Introduction To

TABLEAU

Your Guide To Data Driven Insights

FEB 06 2025

Objectives

By the end of this session, you will :

- **Read multiple MySQL tables**
- **Perform JOINs & visualize data**
- **Execute SQL queries & display results in Tableau**
- **Create simple graphs in Tableau**
- **Create a dashboard with all the graphs**

Reading Multiple MySQL Tables

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- To connect Tableau to MySQL, choose MySQL as the database and provide the server, database, username, and password to establish the connection.
- After connecting to the MYSQL database, the Data Source tab will display all available tables in Tableau
- Drag multiple tables into the workspace
- Ensure you select the right join type (if needed)

JOIN MySQL Tables in Tableau

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There are 2 layers in Tableau:

Logical Layer : Where we can create **Relationships**.

Physical Layer: Where we create **Joins**.

Tableau provides 4 types of joins:
Inner,Left.Right,Outer.

JOIN MySQL Tables in Tableau

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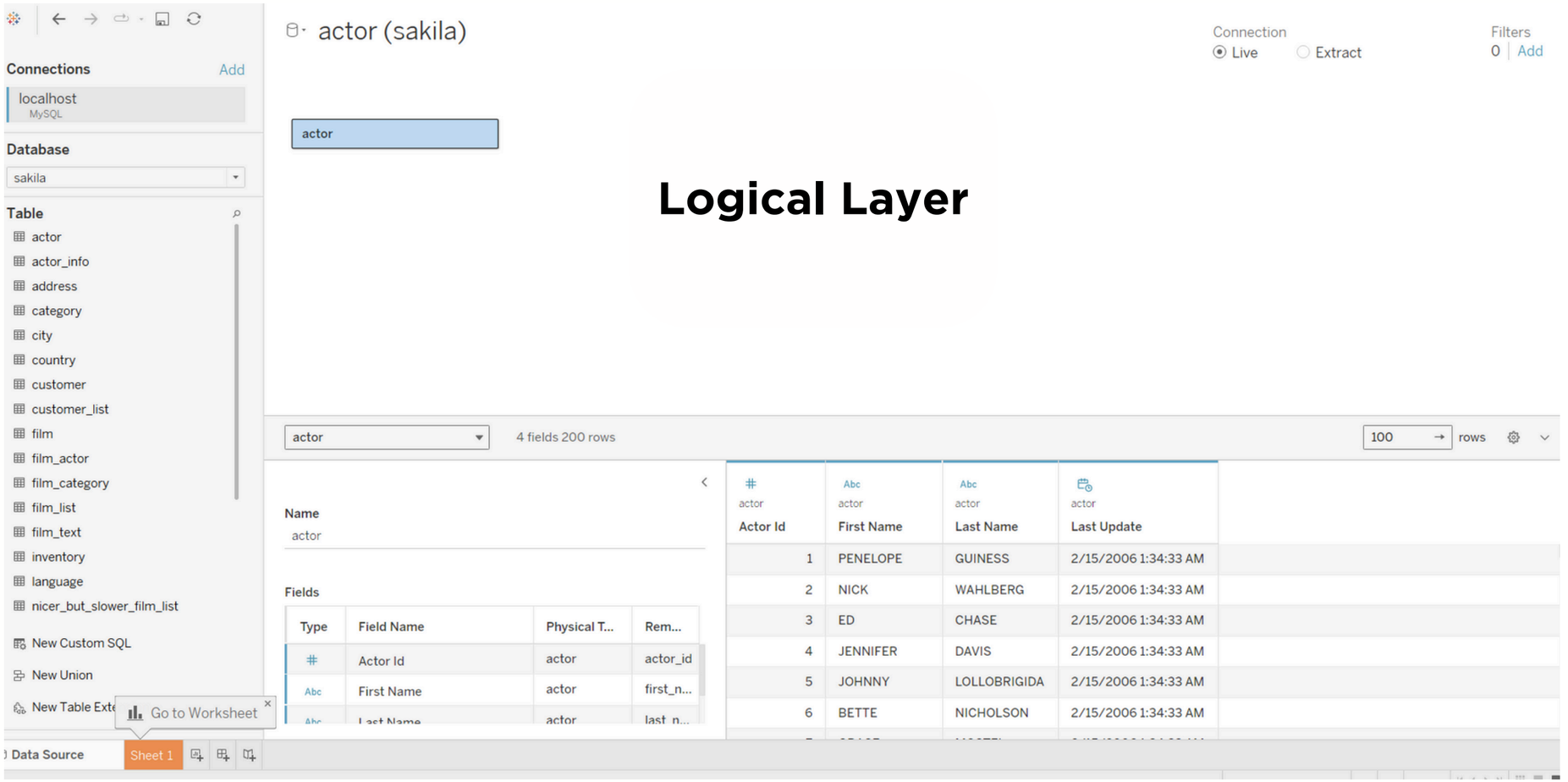

JOIN MySQL Tables in Tableau

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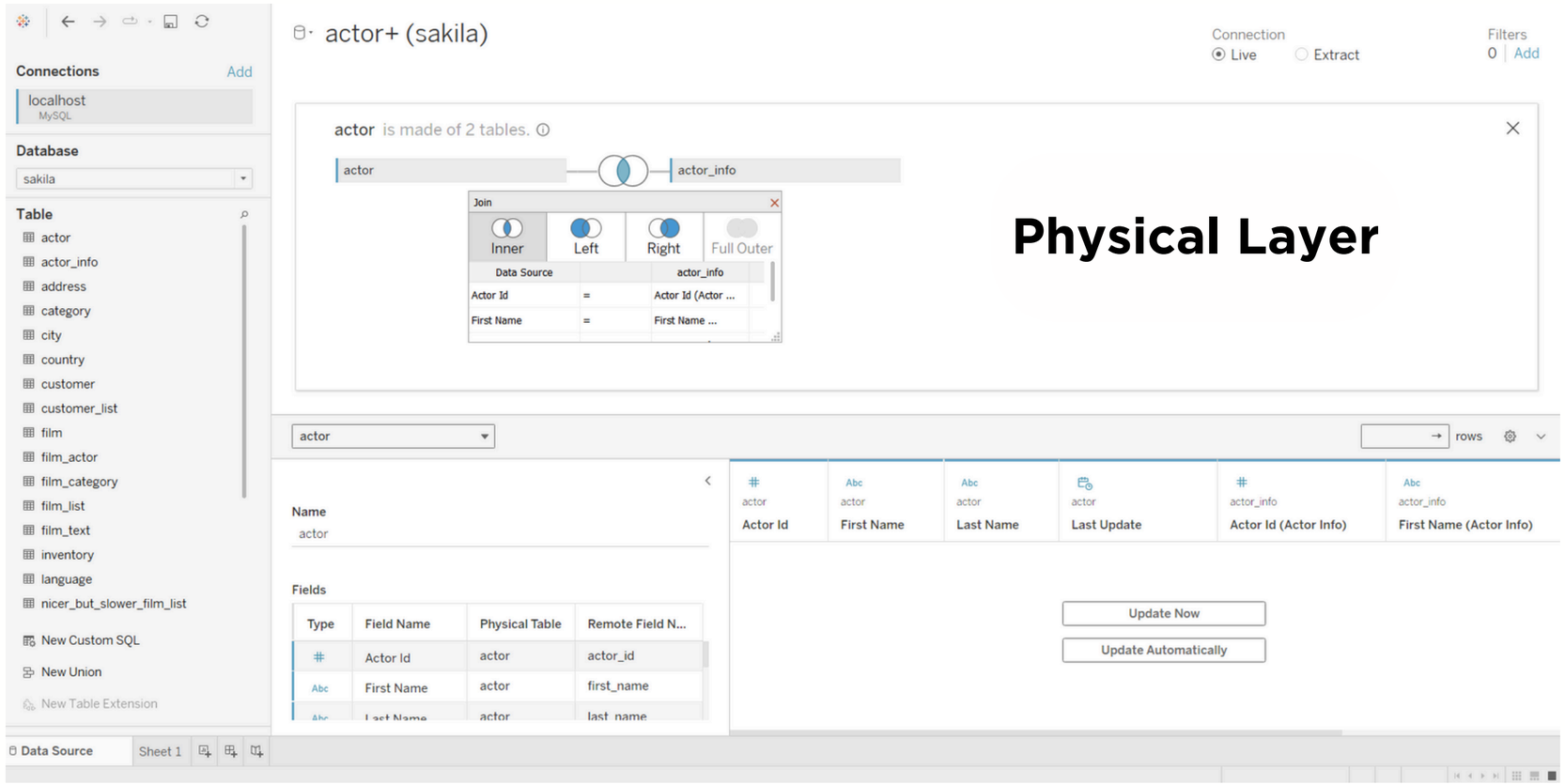
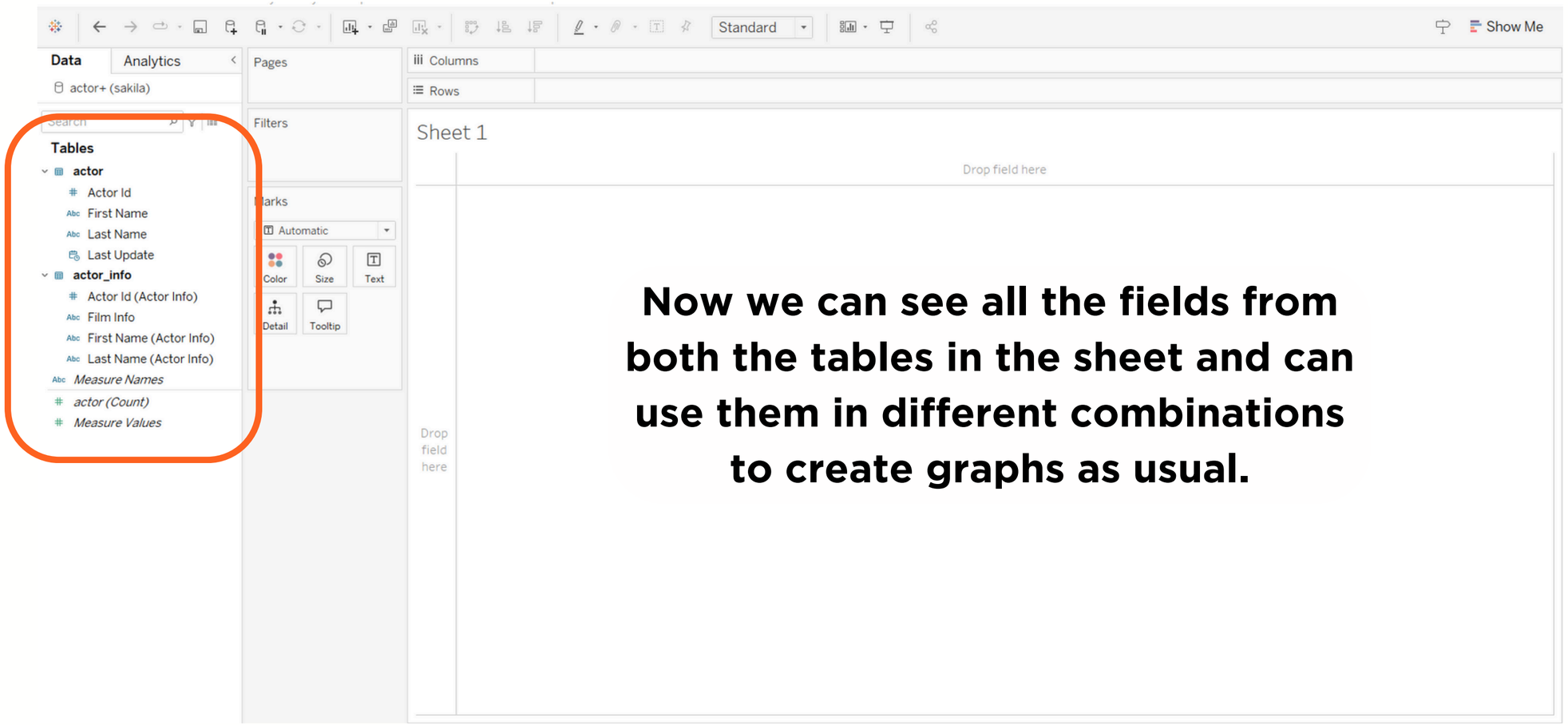
- Double-click the first table in the relationship view.
- This will open the Physical Layer where you can see the detailed table structure.
- Drag second table you want to connect into this Physical Layer (inside the same table structure).
- Now, Tableau will allow joins, and you will see the Venn diagram icon between actor and actor_info.
- Click on the Venn diagram icon to choose the join type (INNER, LEFT, RIGHT, FULL) and set the join condition (actor.actor_id = actor_info.actor_id).
- Click OK and go back to the worksheet.



