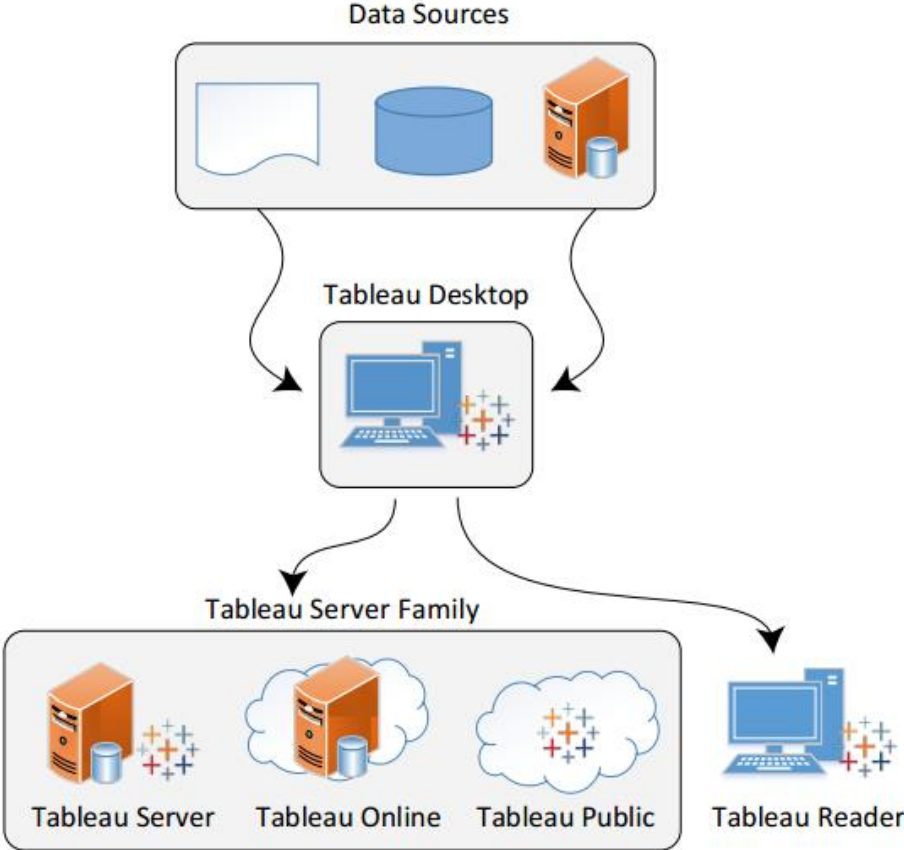
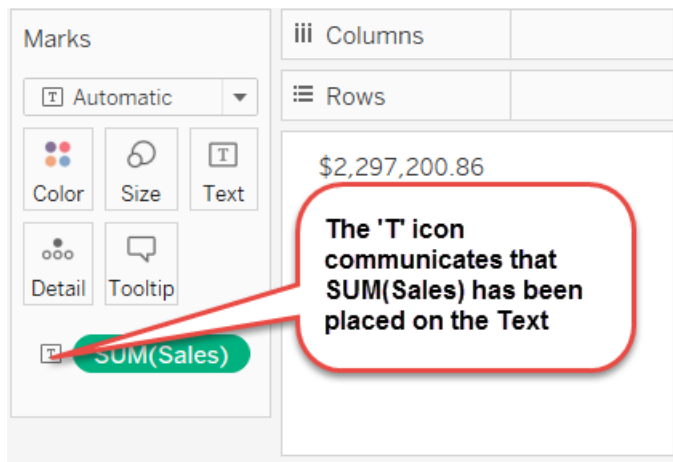
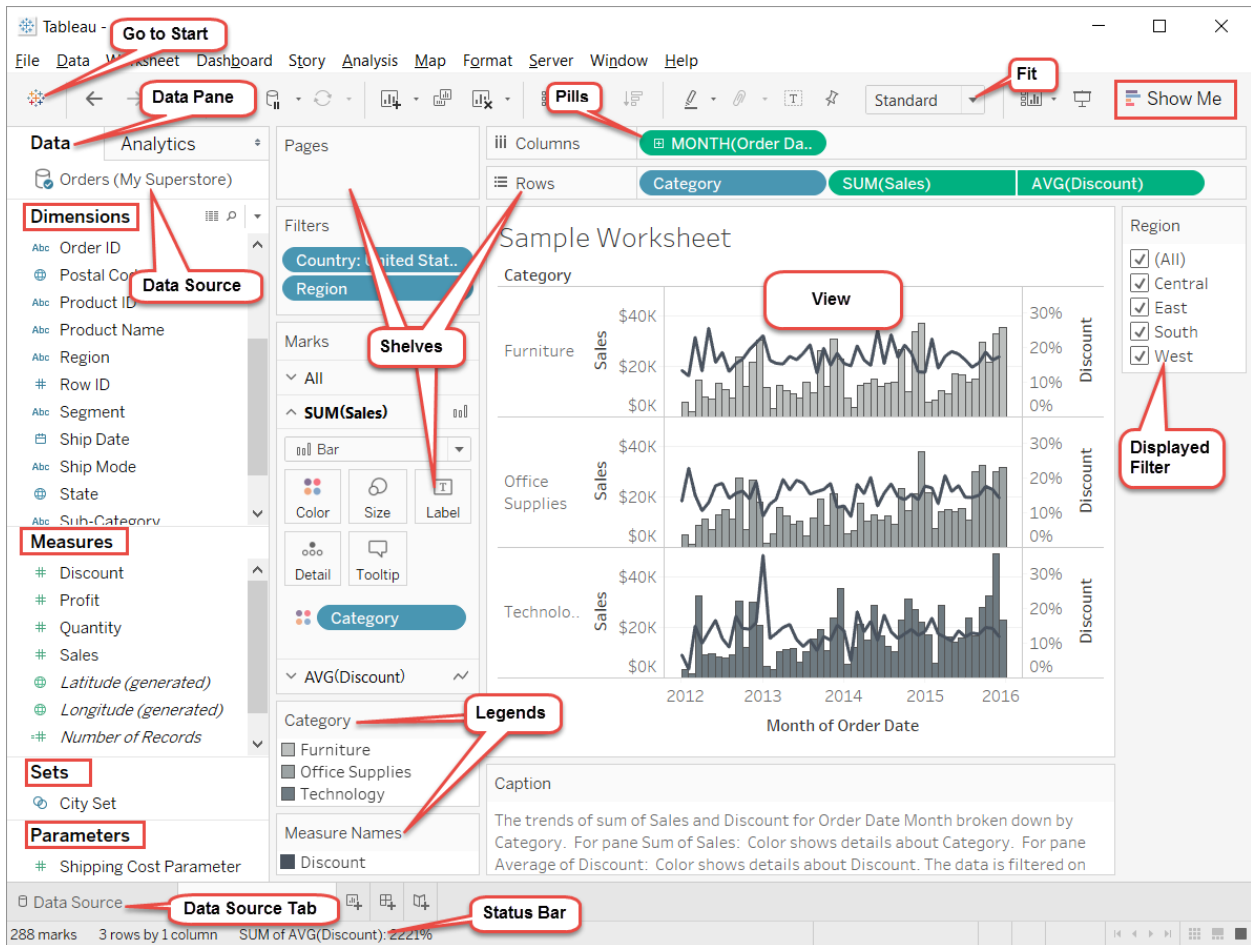
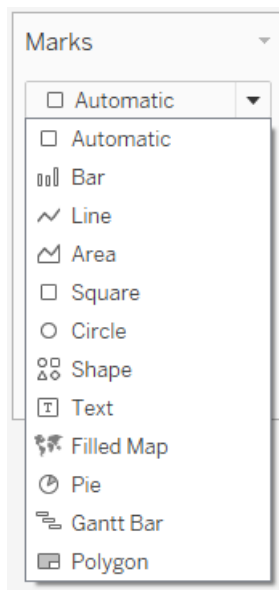
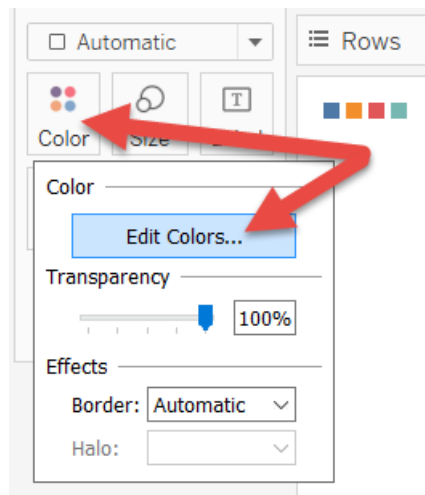
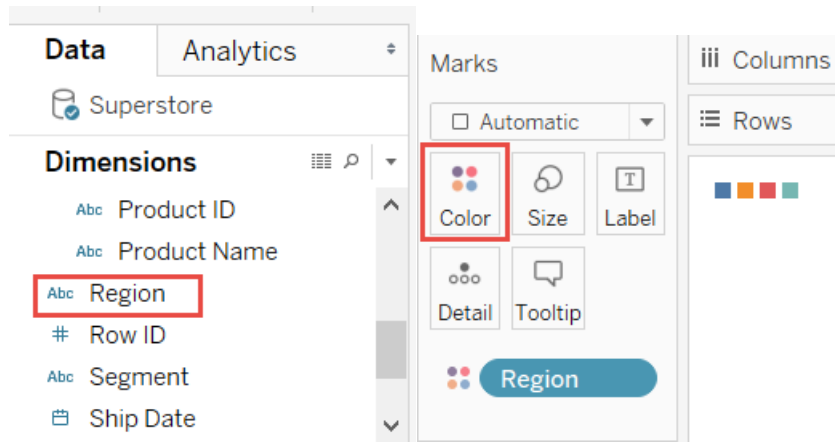
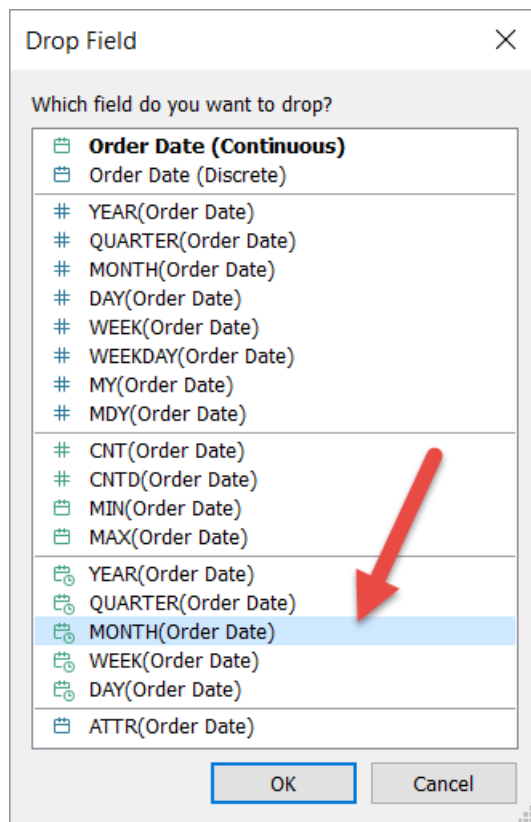
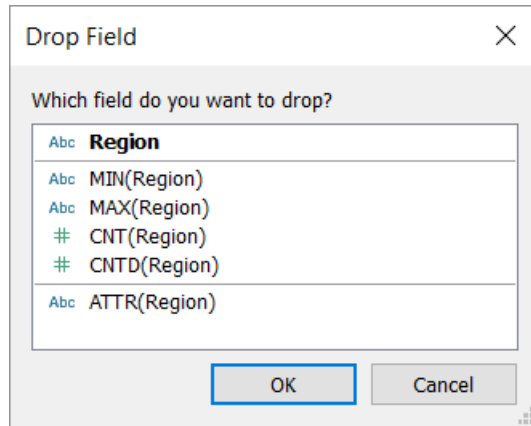


Chapter 1: Getting Up to Speed – A Review of the Basics









Marks

- Area
- Automatic
- Bar
- Line
- Area
- Square
- Circle
- Shape
- Text
- Filled Map
- Pie
- Gantt Bar
- Polygon

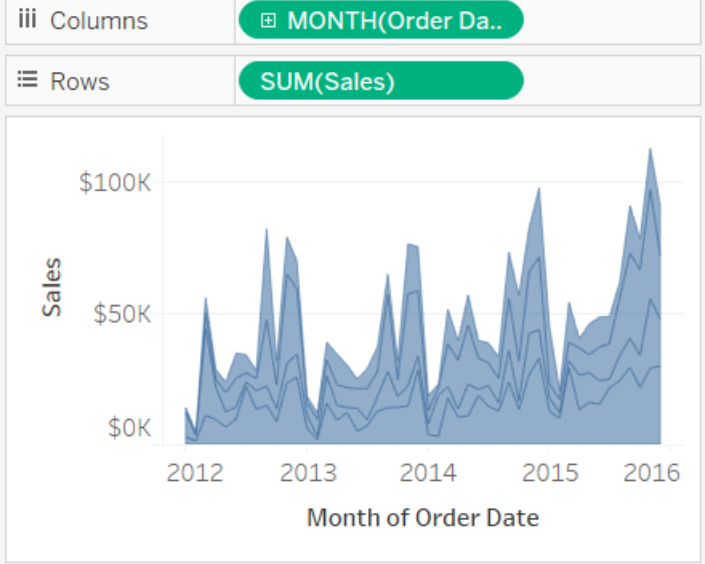


Tableau - 1_Solution

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Columns: Region
Rows: SUM(Sales)

Dimensions: State

Measures: Sales

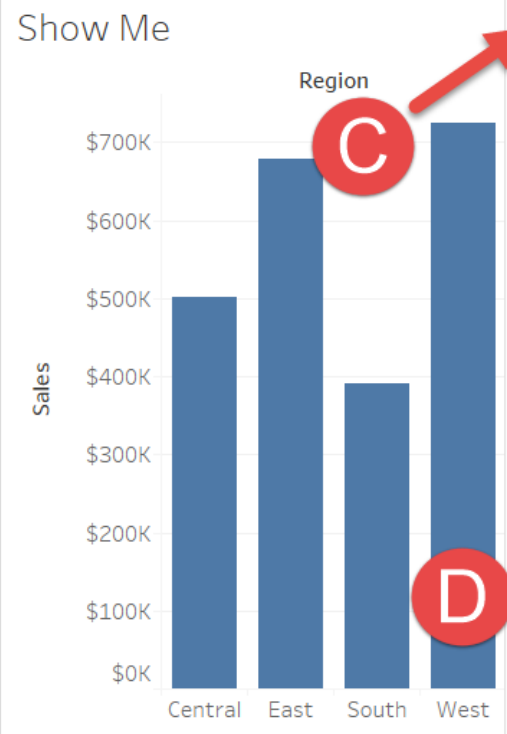
Region

Central East South West

Sales

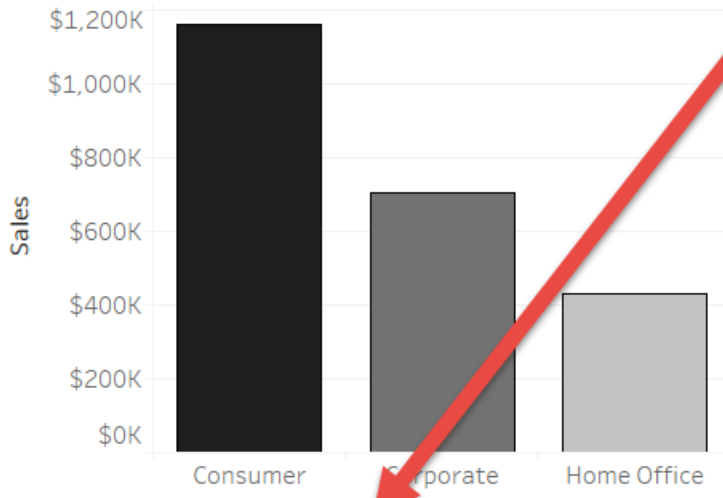
\$0K \$100K \$200K \$300K \$400K \$500K \$600K \$700K

For symbol maps try
1 geo **Dimension**
0 or more **Dimensions**
0 to 2 **Measures**



Customer Segment

Click on a customer segment to filter the dashboard.



Customers

Re..	Custom..	Sales	Quantity	Profit	Discount	Profit R..
Cen..	Aaron B..	\$1K	6	\$0K	7%	20%
	Aaron S..	\$1K	10	\$0K	30%	-17%
	Adam B..	\$0K	14	\$0K	0%	48%
	Adam H..	\$0K	13	\$0K	20%	5%
	Adam S..	\$1K	40	\$0K	15%	22%
	Adrian ..	\$12K	48	\$5K	25%	44%

Region

- (All)
- Central
- East
- South
- West

Sales

\$1K \$458K

Profit

\$60K \$134K

Category

- Furniture
- Office Supplies
- Technology

Segment

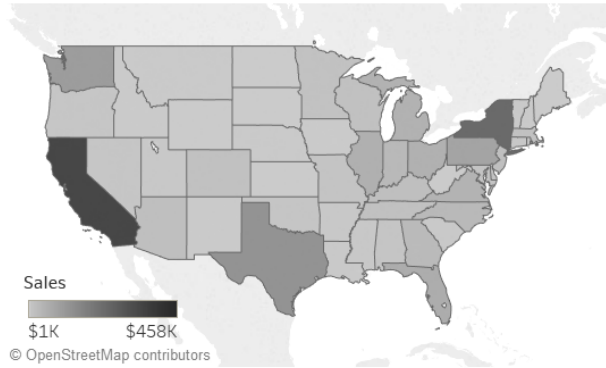
- Consumer
- Corporate
- Home Office

Profit Ratio

25% 50%

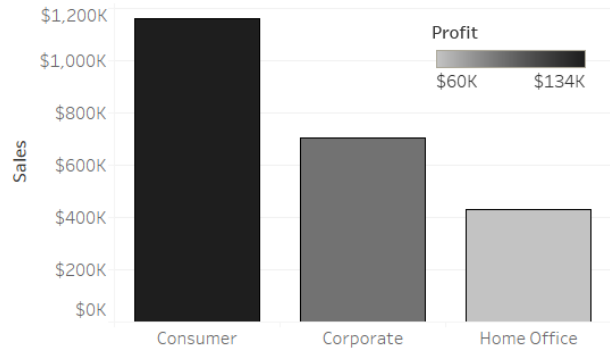
US Sales

Click on a state to filter the dashboard.



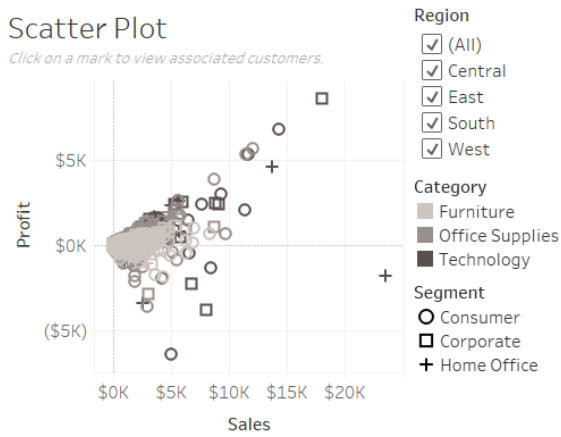
Customer Segment

Click on a customer segment to filter the dashboard.



Scatter Plot

Click on a mark to view associated customers.



Customers

Re..	Custom..	Sales	Quantity	Profit	Discount	Profit Ratio
Cen..	Aaron B..	\$1K	6	\$0K	7%	20%
	Aaron S..	\$1K	10	\$0K	30%	-17%
	Adam B..	\$0K	14	\$0K	0%	48%
	Adam H..	\$0K	13	\$0K	20%	5%
	Adam S..	\$1K	40	\$0K	15%	22%
	Adrian ..	\$12K	48	\$5K	25%	44%
	Adrian ..	\$0K	18	\$0K	35%	23%
	Aimee B..	\$0K	17	\$0K	23%	8%
	Alan Ba..	\$0K	2	\$0K	30%	-3%
	Alan Do..	\$1K	3	\$0K	30%	-1%
	Alan Hai..	\$0K	5	\$0K	80%	-160%
	Alan Hw..	\$0K	5	\$0K	20%	10%



Region
 (All)
 Centr
 East
 South
 West
Category
 Furniture
Edit Filter..
Apply to Worksheets
Format Filters..
Customize
Show Title
Edit Title..
Single Value (list)
\$0K
All Using Related Data Sources
All Using This Data Source
Selected Worksheets..
Only This Worksheet

Cust
Click on

Name: Scatter to Customers

Source Sheets:

Building a Dashboard

- Customer Segment
- Customers
- Scatter Plot
- US Sales

Run action on:

Run on single select only

Target Sheets

Building a Dashboard

- Customer Segment
- Customers
- Scatter Plot

Clearing the selection will:

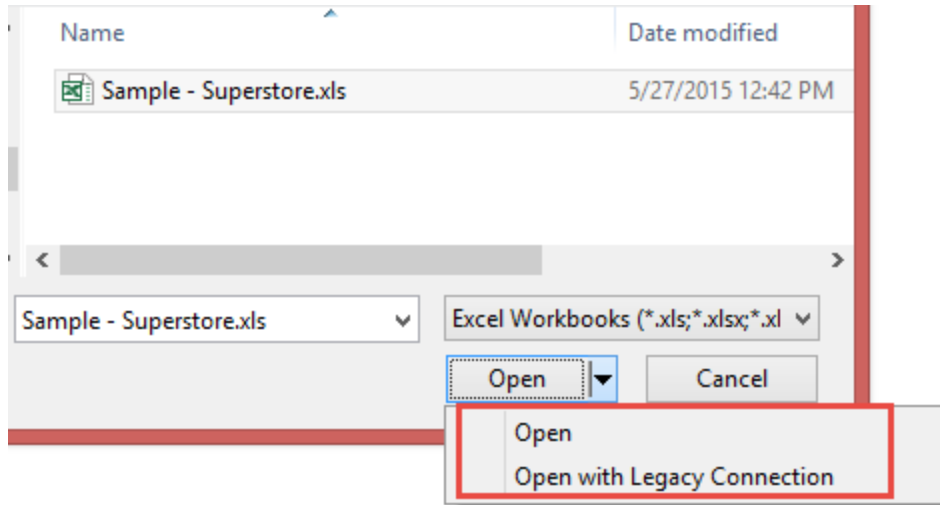
Leave the filter

Show all values

Exclude all values

The screenshot shows the Tableau interface. In the top toolbar, the 'Connect to Data' icon (a server with a plus sign) is highlighted with a red box and a red arrow. Below the toolbar, the 'Connect' menu is open, displaying various data sources. The 'Connect to Data' option in the left sidebar is also highlighted with a red box. The 'Connect' menu lists the following options:

- To a File
 - Excel
 - Text file
 - Access
 - Statistical file
 - More...
- Tableau Server
- Action Matrix
- Action Vector
- Amazon Aurora
- Amazon EMR
- Amazon Redshift
- Aster Database



Data | Analytics | Measure Values | Columns

Superstore

Dimensions

- Product Hierarchy
 - Category
 - Sub-Category
 - Product ID
 - Product Name

Measures

- Discount
- Profit
- Profit Ratio
- Quantity

AVG(Discount)

SUM(Profit)

SUM(Sales)

Discount	15.62%
Profit	\$286K
Sales	\$2,297K

Data | Analytics | Measure Values | Columns

Orders (My Superstore)

Dimensions

- Category
- City
- Country
- Customer ID
- Customer Name

Measures

- Discount
- Profit
- Quantity

SUM(Discount)

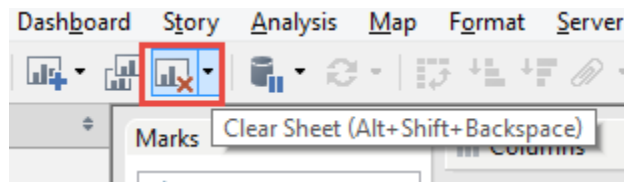
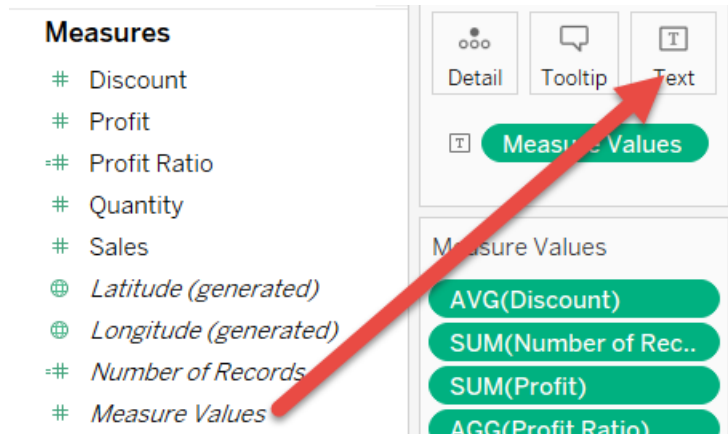
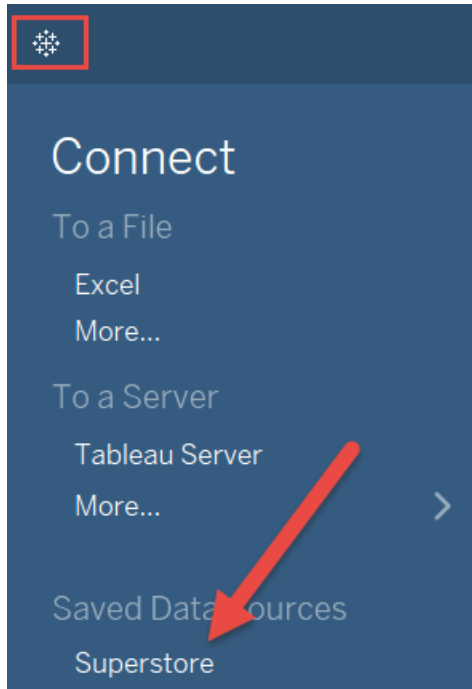
SUM(Profit)

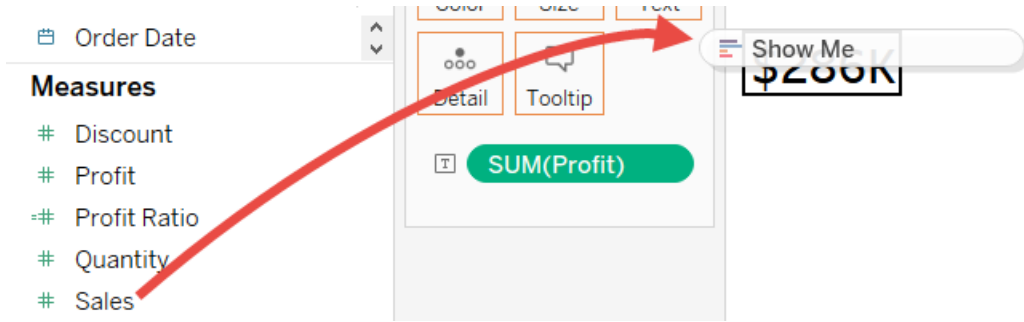
SUM(Sales)

Discount	1,561
Profit	286,397
Sales	2,297,201

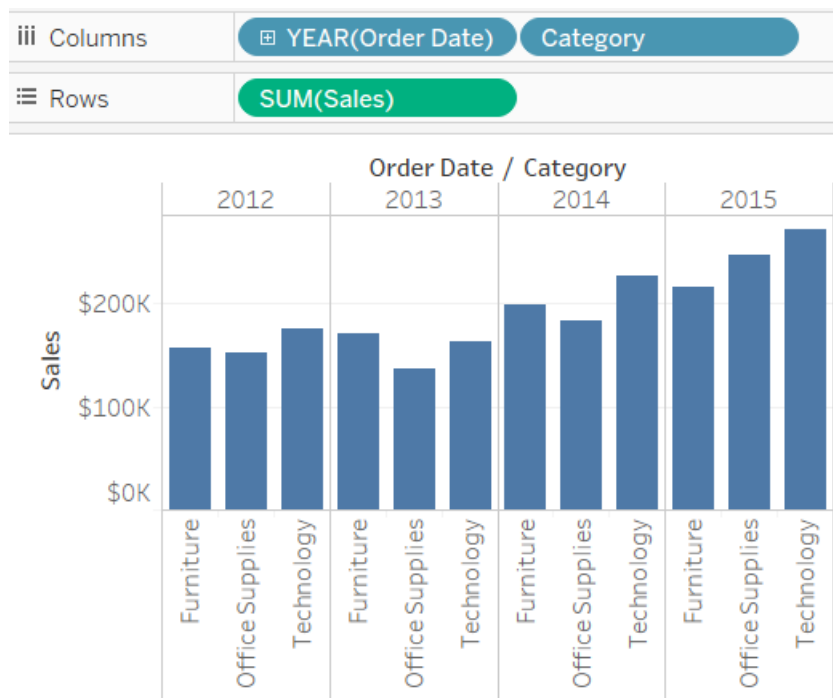
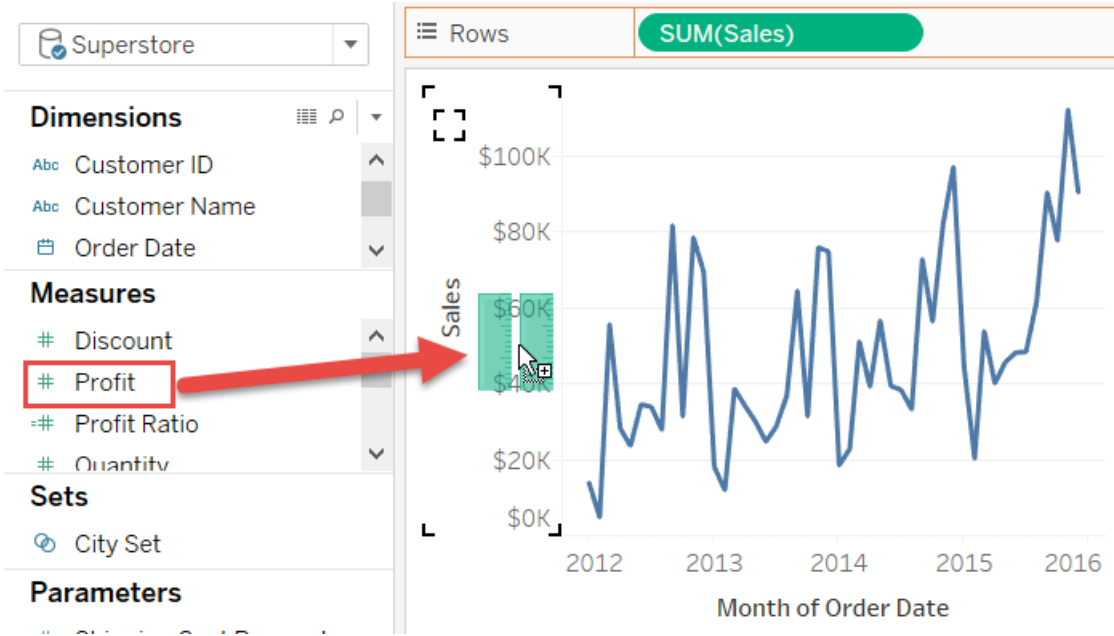
Chapter 1 workbook instance of Superstore

Unaltered instance of Superstore





Filters	Columns
Measure Names	Measure Names
Marks	MeasureNames/Values ShrtCts
Automatic	Profit \$286K
Color Size Text	Sales \$2,297K
Detail Tooltip	
Measure Values	
SUM(Profit)	
SUM(Sales)	



Marks

Automatic

Color Size Text

Detail Tooltip

Measure Values

Measure Values

AGG(Lev - Agg)

SUM(Lev - Row)

Lev - Tab

Columns: YEAR(Order Date)

Rows: Measure Names

	Order Date			
	2012	2013	2014	2015
Lev - Agg	26.29%	26.34%	26.30%	26.55%
Lev - Row	73049.74%	77204.53%	94947.48%	125228.49%
Lev - Tab	26.37%	26.37%	26.37%	26.37%

Ship Date

Ship Mode

State

Sub-Category

Measures

- # Discount
- # Lev - Agg
- # Lev - Row
- # Lev - Tab
- # Profit

Measures

- # Discount
- # Lev - Agg
- # Lev - Row
- # Lev - Tab
- # Profit
- # Profit Ratio

Sets

- City Set

Parameters

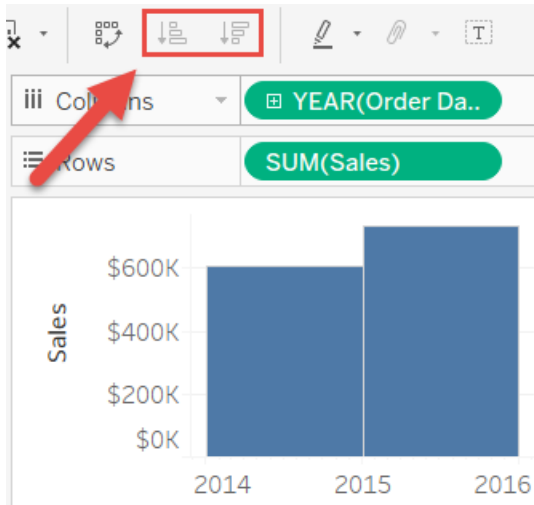
AGG(Lev - Agg)

Add to Sheet

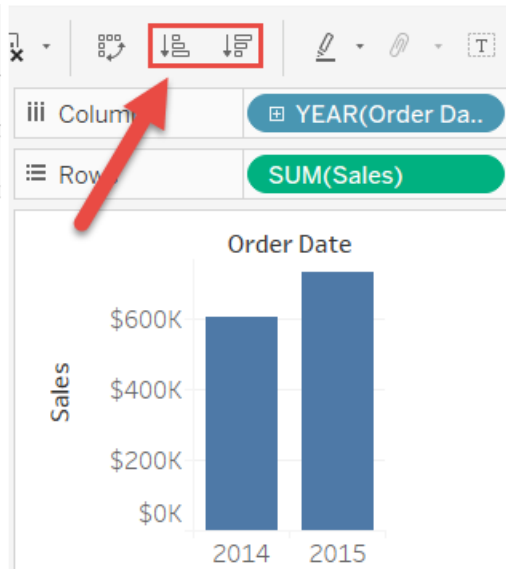
- Show Filter
- Duplicate
- Rename
- Hide
- Create
- Transform
- Convert to Continuous
- Change Data Type

Add to Sheet

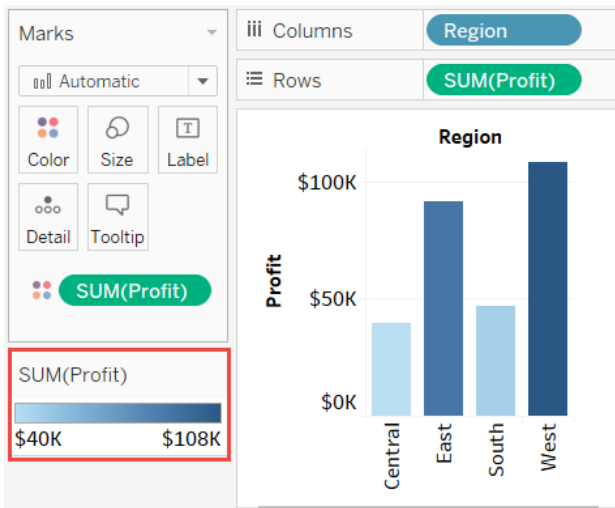
- Show Filter
- Duplicate
- Rename
- Hide
- Create
- Transform
- Convert to Discrete
- Convert to Dimension



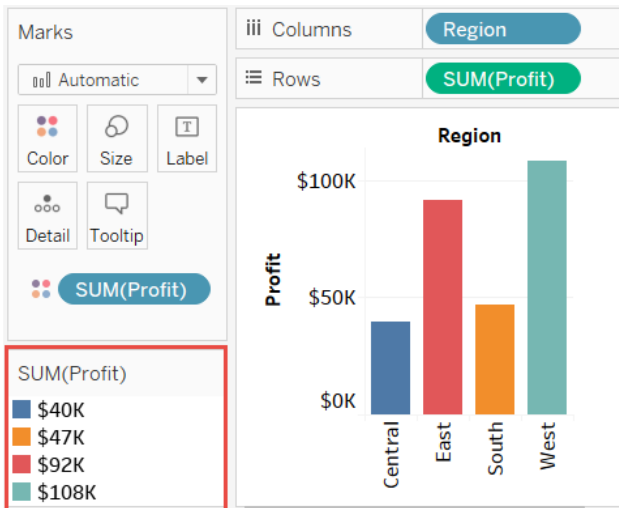
Continuous - Not Sortable



Discrete - Sortable



Profit as Continuous

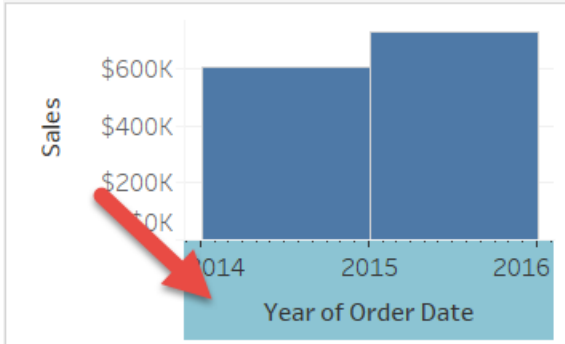


Profit as Discrete

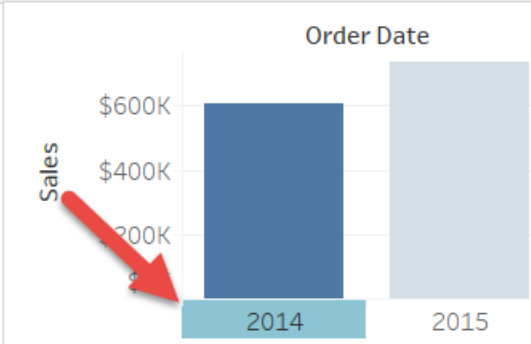
☑ YEAR(Order Date) Region ✓

☑ YEAR(Order Date) Region ✗

Columns	☑ YEAR(Order Date)	Columns	☑ YEAR(Order Date)
Rows	SUM(Sales)	Rows	SUM(Sales)

