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Power BI

Basic to Advanced

Part - 5

AGENDA

- Waterfall chart
- Funnel chart
- Gauge chart
- Map chart
- Filled Map chart
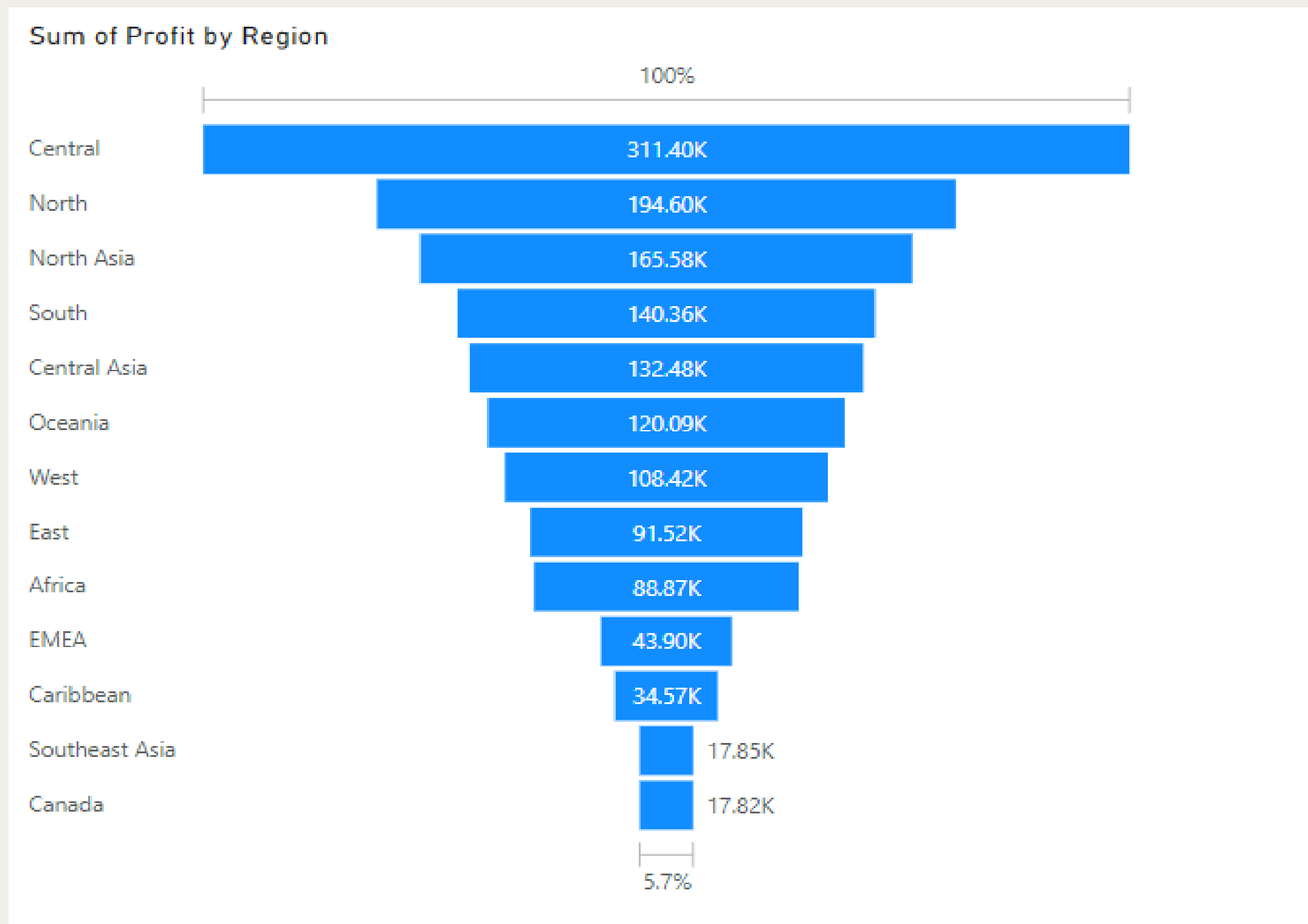- Treemap chart
- Ribbon chart

WATERFALL CHART

- A waterfall chart is a data visualization tool illustrating the cumulative effect of sequentially introduced positive or negative values.
- It is often used to show how an initial value is affected by a series of intermediate positive or negative values, leading to a final cumulative result.
- The waterfall chart is useful in visualizing how a starting value evolves over time or through different factors.
- They help highlight the contributions of various factors to the outcome. It is easy to identify trends and spot anomalies using a waterfall chart.
- It is commonly employed to analyze financial data, budget variations, or any scenario involving incremental changes.

