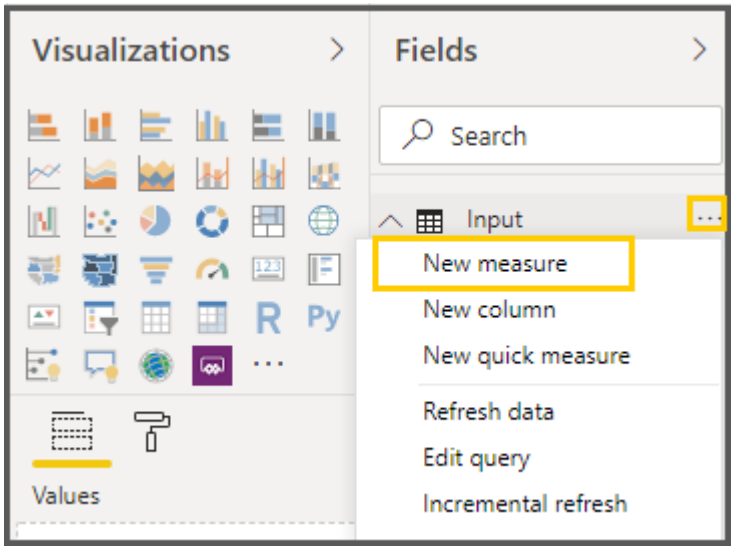
Calculated Measures Using DAX

In general, **Measures** are used to **calculate aggregates**, such as the **sum or average** of a column. **Measures are calculated at the time of your query**, which means that they **aren't stored in your database**, but use **processing power to execute a query at the time of your request.**

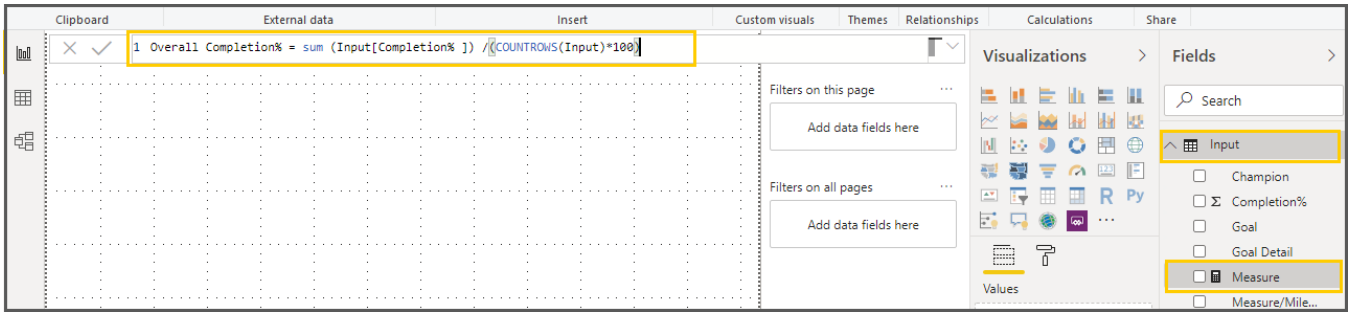
Exercise 4: Creating of the Measures using DAX

10. Be on the Report view, From the Fields Pane, click on the Ellipses (More options) of the Input Query, Click on New Measure.

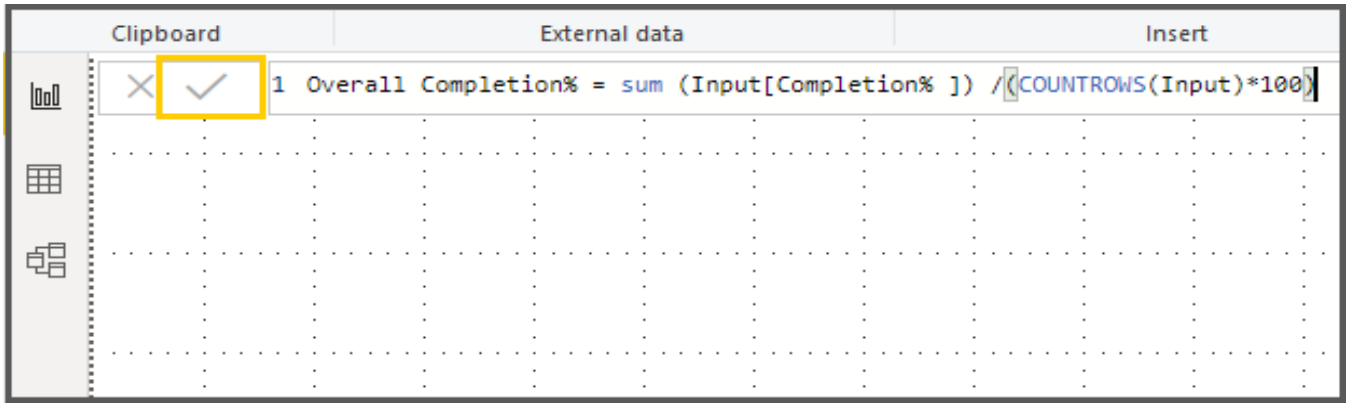


11. In the Expression Bar, Type in

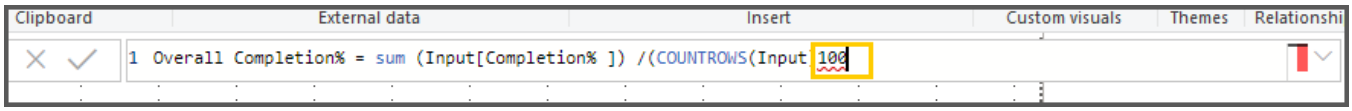
Overall Completion% = sum (Input [Completion%]) /(COUNTROWS(Input)*100)



12. Click on Commit to validate the Expression

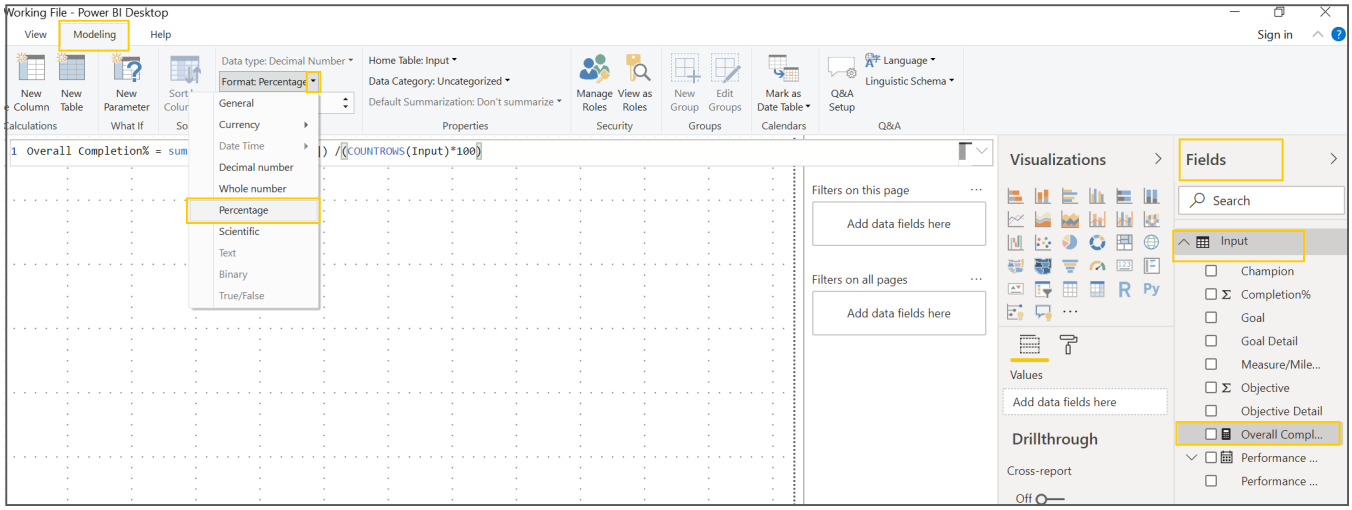


Note: After you commit, if there are any errors in the expression, the expression will be highlighted with red curly line.

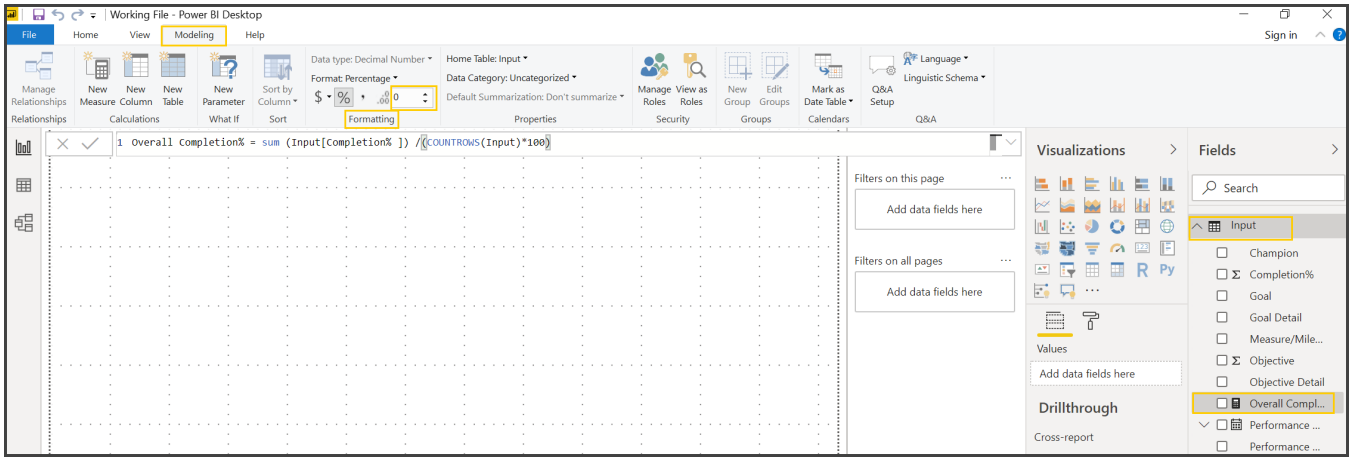


Exercise 5: Change the format of the Measures

13. Expand Input query under Fields pane, Select Overall Completion %, and from the Modeling ribbon, Click on the Format under the formatting section and select Percentage.



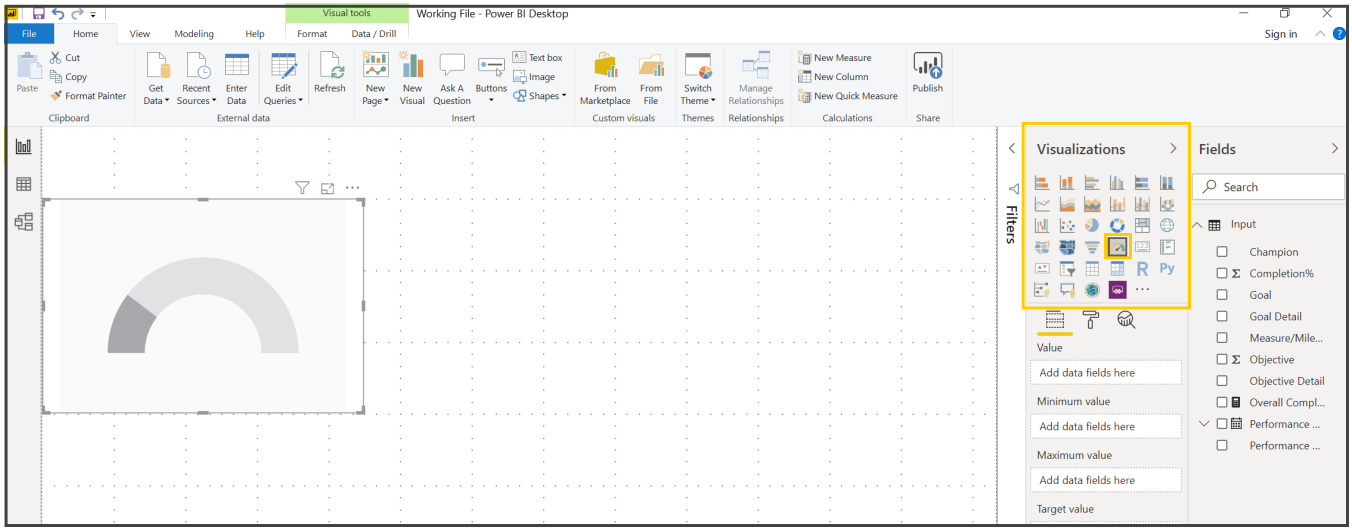
14. Make the decimal points to Zero of the Overall Completion % measure under formatting section.