Visualizing the Join



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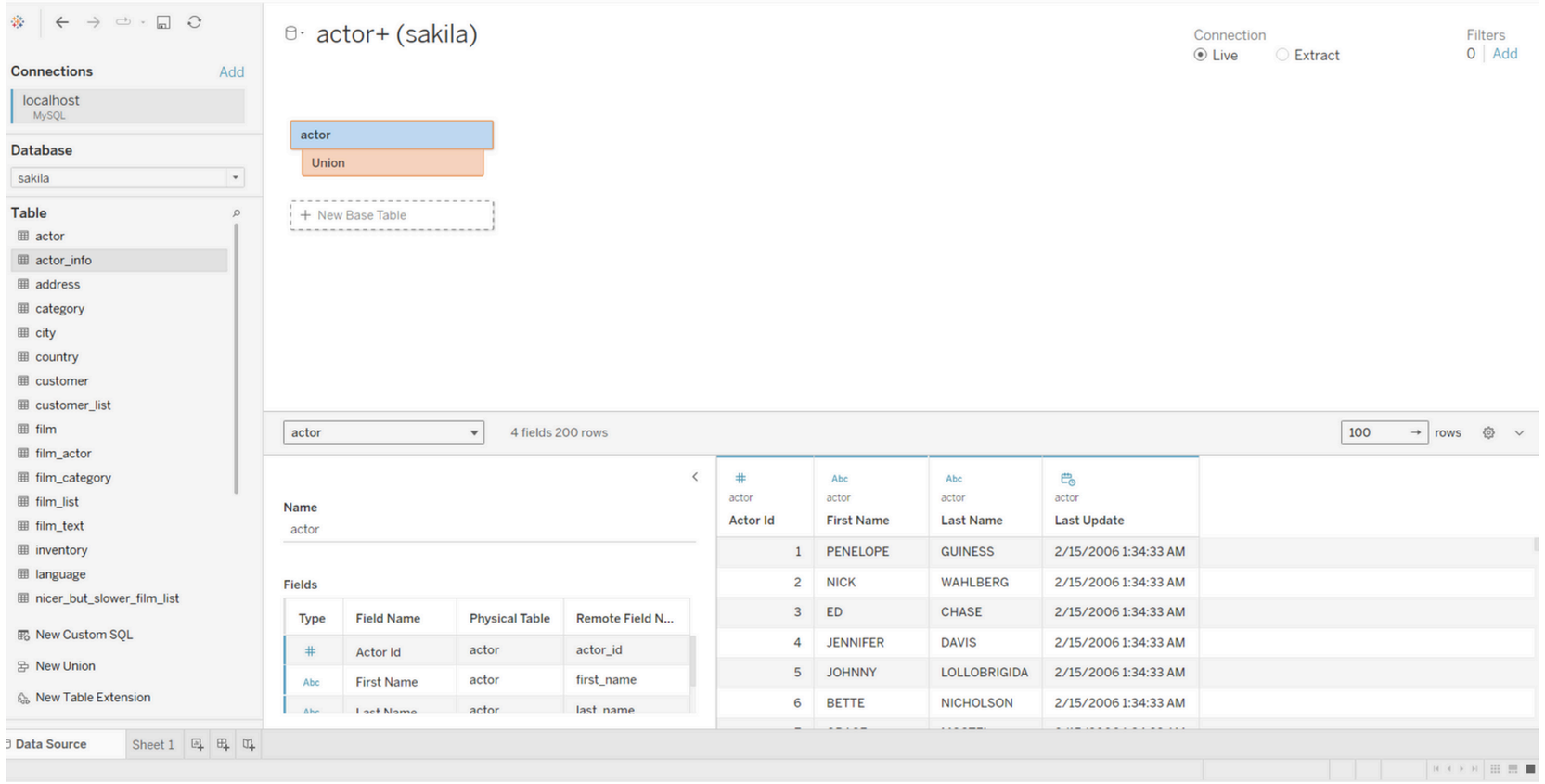
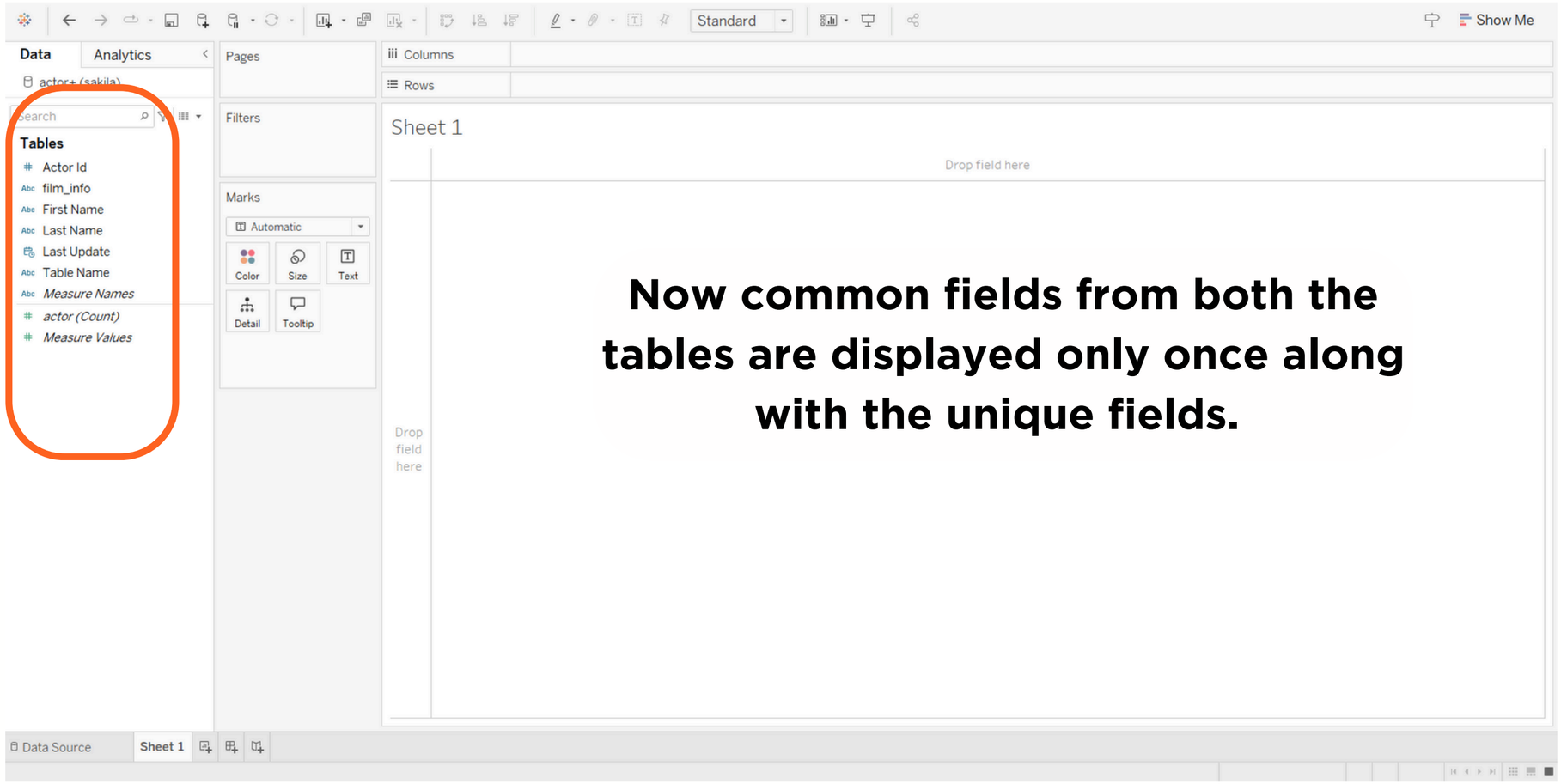
Union MySQL Tables in Tableau

- Double-click the first table in the relationship view.
- This will open the Physical Layer, where you can see the detailed table structure.
- Drag the second table you want to combine into this Physical Layer (inside the same table structure)- on the first table, where “Drag table to union” option appears.
- Click OK and go back to the worksheet.



Union MySQL Tables in Tableau



Now common fields from both the tables are displayed only once along with the unique fields.

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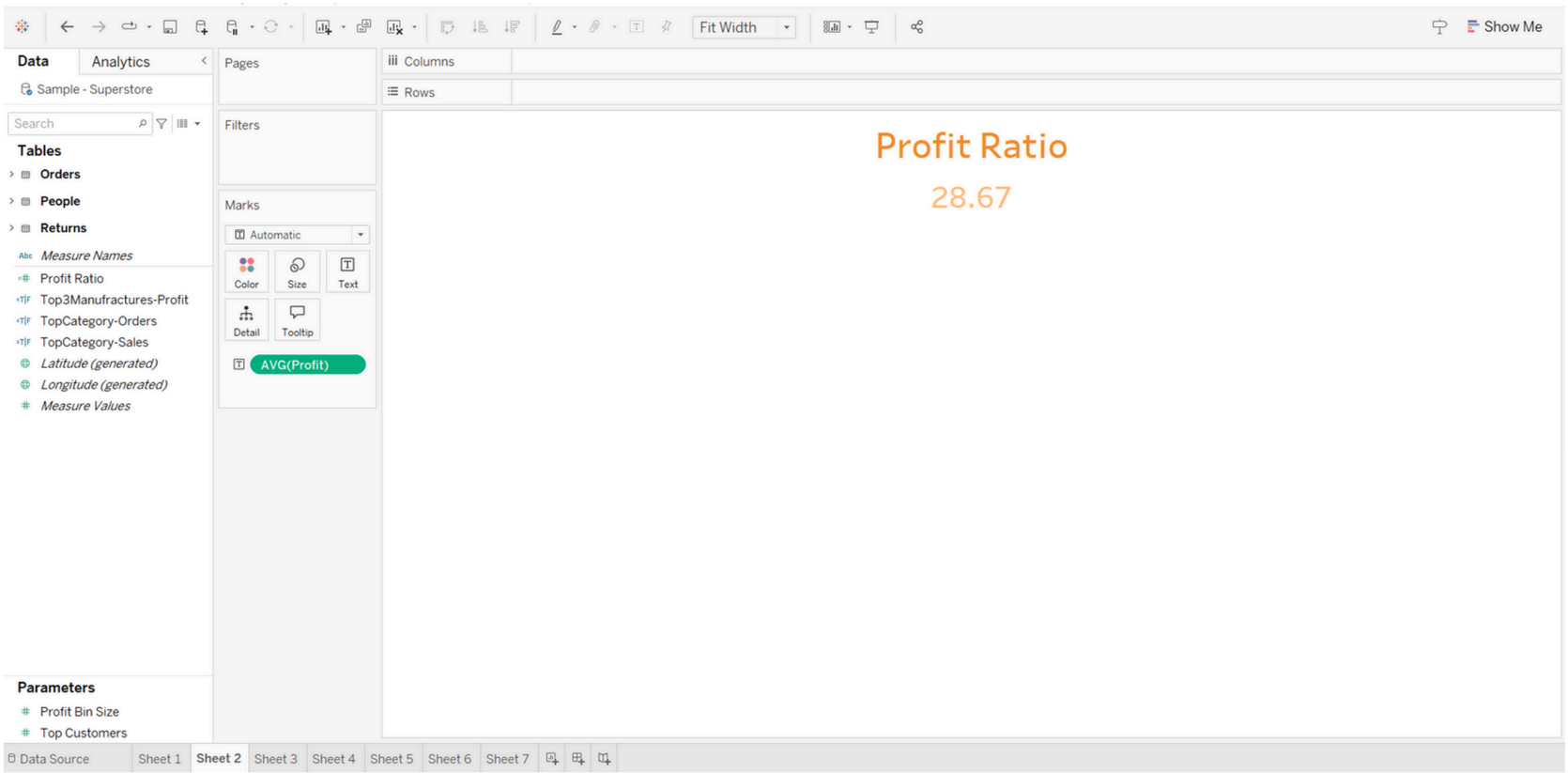
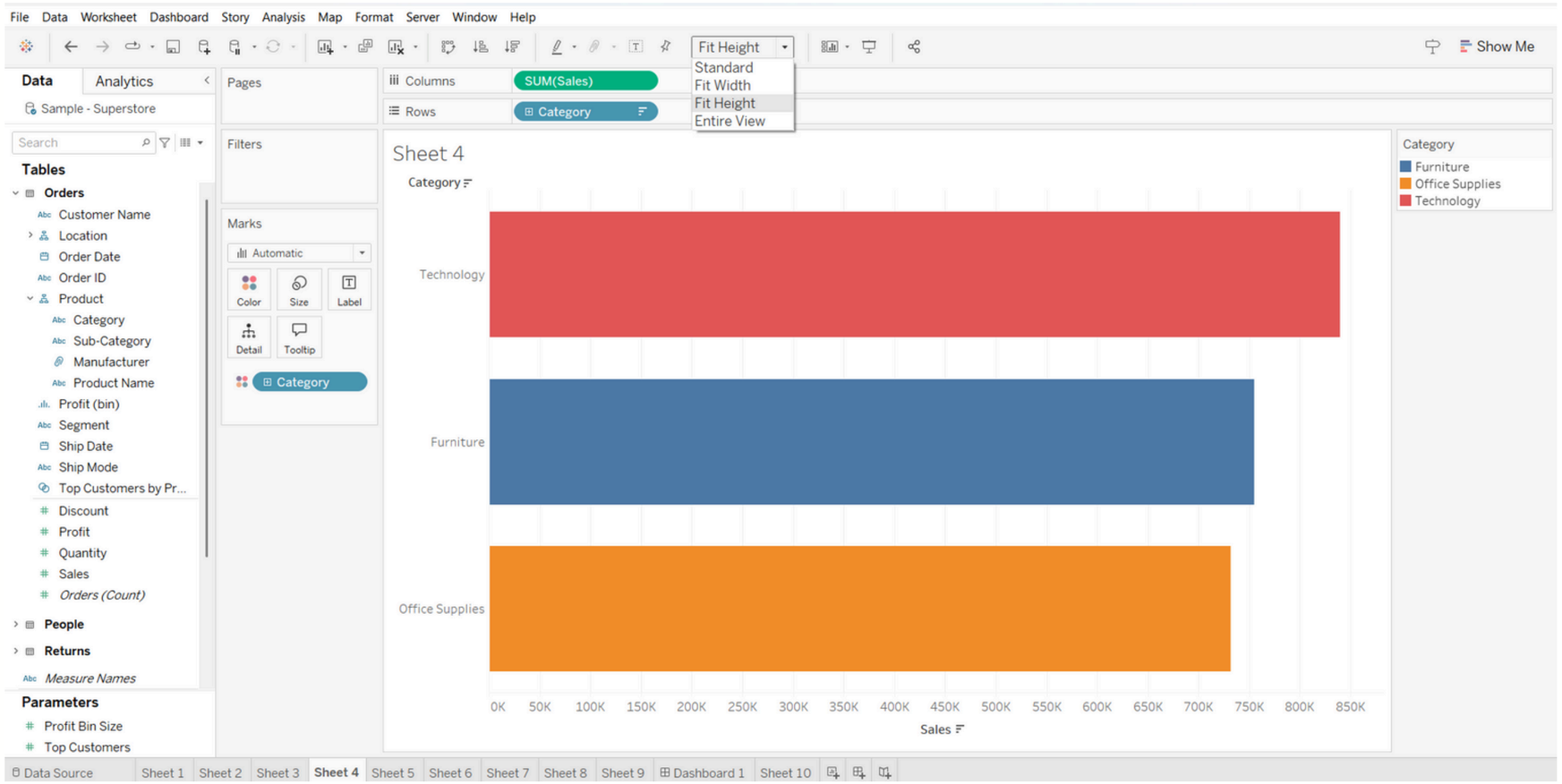
Sample Graph Tip -1

- Drag and drop the measure you want to display on to the Text label in the Marks container.
- Double click on the sheet name , say sheet1 and change it to your desired heading and format the different styles and colors you want to present.
- Now to format the displayed measured value result below the heading, click on the Text lable in the Marks field and continue by clicking on the '...' beside the text name.
- Click Apply and go back to the worksheet.