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Total Sales Variance by Fiscal Month
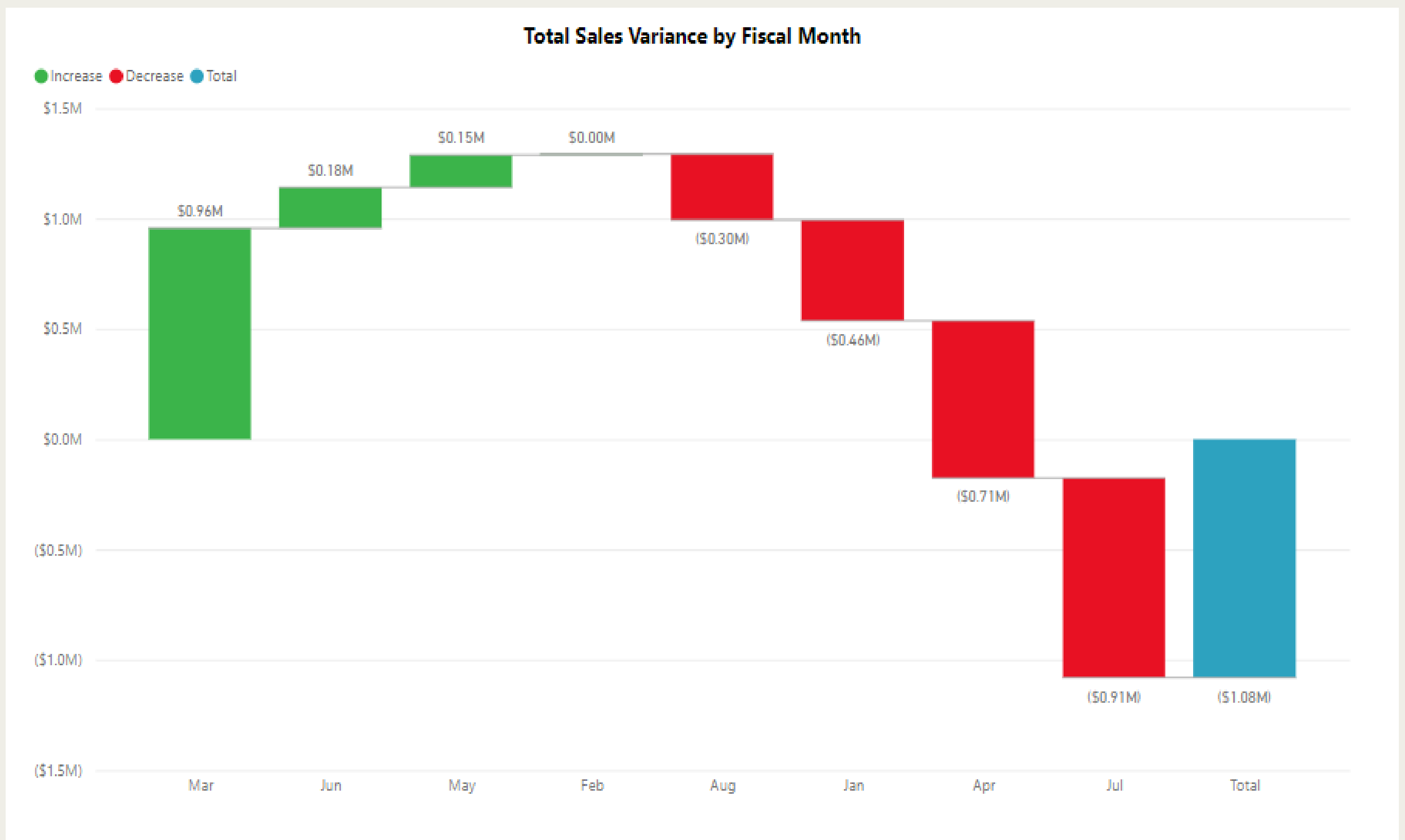
- In the chart, the sales variance across different fiscal months is plotted using a waterfall chart.
- Positive values are plotted by green bars and negative values by red bars. The blue bar indicates the cumulative total at the end of the period.
- It is useful in visualizing how a starting value evolves over time or through different factors.
- They help highlight the contributions of different months to the total.