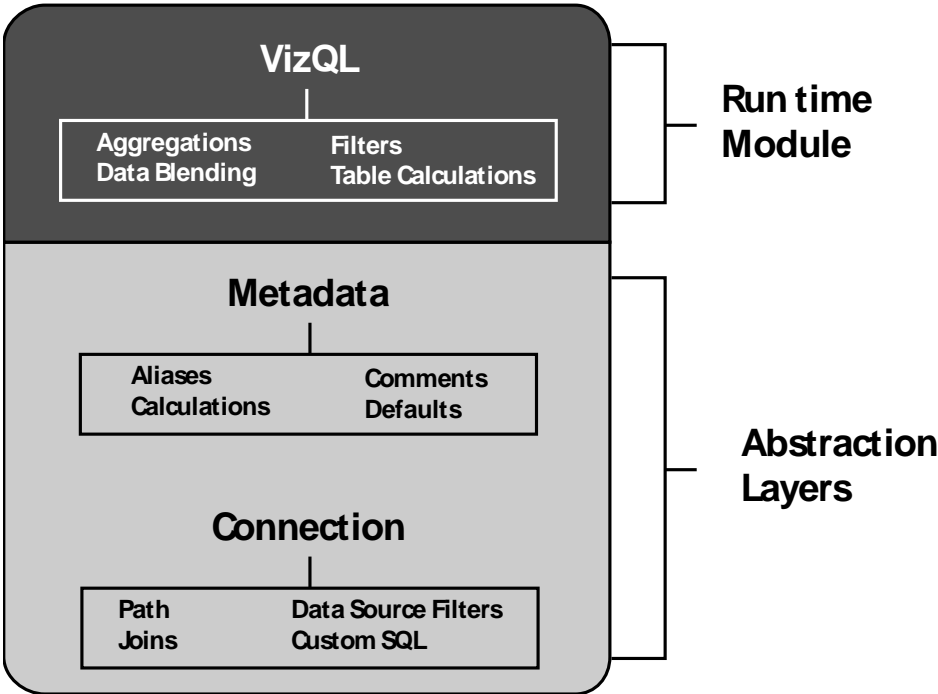


Year as Continuous

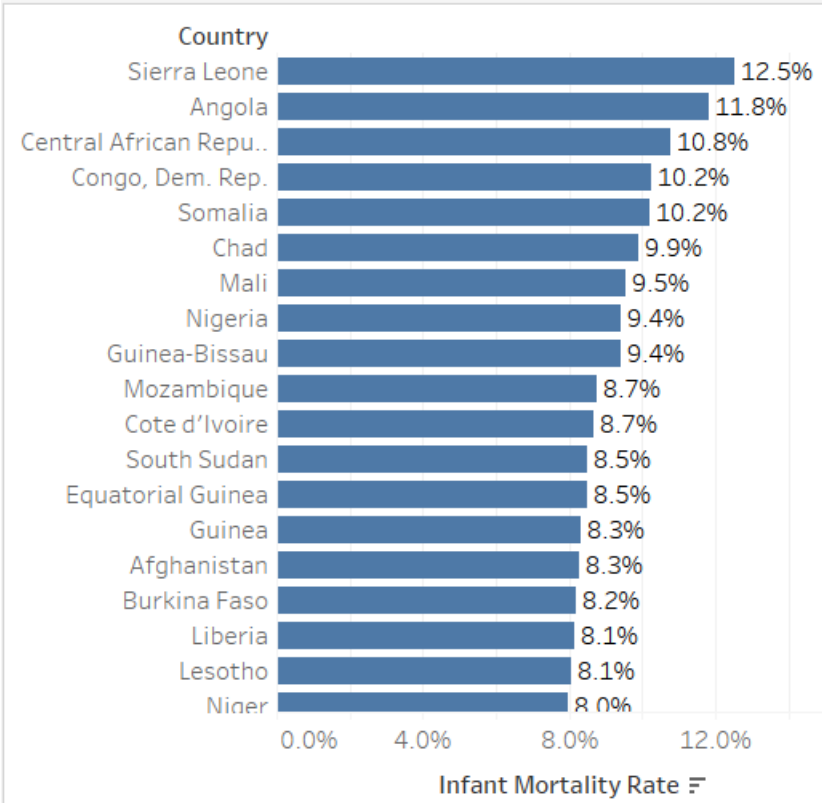


Year as Discrete

Chapter 2: All about Data – Getting Your Data Ready



iii Columns	AVG(Infant Mortalit..
Rows	Country



☰ Rows

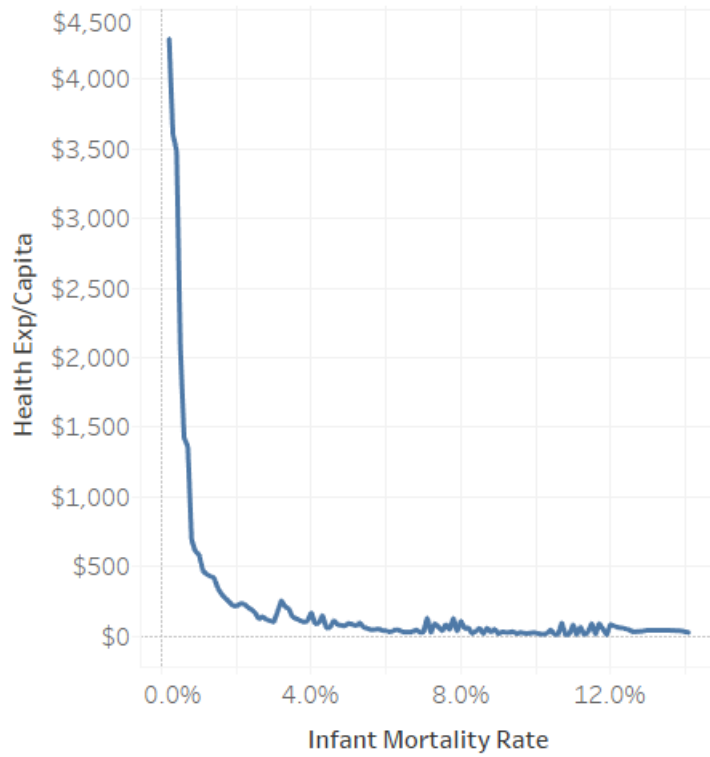
AVG(Health Exp/Cap..

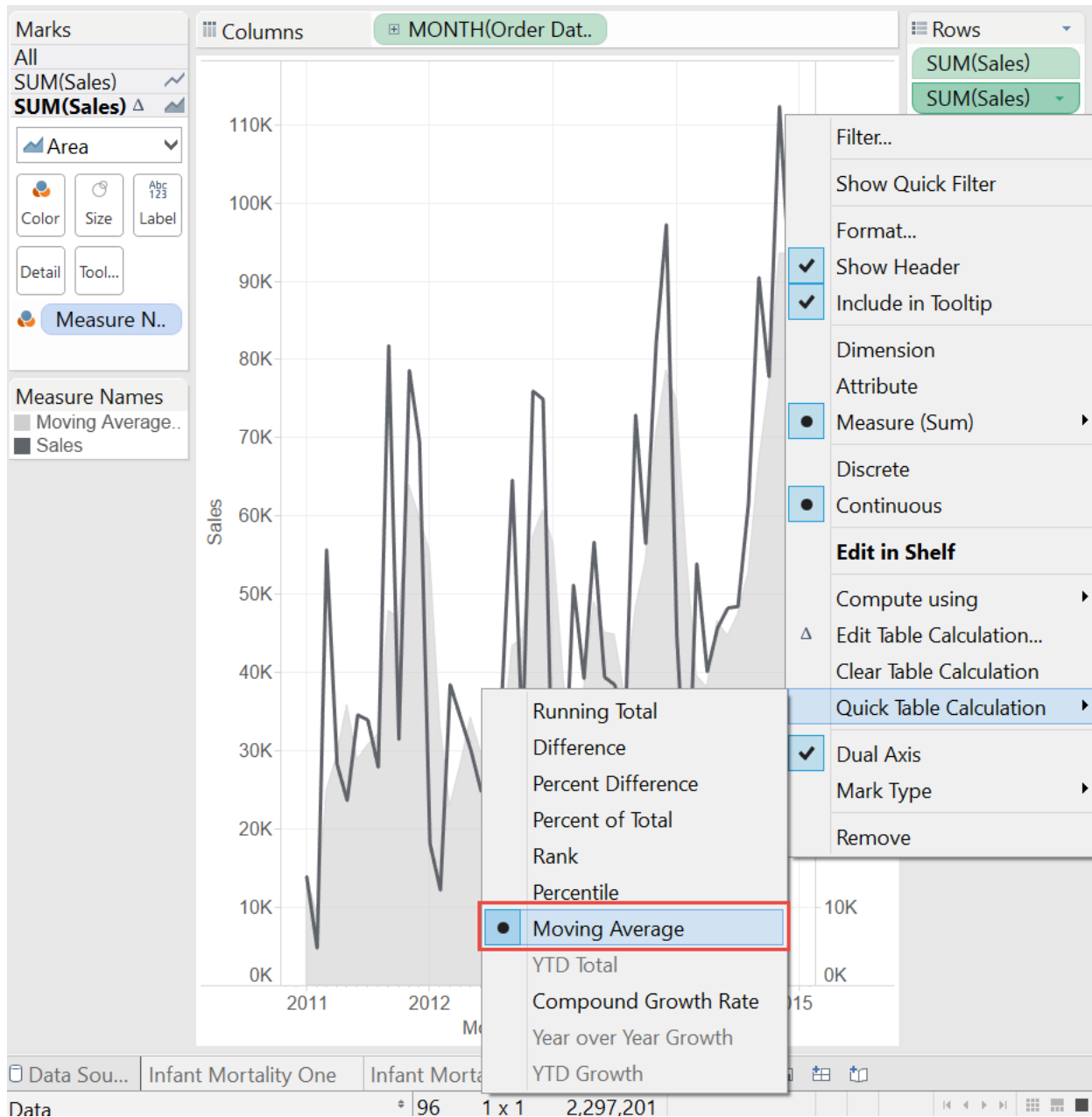
iii Columns

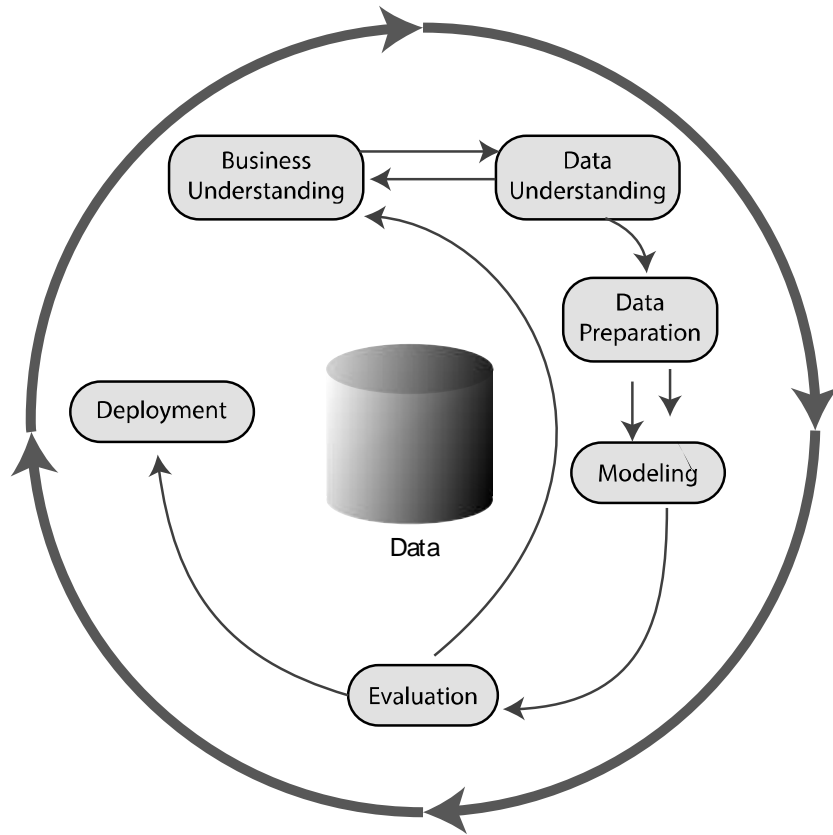
Infant Mortality R..

- Filter...
- Show Filter
- Format...
- Show Header
- Include in Tooltip
- Dimension
- Attribute
- Measure ▶
- Discrete
- Continuous

Edit in Shelf







☰ Rows **Manager** **Territory**

Manager	Territory	
Null	Mid Atlantic	Abc
	Northeast	Abc
	Pacific	Abc
	Southwest	Abc
A	Mid Atlantic	Abc
	Midwest	Abc
	Northeast	Abc
	Rocky Mtn	Abc

Edit Parameter [Select Field] ✕

Name: Comment >>

Properties

Data type:

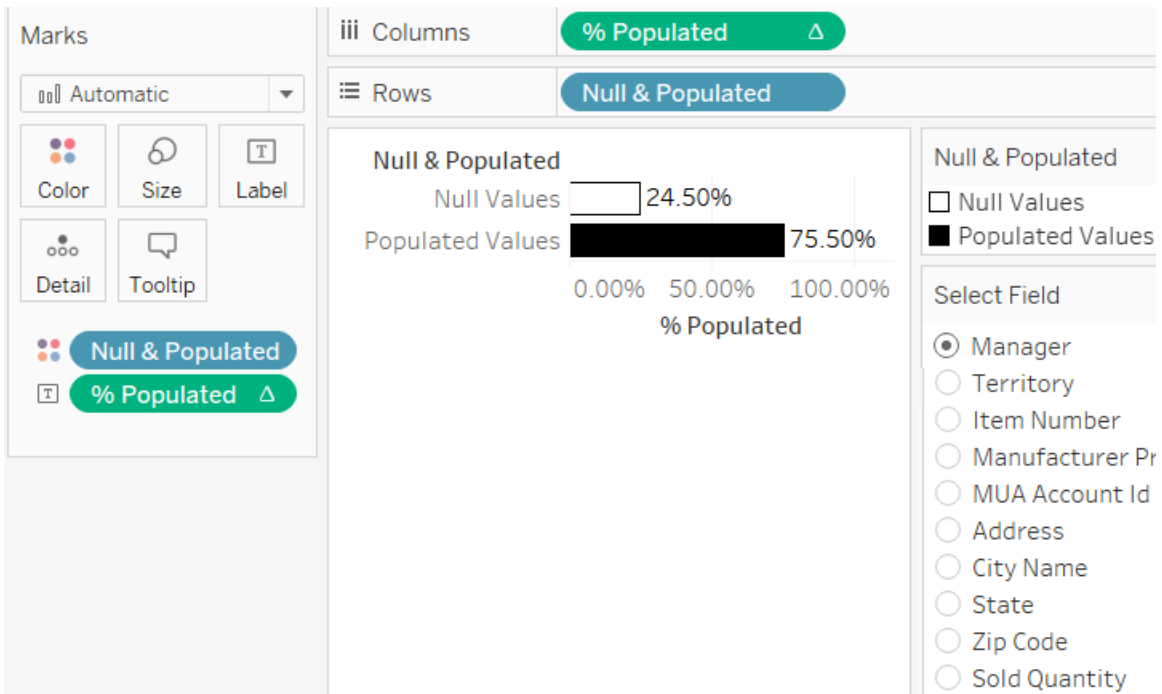
Current value:

Display format:

Allowable values: All List Range

List of values

Value	Display As
1	Manager
2	Territory
3	Item Number
4	Manufacturer Produc...
5	MUA Account Id
6	Address
7	City Name



List of values

Value	Display As
1	Manager
11	Manager Extrapolated
2	Territory

iii Columns **% Populated**

Rows **Null & Populated**

Null & Populated

Populated Values ██████████ 100.00%

0.00% 100.00%

% Populated

Null & Populated

Populated Values

Select Field

Manager
 Manager Extrapolat..
 Territory

Rows **Diagnosis**

Diagnosis	
75839 Other autoso..	Abc
75881 Other conditi..	Abc
75889 Other conditi..	Abc
75981 Prader-Willi s..	Abc
75982 Marfan syndr..	Abc
75983 Fragile X syn..	Abc
75989 Other specifi..	Abc
-- crew	Abc
-- other than crew	Abc
(DT)	Abc
(MMR)	Abc
(other)	Abc

iii Columns			
Rows	Diagnosis	DX	Null Hunting
	Diagnosis	DX	Null Hun..
	75881 Other conditi..	75881	5
	75889 Other conditi..	75889	5
	75981 Prader-Willi s..	75981	5
	75982 Marfan syndr..	75982	5
	75983 Fragile X syn..	75983	5
	75989 Other specifi..	75989	5
	-- crew	--	Null
	-- other than crew	--	Null
	(DT)	(DT)	Null
	(MMR)	(MMR)	Null
	(other)	(other)	Null
	(powered) in surfac..	(powered)	Null
	(powered) in surfac..	(powered)	Null

Marks

Shape ▼

Color Size Label

Detail Tooltip Shape

Exclude fr..

Exclude fr..

Exclude from ICD ...

False

True

iii Columns

Rows Exclude fro.. DX

Exclude f..	DX	
False	V9121	<input type="radio"/>
	V9122	<input type="radio"/>
	V9129	<input type="radio"/>
	V9190	<input type="radio"/>
	V9191	<input type="radio"/>
	V9192	<input type="radio"/>
	V9199	<input type="radio"/>
True	--	<input type="checkbox"/>
	(DT)	<input type="checkbox"/>
	(MMR)	<input type="checkbox"/>
	(other)	<input type="checkbox"/>
	(powered)	<input type="checkbox"/>

Filters

Exclude from I..

Marks

Shape

Color Size Label

Detail Tooltip Shape

Columns

Rows DX Diagnosis T..

DX	Diagnosis Text
75881	Other conditions due to sex chromosome
75889	Other conditions due to chromosome and
75981	Prader-Willi syndrome
75982	Marfan syndrome
75983	Fragile X syndrome
75989	Other specified congenital anomalies
E030	Unspecified activity
E846	Accidents involving powered vehicles use
E847	Accidents involving cable cars not runnin

Rows String of Data

String of Data

Alexis Sweet 246-6985 Nullam Ave (832)-706-8508 nunc@eg
 Anastasia Lowe 1643 Pretium Rd. (655)-655-8703 nunc.comn
 Ariana Townsend 6814 Neque Av. (291)-873-2613 eu.arcu@d
 Arsenio Horn (Ap #492) 5765 Faucibus Road (493)-822-1732
 Athena Franks P.O. Box 595, 6191 Lectus, Avenue (330)-875-5
 Aubrey Castillo 4207 Lorem Street (317)-843-9415 maecenas
 Autumn Nieves 324-8593 Orci. St. (114)-928-1965 nam.nullac
 Avey Mcneil (Ap #701) 365 Quis Av. (880)-142-0812 pede@lo

Dimensions

- Phone Number
- String of Data
- Measure Names

View Data: String of Data (String of Data)

100 rows Show aliases

Phone Number	String of Data
	Alexis Sweet 246-6985 Nullam Ave (832)-706-8508
	Anastasia Lowe 1643 Pretium Rd. (655)-655-8703
	Ariana Townsend 6814 Neque Av. (291)-873-2613
	Arsenio Horn (Ap #492) 5765 Faucibus Road (493)
	Athena Franks P.O. Box 595, 6191 Lectus, Avenue
	Aubrey Castillo 4207 Lorem Street (317)-843-9415

Related: Original Regexpal

Regular Expression

/\d/g

Test String

Phone Number String of Data Number of Records

Alexis Sweet 246-6985 Nullam Ave (832)-706-8508 nunc@egetipsumdonec.ca 1
Anastasia Lowe 1643 Pretium Rd. (655)-655-8703 nunc.commodo.auctor@eratsednunc.net 1
Ariana Townsend 6814 Neque Av. (291)-873-2613 eu.arcu@disparturient.co.uk 1
Arsenio Horn (Ap #492) 5765 Faucibus Road (493)-822-1732 amet@quam.net 1

Automatic

Color Size Text

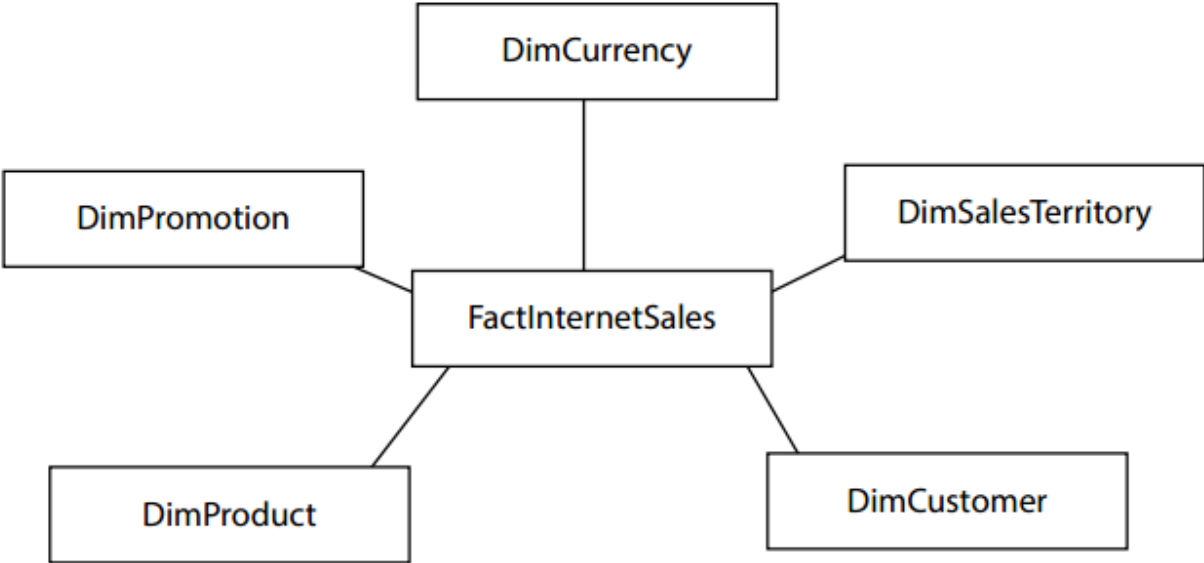
Detail Tooltip

Phone Number

Rows String of Data

String of Data
Alexis Sweet 246-6985 Nullam Ave (832)-.. (832)-706-8508
Anastasia Lowe 1643 Pretium Rd. (655)-6.. (655)-655-8703
Ariana Townsend 6814 Neque Av. (291)-8.. (291)-873-2613
Arsenio Horn (Ap #492) 5765 Faucibus Ro.. (493)-822-1732
Athena Franks P.O. Box 595, 6191 Lectus, .. (330)-875-5639
Aubrey Castillo 4207 Lorem Street (317)-8.. (317)-843-9415
Autumn Nieves 324-8593 Orci. St. (114)-9.. (114)-928-1965

Chapter 3: All about Data – Joins, Blends, Views, and Data Structures



FactInternetSales

DimCurrency

DimCustomer

DimProduct

DimPromotion

DimSalesTerritory

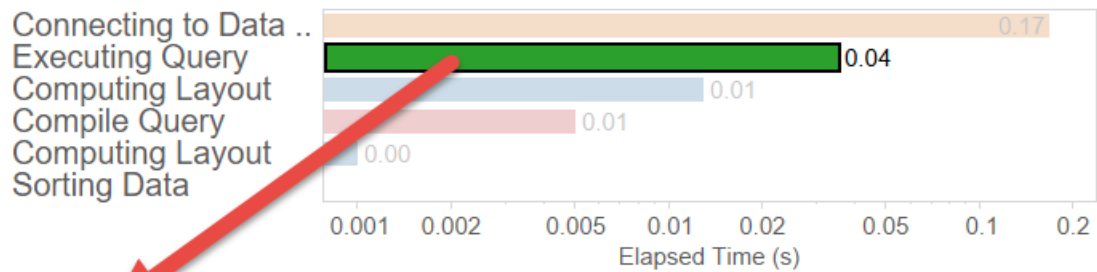
Join			
Data Source		DimSalesTerritory	
SalesTerritoryKey	=	SalesTerritoryKey (Dim...)	
<i>Add new join clause</i>			

Performance Summary

This workbook shows the main events while recording performance. Search Help for detail..

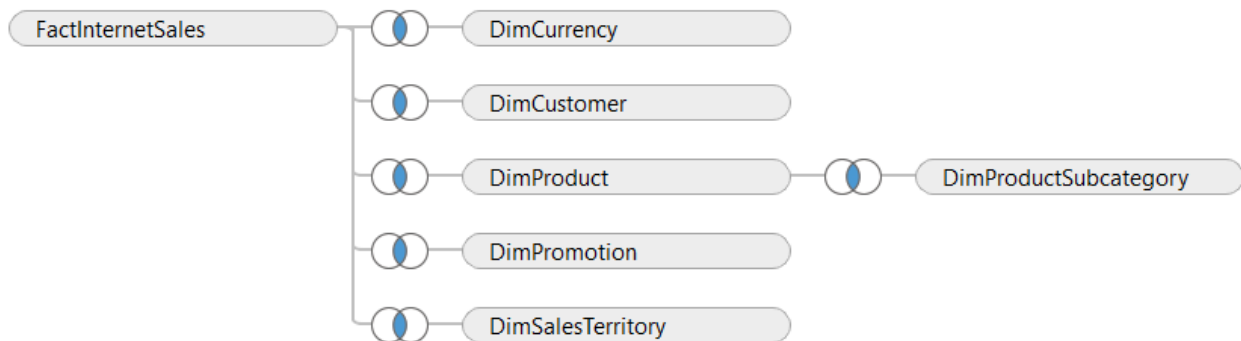
Show Events taking at least (in.. **Elapsed Time** 0.0000 0.1690)

Events Sorted by Time



Query

```
SELECT [DimSalesTerritory].[SalesTerritoryCountry] AS  
[SalesTerritoryCountry],
```



Pants Table	
Sales Person	Pants Amount
Tanya	100
Zhang	100
Tanya	100
Zhang	100

Shirts Table	
Sales Associate	Shirt Amount
Tanya	50
Zhang	50
Tanya	50
Zhang	50

Sheets

Cleaned with Data Interpreter
[Review the results.](#) (To undo changes, clear the check box.)

- Pants
- Shirts
- New Union

Pants

Sort fields: Data source order

Abc	#
Pants	Pants
Sales Person	Pants Amount
Tanya	100
Zhang	100
Tanva	100

Connections Add

- Pants&Shirts
Excel

Sheets

Cleaned with D
[Review the results.](#) (To

- Pants
- Shirts

Join Connection: Live Extract Filters: 0 | Add

- Join
- Pants
- Shirts
- New Data Source

Shirts

Join

Inner Left Right Full Outer

Data Source		Shirts
Sales Person	=	Sales Associate

Relationships X

Relationships determine how data from secondary data sources are joined with primary data sources.

Primary data source: Pants

Secondary data source: Automatic Custom

Join	Sales Person	Sales Associate
Shirts		

Add... Edit... Remove

Pants

Sales Person

Tanya \$200

Zhang \$200

Shirts

Sales Associate

Tanya \$100

Zhang \$100

Join

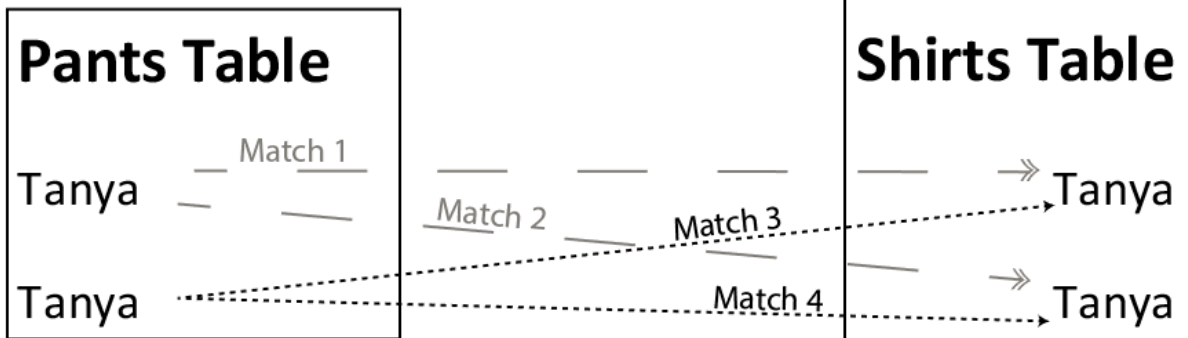
Sales Person	Pants Amount	Shirt Amount
Tanya	\$400	\$200
Zhang	\$400	\$200

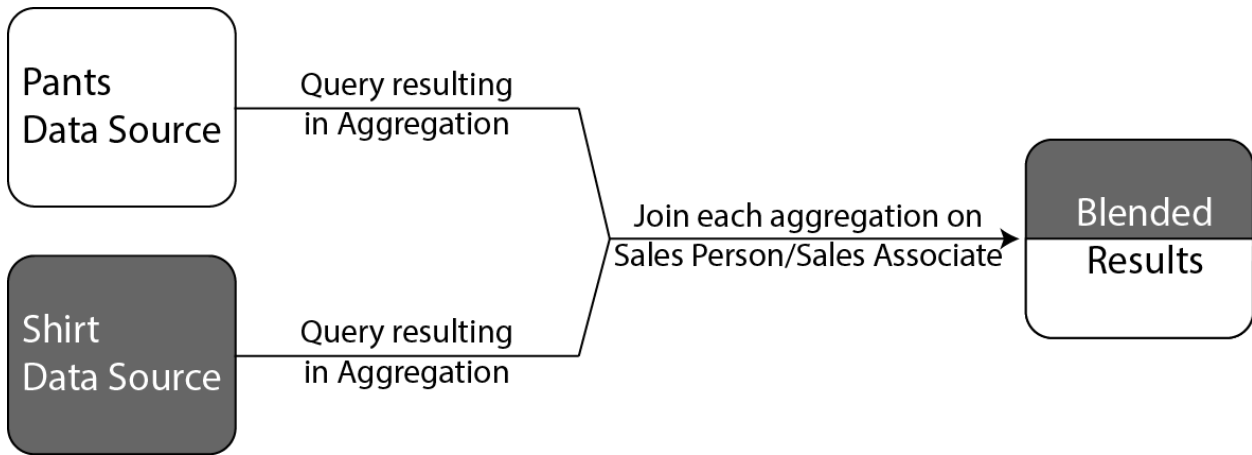
Blend - Pants Primary

Sales Person	Pants Amount	Shirt Amount
Tanya	\$200	\$100
Zhang	\$200	\$100

Blend - Shirts Primary

Sales Associate	Pants Amount	Shirt Amount
Tanya	\$200	\$100
Zhang	\$200	\$100





Rows	Material Cat	Material Type	Fastener
------	--------------	---------------	----------

Adding Secondary Dimensions

Material Cat	Material Type	Fastener	
Tech	Acrylic	Button	Abc
	Polyester	Velcro	Abc
Traditional	Wool	*	Abc

Edit Parameter [Start Date] ✕

Name: Comment >>

Properties

Data type:

Current value:

Display format: ▼

Allowable values: All List Range

Range of values

Minimum:

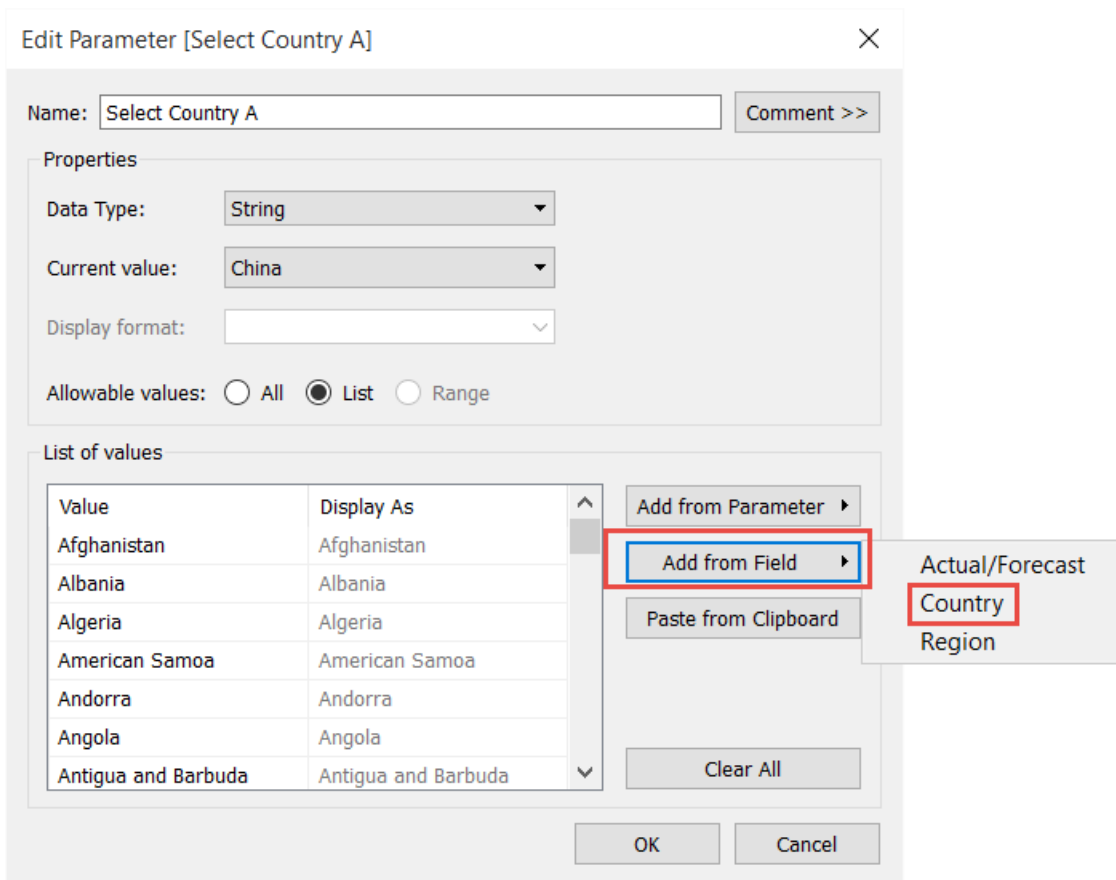
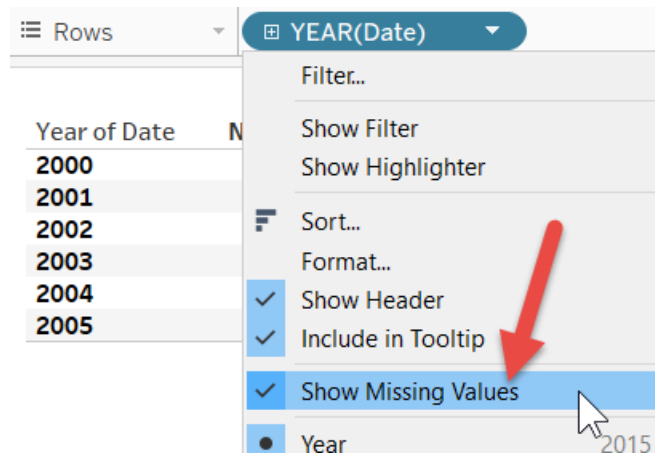
Maximum:

Step size:

Custom

Format:

- 14-Mar-01
- Wednesday, March 14, 2001
- March 14, 2001
- Wednesday, 14 March, 2001
- 14 March, 2001
- Wed, March 14, 2001
- March 14, 2001
- March 2001
- March, 2001
- 2001 Q1
- 2001 W11
- Custom



Edit Parameter [Select Country B Forecast]



Name: Comment >>

Properties

Data Type:

Current value:

Display format: ▼

Allowable values: All List Range

Range of values

Minimum:

Maximum:

Step size:

Automatic
Number (Standard)
Number (Custom)
Currency (Standard)
Currency (Custom)
Scientific
Percentage
Custom

Percentage
Decimal places:

OK Cancel

Dimensions



- Country
- Date
- Region
- Measure Names



Measures

- Actual/Forecast
- Country A Population
- Country A YOY Change
- Country A-B % Diff
- Country A-B Diff
- Country B Population
- Country B YOY Change
- lookup
- Records
- Number of Records
- Measure Values

Parameters

- End Date
- Select Country A
- Select Country A For

The image shows a 'Default Number Format [Multiple Fields]' dialog box with a list of number formats: Automatic, Number (Standard), Number (Custom), Currency (Standard), Currency (Custom), Scientific, Percentage, and Custom. The 'Percentage' option is selected. The 'Decimal places' field is set to 2. There are 'Clear', 'OK', and 'Cancel' buttons at the bottom.

A context menu is open over the 'Default Properties' parameter, with 'Number format...' selected. Other options include Cut, Copy, Duplicate, Hide, Delete, Create, Convert to Discrete, Change Data Type, Geographic Role, and Group by.

The image shows a list of measures under the 'Measure Values' header. The measures are: Country A Population, Country A YOY Change, Country B Population, Country B YOY Change, Country A-B Diff, and Country A-B % Diff. A context menu is open over the list, with 'Compute Using' selected. The 'Compute Using' sub-menu is also open, showing 'Table (down)', 'Cell', and 'Date' options. The 'Table (down)' option is selected.