Sample Graph Tips -2

- To display the graph in the whole sheet we can select the desired view from the dropdown in the tool bar.



Sample Graph Tips -3

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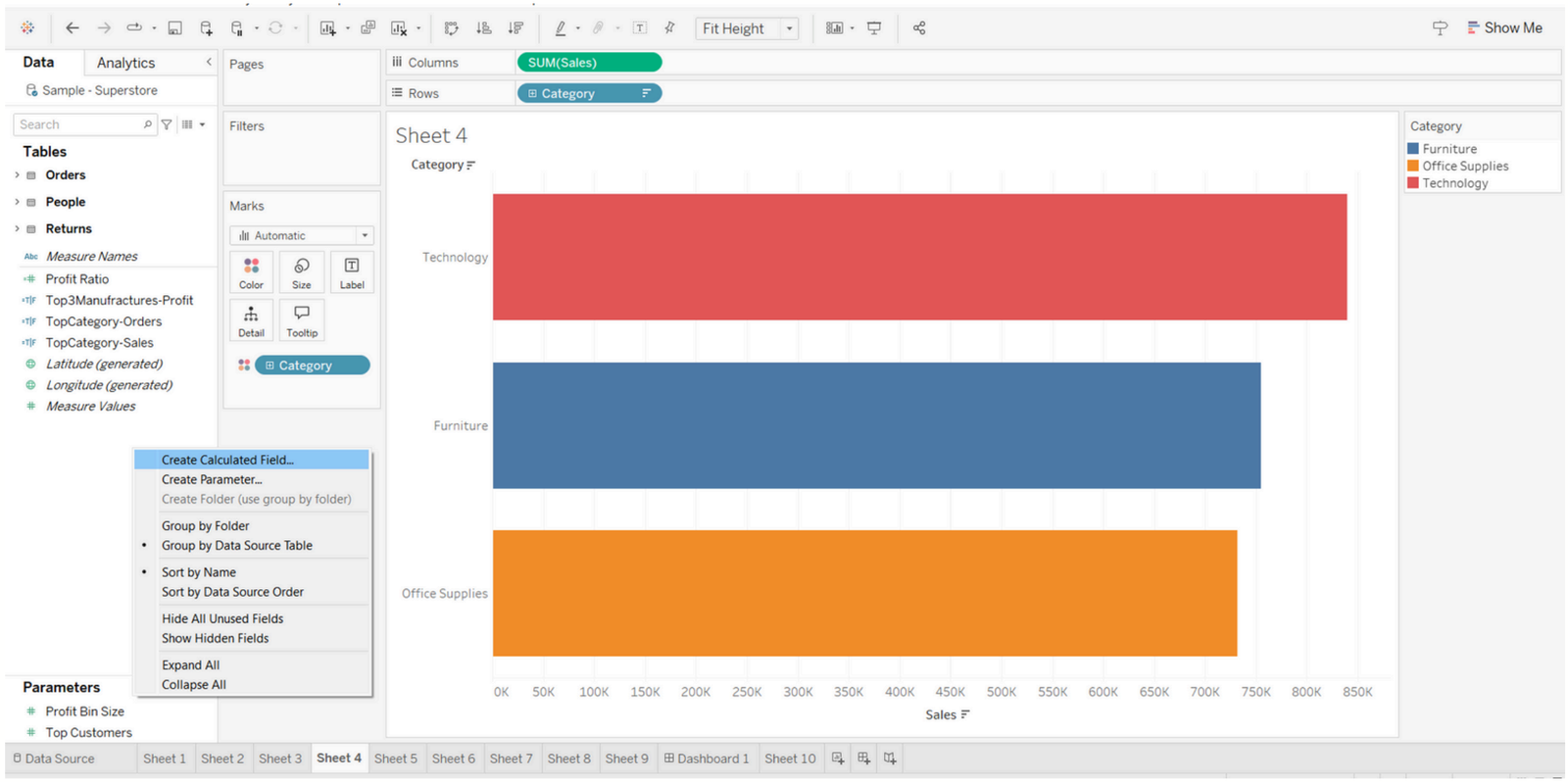
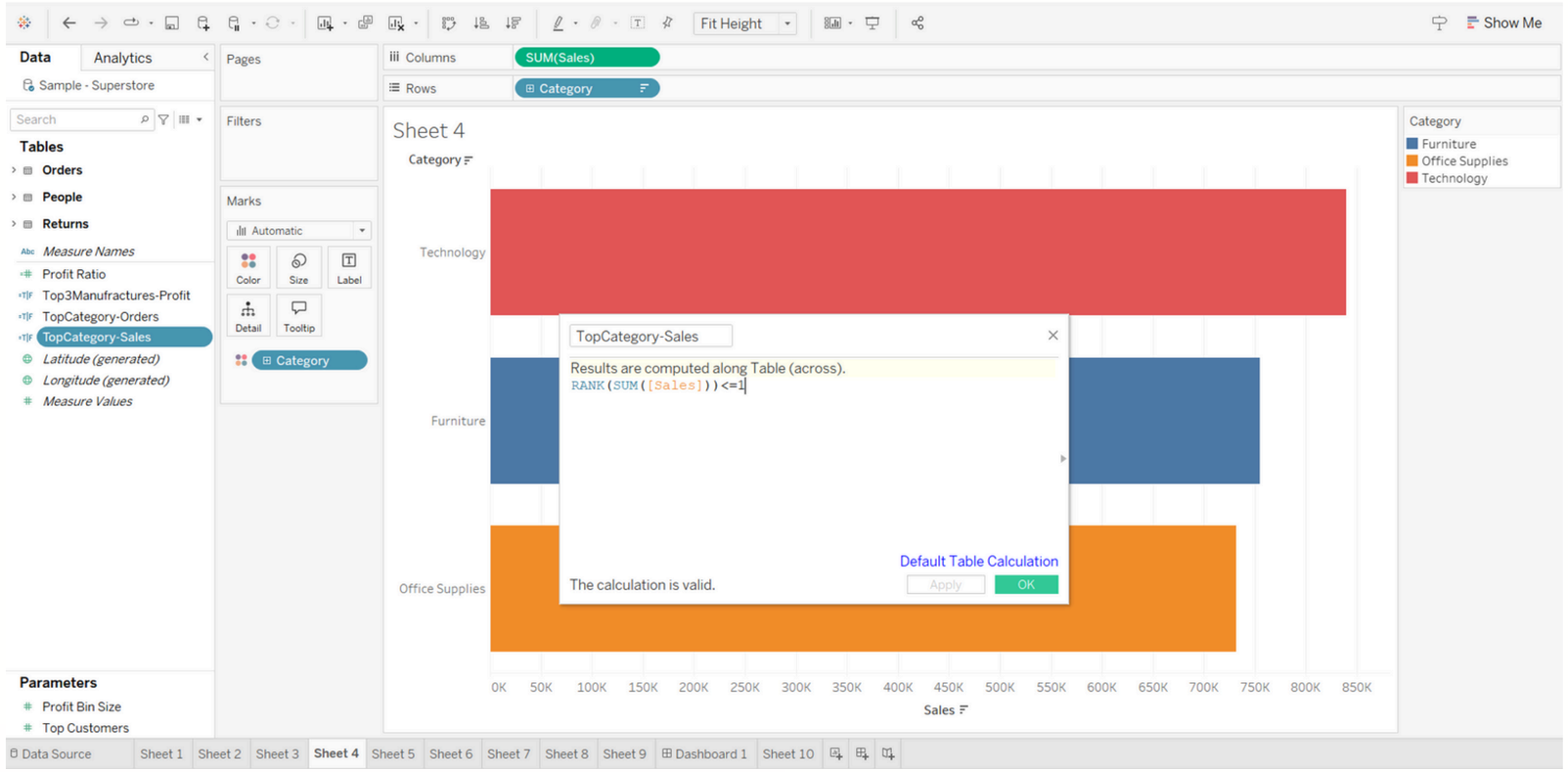
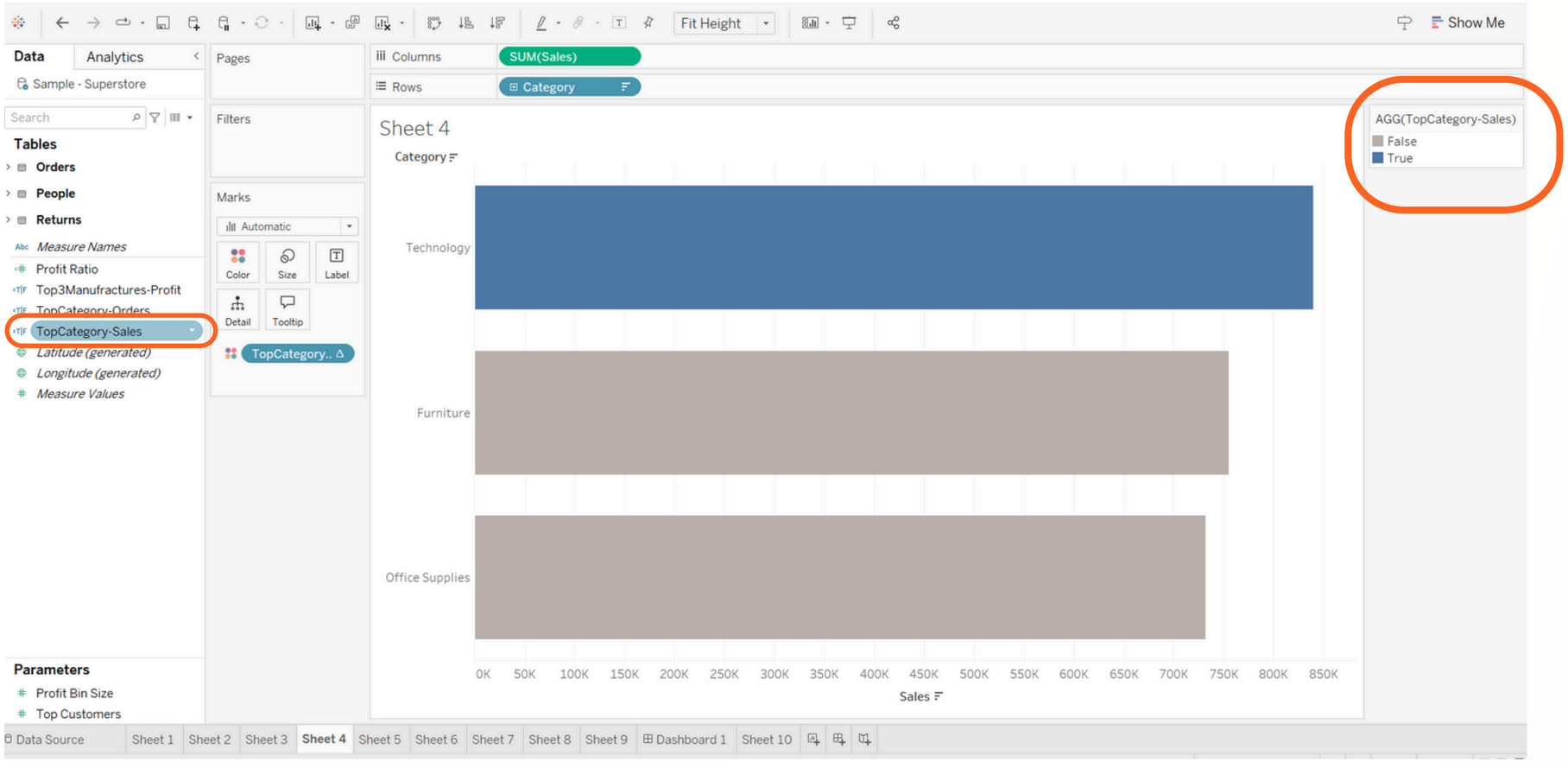
To create calculated fields - right click on the data panel and select ‘Create Calculated Field’.



