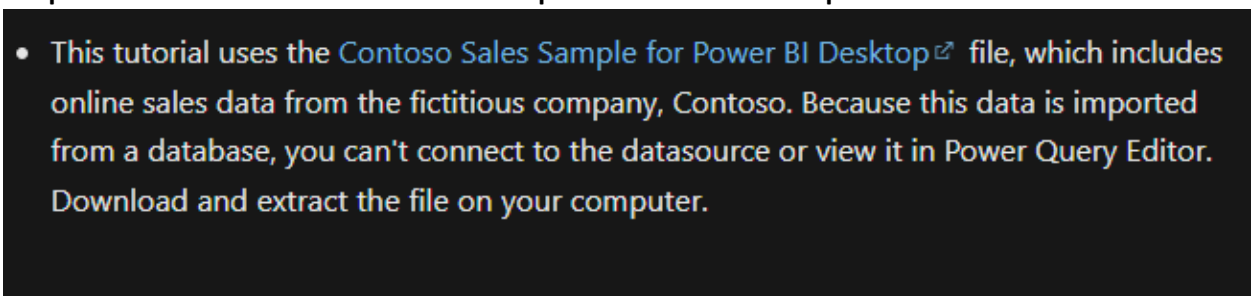
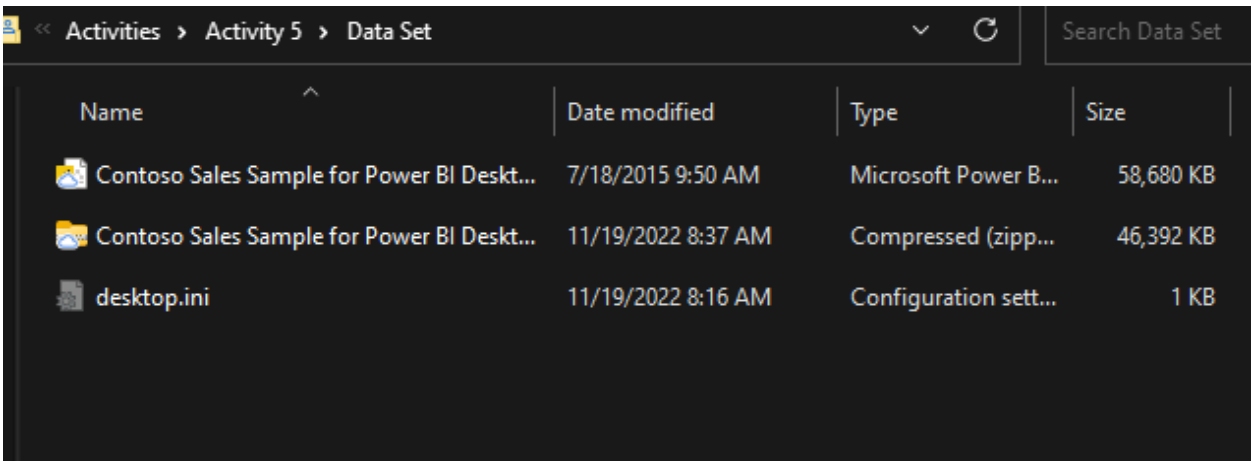
Gabriel Edrian A. Alvaro
ITBA – 4107

Activity 5. Measures in Power BI

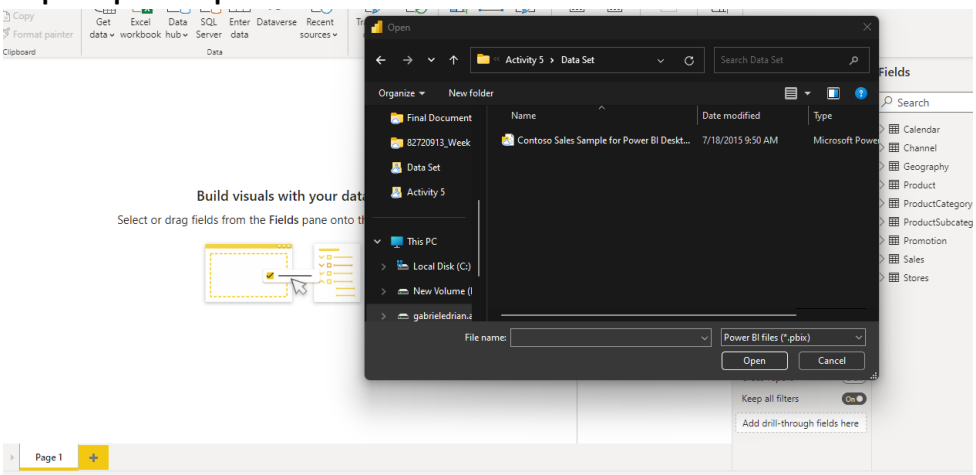
Step 1: Downloaded the Contoso Sales Sample for Power BI Desktop



