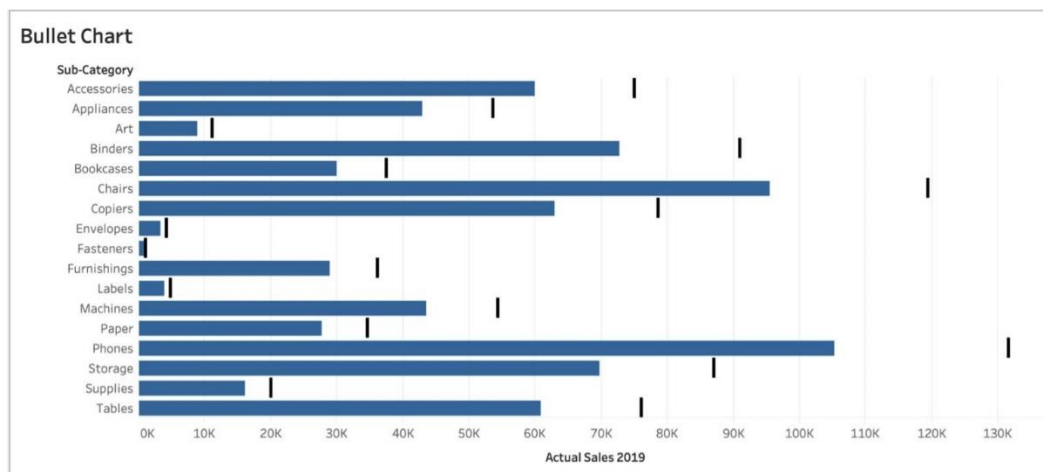




EXERCISE 04: Creating a Bullet Chart

You receive another request from the category manager: they now want to look at how each of the sub-categories trends toward the sales target for 2019. As an analyst, your job is to create a view with actual sales for each sub-category for 2019 while showcasing the target sales (the black vertical lines in the following sample bullet chart) for 2019.



NOTE

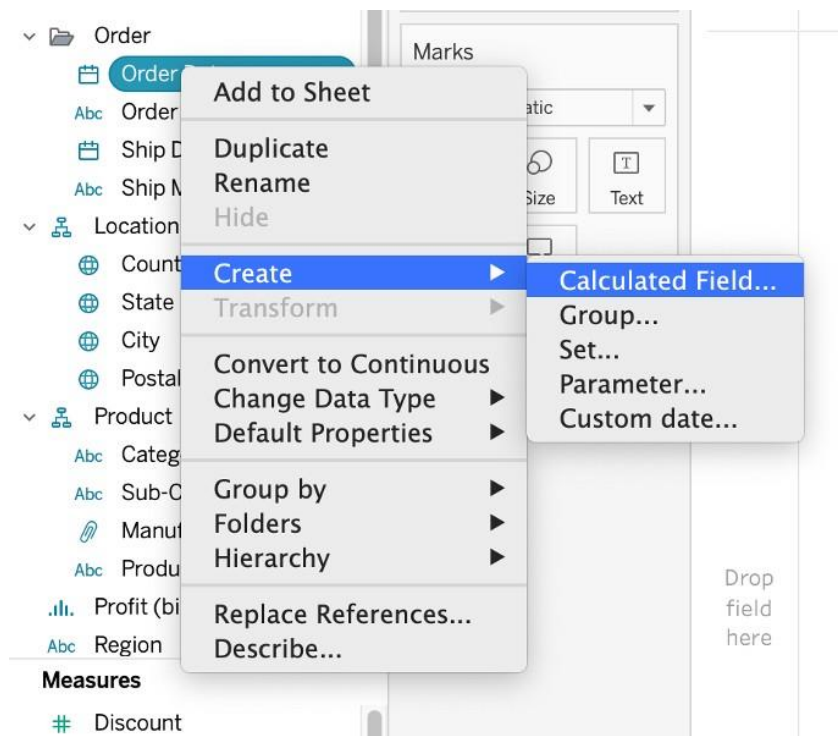
How to create a bullet chart using the **show me** panel could be studied here, but the book wouldn't do you justice if it didn't show you how to create a bullet chart using calculated fields, where you compare the sales of 2019 to the target sales of 2019 (which is a calculated field). We have not discussed calculated fields yet, but we will be discussing them in depth later; for now, we will just try to explain each step of this exercise in as much detail as possible.