Creating Reports & Visualizations

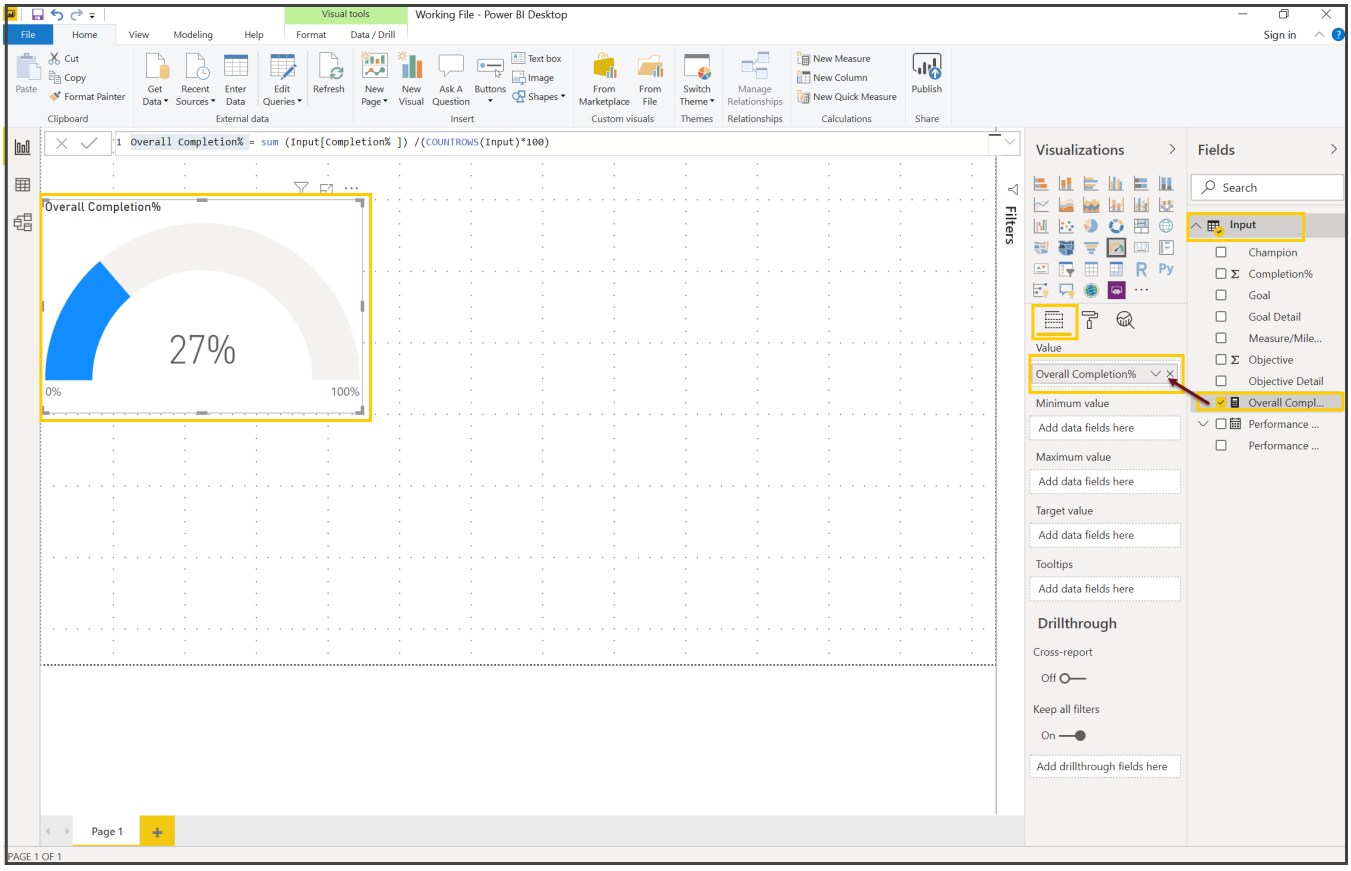
Exercise 6: Creating your first visualization (Completion % of All Goals) Gauge Chart

15. Click on Visualizations Pane and Click on Gauge Chart



Note: Make sure the Visualization is selected before dropping the fields.

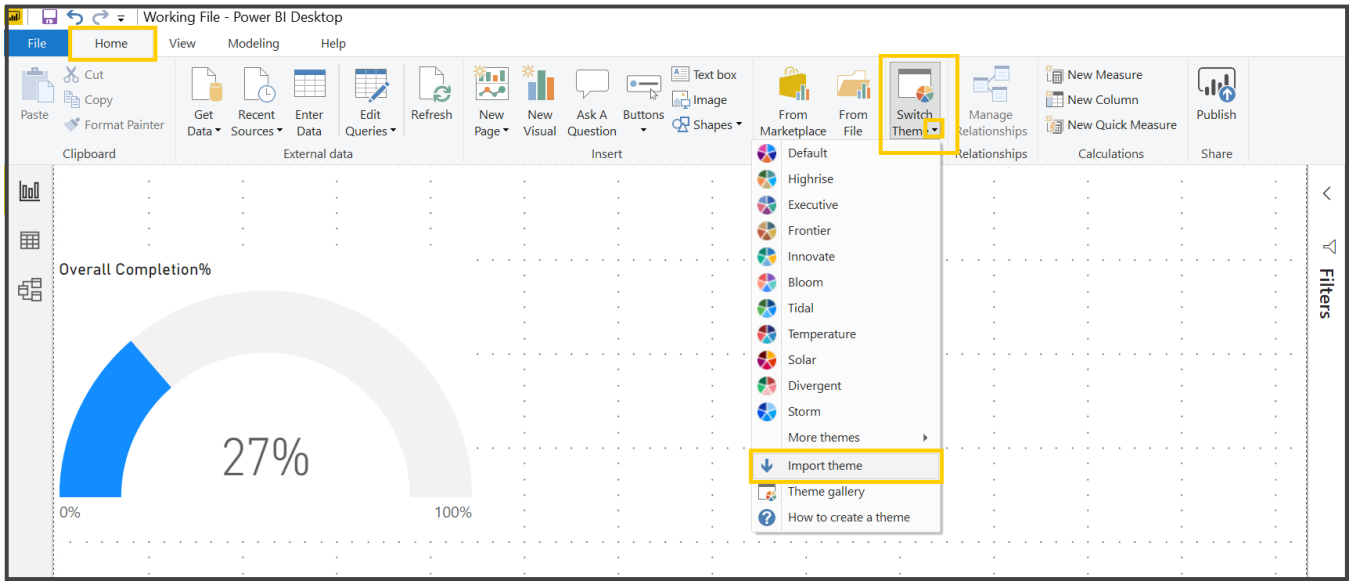
16. Expand Input Query, Drag Overall Completion% to the Value section of the Fields pane of the gauge Visual



Exercise 7: Importing a Theme to a Power BI Desktop File.

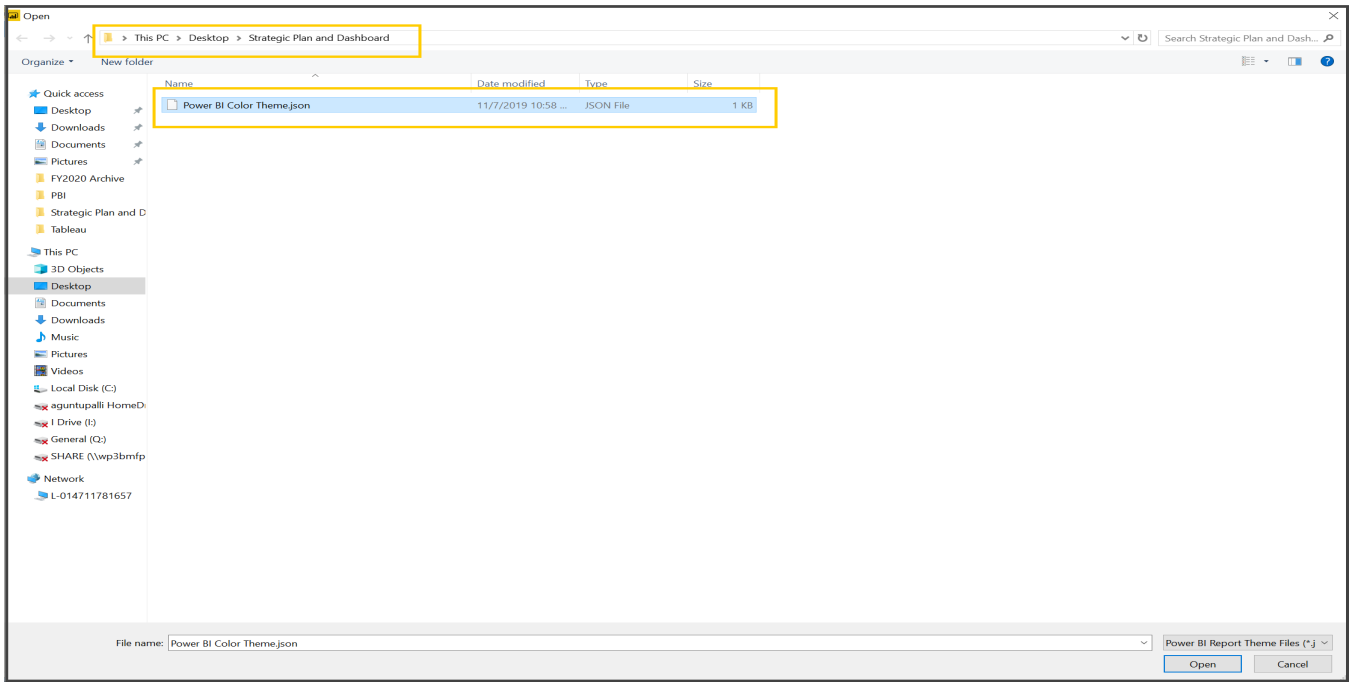
With **Report Themes** you can apply design changes to your entire report, such as using corporate colors, changing icon sets, or applying new default visual formatting. When you apply a **Report Theme**, all visuals in your report use the colors and formatting from your selected theme.