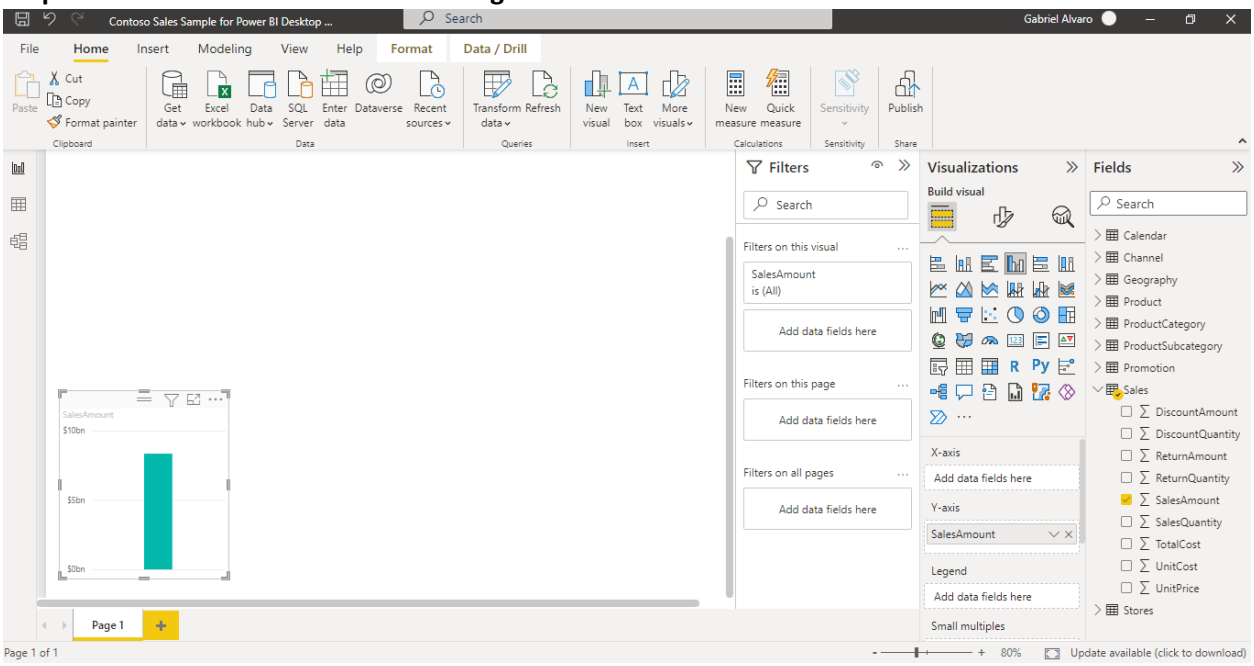
Then extracted the Data Set:



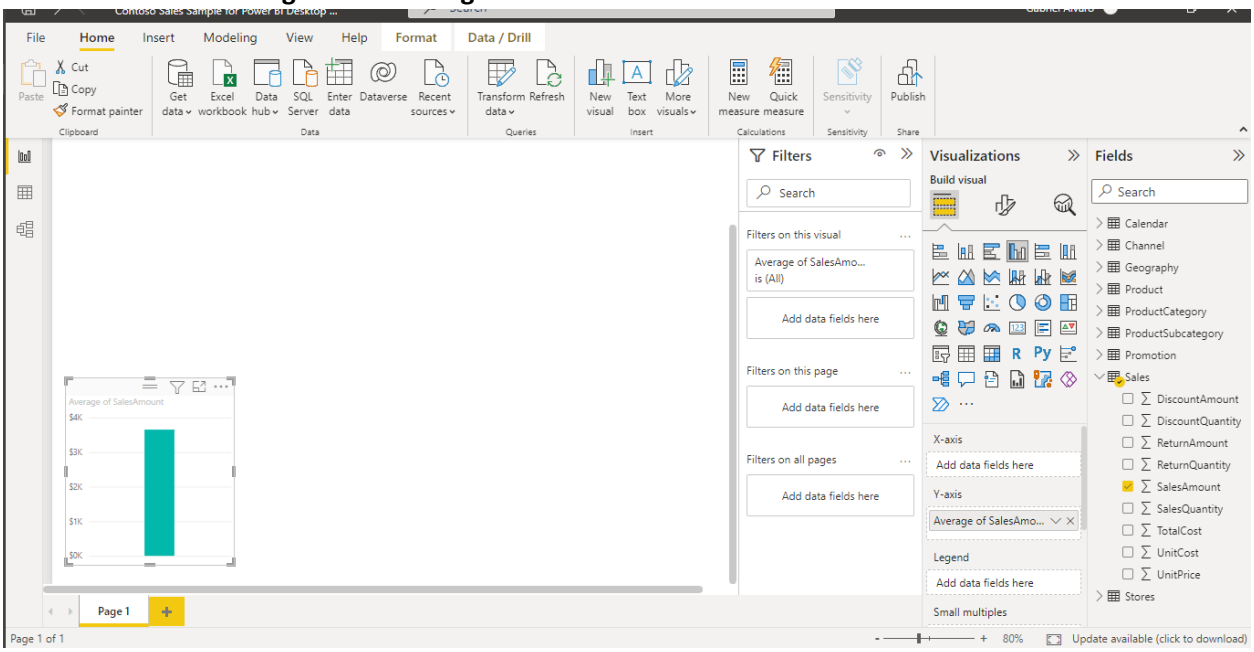
Step 2: Open the pbix file of Contoso

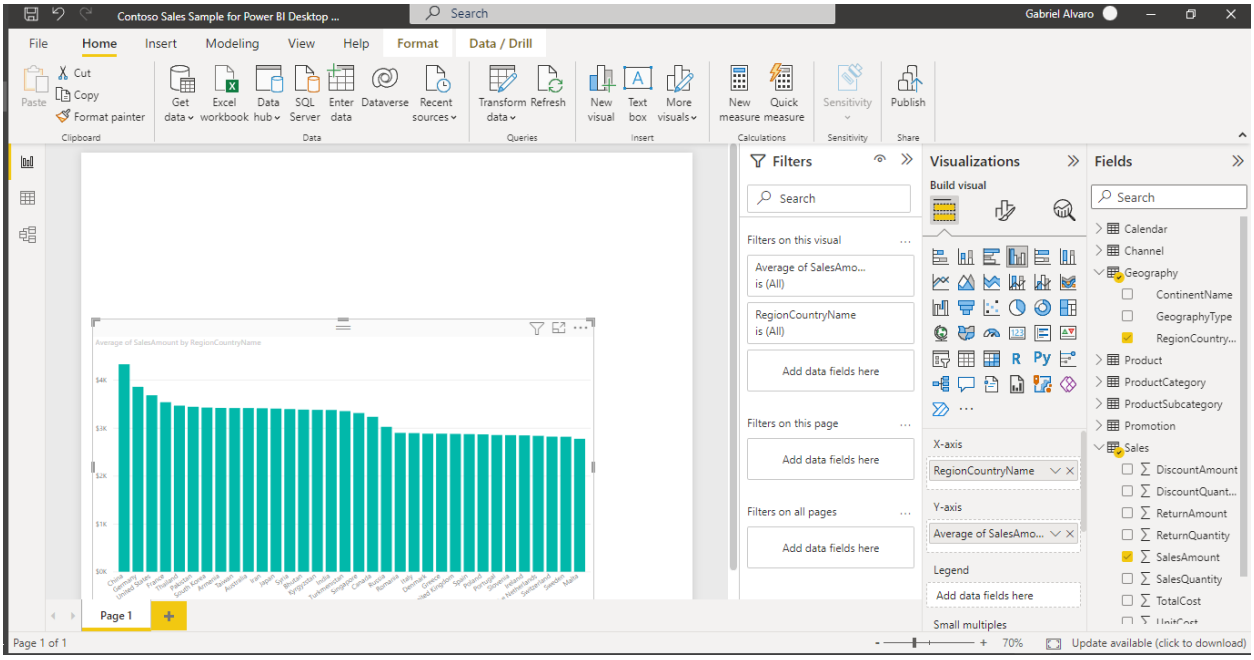


Step 3: Added a Clustered Chart and drag the SalesAmount from the Sales table.