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FUNNEL CHART

- A funnel chart represents the sequence of stages in a process where data is presented in a progressively decreasing manner like a funnel.
- Each segment of the funnel represents a stage, and the width of each segment corresponds to the quantity or value at that stage.
- It is useful in presenting a sequential process with stages that involve a reduction in quantity or value from one stage to the next.
- It's effective for visualizing conversion rates, sales pipelines, or any process with a series of steps.

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Sum of Profit by Region

Region	Profit
Central	311.40K
North	194.60K
North Asia	165.58K
South	140.36K
Central Asia	132.48K
Oceania	120.09K
West	108.42K
East	91.52K
Africa	88.87K
EMEA	43.90K
Caribbean	34.57K
Southeast Asia	17.85K
Canada	17.82K

100%

5.7%

- In the chart, the profit across different regions is plotted.
- Funnel charts are useful in presenting a sequential process with stages that involve a reduction in quantity or value from one stage to the next.
- They are more suitable for plotting sales and marketing conversion rates.
- They are also suitable for plotting the stages in the lead generation to lead conversion and website analytics etc.

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GAUGE CHART

- A Gauge Chart is a type of data visualization used in Power BI that resembles a speedometer or gauge found on instruments like car dashboards.
- It typically consists of a circular or semi-circular dial with a needle or pointer indicating a value on a scale.
- The gauge chart is used to display a single value within a specific range and provides a visual representation of how that value compares to predefined thresholds or targets.
- They are ideal for highlighting a single KPI or metric. They allow you to compare the value against predefined thresholds or targets.
- Users can quickly assess whether the value is within an acceptable range, above a target, or below a threshold.

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Sum of Profit, Gauge Max Value and Gauge Target