- After clicking on the ‘Create Calculated Field’ the following dialog box opens where we can can give a name to the new field and add the calculation we require.
- The following - RANK(SUM([Sales]))<=1 ensures that only the top category with most sales is selected.
- It is like limiting the results to top 1 - ‘LIMIT 1’.
- LIMIT need not be done in calculation fields always, we are doing it as we want to use it as a filter on the graph.



- Now we can drag and drop the calculated field on to the Colors Label in the Marks Panel.
- As we have limited the results to top 1 - the satisfied categories for the condition will display in color specified for True and the un-satisfied categories will display in the color specified for False.



Sample Graph Tips -4

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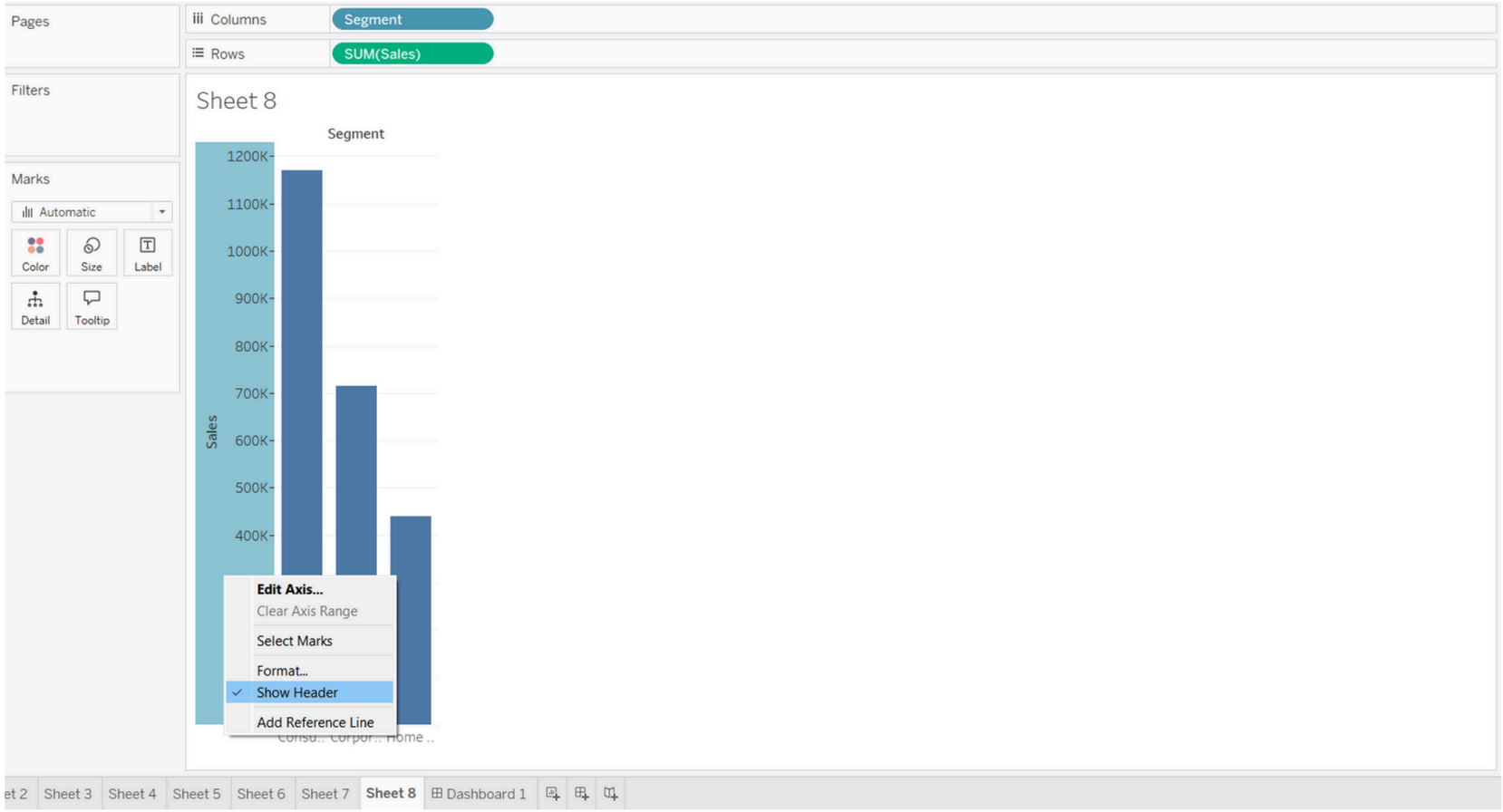
To remove axis from the graphs, right click on the axis visible on the graph and de-select ‘Show Header’.



Creating a Dashboard in Tableau

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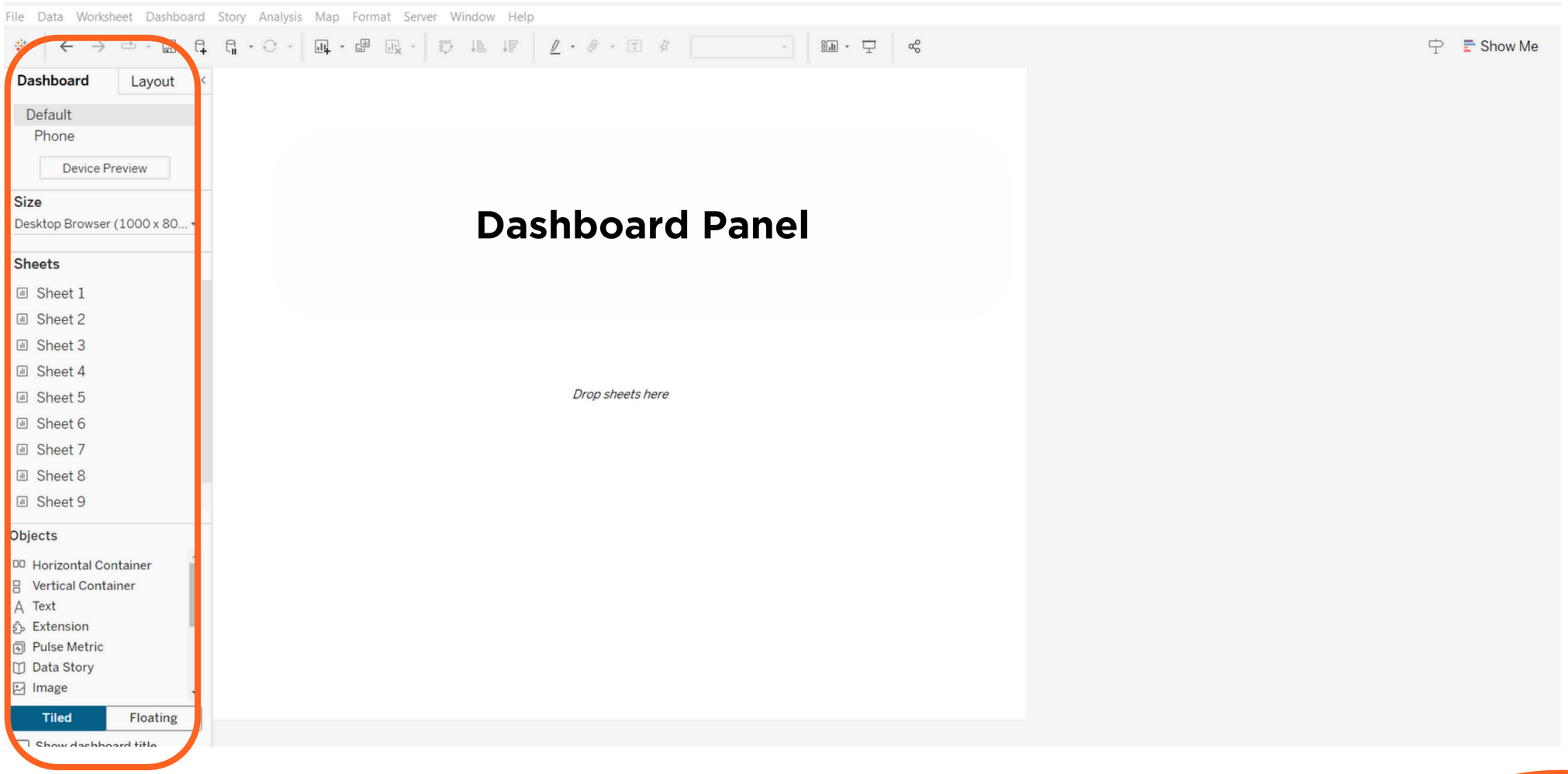

Creating a Dashboard in Tableau

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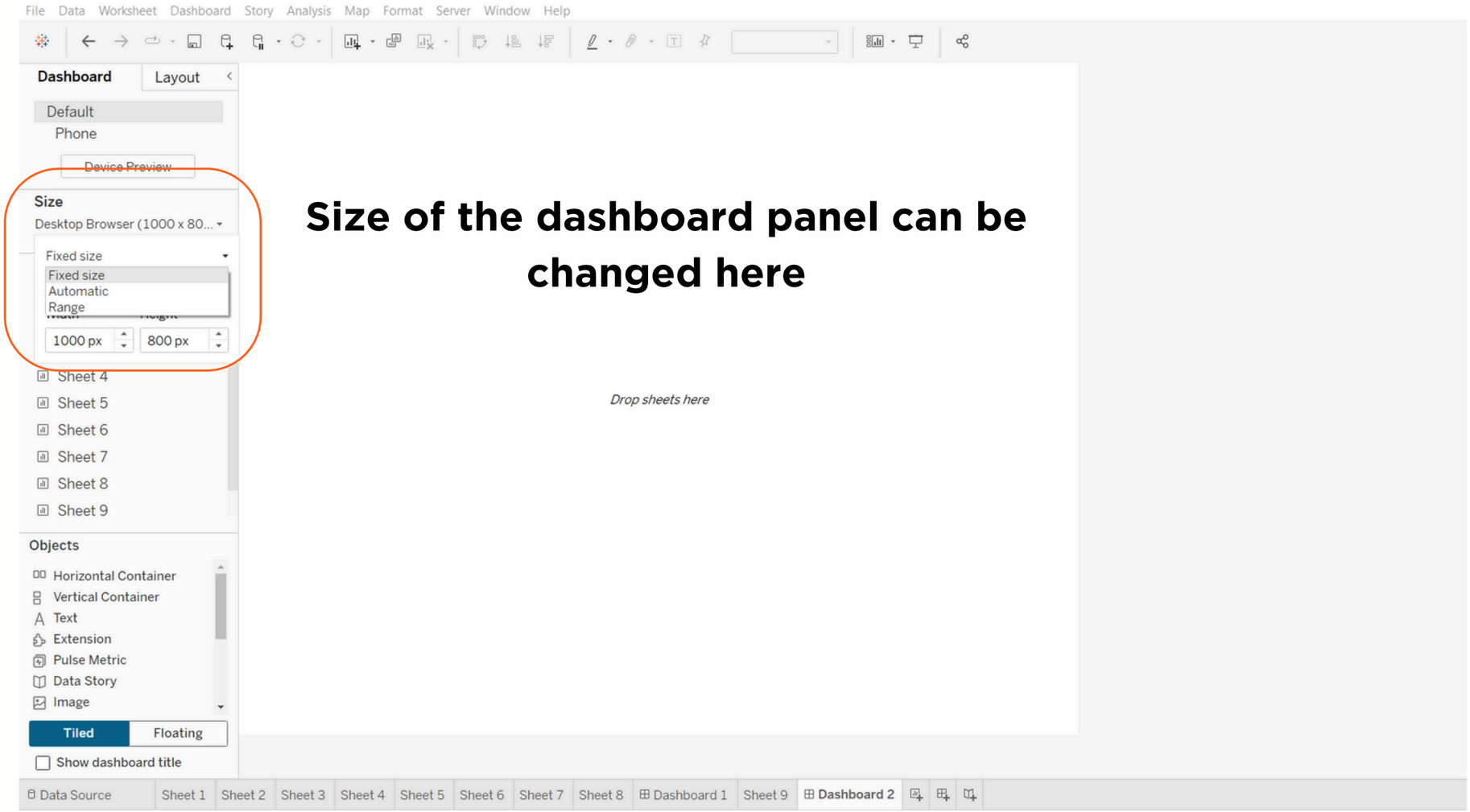