Year of D..	Country A Pop..	Country A YOY..	Country B Pop..	Country B YOY..	Country A-B Di..	Country A-B %..
2000	1,262,645,000		1,042,261,758		220,383,242	17.45%
2001	1,271,850,000	0.73%	1,059,500,888	1.65%	212,349,112	16.70%
2002	1,280,400,000	0.67%	1,076,705,723	1.62%	203,694,277	15.91%
2003	1,288,400,000	0.62%	1,093,786,762	1.59%	194,613,238	15.11%
2004	1,296,075,000	0.60%	1,110,626,108	1.54%	185,448,892	14.31%
2005	1,303,720,000	0.59%	1,127,143,548	1.49%	176,576,452	13.54%
2006	1,311,020,000	0.56%	1,143,289,350	1.43%	167,730,650	12.79%
2007	1,317,885,000	0.52%	1,159,095,250	1.38%	158,789,750	12.05%
2008	1,324,655,000	0.51%	1,174,662,334	1.34%	149,992,666	11.32%
2009	1,331,260,000	0.50%	1,190,138,069	1.32%	141,121,931	10.60%
2010	1,337,705,000	0.48%	1,205,624,648	1.30%	132,080,352	9.87%
2011	1,344,130,000	0.48%	1,221,156,319	1.29%	122,973,681	9.15%
2012	1,350,695,000	0.49%	1,236,686,732	1.27%	114,008,268	8.44%
2013	1,356,773,128	0.45%	1,251,526,973	1.20%	105,246,155	7.76%
2014	1,362,878,607	0.45%	1,266,545,296	1.20%	96,333,310	7.07%
2015	1,369,011,560	0.45%	1,281,743,840	1.20%	87,267,720	6.37%
2016	1,375,172,112	0.45%	1,297,124,766	1.20%	78,047,346	5.68%
2017	1,381,360,387	0.45%	1,312,690,263	1.20%	68,670,124	4.97%
2018	1,387,576,509	0.45%	1,328,442,546	1.20%	59,133,962	4.26%
2019	1,393,820,603	0.45%	1,344,383,857	1.20%	49,436,746	3.55%
2020	1,400,092,796	0.45%	1,360,516,463	1.20%	39,576,332	2.83%
2021	1,406,393,213	0.45%	1,376,842,661	1.20%	29,550,552	2.10%
2022	1,412,721,983	0.45%	1,393,364,773	1.20%	19,357,210	1.37%
2023	1,419,079,232	0.45%	1,410,085,150	1.20%	8,994,081	0.63%
2024	1,425,465,088	0.45%	1,427,006,172	1.20%	-1,541,084	-0.11%

Select Country A
China

Select Country B
India

Start Date
2000

End Date
2024

Select Country A Forecast
0.45%

Select Country B Forecast
1.20%

Name: Comment >>

Properties

Data Type:

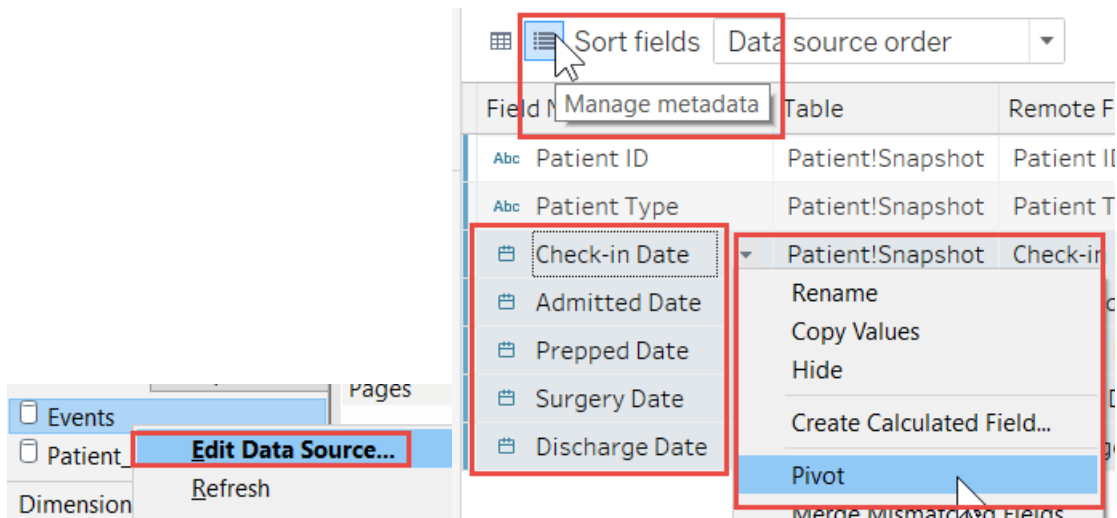
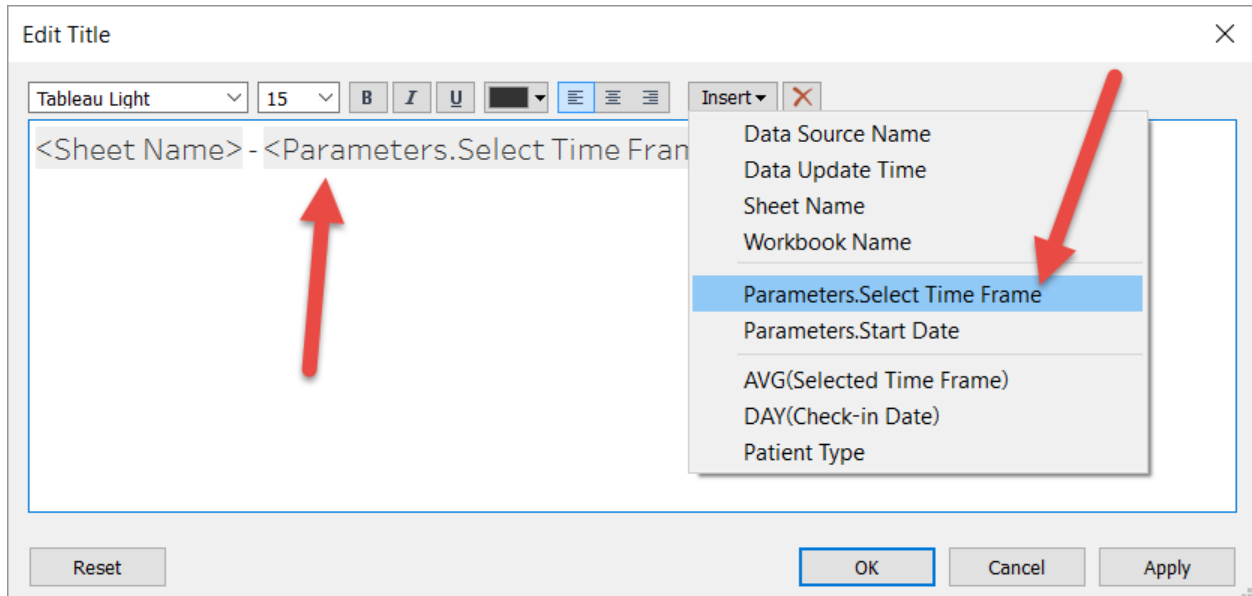
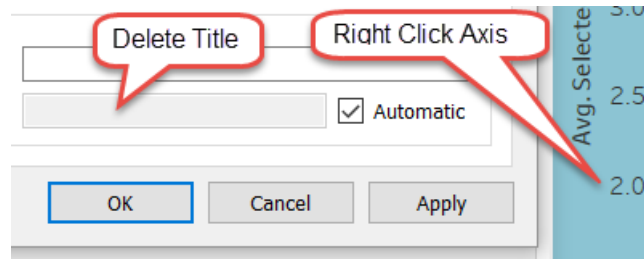
Current value:

Display format:

Allowable values: All List Range

List of values

Value	Display As
1	Length of Stay
2	Time to Surgery
3	Surgery to Discharge



Chapter 4: All about Data – Data Densification, Cubes, and Big Data

Filters

Customer Na..

Columns: YEAR(Order Date)

Rows: Customer Name

Marks

Automatic

Color Size Text

	Order Date			
Customer ..	2011	2012	2013	2014
Aaron Ber..	Abc		Abc	
Aaron Ha..	Abc	Abc	Abc	Abc
Aaron Sm..	Abc		Abc	Abc
Adam Bell..		Abc	Abc	Abc
Adam Hart	Abc	Abc	Abc	Abc

Filters

Customer Na..

Columns: YEAR(Order Date)

Rows: Customer Name

Marks

Automatic

Color Size Text

Detail Tooltip

Index ▲

	Order Date			
Customer ..	2011	2012	2013	2014
Aaron Ber..	Abc	Abc	Abc	Abc
Aaron Ha..	Abc	Abc	Abc	Abc
Aaron Sm..	Abc	Abc	Abc	Abc
Adam Bell..	Abc	Abc	Abc	Abc
Adam Hart	Abc	Abc	Abc	Abc

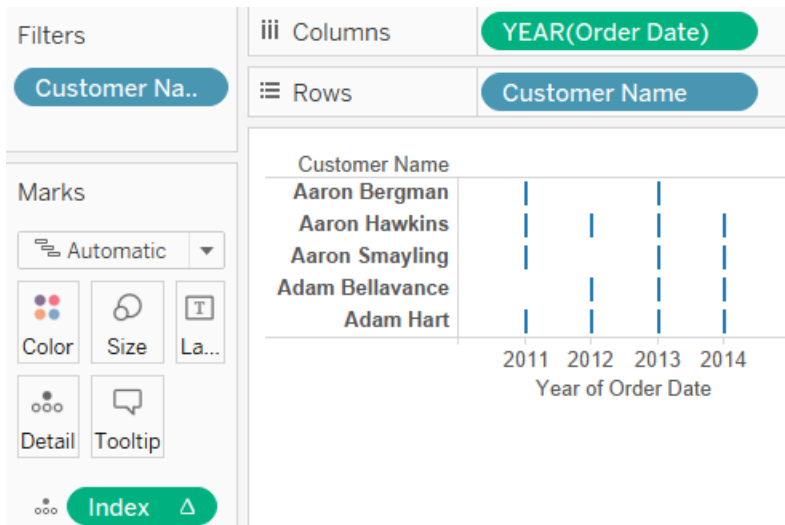


Table Calculation [X]

Index

Compute Using

- Table (across)
- Table (down)
- Table (across then down)
- Table (down then across)
- Cell
- Specific Dimensions**

Customer Name
 Year of Order Date

At the level _____

Restarting every _____

Automatic Sort _____

Marks

Line

Color Size Label

Detail Tooltip Path

Columns: YEAR(Order Date)

Rows: Customer Name

Customer Name	Order Date			
	2011	2012	2013	2014
Aaron Bergman	[Redacted]			
Aaron Hawkins	[Redacted]			
Aaron Smayling	[Redacted]			
Adam Bellavance	[Redacted]			
Adam Hart	[Redacted]			

the Data: Data Dens... DC - Crosstab DC - Crosstab II DC - View Types DC - L

20 marks 5 rows by 4 columns SUM of AGG(Index): 20

Filters: Customer Name

Marks: Abc Automatic

Color Size Text

Detail Tooltip

Columns: YEAR(Order Date)

Rows: Customer Name

Customer Name	Order Date			
	2011	2012	2013	2014
Aaron Bergman	Abc	[Redacted]	Abc	[Redacted]
Aaron Hawkins	Abc	Abc	Abc	Abc
Aaron Smayling	Abc	[Redacted]	Abc	Abc
Adam Bellavance	[Redacted]	Abc	Abc	Abc
Adam Hart	Abc	Abc	Abc	Abc

Marks: Shape

Color Size Label

Detail Tooltip Shape

AGG(No Data)

SUM(Sales)

Index

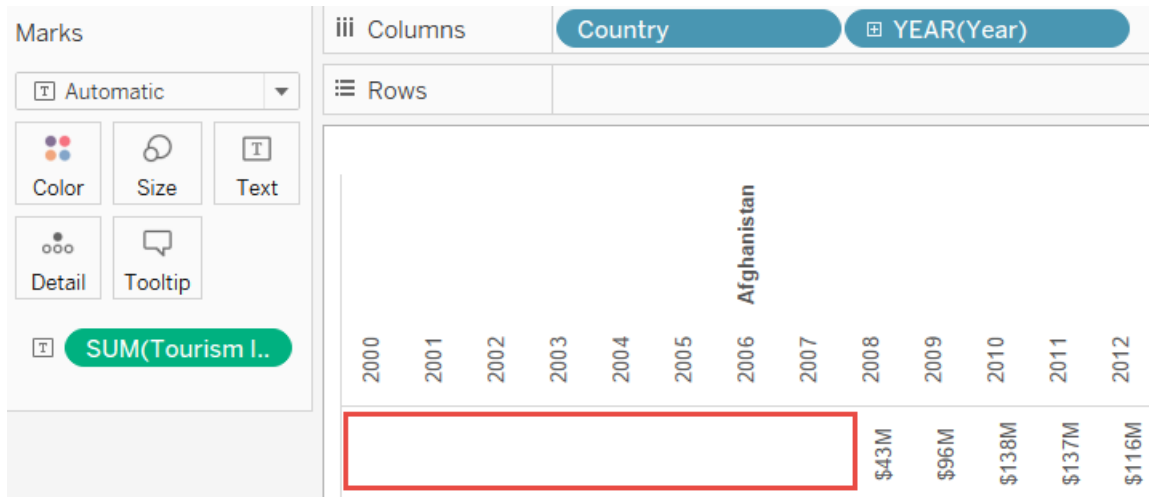
Columns: YEAR(Order Date)

Rows: Customer Name

Customer Name	Order Date			
	2011	2012	2013	2014
Aaron Bergman	\$322	×	\$564	×
Aaron Hawkins	\$648	\$991	\$86	\$19
Aaron Smayling	\$66	×	\$509	\$2,476
Adam Bellavance	×	\$19	\$4,801	\$2,936
Adam Hart	\$5	\$3	\$1,321	\$1,921

AGG(No Data)

× No Data



The screenshot shows the Tableau interface with the 'Filter [Tourism Inbound]' dialog box open. The configuration is the same as in the first screenshot. The dialog box has the following settings:

- Filter Type:** Special (selected, indicated by a red arrow).
- Special Options:**
 - Null values
 - Non-null values
 - All values

In the Marks card, the 'Filter...' option is highlighted with a blue background and a red arrow pointing to it.

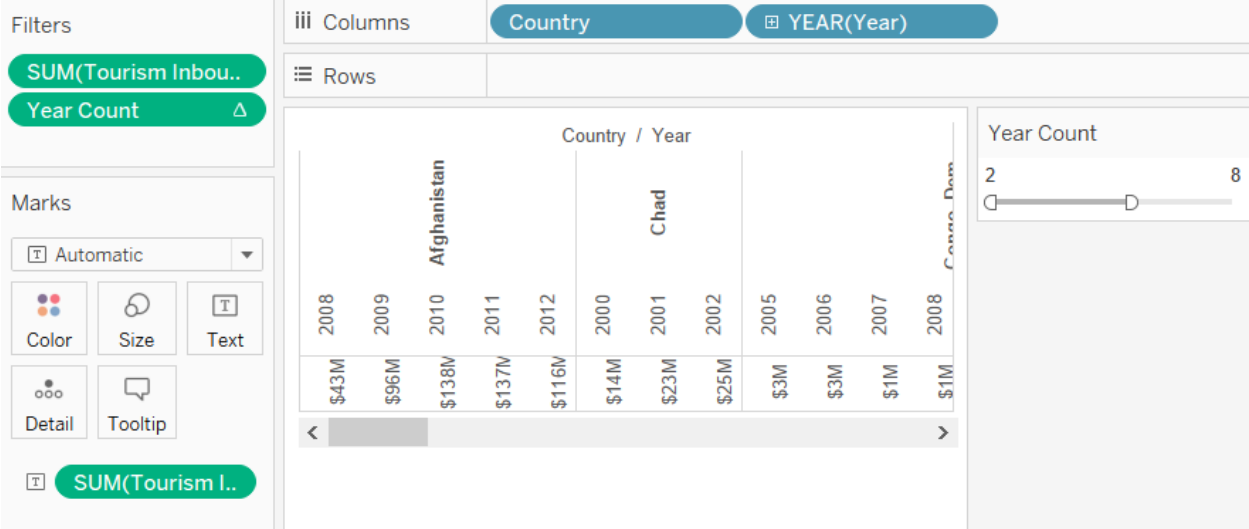
Table Calculation ✕
Year Count

Compute Using

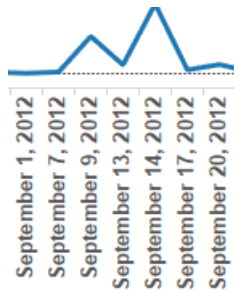
- Table (across)
- Pane (across)
- Pane (across then down)
- Pane (down then across)
- Cell
- Specific Dimensions

- Country
- Year of Year

- At the level **Deepest** ▼
- Restarting every **Country** ▼
- Automatic Sort ▼



Ship Mode	Region	
First Class	Central	1,242
	East	6,421
	South	4,720
	West	26,911
Same Day	Central	3,673
	East	4,404
	South	
	West	8 774



Format SUM(Sales)

Fields

Axis Pane

Grand Totals

Font:

Alignment:

Numbers:

Special Values (eg. NULL)

Text:

Marks:

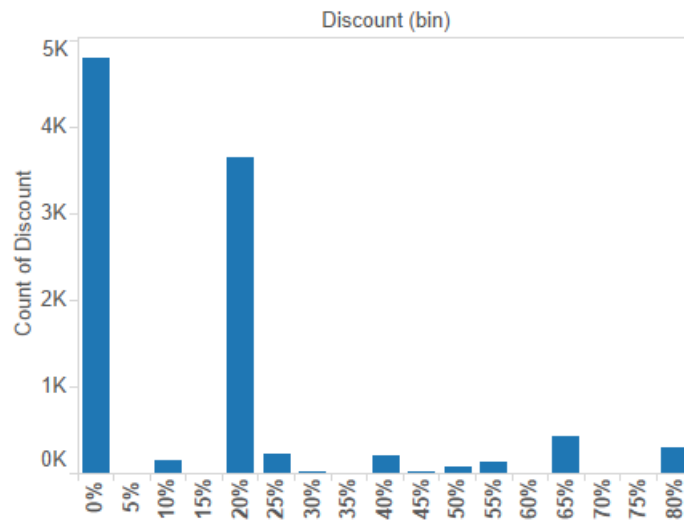
Clear

Columns: MDY(Order Date)

Rows: SUM(Sales)

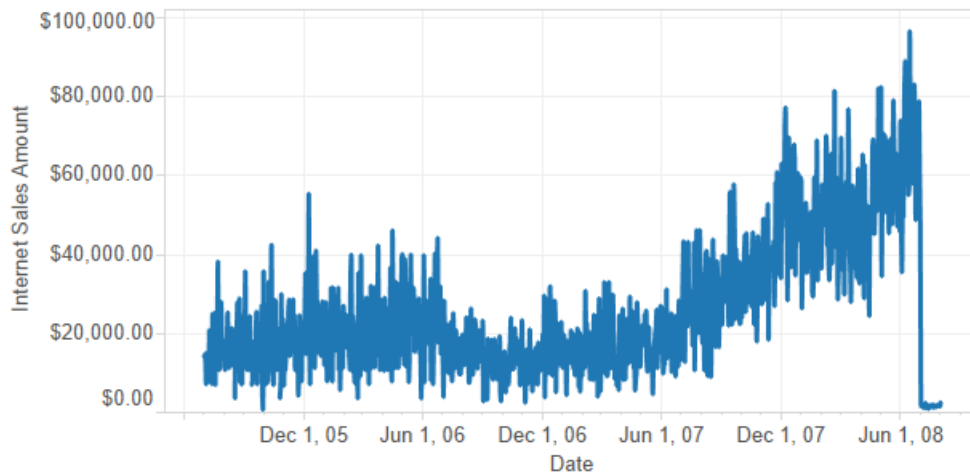
Order Date

Columns	Discount (bin)
Rows	CNT(Discount)



Auto...	Rows	Discount (bin)																						
Co... Size Text	<table border="1"> <thead> <tr> <th colspan="2">Discount (bin)</th> </tr> </thead> <tbody> <tr><td>0%</td><td>4,798</td></tr> <tr><td>5%</td><td></td></tr> <tr><td>10%</td><td>146</td></tr> <tr><td>15%</td><td></td></tr> <tr><td>20%</td><td>3,657</td></tr> <tr><td>25%</td><td>227</td></tr> <tr><td>30%</td><td>27</td></tr> <tr><td>35%</td><td></td></tr> <tr><td>40%</td><td>206</td></tr> <tr><td>45%</td><td>11</td></tr> </tbody> </table>		Discount (bin)		0%	4,798	5%		10%	146	15%		20%	3,657	25%	227	30%	27	35%		40%	206	45%	11
Discount (bin)																								
0%	4,798																							
5%																								
10%	146																							
15%																								
20%	3,657																							
25%	227																							
30%	27																							
35%																								
40%	206																							
45%	11																							
De... To...																								
CNT..																								

iii Columns	Date
iii Rows	Internet Sales Amou..



Dimensions

> Customer

> Date

▼ Calendar

▼ Date.Calendar

 Calendar Year

 Calendar Semester

 Calendar Quarter

 Month

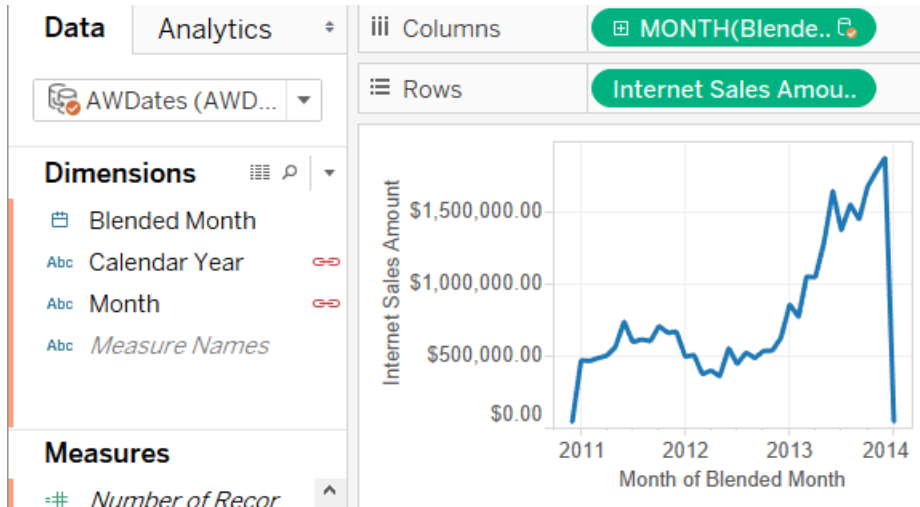
	A	B	C	D
1	Calendar Year	Month	Blended Month	
2	CY 2010	December 2010	12/1/2010	
3	CY 2011	January 2011	1/1/2011	
4	CY 2011	February 2011	2/1/2011	
5	CY 2011	March 2011	3/1/2011	
6	CY 2011	April 2011	4/1/2011	
7	CY 2011	May 2011	5/1/2011	
8	CY 2011	June 2011	6/1/2011	
9	CY 2011	July 2011	7/1/2011	
10	CY 2011	August 2011	8/1/2011	

Primary data source:
Adventure Works (AdventureWorksMultiDimensional)

Secondary data source: Automatic Custom

AWDates (AWDates)	Date.Date.Calendar.Calendar Year	Calendar Year
	Date.Date.Calendar:Month	Month

Add... Edit... Remove



Marks: Automatic

Color, Size, Text, Detail, Tooltip

Columns: Hemisp.., Group

Hemispheres	Group	Internet Sa..
Eastern Hemisphere	Europe	\$8,930,042.26
	Pacific	\$9,061,000.58
Western Hemisphere	North America	\$11,367,634.37

Marks: Automatic

Color, Size, Text, Detail, Tooltip

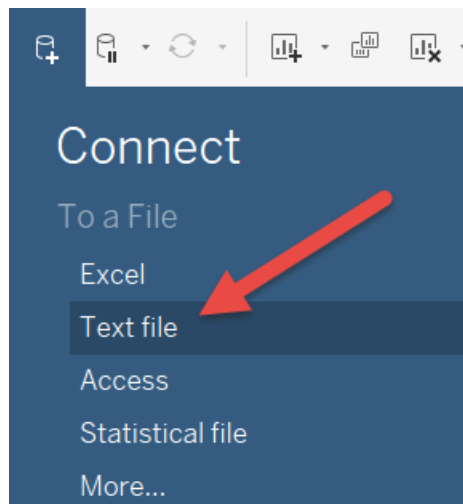
Columns: Hemisp.., Regional Gro..

Hemispheres	Regional Gro..	Internet Sales ..
Eastern Hemisphere	AsiaPac	\$9,061,000.58
	EMEA	\$8,930,042.26
Western Hemisphere	North America	\$11,367,634.37

Hemispheres	Group		
Null	Null		\$17,991,042.85
Western Hemisphere	North America		\$11,367,634.37

Edit Aliases [Group] ✕

Member	Has Alias	Value (Alias)
Europe	*	EMEA
North America		North America
Pacific	*	AsiaPac



Marks

Automatic

Color

Size

Text

Detail

Tooltip

SUM(Number o..

Columns

Rows

1,256,399

Connections Add

googleapis.com/bigquery
Google BigQuery

Project

publicdata

Dataset

samples

Table

- github_nested
- github_timeline
- gsod
- nativity

nativity

Sort fields Data source or

#	#	#
nativity	nativity	nativity
Source Year	Year	Month
1969	1969	7
1969	1969	10
1969	1969	5
1970	1970	11

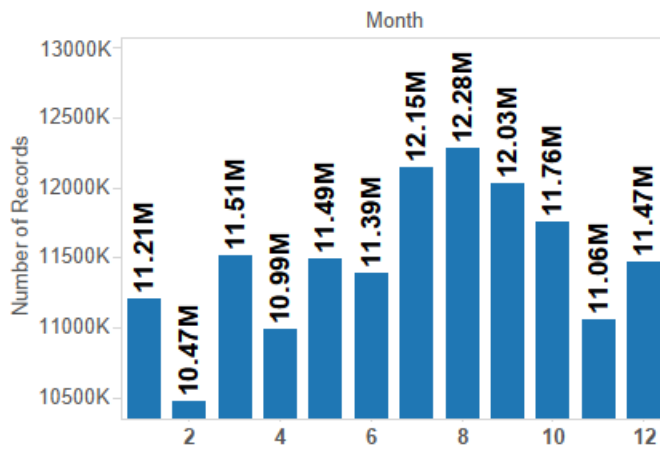
Marks

Automatic

Color Size Label

Detail Tooltip

SUM(Number o..



Chapter 5: Table Calculations

Measure Values		iii Columns	Measure Names					
SUM(Sales)		Rows	Category	Ship Mode				
Lookup	Size	Category	Ship Mode	Sales				
Window Sum	Window Sum w/ S..	Lookup along Table (Down)	Size along Table (Down)	Window Sum along Table (Down)				
Running Sum		Window Sum w/ Start& End along T..	Running Sum along Table (Down)					
Furniture	First Class	110,731	12	2,297,201	149,879	110,731		
	Same Day	39,149	110,731	12	2,297,201	195,438	149,879	
	Second Cla..	156,289	39,149	12	2,297,201	592,120	306,168	
	Standard C..	435,831	156,289	12	2,297,201	537,164	742,000	
	Office Supplies	First Class	101,332	435,831	12	2,297,201	130,423	843,332
		Same Day	29,090	101,332	12	2,297,201	189,773	872,423
		Second Cla..	160,683	29,090	12	2,297,201	588,624	1,033,106
	Technology	Standard C..	427,941	160,683	12	2,297,201	567,307	1,461,047
		First Class	139,366	427,941	12	2,297,201	199,489	1,600,412
		Same Day	60,124	139,366	12	2,297,201	202,345	1,660,536
		Second Cla..	142,222	60,124	12	2,297,201	636,665	1,802,758
		Standard C..	494,443	142,222	12	2,297,201	494,443	2,297,201

Filters		iii Columns	Measure Names	
MY(Order Date): December..		Rows	Customer Name	DAY(Order Date)
Lookup Intervening Time	Measure Names	Customer Name	Day of Order Date	% Total Sales al..
% Total Sales	SUM(Sales)	% Total Sales al..	Sales	
Marks				
Automatic				
Color	Size	Text		
Detail	Tooltip			
Measure Values				
Customer Name	Day of Order Date	% Total Sales al..	Sales	
Brian Dahl..	12/31/13	0.18%	\$171	
Bryan Mills	12/31/13	0.02%	\$20	
Carl Jacks..	12/31/13	0.02%	\$17	
Carlos Daly	12/30/13	0.16%	\$153	
Evan Henry	12/31/13	0.07%	\$72	
Frank Olse..	12/30/13	0.04%	\$42	
Julie Pres..	12/31/13	0.50%	\$488	
Keith Daw..	12/31/13	0.01%	\$7	
Kelly Andr..	12/30/13	0.19%	\$186	
Ken Lonsd..	12/30/13	0.03%	\$28	
Marc Harri..	12/30/13	0.06%	\$63	
Michael Pa..	12/30/13	0.04%	\$41	
Phillip Flat..	12/30/13	0.01%	\$11	
Troy Black..	12/30/13	0.78%	\$754	

Marks

Automatic

Color Size Text

Detail Tooltip

Measure Val..

Columns Measure Names

Rows YEAR(Order Date)

Year of Order Date	Sales	Next Year Goal Prv_Val	Next Year Goal Lkup
2011	\$484,247	\$508,460	\$508,460
2012	\$470,533	\$533,883	\$494,059
2013	\$608,474	\$560,577	\$638,898
2014	\$733,947	\$588,606	\$770,644

Filters

Measure Names

Measure Values

SUM(Sales)

Next Year Goal Pr.. Δ

Next Year Goal Lk.. Δ

Marks

All

Measure V..

SUM(Pro...)

Area

Color Size Label

Detail Tooltip

Measure ..

Columns MONTH(Order ..)

Rows Measure Values SUM(Profit)

Measure Values

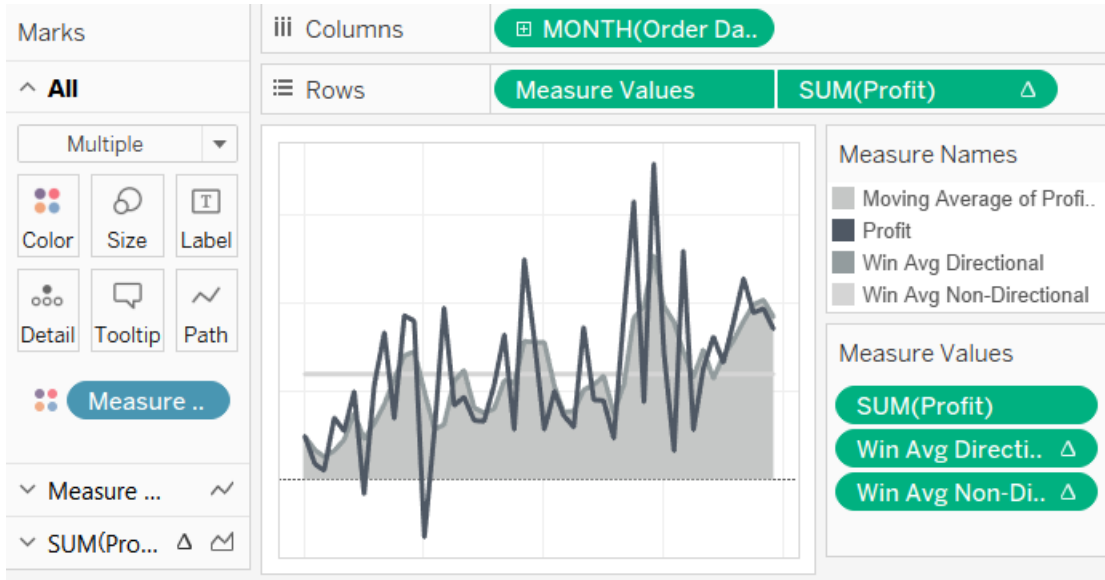
Running Avg Δ

Running Max Δ

Running Min Δ

Measure Names

- Profit
- Running Avg
- Running Max
- Running Min



Filter [Product Name]



General Wildcard Condition Top

None

By field:

Top 1 by

Sales Sum

Marks

- Automatic
- Color
- Size
- Text
- Detail
- Tooltip
- Measure V..

Columns

- Measure Names

Rows

- Product Name
- DAY(Order Date)
- Row ID

Filters

- Product Name
- First or Last: True Δ
- Measure Names

Product Name	Day of Order Date	Row ID	Sales	First	Last
Canon imageCLASS 2200 Advanced Copier	05/24/13	6426	\$8,400	0	4
	11/18/14	4191	\$10,500	-4	0

Measure Values

- SUM(Sales)
- First Δ
- Last Δ

Rows: State

Filters: Index

Table Calculation Index

Compute Using

- Table (down)
- Cell
- Specific Dimensions**

State
 Postal Code

At the level: _____

Restarting every: _____

Automatic Sort: _____

Index Filter: 50 to 89

Marks: Circle

Color, Size, Label, Detail, Tooltip

Postal Code

Marks: Automatic

Color, Size, Label, Detail, Tooltip

Rank

Columns: SUM(Sales)

Rows: Region, Rank, Product Name

Region	Rank	Product Name	Sales
Central	1	Canon imageCLA..	~15,000
	2	Lexmark MX611d..	~12,000
	3	Ibico EPK-21 Elec..	~10,000
East	1	Canon imageCLA..	~25,000
	2	3D Systems Cube..	~12,000
	3	Riverside Palais R..	~10,000
South	1	Cisco TelePresen..	~20,000
	2	HP Designjet T52..	~12,000
	3	GBC DocuBind TL..	~10,000
West	1	Canon imageCLA..	~15,000
	2	High Speed Auto..	~12,000
	3	Global Troy Execu..	~10,000

Rank: 1, 2, 3

Filters: Rank

Size △

Rows State

Marks

Automatic

Color Size Text

Detail Tooltip

City Count △

City

State	
Delaware	3
District of Columbia	1
Kansas	5
Louisiana	5
Maine	2
Mississippi	4
Montana	5
Nebraska	4
Nevada	5
New Hampshire	3
North Dakota	1
Rhode Island	4
South Dakota	3
Vermont	1
West Virginia	1
Wyoming	1

Table Calculation ×

City Count

Nested Calculations

City Count ▼

Compute Using

Table (down)
Cell

Specific Dimensions

State
 City

At the level ▼

Restarting every ▼

Automatic Sort ▼

Category	Segment		
	Consumer	Corporate	Home Office
Furniture	1	2	3
Office Sup..	1	2	3
Technology	1	2	3

Category	Segment		
	Consumer	Corporate	Home Office
Furniture	1	1	1
Office Sup..	2	2	2
Technology	3	3	3

Category	Segment		
	Consumer	Corporate	Home Office
Furniture	1	2	3
Office Sup..	4	5	6
Technology	7	8	9

Addressing 'Category'

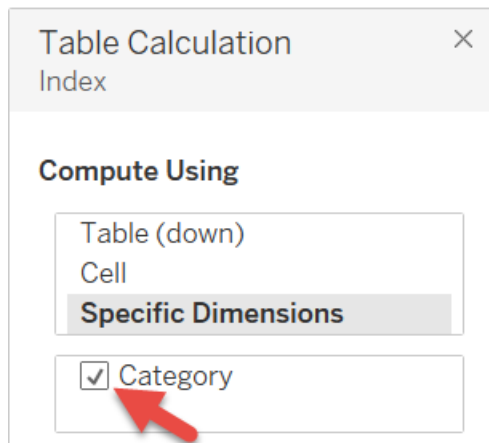
Table Calculation
Index

Compute Using

Table (down)
Cell

Specific Dimensions

Category



Partitioning 'Category'

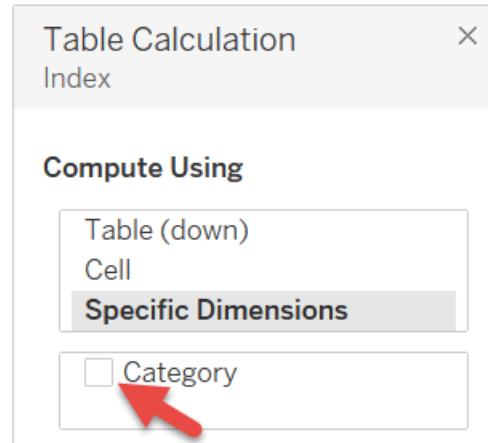
Table Calculation
Index

Compute Using

Table (down)
Cell

Specific Dimensions

Category



Rows: Category

Filters

Marks: Automatic

Color, Size, Text, Detail, Tooltip, Index

Table Calculation
Index

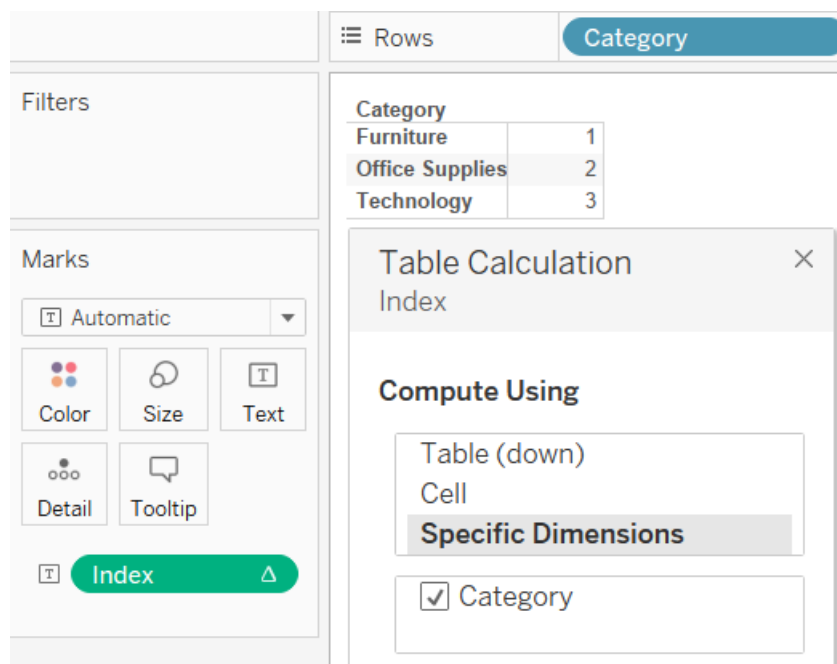
Compute Using

Table (down)
Cell

Specific Dimensions

Category

Category	
Furniture	1
Office Supplies	2
Technology	3



Category	
Furniture	1
Office Supplies	1
Technology	1



Category	Ship Mode		Category	Ship Mode		Category	Ship Mode	
Furniture	First Class	1	Furniture	First Class	1	Furniture	First Class	1
	Same Day	2		Same Day	1		Same Day	2
	Second Class	3		Second Class	1		Second Class	3
	Standard Class	4		Standard Class	1		Standard Class	4
Office Supplies	First Class	1	Office Supplies	First Class	2	Office Supplies	First Class	5
	Same Day	2		Same Day	2		Same Day	6
	Second Class	3		Second Class	2		Second Class	7
	Standard Class	4		Standard Class	2		Standard Class	8
Technology	First Class	1	Technology	First Class	3	Technology	First Class	9
	Same Day	2		Same Day	3		Same Day	10
	Second Class	3		Second Class	3		Second Class	11
	Standard Class	4		Standard Class	3		Standard Class	12

Category	Ship Mode		Category	Ship Mode		Category	Ship Mode	
Furniture	First Class	1	Furniture	First Class	1	Furniture	First Class	1
	Same Day	2		Same Day	2		Same Day	4
	Second Class	3		Second Class	3		Second Class	7
	Standard Class	4		Standard Class	4		Standard Class	10
Office Supplies	First Class	1	Office Supplies	First Class	1	Office Supplies	First Class	2
	Same Day	2		Same Day	2		Same Day	5
	Second Class	3		Second Class	3		Second Class	8
	Standard Class	4		Standard Class	4		Standard Class	11
Technology	First Class	1	Technology	First Class	1	Technology	First Class	3
	Same Day	2		Same Day	2		Same Day	6
	Second Class	3		Second Class	3		Second Class	9
	Standard Class	4		Standard Class	4		Standard Class	12

Category	Ship Mode		Category	Ship Mode	
Furniture	First Class	1	Furniture	First Class	1
	Same Day	1		Same Day	2
	Second Class	1		Second Class	3
	Standard Class	1		Standard Class	4
Office Supplies	First Class	2	Office Supplies	First Class	1
	Same Day	2		Same Day	2
	Second Class	2		Second Class	3
	Standard Class	2		Standard Class	4
Technology	First Class	3	Technology	First Class	1
	Same Day	3		Same Day	2
	Second Class	3		Second Class	3
	Standard Class	3		Standard Class	4

Index

Index
Results are computed along Ship Mode for each Category.