9M

$16.89M

$0.00M

20M
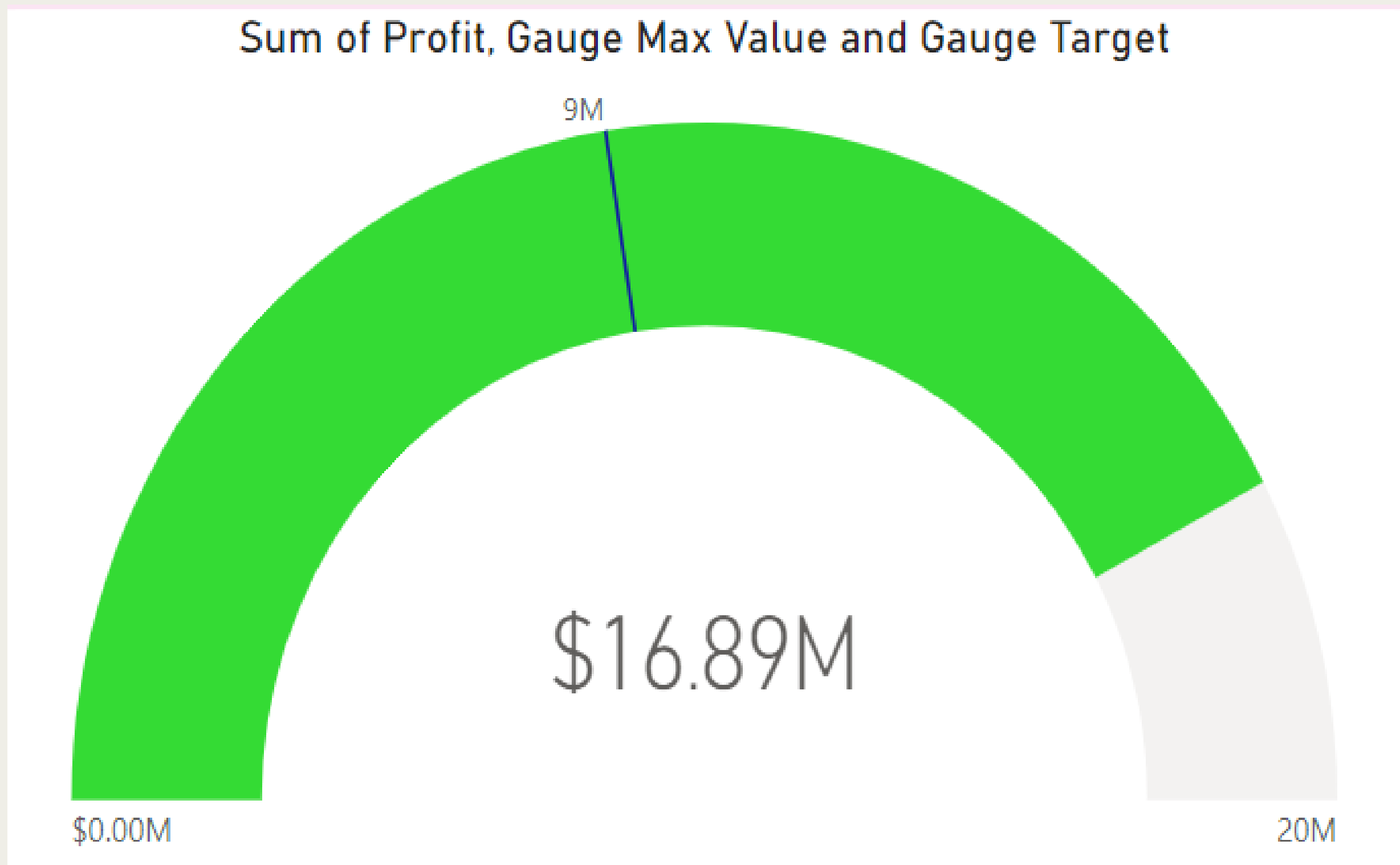
- Gauge charts are used for highlighting a single KPI or metric. They allow you to compare the value against predefined thresholds or targets to assess whether the value is within an acceptable range, above a target, or below a threshold.
- In the chart, the profit is plotted with a target value of 9 million. Since the profit is more than the target value, the gauge target is achieved.
- We can set the gauge maximum and minimum values and gauge target using the measure.

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MAP CHART

- A map chart in Power BI is a visual representation that displays data geographically on a map.
- It allows users to visualize and analyze data based on location, making it particularly useful for displaying regional variations, distribution patterns, or spatial relationships.
- Power BI's map chart can represent data using various map layers such as points, shapes, or choropleths.
- Map charts in Power BI are interactive. Users can zoom in/out, pan across the map, and drill down into specific regions for more detailed insights.
- Can further enhance the map chart by adding additional data fields such as size, color, or tooltips.