Creating a Dashboard in Tableau

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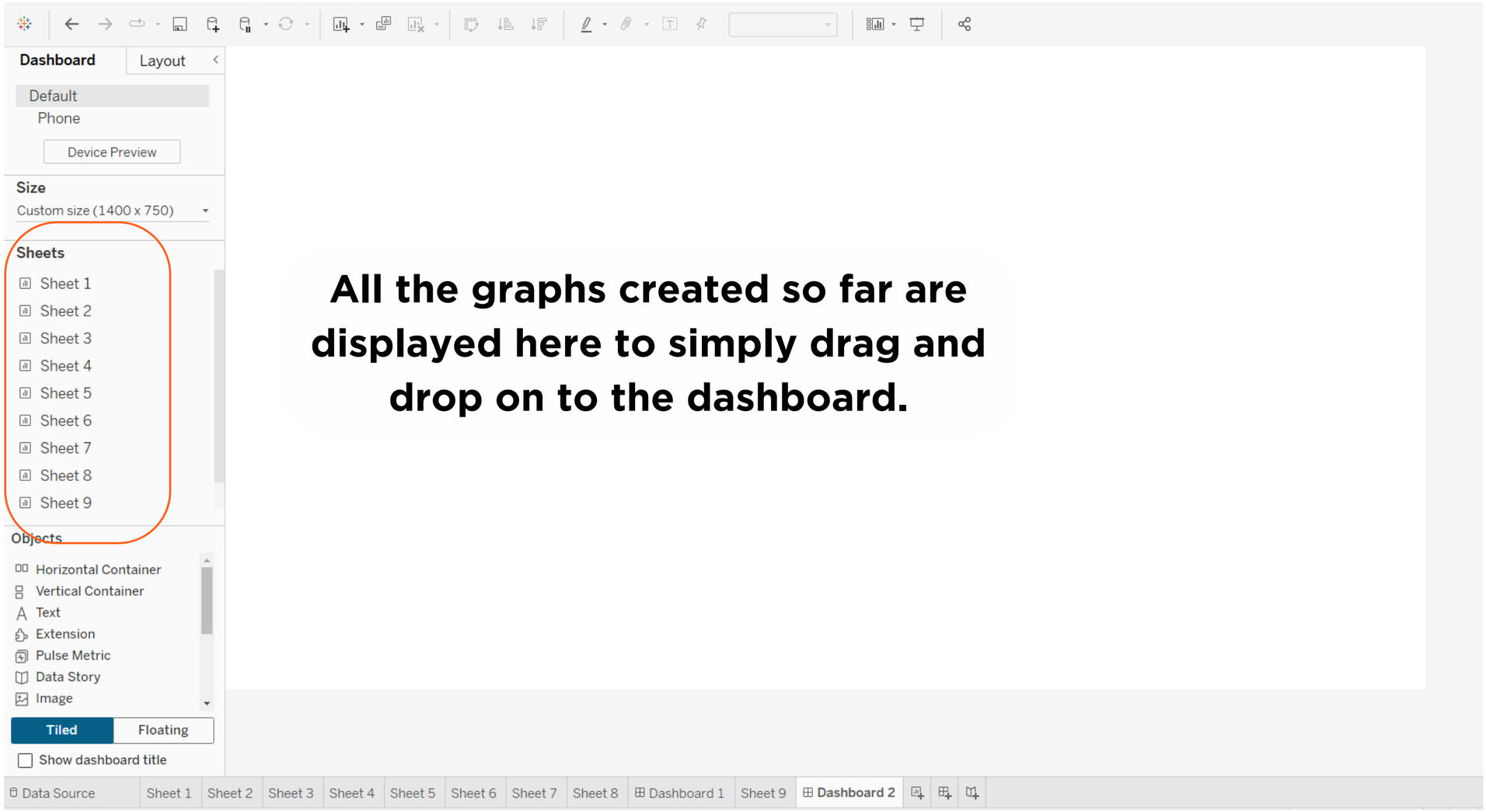

Creating a Dashboard in Tableau

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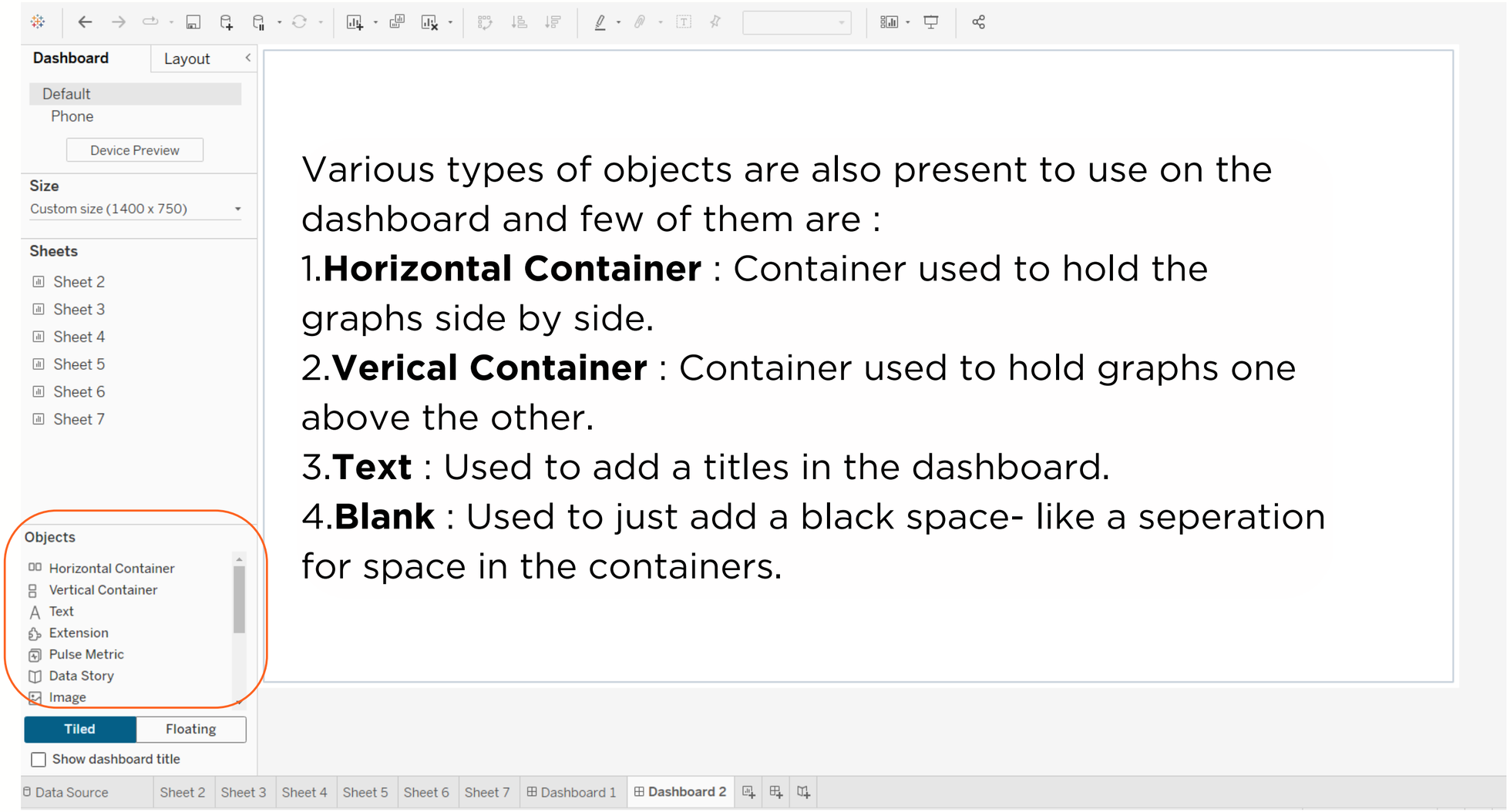


Various types of objects are also present to use on the dashboard and few of them are :

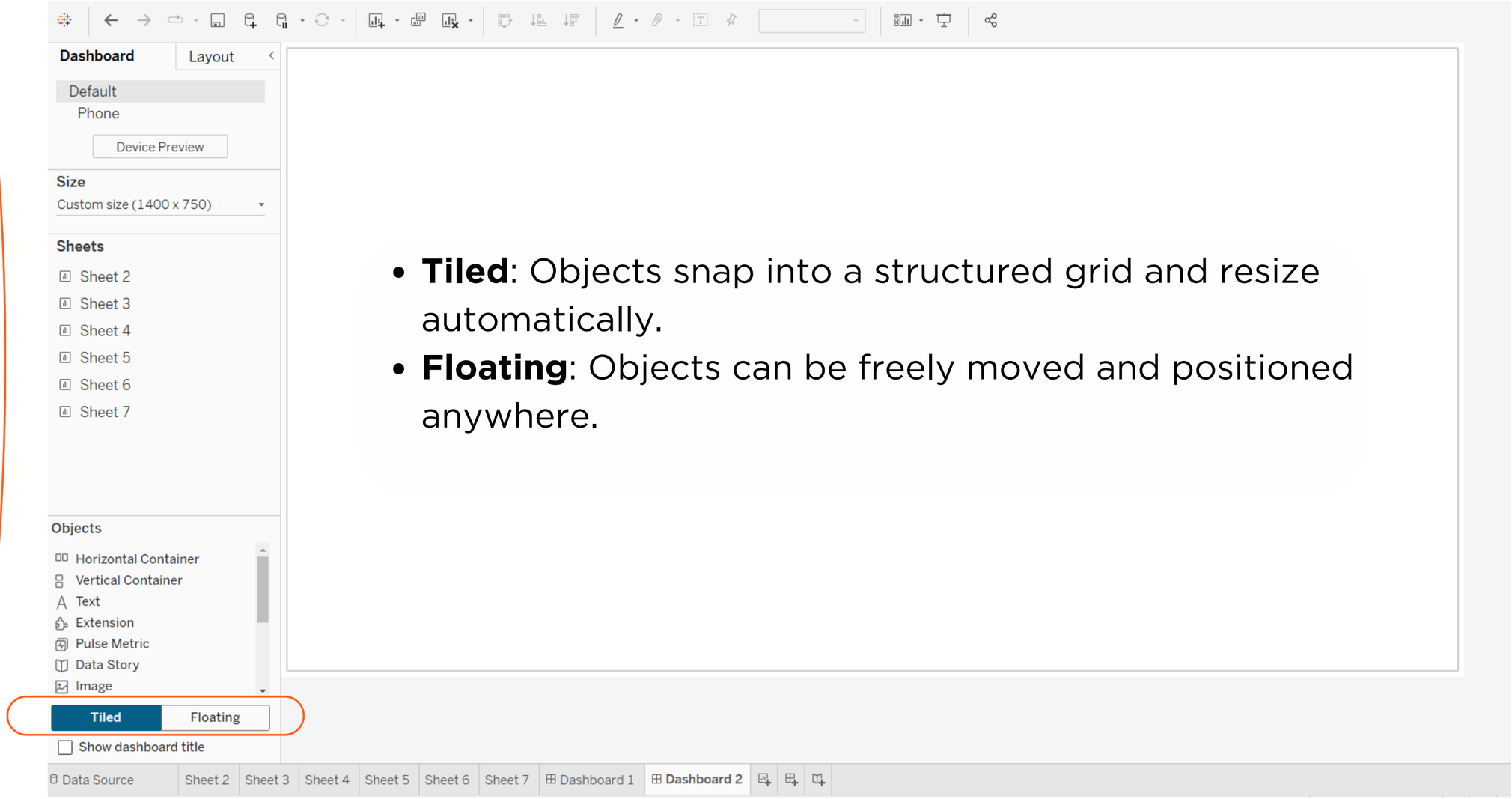
1.**Horizontal Container** : Container used to hold the graphs side by side.

2.**Verical Container** : Container used to hold graphs one above the other.

3.**Text** : Used to add a titles in the dashboard.

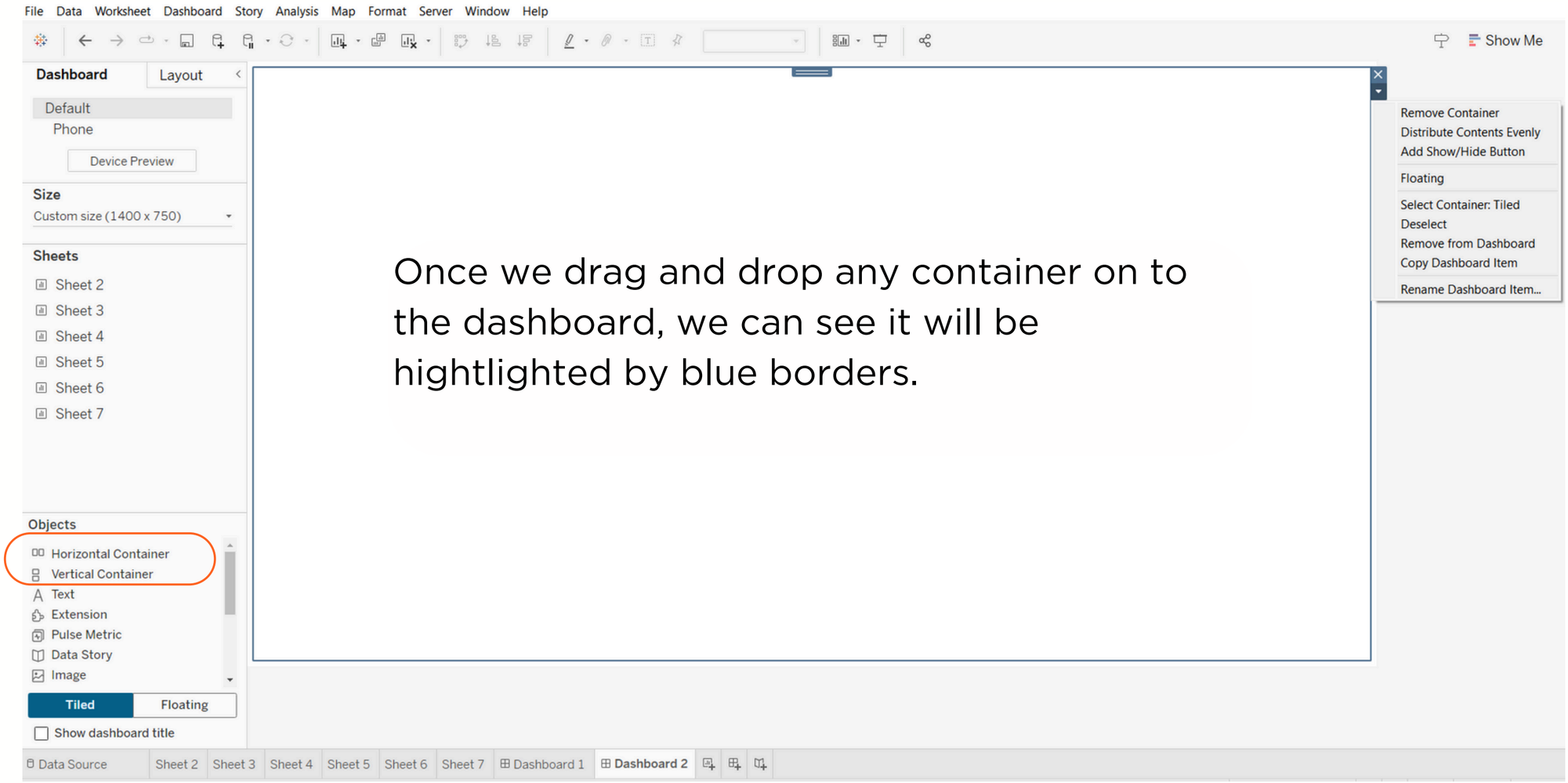
4.**Blank** : Used to just add a black space- like a seperation for space in the containers.

Creating a Dashboard in Tableau



- **Tiled**: Objects snap into a structured grid and resize automatically.
- **Floating**: Objects can be freely moved and positioned anywhere.

Creating a Dashboard in Tableau



Creating a Dashboard in Tableau

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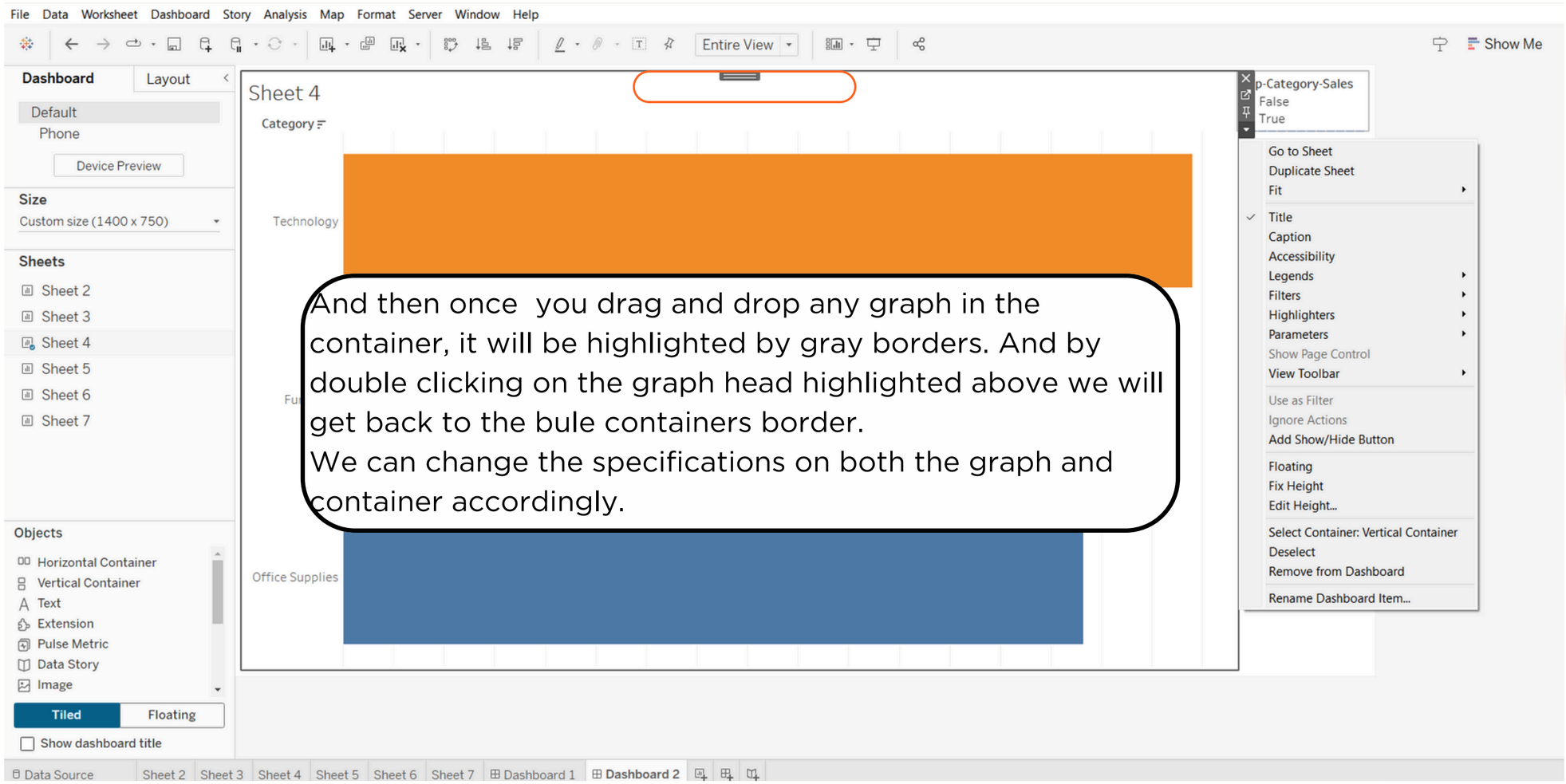

And then once you drag and drop any graph in the container, it will be highlighted by gray borders. And by double clicking on the graph head highlighted above we will get back to the bule containers border.
We can change the specifications on both the graph and container accordingly.

Creating a Dashboard in Tableau

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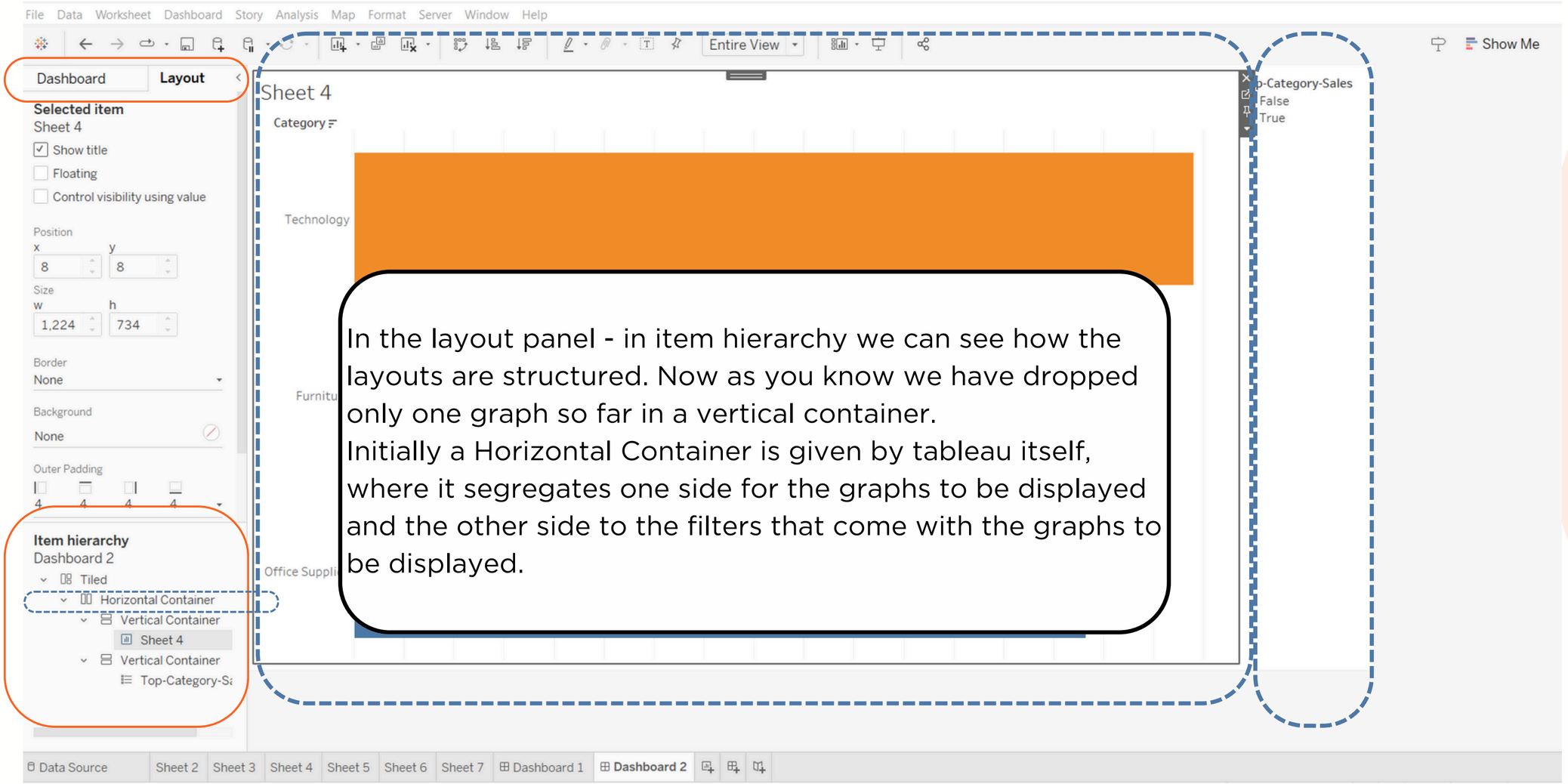

Creating a Dashboard in Tableau

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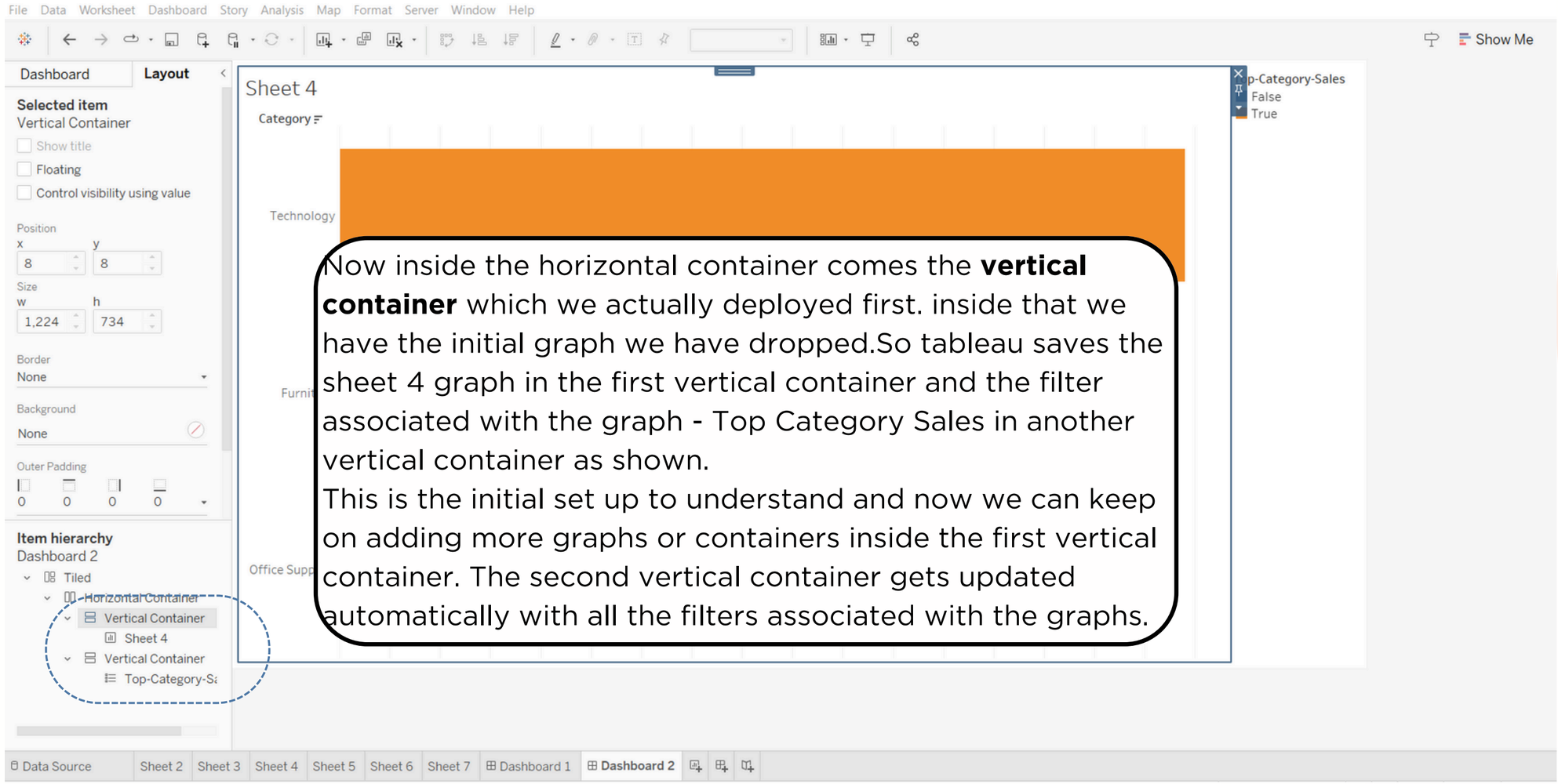
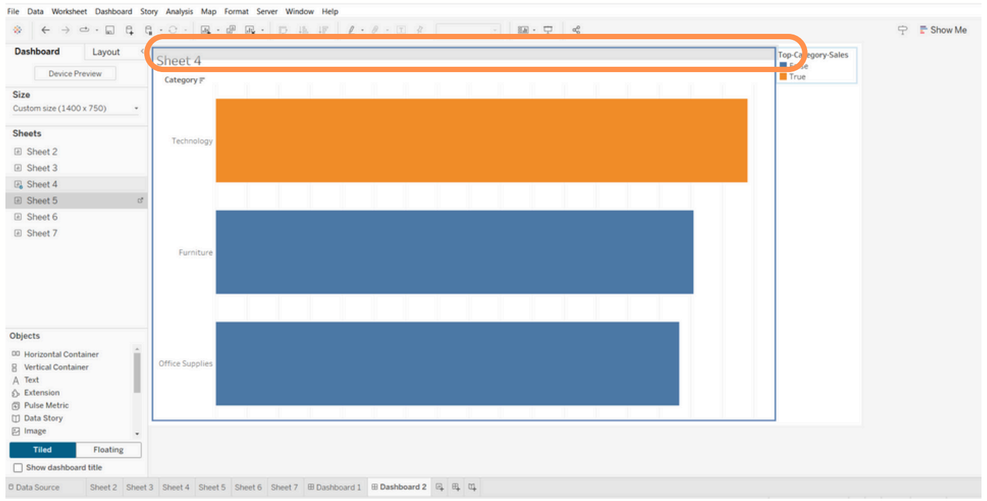
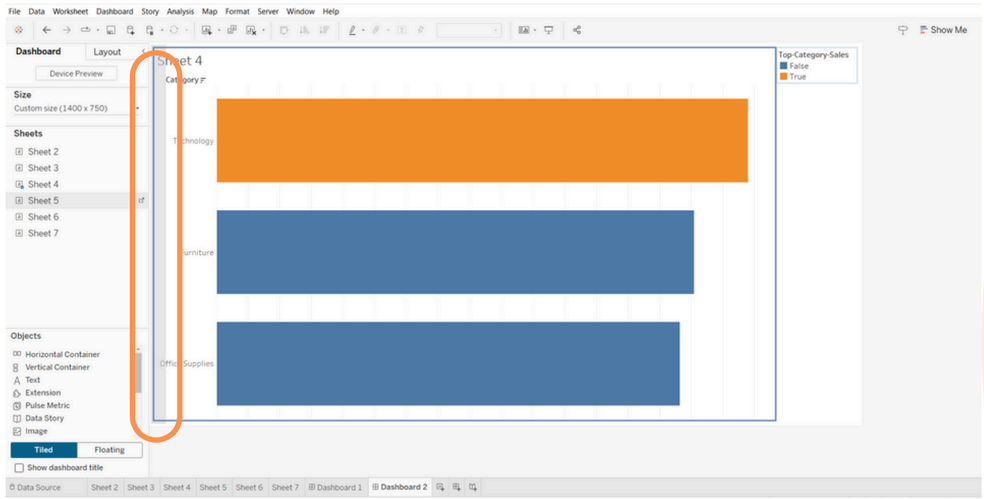
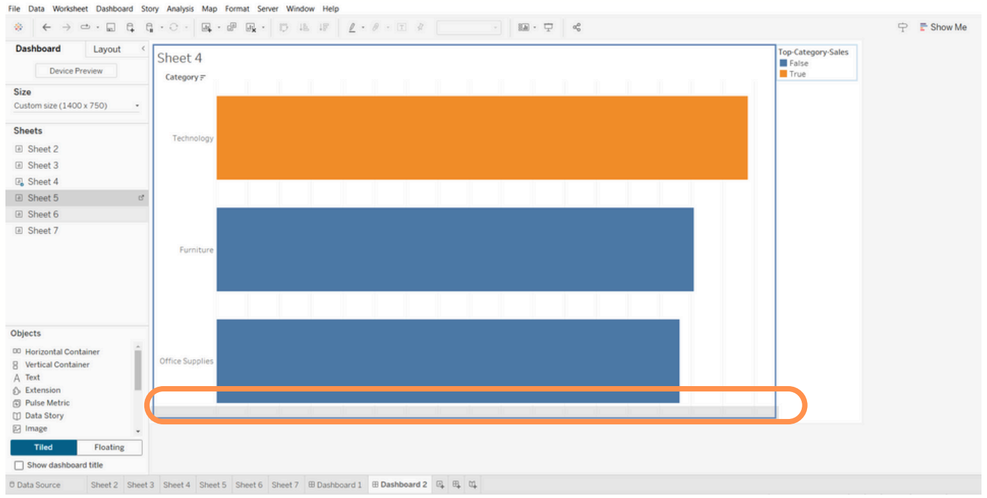


