Data Analyst Exam 2 Lab Solutions

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Instructions

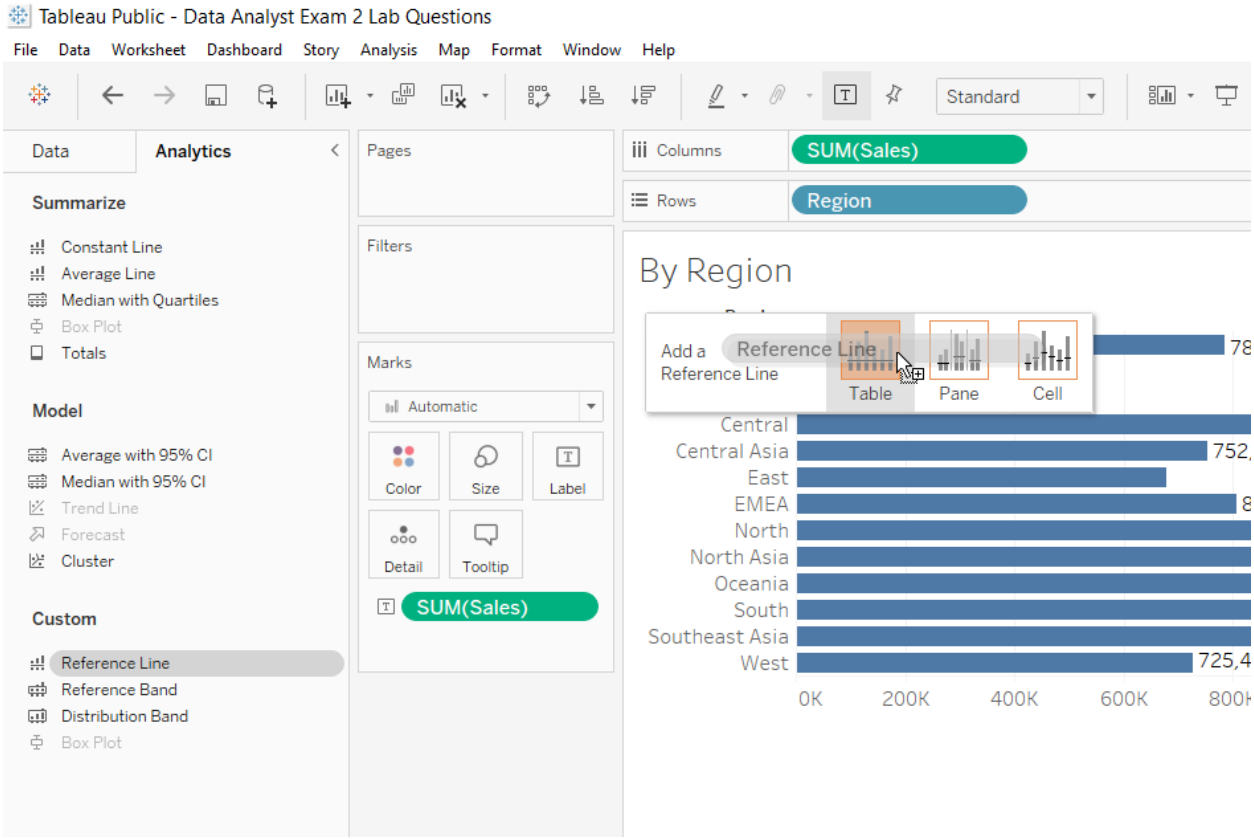
Open the Lab 2 Tableau workbook and take the steps to answer the following questions. Then save the workbook and check your steps using the Exam 1 Lab Solutions document.

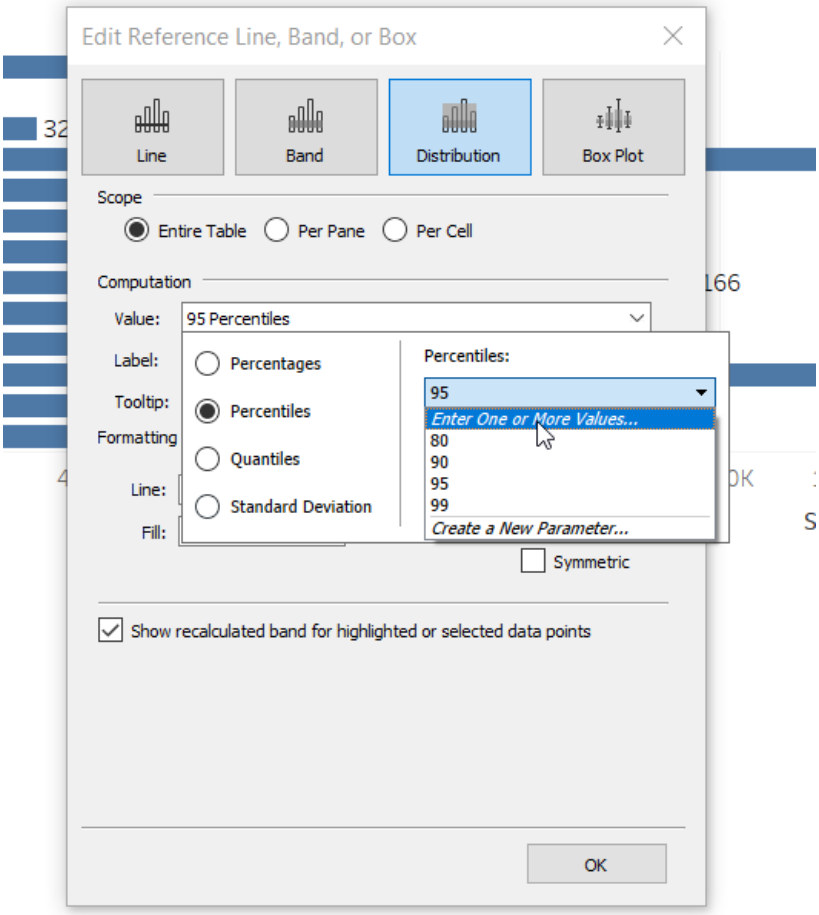
Question 1

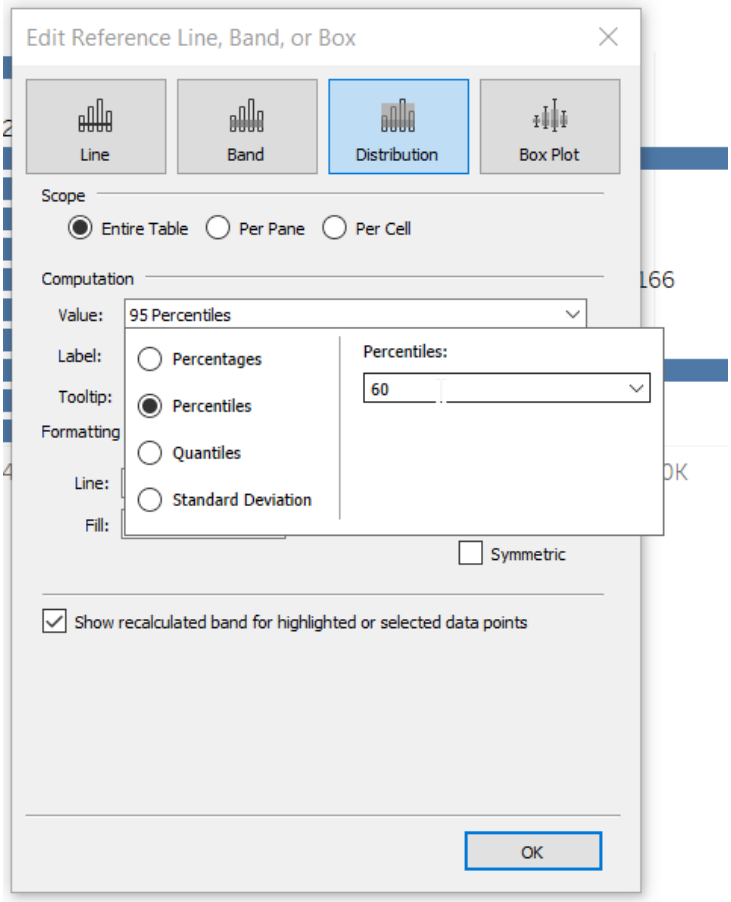
[2.8.2 Reference Lines]

