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Sales Performance Analysis: Tableau Assessment – Writeup

https://public.tableau.com/profile/sujit.sonar#!/vizhome/Sales_Perormance_Dashboard/SalesPerformanceVsTarget

Background: Mike Goodman, the head of Product Management of a retail products company, is responsible for determining which products his company should continue to offer for sale and which products should be discontinued from the company's product catalog.

Objective: To build a dashboard that will present monthly sales performance by product segment and product category to help client identifying the segments and categories that have met or exceeded their sales targets, as well as those that have not met their sales targets.

Understanding Business Requirement: From the given objective we understand that:

1. **We need to measure the sales performance (actual sales vs Target) by product segment, product category by month,**
2. **To measure the given metric, we will need a dataset having, product category, product segments, dates, sales and target**
3. **Approach would be to compare actual sales with target and determine whether the Actual sales is >= target or less than target and visualize the comparison.**
4. **We will follow the below set of instructions to build the Dashboard**
    1. Use the Saved Sample – Superstore dataset.
    2. Create a bullet chart with Category and Segment dimensions and Sales measures.
    3. Blend the data with the Saved Sample - Sales Target data set to bring in the Sales Target measure.
    4. Color code the chart to identify Categories and Segments that are above or below target.
    5. Add the year of sales to the view to identify trends and outliers.
    6. Add a filter so that the user can select one, more than one, or all years.
    7. Create a dashboard with this view.

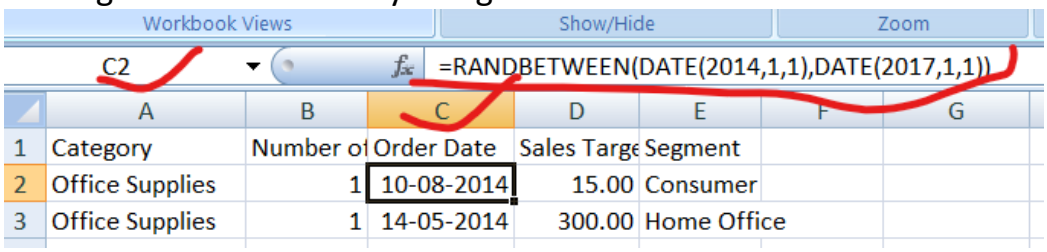
Solution:

Step1: Download the give sets of datasets (we have two files:

1. Sample-Superstore dataset
2. Sales_Target dataset

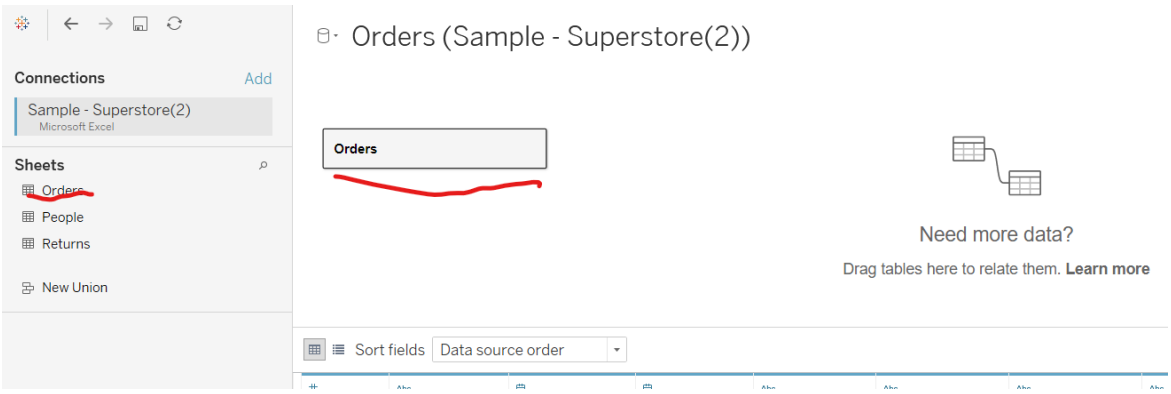
Observations:

- Sample_Superstore data set has three tabs/sheets – Orders, Returns and People.
- We see that for the given requirement, we can find all the data information in the Orders tab (Order Date, Product Category, Product Segment and Sales Amount).
- Sales target information is available in Sales_Target dataset and we can see common columns like Order Date, Product Category, Product, which we will use to blend the two datasets.
- We also see that, the Order date in the Sales_target dataset is being generated randomly using an excel formula.



