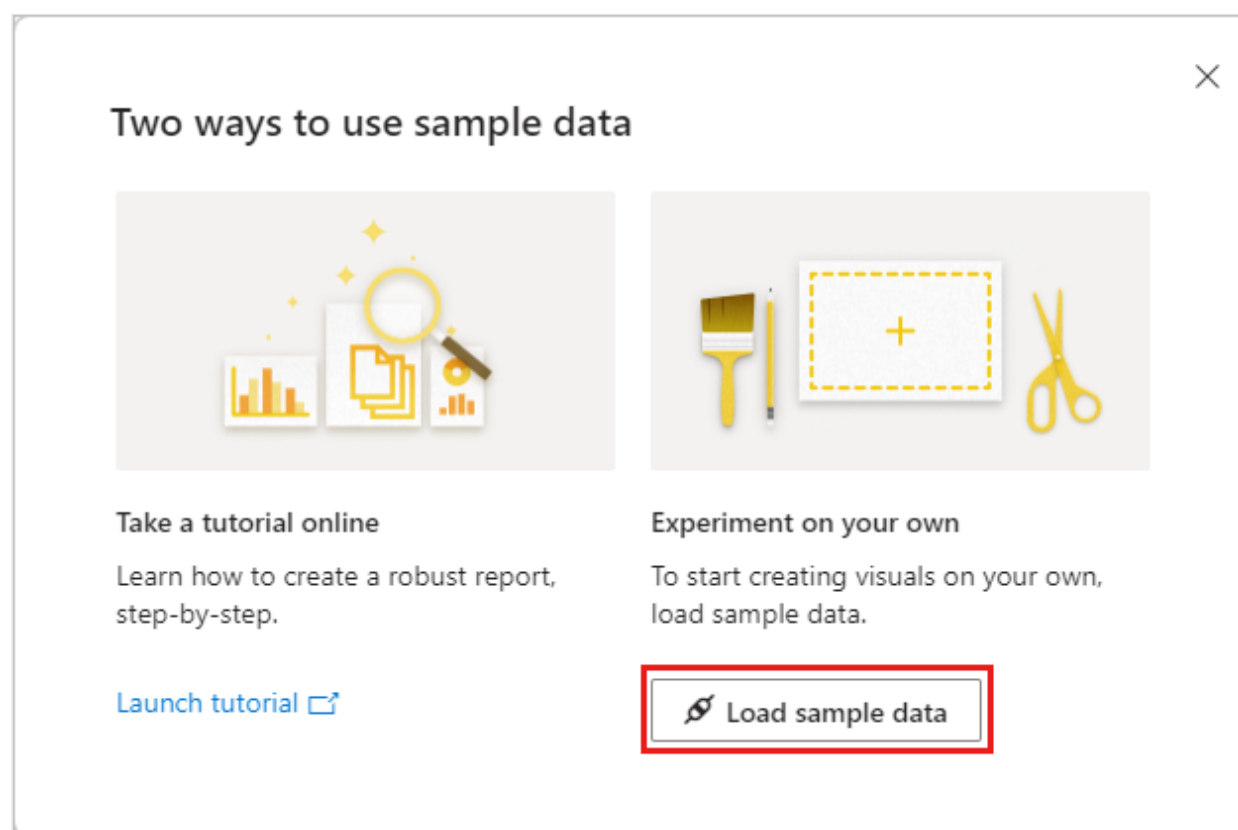


If you've landed on this tutorial from Power BI Desktop, go ahead and choose **Load data**.



## Download the sample

You can also download the sample workbook directly.

1. Download the [Financial sample Excel workbook](#) .
2. Open Power BI Desktop.
3. In the **Data** section of the **Home** ribbon, select **Excel**.
4. Navigate to where you saved the sample workbook, and select **Open**.

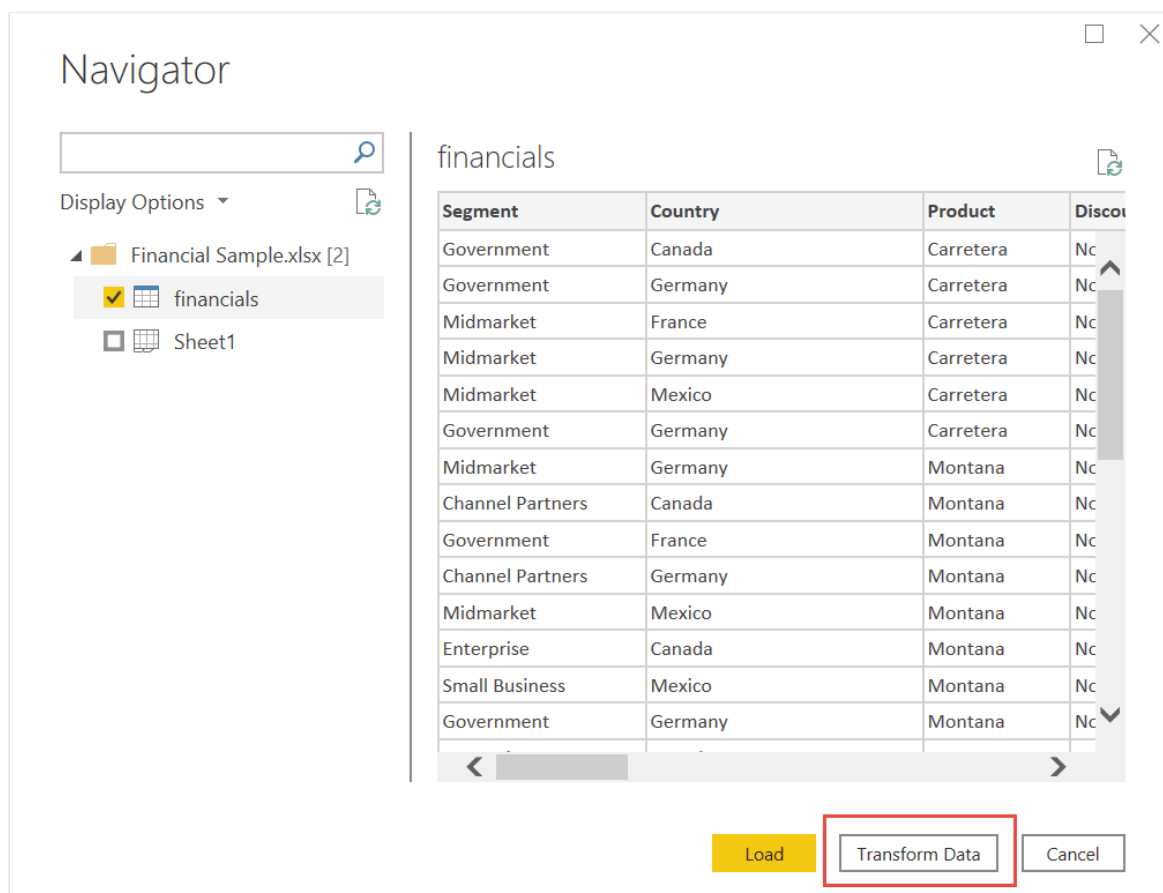
## Prepare your data

In **Navigator**, you have the option to *transform* or *load* the data. The Navigator provides a preview of your data so you can verify that you have the correct range of data.