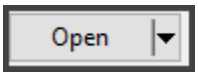
17. From the Home Ribbon of the Report view, click on the drop down of the Switch Theme under Themes section and select Import from the file. Drag **Overall Completion%** to the Value section of the Fields pane of the gauge Visual



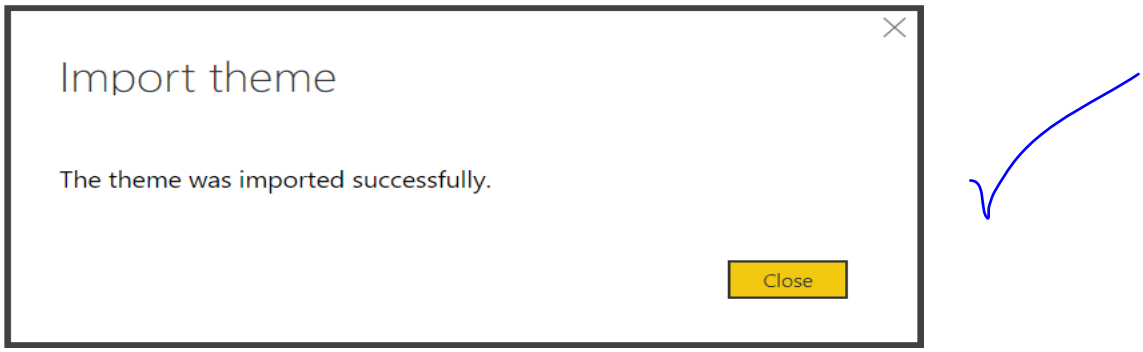
A window appears that lets you browse to the location of the JSON theme file

18. Navigate to the Strategic Plan and Dashboard folder o the Desktop and select Power BI Color Theme.Json file



19. Click on Open (

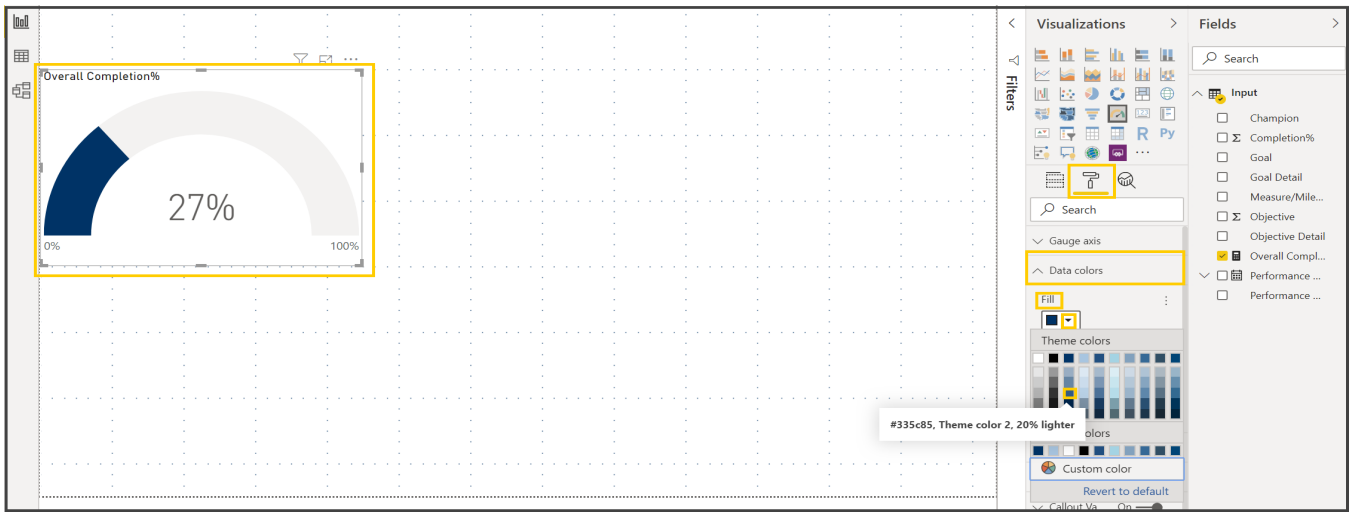
) at the bottom of the screen



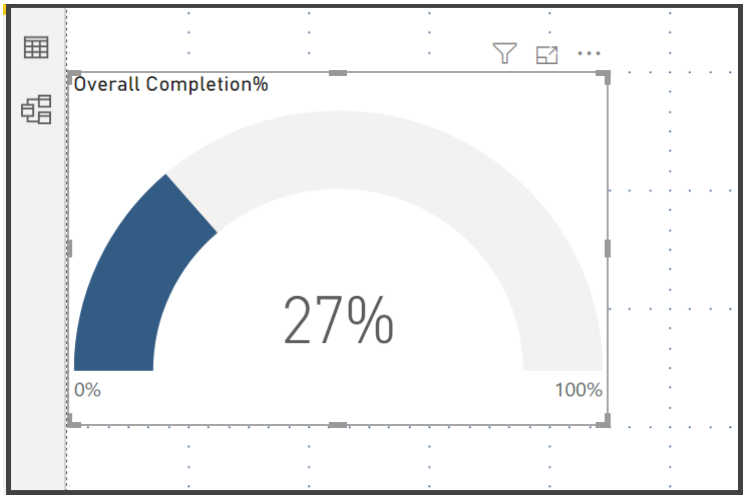
You will get a success message once the theme is imported successfully.

Exercise 8: Changing the Color of the Gauge.

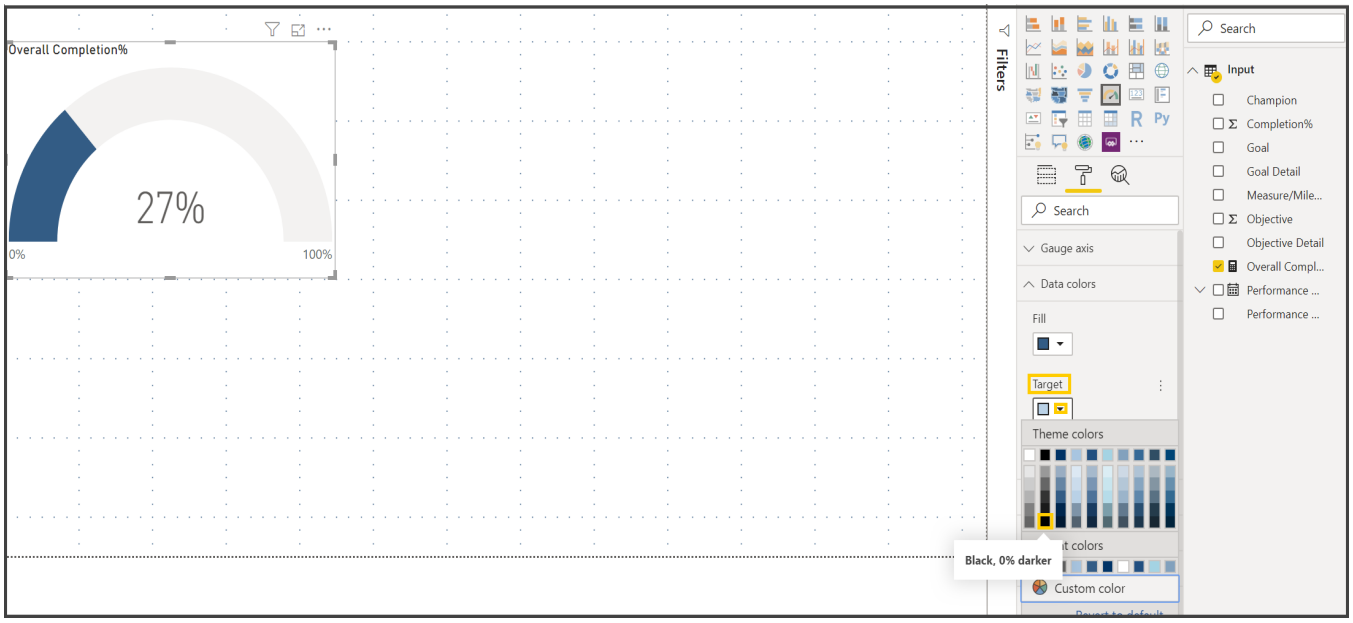
20. Select the Gauge Chart and Click on the Format  of the Gauge Chart, Expand Data Colors properties, click on the drop down of Fill property and select light blue color



After the changing the color the gauge chart looks like the one below.

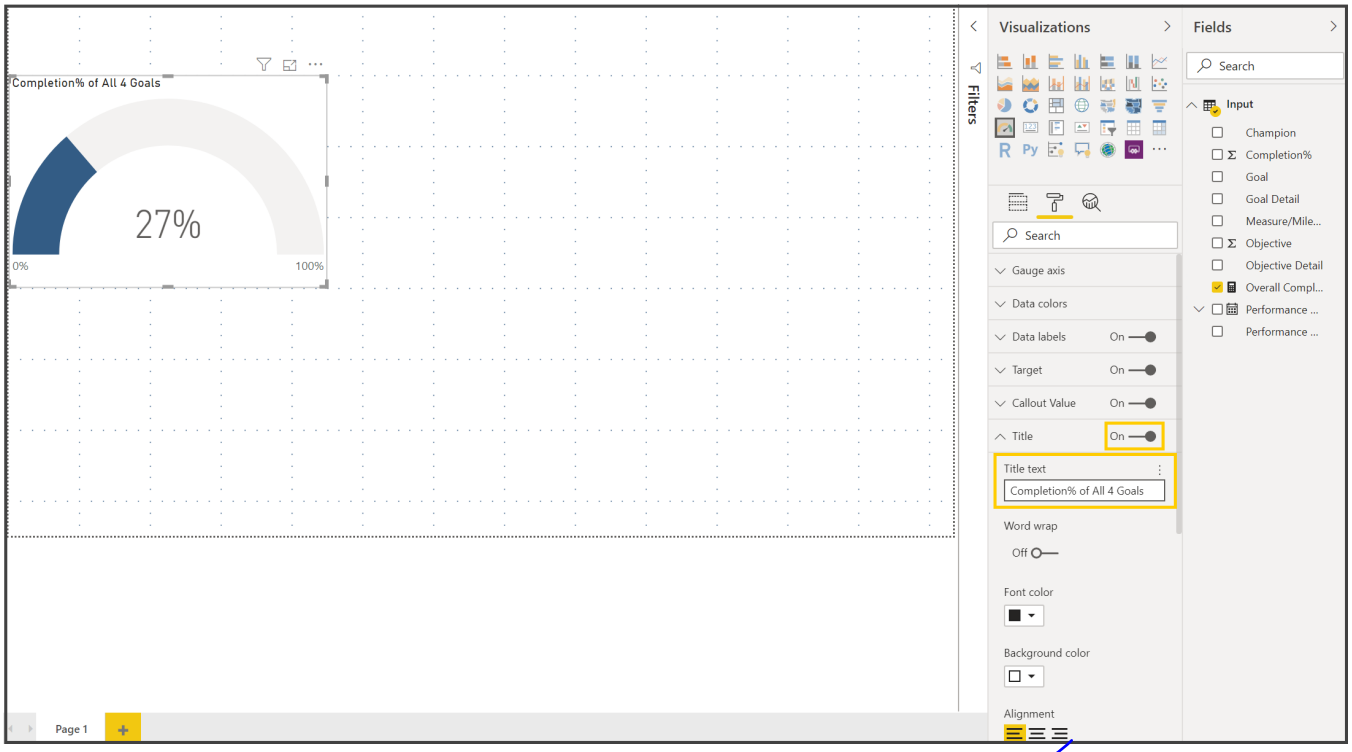


21. Click on the drop down of Target property and select Black color.



Exercise 9: Changing the Title of the Gauge Chart.

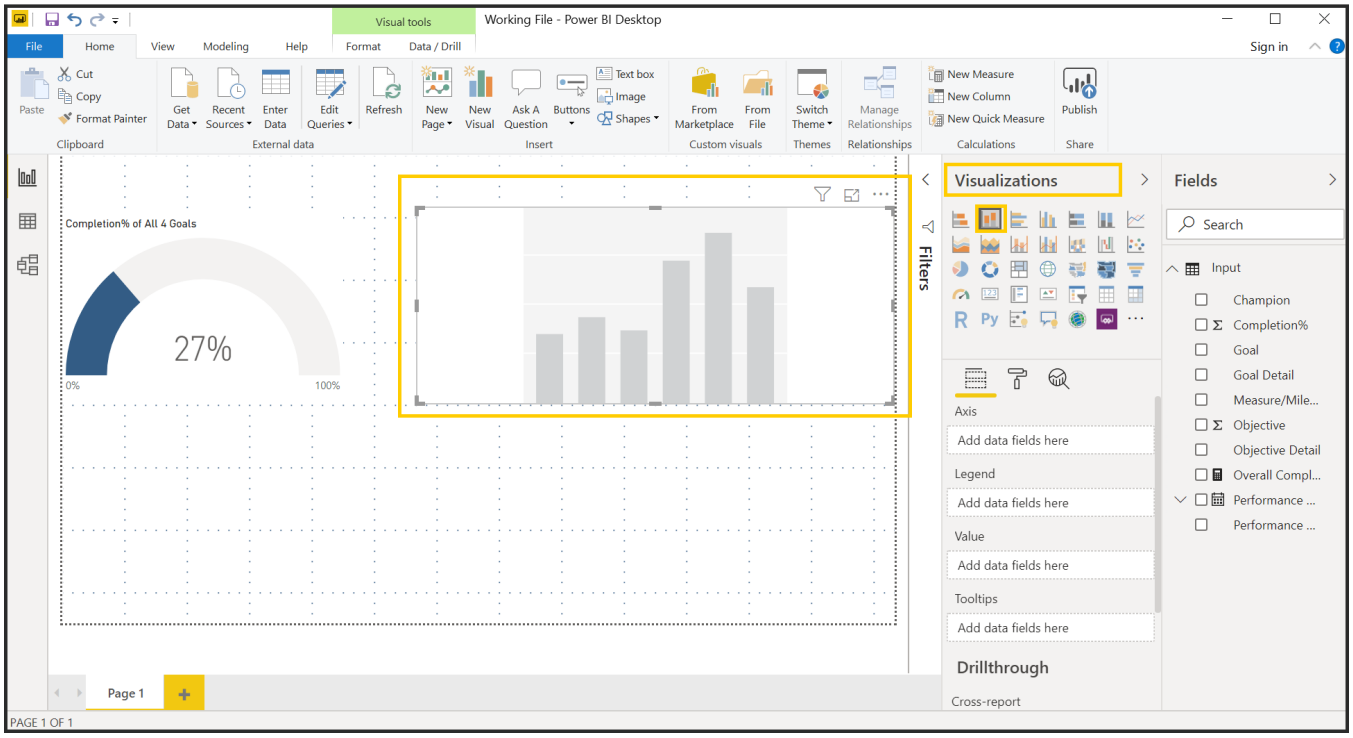
22. Expand the title property of the Gauge chart, Change the title text to "**Completion% of All 4 Goals**".