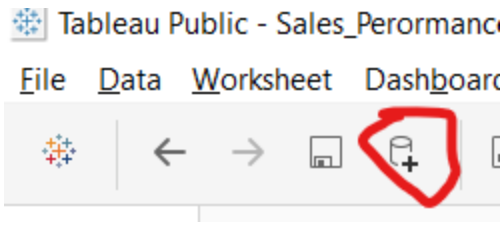
- This means that every time we open the file to validate or apply filters, the cell values will get updated. This will cause some challenges while do manual validating the Sales target values.
- Before loading the dataset to Tableau, we can hardcode the Order date for this exercise.

Step2: Open Tableau and from the home page, connect/load the saved Sample-Superstore dataset. Drag the Orders tab to the data pane as shown below

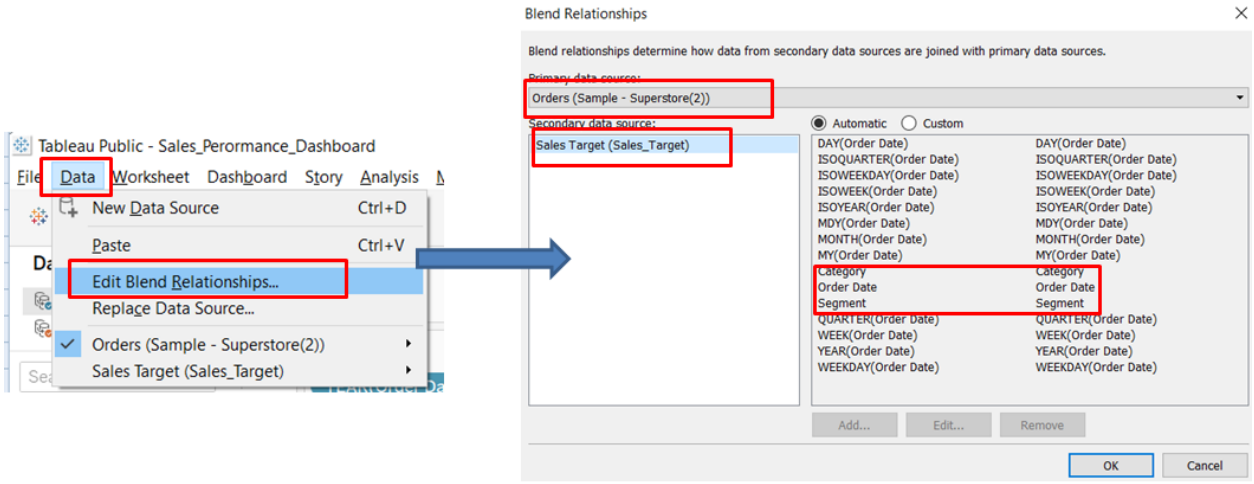


Step3:

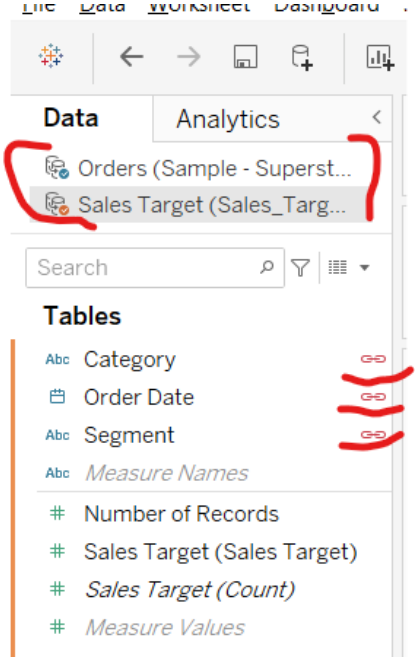
1. Click on Sheet 1 (we can rename the sheet to any relevant name like Sales Performance Vs Target).
2. Then when in this sheet, click on the new data source icon to add the second dataset (Sales_Target)