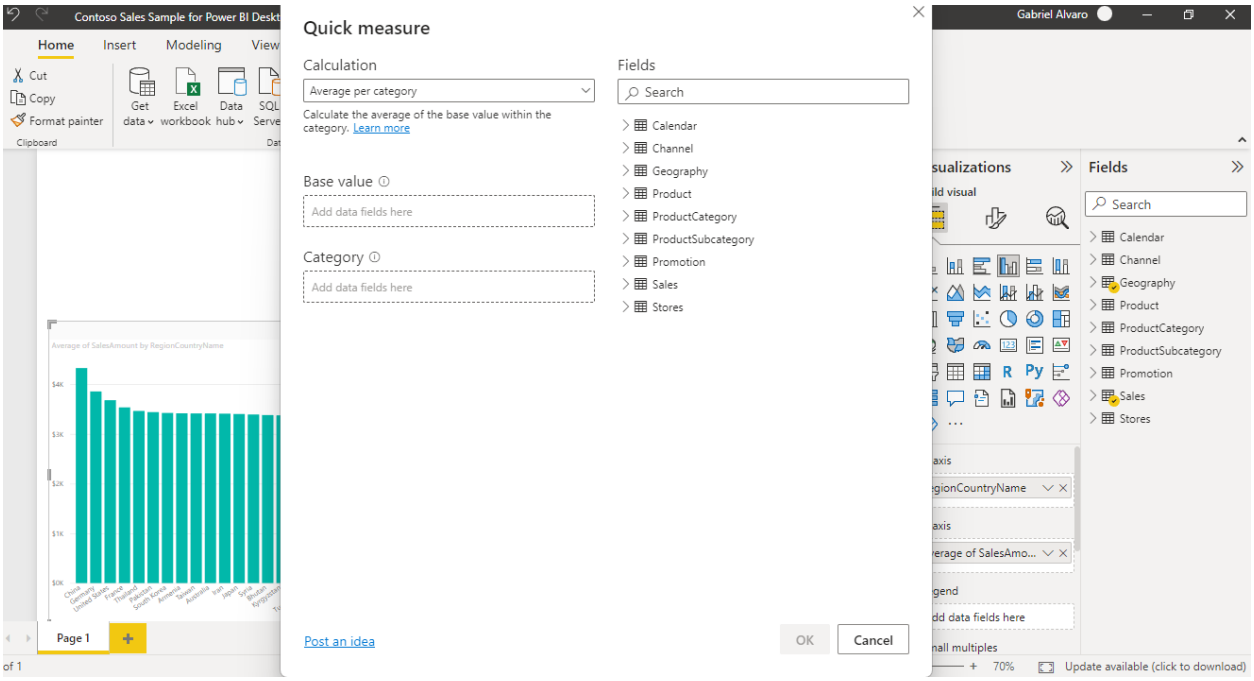


Step 4: n the Values area of the Visualizations pane, I've selected the down arrow to the right of SalesAmount and changed it to AverageSalesAmount.