Add a 60th Percentile reference line to the Sales by Region bar chart

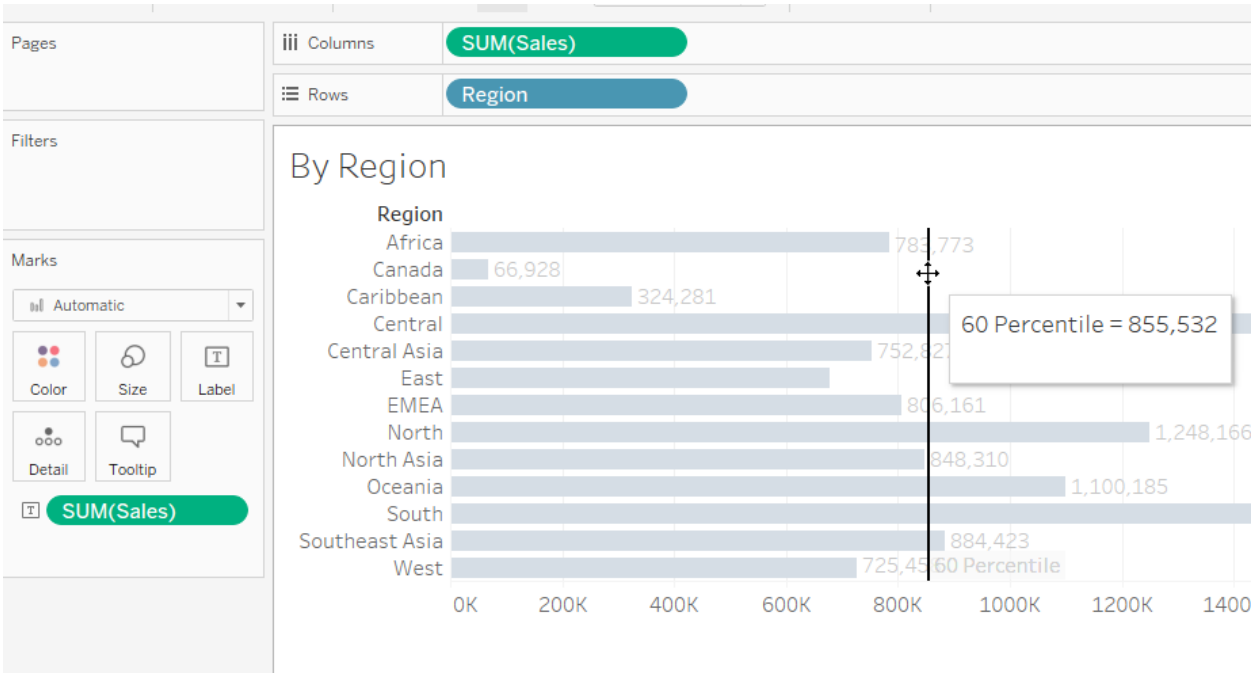
Solution


Tableau Public - Data Analyst Exam 2 Lab Questions
File Data Worksheet Dashboard Story Analysis Map Format Window Help
Standard
Data
Analytics
Summarize
Constant Line
Average Line
Median with Quartiles
Box Plot
Totals
Model
Average with 95% CI
Median with 95% CI
Trend Line
Forecast
Cluster
Custom
Reference Line
Reference Band
Distribution Band
Box Plot
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
SUM(Sales)
Columns
SUM(Sales)
Rows
Region
By Region
Add a Reference Line
Table
Pane
Cell
Central
Central Asia
East
EMEA
North
North Asia
Oceania
South
Southeast Asia
West
752,
725,4
0K
200K
400K
600K


Edit Reference Line, Band, or Box
Line
Band
Distribution
Box Plot
Scope
Entire Table
Per Pane
Per Cell
Computation
Value:
95 Percentiles
Label:
Tooltip:
Formatting
Line:
Fill:
Percentages
Percentiles
Quantiles
Standard Deviation
Percentiles:
95
Enter One or More Values...
80
90
95
99
Create a New Parameter...
Symmetric
Show recalculated band for highlighted or selected data points
OK