Numeric data types are italicized. If you need to make changes, transform your data

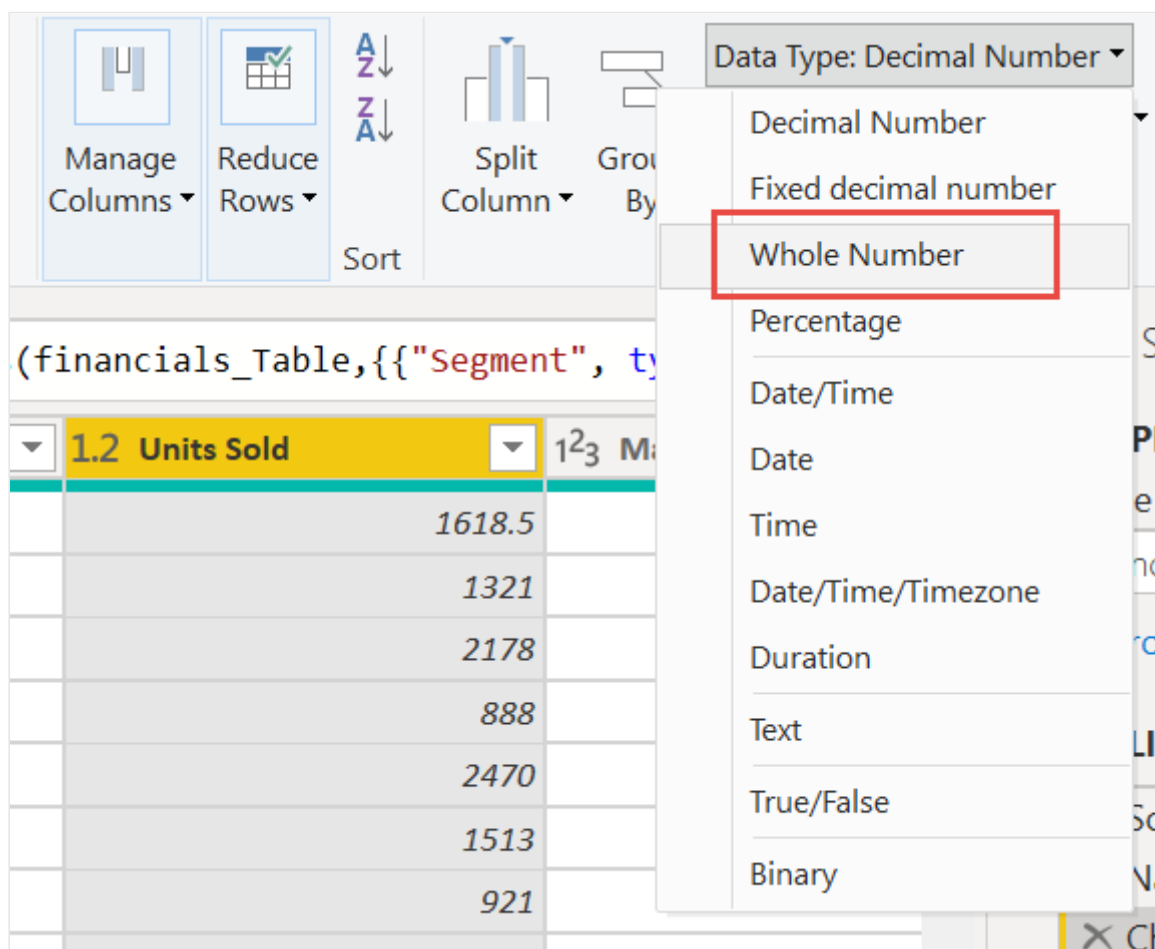
before loading. To make the visualizations easier to read later, we do want to transform the data now. As you do each transformation, you see it added to the list under **Query Settings** in **Applied Steps**

1. Select the **Financials** table, and choose **Transform Data**.

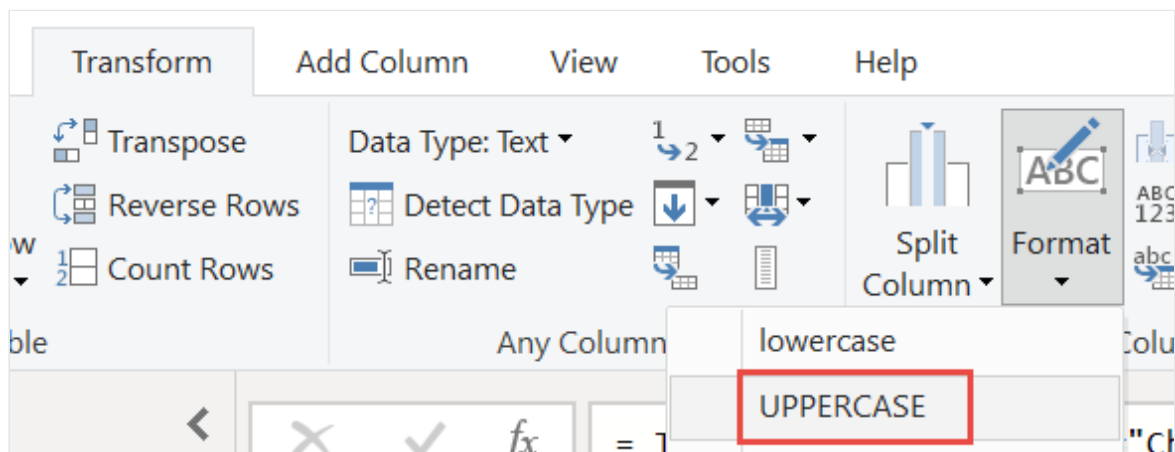


2. Select the **Units Sold** column. On the **Transform** tab, select **Data Type**, then select **Whole Number**. Choose **Replace current** to change the column type.

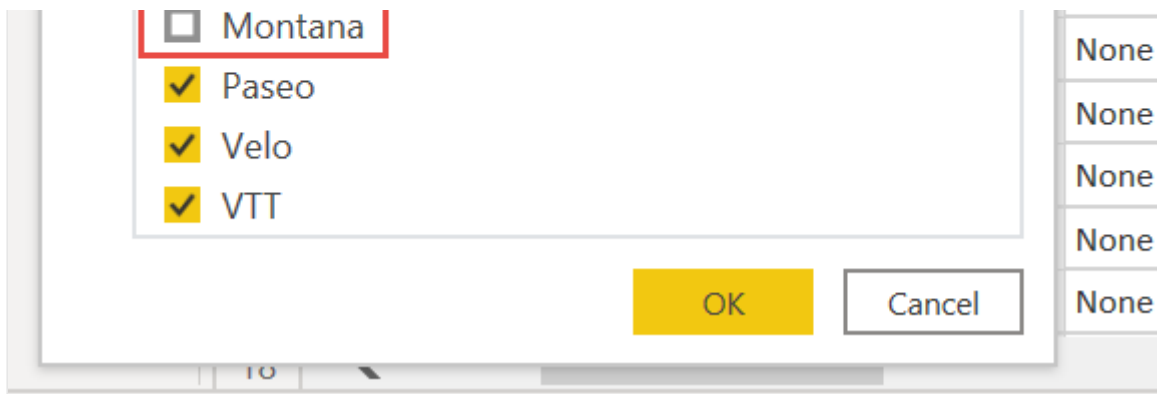
The top data cleaning step users do most often is changing data types. In this case, the units sold are in decimal form. It doesn't make sense to have 0.2 or 0.5 of a unit sold, does it? So let's change that to whole number.