Step 5. From a table in the Fields pane, I've right-clicked More options (...), and then selected New quick measure from the list. Under Calculations in the Home tab of the Power BI Desktop ribbon, I've then choose Quick New Measure. After that, a new pane has displayed, as shown below;

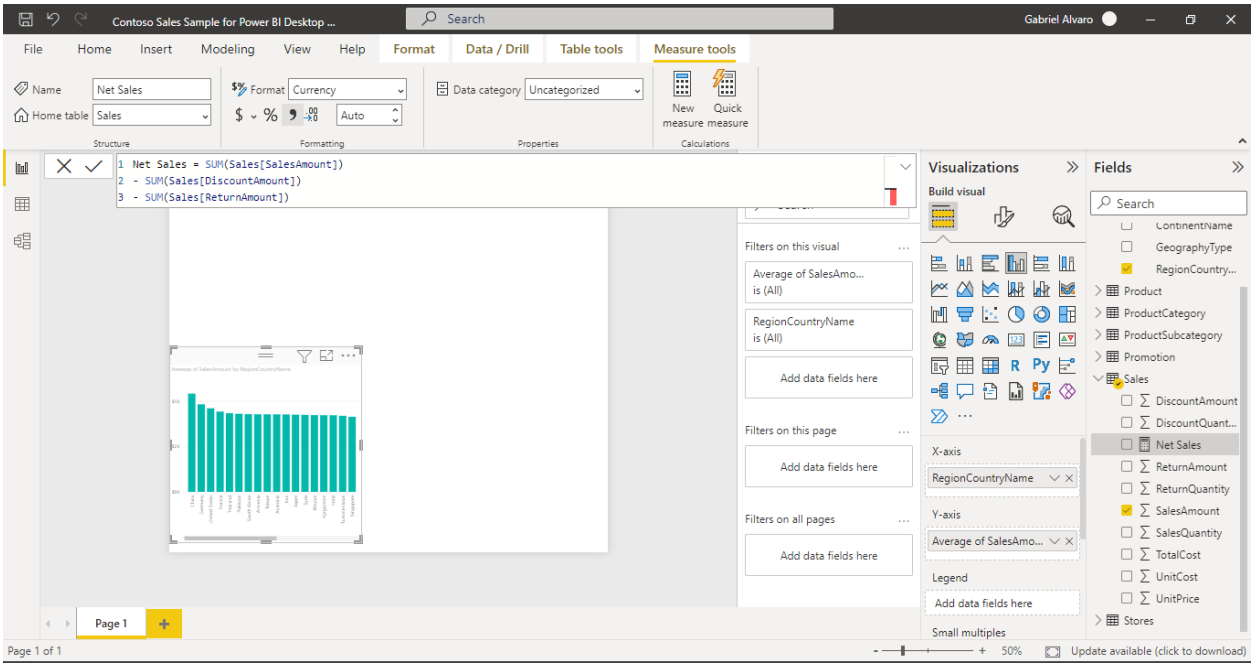


Step 6. I've hovered over the table in the Fields pane and selected More options (...). From the menu that appears, I've selected New measure. Then, it displayed a text box where I would input the DAX. And added the DAX formula:

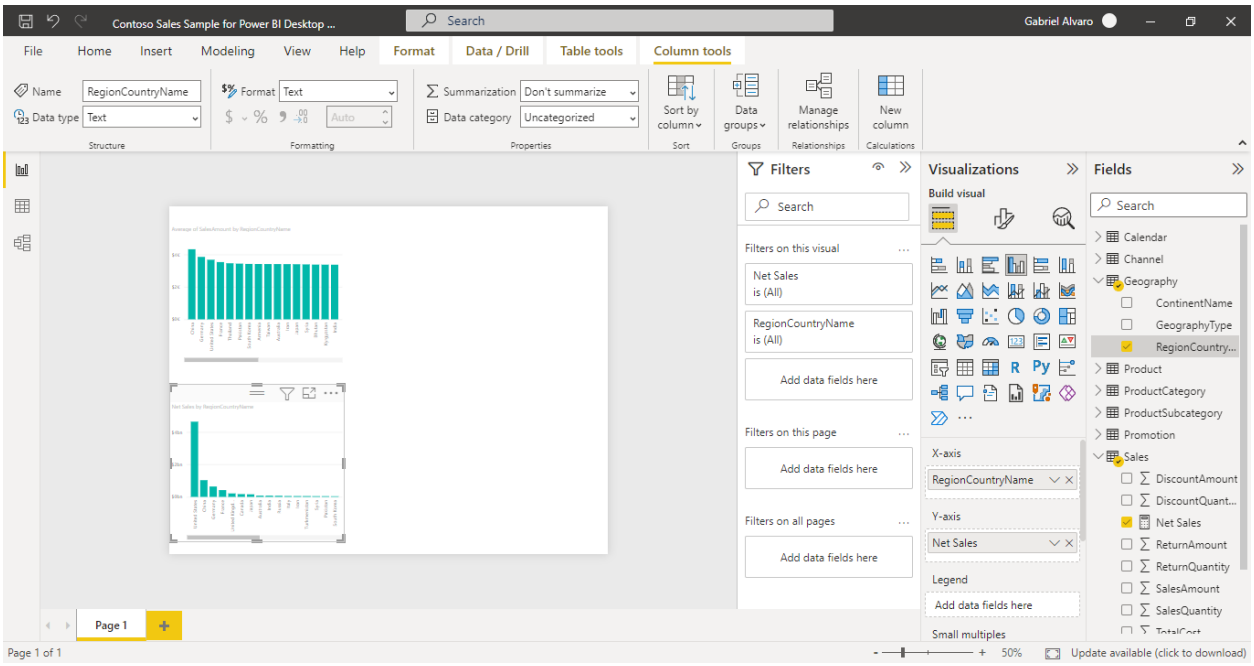
Net Sales = SUM(Sales[SalesAmount])

- SUM(Sales[DiscountAmount])

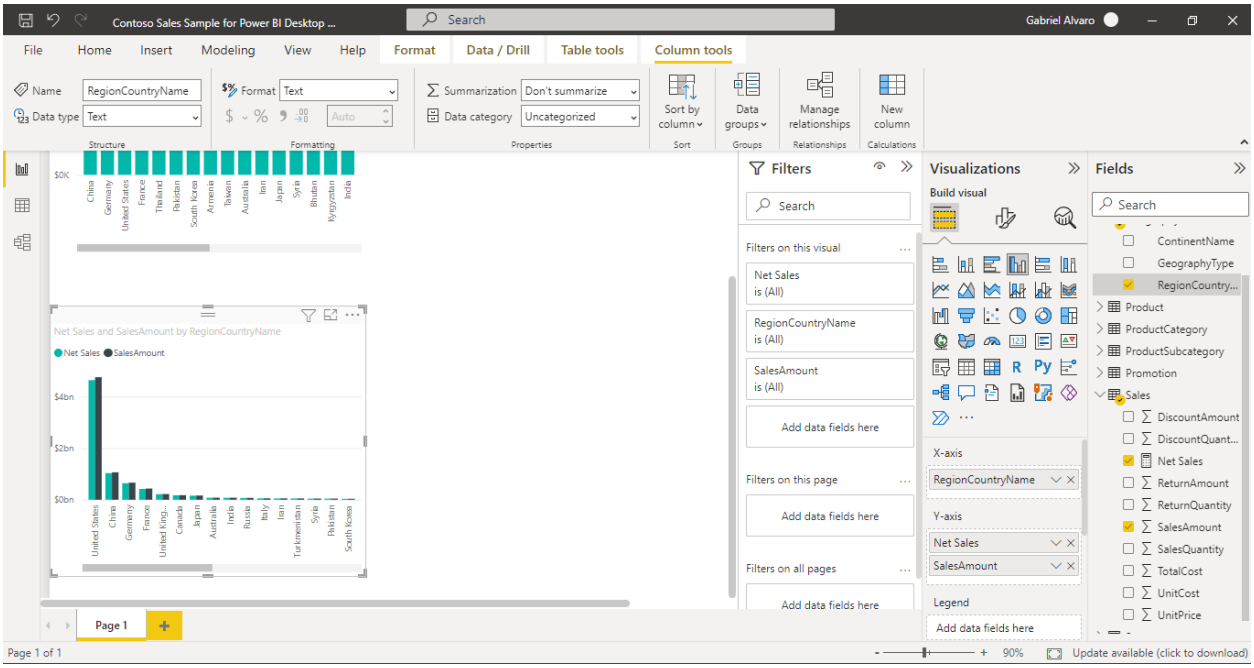
- SUM(Sales[ReturnAmount])