Rows

Ship Mode Category

Ship Mode	Category	
First Class	Furniture	1
	Office Supplies	2
	Technology	3
Same Day	Furniture	4
	Office Supplies	5
	Technology	6
Second Class	Furniture	7
	Office Supplies	8
	Technology	9
Standard Class	Furniture	10
	Office Supplies	11
	Technology	12

Ship Mode

Category	Region	First Class	Second Class	Standard Class
Furniture	East	1	2	3
	South	1	2	3
	West	1	2	3
Office Supplies	East	1	2	3
	South	1	2	3
	West	1	2	3
Technology	East	1	2	3
	South	1	2	3
	West	1	2	3

Ship Mode					Ship Mode				
Category	Region	First Class	Second Class	Standard Class	Category	Region	First Class	Second Class	Standard Class
Furniture	East	1	1	1	Furniture	East	1	1	1
	South	2	2	2		South	1	1	1
	West	3	3	3		West	1	1	1
Office Supplies	East	1	1	1	Office Supplies	East	2	2	2
	South	2	2	2		South	2	2	2
	West	3	3	3		West	2	2	2
Technology	East	1	1	1	Technology	East	3	3	3
	South	2	2	2		South	3	3	3
	West	3	3	3		West	3	3	3

Ship Mode					Ship Mode				
Category	Region	First Class	Second Class	Standard Class	Category	Region	First Class	Second Class	Standard Class
Furniture	East	1	2	3	Furniture	East	1	4	7
	South	4	5	6		South	2	5	8
	West	7	8	9		West	3	6	9
Office Supplies	East	1	2	3	Office Supplies	East	1	4	7
	South	4	5	6		South	2	5	8
	West	7	8	9		West	3	6	9
Technology	East	1	2	3	Technology	East	1	4	7
	South	4	5	6		South	2	5	8
	West	7	8	9		West	3	6	9

Ship Mode					Ship Mode				
Category	Region	First Class	Second Class	Standard Class	Category	Region	First Class	Second Class	Standard Class
Furniture	East	1	2	3	Furniture	East	1	1	1
	South	1	2	3		South	2	2	2
	West	1	2	3		West	3	3	3
Office Supplies	East	4	5	6	Office Supplies	East	4	4	4
	South	4	5	6		South	5	5	5
	West	4	5	6		West	6	6	6
Technology	East	7	8	9	Technology	East	7	7	7
	South	7	8	9		South	8	8	8
	West	7	8	9		West	9	9	9

Ship Mode					Ship Mode				
Category	Region	First Class	Second Class	Standard Class	Category	Region	First Class	Second Class	Standard Class
Furniture	East	1	1	1	Furniture	East	1	4	7
	South	4	4	4		South	2	5	8
	West	7	7	7		West	3	6	9
Office Supplies	East	2	2	2	Office Supplies	East	10	13	16
	South	5	5	5		South	11	14	17
	West	8	8	8		West	12	15	18
Technology	East	3	3	3	Technology	East	19	22	25
	South	6	6	6		South	20	23	26
	West	9	9	9		West	21	24	27

		Ship Mode					Ship Mode		
Category	Region	First Class	Second Class	Standard Class	Category	Region	First Class	Second Class	Standard Class
Furniture	East	1	10	19	Furniture	East	1	4	7
	South	2	11	20		South	1	4	7
	West	3	12	21		West	1	4	7
Office Supplies	East	4	13	22	Office Supplies	East	2	5	8
	South	5	14	23		South	2	5	8
	West	6	15	24		West	2	5	8
Technology	East	7	16	25	Technology	East	3	6	9
	South	8	17	26		South	3	6	9
	West	9	18	27		West	3	6	9

		Ship Mode					Ship Mode		
Category	Region	First Class	Second Class	Standard Class	Category	Region	First Class	Second Class	Standard Class
Furniture	East	1	10	19	Furniture	East	1	1	1
	South	4	13	22		South	4	4	4
	West	7	16	25		West	7	7	7
Office Supplies	East	2	11	20	Office Supplies	East	2	2	2
	South	5	14	23		South	5	5	5
	West	8	17	26		West	8	8	8
Technology	East	3	12	21	Technology	East	3	3	3
	South	6	15	24		South	6	6	6
	West	9	18	27		West	9	9	9

		Ship Mode		
Category	Region	First Class	Second Class	Standard Class
Furniture	East	1	4	7
	South	10	13	16
	West	19	22	25
Office Supplies	East	2	5	8
	South	11	14	17
	West	20	23	26
Technology	East	3	6	9
	South	12	15	18
	West	21	24	27

Chapter 6: Level of Detail Calculation

The screenshot shows a filter configuration for 'Product Name'. The filter is set to 'Starts with' with a match value of 'S'. A red circle 'C' points to the 'Product Name' filter, and a red circle 'B' points to the 'Starts with' radio button. The 'Measure Values' section lists four measures: SUM(Sales), AGG(Case Fixed), AGG(Case Exclude 1), and AGG(Case Exclude 2).

1st Dim	2nd Dim	Sales	Case Fixed
Central	Furniture	\$10,072	47,379
	Office Supplies	\$16,340	70,596
	Technology	\$13,995	76,801
East	Furniture	\$14,249	47,379
	Office Supplies	\$21,560	70,596
	Technology	\$20,646	76,801
South	Furniture	\$4,494	47,379
	Office Supplies	\$8,721	70,596
	Technology	\$17,451	76,801
West	Furniture	\$18,564	47,379
	Office Supplies	\$23,975	70,596
	Technology	\$24,710	76,801

1st Dim	2nd Dim	Sales	Case Fixed
Central	Furniture	\$10,072	40,406
	Office Supplies	\$16,340	40,406
	Technology	\$13,995	40,406
East	Furniture	\$14,249	56,455
	Office Supplies	\$21,560	56,455
	Technology	\$20,646	56,455
South	Furniture	\$4,494	30,666
	Office Supplies	\$8,721	30,666
	Technology	\$17,451	30,666
West	Furniture	\$18,564	67,249
	Office Supplies	\$23,975	67,249
	Technology	\$24,710	67,249

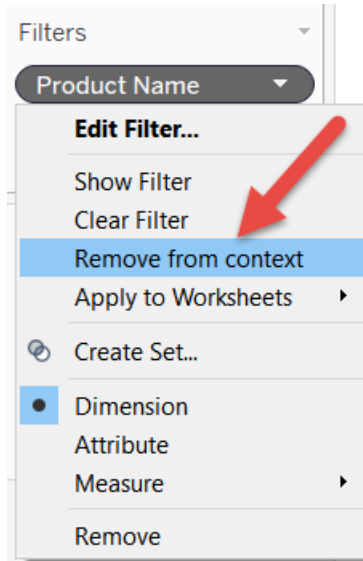
1st Dim	2nd Dim	Sales	Case Fixed
Central	Furniture	\$10,072	194,776
	Office Supplies	\$16,340	194,776
	Technology	\$13,995	194,776
East	Furniture	\$14,249	194,776
	Office Supplies	\$21,560	194,776
	Technology	\$20,646	194,776
South	Furniture	\$4,494	194,776
	Office Supplies	\$8,721	194,776
	Technology	\$17,451	194,776
West	Furniture	\$18,564	194,776
	Office Supplies	\$23,975	194,776
	Technology	\$24,710	194,776

1st Dim	2nd Dim	3rd Dim	Sales	Case Exclude 1
Central	Furniture	Consumer	\$5,444	26,738
		Corporate	\$2,779	13,050
		Home Office	\$1,849	7,592
	Office Supplies	Consumer	\$9,085	31,861
		Corporate	\$3,462	24,179
		Home Office	\$3,793	14,556
	Technology	Consumer	\$5,144	39,955
		Corporate	\$3,848	23,766
		Home Office	\$5,003	13,081
East	Furniture	Consumer	\$6,941	26,738
		Corporate	\$4,415	13,050
		Home Office	\$2,893	7,592
	Office Supplies	Consumer	\$11,361	31,861
		Corporate	\$7,217	24,179

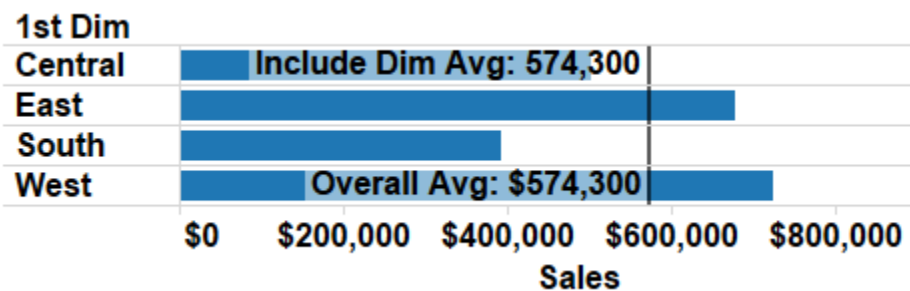
1st Dim	2nd Dim	3rd Dim	Sales	Case Fixed	Case Exclude 1	Case Exclude 2
Central	Furniture	Consum..	\$5,444	98,554	26,738	98,554
		Corpora..	\$2,779	60,994	13,050	60,994
		Home O..	\$1,849	35,228	7,592	35,228
	Office Supplies	Consum..	\$9,085	98,554	31,861	98,554
		Corpora..	\$3,462	60,994	24,179	60,994
		Home O..	\$3,793	35,228	14,556	35,228
	Technol..	Consum..	\$5,144	98,554	39,955	98,554
		Corpora..	\$3,848	60,994	23,766	60,994
		Home O..	\$5,003	35,228	13,081	35,228
East	Furniture	Consum..	\$6,941	98,554	26,738	98,554
		Corpora..	\$4,415	60,994	13,050	60,994
		Home O..	\$2,893	35,228	7,592	35,228

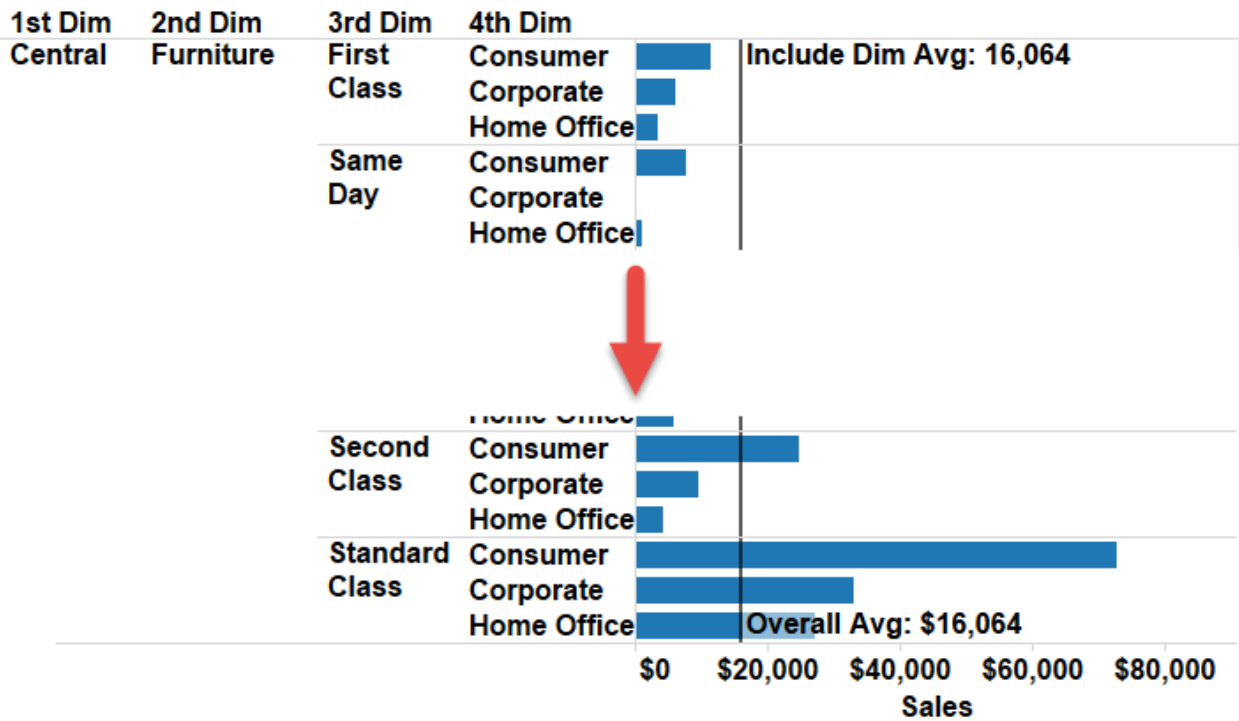
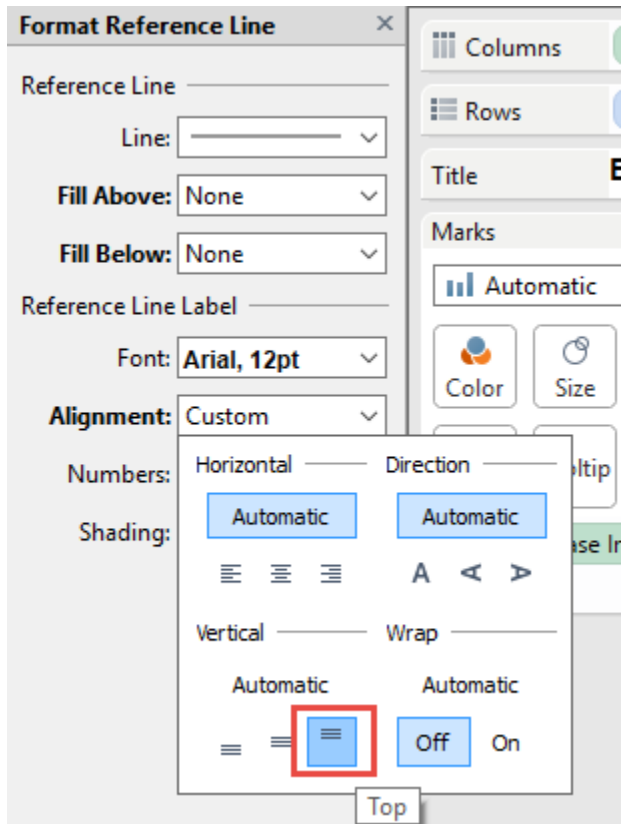
1st Dim	2nd Dim	3rd Dim	4th Dim	Sales	Case Fixed	Case Exclude 1	Case Exclude 2
Central	Furniture	Consumer	First Class	\$740	98,554	2,961	8,843
			Second Class	\$313	98,554	6,493	24,765
			Standard Class	\$4,391	98,554	17,147	62,011
		Corporate	First Class	\$164	60,994	779	10,622
			Second Class	\$801	60,994	3,139	8,818
			Standard Class	\$1,813	60,994	8,934	38,997
		Home Office	First Class	\$746	35,228	1,202	3,121
			Same Day	\$106	35,228	517	2,616
			Second Class	\$24	35,228	2,286	6,953
	Standard Class		\$973	35,228	3,586	22,537	
	Office Supplies	Consumer	First Class	\$251	98,554	1,854	8,843
			Same Day	\$160	98,554	2,165	2,935

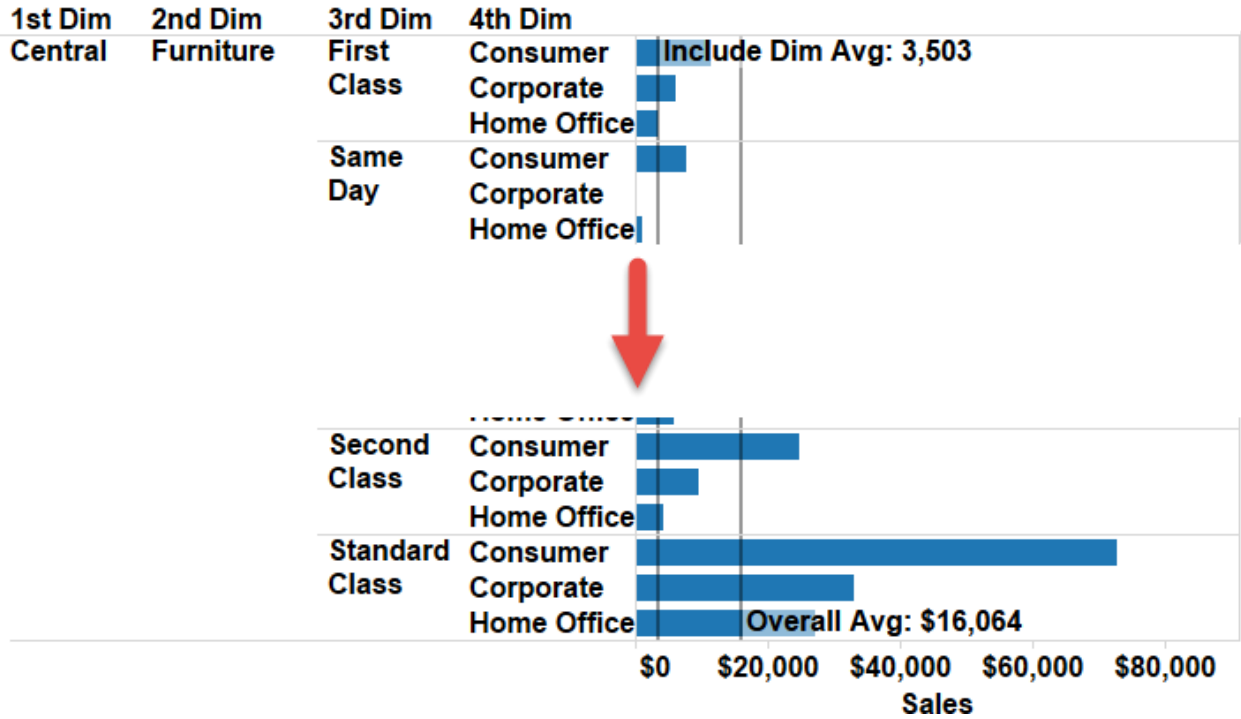
1st Dim	2nd Dim	3rd Dim	Sales	Case Fixed	Case Exclude 1	Case Exclude 2
Central	Furniture	Consumer	\$5,444	98,554	26,738	98,554
		Corporate	\$2,779	60,994	13,050	60,994
		Home Office	\$1,849	35,228	7,592	35,228
	Office Supplies	Consumer	\$9,085	98,554	31,861	98,554
		Corporate	\$3,462	60,994	24,179	60,994
		Home Office	\$3,793	35,228	14,556	35,228
	Technology	Consumer	\$5,144	98,554	39,955	98,554
		Corporate	\$3,848	60,994	23,766	60,994
		Home Office	\$5,003	35,228	13,081	35,228
	East	Furniture	Consumer	\$6,941	98,554	26,738
Corporate			\$4,415	60,994	13,050	60,994
Home Office			\$2,893	35,228	7,592	35,228
Office		Consumer	\$11,361	98,554	31,861	98,554



1st Dim	2nd Dim	3rd Dim	Sales	Case Fixed	Case Exclude 1	Case Exclude 2
Central	Furniture	Consumer	\$5,444	1,161,401	26,738	98,554
		Corporate	\$2,779	706,146	13,050	60,994
		Home Office	\$1,849	429,653	7,592	35,228
	Office Supplies	Consumer	\$9,085	1,161,401	31,861	98,554
		Corporate	\$3,462	706,146	24,179	60,994
		Home Office	\$3,793	429,653	14,556	35,228
	Technology	Consumer	\$5,144	1,161,401	39,955	98,554
		Corporate	\$3,848	706,146	23,766	60,994
		Home Office	\$5,003	429,653	13,081	35,228
East	Furniture	Consumer	\$6,941	1,161,401	26,738	98,554
		Corporate	\$4,415	706,146	13,050	60,994
		Home Office	\$2,893	429,653	7,592	35,228
	Office	Consumer	\$11,361	1,161,401	31,861	98,554







Filters	iii Columns	Country
Measure Names	Rows	Measure Names
Country: Afghanistan		
Measure Values		
SUM(Population)		
Percent of Total		

Country Afghanistan..	
Population	29,824,536
Percent of Total	100.00%

- (All)
- Afghanistan
- Albania
- Algeria

Filters	iii Columns	Country
Measure Names	Rows	Measure Names
Country: Afghanistan		
Measure Values		
SUM(Population)		
AGG(Percent of Tota..)		

Country Afghanistan	
Population	29,824,536
Percent of Total LOD	0.43%

- (All)
- Afghanistan
- Albania
- Algeria

Filters

- Measure Names
- Country: Afghanistan

Measure Values

- SUM(Population)
- AGG(Percent of Total LOD)

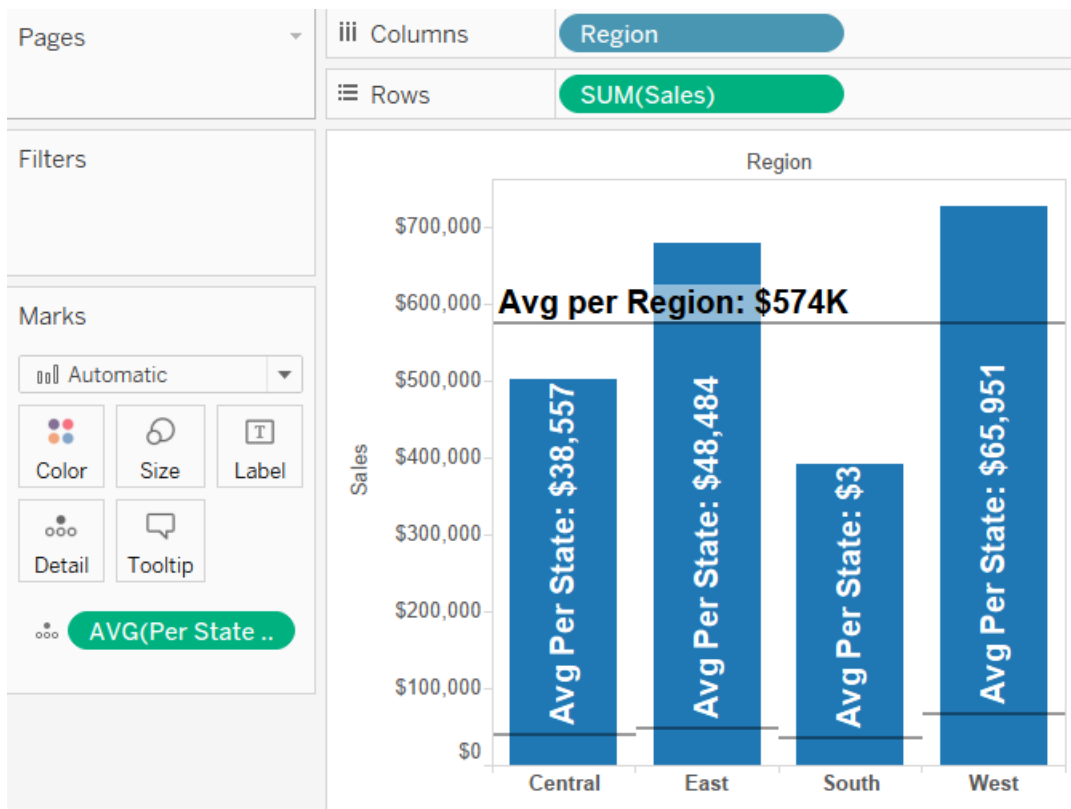
Columns: Country

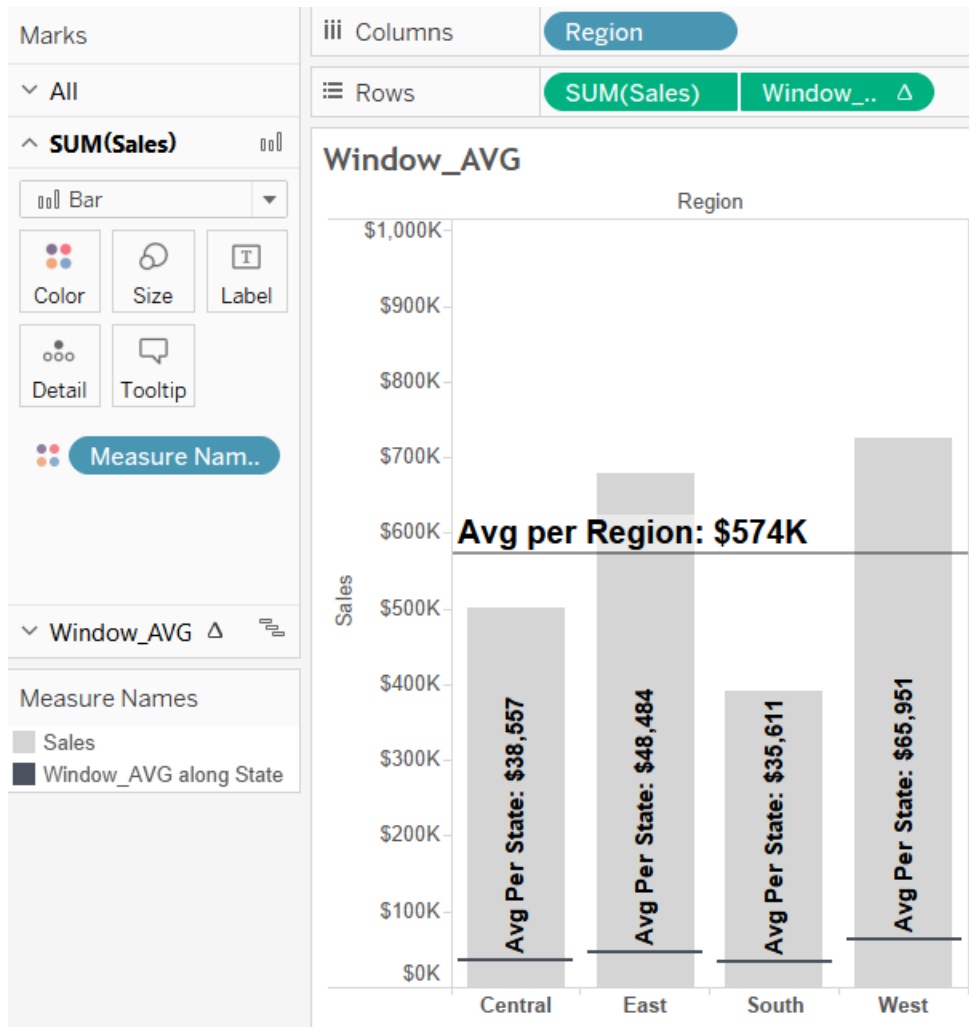
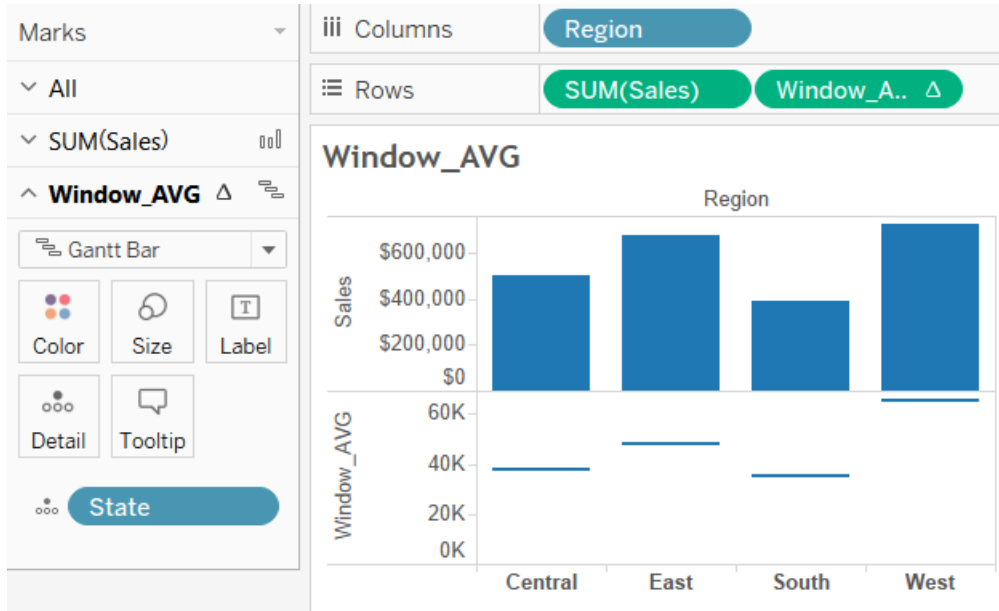
Rows: Measure Names

	Country
Population	29,824,536
Percent of Total LOD	0.43%

Country

- (All)
- Afghanistan
- Albania
- Algeria





iii Columns Measure Names

iii Rows Region City

Region	City	Sales	Region Values	% Per Region L..
Central	Houston	\$64,505	501,240	12.87%
East	New York City	\$256,368	678,781	37.77%
	Philadelphia	\$109,077	678,781	16.07%
South	Jacksonville	\$44,713	391,722	11.41%
West	Los Angeles	\$175,851	725,458	24.24%
	San Francisco	\$112,669	725,458	15.53%
	Seattle	\$119,541	725,458	16.48%

Filter [% Per Region LOD]

Range of values At least At most

At least

0.1 0.377688931

0.00%

Filters: Measure Names, AGG(% Per Region L..)

Marks: Automatic, Color, Size, Text, Detail, Tooltip, Measure Values

Measure Values: SUM(Sales), ATTR(Region Values), AGG(% Per Region L..)

Region	City	Sales	Region Values	% Per Region LOD
Central	Houston	\$64,505	501,240	12.87%
East	New York City	\$256,368	678,781	37.77%
	Philadelphia	\$109,077	678,781	16.07%
South	Jacksonville	\$44,713	391,722	11.41%
West	Los Angeles	\$175,851	725,458	24.24%
	San Francisco	\$112,669	725,458	15.53%
	Seattle	\$119,541	725,458	16.48%

Region	State	City	Sales	Region Values	% Per Region L..
Central	Texas	Houston	\$64,505	501,240	12.87%
East	New York	New York ..	\$256,368	678,781	37.77%
	Pennsylvan..	Philadelphia	\$109,077	678,781	16.07%
West	California	Los Angeles	\$175,851	725,458	24.24%
		San Franci..	\$112,669	725,458	15.53%
	Washington	Seattle	\$119,541	725,458	16.48%

Filters

- Measure Names
- AGG(% Per Region L..)

Measure Values

- SUM(Sales)
- ATTR(Region Values)
- AGG(% Per Region L..)

Columns: Measure ..

Rows: Region, State, City

Region	City	Sales	Region Values	% Per Region L..
Central	Houston	\$64,505	501,240	12.87%
East	New York City	\$256,368	678,781	37.77%
	Philadelphia	\$109,077	678,781	16.07%
West	Los Angeles	\$175,851	725,458	24.24%
	San Francisco	\$112,669	725,458	15.53%
	Seattle	\$119,541	725,458	16.48%

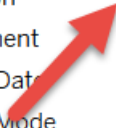
Superstore

Dimensions

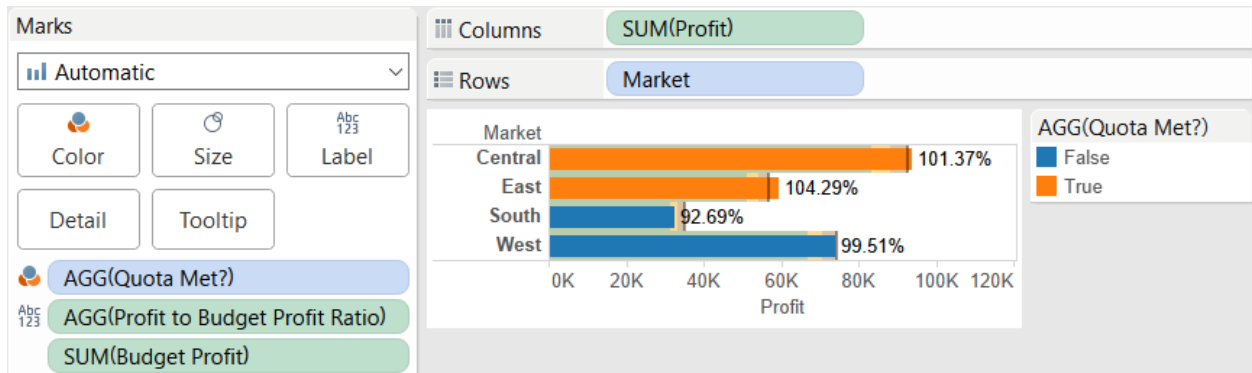
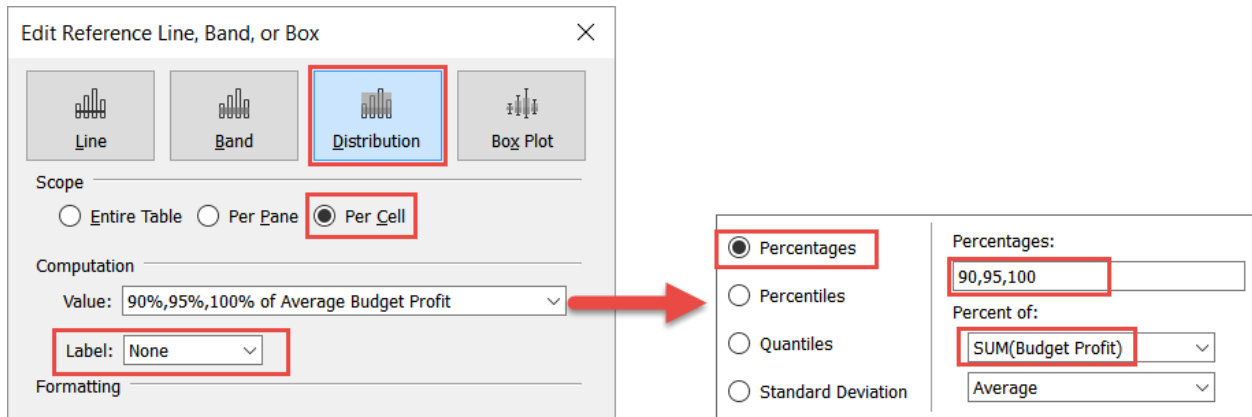
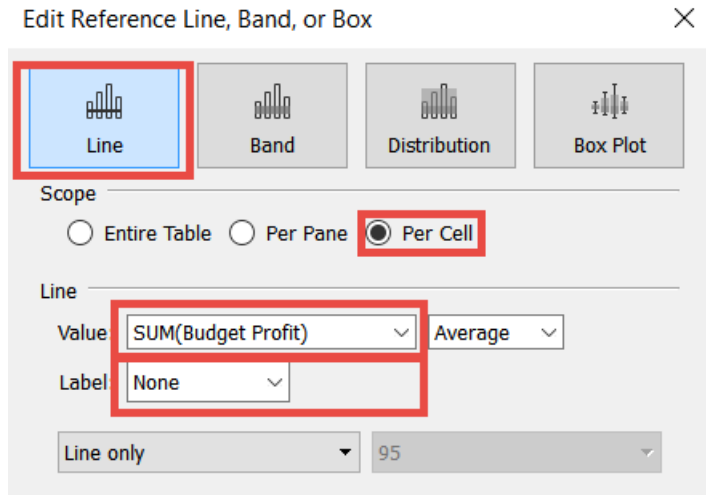
- Customer Name
- Order Date
- Order ID
- Postal Code

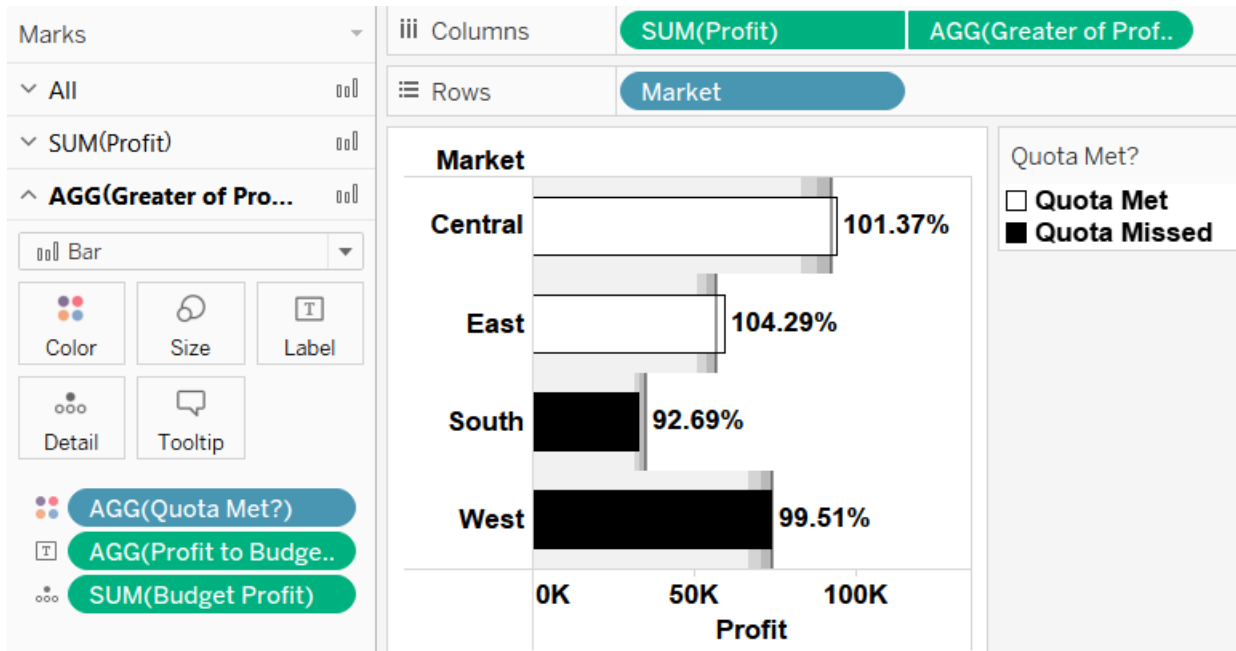
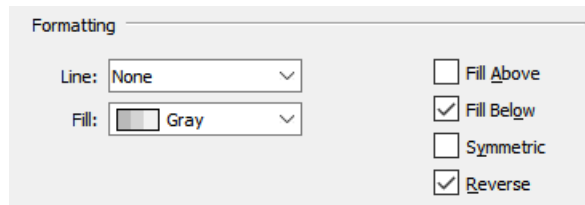
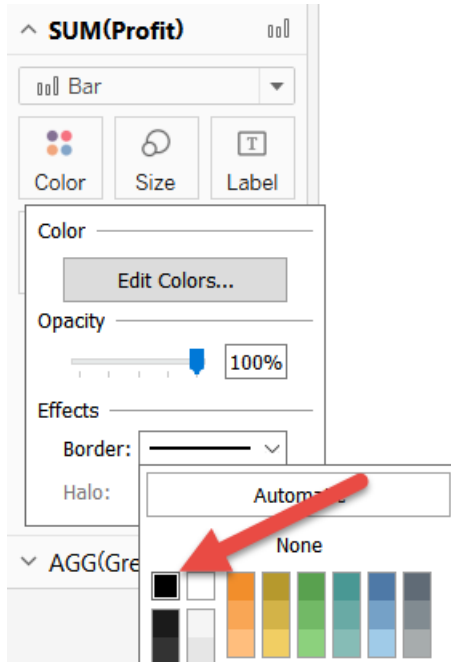
Edit Data Source...