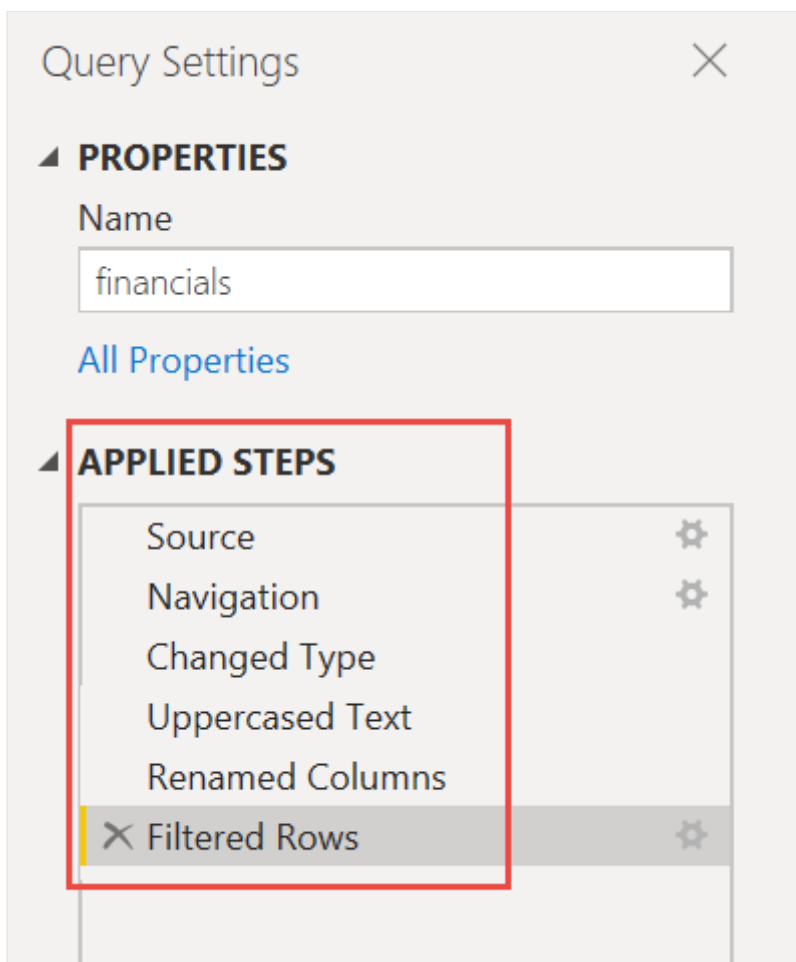
3. Select the **Segment** column. We want to make the segments easier to see in the chart later, so let's format the Segment column. On the **Transform** tab, select **Format**, then select **UPPERCASE**.





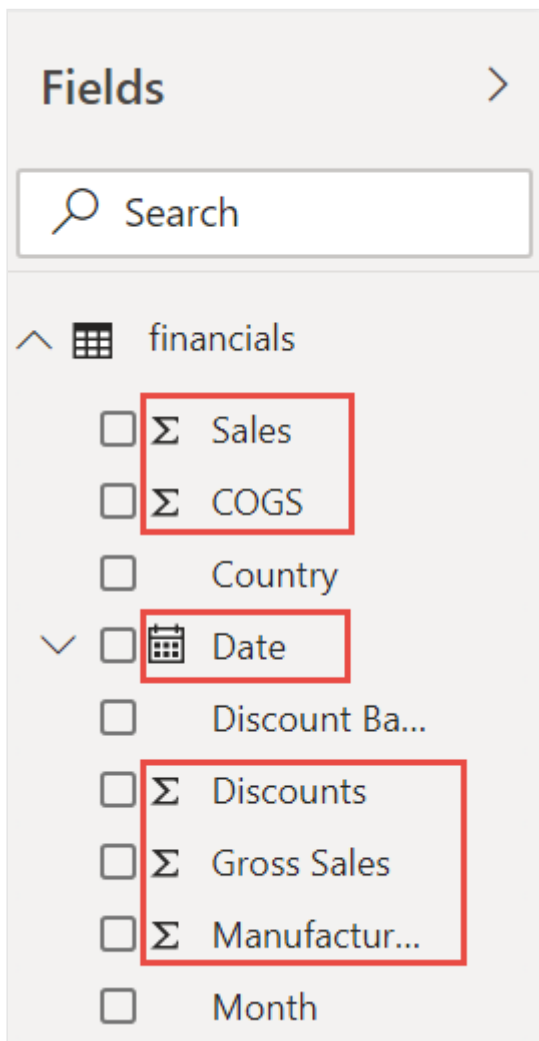


6. You see that each transformation has been added to the list under **Query Settings** in **Applied Steps**.



7. Back on the **Home** tab, select **Close & Apply**. Our data is almost ready for building a report.

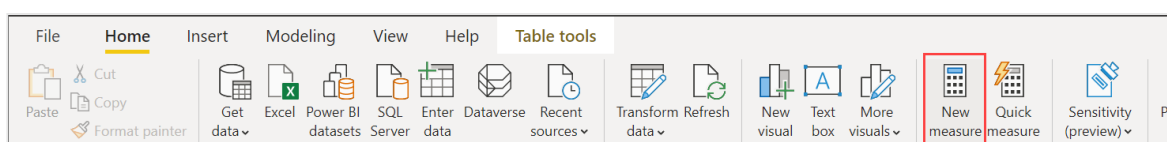
You see the Sigma symbol in the Fields list? Power BI has detected that those fields are numeric. Power BI also indicates the date field with a calendar symbol.

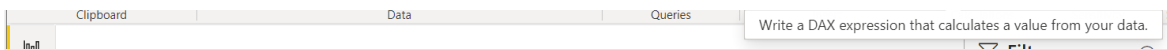


## Extra credit: Write an expression in DAX

Writing *measures* and creating *tables* in the *DAX* formula language is super powerful for data modeling. There's lots to learn about DAX in the Power BI documentation. For now, let's write a basic expression and join two tables.

1. On the **Home** ribbon, select **New measure**.



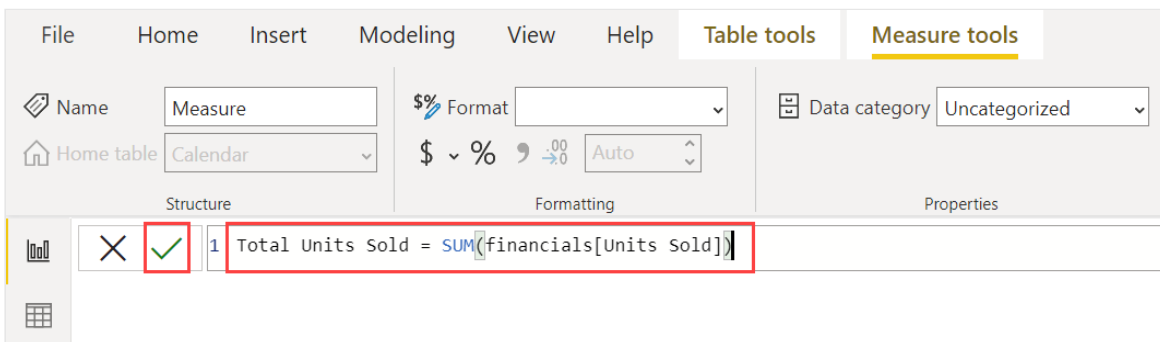


2. Type this expression to add all the numbers in the Units Sold column.

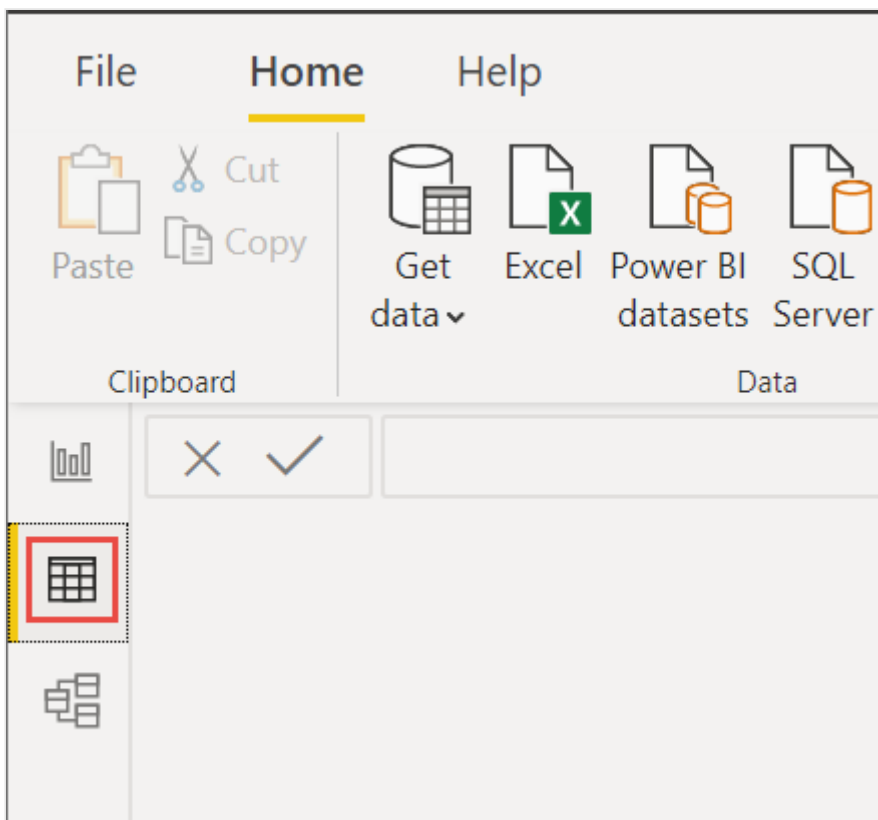
DAX

Total Units Sold = SUM(financials[Units Sold])