Then, I added my new Net Sales measure to the report canvas Clustered column chart and calculated net sales with every country in the Geography table. I've also selected the Net Sales measure from the Sales table and dragged it onto the report canvas. And lastly, I've selected the RegionCountryName field from the Geography table and added it to the Net Sales chart.



To see the difference between net sales and total sales by country, I've selected the SalesAmount field and dragged it onto the chart. This displays the comparison of Net Sales and Sales Amount as shown on the chart below;

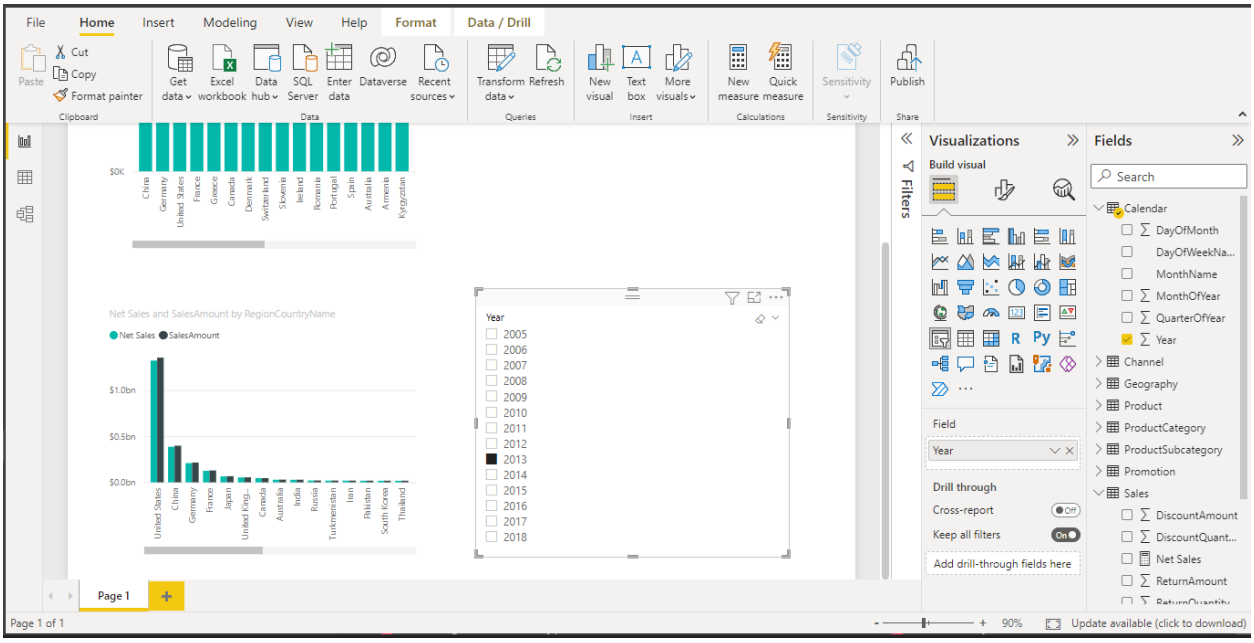


Step 7. I've added a slicer further to filter net sales and sales amounts by calendar year. To accomplish this, I've dragged the Year field from the Calendar table onto the new blank table visualization then, selected the down arrow next to Year, and then selected Don't summarize from the list in the Values box in the Visualizations pane. The table now lists individual years.

After that, I selected the Slicer icon in the Visualizations pane to convert the table I created to a slicer. Initially, the visualization displays a slider instead of a list; to change this to a list, I selected List from the down arrow in the slider.

To try the slice function, I've selected a value in the Year slicer to filter the Net Sales and Sales Amount by RegionCountryName chart accordingly.