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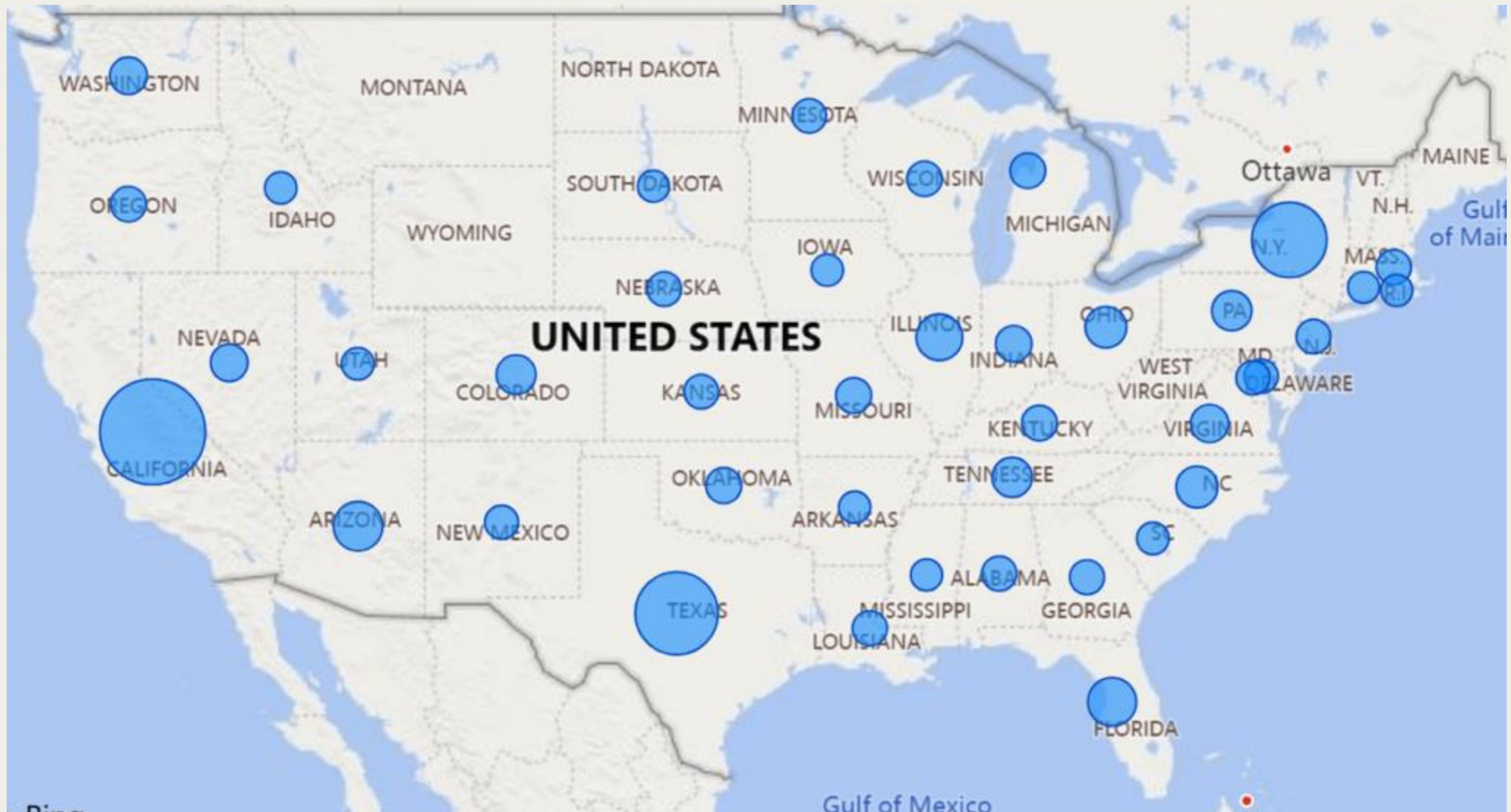
- In the map chart, sales in different states of the USA are plotted.
- The size of the bubbles represents the amount of sales.
- Power BI can recognize location data types, such as city, state, country, latitude, longitude, etc., and automatically generate maps.
- We can also use color and tooltips to provide additional information,

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FILLED MAP CHART

- A Filled Map chart in Power BI is a type of data visualization that displays geographical data using filled regions or shapes on a map.
- Each region or shape is color-coded based on a numeric value, allowing you to visualize data patterns and variations across different geographic areas.
- The filled map is effective for visualizing spatial patterns, regional variations, or distribution trends in the data.
- Filled maps are particularly useful for visualizing aggregated data at regional levels, such as sales performance by country or population density by state.
- They provide a clear and intuitive way to understand geographical distributions and patterns within your dataset.