- Refresh
- View Data...
- Rename...
- Duplicate**
- Close

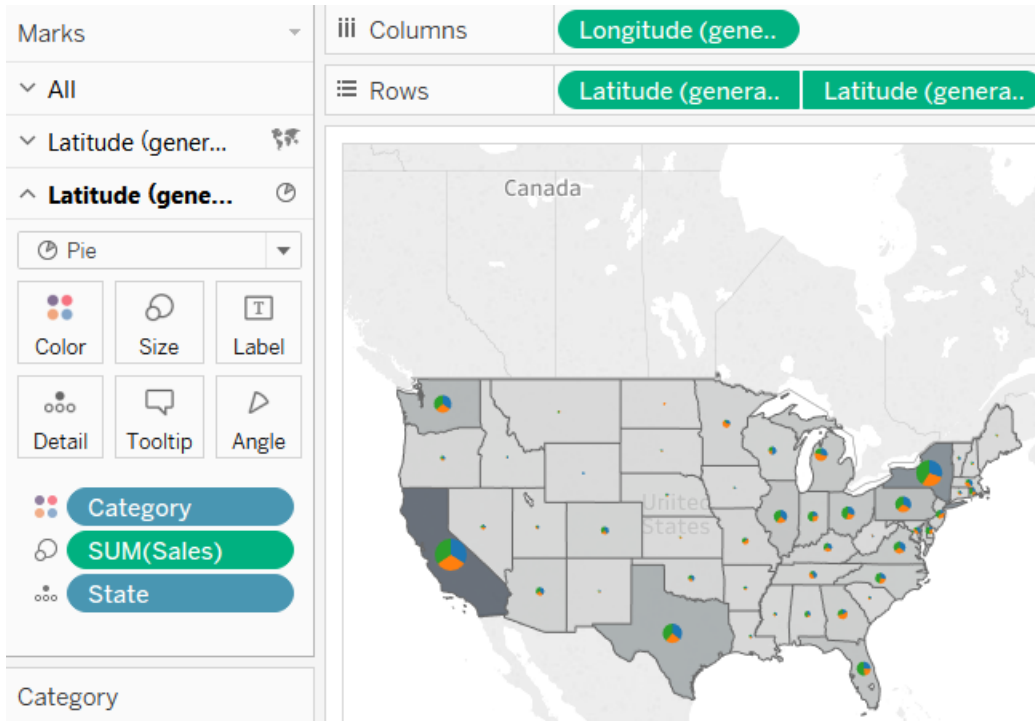
- Postal Code
 - Product ID
 - Product Name
 - Region
 - Segment
 - Ship Date
 - Ship Mode
- 

Chapter 7: Beyond the Basic Chart Types





Columns	Longitude (gene..)
Rows	Latitude (genera..) Latitude (genera..)



Numbers: \$123K

Font: Automatic

Alignment: Currency (Custom)

Numbers: Currency (Custom)

Decimal places: 0

Negative values: (1234)

Units: Thousands (K)

Alignme... Middle Center

Numbers: Automatic

Font: Automatic

Alignment: Automatic

Numbers: Automatic

Grand Total

Marks

▼ All

^ Row

Pie

Color Size Label

Detail Tooltip Angle

Category
ATTR(State)
AGG(Log Sales)
SUM(Sales)

▼ Row (2)

Columns Column

Rows Row Row

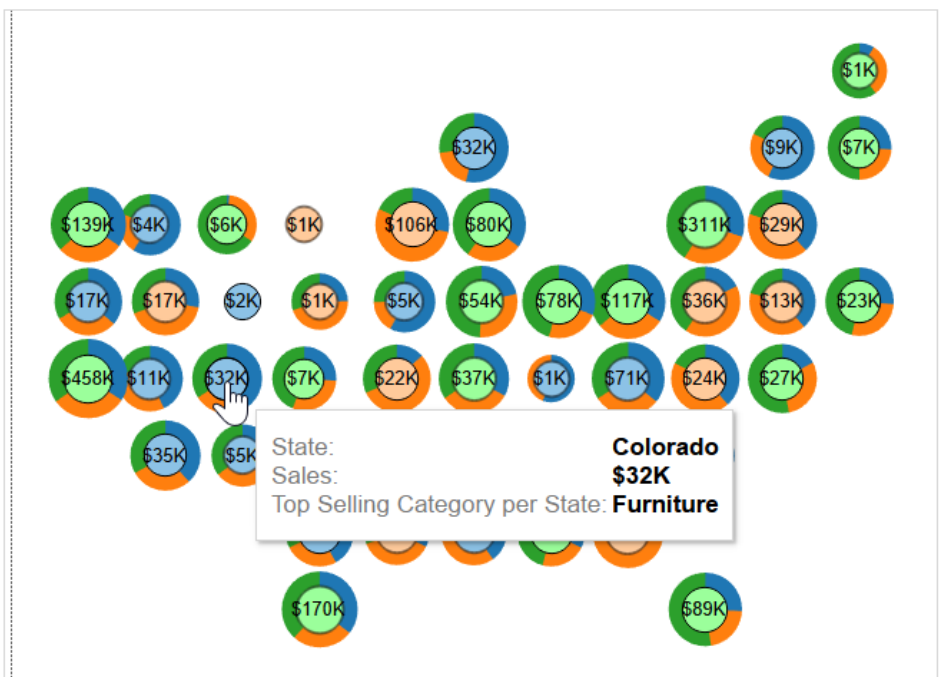


Table Calculation



% of Total Running Sum of Current Loan Balance

Primary Calculation Type

- Running Total
- Sum

Secondary Calculation Type

- Percent of Total
- Compute total across all pages

Compute Using

- Table (across)
- Cell
- Specific Dimensions**
- Account #

Restarting every _____

Automatic Sort

Add secondary calculation

Compute Using

- Table (across)
- Table (down)
- Table
- Cell
- Specific Dimensions**

Account #

At the level _____

Automatic Sort

Table Calculation



% of Total Running Sum of Distinct count of Account #

Primary Calculation Type

Running Total
Sum

Secondary Calculation Type

Percent of Total
 Compute total across all pages

Compute Using

Table (across)
Cell
Specific Dimensions
 Account #

Restarting every

Automatic Sort

Compute Using

Table (across)
Table (down)
Table
Cell
Specific Dimensions

Account #

At the level

Automatic Sort

Add secondary calculation

Marks

All

SUM(Current Loan Balance) Δ \times $+$

SUM(Current Loan Balance)

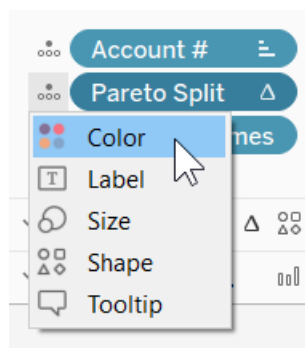
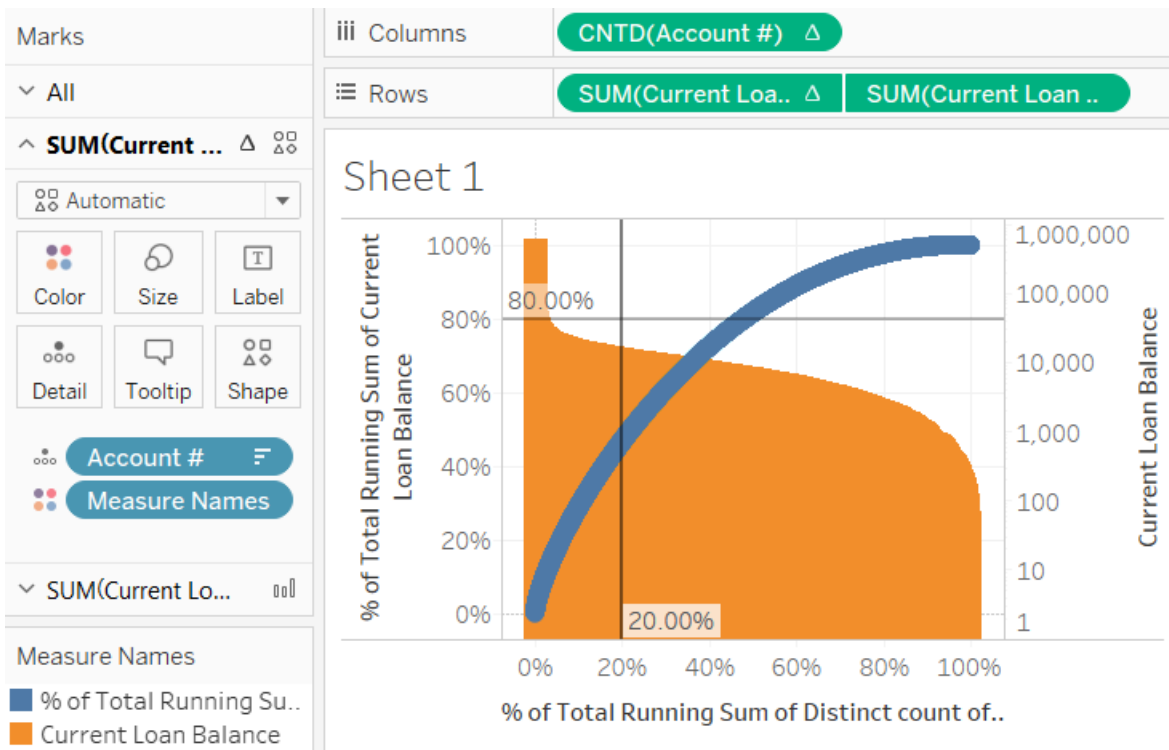
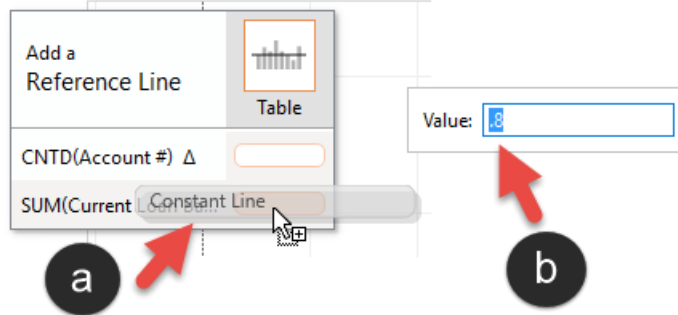
Bar \downarrow

Color Size $\frac{A}{B}$ $\frac{1}{2}$ $\frac{3}{4}$ Label

Detail Tooltip

Account #

A red arrow points to the 'SUM(Current Loan Balance)' row in the Marks card. The 'Bar' visualization type is highlighted with a red box.



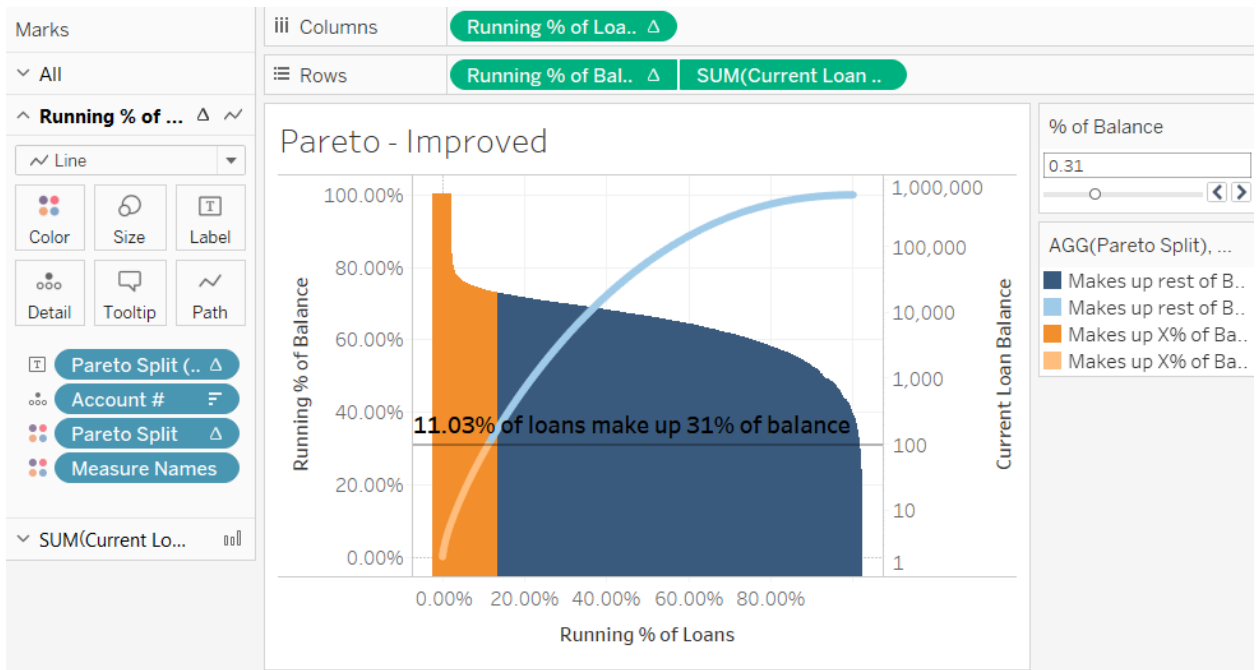


Table Options

Aspect

Constrain aspect ratio Horizontal : Vertical

Default number format

Automatic Manual

Decimal places:

Rows

Maximum levels of row labels

Maximum levels of horizontal row labels

Columns

Maximum levels of column labels

Table Calculation
Grid Size

Nested Calculations

Grid Size

Grid Size
Which Column?

Layers (Shift+Ctrl+L)

- Grid
- Chessboard

+ - ↑ ↓

Board Grid Squares Occupied

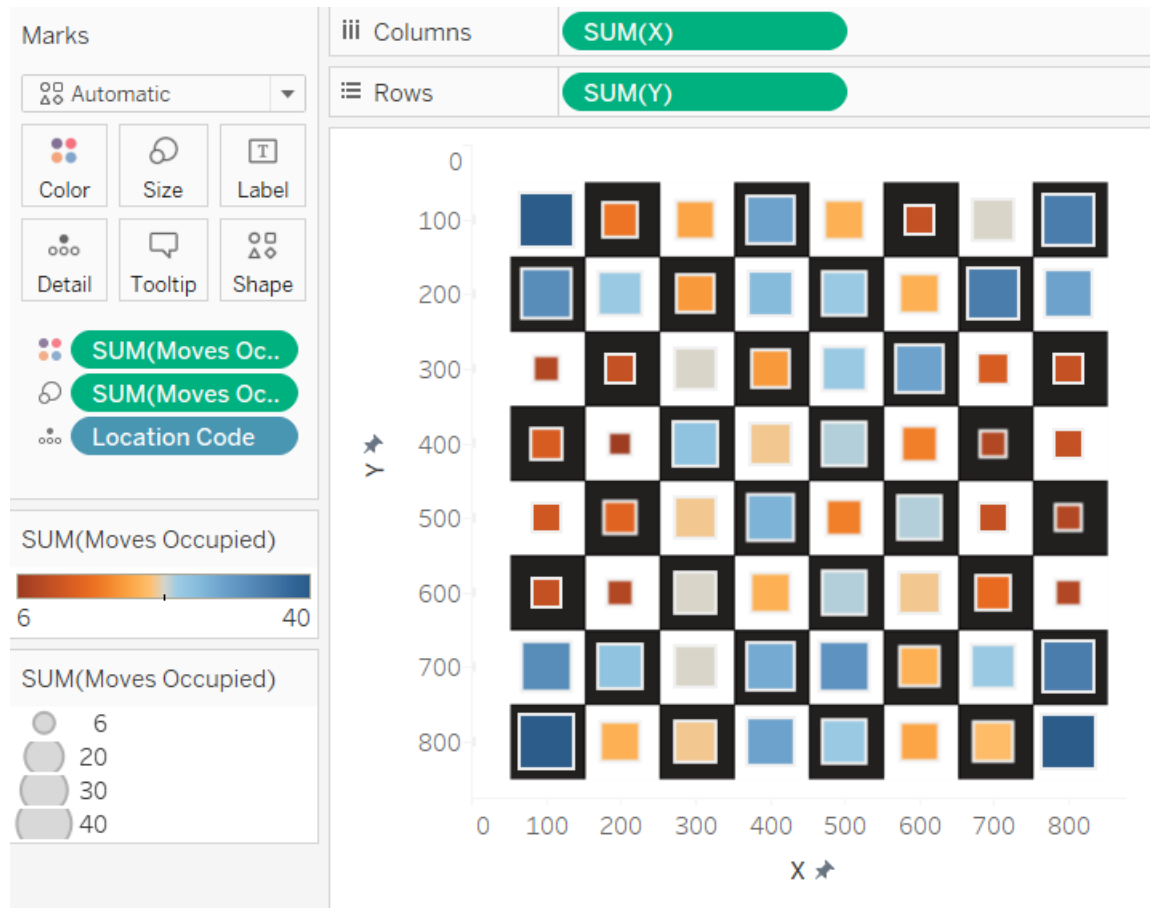
Join ✕

Inner
 Left
 Right
 Full Outer

Data Source		Squares Occupied
Location Code	=	Location Code (Squ...
<i>Add new join clause</i>		

Fixed

Fixed start
 Fixed end



Edit Axis [Y]



General Tick Marks

Range

Automatic

Uniform axis range for all rows or columns

Independent axis ranges for each row or column

Fixed

Fixed start Fixed end


0 650

Edit Colors [Case]



Palette:

Custom Diverging



0.000 6.000

Stepped Color 6 Steps

Reversed

Use Full Color Range << Advanced

Start: End:

0 5

Center:

1

Reset OK Cancel Apply

Chapter 8: Mapping



Marks

Automatic

Color Size Text

Detail Tooltip

Latitude (gener..)

Longitude (gen..)

Australia

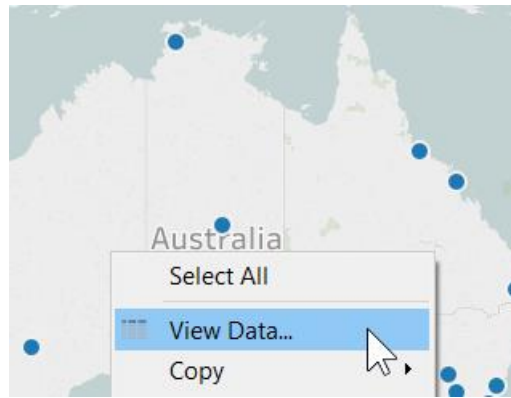
Columns

Rows

Trip ID City

Miles

Trip ID	City	Miles
1	CANBERRA	-35.28 149.13
	MELBOURNE	-37.81 144.96
2	ADELAIDE	-34.93 138.60
	SYDNEY	-33.87 151.21



☰ View Data: Map —

Show aliases Copy

	Australia	City	Latitude (generated)	Longitude (generated)
	Australia	WOLLONGONG	-34.4330	150.8830
	Australia	TOWNSVILLE	-19.2500	146.8000
	Australia	SYDNEY	-33.8670	151.2070
	Australia	PERTH	-31.9330	115.8330
	Australia	ORANGE	-33.2830	149.1000
	Australia	NEWCASTLE	-32.9270	151.7760
	Australia	MELBOURNE	-37.8140	144.9630
	Australia	MACKAY	-21.1500	149.2000
	Australia	KALGOORLIE	-30.7500	121.4660
	Australia	Dubbo	-32.2500	148.6160
	Australia	DARWIN	-12.4610	130.8410
	Australia	CANBERRA	-35.2830	149.1280
	Australia	BRISBANE	-27.4670	153.0280
	Australia	ALICE SPRINGS	-23.7000	133.8830
	Australia	ALBURY	-36.0830	146.9160
	Australia	ADELAIDE	-34.9330	138.6000

Summary Underlying 16

Data Analytics Pages

📄 Lat Long Filters

Dimensions Measure

Abc Australia

Measures Marks

🌐 Latitude (generated)

📄 Data Source Map Miles **Lat Long**

Marks

Automatic

Color Size Text

Detail Tooltip

Measure Values

Australia

Measure Values

AGG(Lat)

AGG(Long)

Lookup Lat

Lookup Long

Columns

Measure Names

Rows

Trip ID

City

Miles

Trip ID	City	Lat	Long	Looku..	Looku..
1	CANBERRA	-35.3	149.1		
	MELBOURNE	-37.8	145.0	-35.3	149.1
2	ADELAIDE	-34.9	138.6	-37.8	145.0
	SYDNEY	-33.9	151.2	-34.9	138.6
3	MELBOURNE	-37.8	145.0	-33.9	151.2
	PERTH	-31.9	115.8	-37.8	145.0
4	MELBOURNE	-37.8	145.0	-31.9	115.8
	PERTH	-31.9	115.8	-37.8	145.0
5	MELBOURNE	-37.8	145.0	-31.9	115.8
	PERTH	-31.9	115.8	-37.8	145.0
6	MELBOURNE	-37.8	145.0	-31.9	115.8
	PERTH	-31.9	115.8	-37.8	145.0
7	KALGOORLIE	-30.8	121.5	-31.9	115.8

Measure Values

AGG(Lat)

AGG(Long)

Lookup Lat

Lookup Long

Great Circle Dista..

- Filter...
- Show Filter
- Format...
- Include in Tooltip
- Measure
- Edit in Shelf**
- Compute Using
- Edit Table Calculation...
- Remove

Columns

Measure Names

Rows

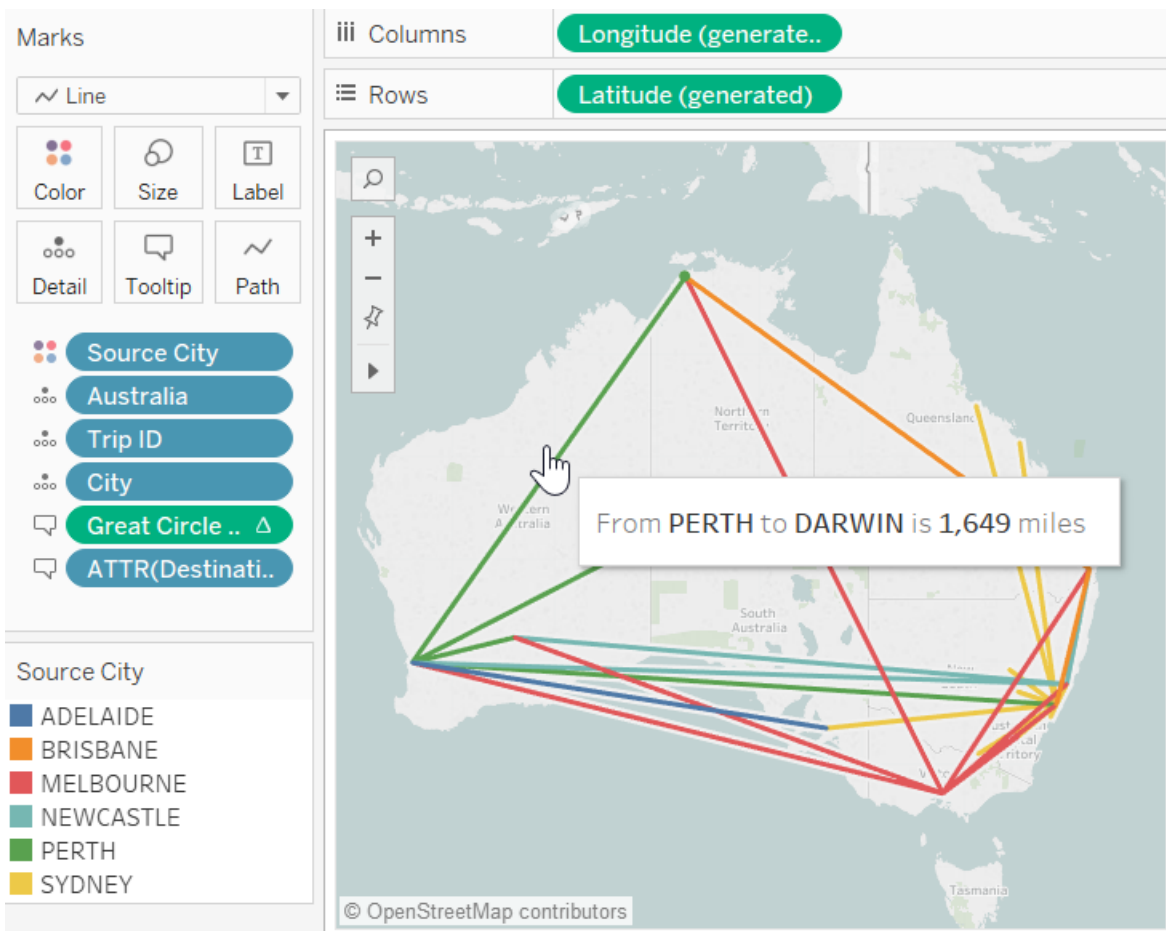
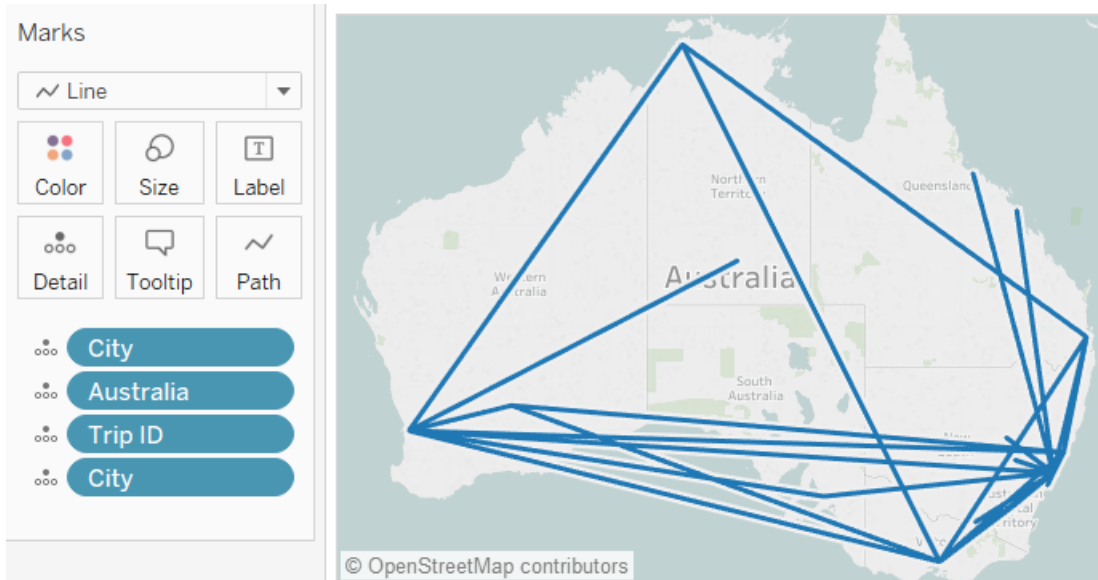
Trip ID

City

Miles

Trip ID	City	Lat	Long	Loo..	Loo..	Gre..
1	CANB..	-35	149			
	MELB..	-38	145	-35	149	290
	ADEL..	-35	139	-38	145	
	SYDN..	-34	151	-35	139	722
	MELB..	-38	145	-34	151	
	PERTH	-32	116	-38	145	1,693
	MELB..	-38	145	-32	116	
	PERTH	-32	116	-38	145	1,693
	MELB..	-38	145	-32	116	
	PERTH	-32	116	-38	145	1,693
8				145	-32	116
				116	-38	145
9				121	-32	116
				116	-31	121
10				131	-32	116
				145	-12	131
				121	-38	145
				116	-31	121
				149	-32	116

- Table (down)
- Pane (down)
- Pane (across then down)
- Pane (down then across)
- Cell
- Australia
- City**
- Trip ID



Map Services



Add WMS Server Connection

Name

URL: http://nowcoast.noaa.gov/arcgis/services/nowcoast/radar_meteo_i

Use tiled maps (recommended)

OK Cancel

Add... WMS Servers... Export... Delete Close

Mapbox Maps...

Marks

Filled Map

Color Size Label

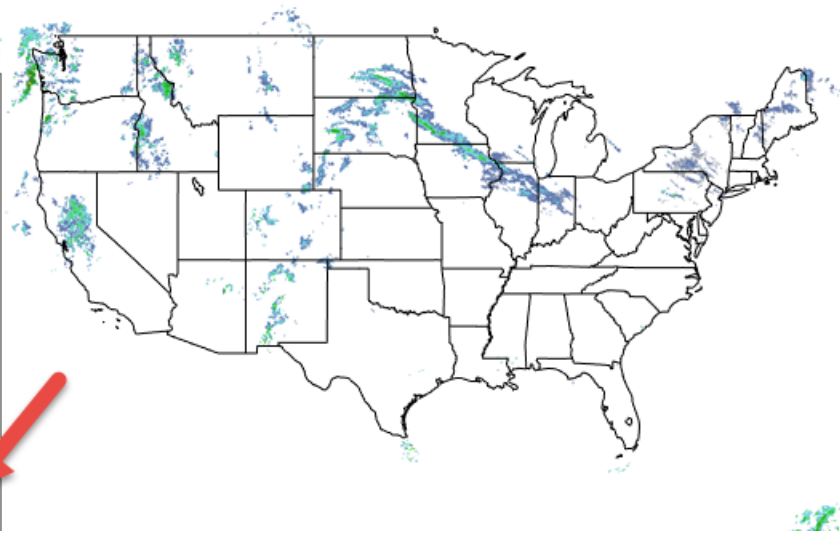
Color

More colors...

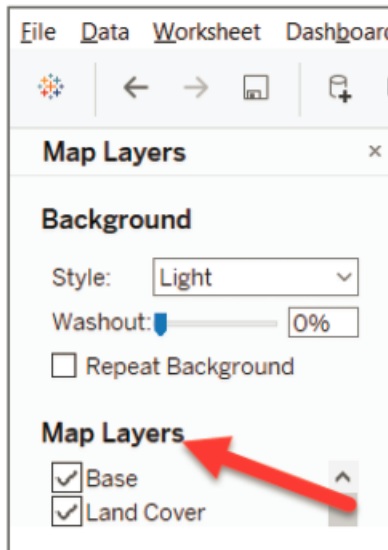
Transparency 0%

Effects

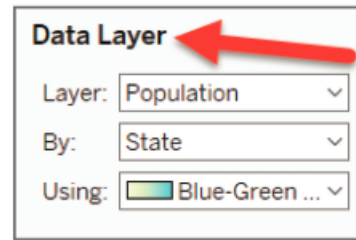
Border: [dropdown]



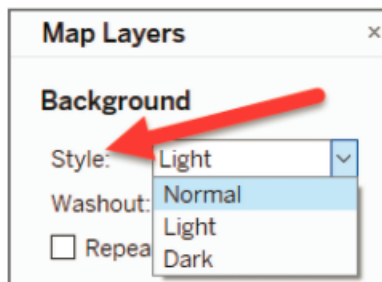
Attribute: layer display-name



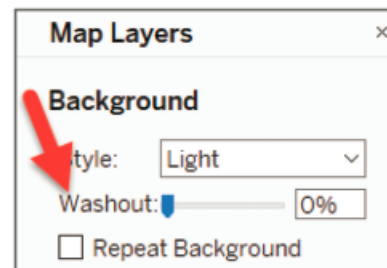
Attribute: layer current-id



Tag: map-styles



Attribute: washout

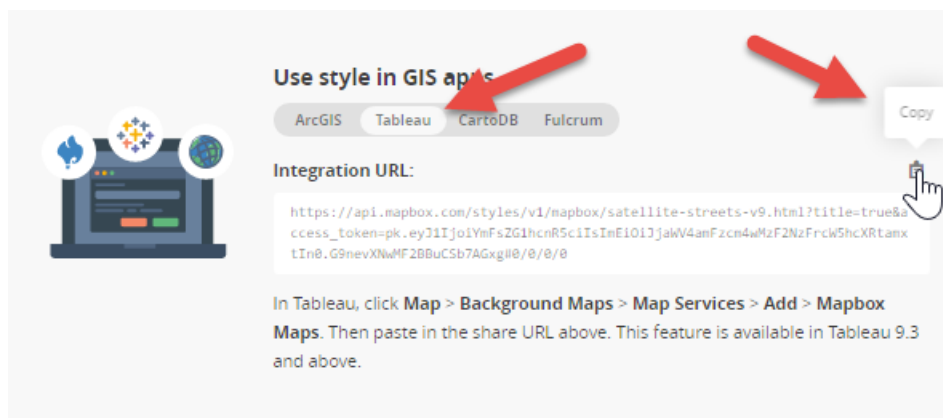
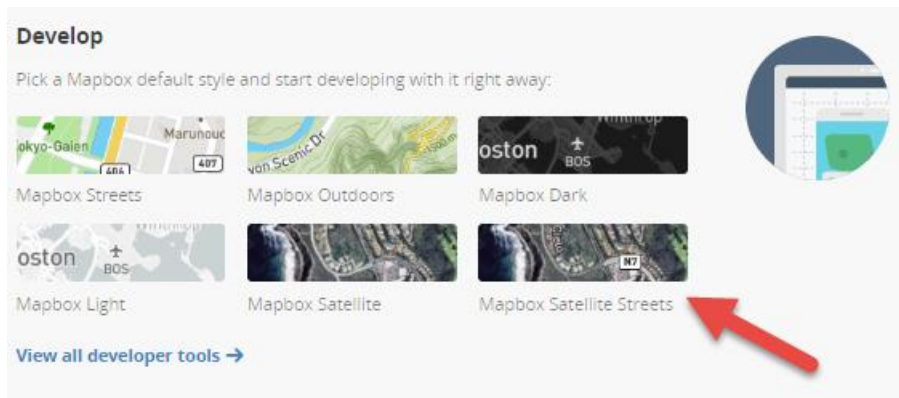
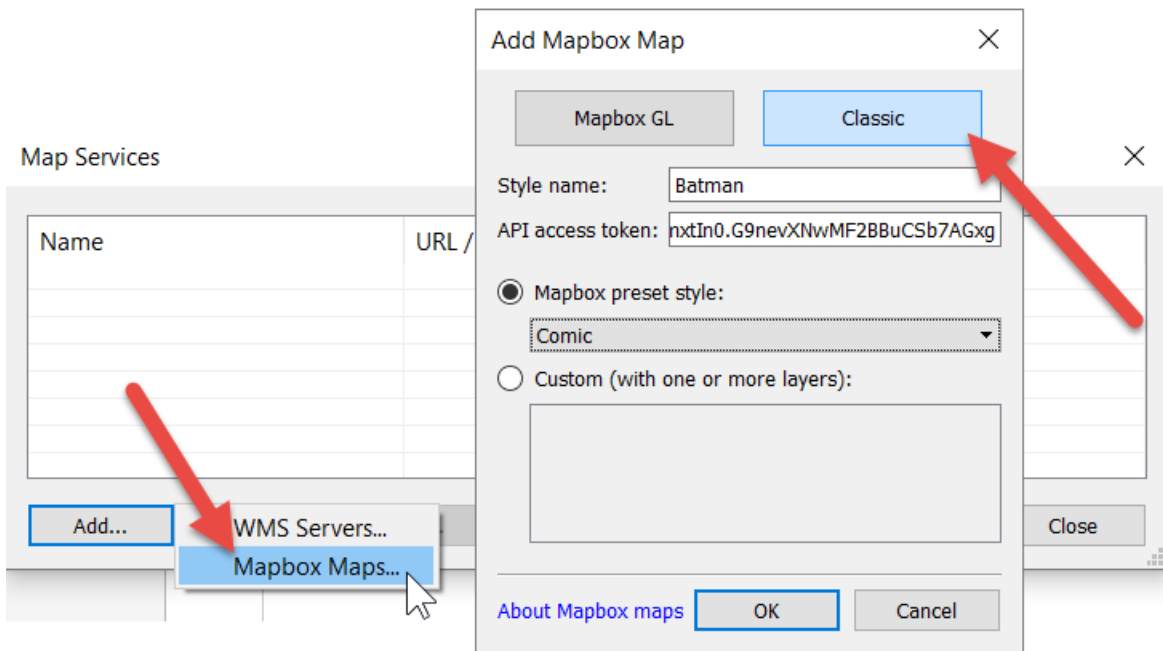