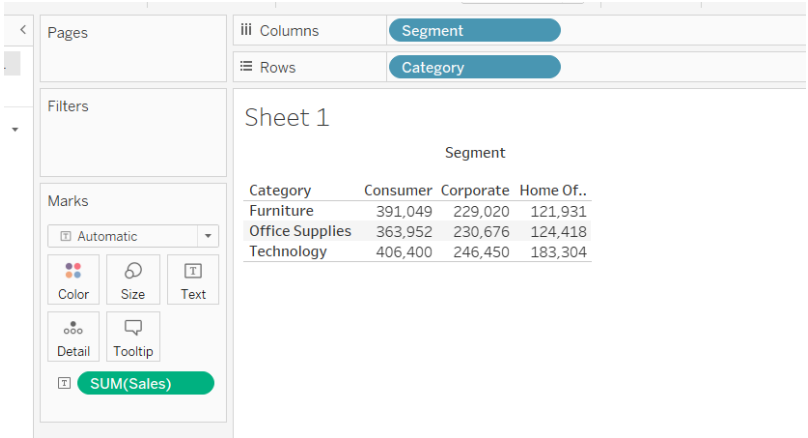
3. Then we need to establish a relationship between the two datasets by blending as shown below.



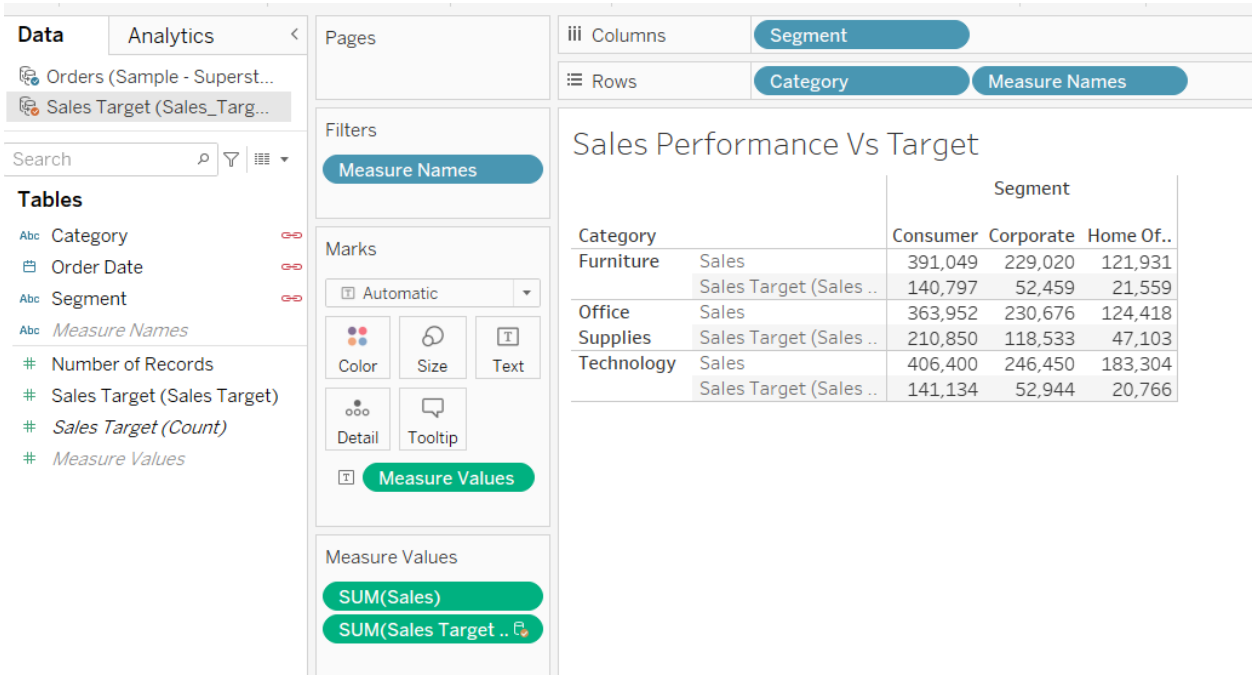
4. Relationship is established between the two data sets using the common columns present is both the data sets and we need to ensure that the link icon is enabled which will appear in red once the relationship is established as shown below. We can also see that Orders tab from the Sample_Superstore dataset is the primary data with a blue tick icon and Sales_Target is a secondary dataset as shown in orange tick icon