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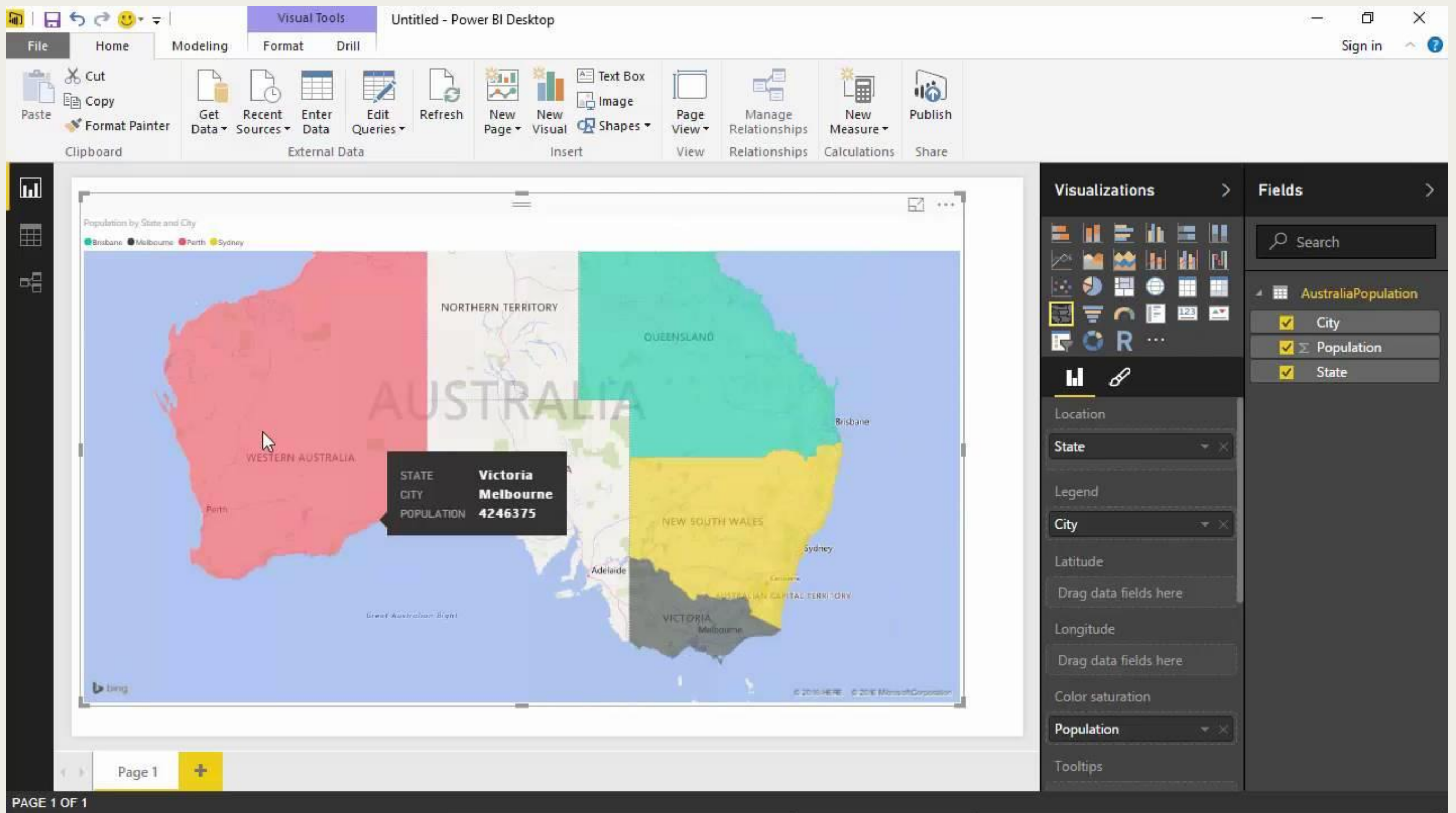
- In the filled map chart, the population in different cities of Australia is plotted.
- State is provided in location, city in legend, and population in color saturation.
- Tooltips are also provided for additional information.
- Filled maps are particularly useful for visualizing aggregated data at regional levels, such as sales performance by country or population density by state.

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TREEMAP CHART

- It represents hierarchical data in a nested, hierarchical structure, with nested rectangles of different sizes and colors.
- Each rectangle represents a category, and its size corresponds to a specific metric or measure.
- Treemaps are useful for visualizing hierarchical data structures and comparing the proportions of different categories within the hierarchy.
- Power BI users can leverage treemaps to illustrate the hierarchical relationships within a dataset and highlight the proportional contributions of each category or subgroup.
- The color of each rectangle can also be used to encode additional information, providing a multi-dimensional view of the data.