Result showing 60th Percentile

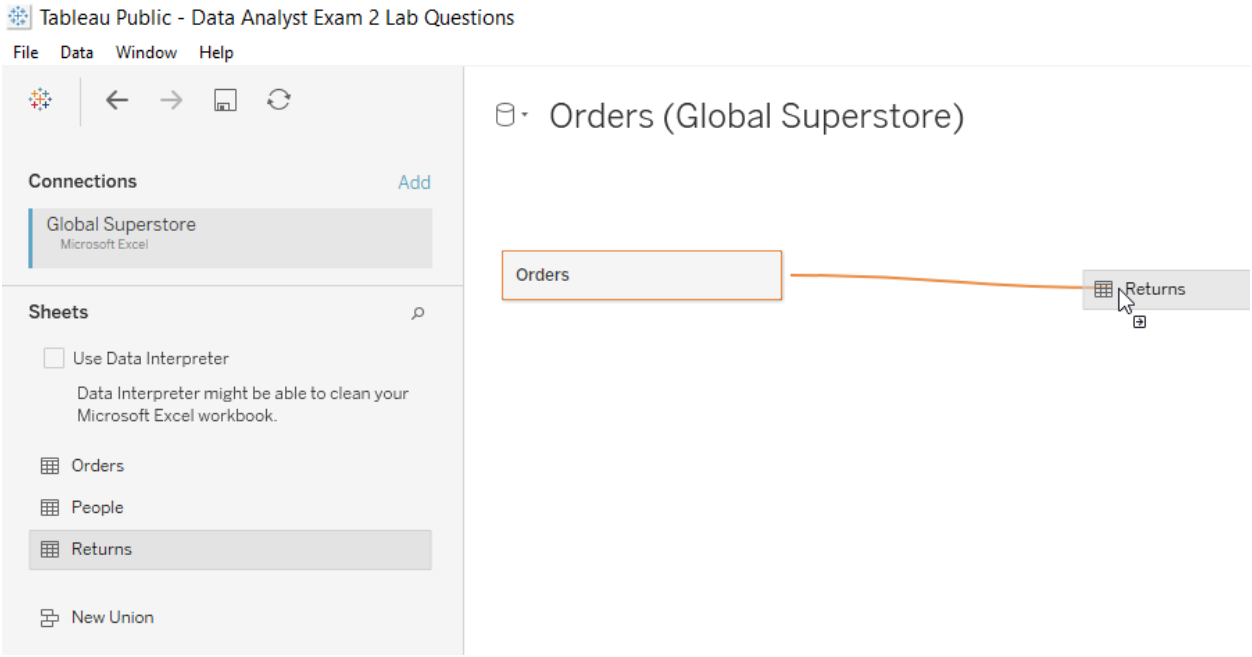


Question 2

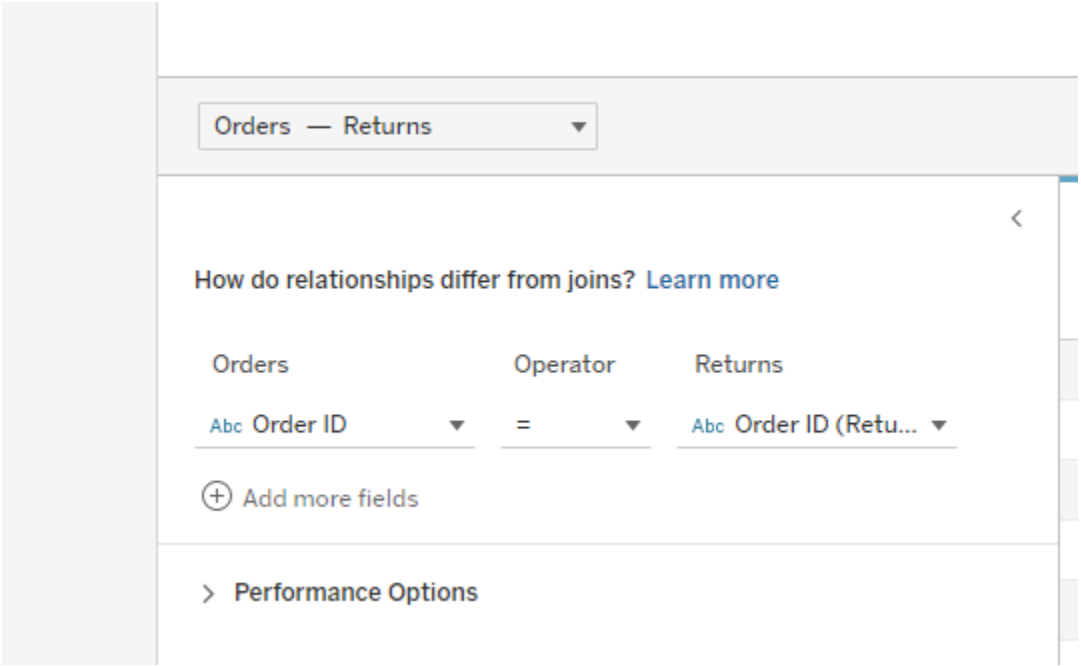
[1.2.4.Use multiple data sources (establish relationships, create joins, union tables, blend data)]

On the data source page, create a relationship between Order and Returns using Order ID.

Solution



Establishing the relationship using Order ID from both tables



Result:

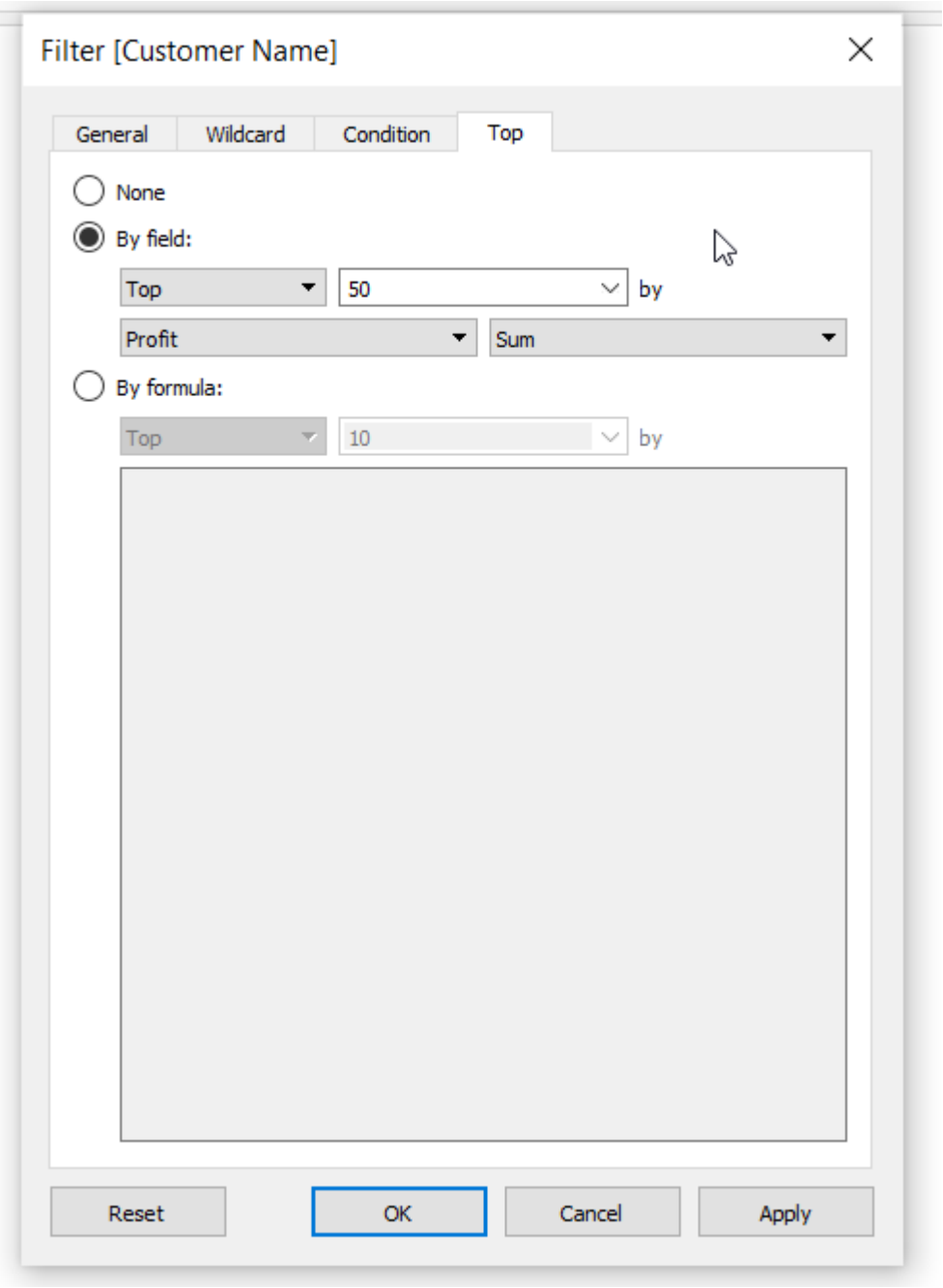


Question 3

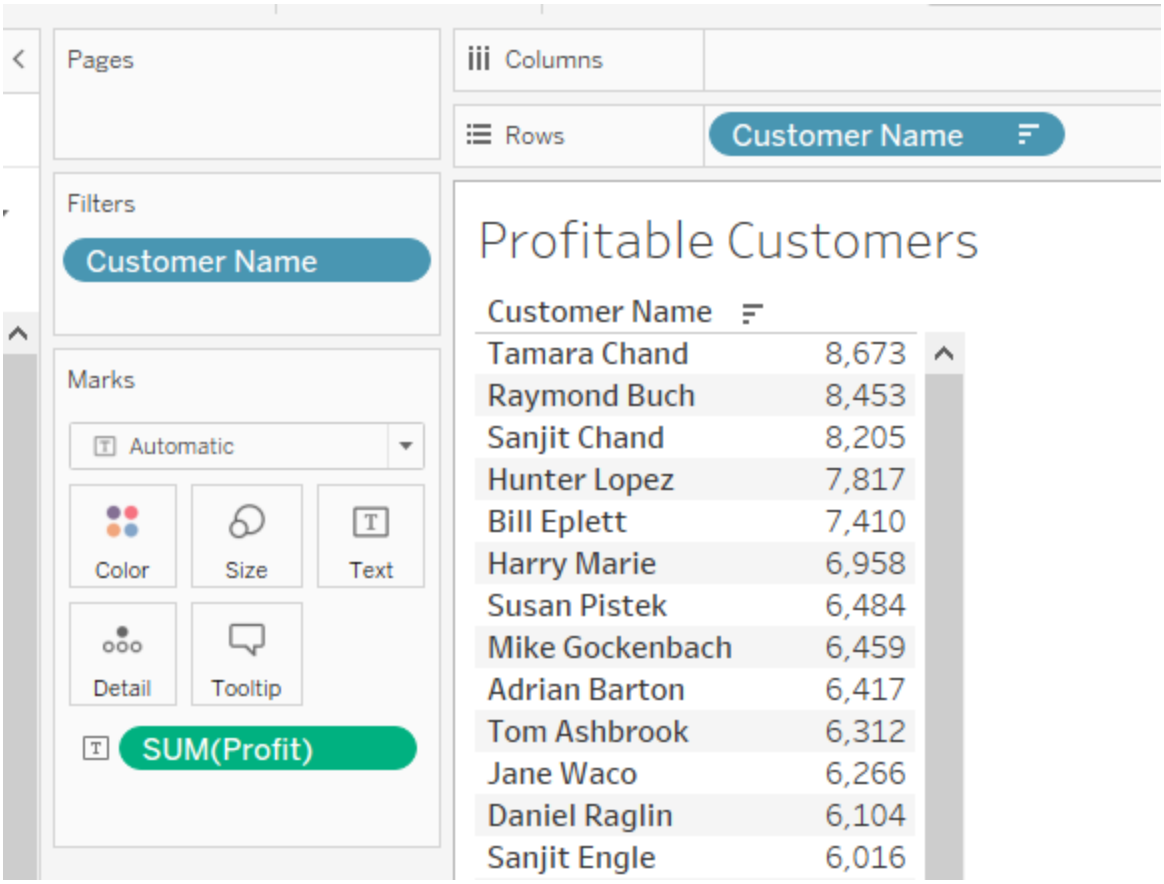
[2.4.1 Apply Filters to Dimensions and Measures]