Perform the following steps to complete the exercise:

- 1) Load the **Orders** table from the sample **Superstore** dataset in your Tableau instance if you haven't already.

Think of calculated fields as formulas that you can use to manipulate a field, create a subset of data, or extract information from rows/columns. In the following calculated fields, you will be creating two fields: **Sales Target 2019** and **Actual Sales 2019**.

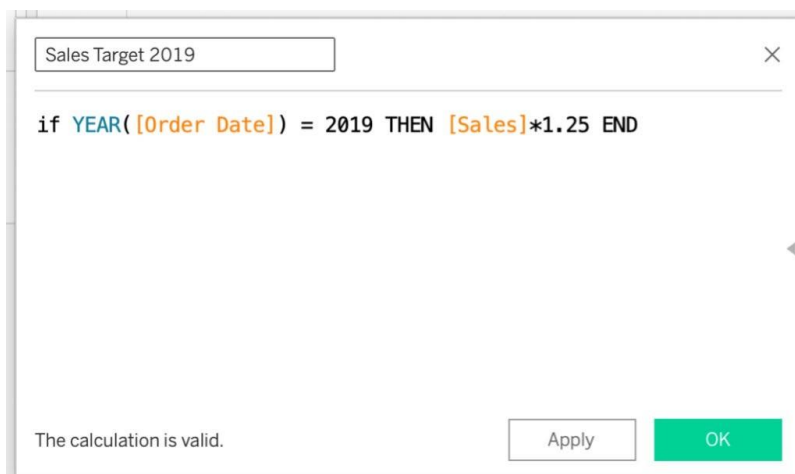
- 2) **Sales Target 2019**: You are creating a dummy sales target for 2019 so you need a target field that can be used for comparing the actual to the target. Your **Sales Target 2019** field will be 125% of the 2018 sales figures. To create a calculated field using your **Sales** measures and **Order Date**, first, navigate to the **Order Date** dimension and right-click on it. Click on **Create | Calculated Field...**:



- 3) Rename the field from "**Calculation1**" to "**Sales Target 2019**". In the calculated field window, type the following formula:

```
If YEAR([Order Date]) = 2019 THEN [Sales]*1.25 END
```

The formula is read as follows: if the year of order date is **2019**, make the target sales **125%** of the **2019** sales figures.





- 4) Repeat the same steps for the **Actual Sales in 2019** calculated field with the following formula:

```
If YEAR([Order Date]) = 2019 THEN [Sales] END
```

Actual Sales 2019

If YEAR([Order Date]) = 2019 THEN [Sales] END

The calculation is valid.

Apply OK

- 5) Drag **Sub-category** to the **Rows** shelf.

The next steps will demonstrate both the **Show Me** and **non-Show Me** methods. You'll start with the **Show Me** panel method.

- 6) Drag the **Actual Sales in 2019** and **Sales Target in 2019** calculated fields to the **Column** shelf:

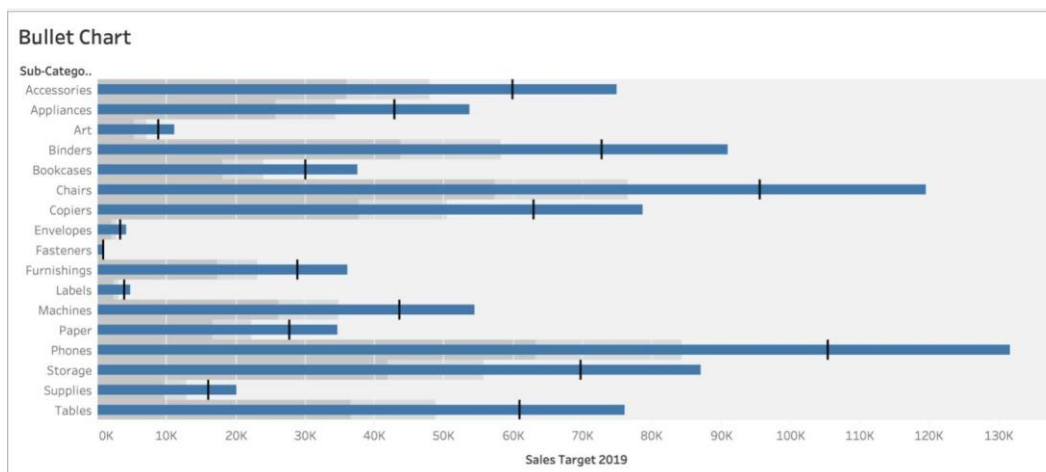


In the previous figure, you have two charts: **Actual Sales in 2019** and **Sales Target in 2019** by sub-category. If you observe closely, you can see that Actual Sales 2019 for **Accessories** is **60,000** whereas **Sales Target 2019** is **75,000**, which is **125%** of **Actual Sales 2019**. In the next step, you will convert these two bar charts into a bullet chart.



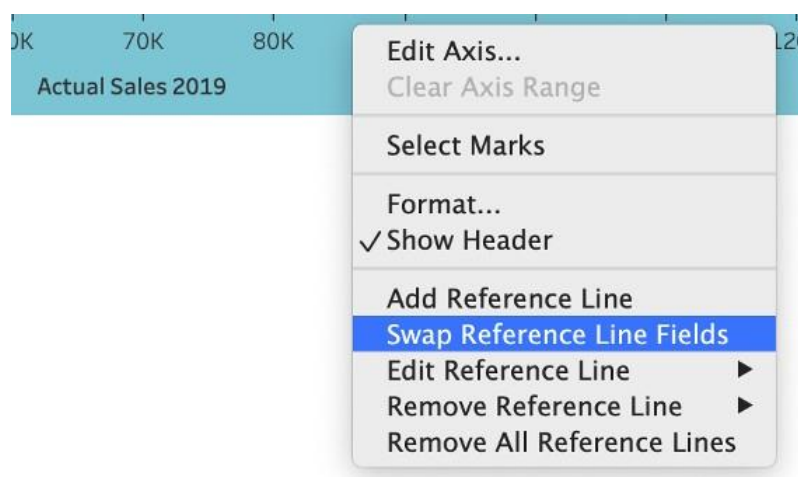
- 7) Navigate to the **Show Me** panel and click on **Bullet Chart**.

As soon as you click on **Bullet Chart**, you will notice multiple bars with a black reference line that has been added to each bar. The reference line is the target/goal line that adds the additional context:

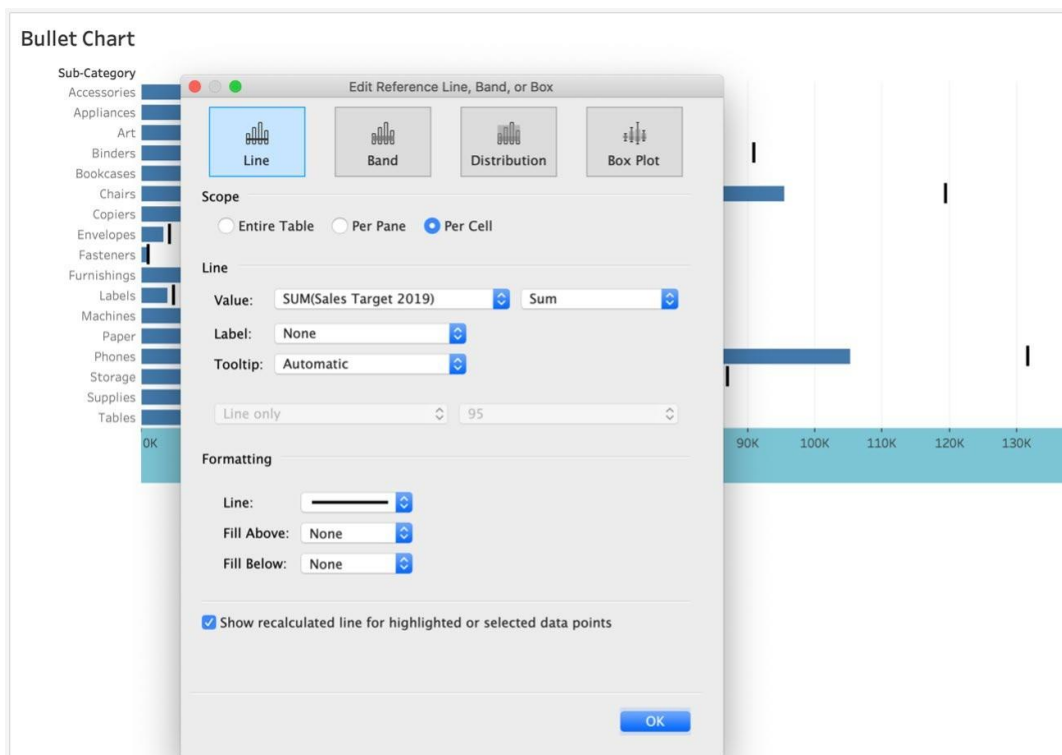


You just created a bullet chart where the bars represent the sales targets in 2019 and the reference lines are the actual sales. But ideally, you want your sales targets in 2019 to be reference lines because that is the target that you want your sub-categories to aim for. You'll make those changes next.

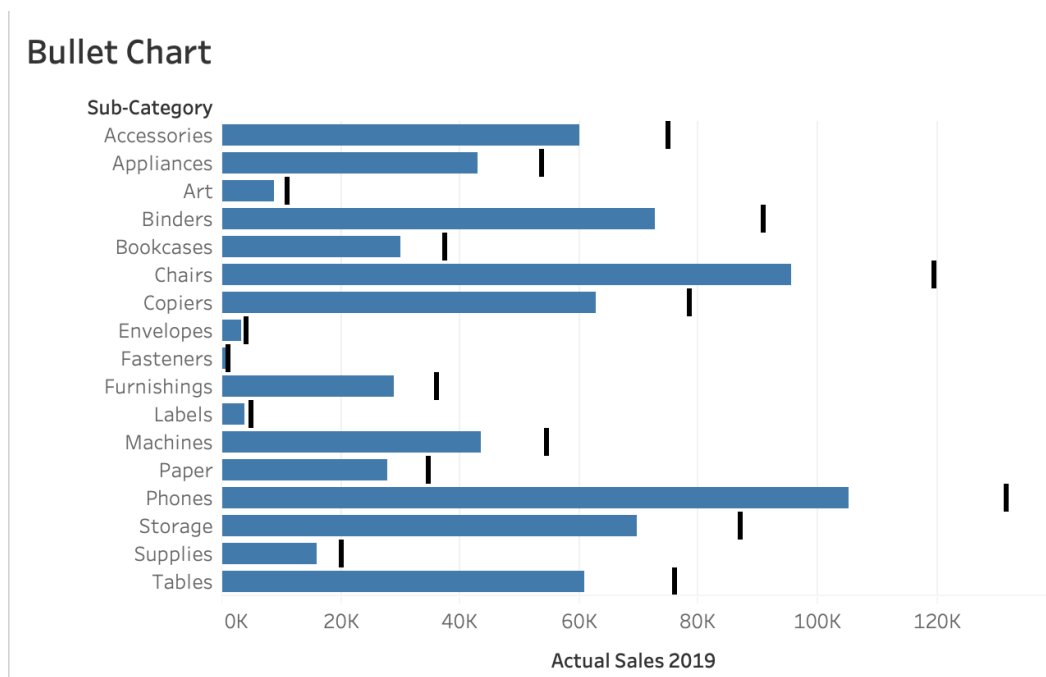
- 8) If your bullet chart has **Sales Target in 2019** as bars instead of the target line, you can right-click on the **x** axis and click on **Swap Reference Lines** (this may be **Swap Reference Line Fields** in later Tableau versions) to change your reference lines to target sales instead of actual sales:



- 9) For the other method where the **Show Me** panel is not used, create a new sheet and drag **Sub-Category** to **Columns**, **Actual Sales 2019** to **Columns**, and **Sales Target in 2019** to the **Details Marks** card.
- 10) Right-click on the **x** axis and click **Add Reference Lines**. In the **Line** tab, click on the **Per Cell** radio button. In the **Value** dropdown, select **SUM(Sales Target in 2019)** and aggregate it as **SUM** in the dropdown right next to the **Value** dropdown. Change the **Label** dropdown from **Computation** to **None**.



After making the preceding changes, the final output of the bullet chart will be as follows:





In the preceding screenshot, the reference lines are now the sales targets for 2019, as opposed to the initial bullet chart where they were **Actual Sales 2019**, which was actually confusing. You want your stakeholders to understand how far off the target each of the sub-categories is.