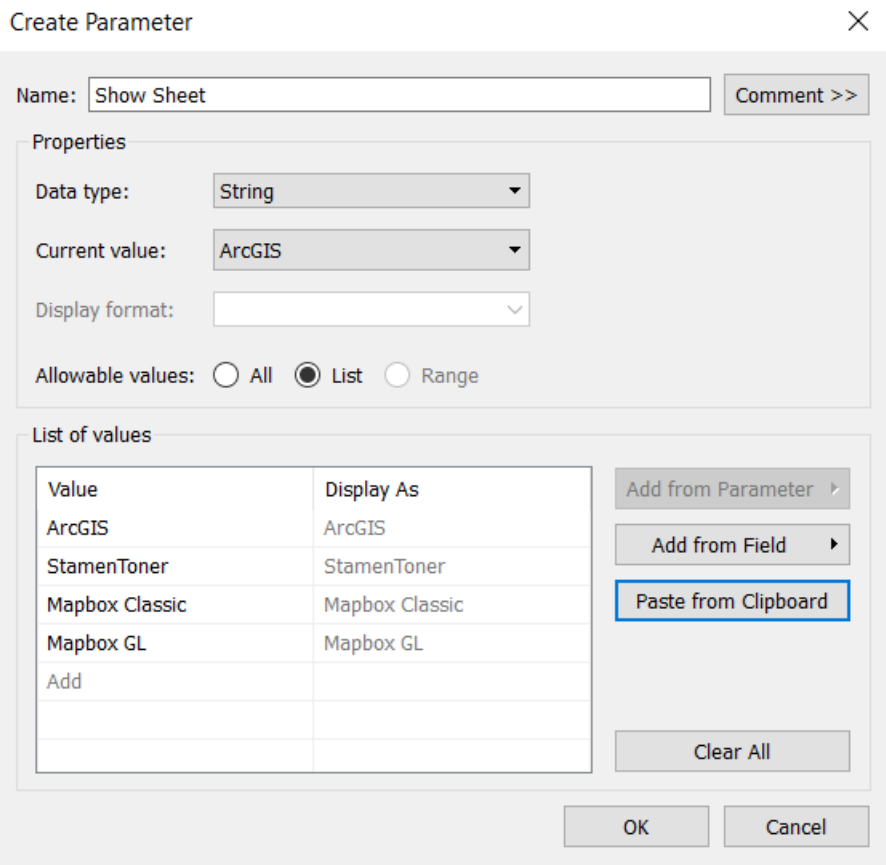
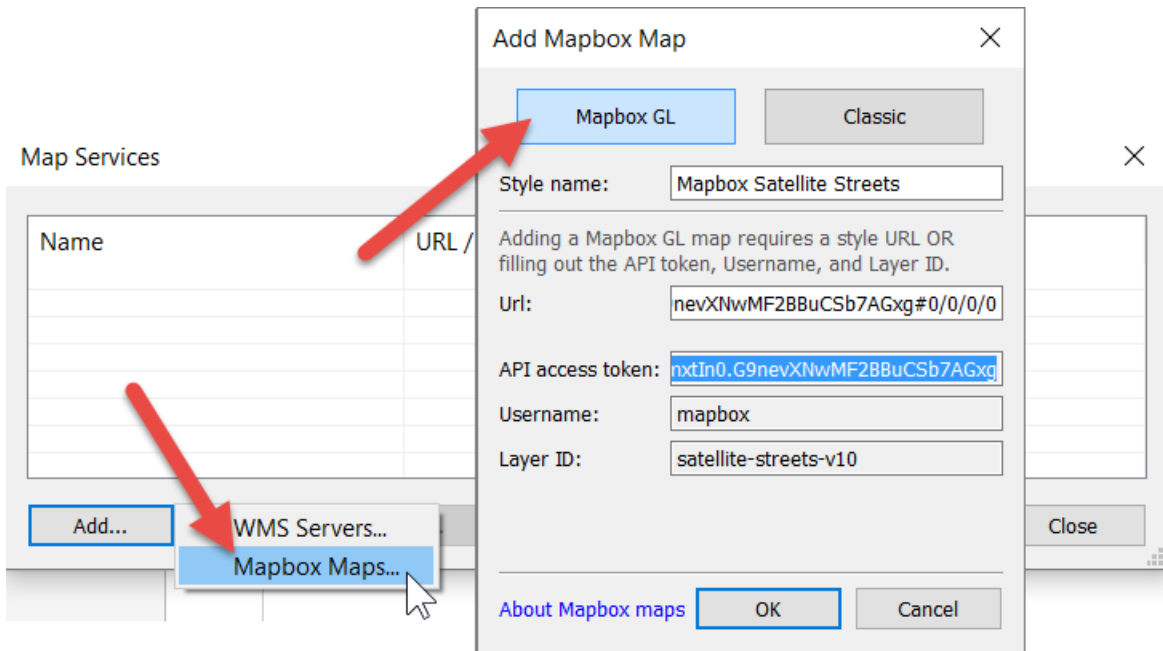
Access token

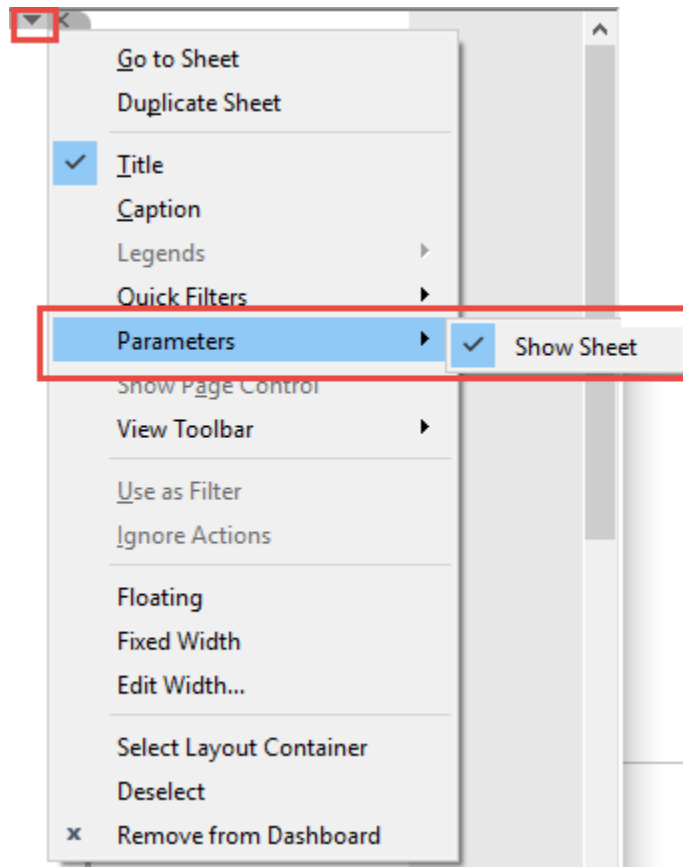
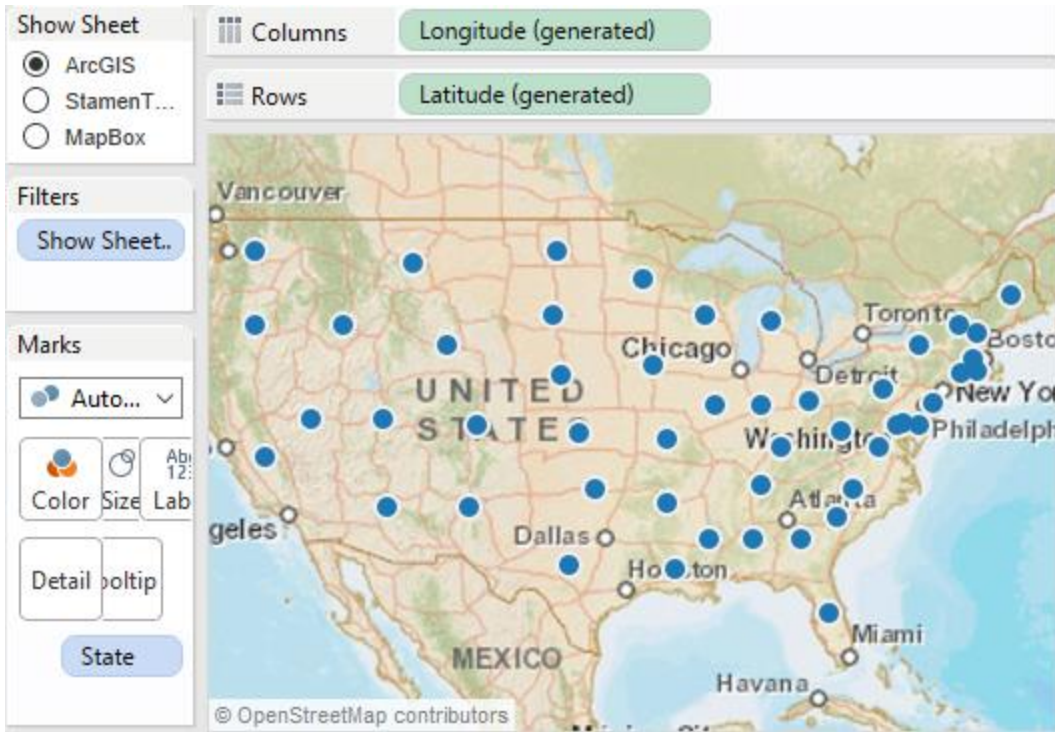
Your default access token is:

```
pk.eyJ1IjoieWZsZG1hcnR5ciIsImEiOiJjakV4amFzcm4wMzF2NzFrcW5hcXRtamxtIn0.G9nevXNwMF2BBuC5b7AGxg
```

You'll need your [access token](#) to use any of the [Mapbox APIs and libraries](#).







The screenshot shows a data visualization tool interface. At the top, there is a toolbar with various icons. Below it, the interface is divided into several sections:

- Pages:** A section on the left with a red arrow pointing to a specific icon.
- Columns:** A section on the right with a button labeled "Measure Names".
- Rows:** A section on the right with a button labeled "Measure Values".
- Filters:** A section on the left with a button labeled "Measure Names".
- Measure Values:** A section on the left with three buttons: "AVG(Latitude)", "AVG(Longitude)", and "SUM(Point)".
- Marks:** A section on the right with a dropdown menu set to "Automatic" and buttons for "Color", "Size", "Text", "Detail", and "Tooltip". A "Measure Val.." button is also present.

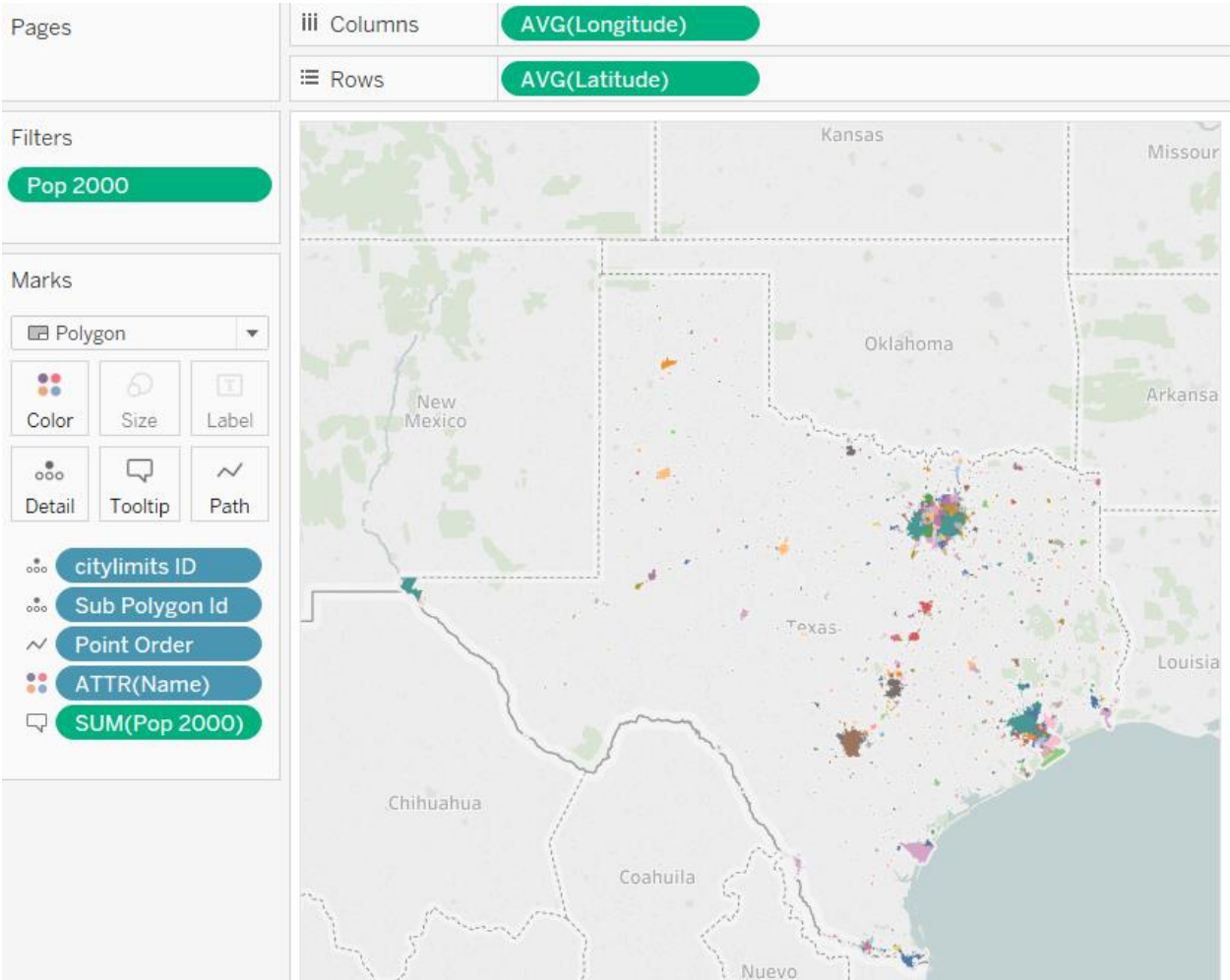
In the center, a table displays data for Latitude, Longitude, and Point:

Latitu..	Longi..	Point
-0.20	-0.20	10.00

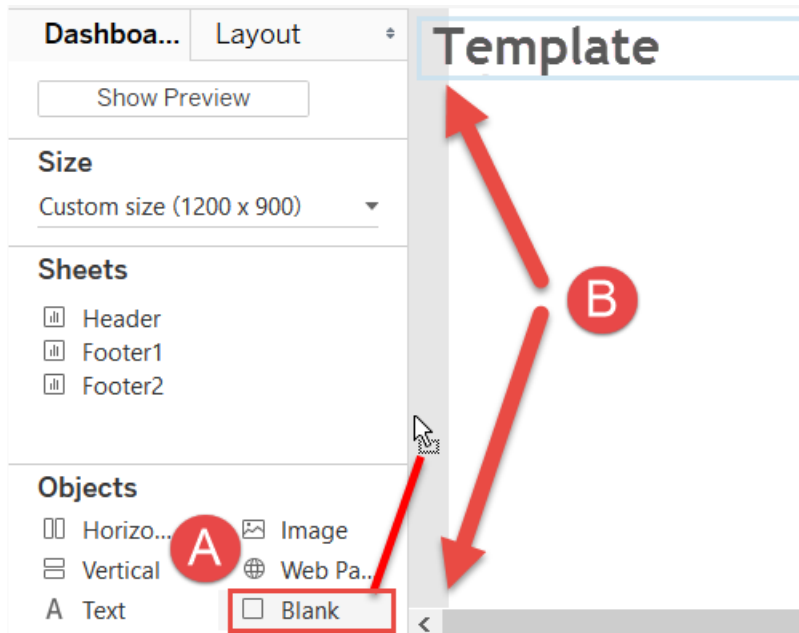
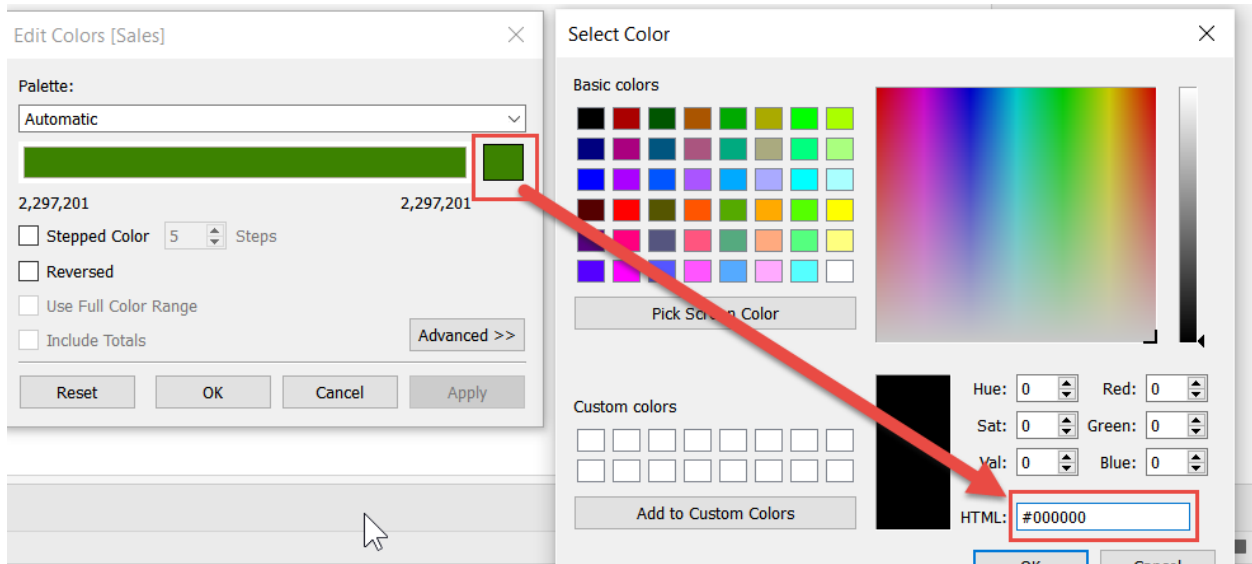


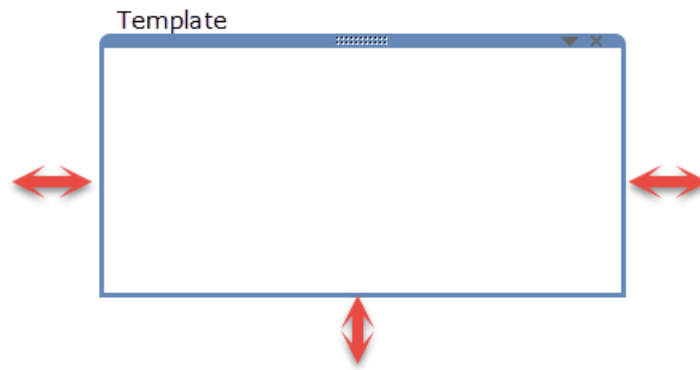
The screenshot shows a data join configuration window. At the top, two data sources are listed: "citylimits_Points.csv" and "citylimits_Features.csv". Below them, a "Join" window is open, showing the following configuration:

- Join Type:** Inner (represented by a Venn diagram with the intersection shaded).
- Data Source 1:** citylimits_Points.csv
- Data Source 2:** citylimits_Features.csv
- Join Field:** citylimits ID (citylimits Features...)



Chapter 9: Tableau for Presentations





Range

Entire Workbook

Active Sheet

Selected Sheets

Paper Size

Letter

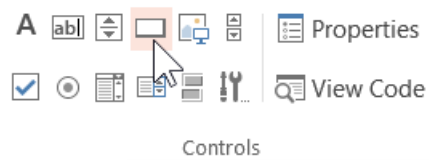
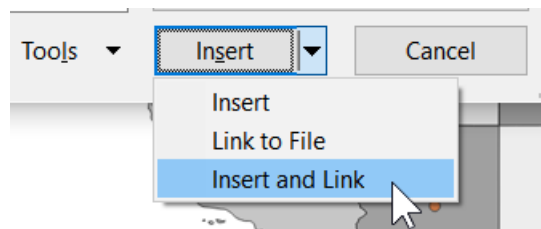
Portrait

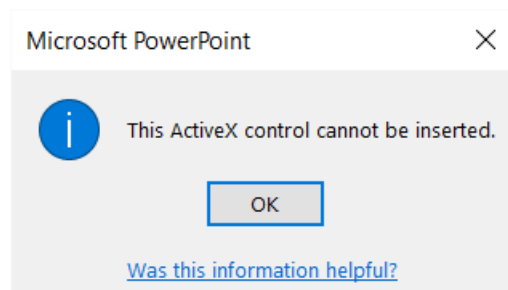
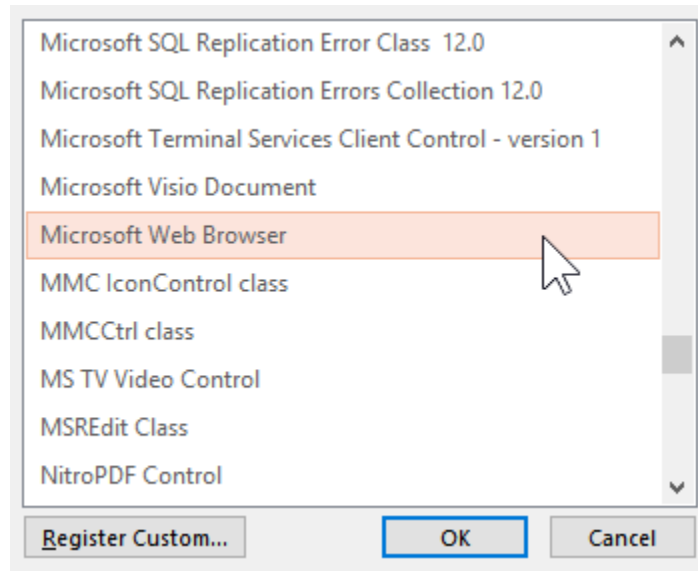
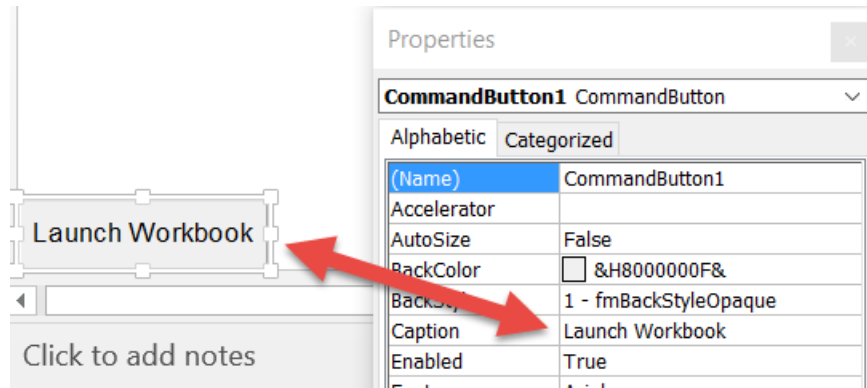
Landscape

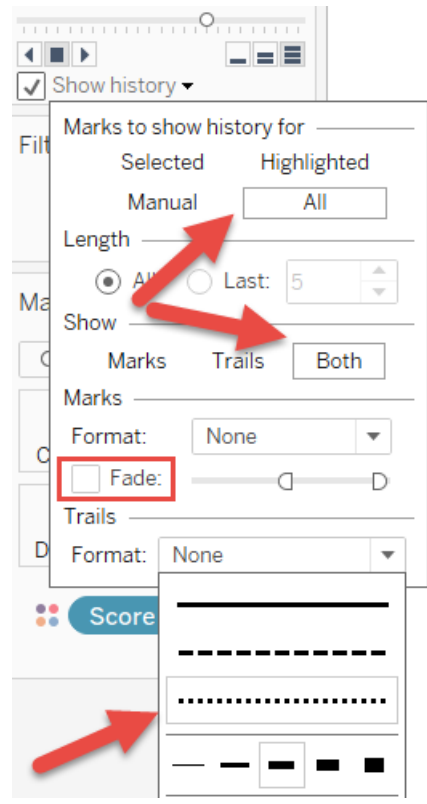
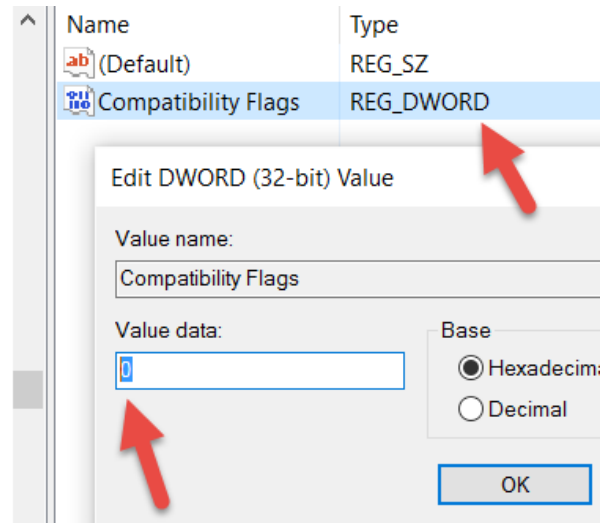
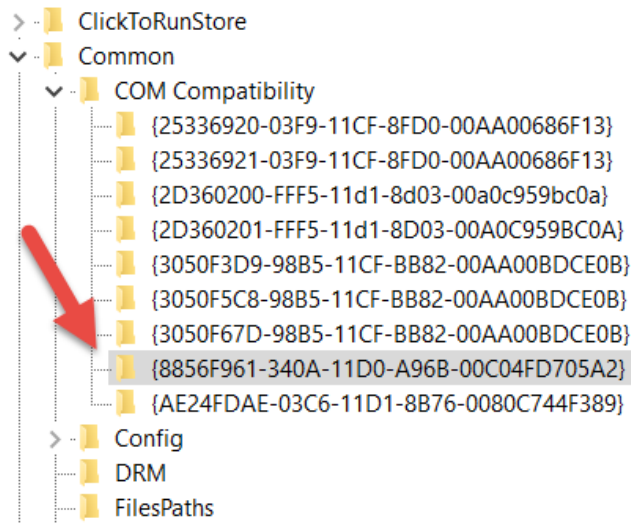
Options

View PDF File After Printing

Show Selections







Pages Shelf

Show current page only [2003]

Show all pages [25 pages]

OK Cancel

File name: Animation.png

Save as type: PNG Portable Network Graphics Format (*.png)

Authors: David Baldwin Tags: Add a tag

Advance Slide

On Mouse Click

After: 00:00.10

SuperStore Report

Navigator Bar

< Sales and Profits Over Time YTD Region Performance Loss Leaders Underperforming Stores >

New Blank Point

Duplicate

Select Data Item:

Select Shape Palette:

Arrows

→

↓ ↘ → ↗

↑ ↖ ← ↙

Row Divider

Pane: None

Header: None


Level:

Column Divider





Pane: None




Header: None

Level:

Select Data Item: 

Select Shape Palette: Arrows


   


   

Sheet Rows Columns Filter


Default

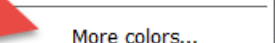
Worksheet:

Pane: 

Header: 

Total

Pane: 

Header:  More colors...

Name:

Source Sheets:

Map Loss Leaders Run action on:

Bk Arrow

Footer1

Footer2

Frt Arrow

Header Run on single sel

Target Sheets

Superstore Loss Leaders Clearing the selection

Footer1 Leave the filter

Footer2 Show all values

Frt Arrow Exclude all values

Header

Name:

Source Sheets:

Map Loss Leaders Run action on:

Bk Arrow

Footer1

Footer2

Frt Arrow

Header Run on single sel

Target Sheets

Animated Dashboard Clearing the selection

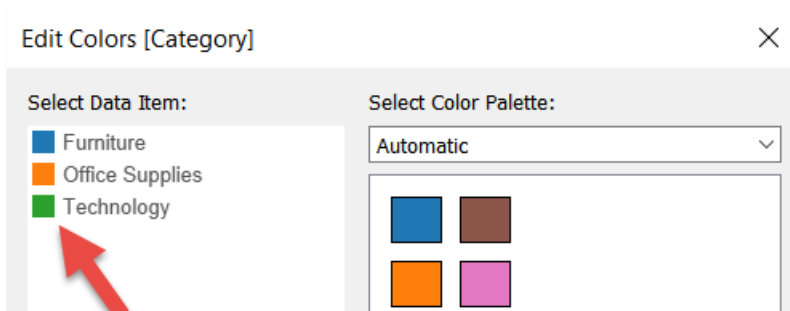
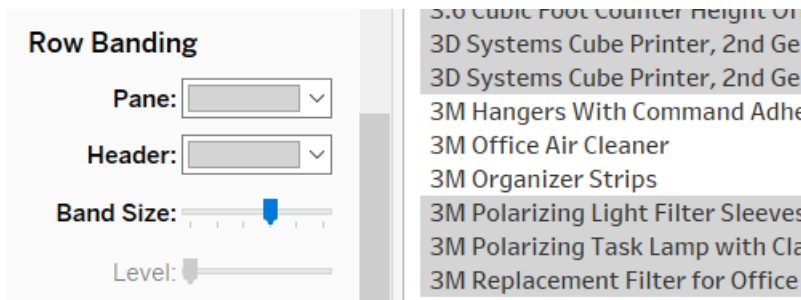
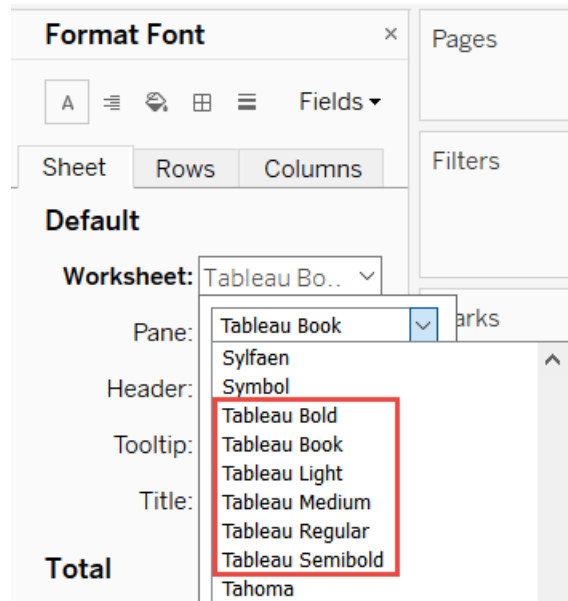
ACT 1991 - 2015 Leave the filter

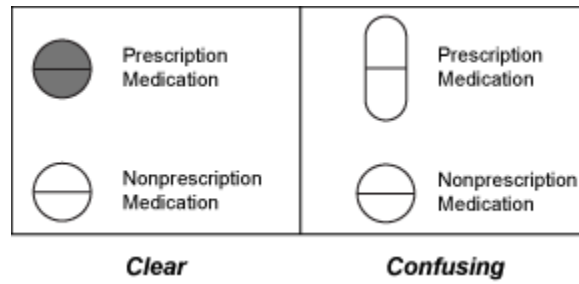
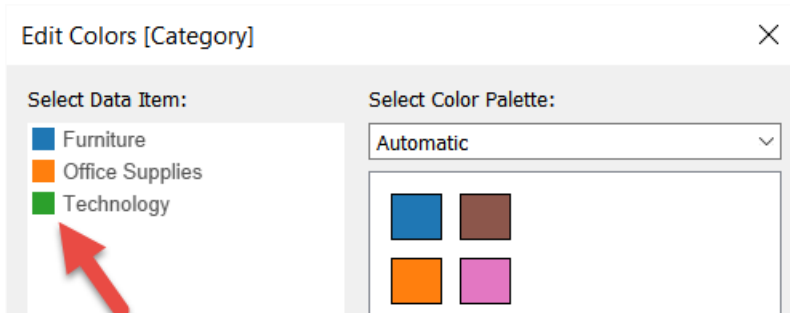
Bk Arrow Show all values

Footer1 Exclude all values

Footer2

Chapter 10: Visualization Best Practices and Dashboard Design

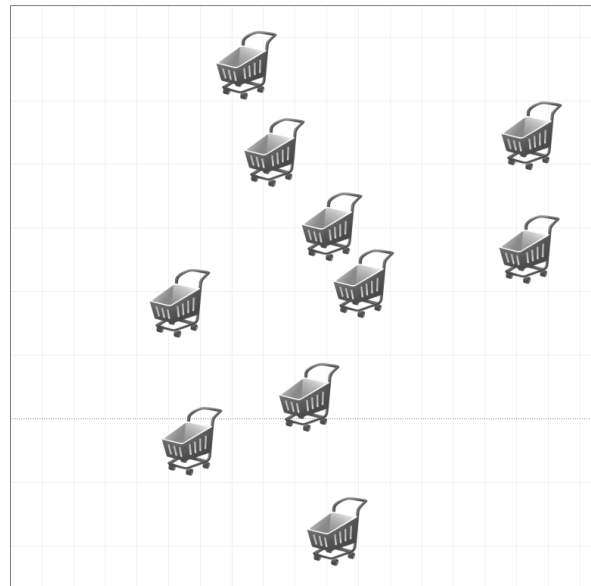


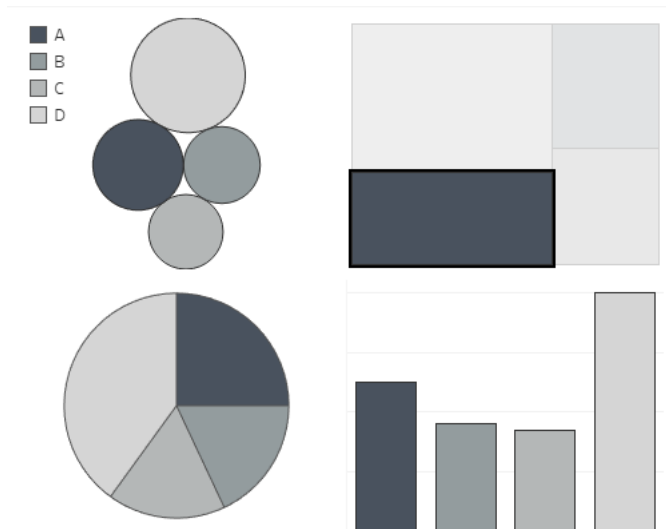


Simple Shopping Cart

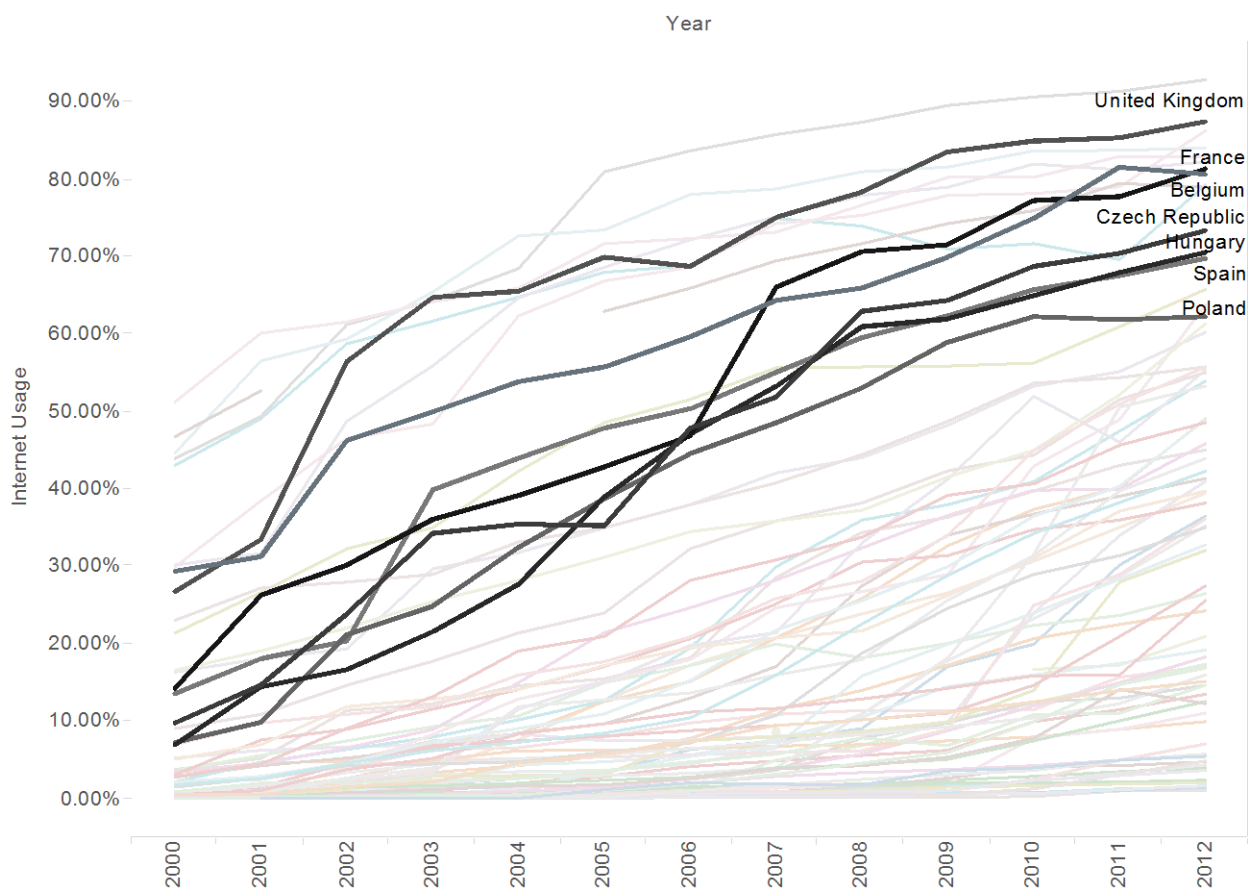


3D Shopping Cart

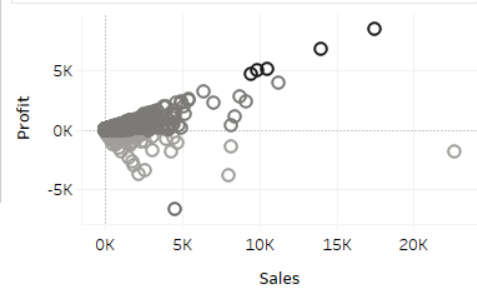
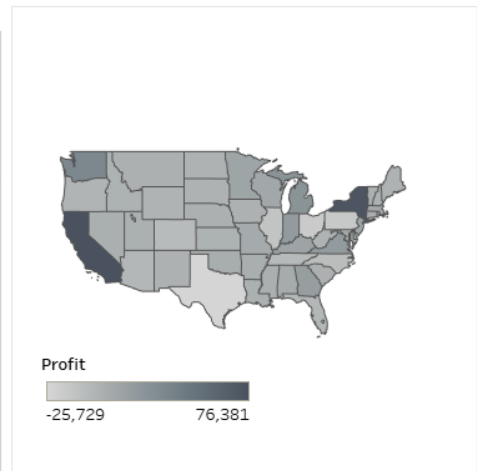
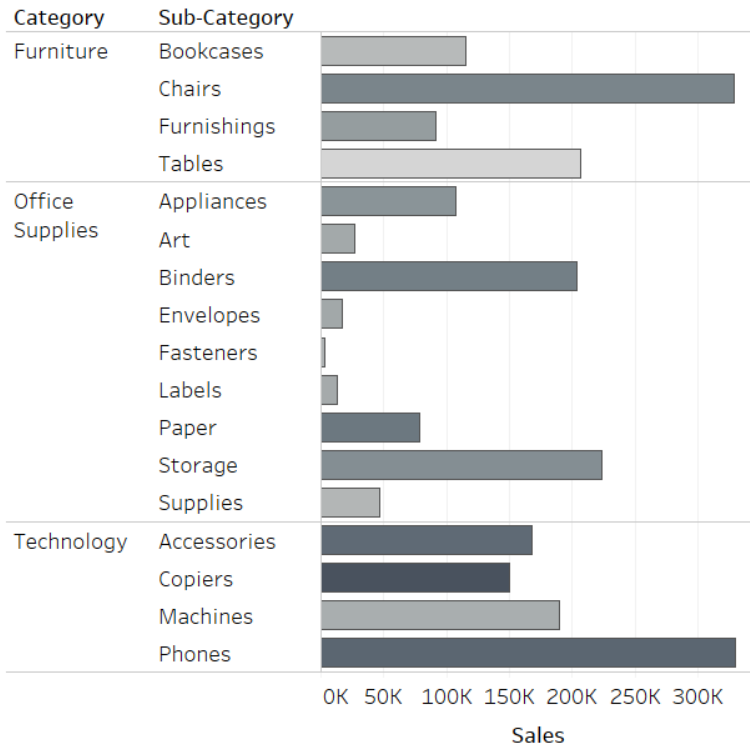
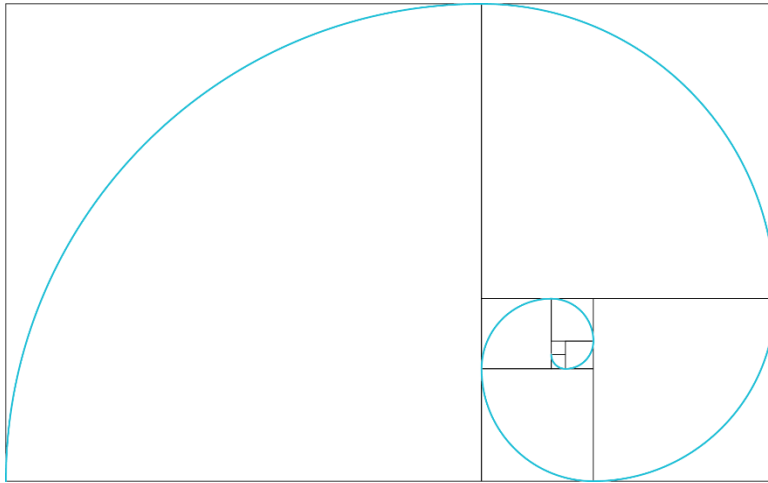