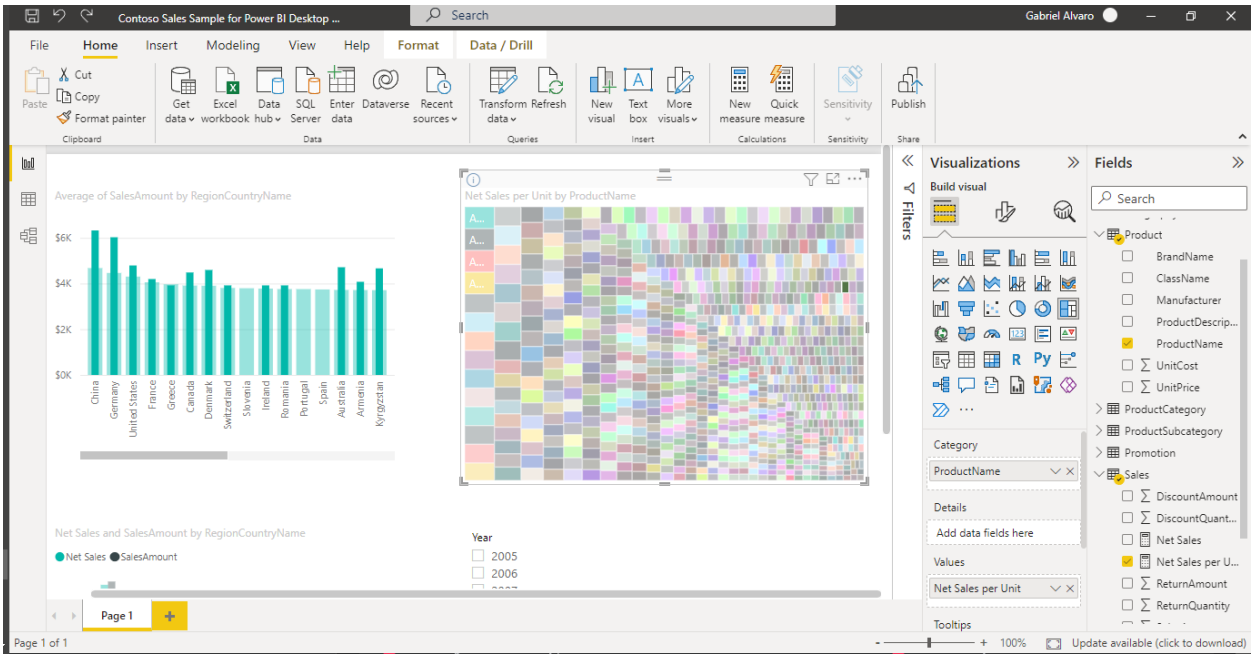
In conclusion, the Net Sales and SalesAmount measures recalculate and display results in the context of the selected Year field, as shown in the figure below;



Step 8. For this step, I will use my measure in another measure. I want to determine which products have the highest net sales amount per unit sold. So, I'll need a measure that divides net sales by the number of units sold. I will create a new measure that divides the result of your Net Sales measure by the sum of Sales[SalesQuantity].

To accomplish this, I have performed the following steps;

- In the Fields pane, I've created a new measure named Net Sales per Unit in the Sales table and inserted the formula: Net Sales per Unit = [Net Sales] / SUM(Sales[SalesQuantity])
- I've then selected the Net Sales per Unit measure from the Sales table and dragged it onto a blank area in the report canvas.
- The resulting chart shows the net sales amount per unit over all products sold.
- For a different look, I've changed the chart visualization type to Treemap for a better output.
- For this, I've dragged the Product Category field onto the treemap. And lastly, I have removed the ProductCategory field and pulled the ProductName field onto the chart instead, as shown below;



In conclusion, I have learned through this activity that measures provide me the ability to gain the desired insights from my data. I've learned how to create measures using the formula bar, name them whatever makes the most sense, and use the DAX suggestion boxes to discover and choose the appropriate formula elements. I've also been introduced to context, which allows the outcomes of calculations in measures to varying based on other fields or expressions in your formula.