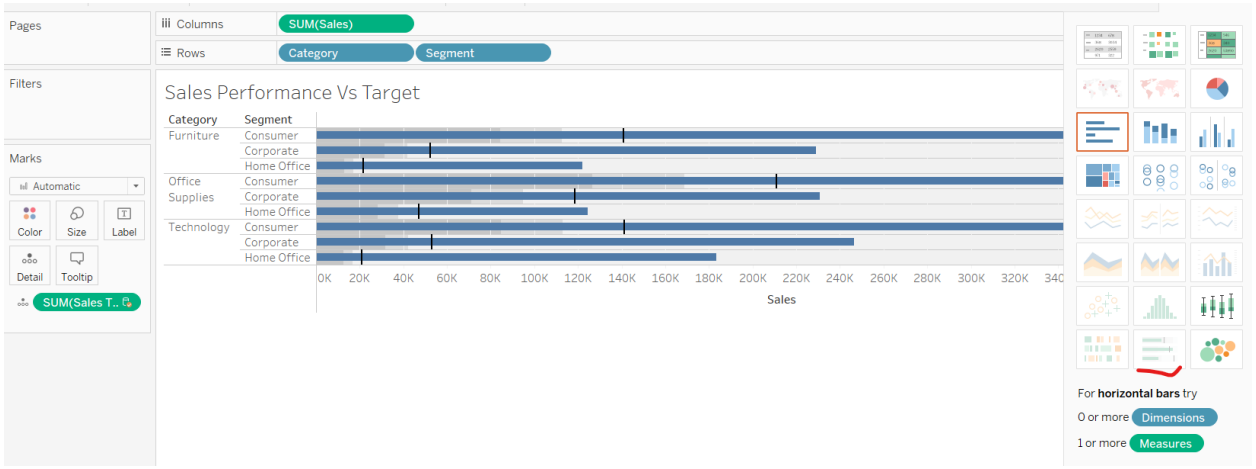
Step4: Once we ensured that the relationship is correctly established between the two data sets, we now continue to build the visualization. First we need to understand what kind of chart/visual we want to create. From the given question, we know that we need to create a Bullet chart. So using the Category, Segment, Sales data from the Primary dataset (Orders) , we drag the fields to the pane as shown below



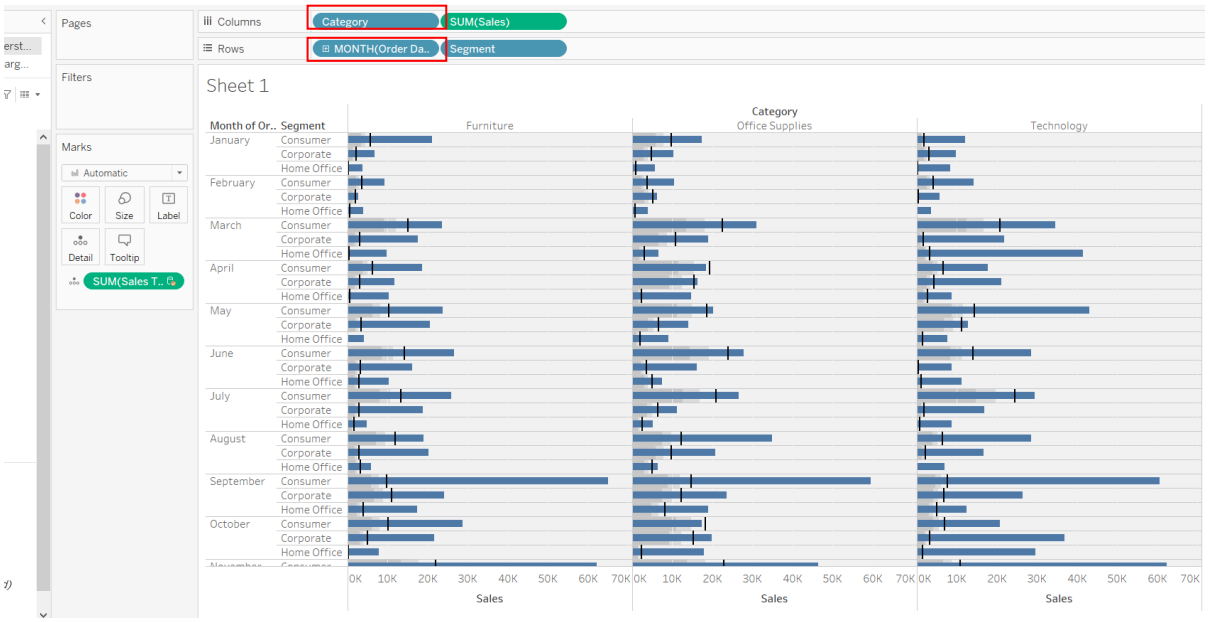
Step5: From the secondary dataset (Sales_Target), double click on the Sales Target (Sales Target) from the left men and we get the below view



