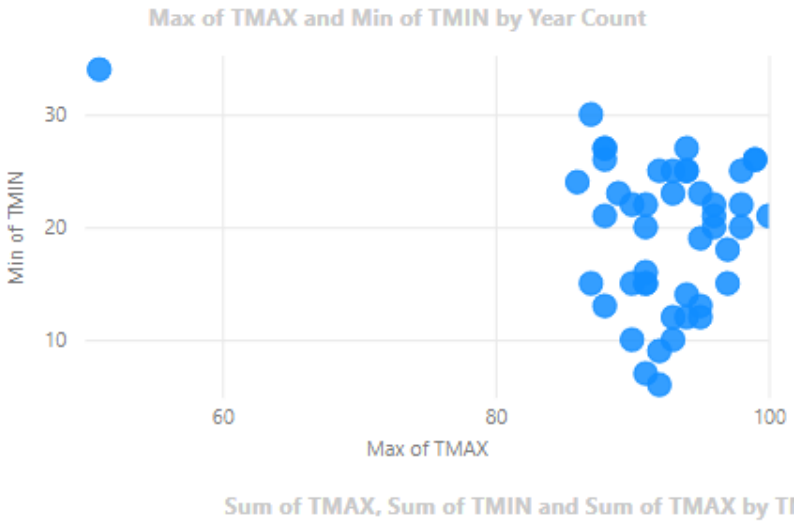
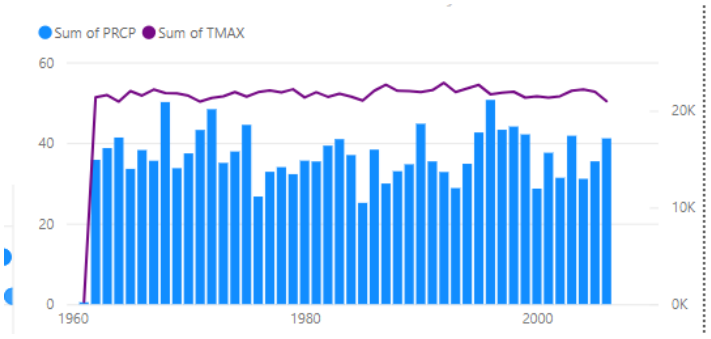
2. Summary Metrics:
- Count of TMIN: Total count of minimum temperature records (14.08K).
- Count of TMAX: Total count of maximum temperature records (83).



3. Scatter Plot:
- Max of TMAX and Min of TMIN by Year Count: Shows the relationship between the maximum and minimum temperatures recorded over the years.



4. Bar Charts:
- Sum of PRCP and Sum of TMAX by Year Count: Illustrates the annual precipitation and maximum temperature sums over the years.
- Sum of PRCP by Year: Highlights the annual sum of precipitation from 1979 to 2017.



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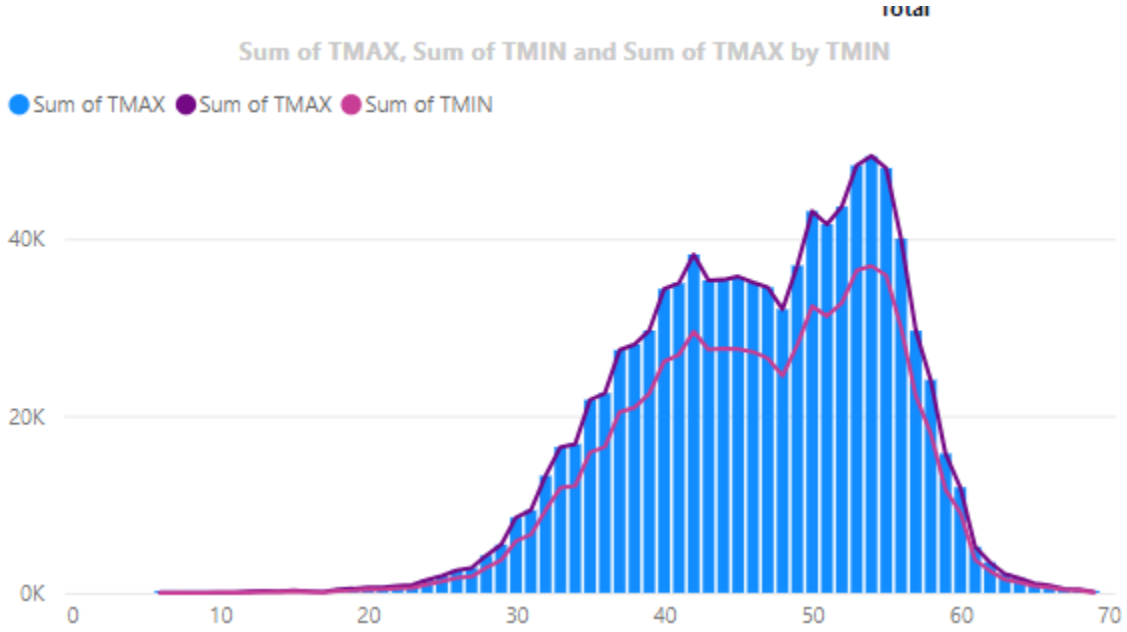
5. Line and Area Chart:

- Sum of TMAX, Sum of TMIN, and Sum of TMAX by TMIN: Depicts the trends and distribution of maximum and minimum temperatures.



6. Table:

- Summary Table: Provides a tabular view of TMAX, monthly counts, and sum of precipitation (PRCP).

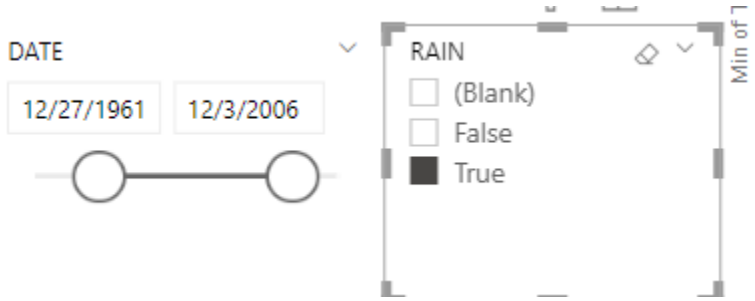
TMAX	Count of Month Coulmn	Sum of PRCP
17	1	0.00
18	2	0.16
20	3	0.00
Total	**16413**	**1,675.33**

RAIN	Count of RAIN
False	9614
True	6796
Total	**16410**

Filters

Date Filter: Allows users to select a date range from 5/28/1979 to 12/14/2017 to filter the visualizations.

RAIN Filter: Enables filtering of data based on whether it rained or not.



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How to Use

1. Date Selection: Use the date range slider to filter data within a specific period.
2. Rain Data: Toggle the RAIN filter to view data based on rainy and non-rainy months.
3. Interactive Charts: Hover over the charts to see detailed information and data points.

Conclusion

The Weather Data Analysis project provides comprehensive insights into historical weather patterns, including temperature extremes and precipitation trends. This Power BI dashboard can be used for further weather analysis and decision-making processes.

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