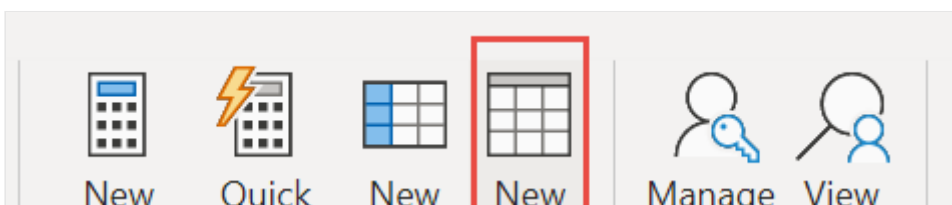
3. Select the check mark to commit.



4. Now select the **Data** view on the left.



5. On the **Home** ribbon, select **New table**.



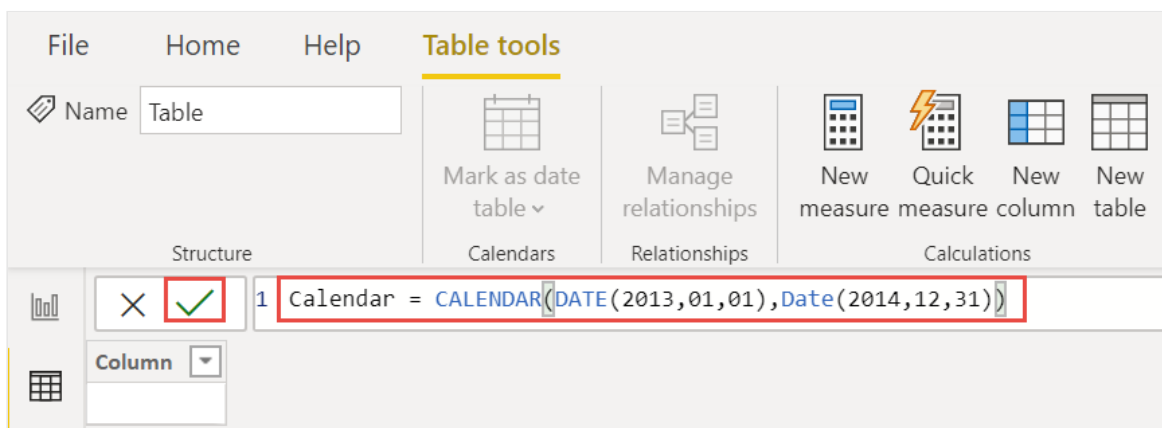


6. Type this expression to generate a Calendar table of all dates between January 1, 2013, and December 31, 2014.

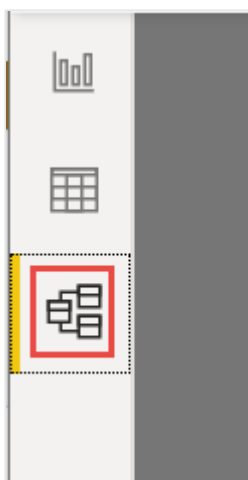
DAX

```
Calendar = CALENDAR(DATE(2013,01,01),Date(2014,12,31))
```

7. Select the check mark to commit.

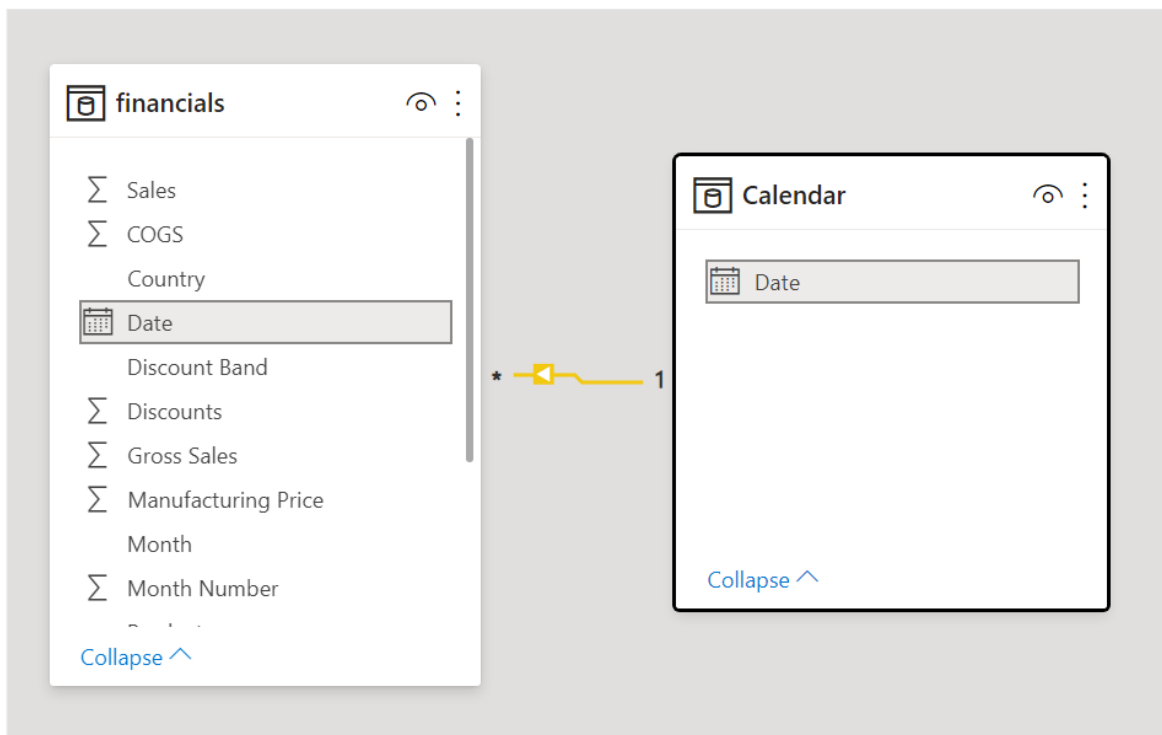


8. Now select **Model** view on the left.



9. Drag the **Date** field from the financials table to the **Date** field in the Calendar table to join the tables, and create a *relationship* between them.

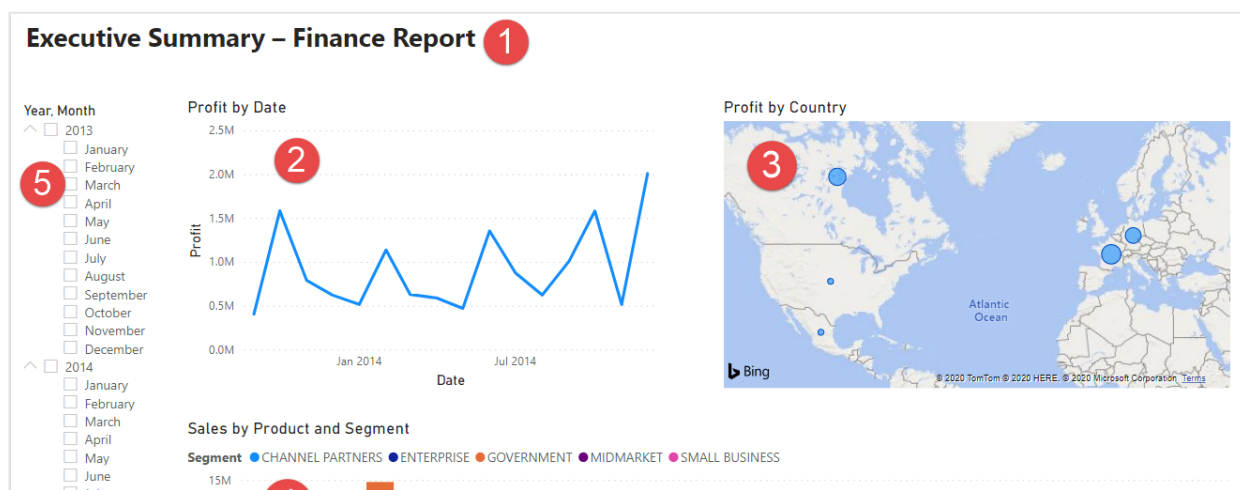


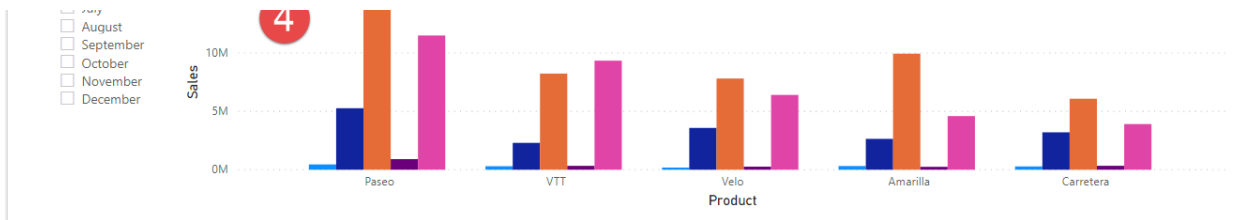


## Build your report

Now that you've transformed and loaded your data, it's time to create your report. In the Fields pane on the right, you see the fields in the data model you created.

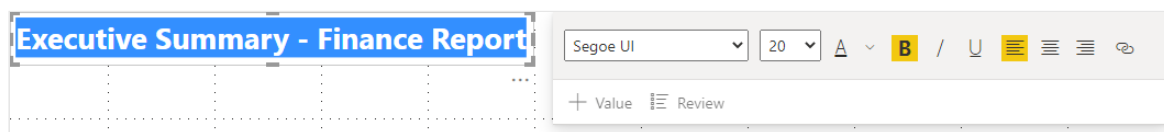
Let's build the final report, one visual at a time.





## Visual 1: Add a title

1. On the **Insert** ribbon, select **Text Box**. Type "Executive Summary – Finance Report".
2. Select the text you typed. Set the **Font Size** to 20 and **Bold**.



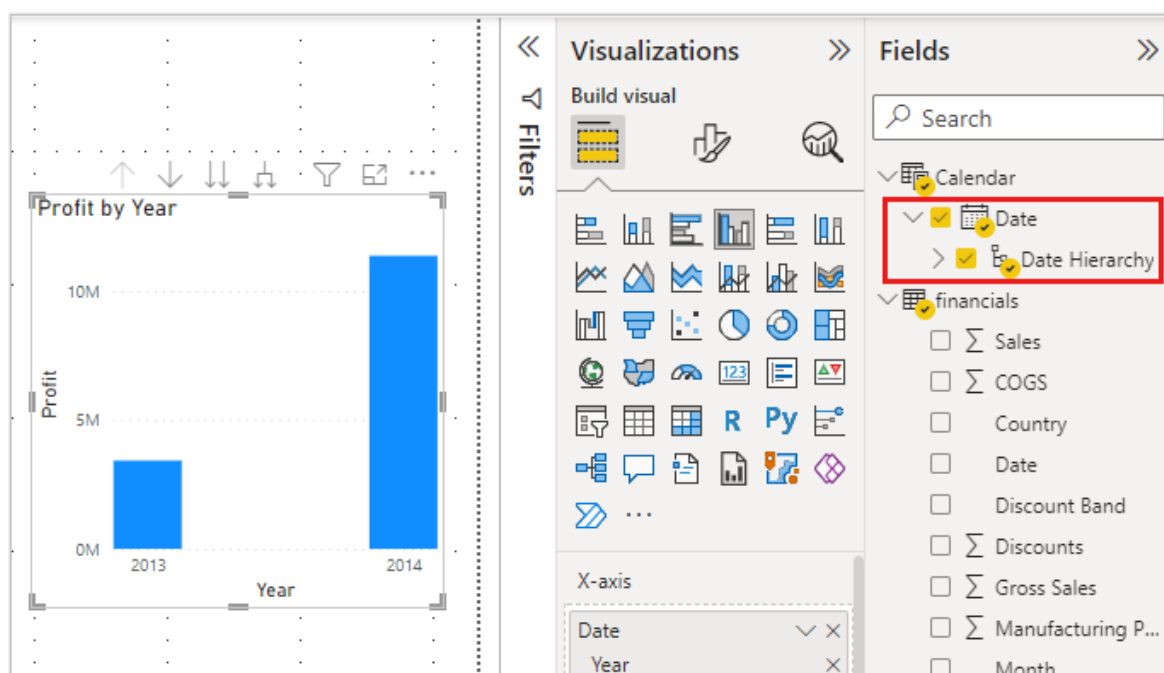
3. Resize the box to fit on one line.

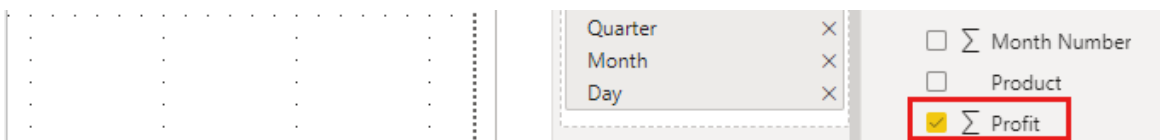
## Visual 2: Profit by Date

Now, you create a line chart to see which month and year had the highest profit.

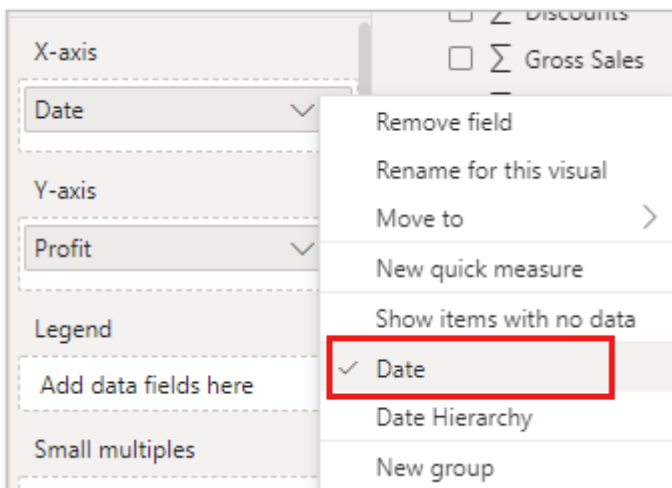
1. From the Fields pane, drag the **Profit** field to a blank area on the report canvas. By default, Power BI displays a column chart with one column, Profit.
2. Drag the **Date** field to the same visual. If you created a Calendar table in [Extra credit: Create a table in DAX](#) earlier in this article, drag the **Date** field from your Calendar table instead.

Power BI updates the column chart to show profit by the two years.