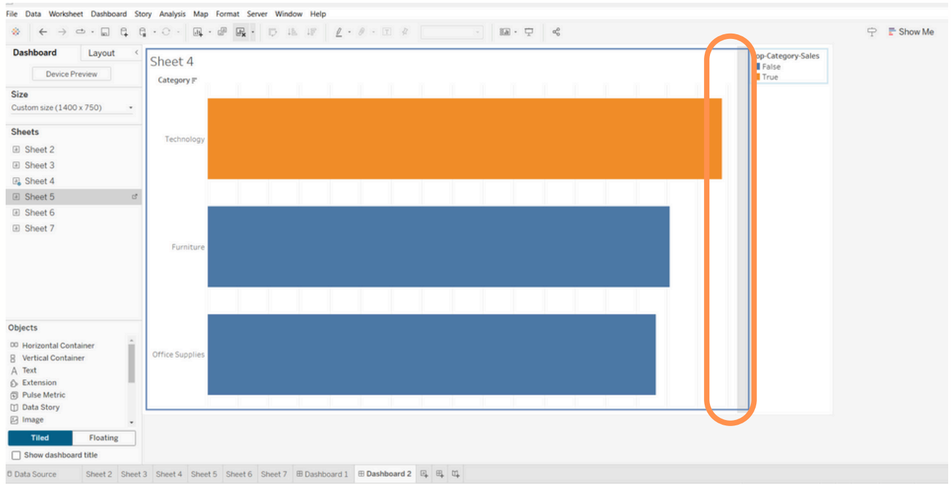
Creating a Dashboard in Tableau

- we will speck about it in the next slide.....





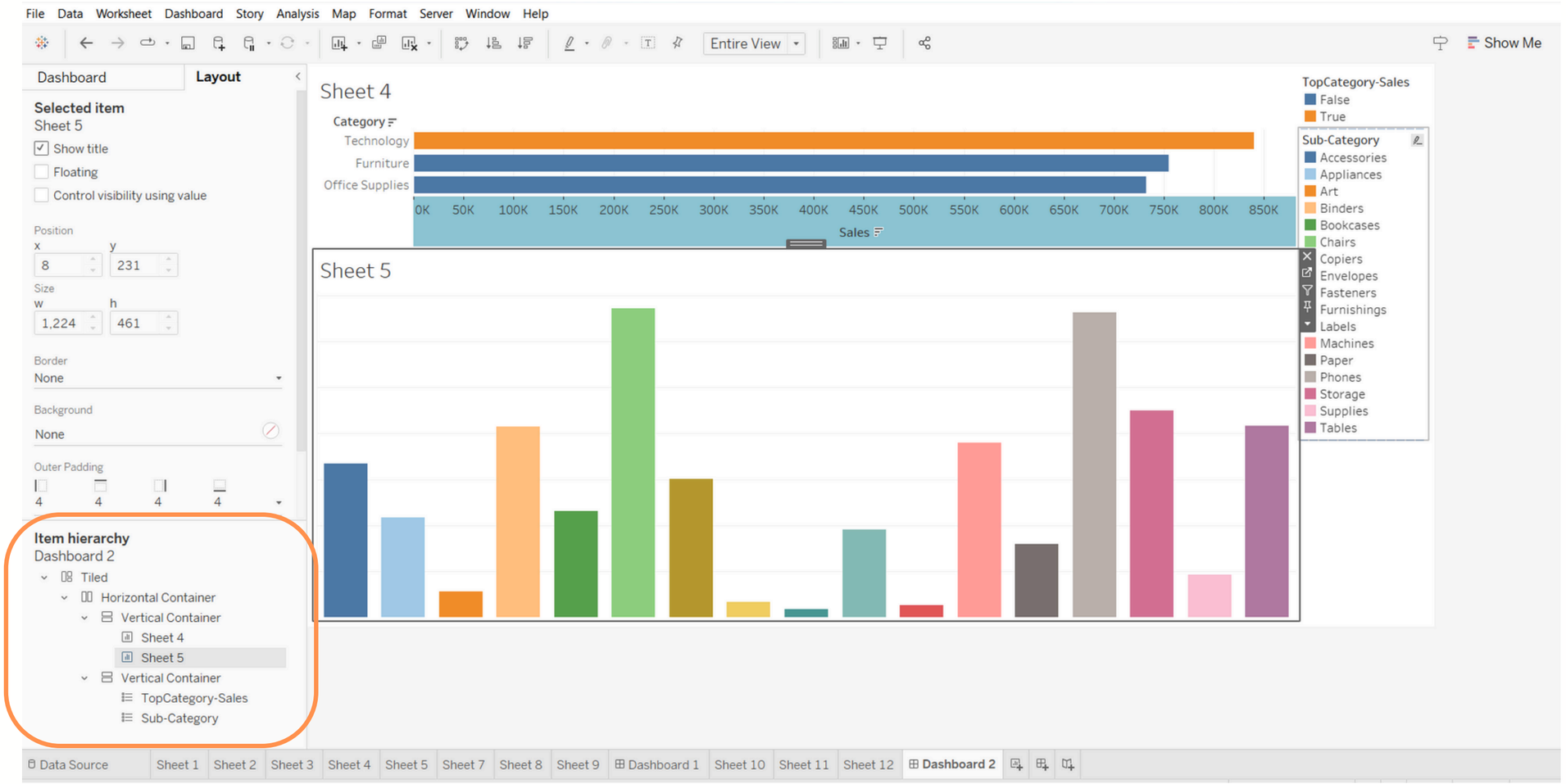




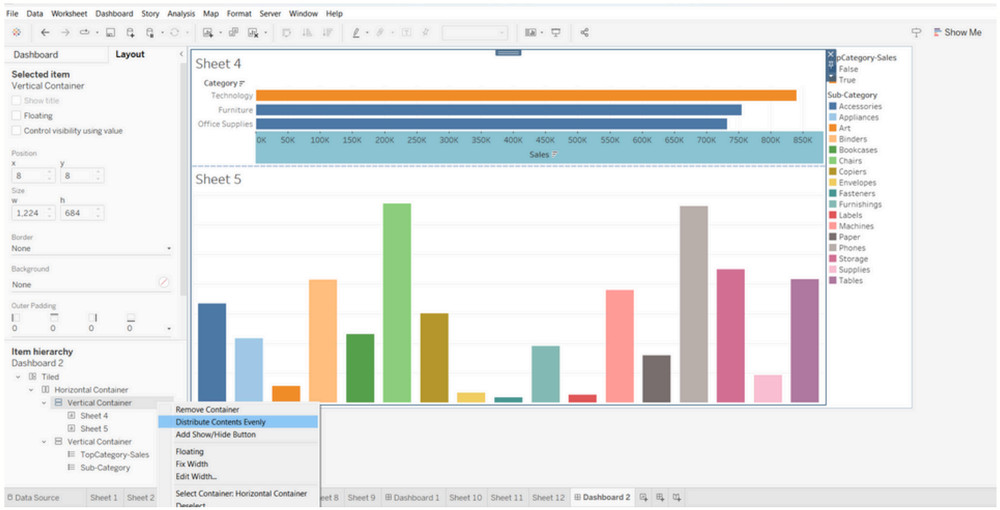
Creating a Dashboard in Tableau

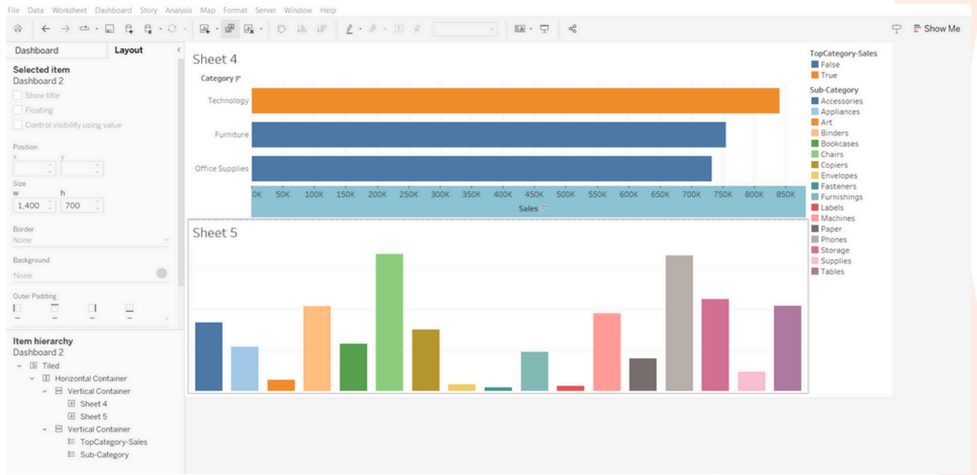
- Now lets say i want to drag and drop a secong graph on to the dashboard-sheet5
- When i drag and go on to the dashboard , if i move it above colsely i will see a gray border indicating it will appear above the present graph.
- In the same way, we can find the borders four sides of the dashboard when moved closely as shown in the before slide.
- We can drop it in which ever position we want it to.
- Now you might wonder, as this is a vertical container, how are we getting option to drop the graphs on 4 sides, we need to be able to drop it either up or down right.
- But in tableau , particulary the second graph has the ability to be drooped anywhere and this can change the containers type too.
- Like if the second graph is dropped up or below the present graph, it remains a vertical container.
- But if it is dropped to the left or right of the present graph, the container becomes a horizontal container.
- And from 3rd grapg onwars the containers are fixed and cannot be changed, we will get only 2 options either up and down or laft and right based on the contaibers type.
- So be careful while dropping your second graphs in the containers.