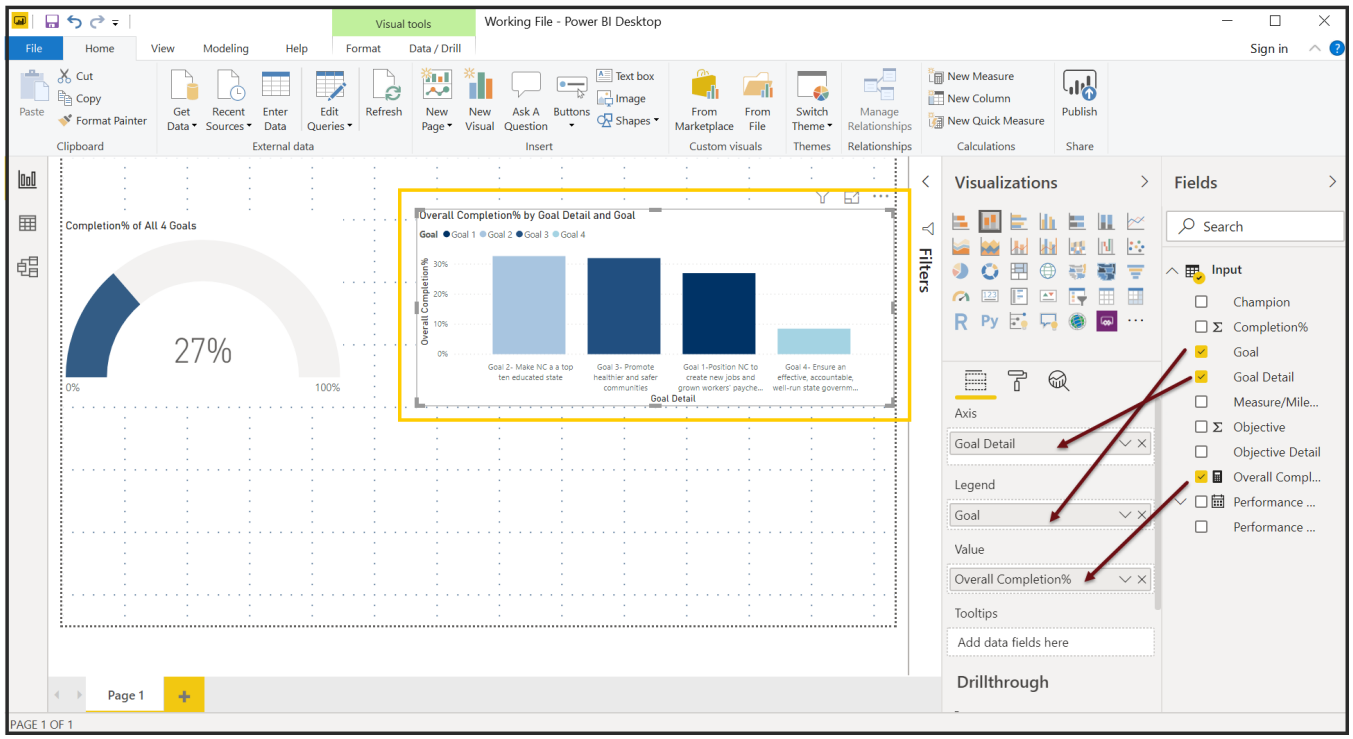
We are done with our first visualization. We will create few more visualizations.

Exercise 9: Creating the Stacked Column Chart.

23. Click anywhere on the Canvas other than the visuals, select Stacked Column Chart and bring the visual next to the Donut Chart.



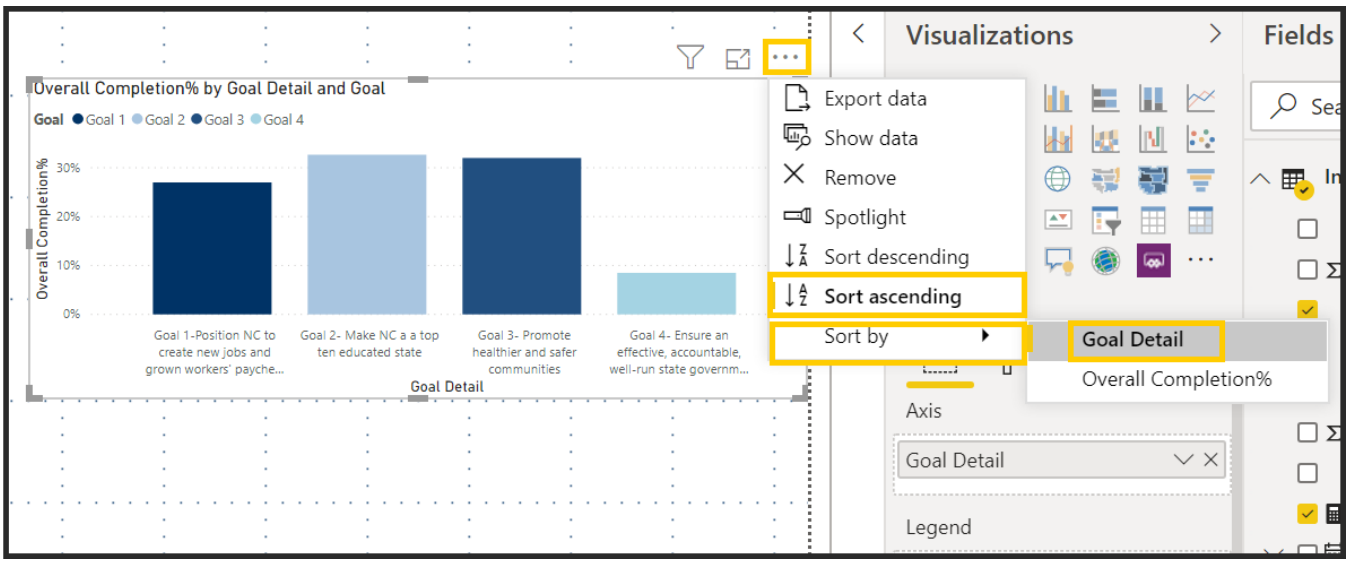
24. Expand Input, Drag **Overall Completion%** to the Value section, **Goal Detail** to the **Legend**, **Goal** to the **Axis** of the **Fields pane** of **the Stacked Column Visual.**



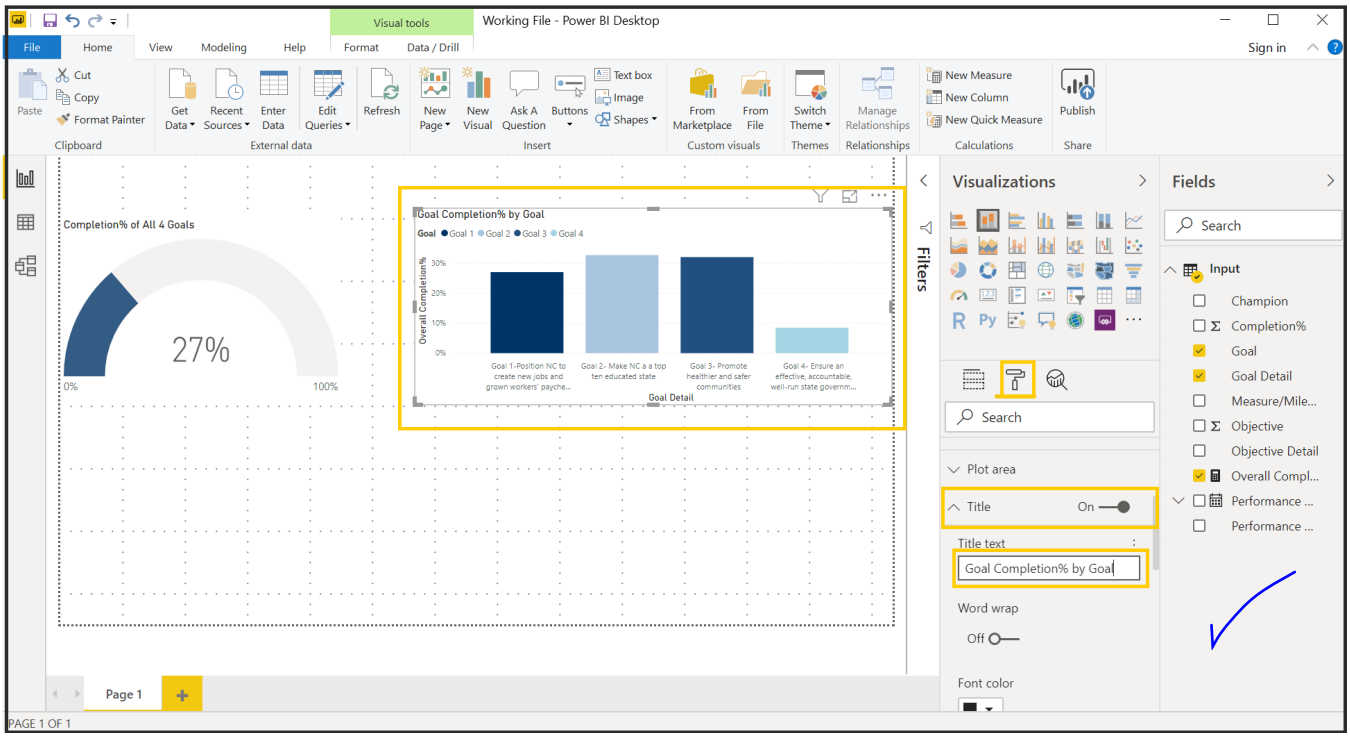
Notice that the goals are not in the right order.

Exercise 10: Sorting the Goals in the right order.

25. Click on the ellipses (More Options) of **the Stacked Column Visual,** Select **Sort Ascending, Hover on Sort by** and Select **Goal Detail**.