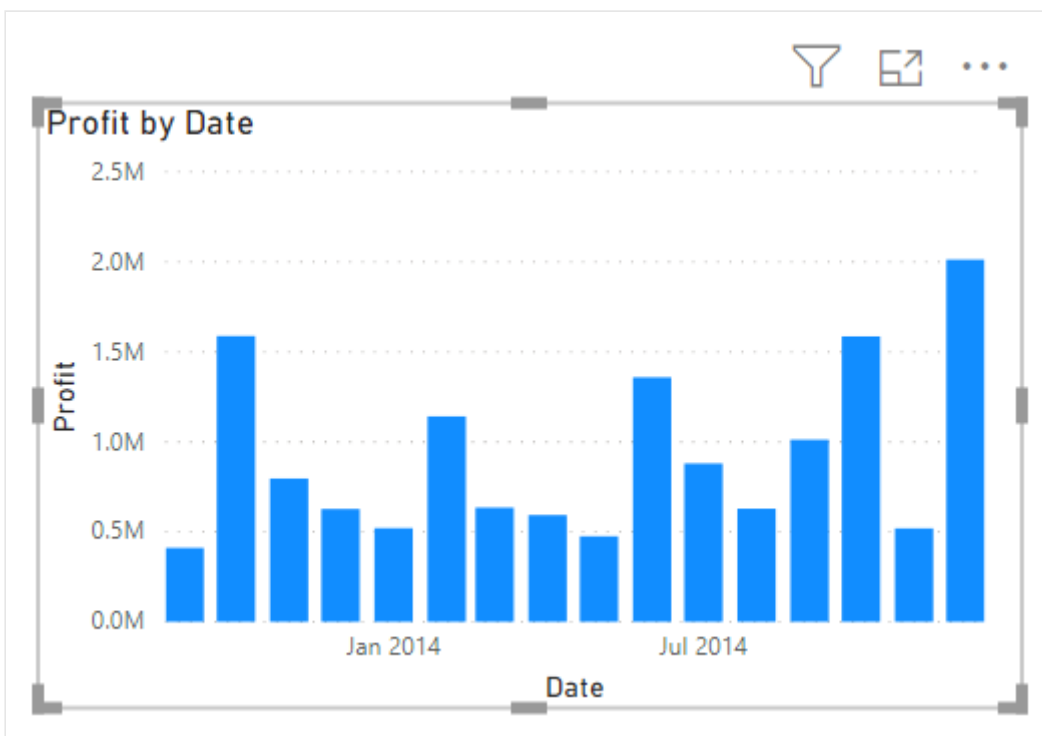




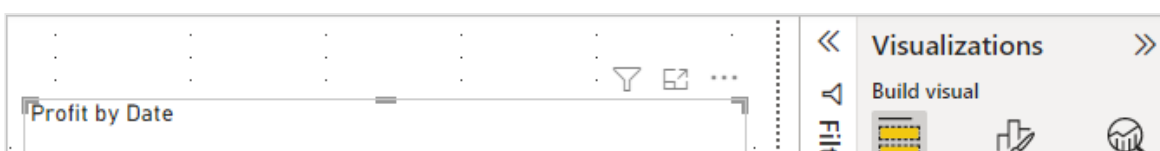
3. In the **Fields** section of the Visualizations pane, select the drop-down in the **X-axis** value. Change **Date** from **Date Hierarchy** to **Date**.

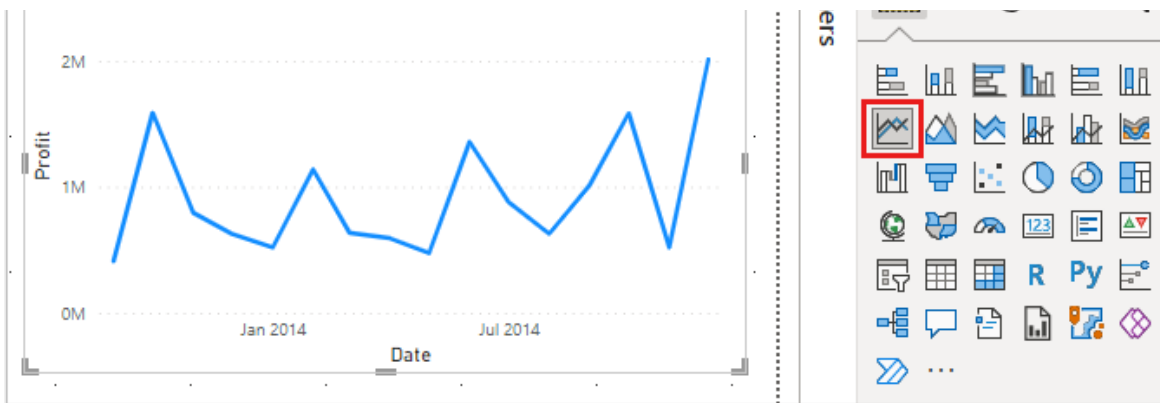


Power BI updates the column chart to show profit for each month.



4. In the Visualizations pane, change the visualization type to **Line chart**.





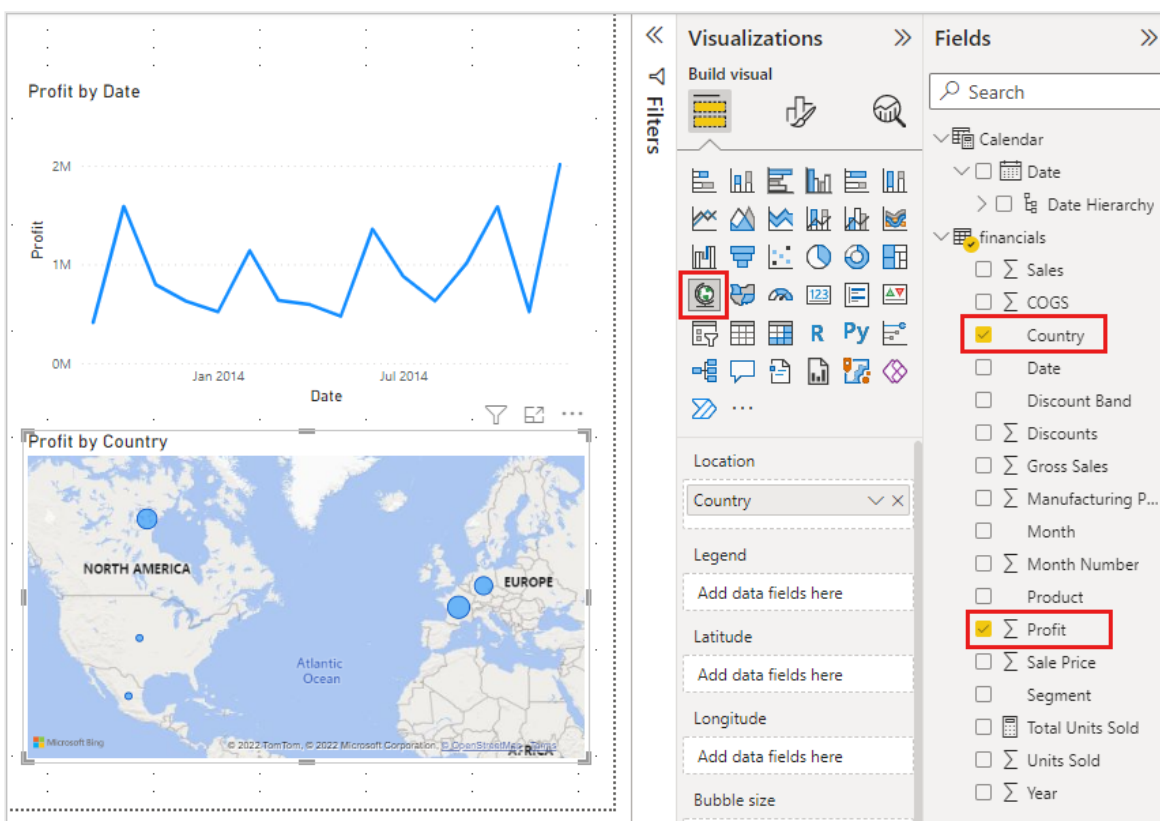
Now you can easily see that December 2014 had the most profit.