- Now once we have dropped our second graph, our layout will look like this

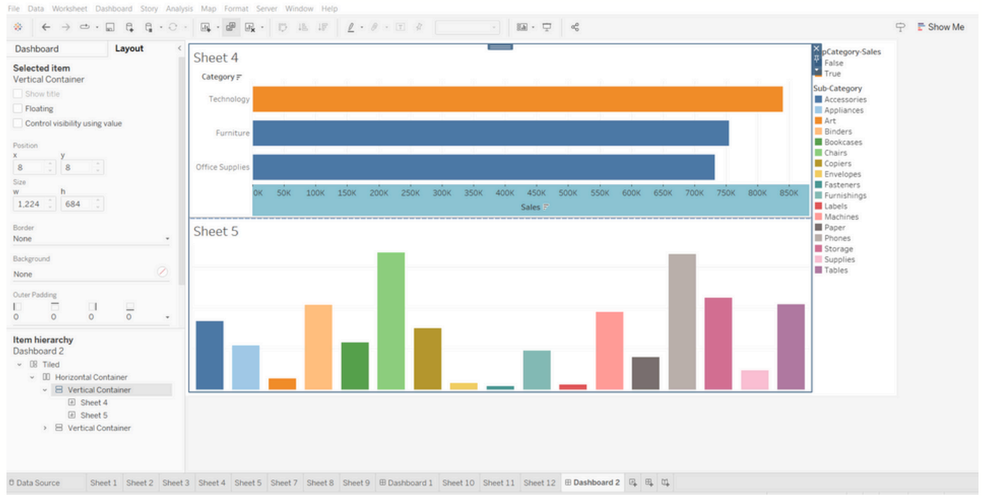


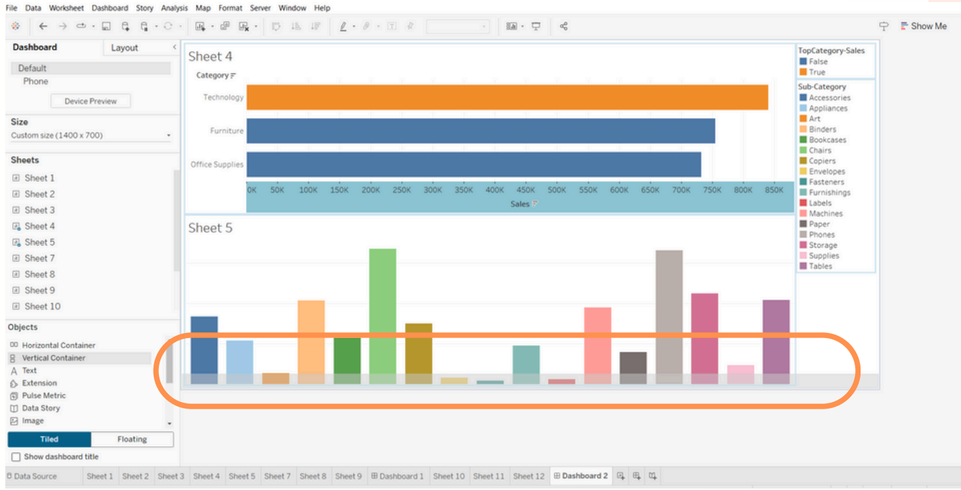
- Next if we want to show the graphs in equal sizes inside the container we need to select the container name from the layout -then right click on it and select the option ‘Distribute contents evenly’



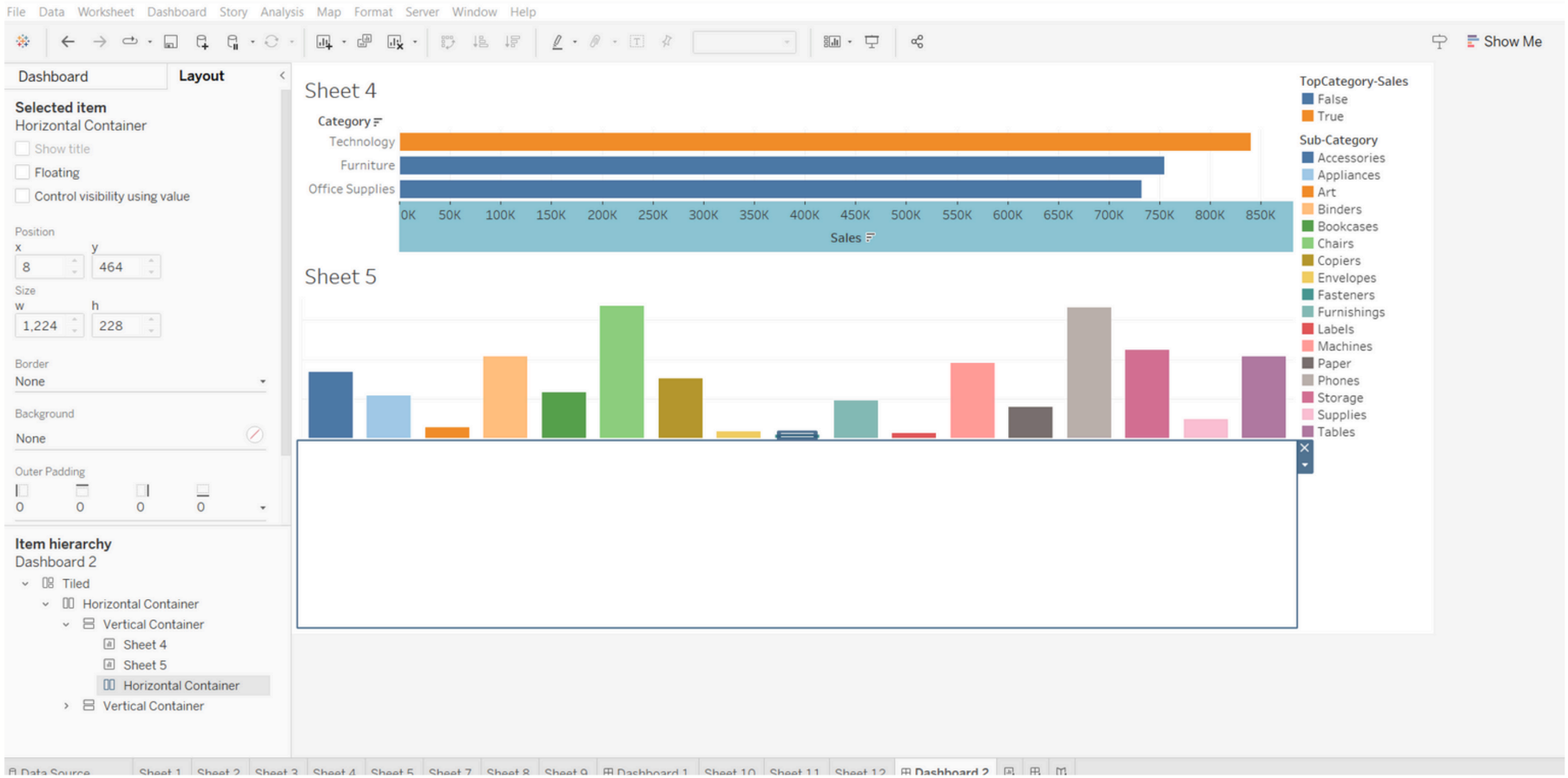


- We can also add containers inside a container.....
- First ensure that the vertical container(in our case) in which we want to add is selected and being displayed with blue borders.
- Then switch to the Dashboard panel from the Layout panel.
- Drag and drop a horizontal container where you want it (look for the gray border).
- Drop it below or above based on the highlighted area.





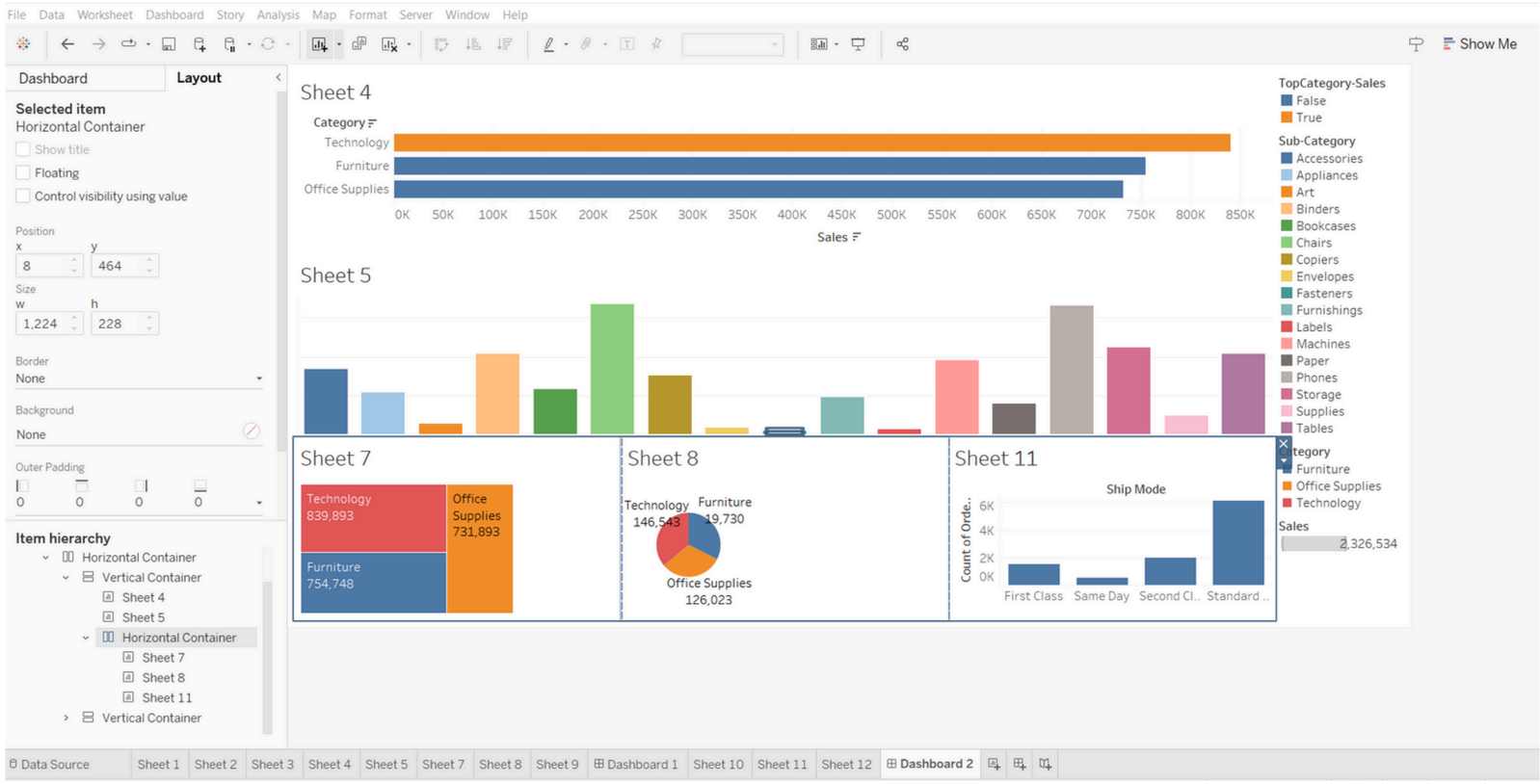
- Once we have added it out layout and dashboard will look like this.



Now we can start adding graphs to the horizontal container.

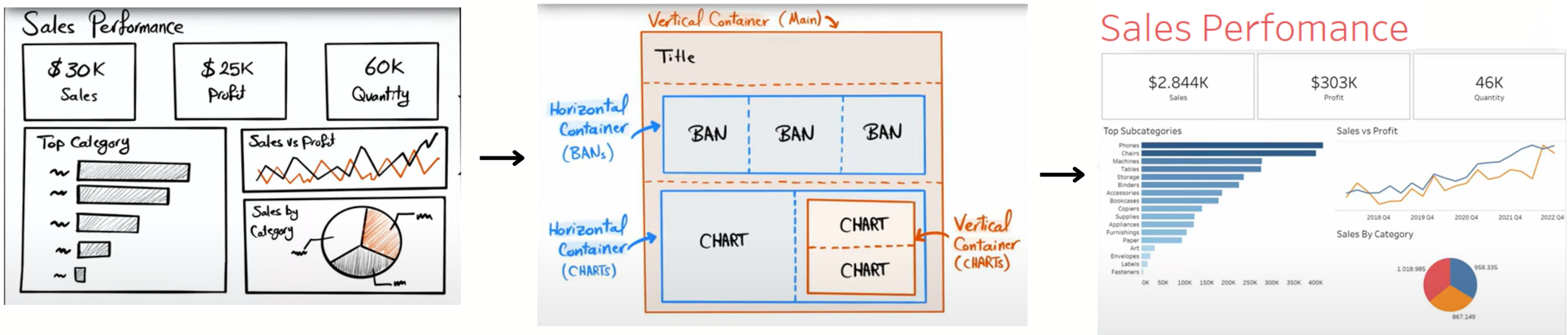
Note: Before adding anything inside a container, ensure that the container is selected and highlighted with blue borders. Then, simply drag and drop the graphs inside it.

After adding the graphs and distributing them evenly, it look like this:



One easy way to handle dashboards is to first sketch the design on paper and then create it accordingly.

1. Have the dashboard in mind – Decide how you want your dashboard to look, including layout, charts, and key insights to be displayed.
2. Create a blueprint for the containers – Plan the layout structure.
3. Execute and place your graphs accordingly – Add and arrange visual elements based on the plan



Note : It's advisable to check the Layout panel frequently to understand the hierarchy, especially when adding new elements, until you become familiar with layouts.

THANK YOU