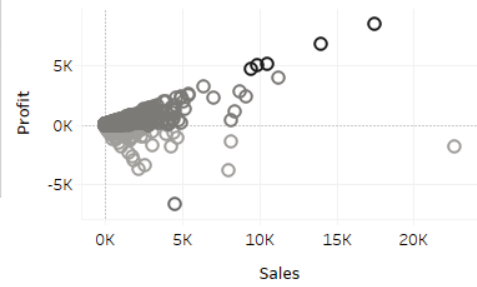
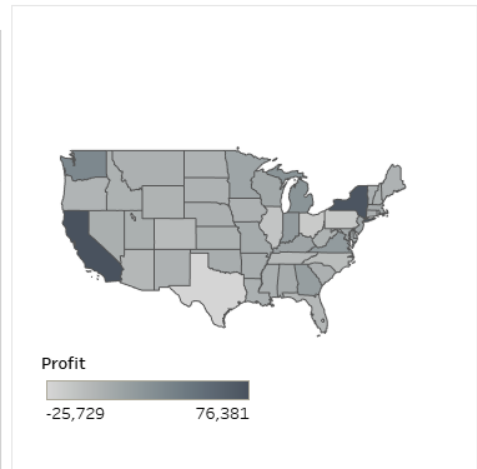
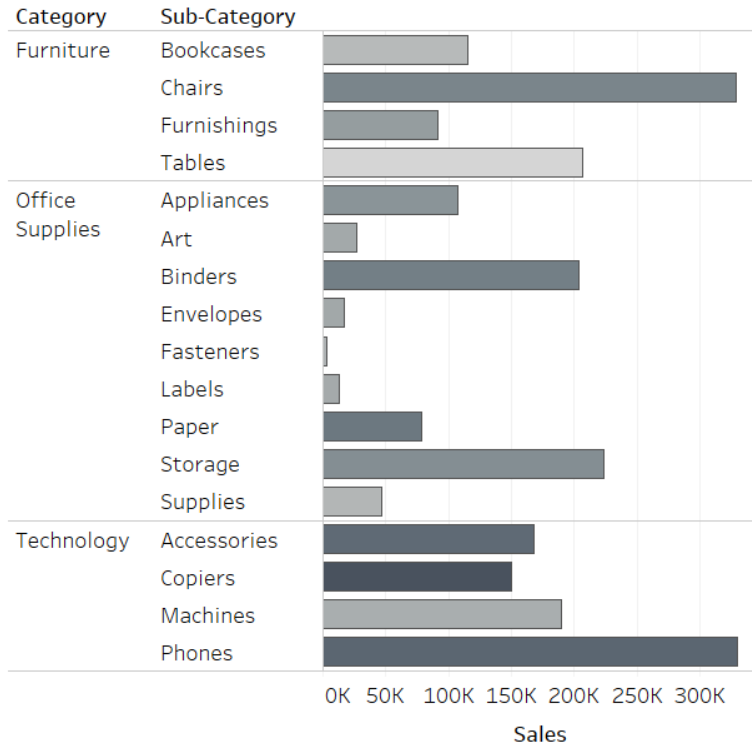


Getting Online



$$\varphi = \frac{1 + \sqrt{5}}{2} \approx 1.61803398874989$$

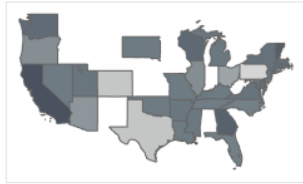




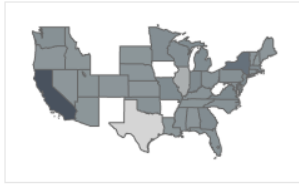
Accessories



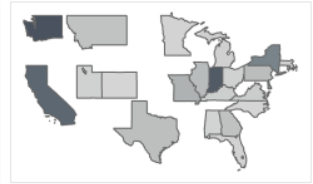
Bookcases



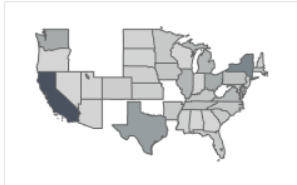
Appliances



Copiers



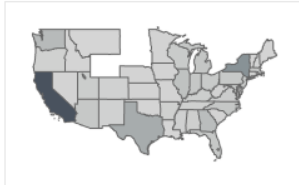
Fasteners



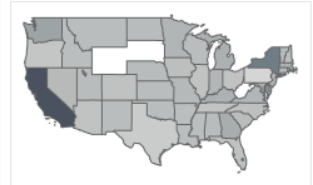
Labels



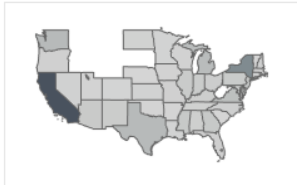
Paper



Storage



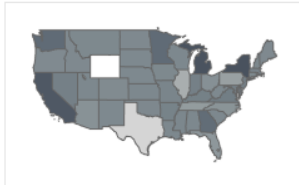
Art



Chairs



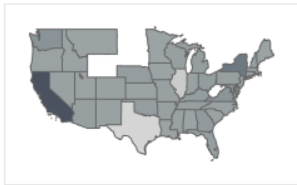
Binders



Envelopes



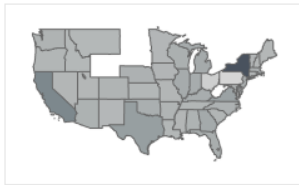
Furnishings



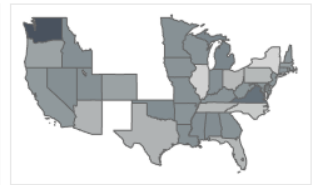
Machines



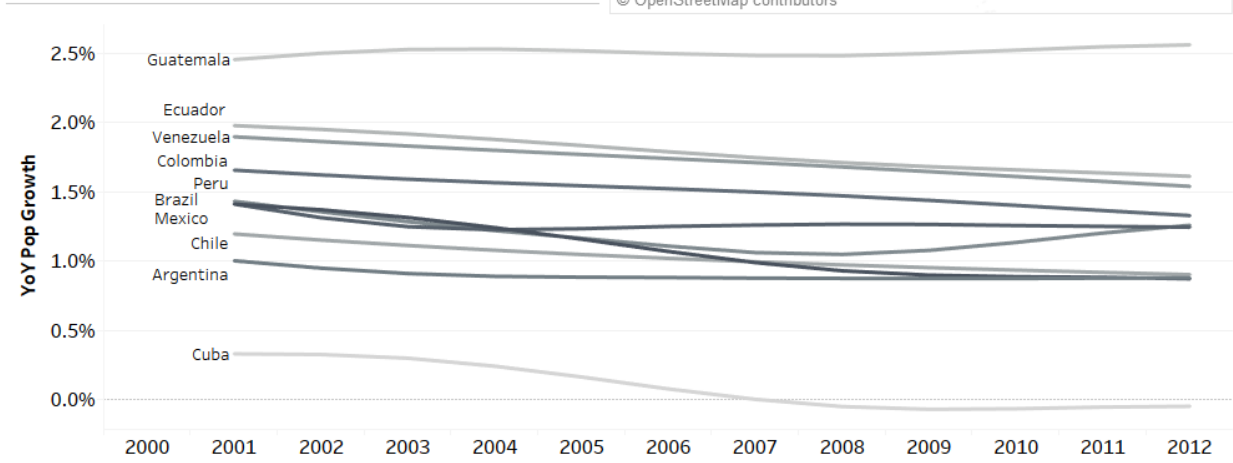
Phones



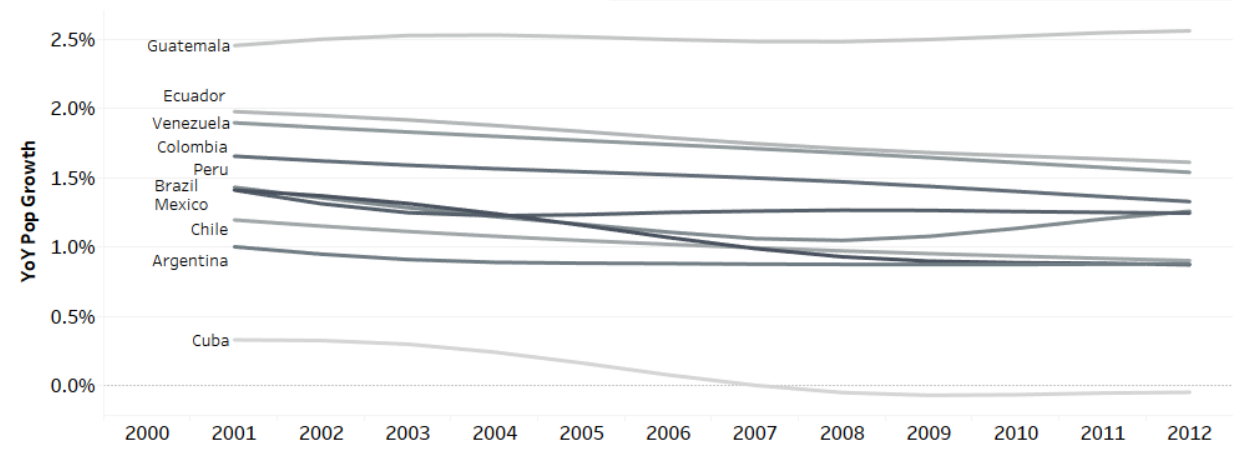
Tables



Latin American Population



Latin American Population

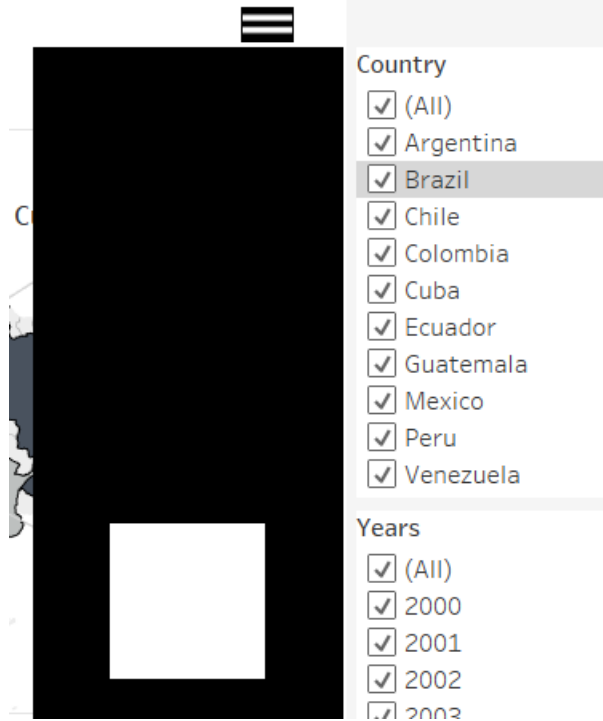


Country

- (All)
- Argentina
- Brazil
- Chile
- Cuba

Years

- (All)
- 2000
- 2001
- 2002
- 2003



Add Filter Action



Name:

Source Sheets:

Collapsible Menu

Run action on:

- Hover
- Select
- Menu

Run on single select only

Target Sheets:

Collapsible Menu

Clearing the selection will:

- Leave the filter
- Show all values
- Exclude all values

The image shows a web application interface. On the left, a map of South America is displayed with three countries highlighted in dark grey: Cuba, Venezuela, and Brazil. Labels with lines pointing to the respective countries are visible. Below the map is a large black rectangular area with a white square in the center, possibly a placeholder for a chart or data visualization. On the right, there is a filter panel with two sections: 'Country' and 'Years'. Each section contains a list of options, each with a checked checkbox.

Country

- (All)
- Argentina
- Brazil
- Chile
- Colombia
- Cuba
- Ecuador
- Guatemala
- Mexico
- Peru
- Venezuela

Years

- (All)
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008

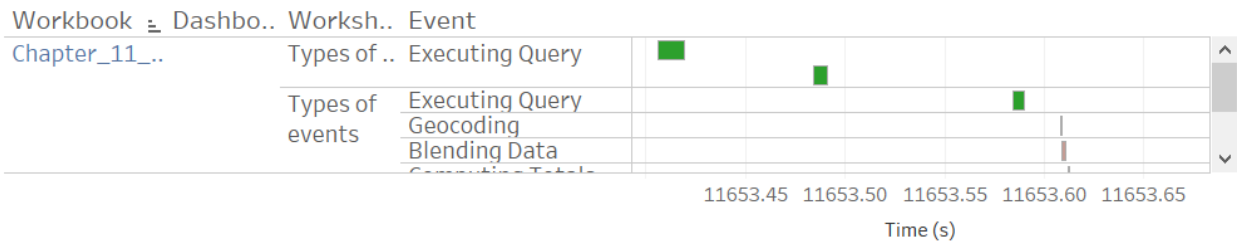
Chapter 11: Improving Performance

Performance Summary

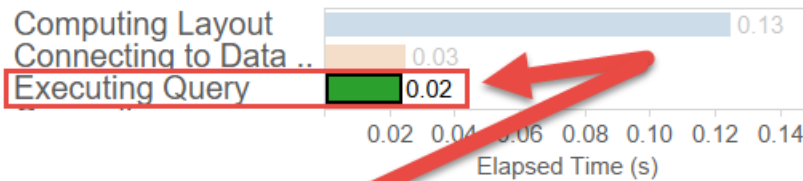
This workbook shows the main events while recording performance. Search Help for details on..

Show Events taking at least (in.. 0.00 0.13

Timeline



Events Sorted by Time

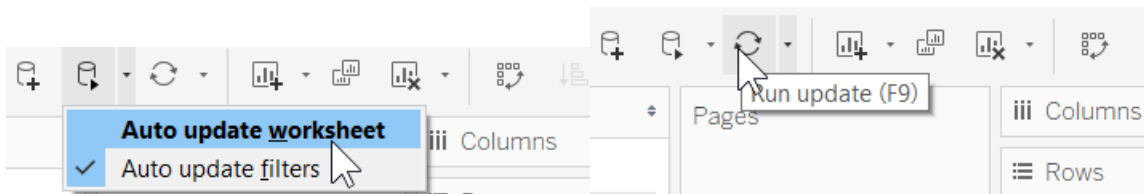


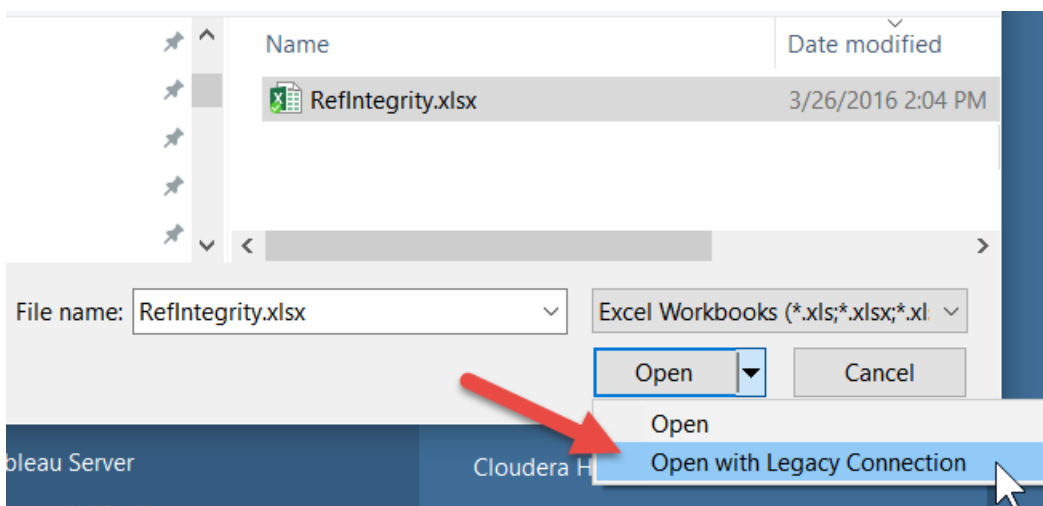
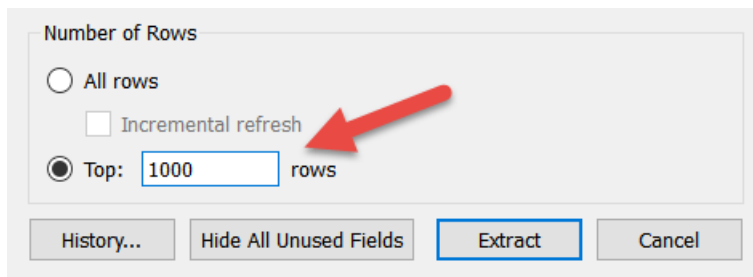
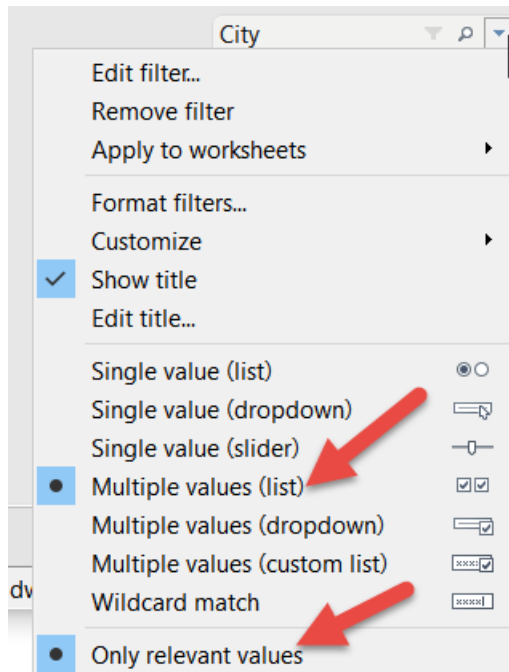
Events

- Connecting to D..
- Executing Query
- Sorting Data
- Geocoding
- Blending Data
- Computing Table..

Query





```
(restrict  
(project  
(join
```





Music_Sales ———— Cat

Join ✕

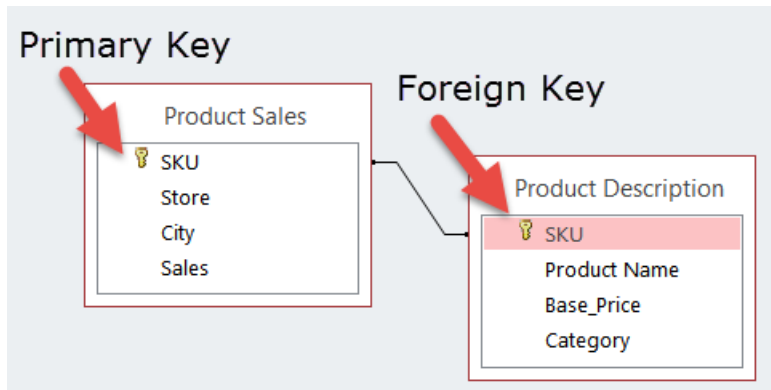
 Inner	 Left	 Right	 Full Outer
Data Source		Cat	
Key		=	Key (Cat)

Create Custom Date [Order Date] ✕

Name:

Detail:

Date Part Date Value



Extract Data ×

Specify how much data to extract:

Filters (Optional)

Filter	Details
1	

Aggregation **2**

Aggregate data for visible dimensions

Roll up dates to Year

Number of Rows **3**

All rows

Incremental refresh

Top: rows

Sample: rows

This screenshot shows the 'Extract Data' dialog box. It has a title bar with a close button. The main content is divided into sections: 'Filters (Optional)' with a table containing one row and two columns, and buttons 'Add...', 'Edit...', and 'Remove' below it. The 'Aggregation' section has a checkbox for 'Aggregate data for visible dimensions' and a 'Roll up dates to' dropdown set to 'Year'. The 'Number of Rows' section has radio buttons for 'All rows', 'Incremental refresh', 'Top', and 'Sample', with input fields and dropdowns for the latter three. At the bottom are buttons for 'History...', 'Hide All Unused Fields', 'Extract', and 'Cancel'. Red circles with numbers 1, 2, 3, and 4 highlight the filter table, the 'Aggregate data for visible dimensions' checkbox, the 'All rows' radio button, and the 'Extract' button respectively. A red arrow points from the 'Extract' button towards the 'Sample' radio button.

Aggregation

Aggregate data for visible dimensions

Roll up dates to Year

Number of Rows

All rows

Incremental refresh

Top: rows

Sample: rows

This is a close-up of the 'Extract Data' dialog box. Red boxes highlight the 'Aggregate data for visible dimensions' checkbox, the 'All rows' radio button, and the 'Hide All Unused Fields' button. A mouse cursor is hovering over the 'Extract' button.

Action 1

Edit Filter Action

Name:

Source Sheets:

Agg Dash

Run action on:

City Agg (SS - City Agg)

Row Detail (Superstore)

State Agg (SS - State Agg)

Hover

Select

Menu

Run on single select only

Target Sheets

Agg Dash

Clearing the selection will:

Leave the filter

Show all values

Exclude all values

City Agg

Row Detail

State Agg

Action 2

Edit Filter Action

Name:

Source Sheets:

Agg Dash

Run action on:

City Agg (SS - City Agg)

Row Detail (Superstore)

State Agg (SS - State Agg)

Hover

Select

Menu

Run on single select only

Target Sheets

Agg Dash

Clearing the selection will:

Leave the filter

Show all values

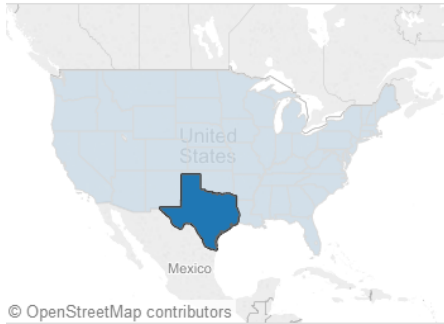
Exclude all values

City Agg

Row Detail

State Agg

State Agg



City Agg

City	
Abilene	\$1
Allen	\$290
Amarillo	\$3,773
Arlington	\$5,848
Austin	\$6,058
Baytown	\$10
Beaumont	\$472
Bedford	\$226
Brownsville	\$1,292
Bryan	\$617
Carrollton	\$2,201
Cedar Hill	\$122

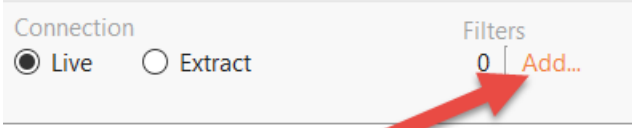
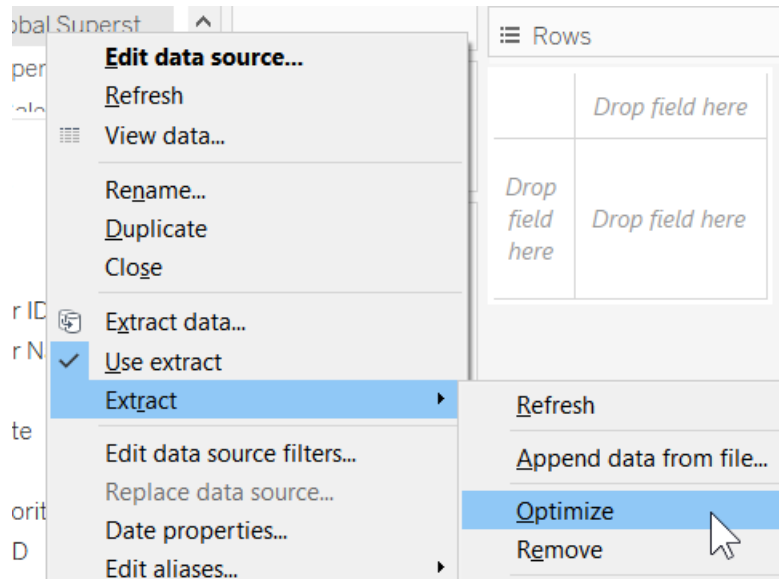
Row Detail

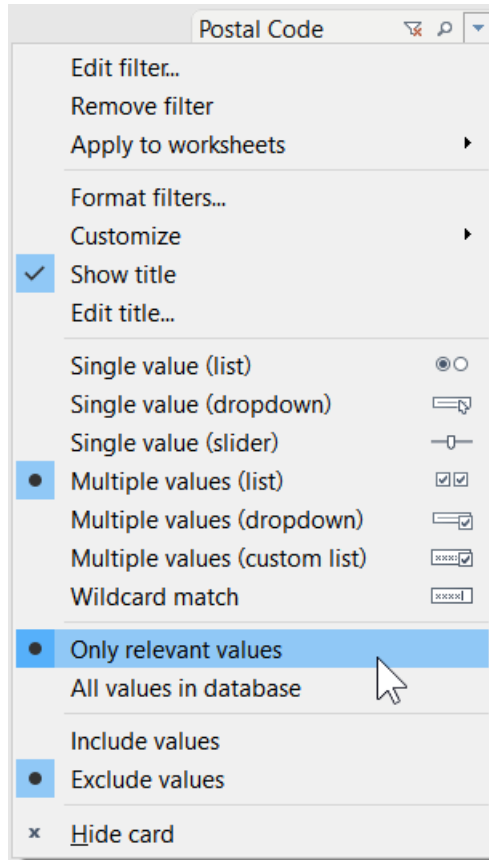
Customer ..	Order ID	Row ID	Profit	Sales
Shirley Da..	CA-2012-1421..	6124	6.8	\$21
Sylvia Foulston	CA-2014-1393..	4026	10.0	\$30
		4027	2.9	\$9
		4028	13.4	\$154
		4029	-22.5	\$13

Target Filters

Selected Fields All Fields

Source Field	Target Field	Target Data Source





Marks

Automatic

Color Size Text

Detail Tooltip

Measure Values

Columns: Measure Names

Rows: Tax Payer

Tax Payer	Salary	X Figure Salary 1	X Figure Salary 2
Annette Ki..	198	3	3
Clarence S..	32,415	5	5
Clarence S..	2,122	4	4
David Car..	88,544	5	5
Donald Ad..	82,951	5	5
Donald Sp..	6,027	4	4
Elaine Sigl..	347,409	6	6
Emanuel F..	94,174	5	5

Filters: Measure Names

Measure Values: SUM(Salary), SUM(X Figure Salary ..), SUM(X Figure Salary ..)

Chapter 12: Interacting with Tableau Server

Publish Data Source to Tableau Server ×

Project
Default ▼

Name
My Superstore ▼

Description

Tags
[Add](#)

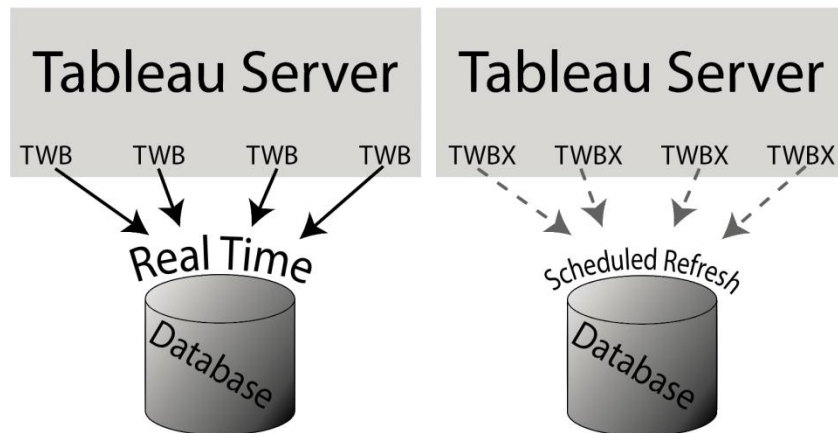
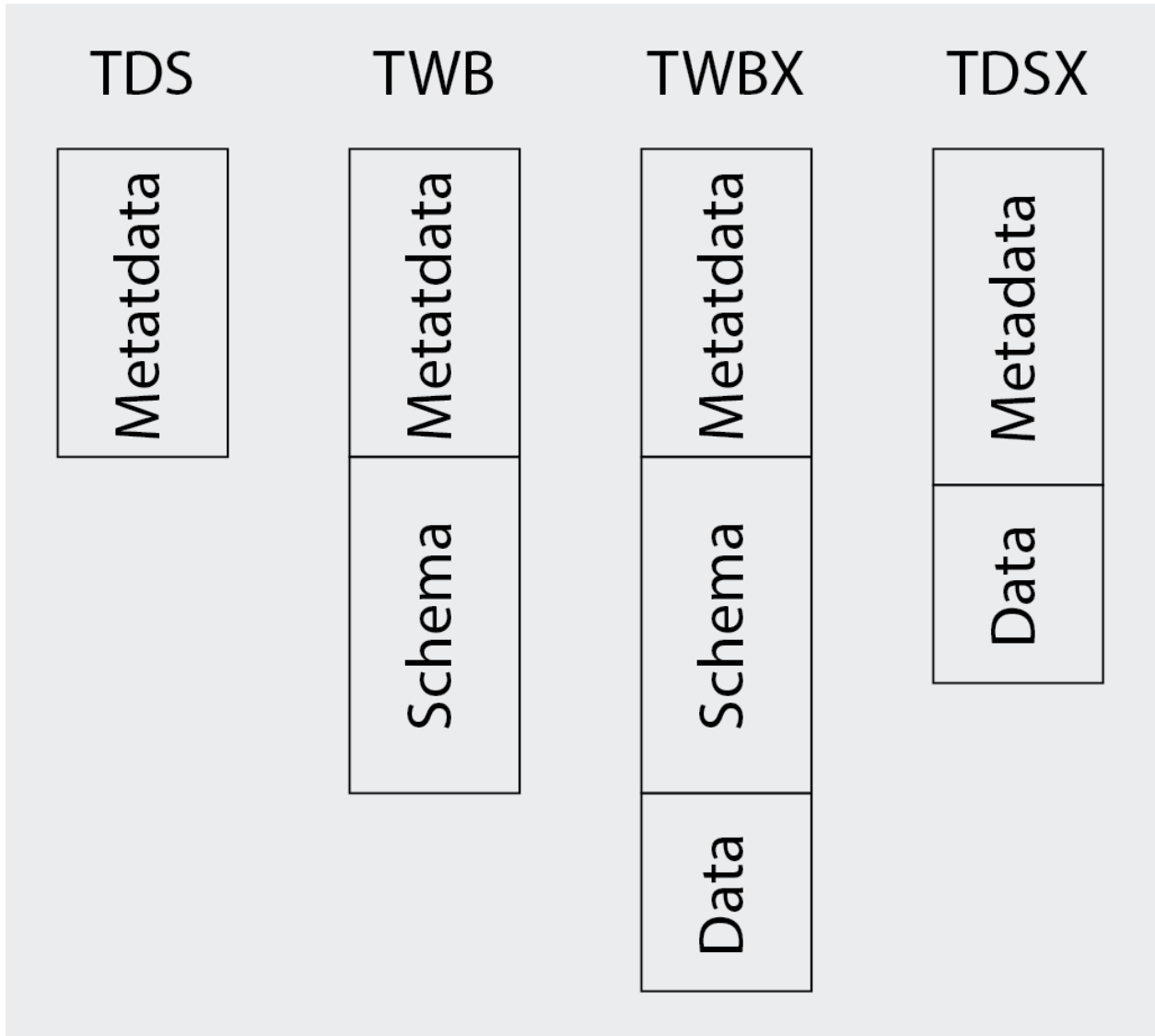
Permissions
Set to existing data source default [Edit](#)

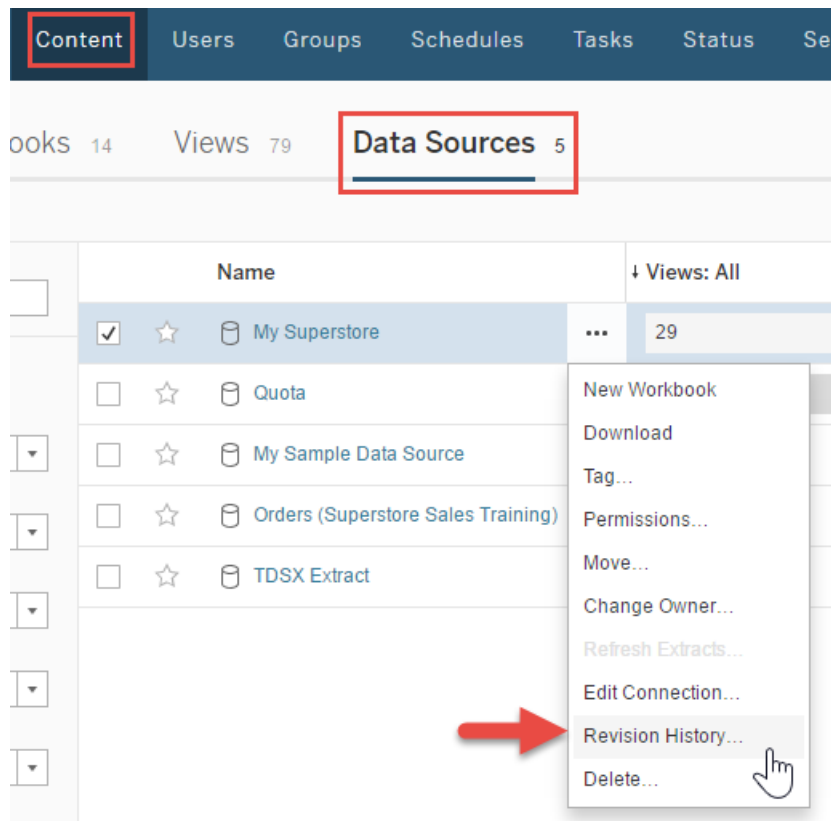
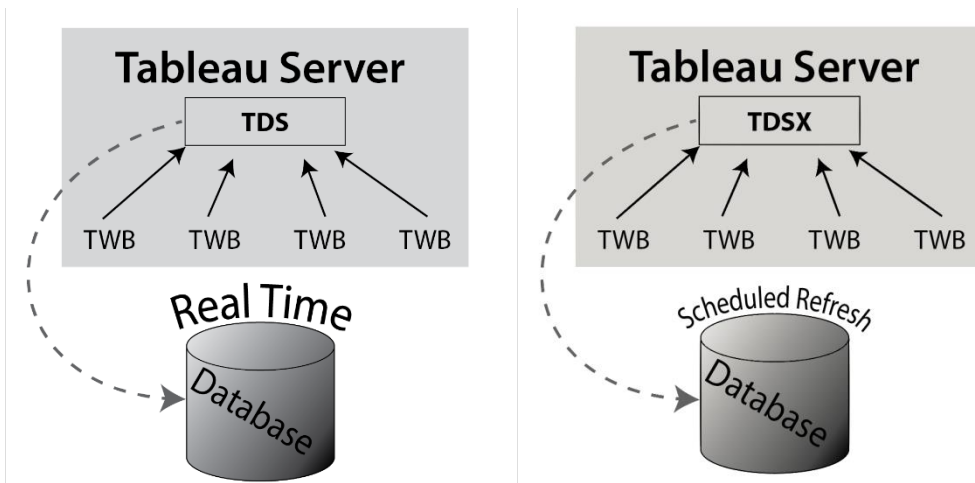
More Options

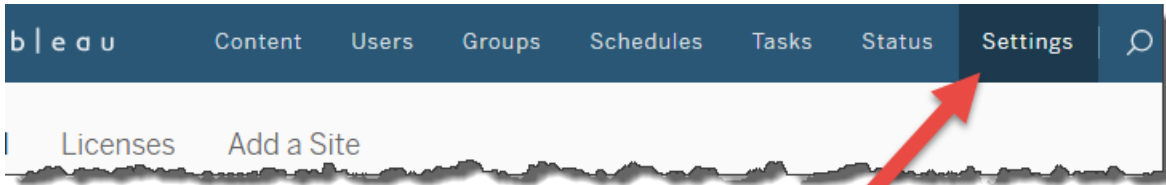
Include external files

Update workbook to use the published data source

[Publish](#)





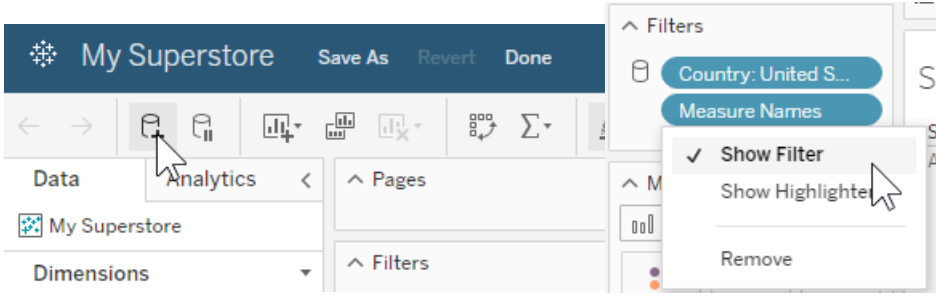


15		Views	82	Data Sources	7
		Name		↓ Views: All	
<input checked="" type="checkbox"/>	☆	📁 My Superstore	...	35	
<input type="checkbox"/>	☆	📁 Quota			New Workbook
<input type="checkbox"/>	☆	📁 Dallas Fund Example			Download
					Tag...