## Visual 3: Profit by Country

Create a map to see which country had the highest profits.

1. From the Fields pane, drag the **Country** field to a blank area on your report canvas to create a map.
2. Drag the **Profit** field to the map.

Power BI creates a map visual with bubbles representing the relative profit of each location.



Europe seems to be performing better than North America.

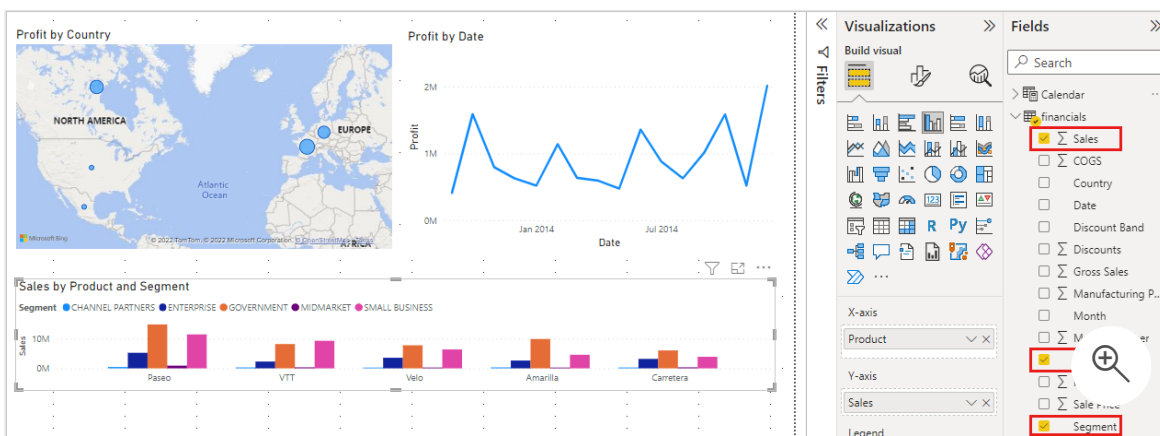
## Visual 4: Sales by Product and Segment

Create a bar chart to determine which companies and segments to invest in.

1. Drag the two charts you've created to be side by side in the top half of the canvas. Save some room on the left side of the canvas.
2. Select a blank area in the lower half of your report canvas.
3. In the Fields pane, select the **Sales**, **Product**, and **Segment** fields.

Power BI automatically creates a clustered column chart.

4. Drag the chart so it's wide enough to fill the space under the two upper charts.



Looks like the company should continue to invest in the Paseo product and target the Small Business and Government segments.

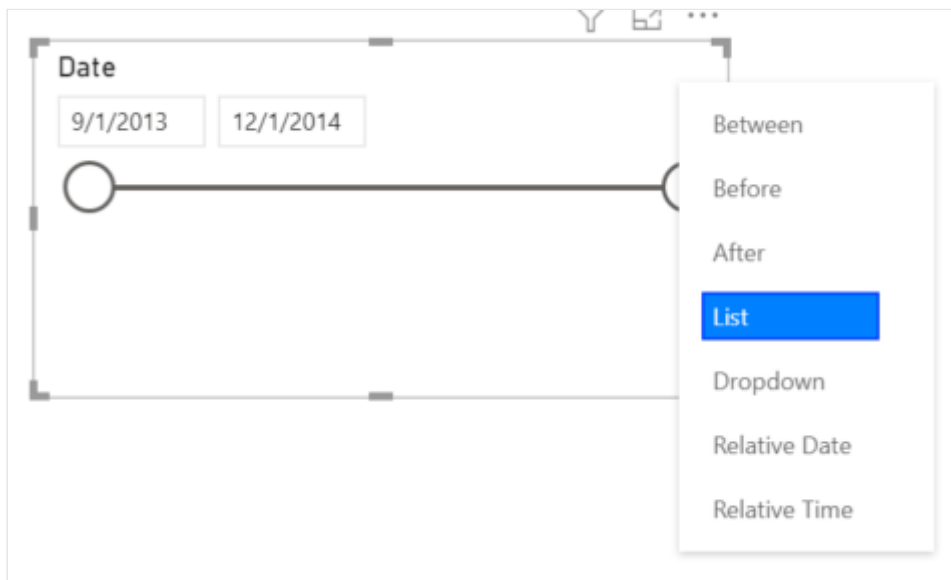
## Visual 5: Year slicer

Slicers are a valuable tool for filtering the visuals on a report page to a specific selection. In this case, we can create two different slicers to narrow in on performance for each month and year. One slicer uses the date field in the original table. The other uses the [date table you may have created for "extra credit"](#) earlier in this tutorial.

### Date slicer using the original table

1. In the Fields pane, select the **Date** field in the Financials table. Drag it to the blank area on the left of the canvas.
2. In the Visualizations pane, choose **Slicer**.

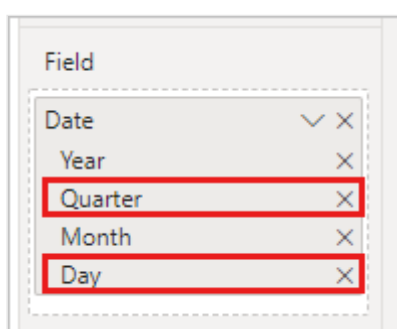
Power BI automatically creates a numeric range slicer.



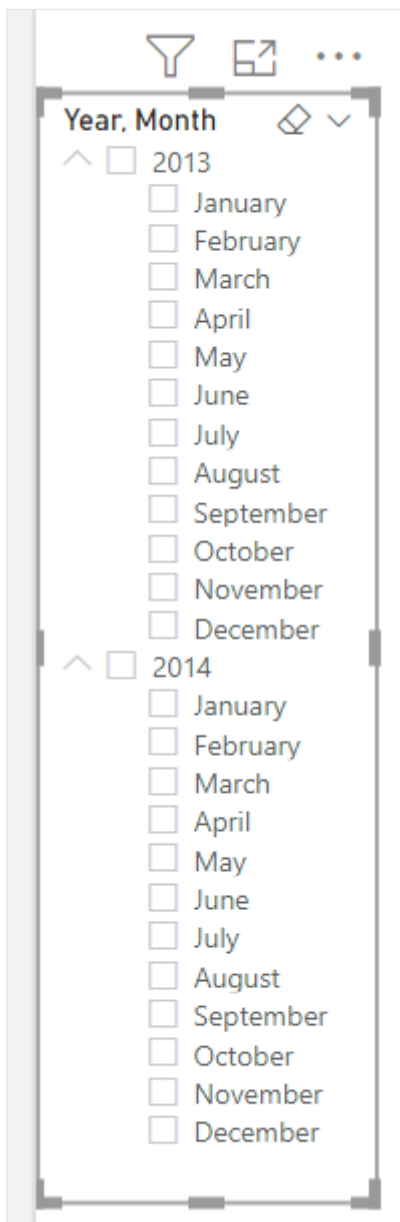
3. You can drag the ends to filter, or select the arrow in the upper-right corner and change it to a different type of slicer.

### Date slicer using the DAX table

1. In the Fields pane, select the **Date** field in the Calendar table. Drag it to the blank area on the left of the canvas.
2. In the Visualizations pane, choose **Slicer**.
3. In the Fields section of the Visualizations pane, select the drop-down in **Fields**. Remove Quarter and Day so only Year and Month are left.



4. Expand each year and resize the visual, so all months are visible.



We'll use this slicer in the finished report.

Now if your manager asks to see just 2013 data, you can use either slicer to select years, or specific months of each year.

## Extra credit: Format the report

If you want to do some light formatting on this report to add more polish, here are a few easy steps.

## Theme

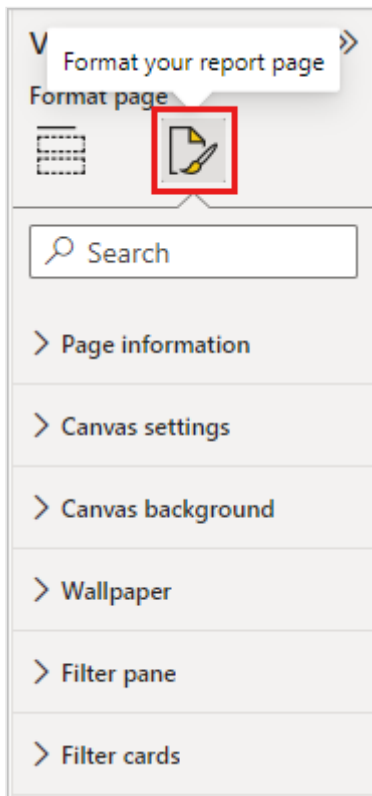
- On the **View** ribbon, change the theme to **Executive**.



## Spruce up the visuals

Make the following changes on the **Format** tab in the Visualizations pane.



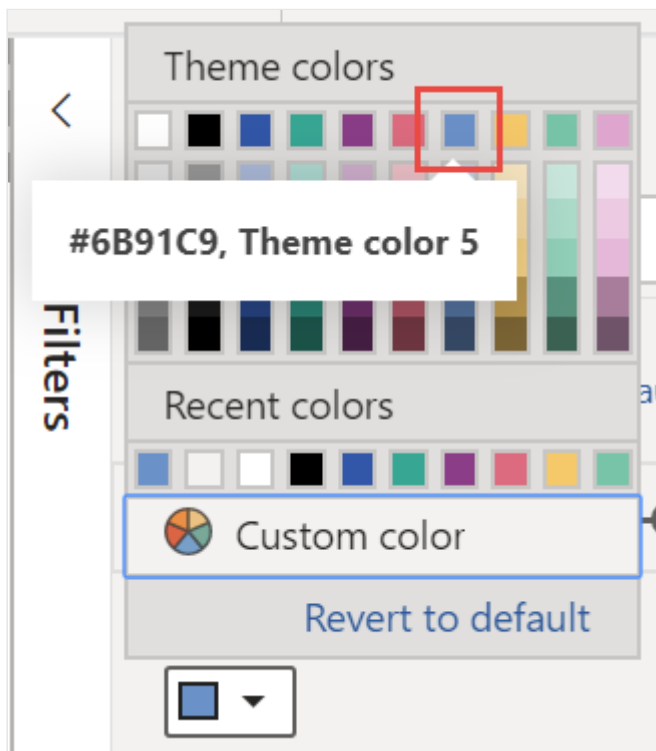


1. Select Visual 2. In the **Title** section, change **Title text** to "Profit by Month and Year" and **Text size** to **16 pt**. Toggle **Shadow** to **On**.
2. Select Visual 3. In the **Map styles** section, change **Theme** to **Grayscale**. In the **Title** section, change title **Text size** to **16 pt**. Toggle **Shadow** to **On**.
3. Select Visual 4. In the **Title** section, change title **Text size** to **16 pt**. Toggle **Shadow** to **On**.
4. Select Visual 5. In the **Selection controls** section, toggle **Show "Select all"** option to **On**. In the **Slicer header** section, increase **Text size** to **16 pt**.

### Add a background shape for the title

1. On the **Insert** ribbon, select **Shapes > Rectangle**. Place it at the top of the page, and stretch it to be the width of the page and height of the title.
2. In the **Format shape** pane, in the **Outline** section, change **Transparency** to **100%**.

2. In the **Format shape** pane, in the **Outline** section, change **Transparency** to **100%**.
3. In the **Fill** section, change **Fill color** to **Theme color 5 #6B91C9** (blue).



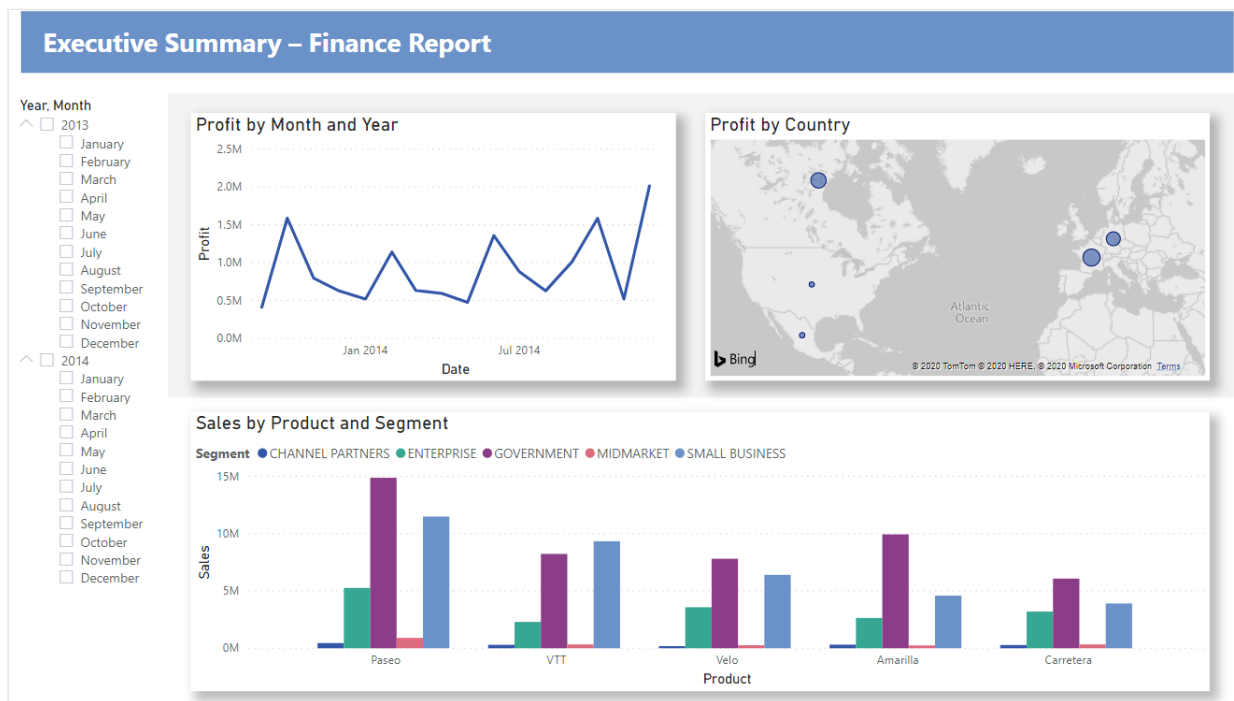
4. On the **Format** tab, select **Send backward** > **Send to back**.
5. Select the text in Visual 1, the title, and change the font color to **White**.

### Add a background shape for visuals 2 and 3

1. On the **Insert** ribbon, select **Shapes** > **Rectangle**, and stretch it to be the width and height of Visuals 2 and 3.
2. In the **Format shape** pane, in the **Outline** section, change **Transparency** to **100%**.
3. In the **Fill** section, set the color to **White, 10% darker**.
4. On the **Format** tab, select **Send backward** > **Send to back**.

## Finished report

Here's how your final polished report will look:



In summary, this report answers your manager's top questions:

- Which month and year had the most profit?

December 2014

- Which country is the company seeing the most success in?

In Europe, specifically France and Germany.

- Which product and segment should the company continue to invest in?

The company should continue to invest in the Paseo product and target the Small Business and Government segments.

## Save your report

- On the **File** menu, select **Save**.