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**20BCE1610**  
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**DATA ANALYTICS**

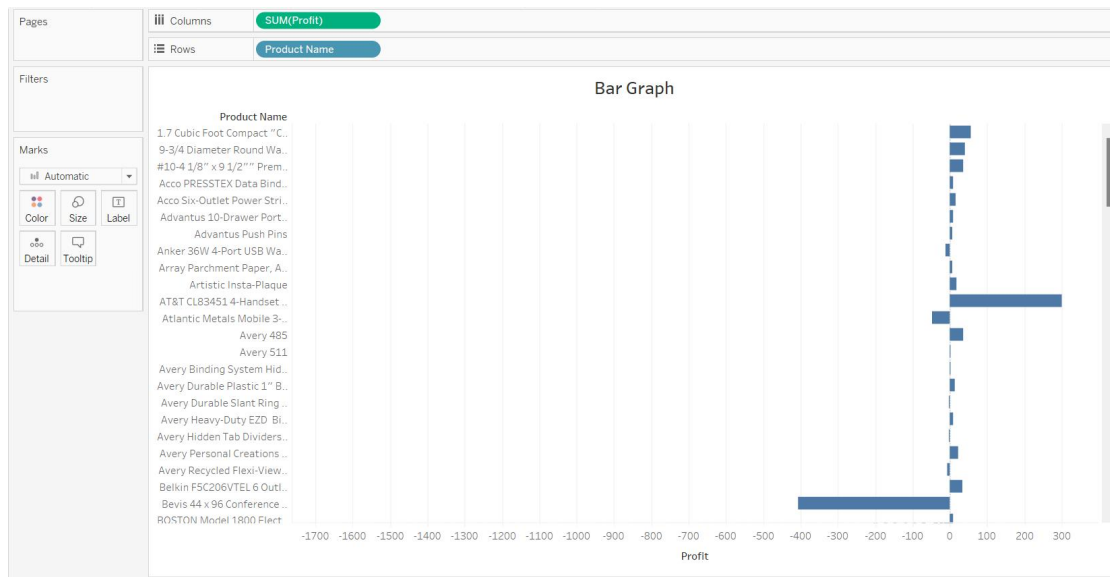
**Link:**

**[https://drive.google.com/drive/folders/1OatUgw3xECEGfUPA6dlseYmJqnM5R9AI?usp=share\\_link](https://drive.google.com/drive/folders/1OatUgw3xECEGfUPA6dlseYmJqnM5R9AI?usp=share_link)**

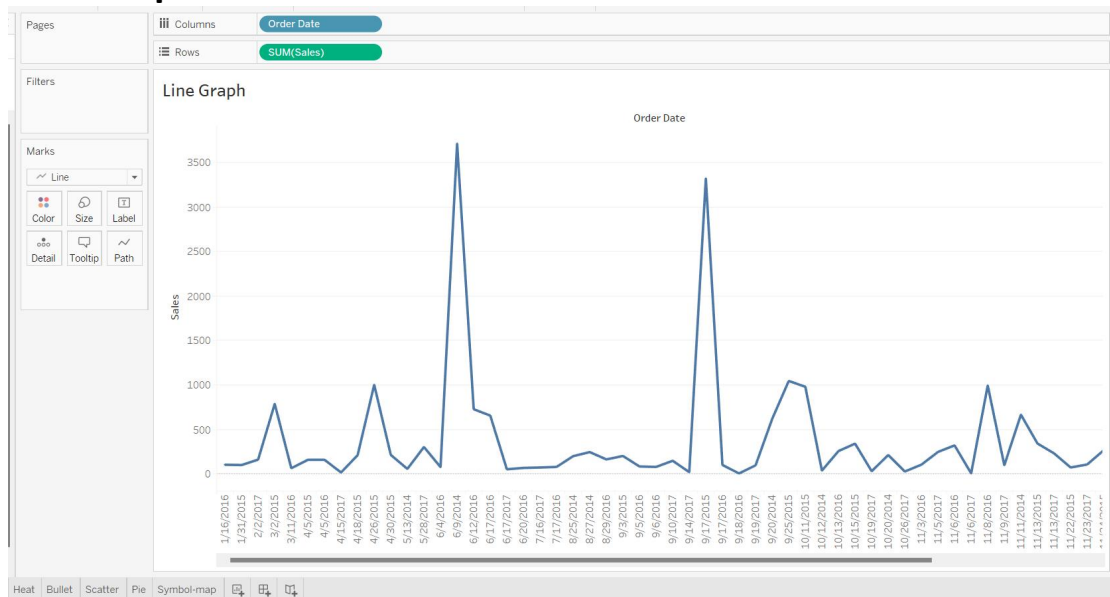
## **ASSIGNMENT-2**

**1.**

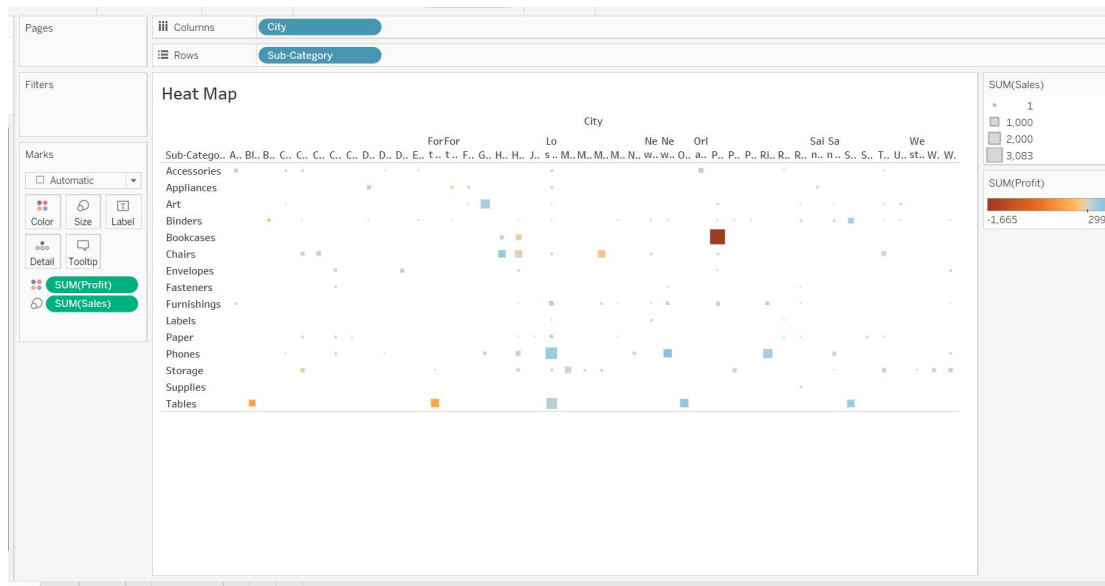
**Horizontal Bar Graph:**



## Line Graph:



## Heat Graph:

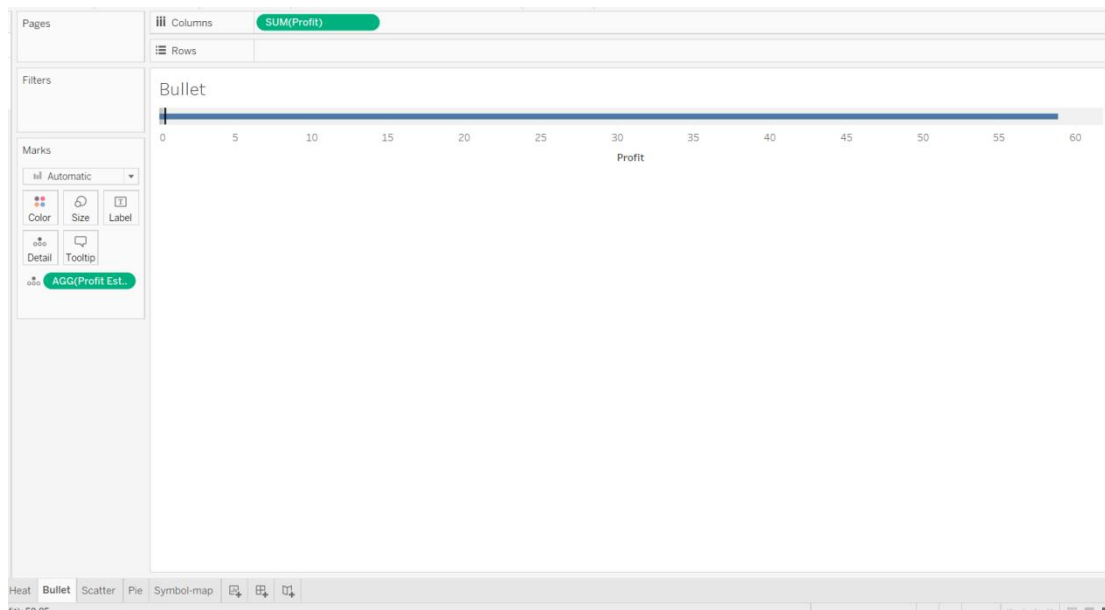


## Bullet Graph:

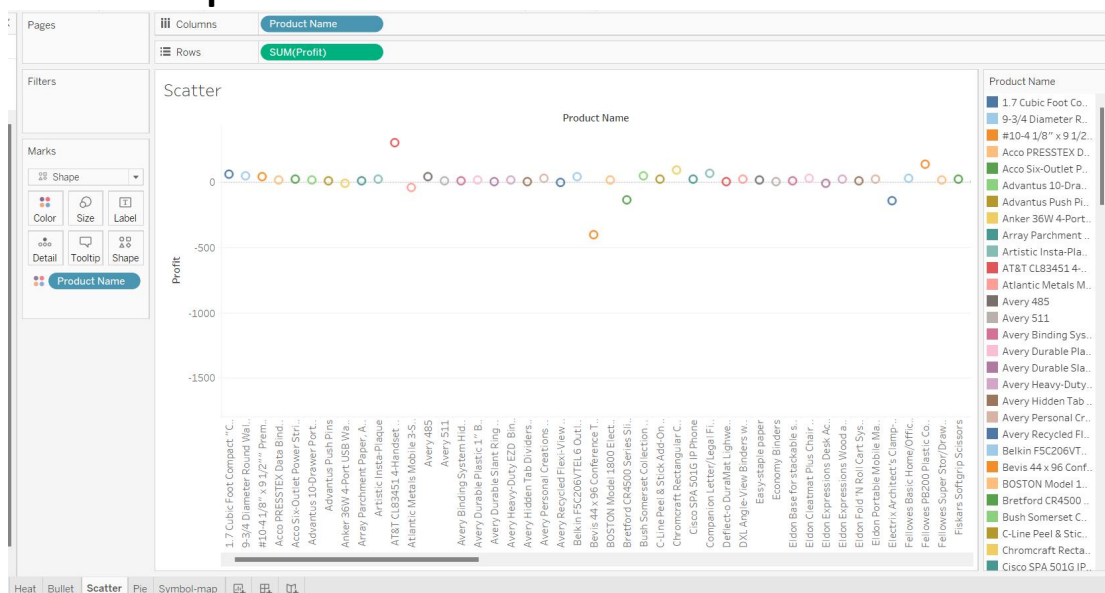
Profit Estimated

`AVG([Profit])`

The calculation is valid.
1 Dependency ▼
Apply
OK



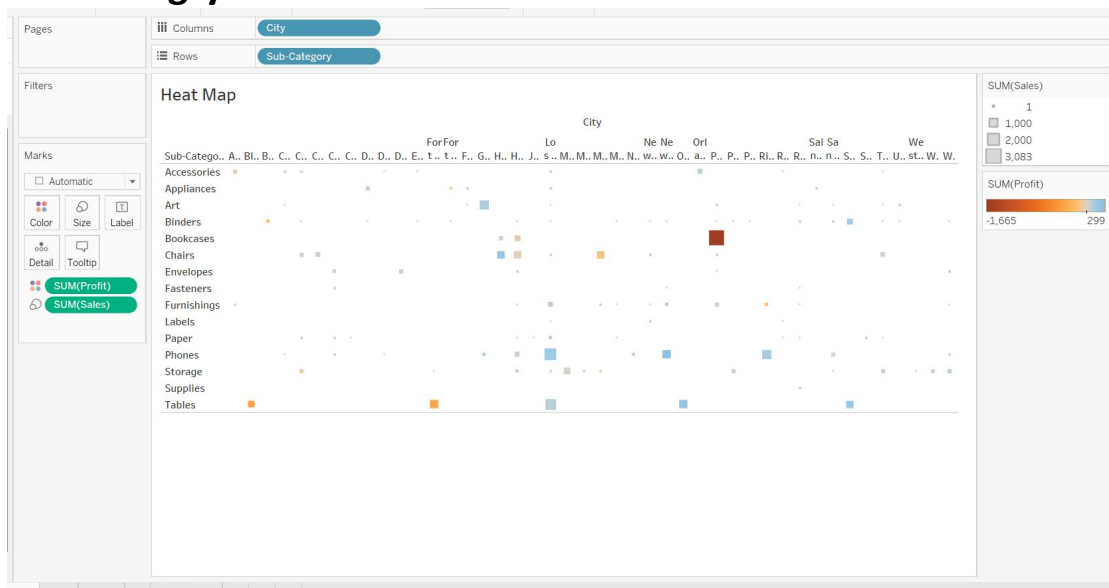
## Scatter Graph:



## Pie Chart:



Let us take a heat graph that shows the city with the subcategory.



Open the filter tab of city and check and uncheck the necessary fields. Also there is a property named condition where we can set our custom rules.

Filter [City] X

General Wildcard Condition Top

☒ Select from list ☐ Custom value list ☐ Use all

Enter search text

- ☒ Aurora
- ☒ Bloomington
- ☒ Bristol
- ☒ Charlotte
- ☒ Chicago
- ☒ Columbia
- ☒ Columbus
- ☒ Concord
- ☒ Decatur
- ☒ Dover
- ☒ Durham

All None ☐ Exclude

Summary

Field: [City]  
Selection: Selected 44 of 44 values  
Wildcard: All  
Condition: None  
Limit: None

Reset OK Cancel Apply

**Let us give the condition by formula such that the resultant should show the top 3 cities.**

Filter [City] ✕

General Wildcard Condition **Top**

☐ None

☒ By field:

Top  by

Category

☐ By formula:

Top  by

Reset OK Cancel Apply

**Now the resultant graph will be like this.....**

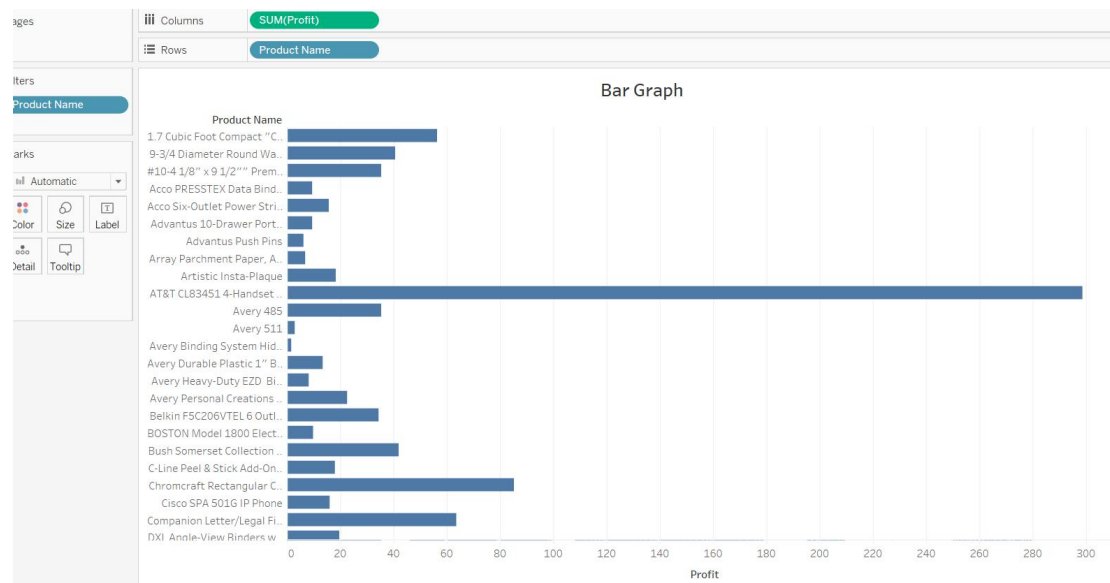




## Context Filter:

Usually this filter make sure that the filter is applied first prior to the other filters applied.

Let us consider the same horizontal bar chart example...



**We can create a set to show the top three products name with different color according to the profit in a certain region..**

Create Set

Name: Product Name Set

General Condition Top

☐ None

☒ By field:

Top 3 by

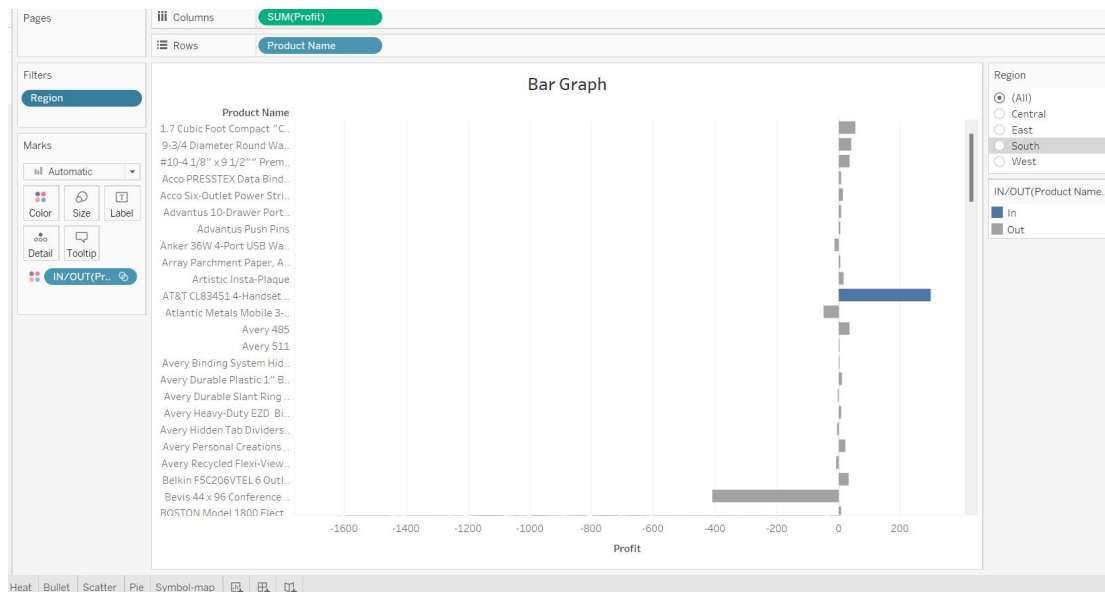
Profit Sum

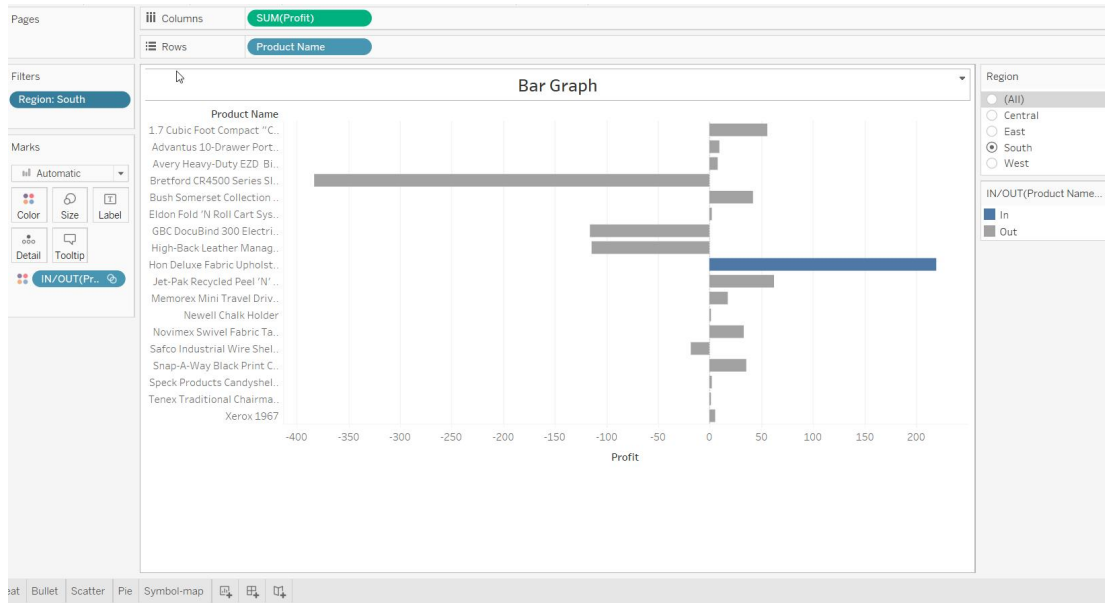
☐ By formula:

Top 10 by

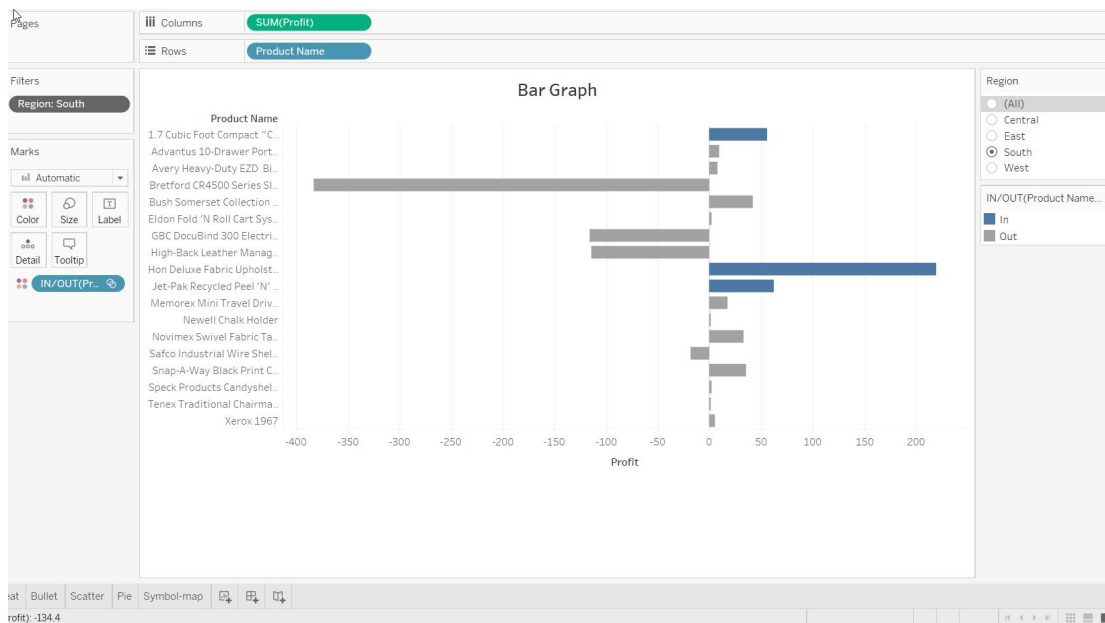
Reset OK Cancel

**Now if we change the region, the filters don't apply correctly. i.e., it doesn't show the top three products in each region.**



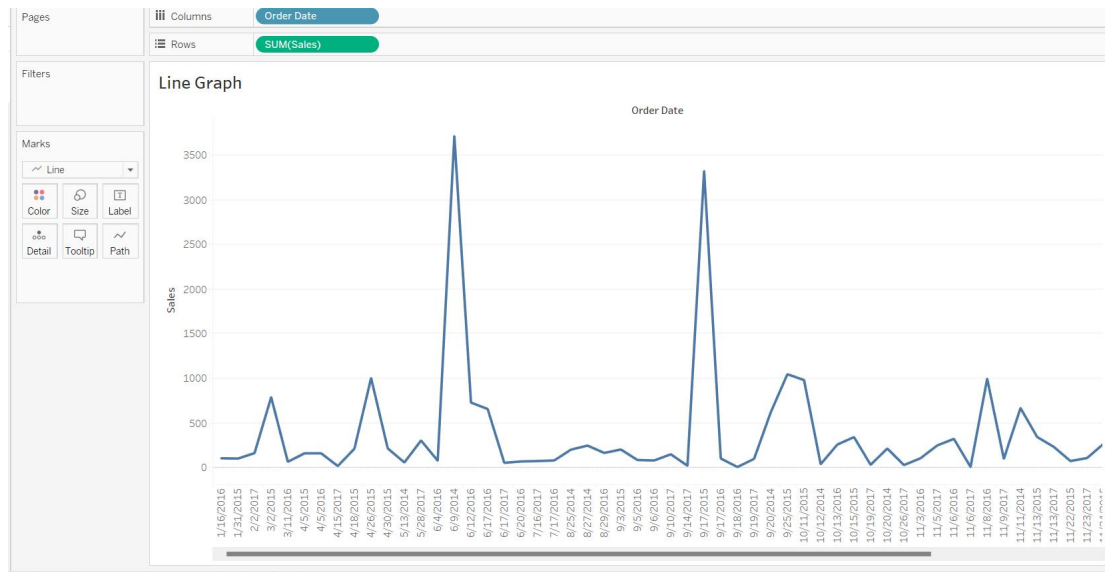


To encounter this issue we have to click on the filters and select “Add to context”. This makes sure that the filters apply first prior to any other filters.



**Measure Filter:**

It gives us the range of measures to filter easily..



Drag sales to the filter area and select the range.

Filter Field [Sales]

How do you want to filter on [Sales]?

- # All values
- # Sum
- # Average
- # Count
- # Count (Distinct)
- # Minimum
- # Maximum
- # Standard deviation
- # Standard deviation (Population)
- # Variance
- # Variance (Population)
- # Attribute

Next > Cancel

Filter [Sales]

Range of values

At least

At most

Special

Range of values

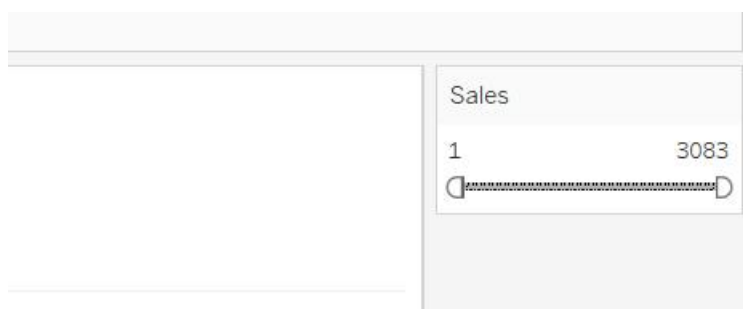
1.248 3,083.43

1.248 3083.43

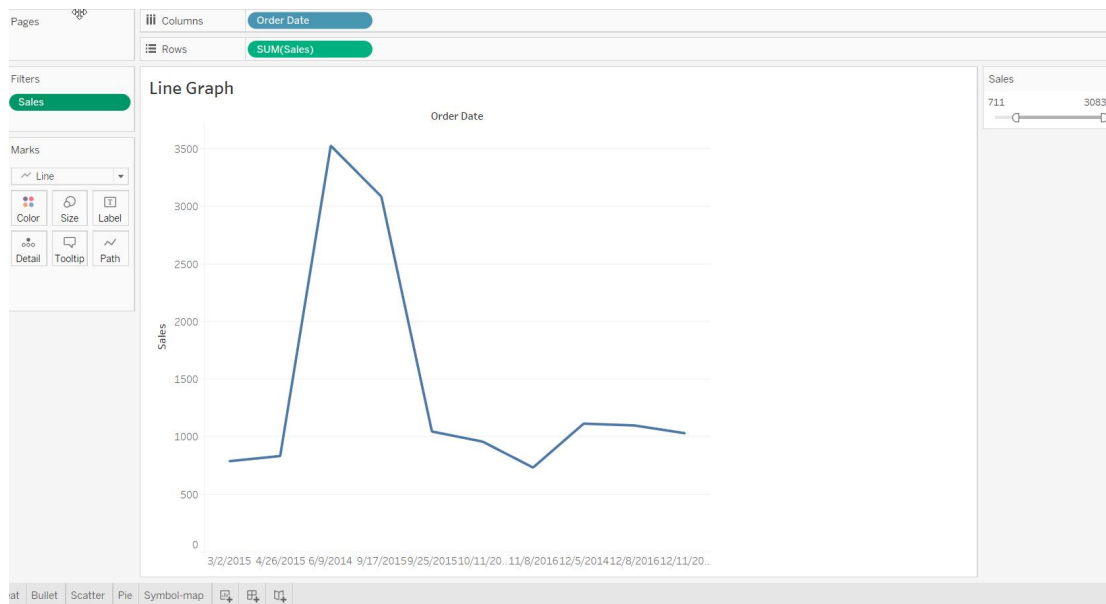
Show: Only Relevant Values ☐ Include Null Values

Reset OK Cancel Apply

**Then click on sales and click on show filters.**



**Now we can drag across the measure and check the line graph changes.**



### 3. Perform the following data manipulations on your dataset

- create a Hierarchy
- create a set
- create a group

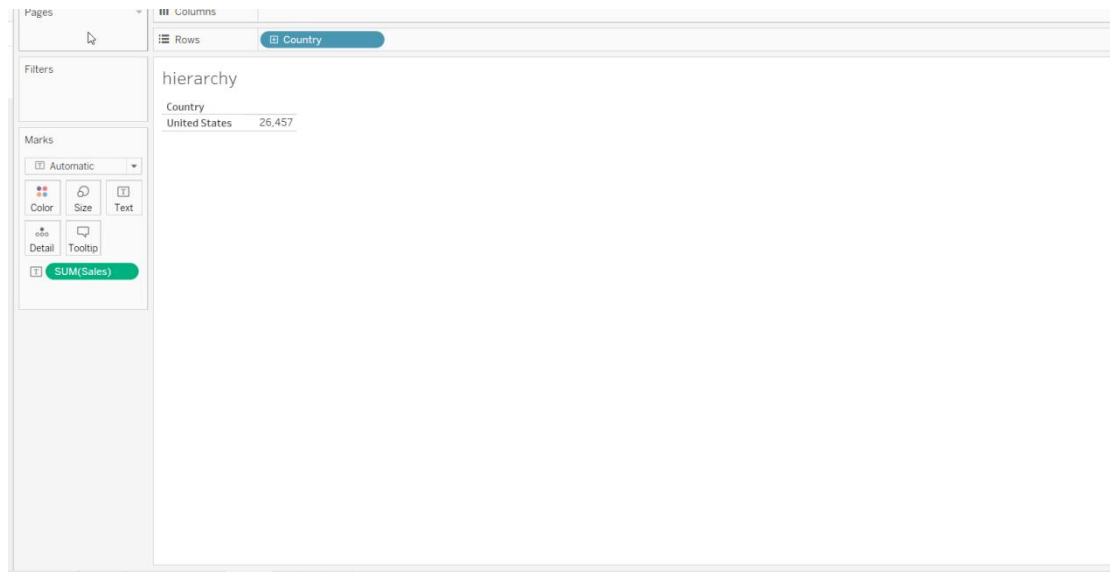
#### Create Hierarchy:

To create a hierarchy we need to click on the element and then we have to click on hierarchy -> create-> and then give it a name. In my case I have given the name as COUNTRY and then I have added country, city and state in it.



To show it in visuals I have added sales...



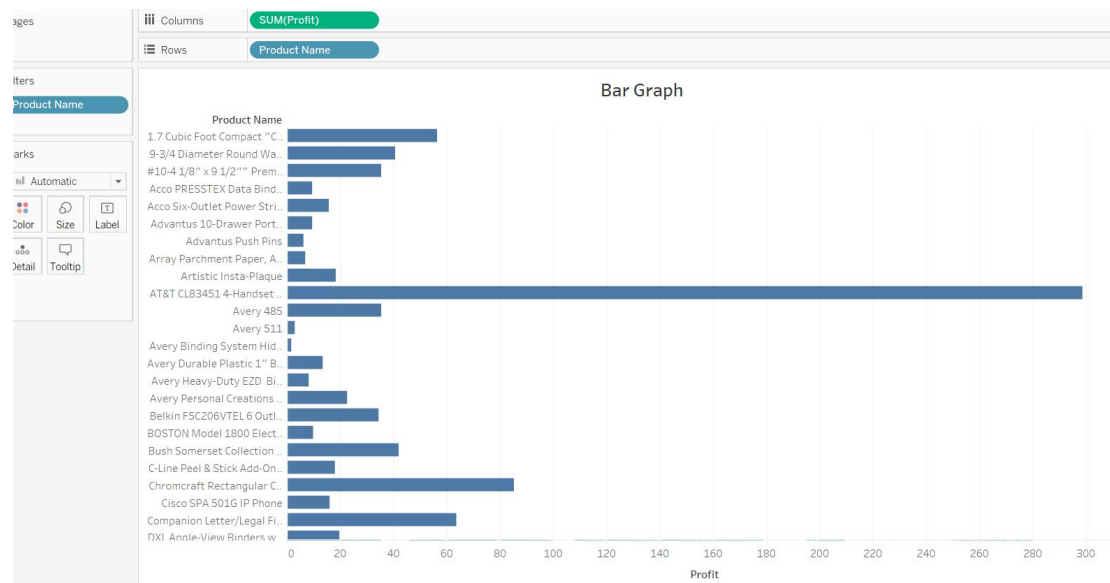


**If we click the country option it will show a plus symbol .If we click on the plus symbol we can see the whole hierarchy.**

## hierarchy

| Country       | City            |       |
|---------------|-----------------|-------|
| United States | Aurora          | 341   |
|               | Bloomington     | 618   |
|               | Bristol         | 158   |
|               | Charlotte       | 105   |
|               | Chicago         | 606   |
|               | Columbia        | 302   |
|               | Columbus        | 359   |
|               | Concord         | 16    |
|               | Decatur         | 225   |
|               | Dover           | 67    |
|               | Durham          | 201   |
|               | Eagan           | 63    |
|               | Fort Lauderdale | 980   |
|               | Fort Worth      | 71    |
|               | Fremont         | 80    |
|               | Gilbert         | 1,281 |
|               | Henderson       | 994   |
|               | Houston         | 2,065 |
|               | Jackson         | 19    |
|               | Los Angeles     | 4,595 |
|               | Madison         | 666   |
|               | Melbourne       | 96    |
|               | Memphis         | 1,002 |
|               | Minneapolis     | 99    |
|               | Naperville      | 147   |
|               | New Albany      | 210   |
|               | New York City   | 1,100 |
|               | Omaha           | 100   |
|               | Orlando         | 100   |
|               | Philadelphia    | 100   |
|               | Pittsburgh      | 100   |
|               | Portland        | 100   |
|               | San Antonio     | 100   |
|               | San Diego       | 100   |
|               | Seattle         | 100   |
|               | St. Louis       | 100   |
|               | Wash. D.C.      | 100   |

**Create set:**



**In this by clicking product name and then clicking on the create-> set-> we can set the top priority list. In this case I have selected the top list to be 3.**

Create Set

Name: Product Name Set

General Condition Top

☐ None

☒ By field:

Top 3 by

Profit Sum

☐ By formula:

Top 10 by

Reset OK Cancel

**Then if we drag this into the color ..It will display the product with different color in accordance with the profit.**



**create a group:**

**To Show how group works,select a horizontal graph with products name and randomly make them into 3 groups and include all others in other.**

**Thus making 4 groups.**

Create Group [Product Name]

Field Name:

Groups:

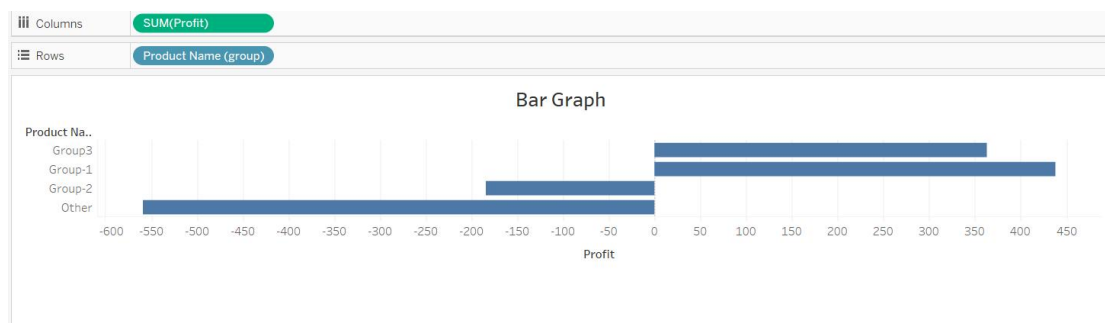
Group-1

- #10-4 1/8" x 9 1/2"" Premium Diagonal Seam Envelopes"
- 1.7 Cubic Foot Compact "Cube"" Office Refrigerators"
- 9-3/4 Diameter Round Wall Clock
- Acco PRESTEX Data Binder with Storage Hooks, Dark Blue, ...
- Acco Six-Outlet Power Strip, 4' Cord Length
- Advantus 10-Drawer Portable Organizer, Chrome Metal Fram...
- Advantus Push Pins
- Anker 36W 4-Port USB Wall Charger Travel Power Adapter fo...
- Array Parchment Paper, Assorted Colors
- Artistic Insta-Plaque
- AT&T GL02451 4-Headset Telephone

Group Rename Ungroup ☒ Show Add Location

☐ Include 'Other'

**Now drag that to rows**



**Now add color by selecting the created group into the color. This gives color to all the fields.**