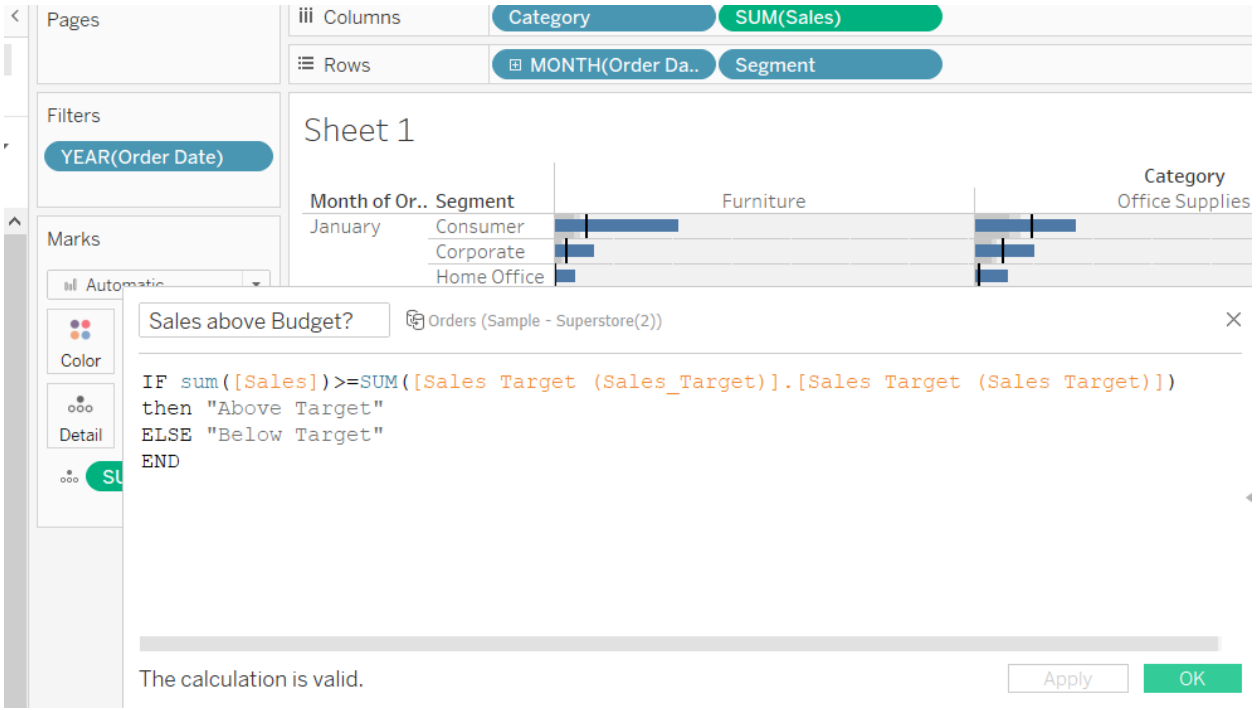
Step6: Now we can convert the above table into Bullet chart from the “Show Me”, menu, select Bullet Chart and we get the below visual