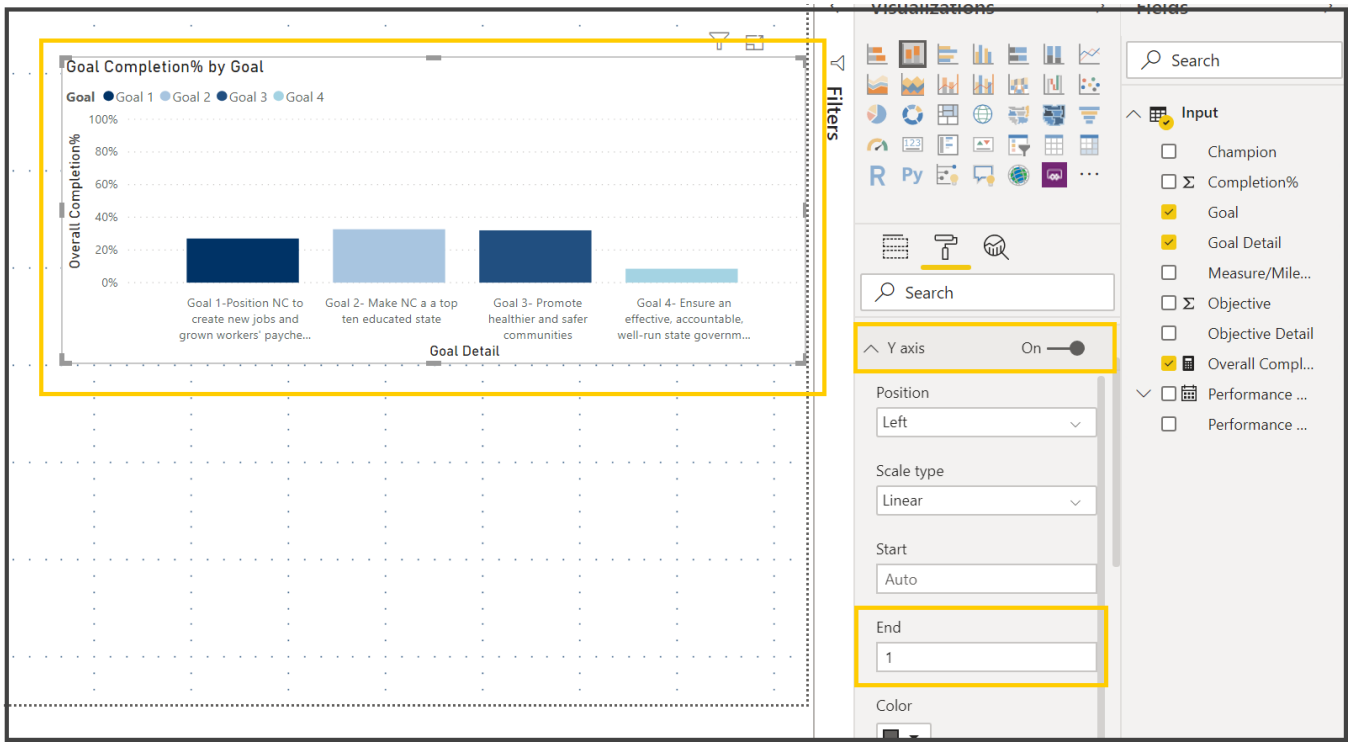


26. Click on the format icon ( ) for the visual, Expand Title and edit the title to "Goal Completion% by Goal"

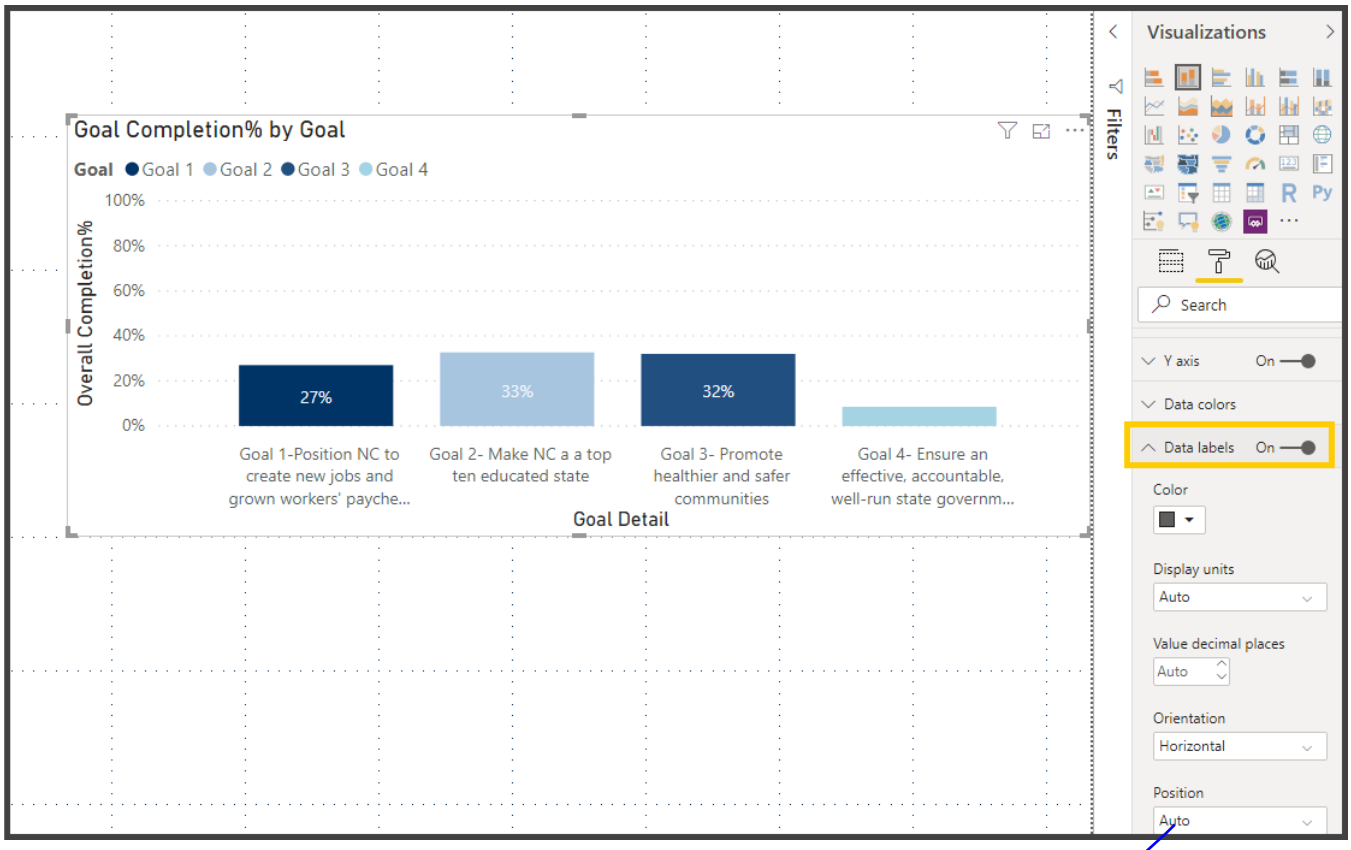


Notice that the Y axis is not 100%

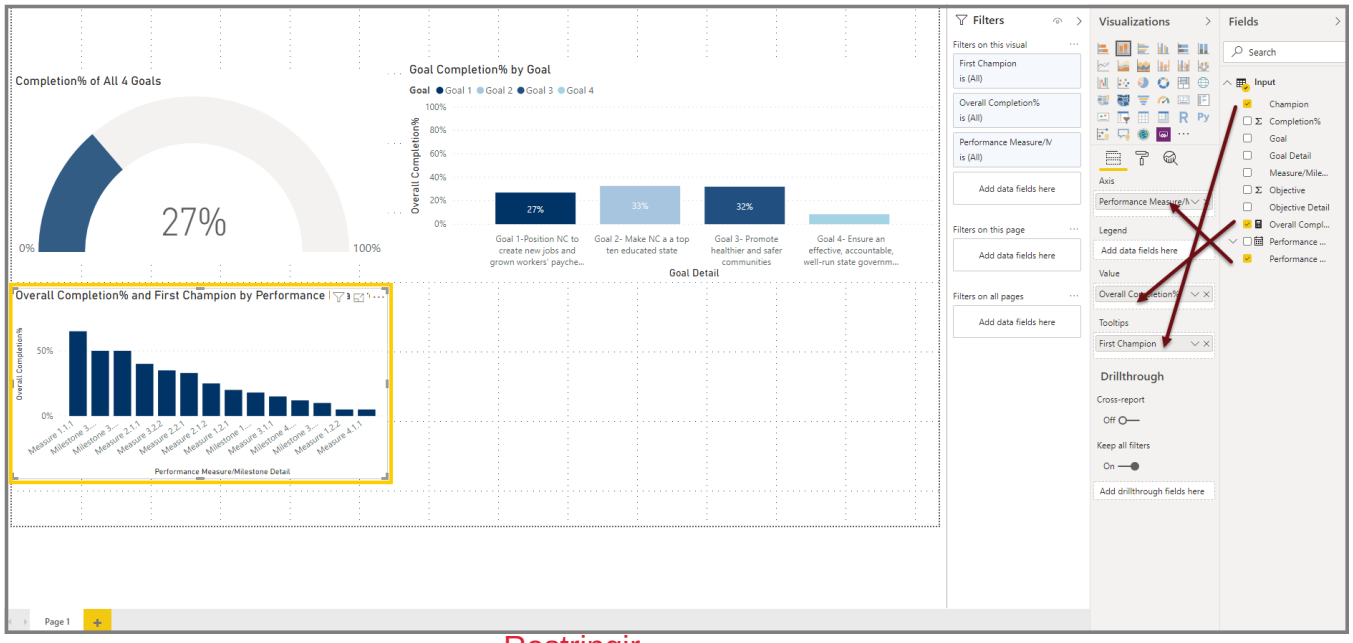
27. Expand Y Axis property, In the End Box, Type in 1



28. Turn on the Data Labels Property.



29. Click anywhere on the Canvas other than the visuals, select Stacked Column Chart and bring the visual below the Donut Chart.
30. Expand Input, Drag **Overall Completion%** to the Value section, **Performance Measure/Milestone Detail** to the **Axis, Champion** to the tool tip of the **Fields pane** of **the Stacked Column Visual.**