Create a filter on Most Profitable Customers so that only the top 50 most profitable customers are shown. Use customer name rather than customer id when determining most profitable customers.

Solution



After adding the filter, only the top 50 most profitable customer names are shown:



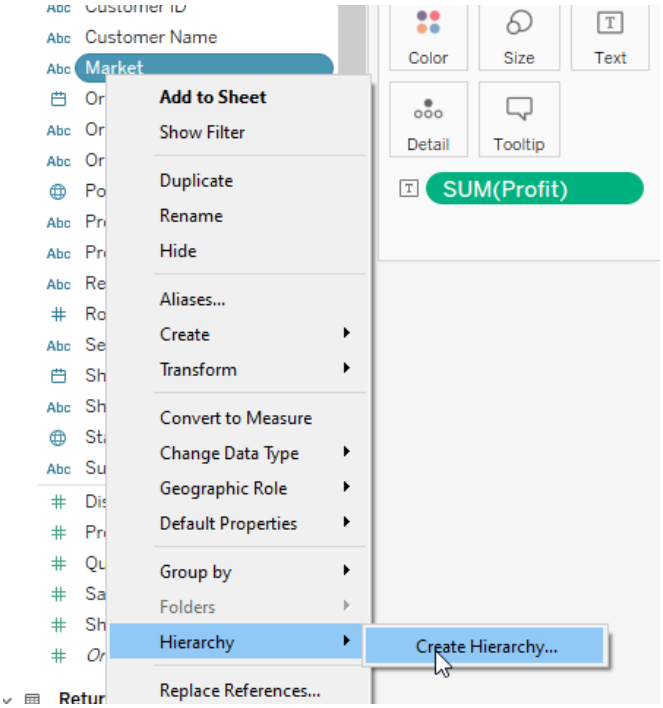
Question 4

[2.6.3 Structure the Data - hierarchies]

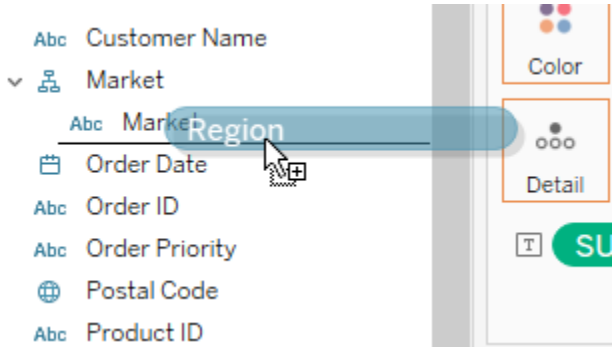
Create a hierarchy for Market, Region, and State.

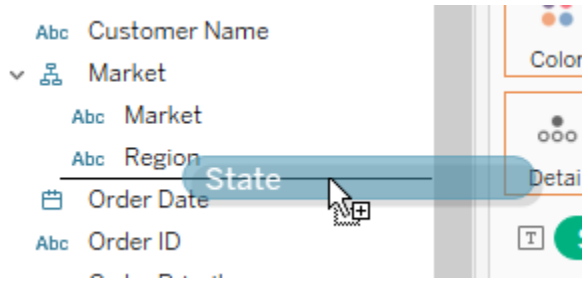
Solution

Right-click and select Hierarchy, Create Hierarchy



Drag Region and State into hierarchy:





Question 5

[2.7.1. Create symbol maps]

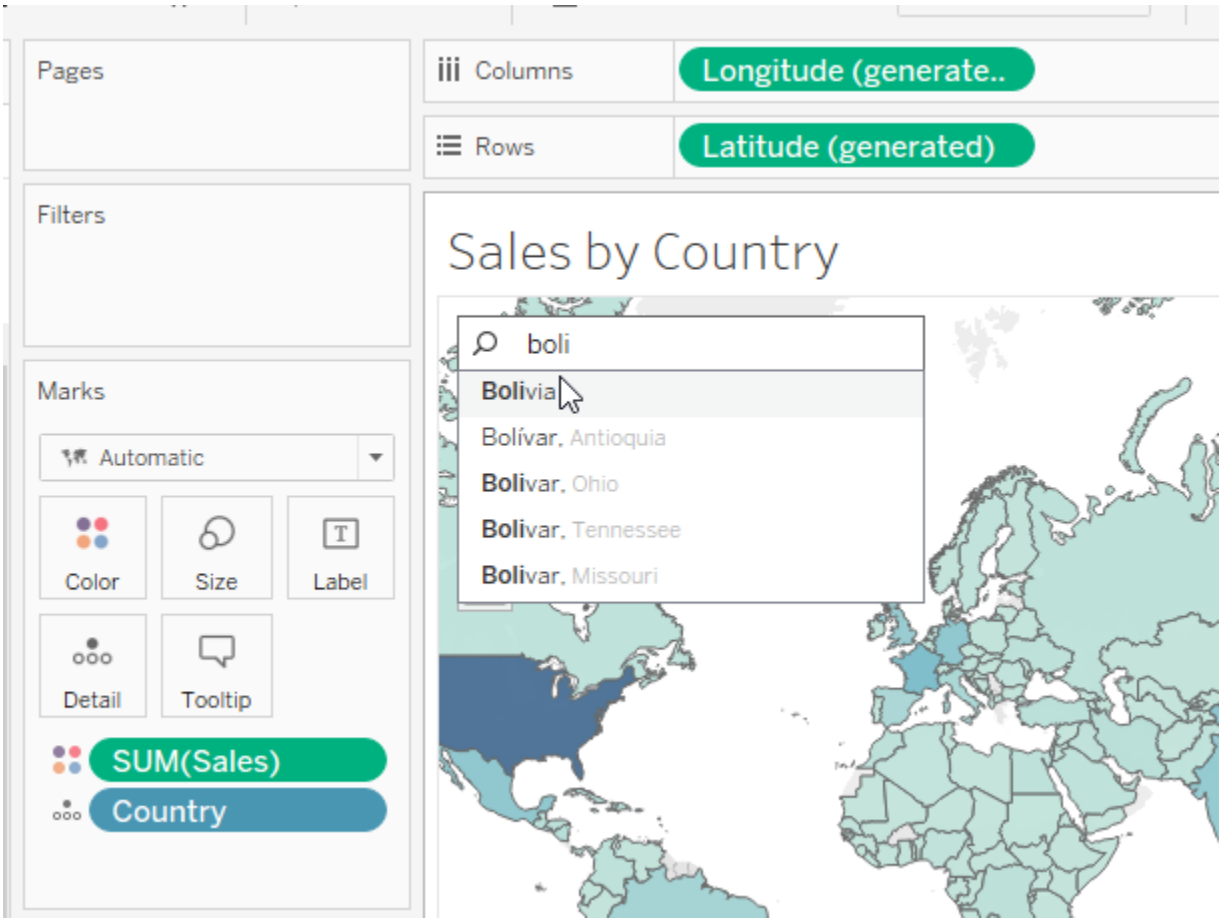
Edit the “Sales by Country” map so that it shows total sales by country. Center the map on country Bolivia

Solution

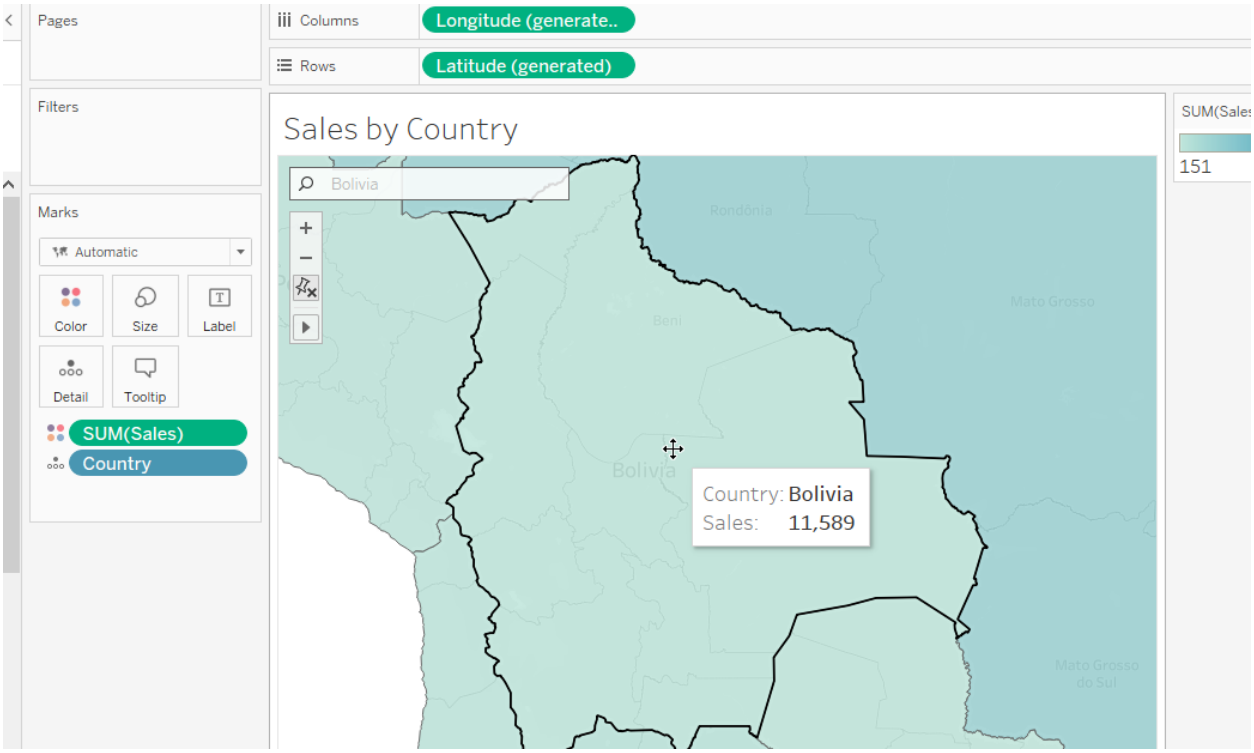
Double-click Country to add it to the view:



Search for Bolivia:



Final view:



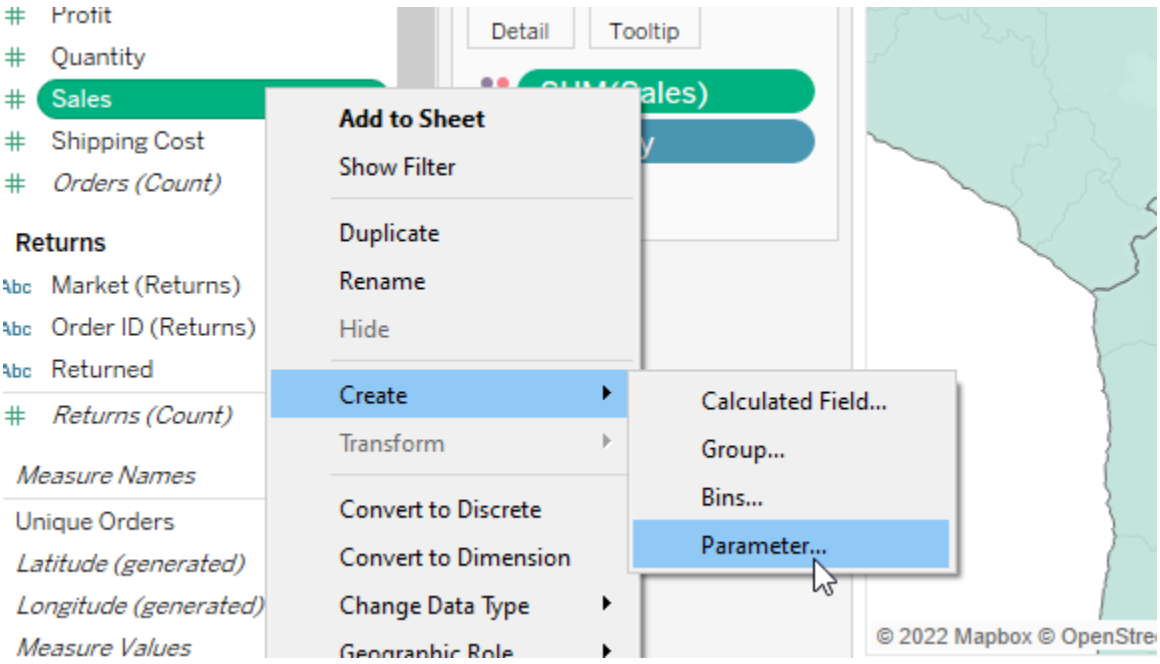
Question 6

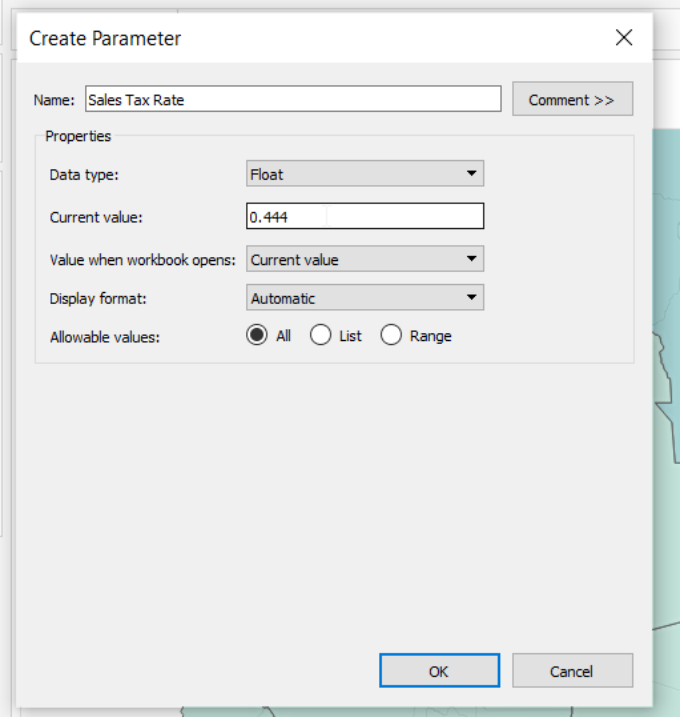
[2.5.1 Create parameters to enable interactivity in calculations]

Create a calculated field “Sales Tax” that multiplies Sales by a new parameter “Sales Tax Rate.” The new parameter should be of type float.

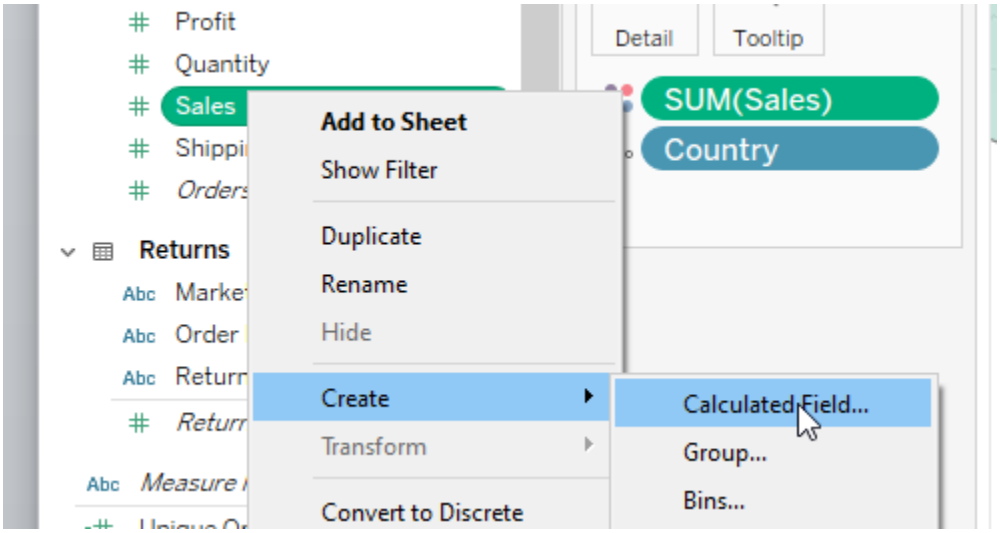
Solution

Create parameter:





Add calculated field:



Add the new calculation

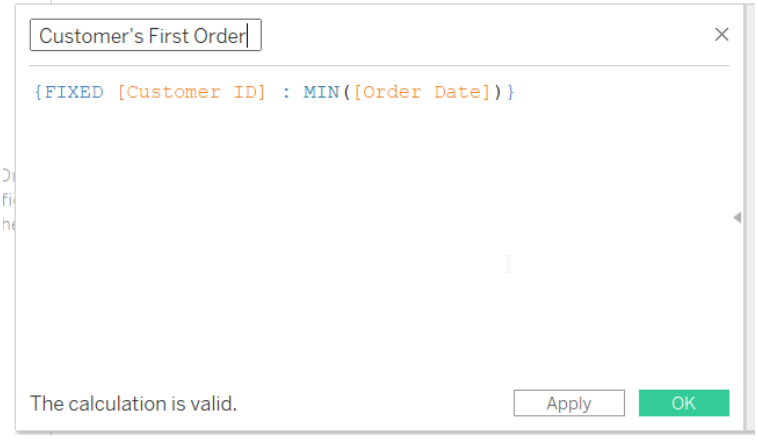


Question 7

[2.1.7. Write FIXED LOD calculations]

Create a fixed level of detail calculation which will determine a customer's first order year. Use Customer ID to identify a customer.

Solution



See also "2. Cohort analysis" in this post https://www.tableau.com/about/blog/LOD-expressions

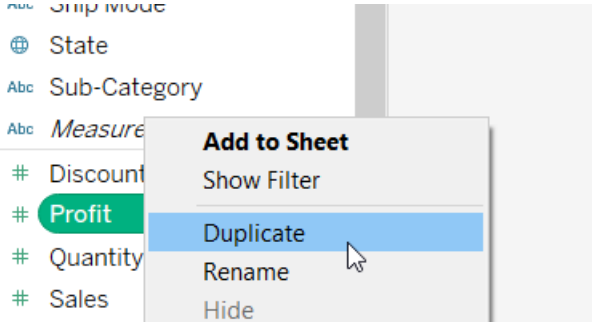
Question 8

[2.3.5. Create Customer Table Calculations - Ranking]

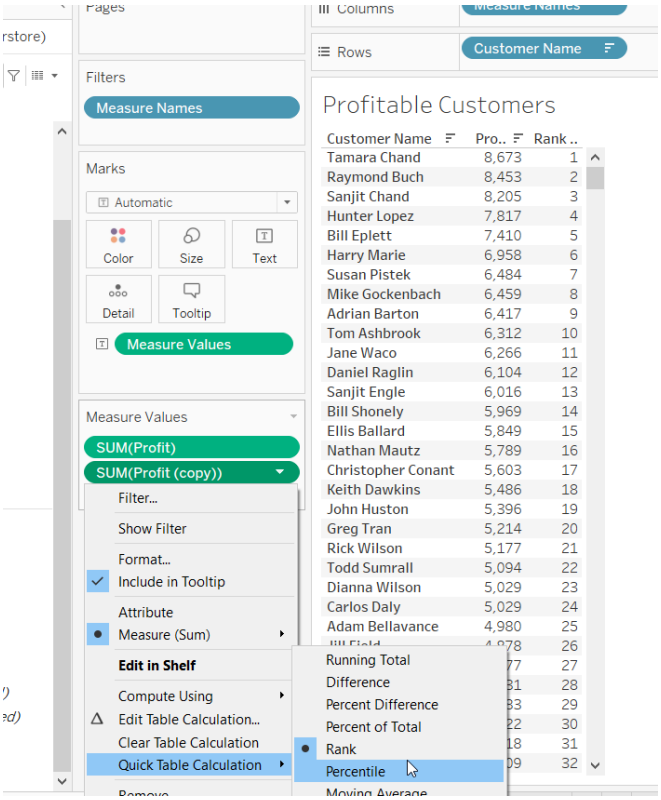
On the "Profitable Customers" worksheet, add a column with a 1 for the customer with the highest profit, a 2 for the customer with the second highest profit, and so on for all of the customer's shown.

Solution

Duplicate profit



Add new column to the view, then use a Quick Table calculation:



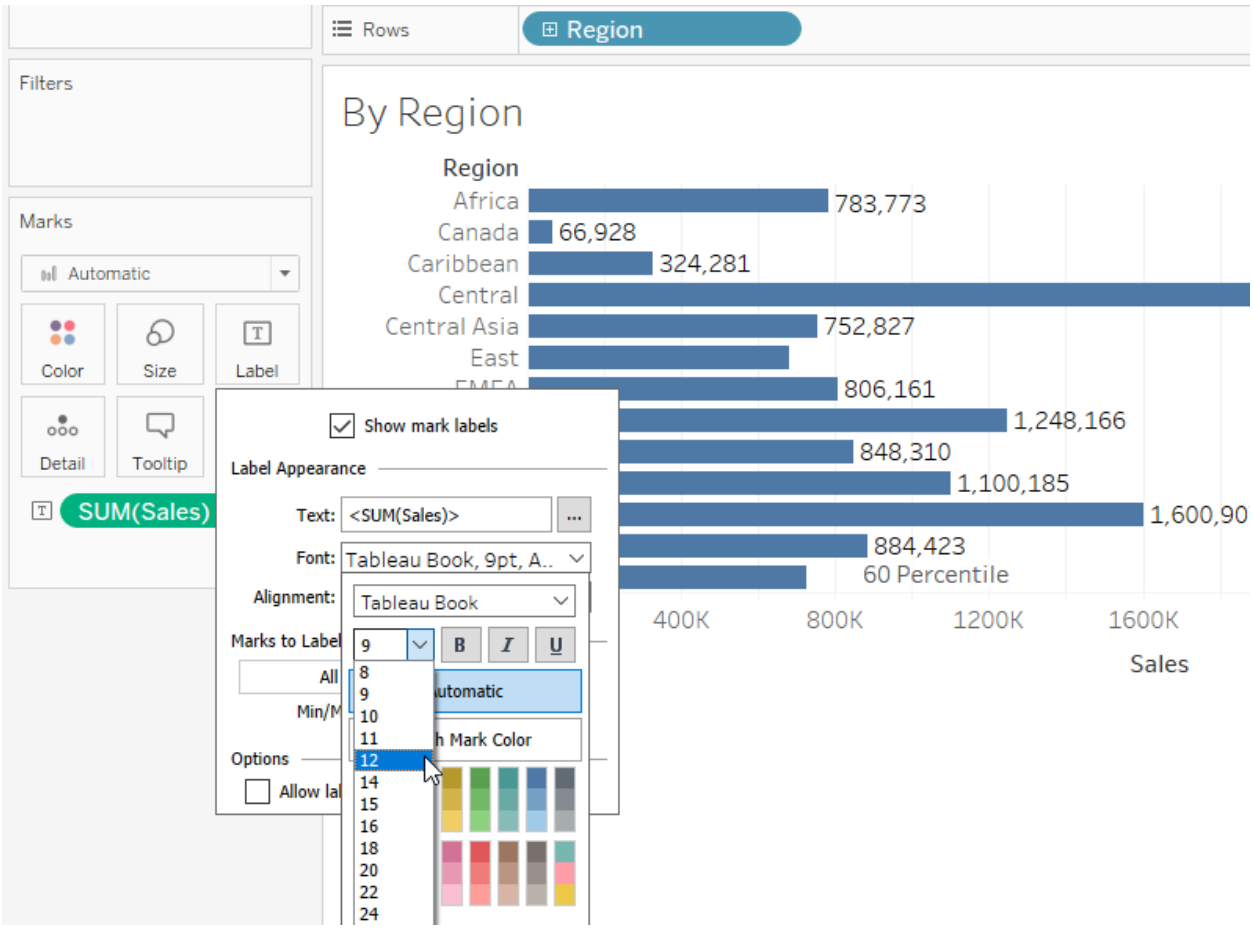
Question 9

[3.4. Apply color, font, shapes, styling]

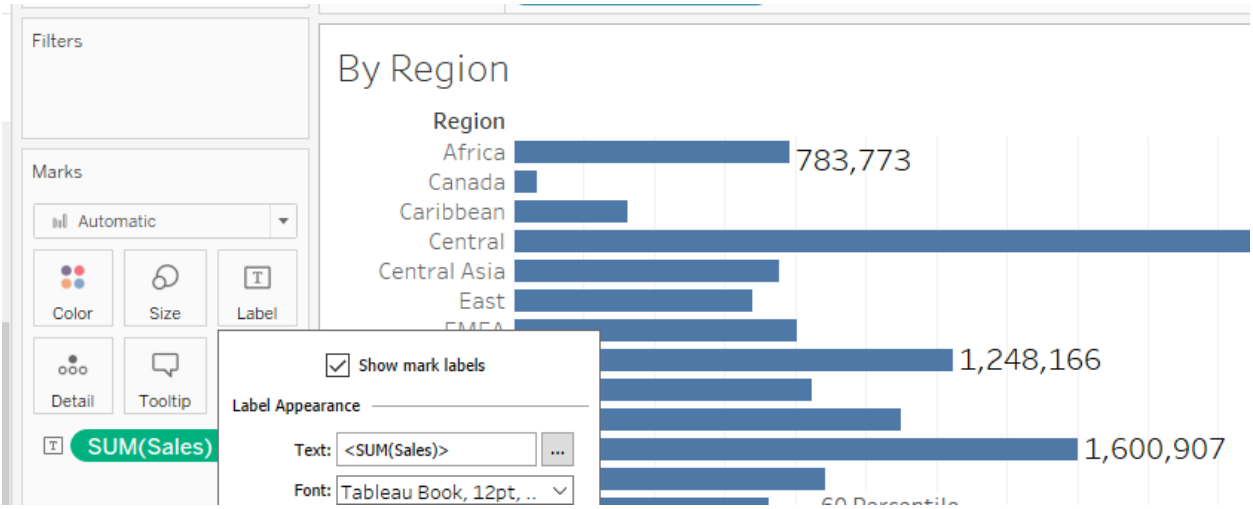
On the By Region worksheet, increase the font size of the bar labels to 12 pt

Solution

Click label to change the format



Font for labels is now 12pt

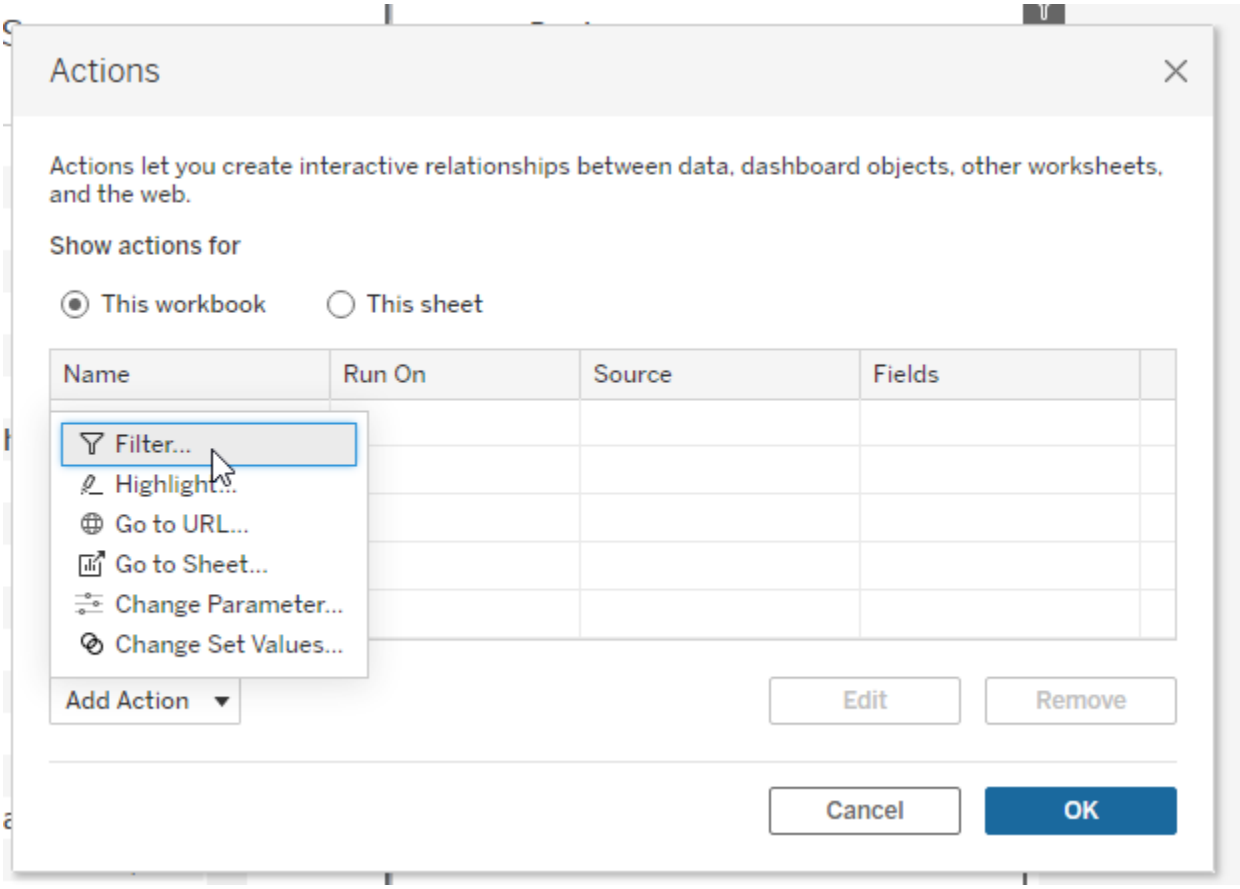


Question 10

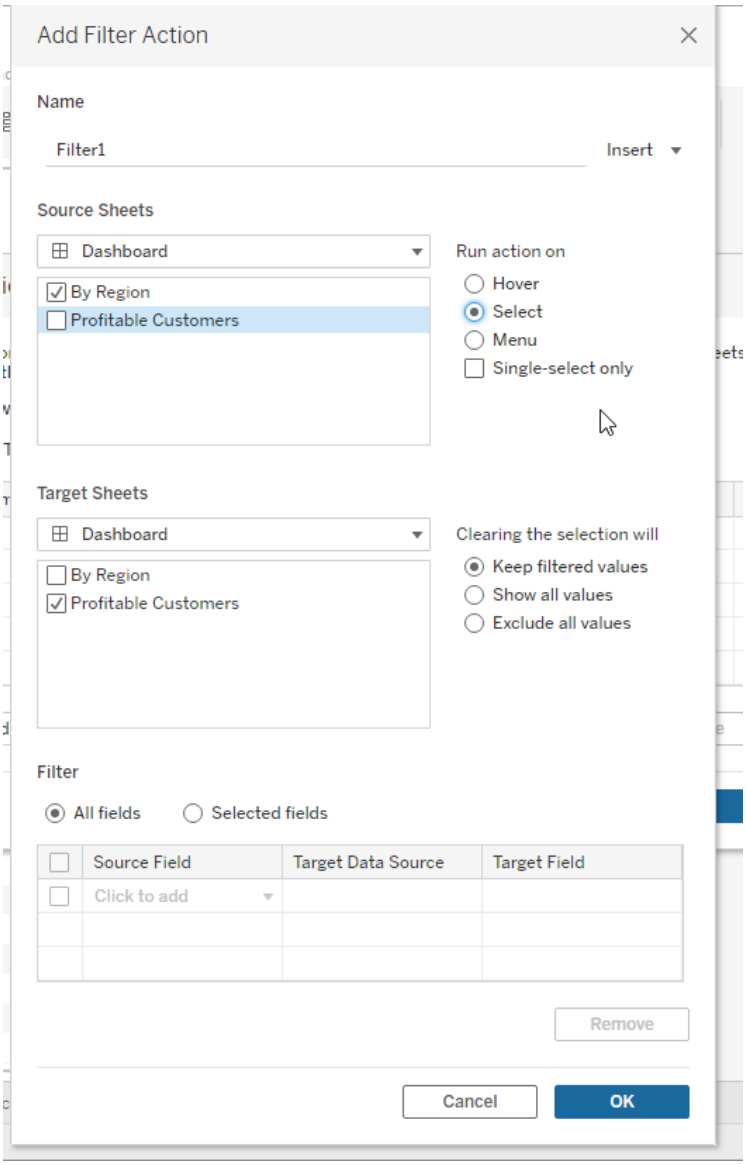
[3.3.2. Add filter, URL, and highlight actions]

Add an action so that selections made on the bar chart act as filters for the list of profitable customers.

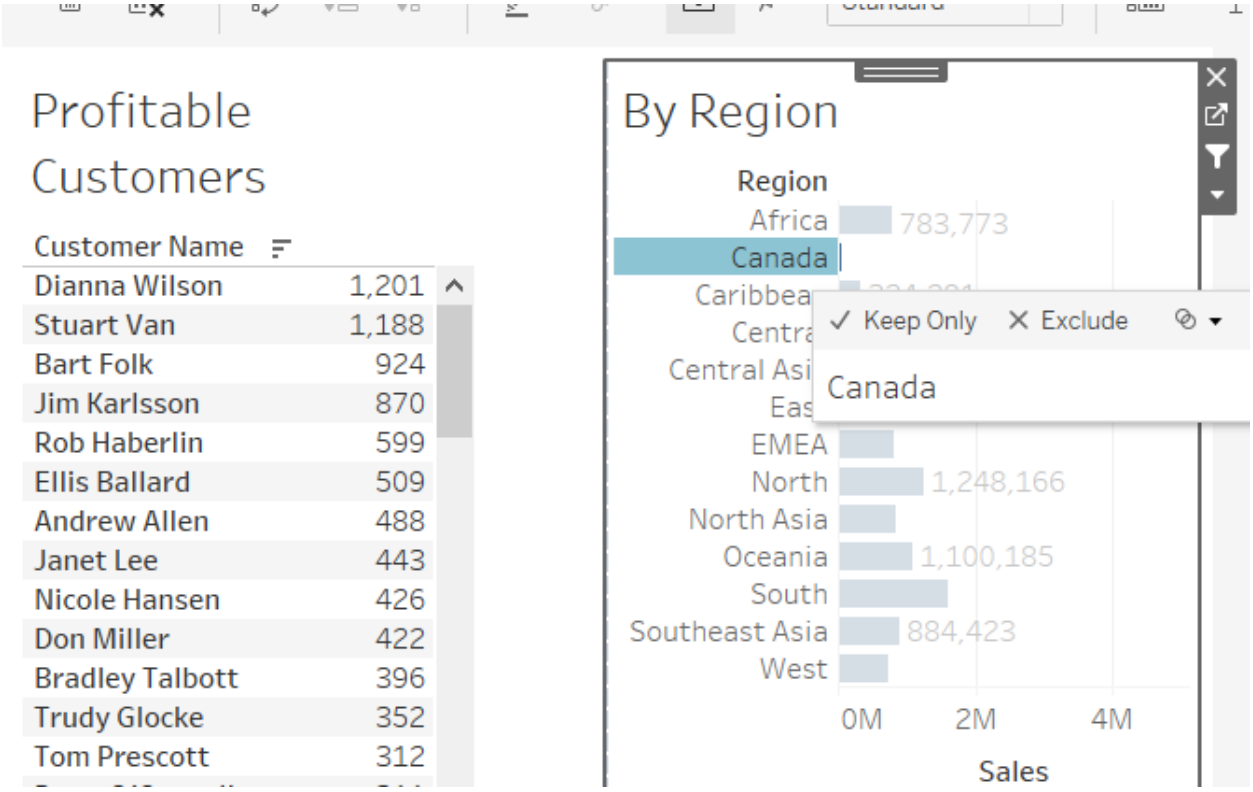
Solution



Run action on select



The list of customers now updates as you select countries:


Profitable Customers
Customer Name
Dianna Wilson 1,201
Stuart Van 1,188
Bart Folk 924
Jim Karlsson 870
Rob Haberlin 599
Ellis Ballard 509
Andrew Allen 488
Janet Lee 443
Nicole Hansen 426
Don Miller 422
Bradley Talbott 396
Trudy Glocke 352
Tom Prescott 312
By Region
Region
Africa 783,773
Canada
Caribbea
Centra
Central Asi
Eas
EMEA
North 1,248,166
North Asia
Oceania 1,100,185
South
Southeast Asia 884,423
West
0M
2M
4M
Sales
✓ Keep Only
✕ Exclude
Canada