Step7: Adding the order date field and changing it to month and moving the category field to columns to have proper summarization

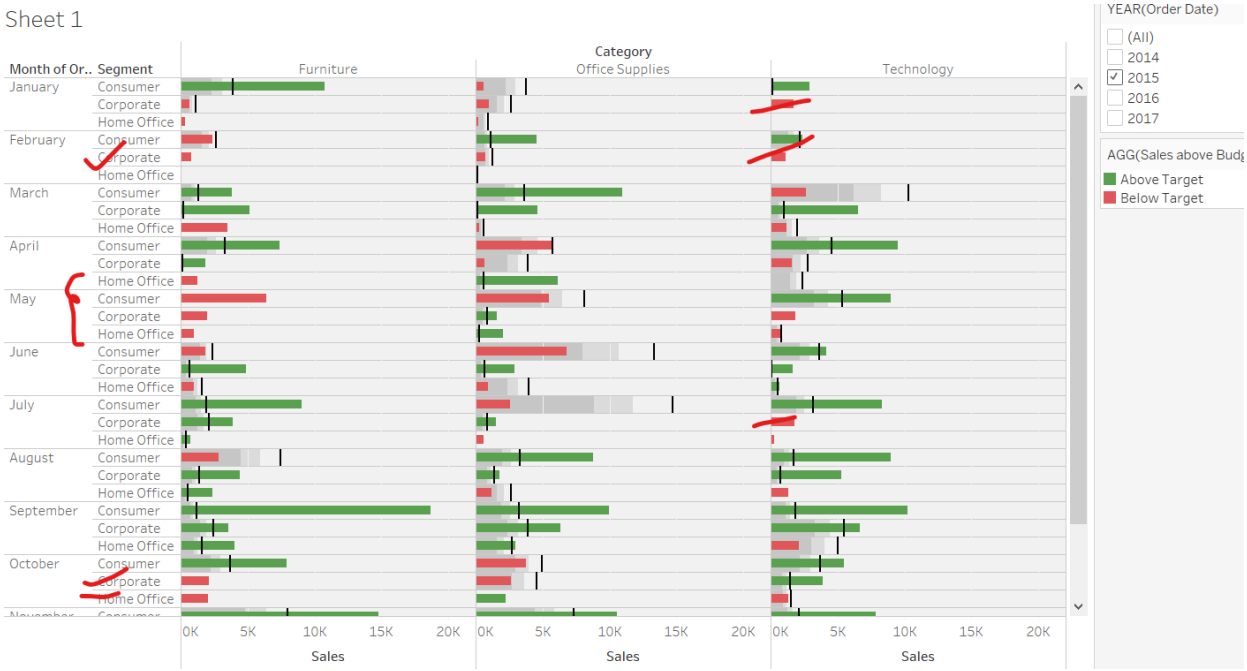


Step8: As per the instructions, we need to "Color code the chart to identify Categories and Segments that are above or below target." we for that we will need to create a custom col to compare the actual sales and the sales target. We create a calculated field using the below logical formula as shown.



Step9: A new field is created as shown. Drag and drop this newly created field to the color and change the column, Above Target to Green and Below Target to red and also applying show filter by Year, we will get the below visual

Step10: Validating the data points, sales and target. We see, some of the sales does not show any Sales target. **We need to understand the reason behind missing target values.** For that we will need to see the data itself.