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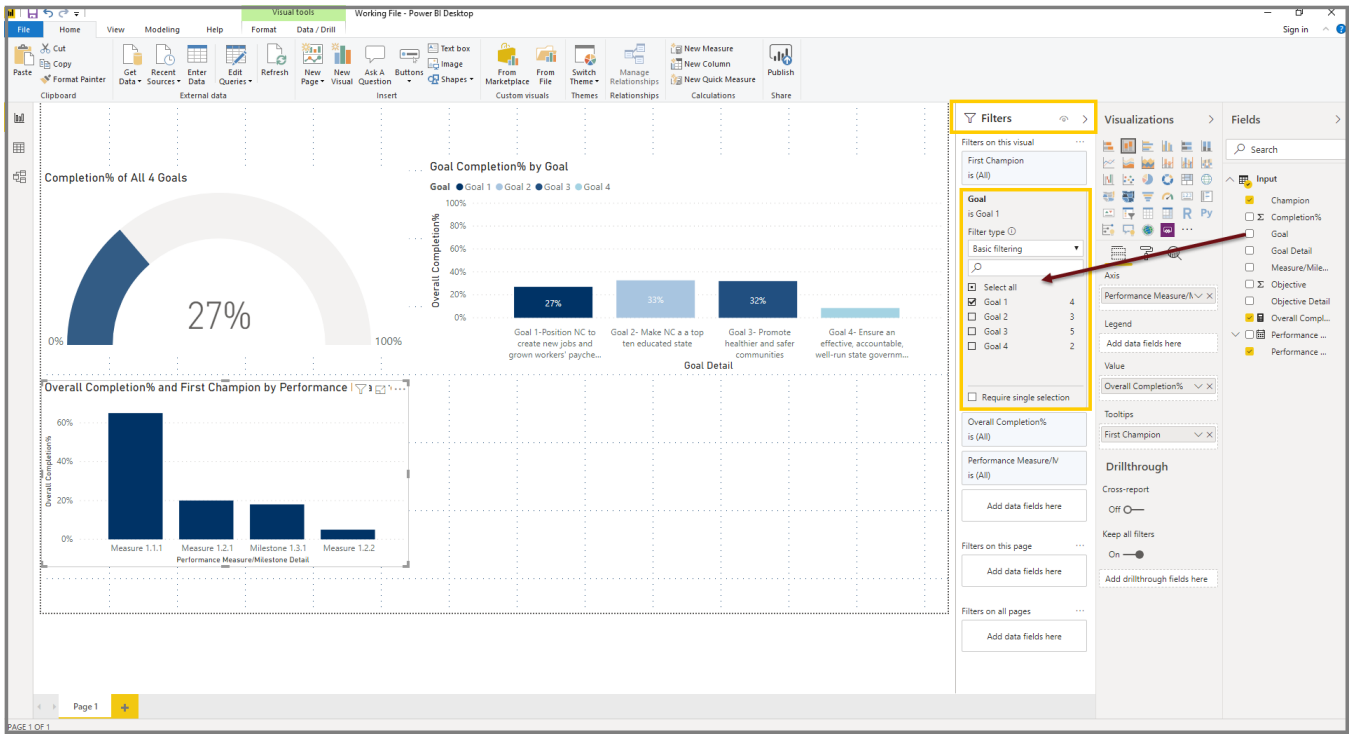
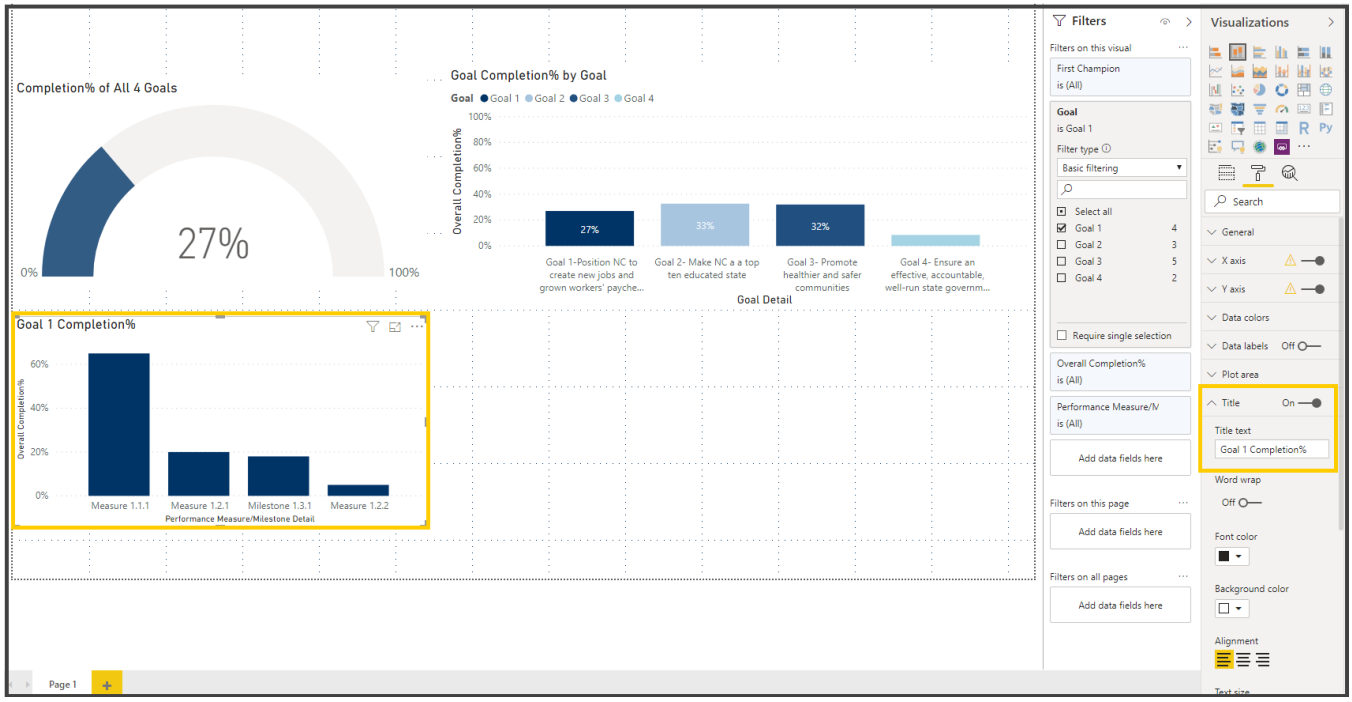
Exercise 10: Filters in Power BI

Filters allows the Power BI visual to narrow down or filter to the desired result. We are filtering the visual to show just the data for Goal.

31. Expand the filters pane, Drag Goal to the **"Add data fields here"** section under **Filters on this visual** section and select Goal 1



32. Click on the format icon ( ) for the Stacked Column Chart visual, expand Title and edit the title to **Goal 1 Completion%**

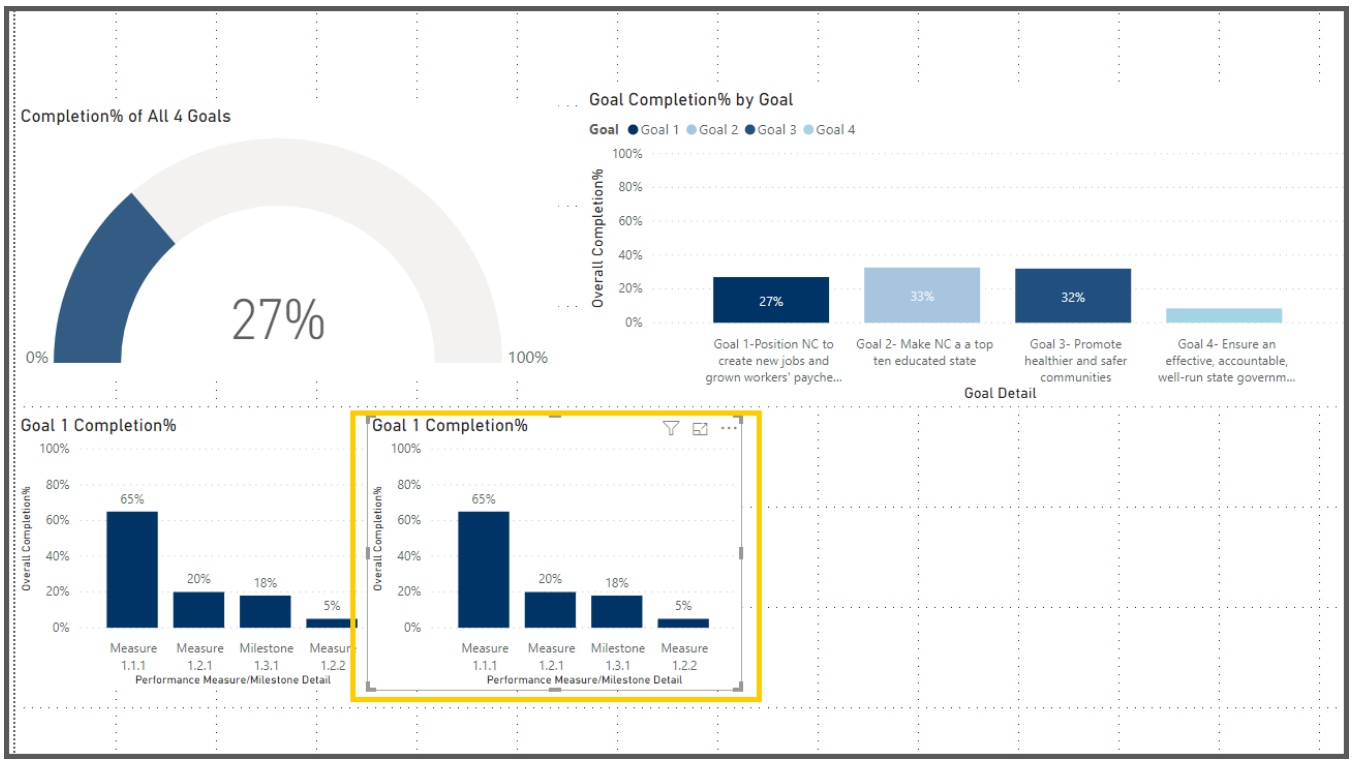


33. Turn on the Data Labels Property, Expand Y axis Property and in the End box Type 1

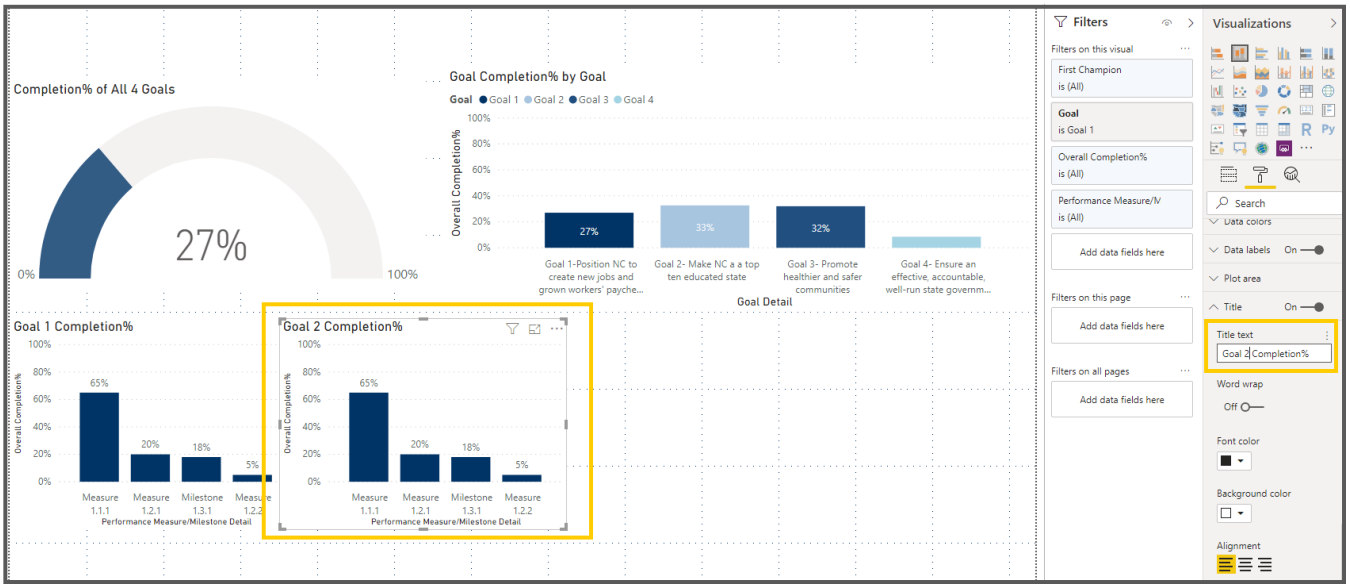
Adjust the height and width of the visual.

34. Click on the **Stacked Column Chart visual** and copy & paste it, Adjust the position on the Report page

Note: It is like MS word Copy (Ctrl + C) and Paste (Ctrl + V)



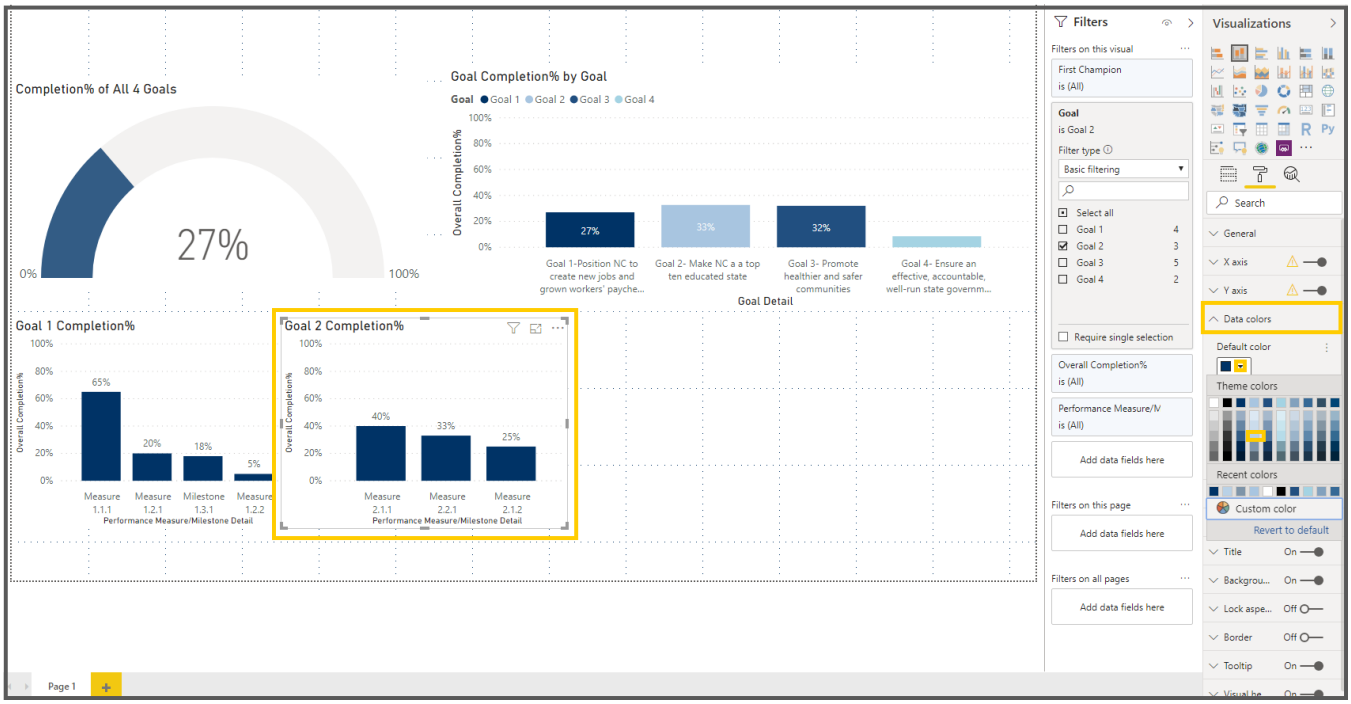
35. Click on the format icon ( ) for the Stacked Column chart visual, expand Title and edit the title to **Goal2 Completion %**



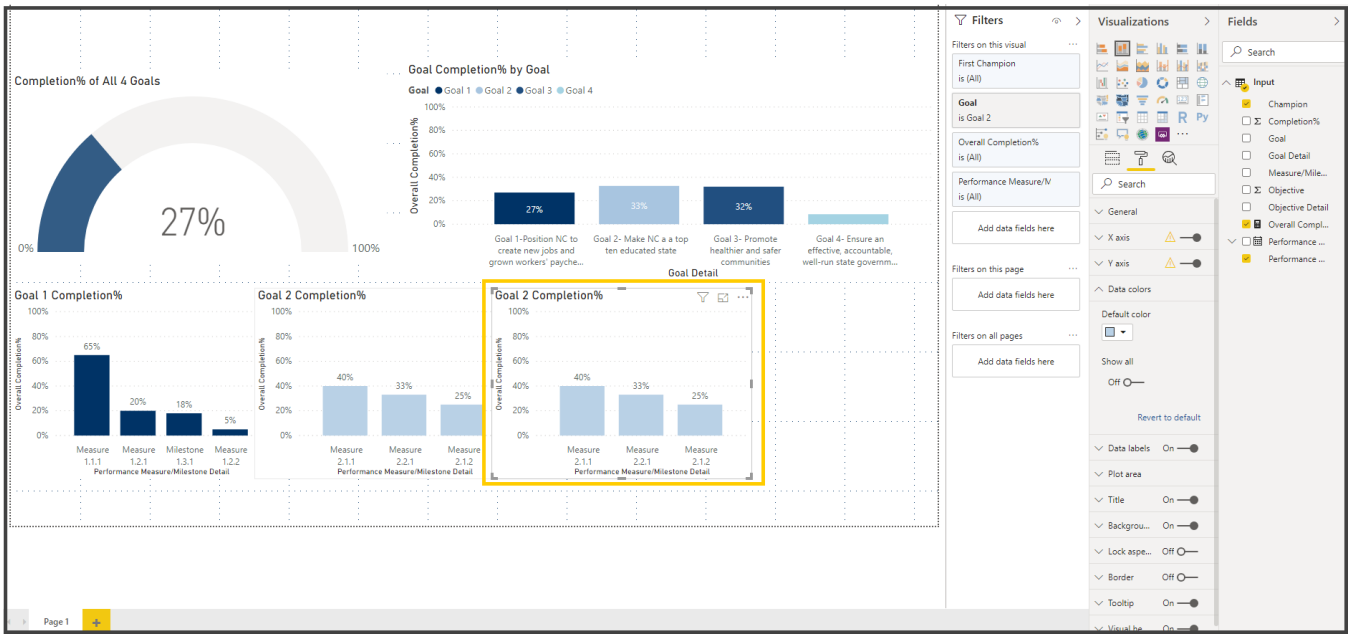
36. Expand the filters pane, click on the drop down of the Goal Filter on Filters Pane and select Goal 2

Notice that the **Stacked Column Chart visual is** automatically changed to the reflect the data to the Goal 2.

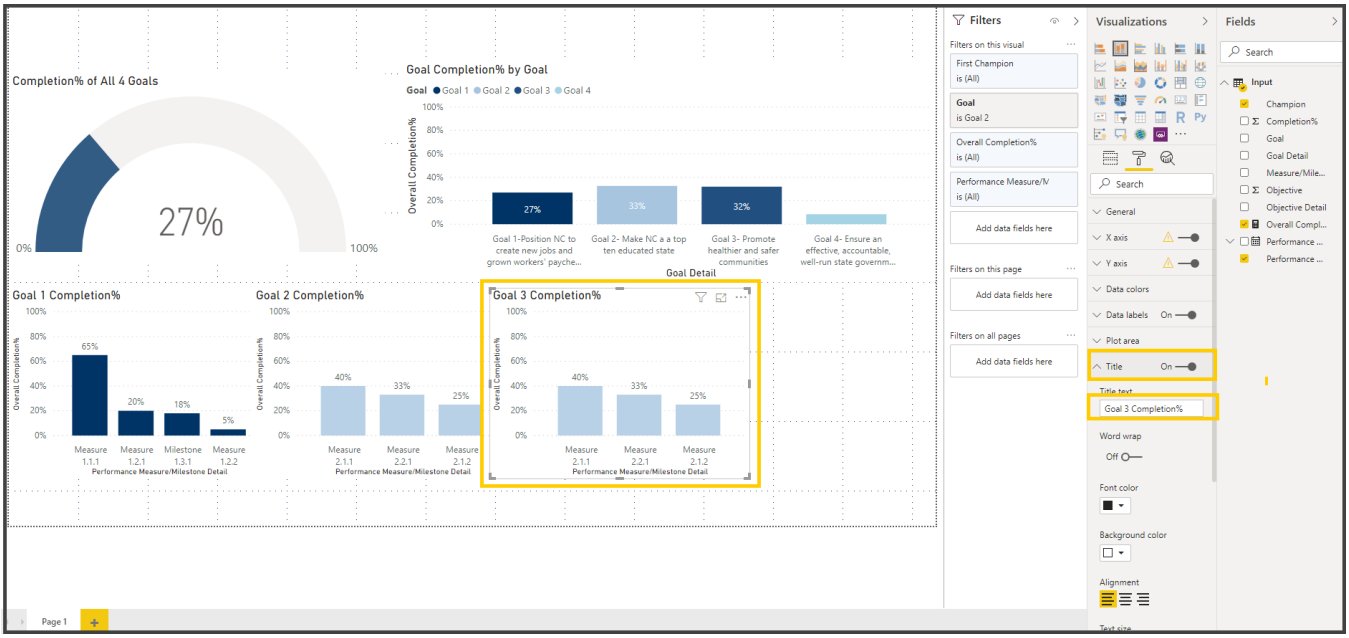
37. Click on the format icon ( ) for the Stacked Column chart visual, expand Data colors property, Change the color to reflect the color for Goal 2 on the Goal Completion % by Goal.



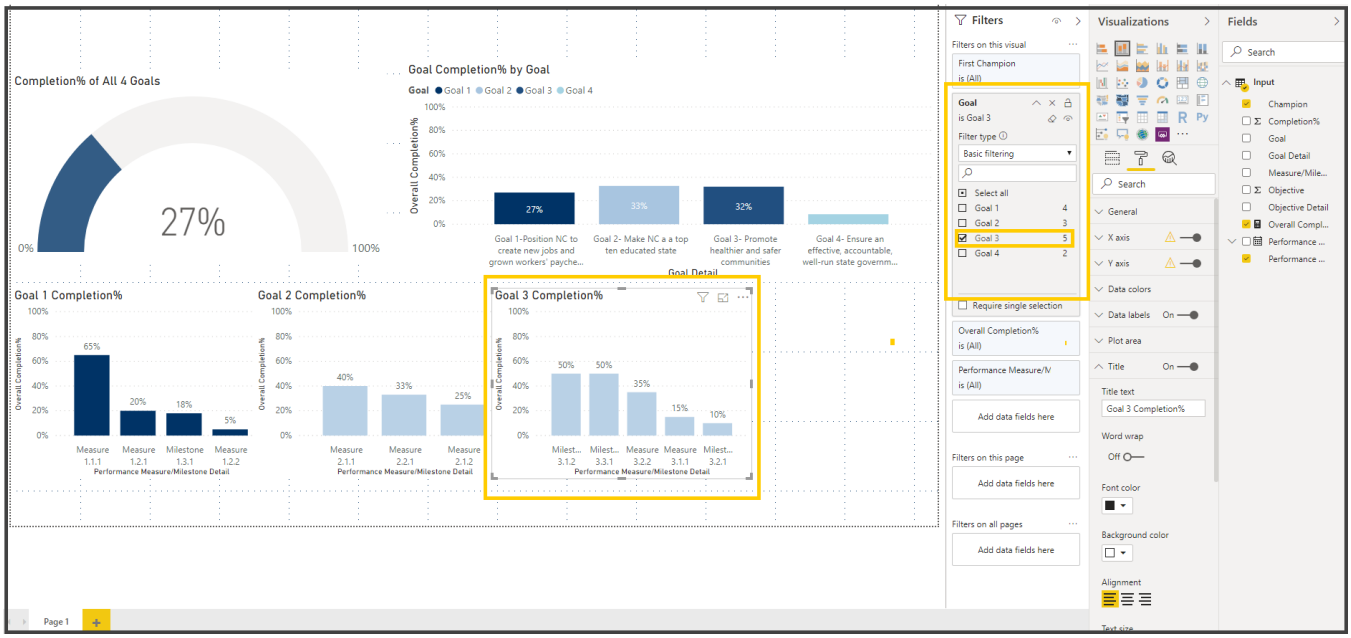
38. Click on the **Stacked Column Chart visual** and copy & paste it, Adjust the position on the Report page



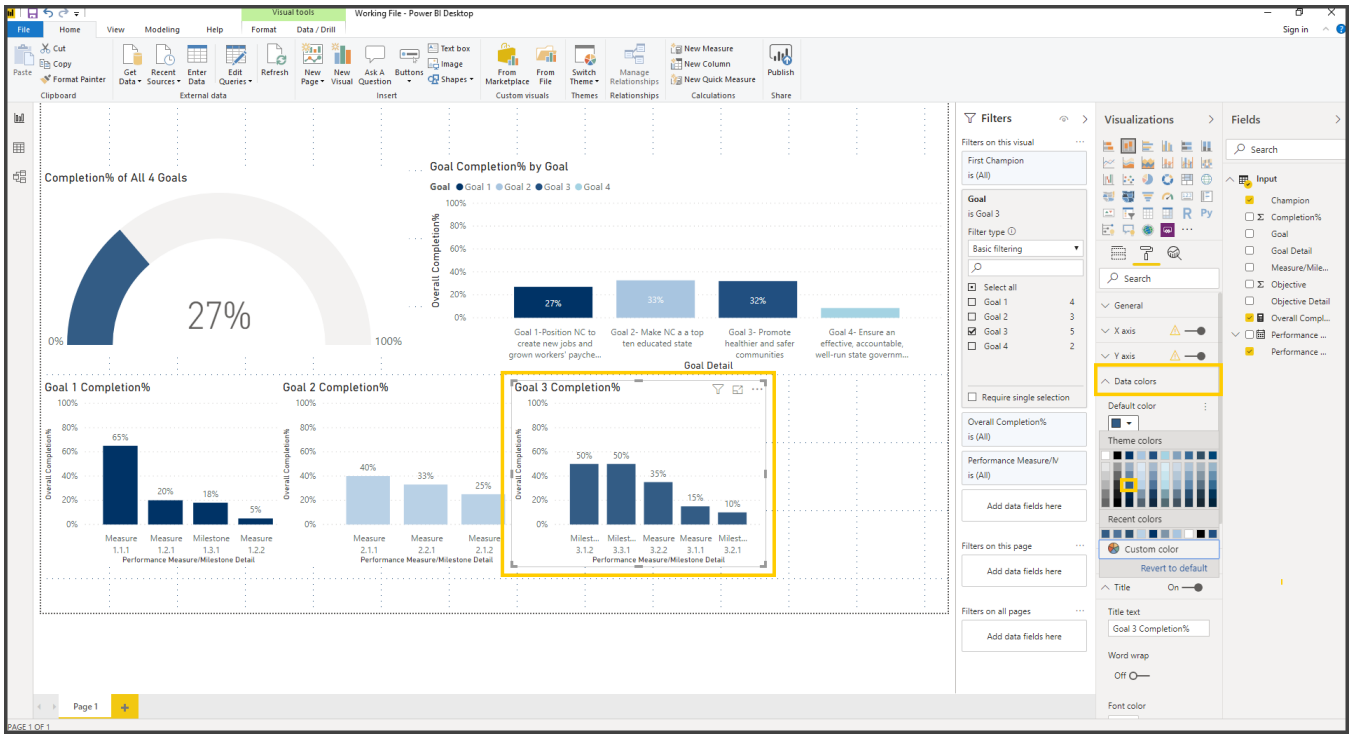
39. Click on the format icon ( ) for the Stacked Column chart visual, expand Title and edit the title to **Goal3 Completion %**



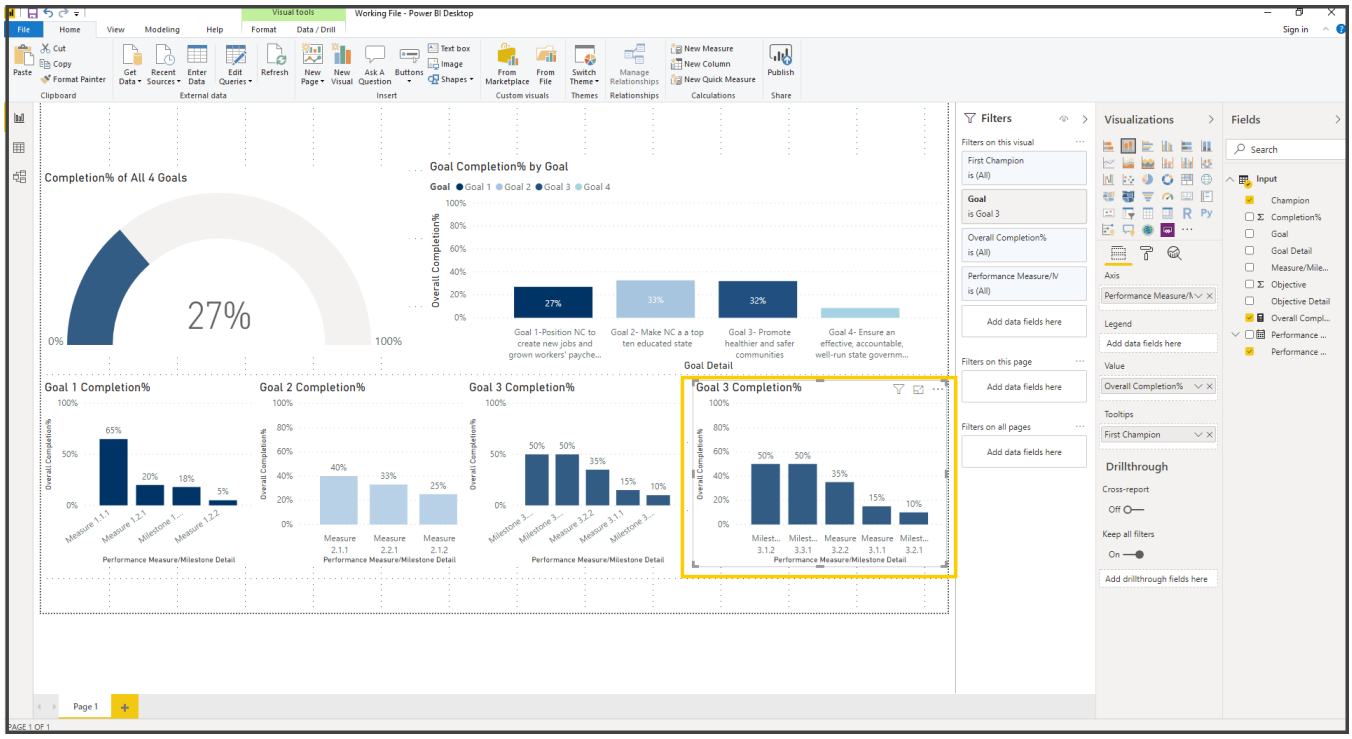
40. Expand the filters pane, click on the drop down of the Goal Filter on Filters Pane and select Goal 3



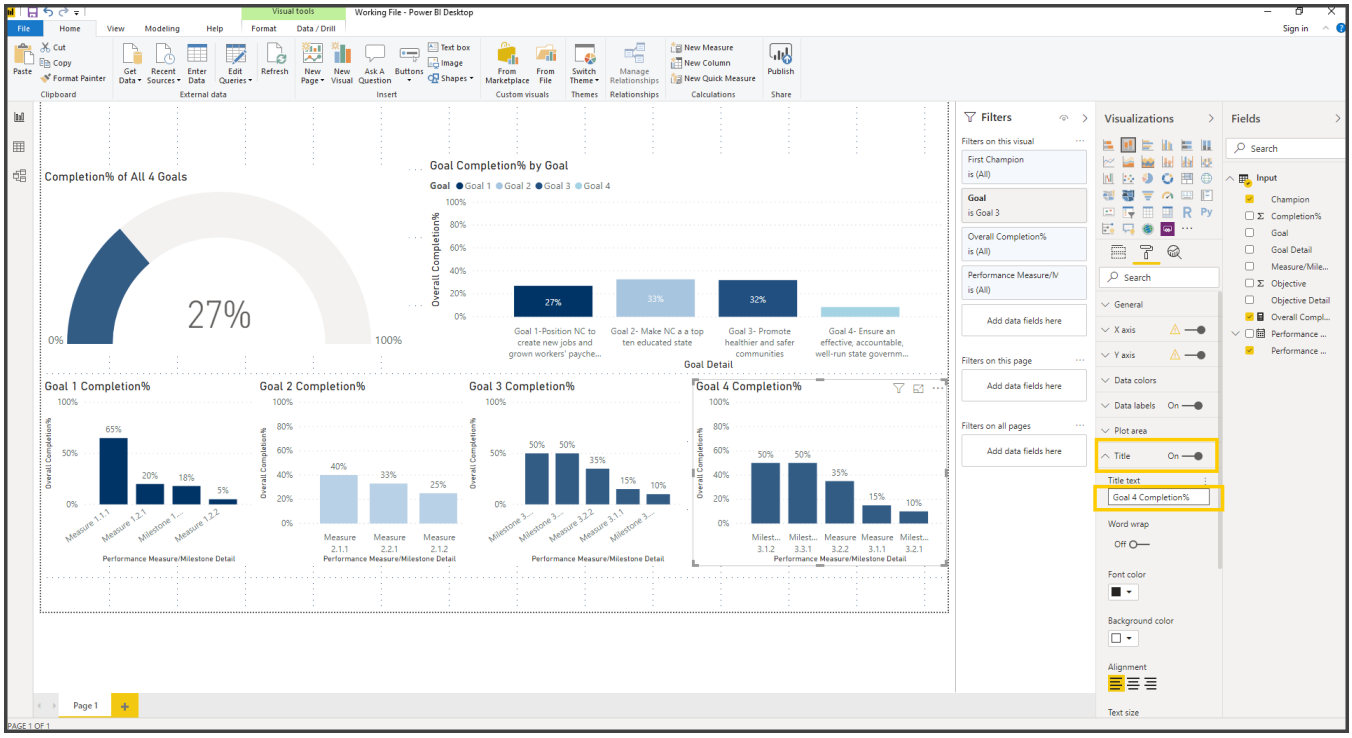
41. Click on the format icon ( ) for the Stacked Column chart visual, expand Data colors property, Change the color to reflect the color for Goal 2 on the Goal Completion % by Goal.



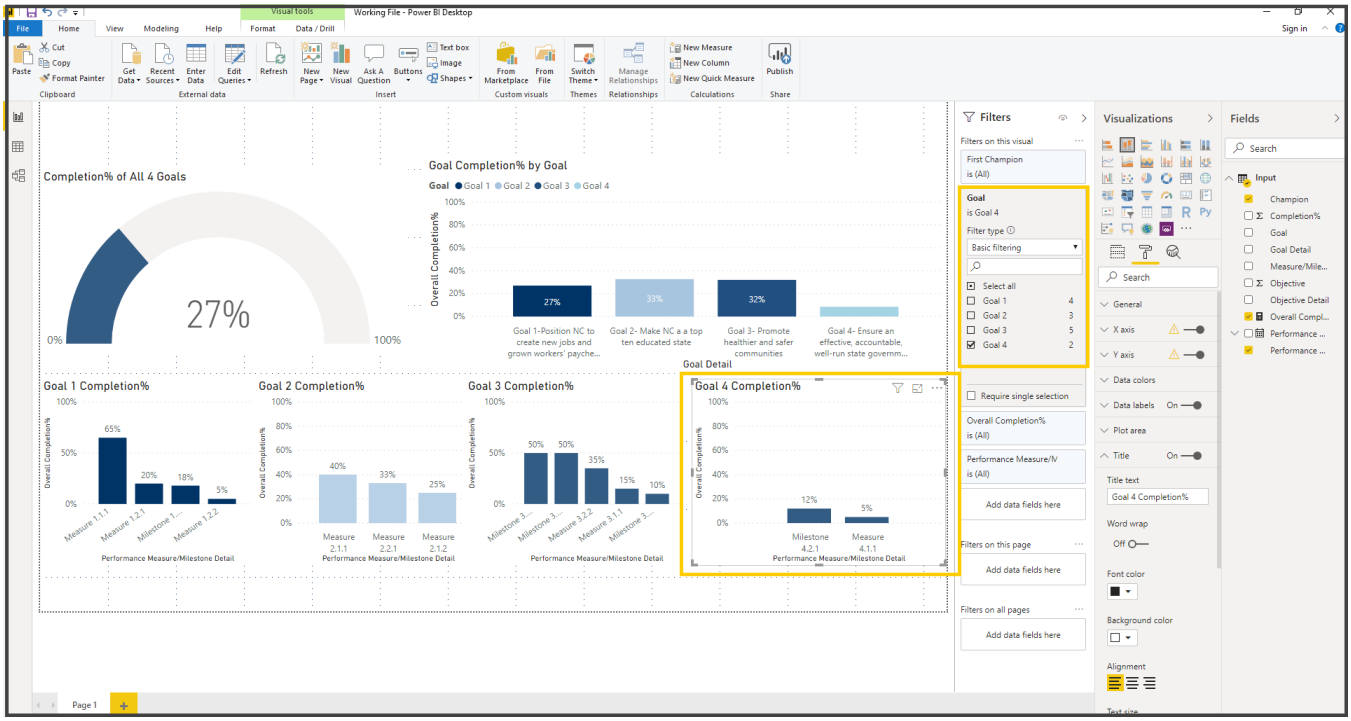
42. Click on the **Stacked Column Chart visual** and copy & paste it, Adjust the position on the Report page



43. Click on the format icon ( ) for the Stacked Column chart visual, expand Title and edit the title to **Goal3 Completion %**



44. Expand the filters pane, click on the drop down of the Goal Filter on Filters Pane and select Goal 4



45. From the Home Ribbon, click on the Text Box and type in "Strategic Plan Dashboard" and increase the font size to 21.