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Sum of Gross Sales by Segment, Product and Country
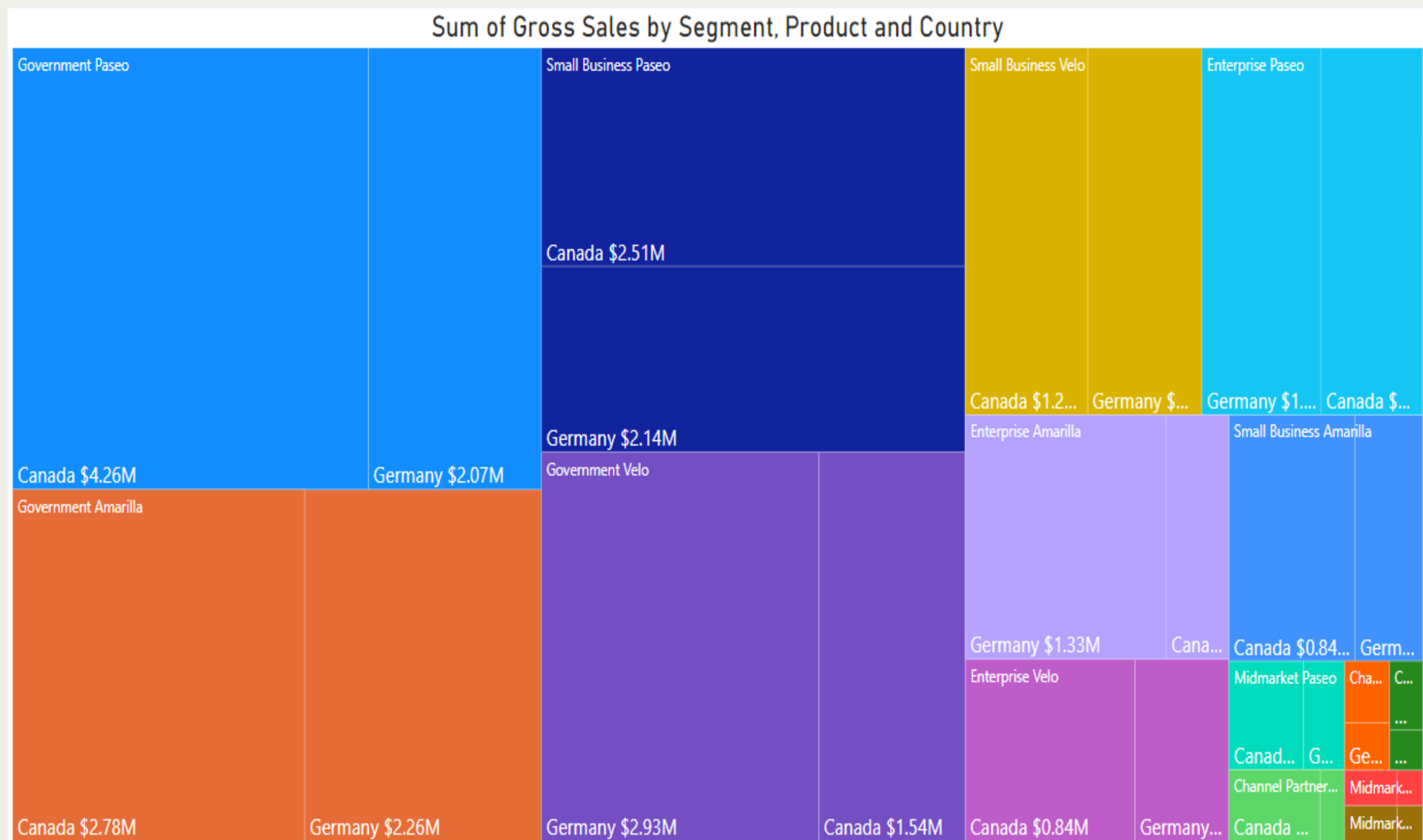
- In the chart, total gross sales from the countries Canada and Germany for products Amarilla, Paseo, and Velo for different segments are plotted.
- Each color partition in the chart indicates a segment-product combination and within each combination, gross sales for the countries are plotted.
- The size of the rectangle corresponds to the gross sales.
- If there are a large number of categories, treemaps will be ineffective.

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RIBBON CHART

- A ribbon chart is a visual representation used to display the relationships and flow between categories or entities over a period of time.
- Ribbon charts are particularly useful for illustrating how different elements transition or move from one state to another, making them effective for showcasing processes, connections, or stages.
- Each ribbon in the chart connects two points, representing the flow between two categories.
- Ribbon charts are effective for visualizing the flow or ranking of data across categories.
- You can analyze trends, compare values, or identify patterns within your dataset using the ribbon chart.

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Sum of Profit by Date and Country
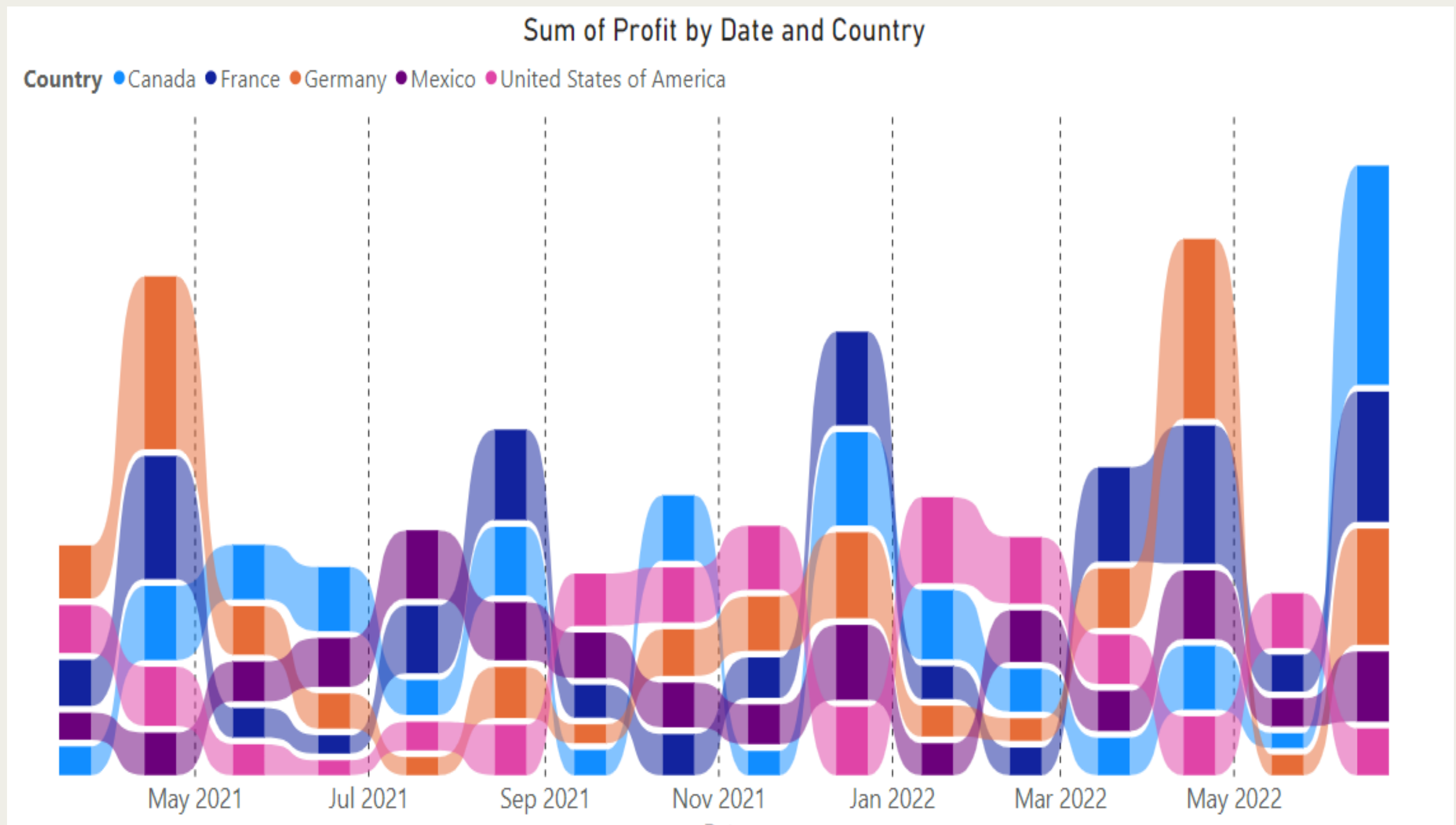
- In the chart, the total profit for different countries from May 2021 to May 2022 are plotted.
- Each color represents the respective country indicated by the legend.
- From the chart, we can see the changes in the total profit obtained from different countries during the period.
- By analyzing the rank of profit share for different countries across the months we can identify patterns.

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Thank you!

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