Sales & Quota Desktop

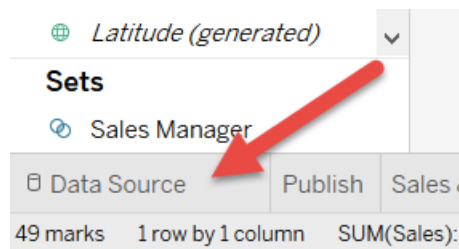
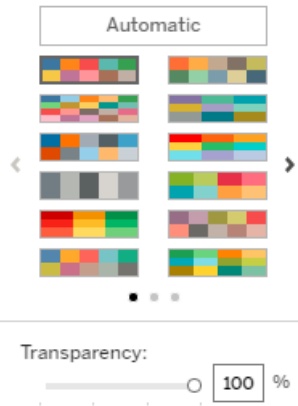
Red represents a missed goal.

Region	Rank	State	Percentage
Central	1	Texas	106%
	2	Illinois	98%
	3	Michigan	100%
	4	Indiana	84%
	5	Wisconsin	100%
	6	Minnesota	96%
	7	Missouri	101%
	8	Oklahoma	86%
	9	Nebraska	93%
	10	Iowa	92%
	11	Kansas	97%
	12	South Dakota	132%
	13	North Dakota	92%
East	1	New York	100%
	2	Pennsylvania	92%
	3	Ohio	94%
	4	New Jersey	115%
	5	Massachusetts	106%
	6	Delaware	110%



Sales & Quota

Region	Rank	State	Quota Met?			
Central	1	Texas	✓	Quota	<div style="width: 106%;"></div>	106%
				Sales	<div style="width: 106%;"></div>	106%
	2	Illinois	✗	Quota	<div style="width: 98%;"></div>	98%
				Sales	<div style="width: 98%;"></div>	98%
	3	Michigan	✓	Quota	<div style="width: 100%;"></div>	100%
				Sales	<div style="width: 100%;"></div>	100%
	4	Indiana	✗	Quota	<div style="width: 84%;"></div>	84%
				Sales	<div style="width: 84%;"></div>	84%
	5	Wisconsin	✓	Quota	<div style="width: 100%;"></div>	100%
				Sales	<div style="width: 100%;"></div>	100%
6	Minnesota	✗	Quota	<div style="width: 96%;"></div>	96%	
			Sales	<div style="width: 96%;"></div>	96%	
7	Missouri	✓	Quota	<div style="width: 101%;"></div>	101%	
			Sales	<div style="width: 101%;"></div>	101%	
8	Oklahoma	✗	Quota	<div style="width: 86%;"></div>	86%	
			Sales	<div style="width: 86%;"></div>	86%	
9	Nebraska	✗	Quota	<div style="width: 93%;"></div>	93%	
			Sales	<div style="width: 93%;"></div>	93%	
10						



Connection

Live Extract | [Edit](#) [Refresh](#)

Extract includes all data. 9/30/2016 8:40:07 AM

Filters

0 | [Add](#)

utors

View Level User Filter

dbaldwin

Filters

Sales Managers

Marks

Filled Map

Color

Size

Label

Detail

Tooltip

Region

SUM(Sales)

State

View Level User Filter

les & Quota Desktop

Sales & Quota Web App

View Level User Filter

es): 678,781

JohnSmith

Tasks Status **Settings**

art-ups ☆

← Revert

Refresh

Pause

Performance



Chapter 13: R Integration



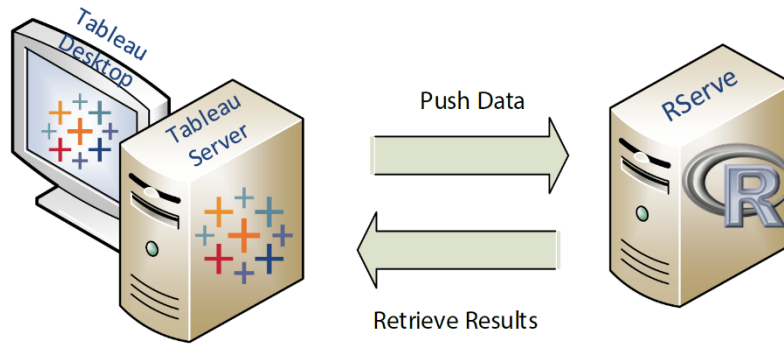
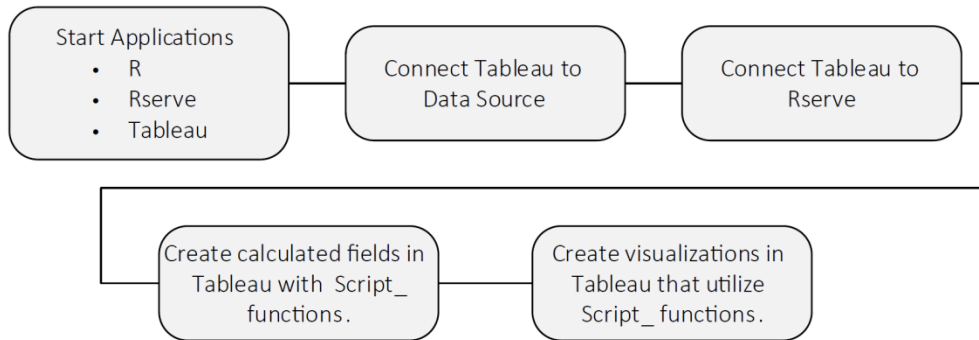
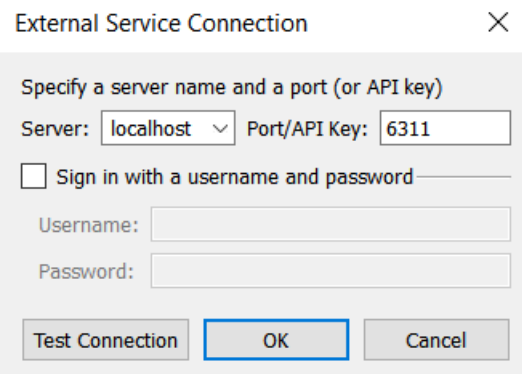
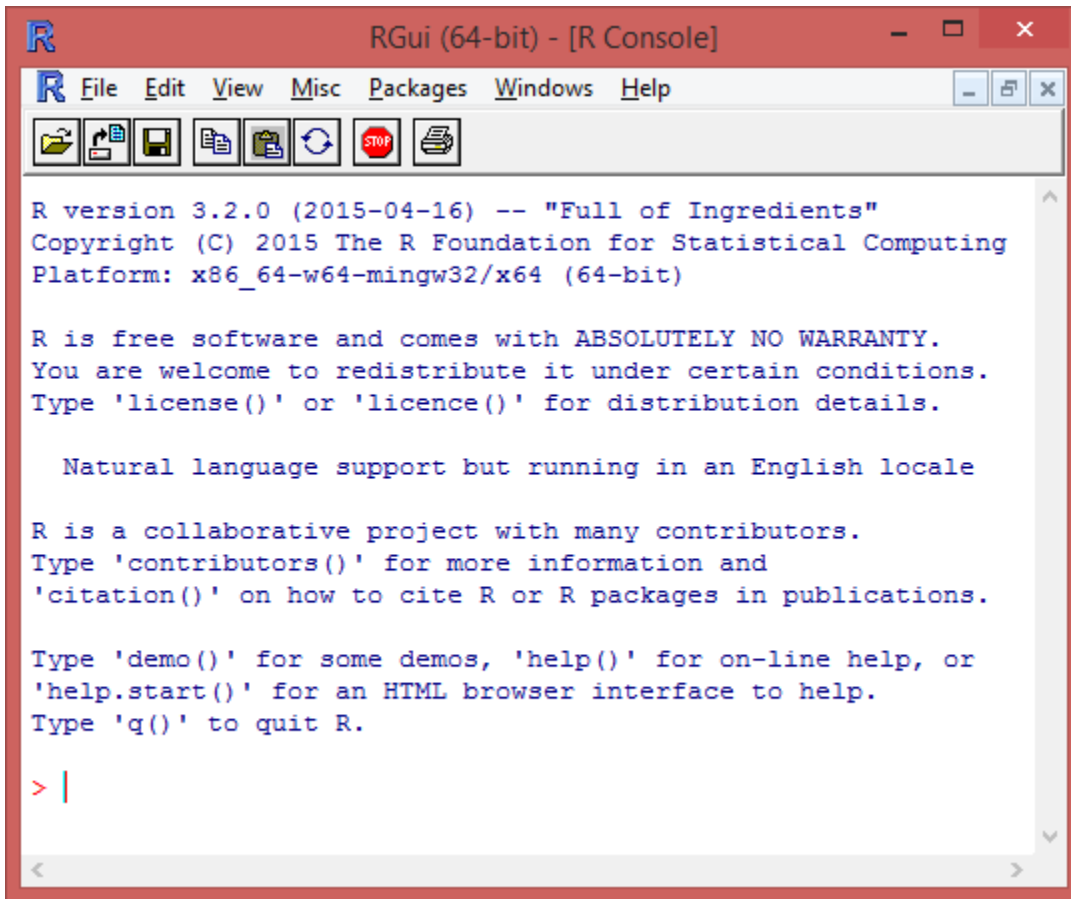


Tableau /R Workflow





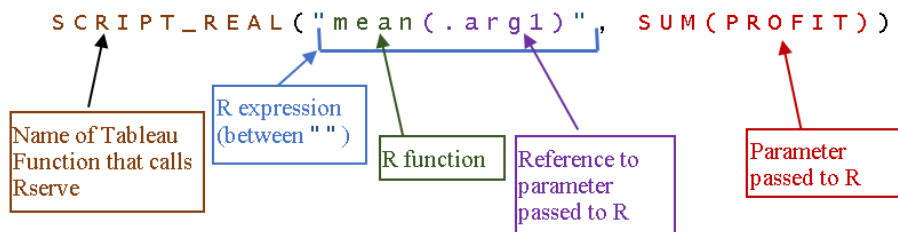
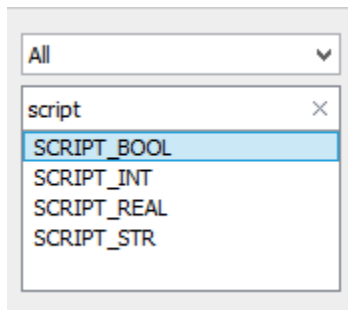
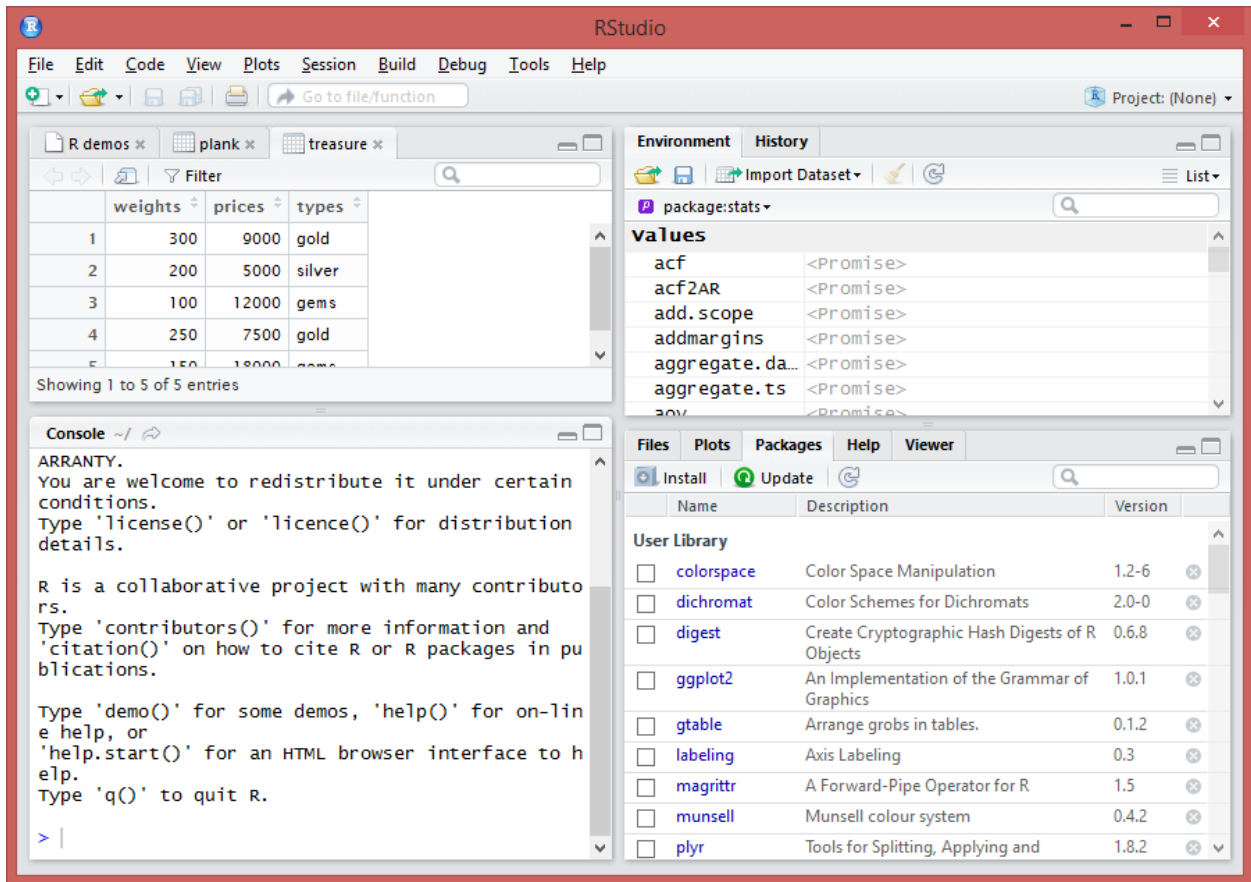


Table Calculation configuration and data table.

Columns: Measure Names
Rows: Region

Region	Sum of Sales	Tab Avg	R - mean	Tab Median	R - median	Tab Stdev	R - sd
Central	\$501,240	\$574,300	\$574,300	\$590,011	\$590,010	\$155,389	\$155,389
East	\$678,781	\$574,300	\$574,300	\$590,011	\$590,010	\$155,389	\$155,389
South	\$391,722	\$574,300	\$574,300	\$590,011	\$590,010	\$155,389	\$155,389
West	\$725,458	\$574,300	\$574,300	\$590,011	\$590,010	\$155,389	\$155,389

Table Calculation
 Tab Avg

Null if there are not enough values

Compute Using

- Table (down)
- Cell
- Specific Dimensions

Region

Filters, Marks, and visualization configuration.

Filters: State

Columns: Category, SUM(Sales)
Rows: State, SUM(Profit)

Marks: Customer Name

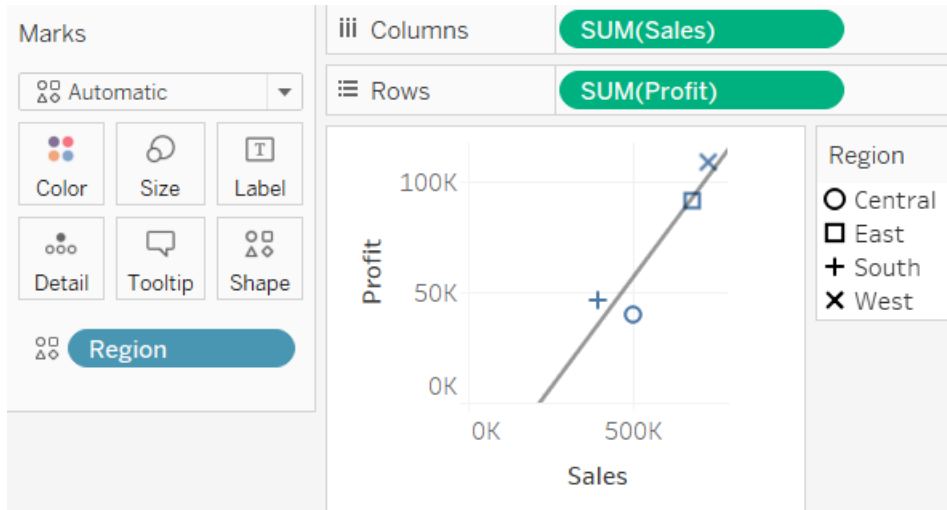
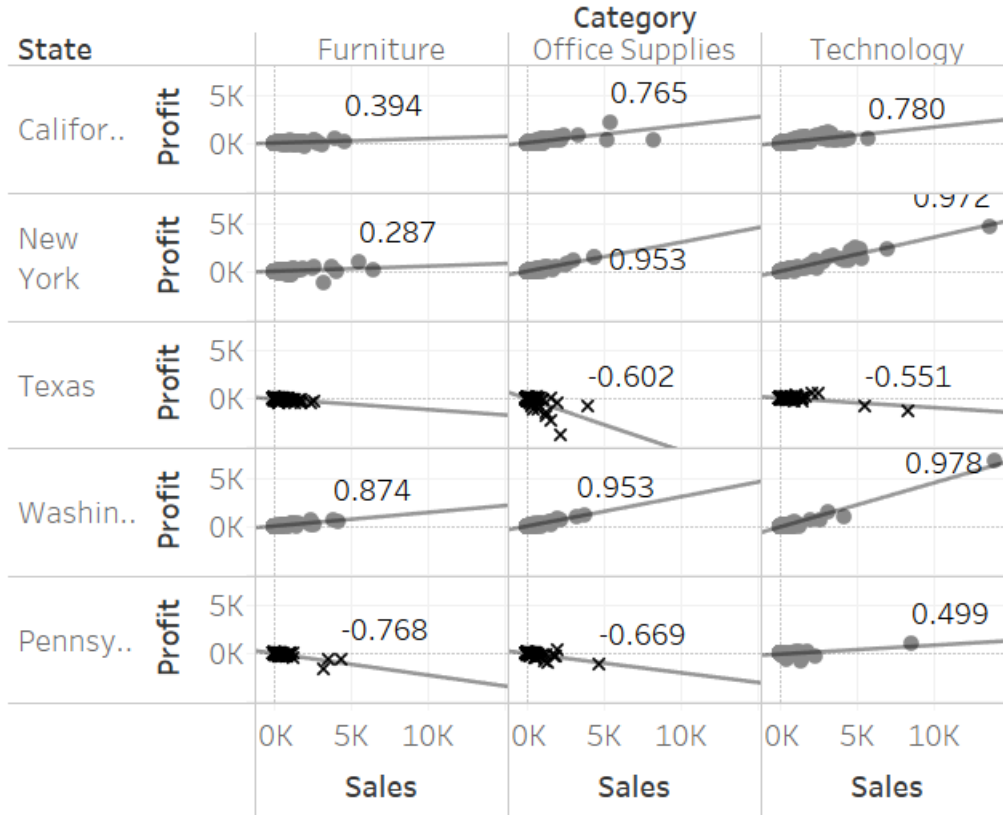
Visualization: Scatter plot showing Profit vs. Category (Furniture, Office Supplies, Technology) for various states.

Filter [State]

General | Wildcard | Condition | Top

None
 By field:

Top 5 by Sales Sum



Filters

- Measure Names
- State

Marks

Automatic

Color Size Label

Detail Tooltip

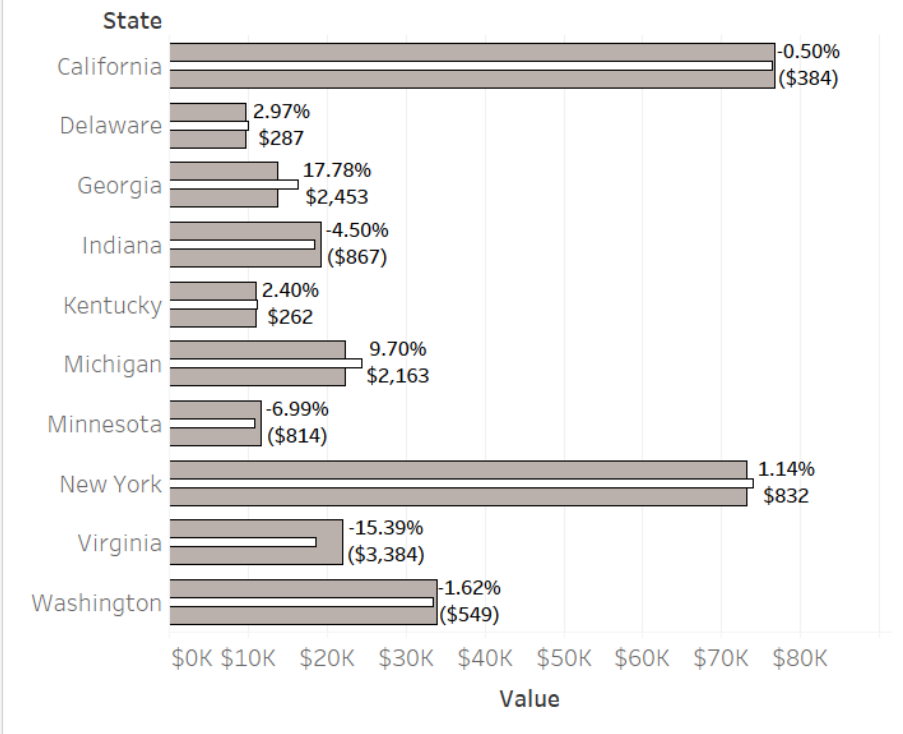
- Measure Names
- Measure Names
- % Diff
- Profit_Expected (residu..

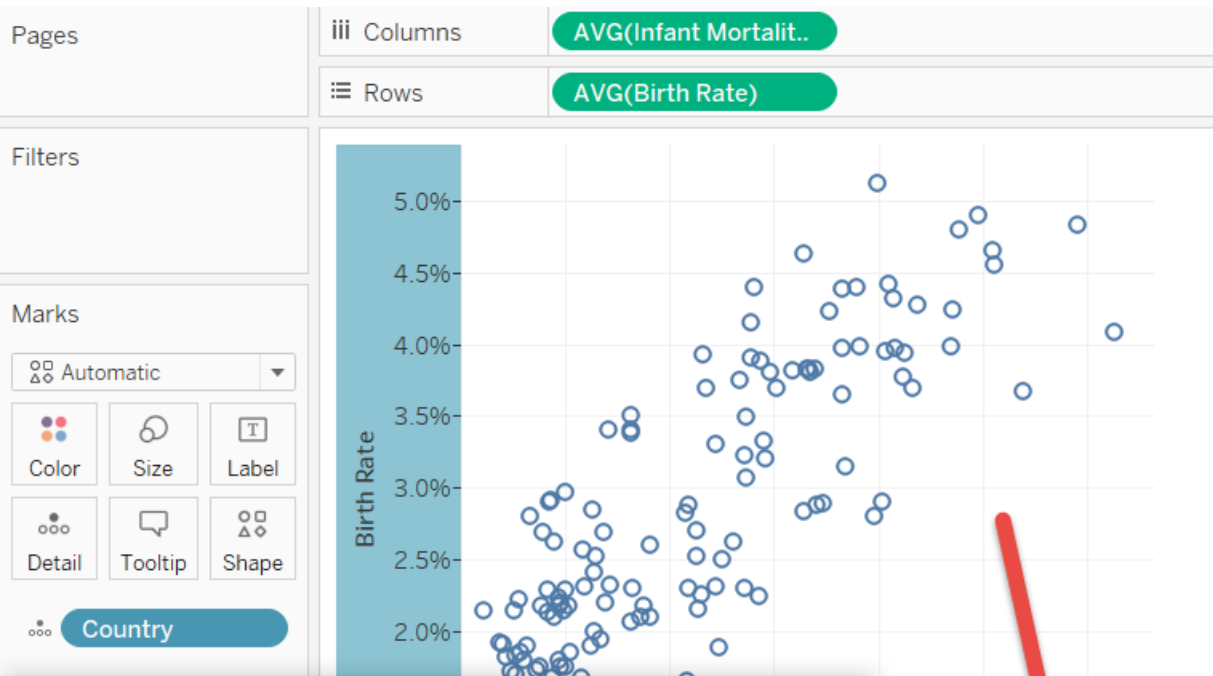
Measure Values

- SUM(Profit)
- Profit_Expected

Columns: Measure Values

Rows: State





Edit Axis [Birth Rate]

General | Tick Marks

Range

- Automatic
- Uniform axis range for all rows or columns
- Independent axis ranges for each row or column
- Fixed

Automatic Automatic

0.005690053 0.053848409

0.6% 5.4%

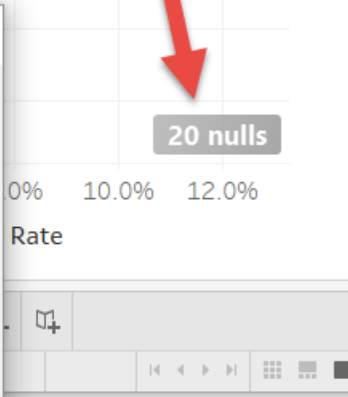
Scale

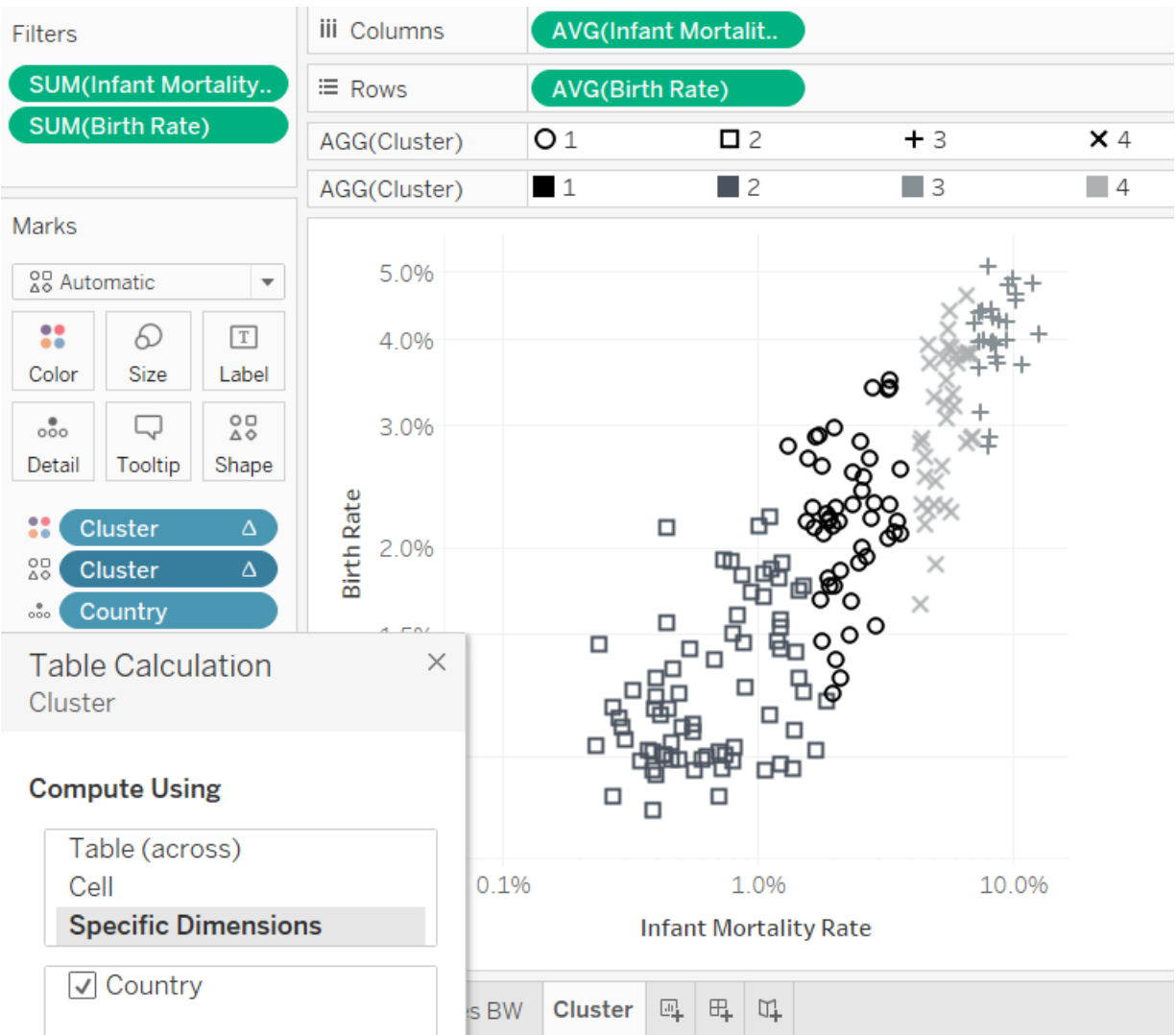
- Reversed
- Logarithmic

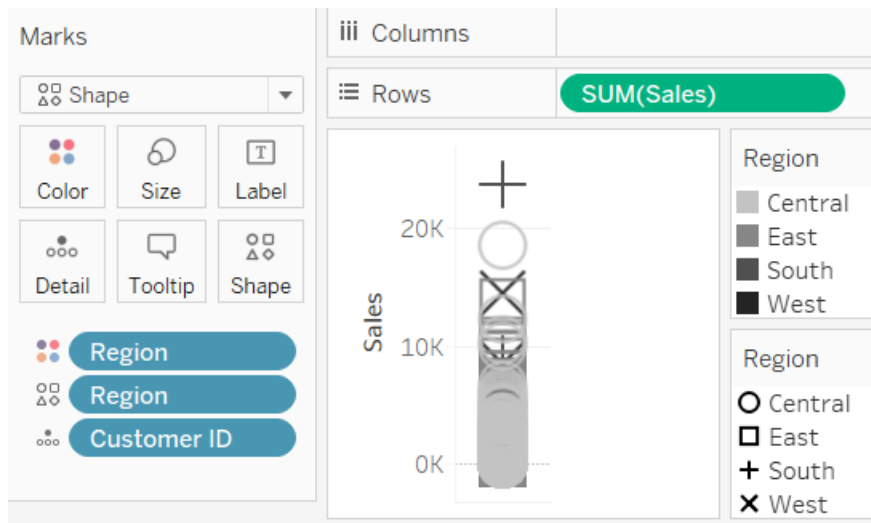
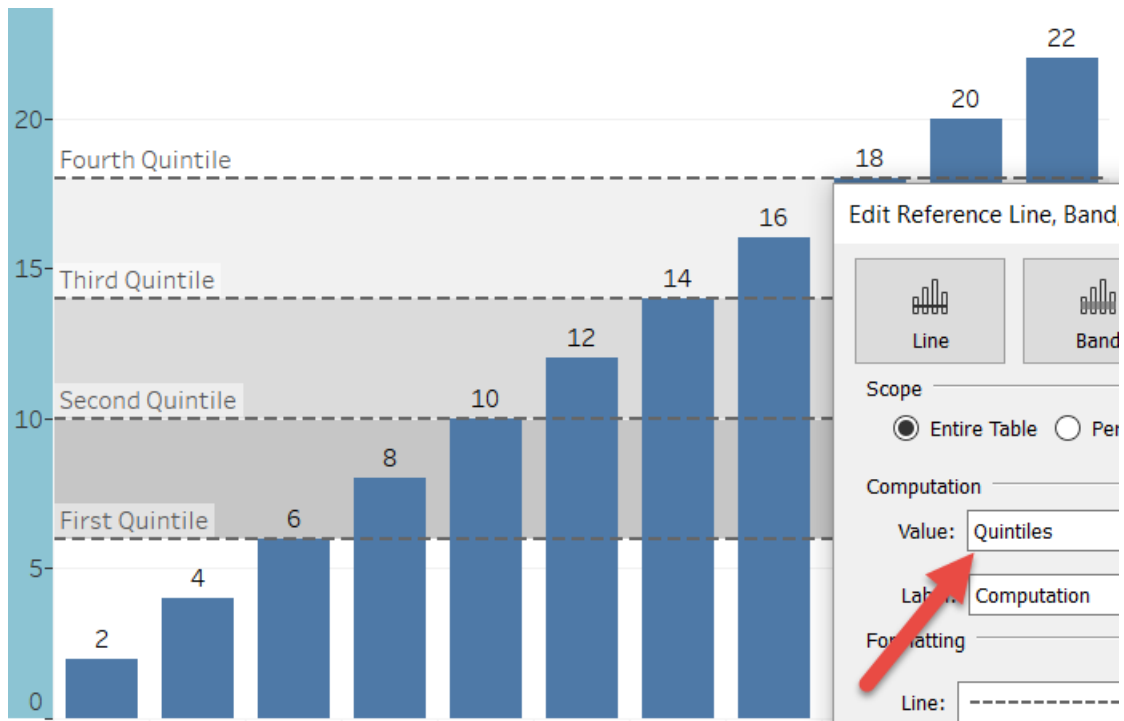
Titles

Title: Birth Rate

Subtitle: Automatic







Quantiles

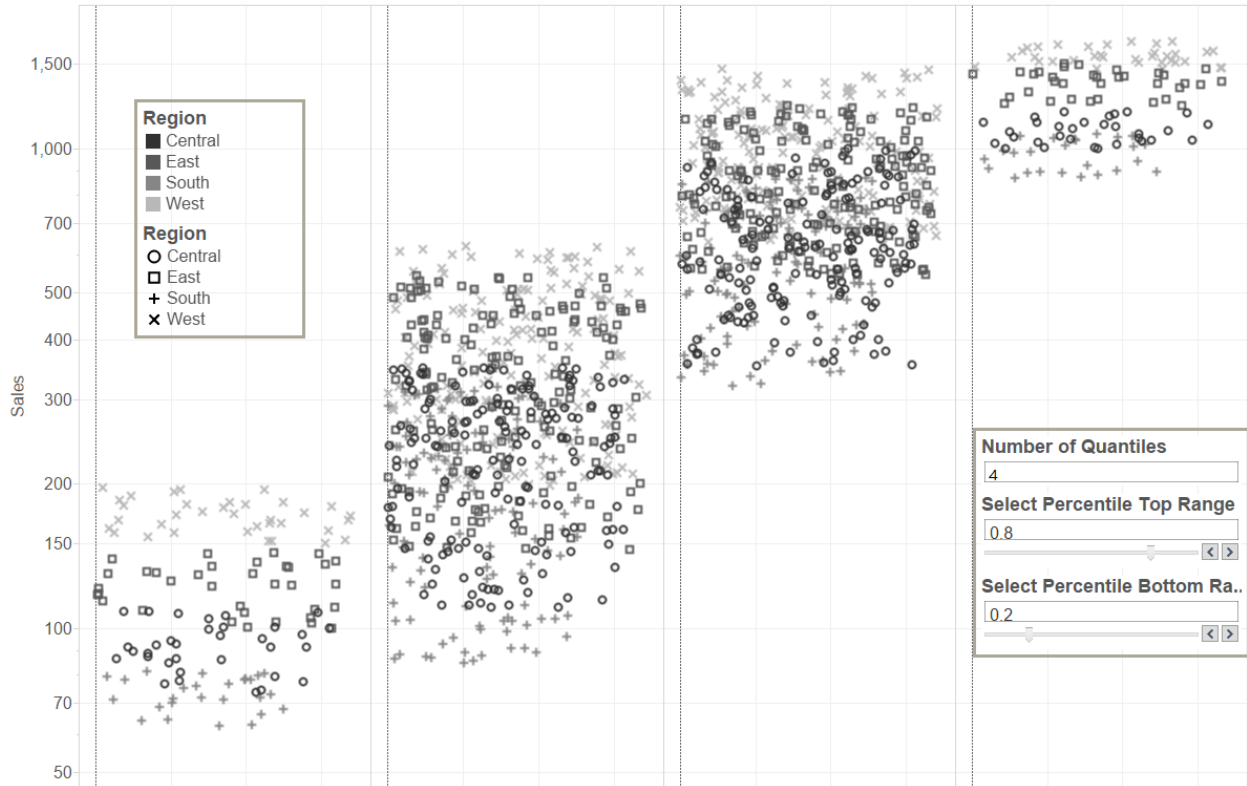


Table Calculation

P_S_Correlation

Compute Using

- Table (across)
- Table (down)
- Table (across then down)
- Table (down then across)
- Pane (across)
- Pane (down)
- Pane (across then down)
- Pane (down then across)
- Cell

Specific Dimensions

- Customer ID
- Category
- State