This missing sales target is possibly a missing data in the dataset itself. It is possible that, for the given year and month, there are sales data for the given product category and segment in the Sample – Superstore dataset, but there are no sales target data ,for the same given Order date (Year and month) in the Sales Target data set. Let's validate for one data point

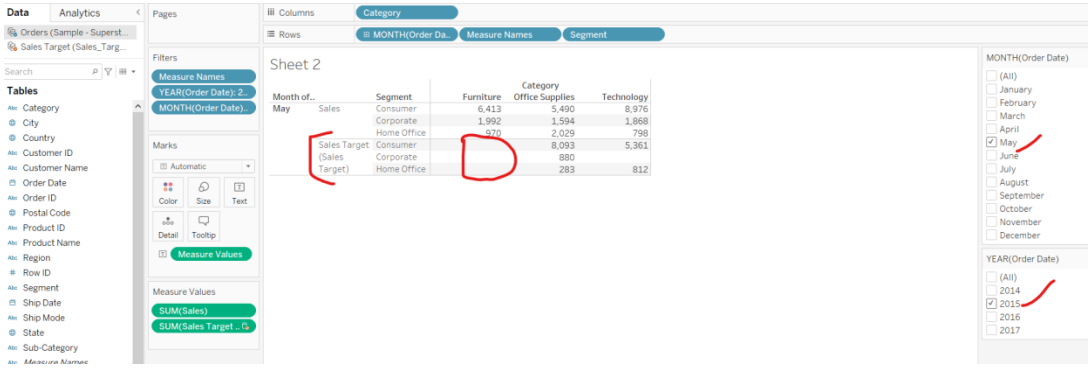
Year 2015

Month –May

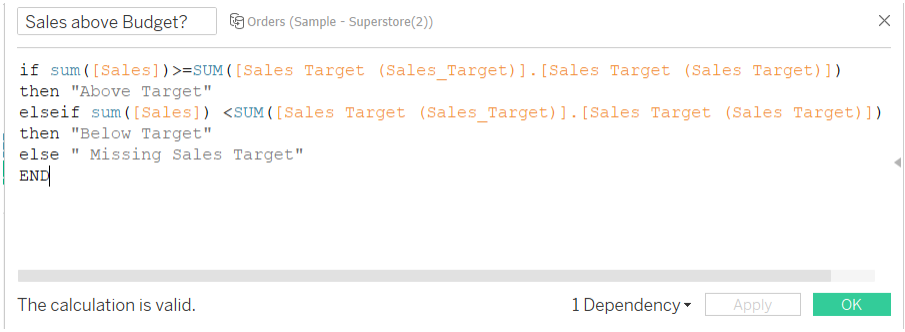
Segment –Consumer, Corporate, Home office

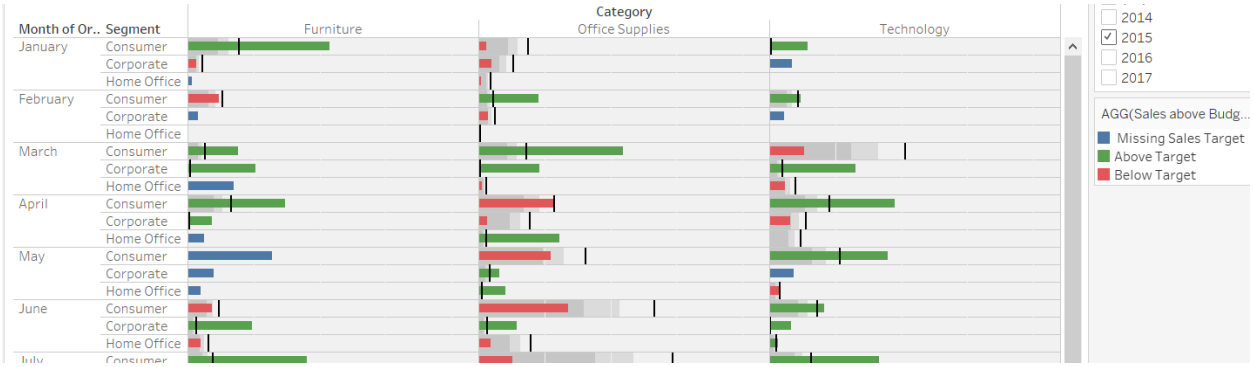
Category – Furniture

From the analysis below we, can see that there are no Sales Target for the given Year and Month for the Product Category and Segment but we have sales data.



This shows that, there are some missing sales targets. We can probably show a third category in the calculated filed to show sales with missing Targets.





Step11: Finally applying all the formatting, we get the required output as shown below

And we create a Dashboard and insert the chart to the Dashboard

Final Result: