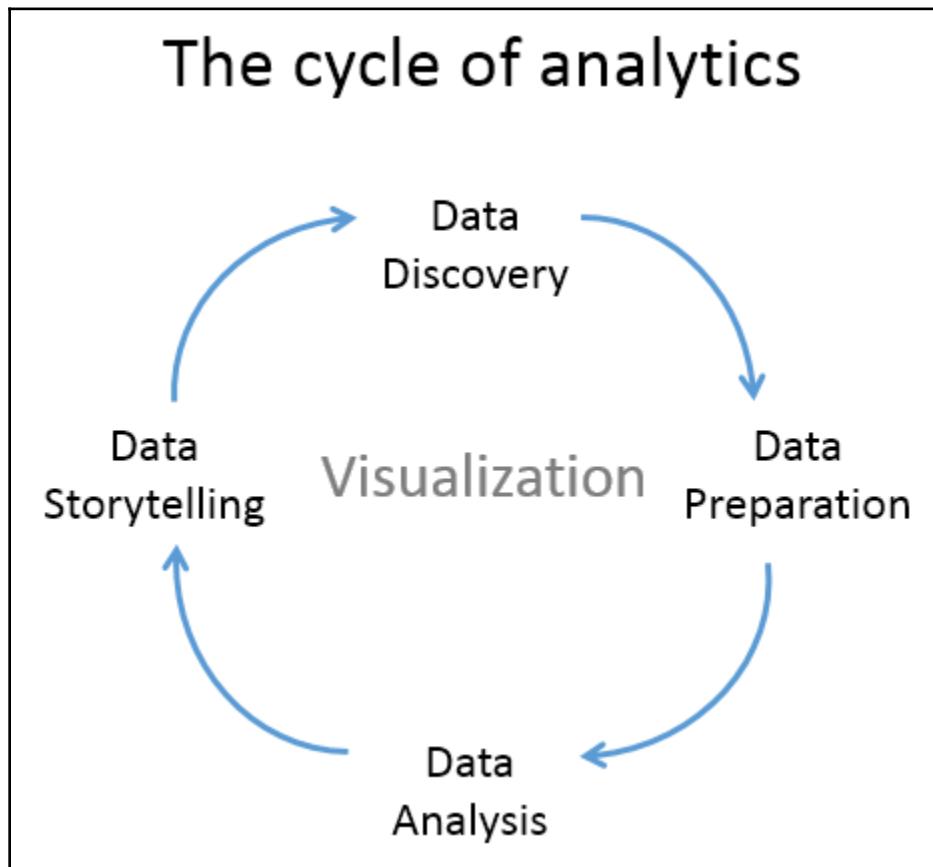
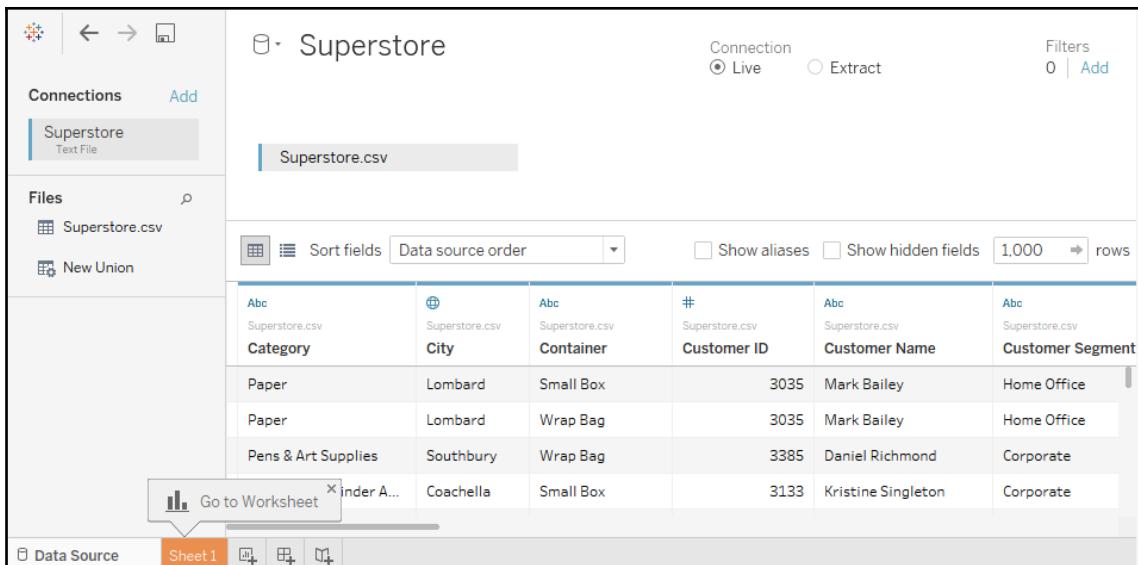
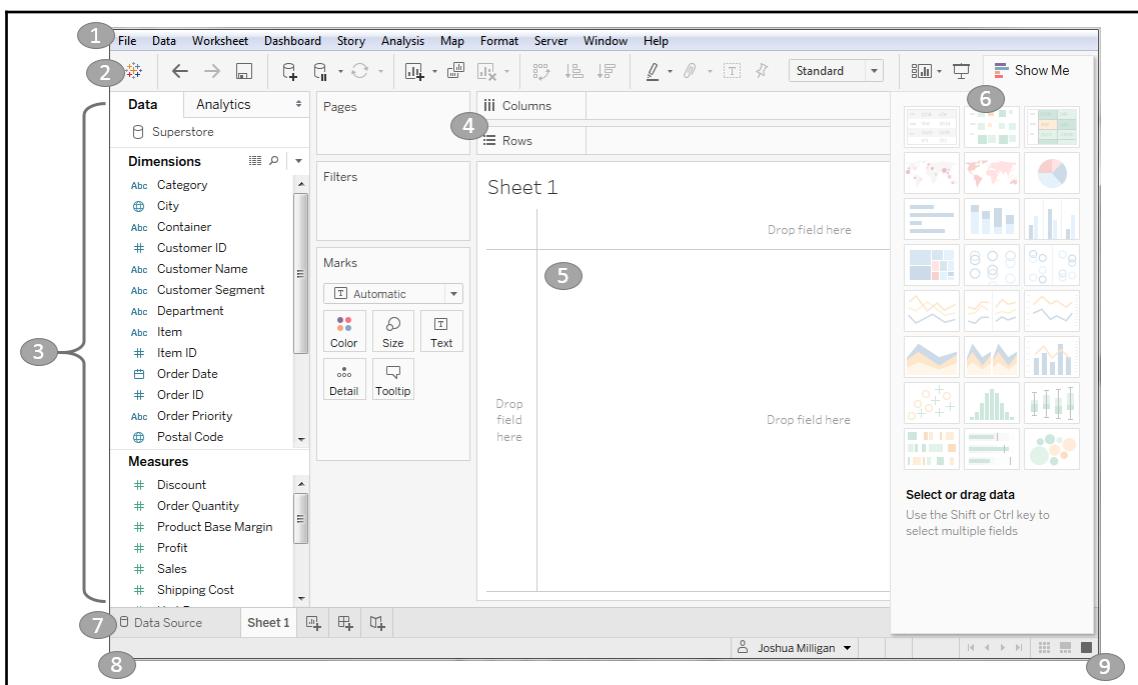


Chapter 1: Taking Off with Tableau

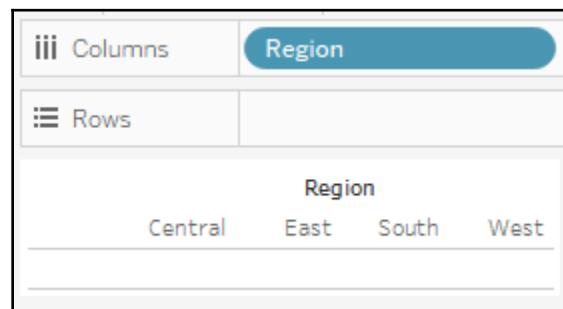
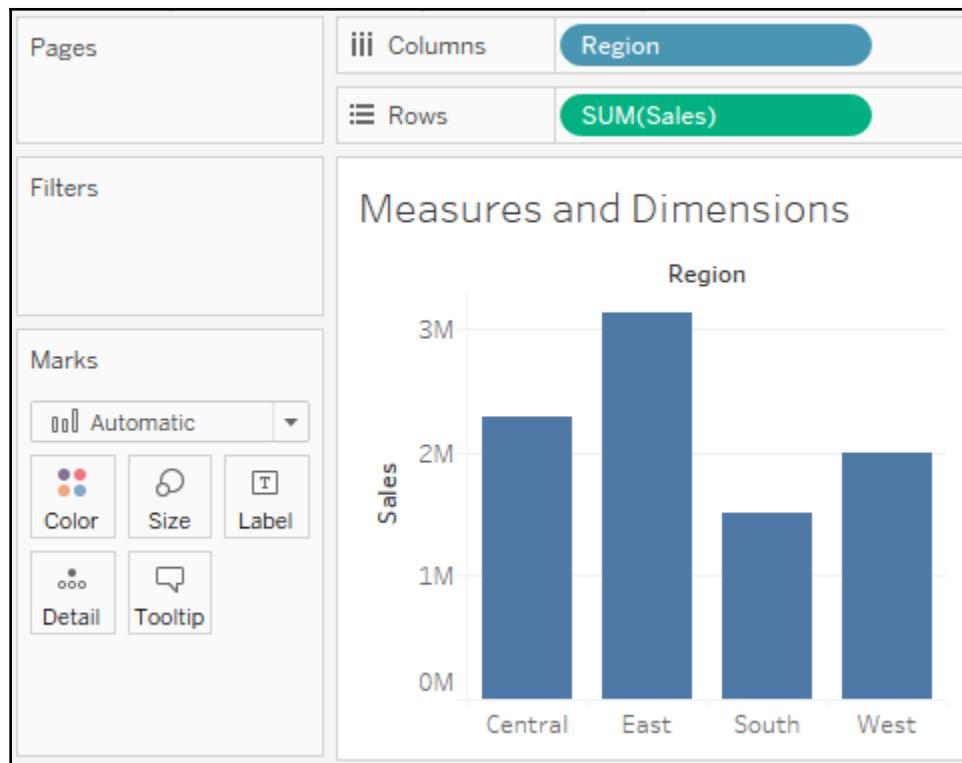


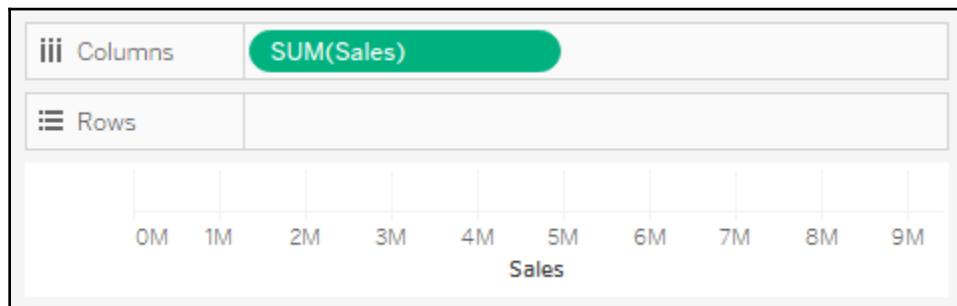
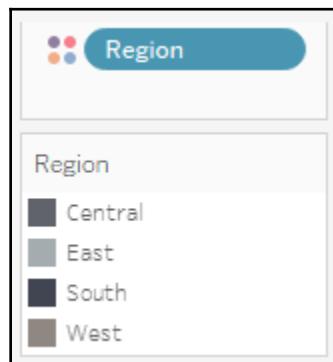
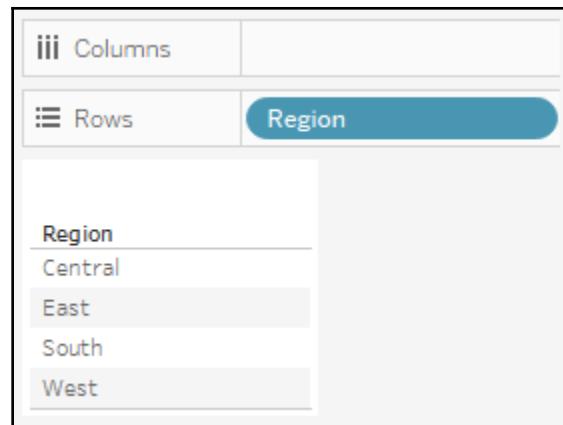


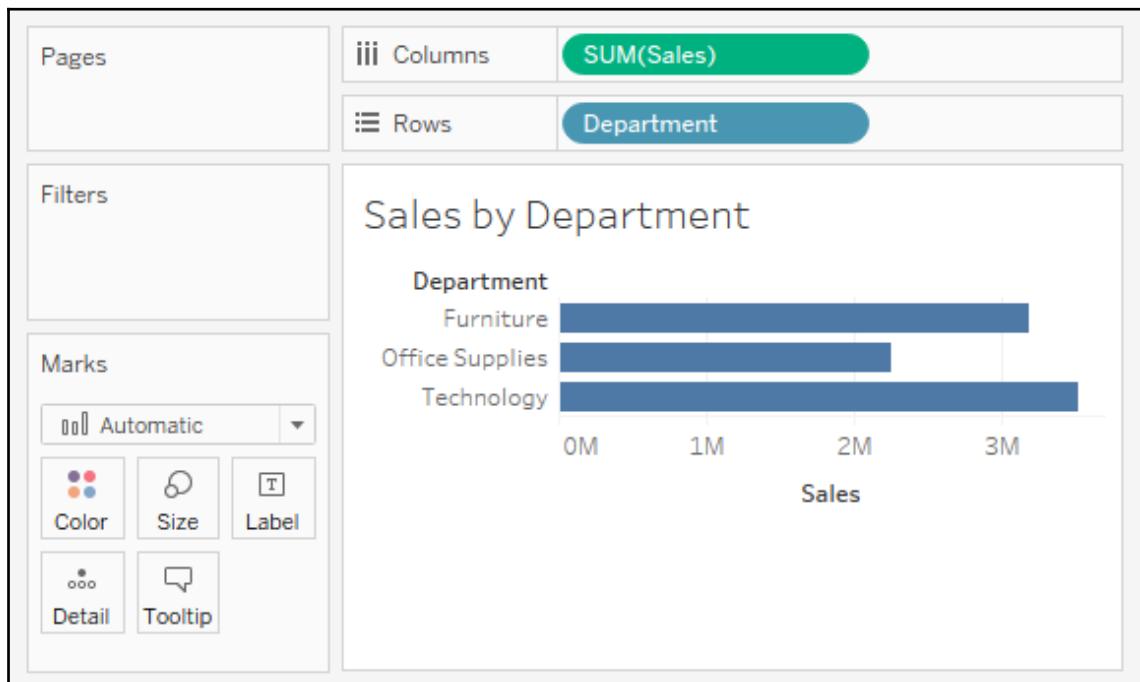
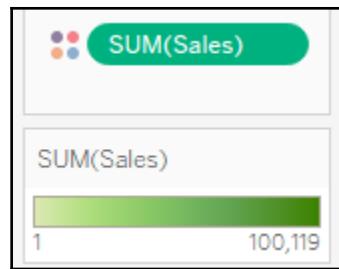
Connections [Add](#)
Superstore Text File
Files [P](#)
Superstore.csv
New Union
Superstore.csv
Category
Paper
Paper
Pens & Art Supplies
Go to Worksheet [Under Analysis](#)
Data Source [Sheet 1](#) [+ New](#) [New Union](#) [New Data Source](#)
Sort fields [Data source order](#) [▼](#) Show aliases Show hidden fields [1,000](#) [Rows](#)
Abc Superstore.csv Abc Superstore.csv Abc Superstore.csv Abc Superstore.csv
Category City Container Customer ID Customer Name Customer Segment
Paper Lombard Small Box 3035 Mark Bailey Home Office
Paper Lombard Wrap Bag 3035 Mark Bailey Home Office
Pens & Art Supplies Southbury Wrap Bag 3385 Daniel Richmond Corporate
Coachella Small Box 3133 Kristine Singleton Corporate

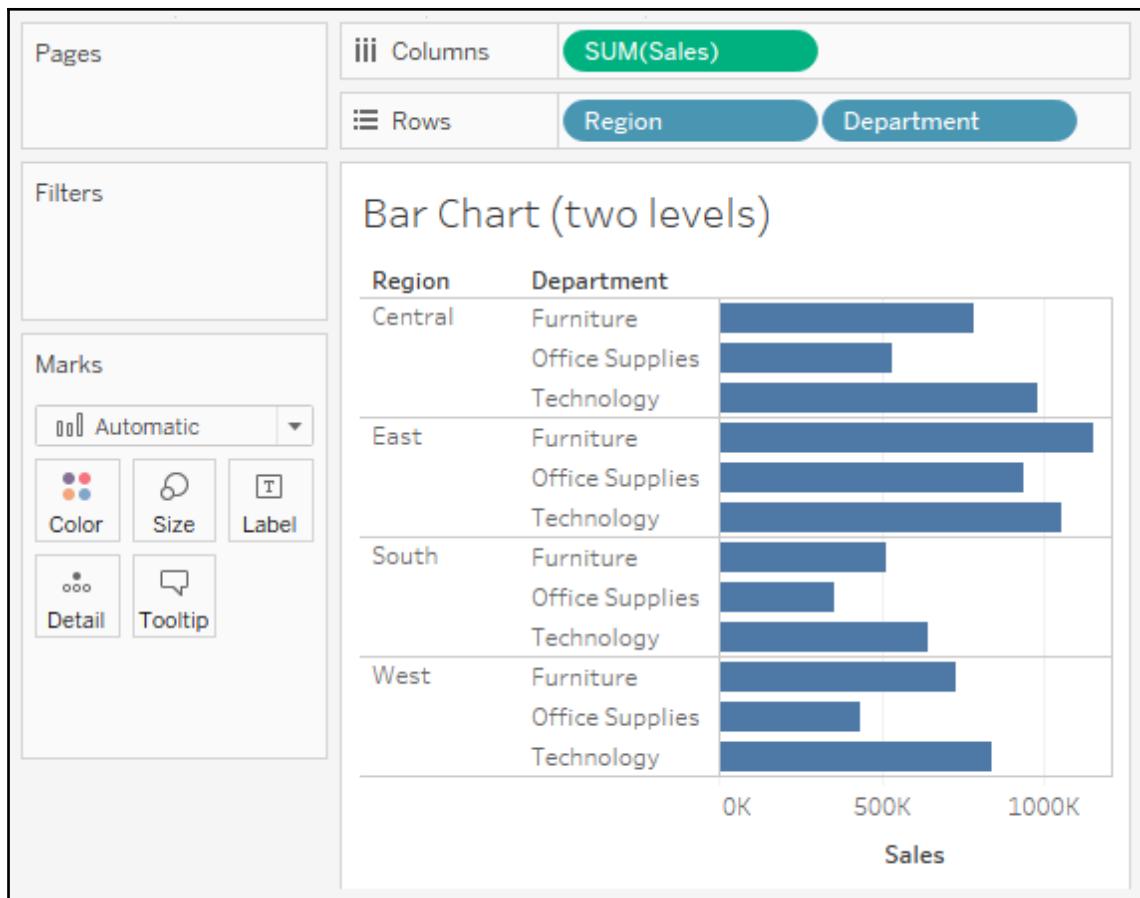


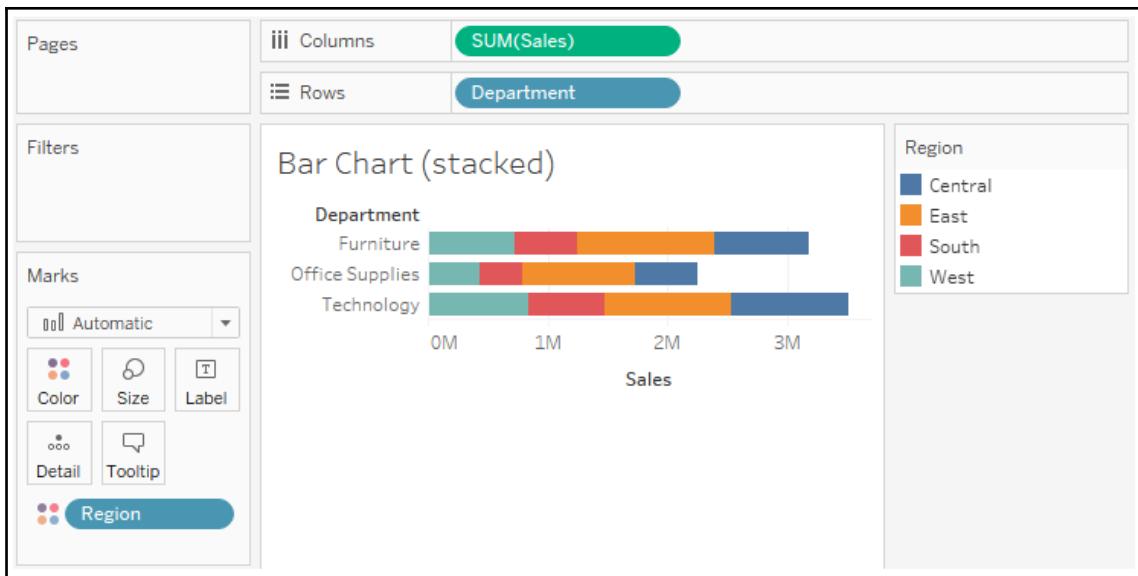
- File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
- Analytics [Data](#) [Superstore](#)
- Dimensions [Category](#) [City](#) [Container](#) [Customer ID](#) [Customer Name](#) [Customer Segment](#) [Department](#) [Item](#) [Item ID](#) [Order Date](#) [Order ID](#) [Order Priority](#) [Postal Code](#)
- Measures [Discount](#) [Order Quantity](#) [Product Base Margin](#) [Profit](#) [Sales](#) [Shipping Cost](#)
- Pages [Columns](#) [Rows](#)
- Sheet 1 [Standard](#) [Show Me](#)
- Drop field here
- Drop field here
- Drop field here
- Drop field here
- Select or drag data
Use the Shift or Ctrl key to select multiple fields

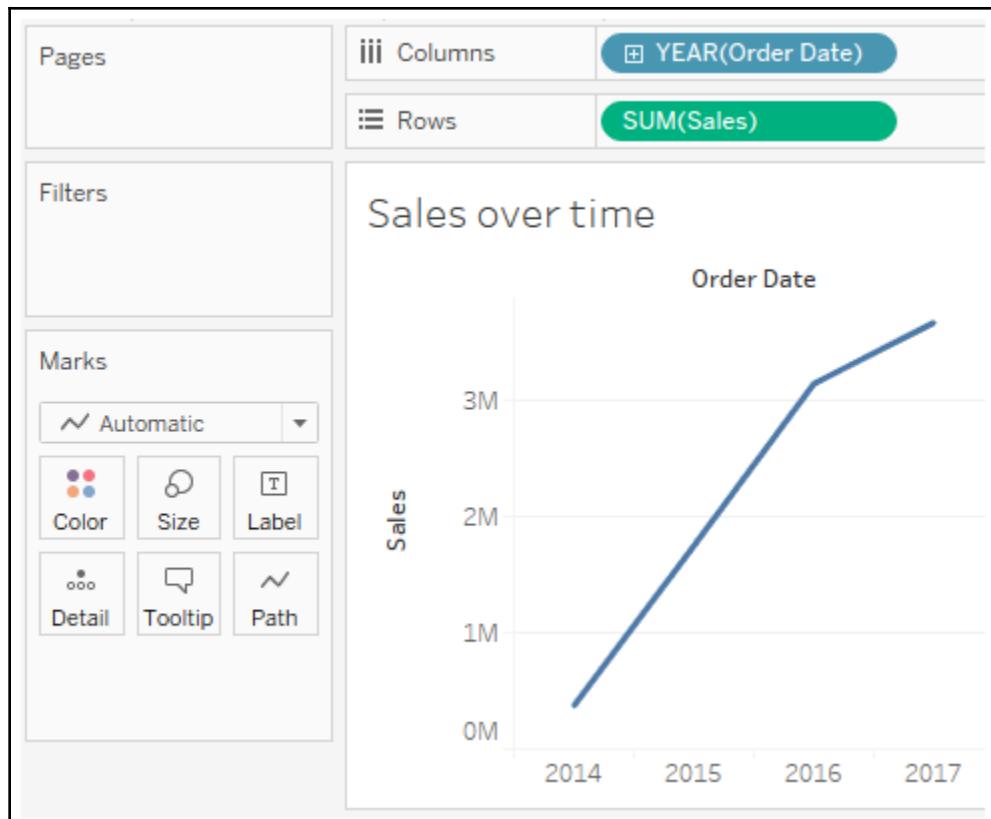


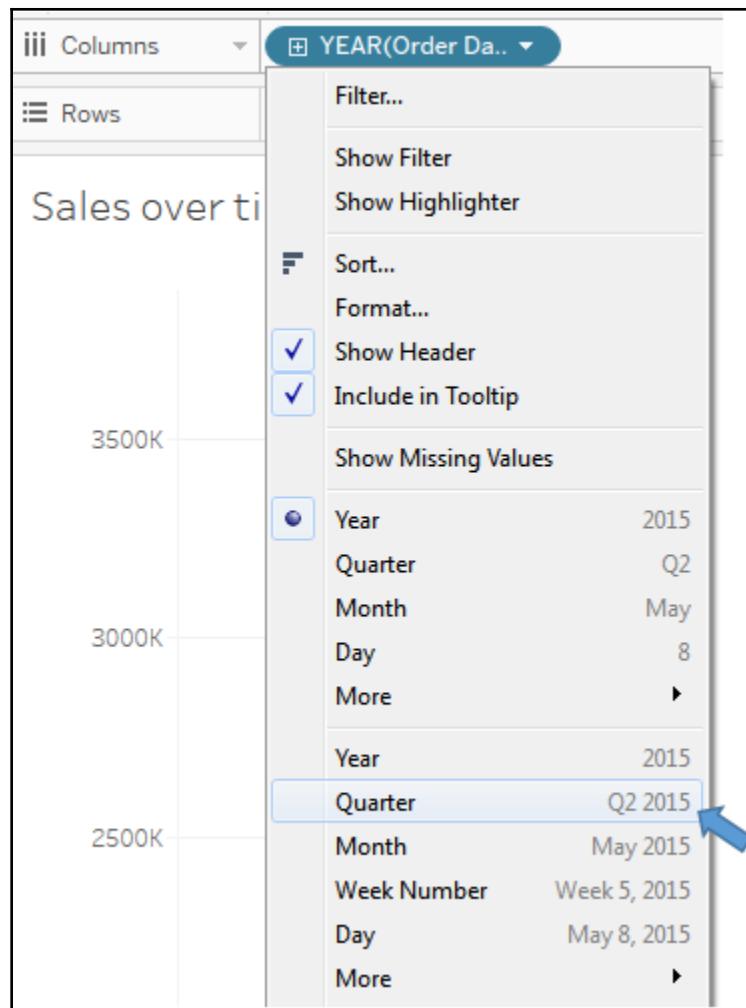


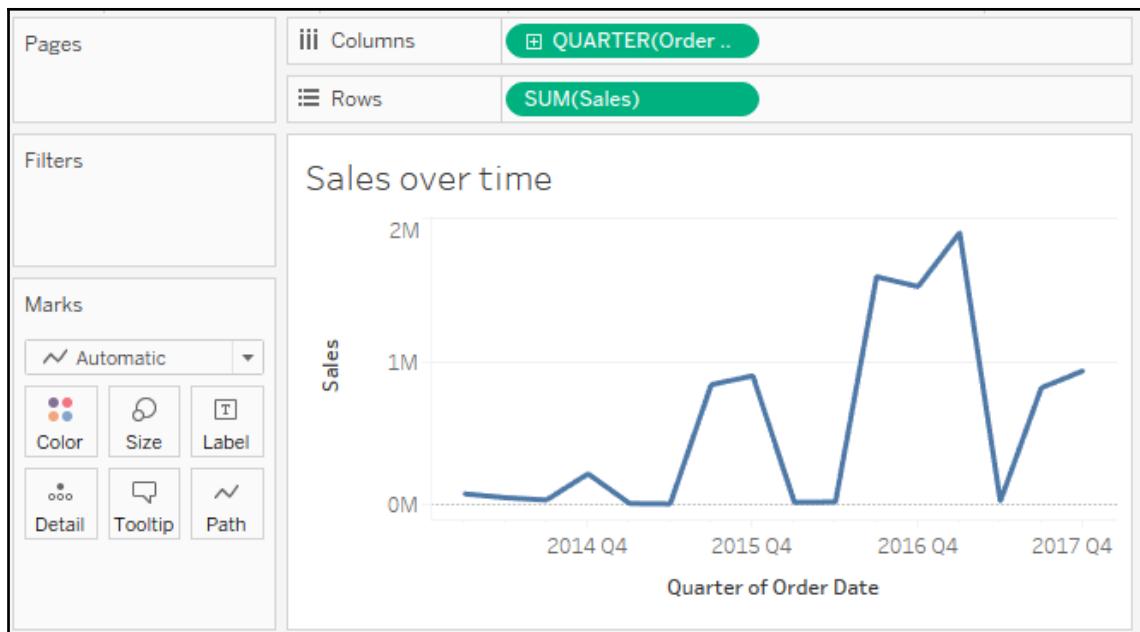


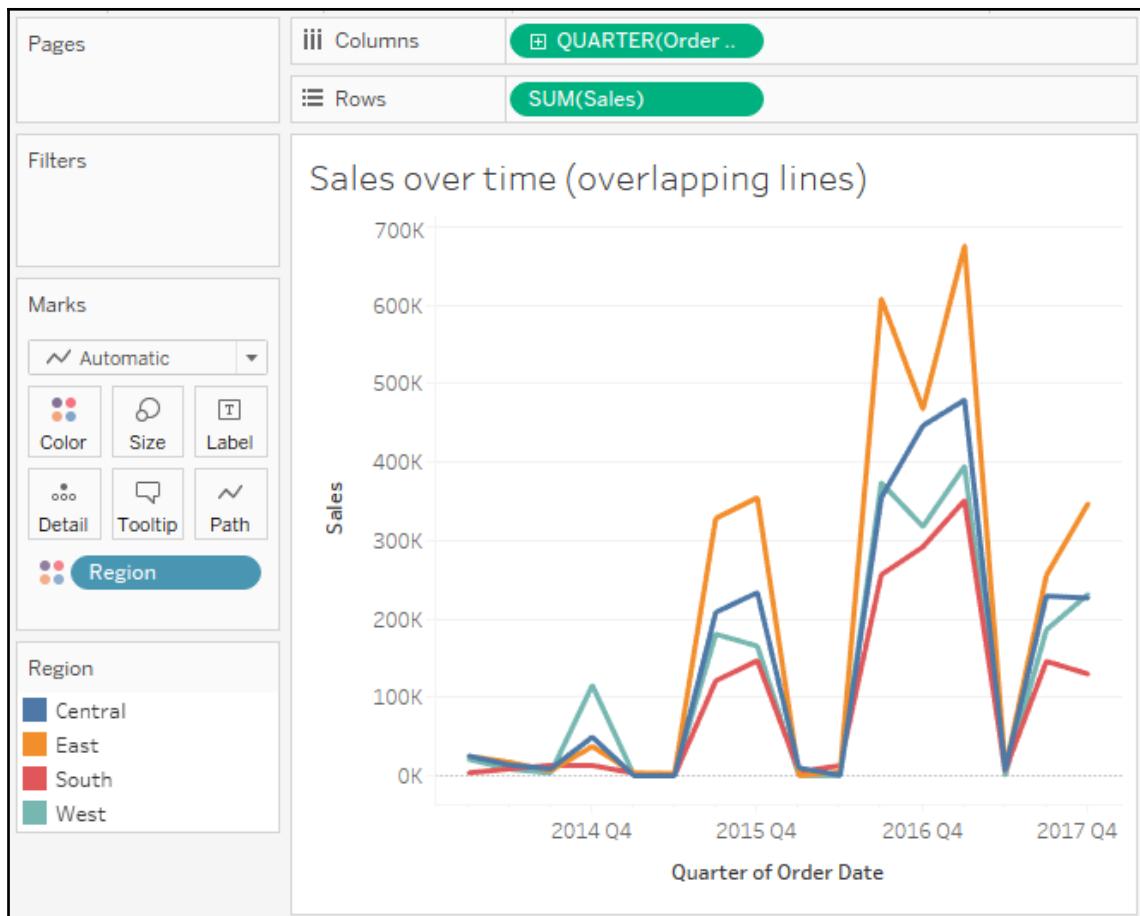


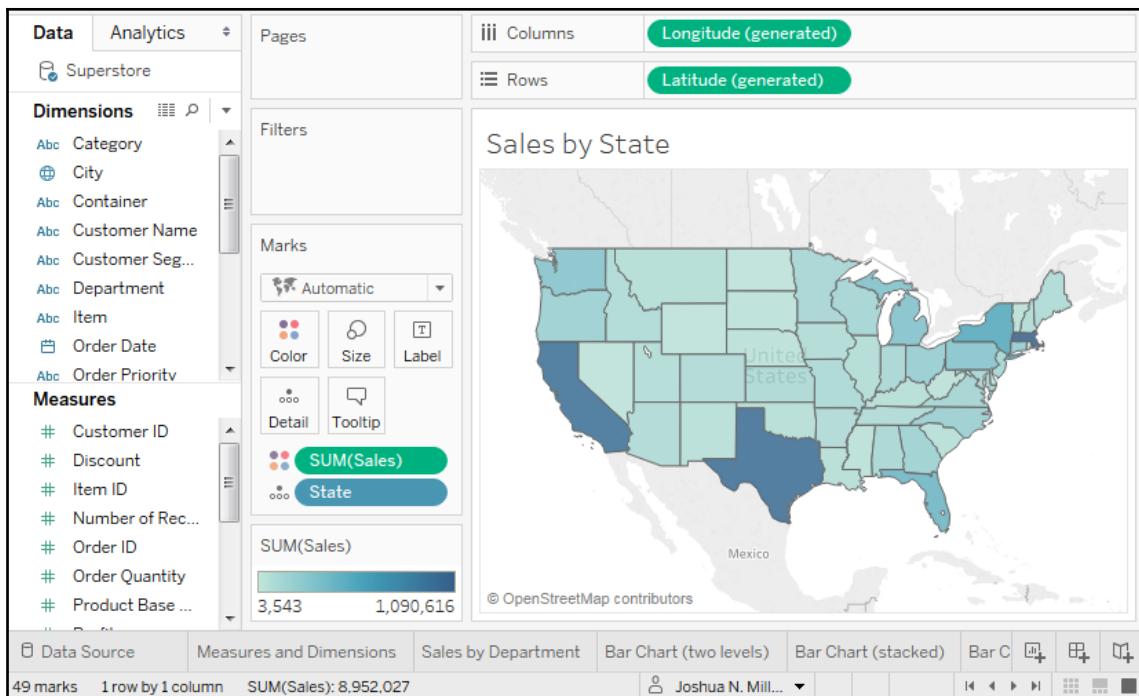


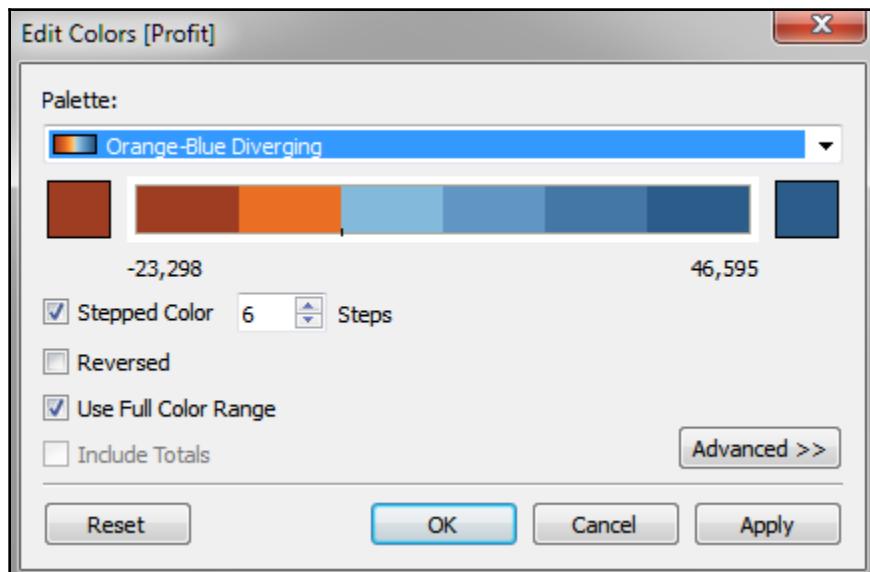
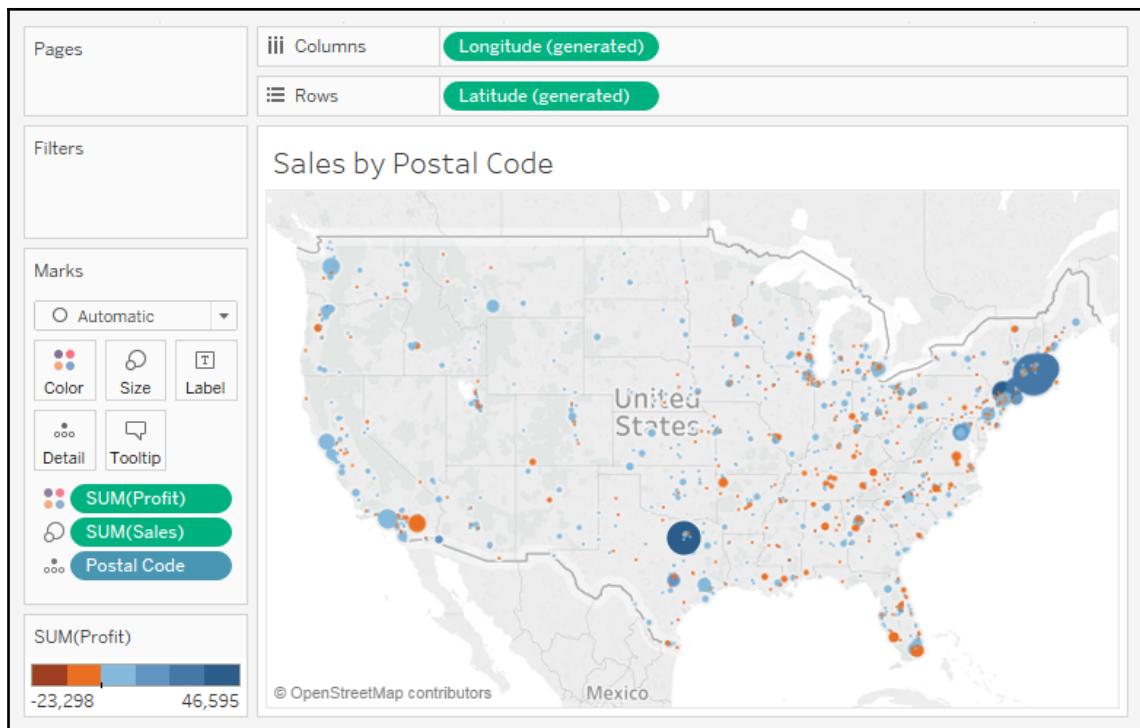


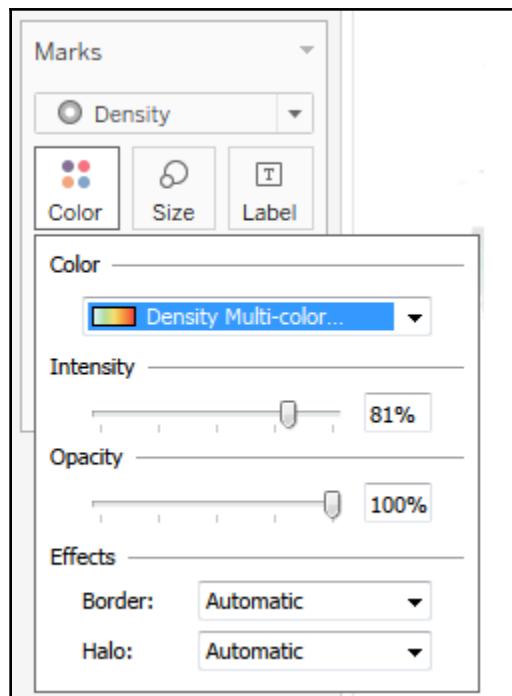
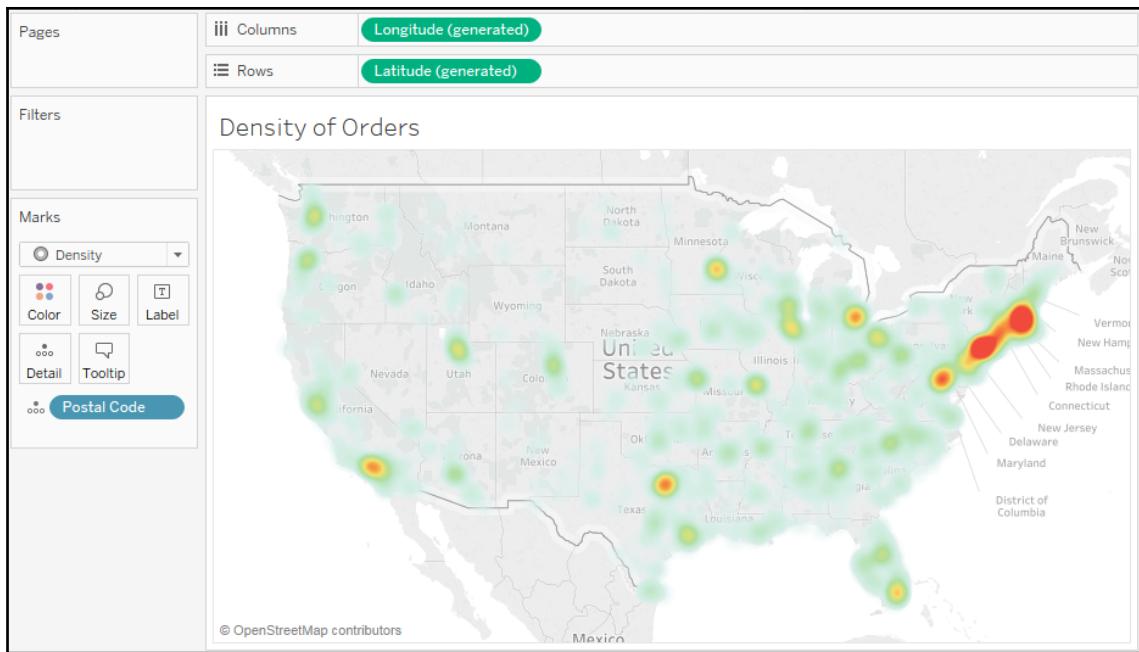












The image shows the 'Show Me' interface, a tool for generating various data visualizations. At the top, there are three small grid icons with numerical data: the first shows 1234, 678, 345, 334, 2129, 2569, 91, 322; the second shows 1234, 546, 345, 334, 2129, 2569, 91, 322; and the third shows 1234, 546, 345, 334, 2129, 2569, 91, 322. Below these are four main categories of visualizations arranged in a grid: 1. Maps: A world map with red dots, a world map with red and blue dots, and a pie chart. 2. Bar Charts: Three bar charts with varying heights and colors. 3. Bubble Charts: Three bubble charts with different bubble sizes and colors. 4. Line Charts: Three line charts with fluctuating data points. 5. Scatter Plots: Three scatter plots with various data points. 6. Histograms: Three histograms with different bar widths and heights. 7. Box Plots: Three box plots with whiskers and median lines. 8. Grids: Three grids with colored squares. 9. Geographical Data: Three icons representing geographical data, including a globe and a map. Below the grid, there is a section titled 'For symbol maps try' with three buttons: '1 geo' (with a globe icon), 'Dimension' (in a blue button), '0 or more Dimensions' (in a blue button), and '0 to 2 Measures' (in a green button). At the bottom, there is a note: 'May use spatial measure in place of geo dimension'.

For symbol maps try

1 geo  Dimension

0 or more Dimensions

0 to 2 Measures

May use spatial measure in place of geo dimension

Dashboard Layout

Default Phone

Device Preview

Size

Desktop Browser (1000 x 8...

Sheets

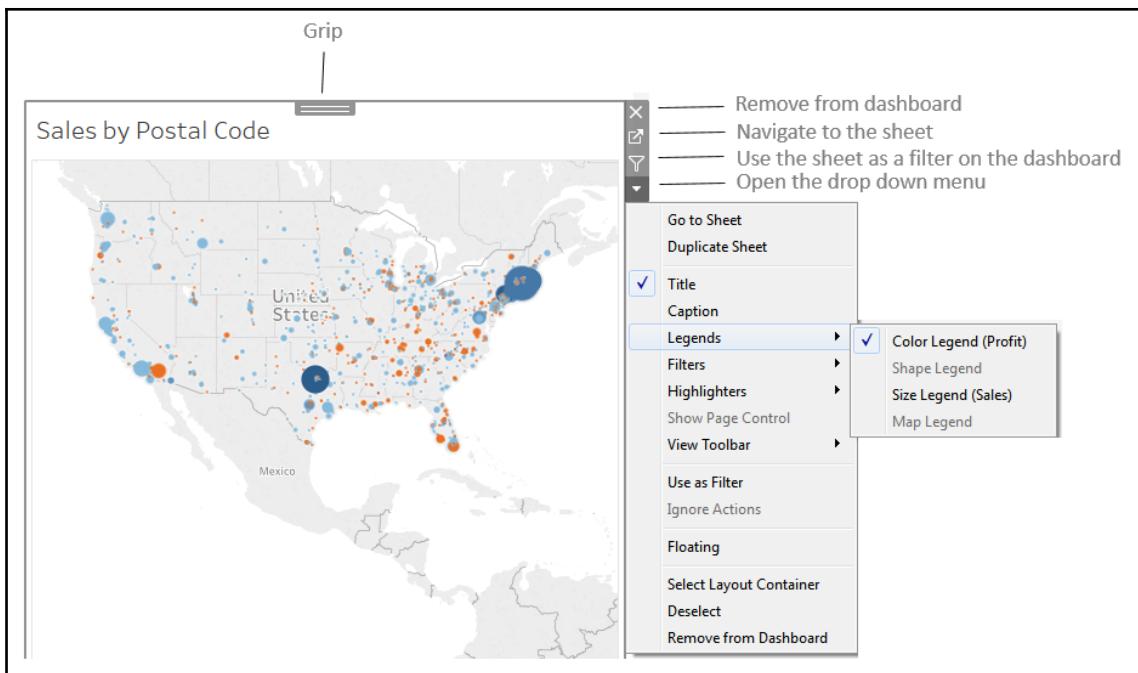
- Measures and Dime...
- Sales by Department
- Bar Chart (two level...
- Bar Chart (stacked)
- Bar Chart (experim...
- Sales over time
- Sales over time (ov...
- Sales over time (m...
- Sales by State
- Sales by Postal Code
- Density of Orders
- Show Me

Objects

Horizontal	Web Page
Vertical	Blank
Text	Button
Image	Extension

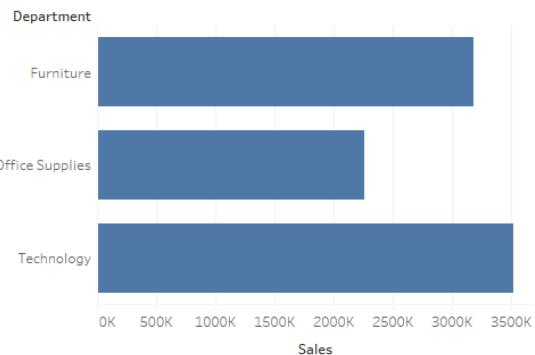
Tiled Floating

Show dashboard title

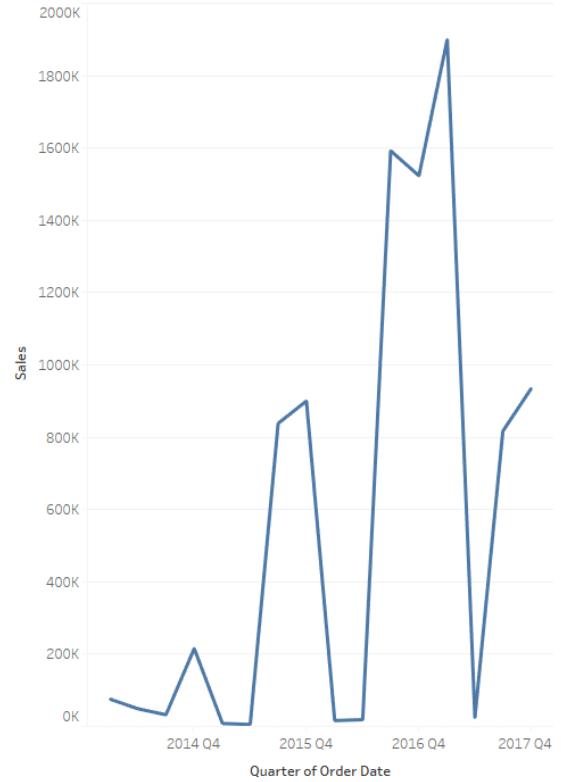


Superstore Sales

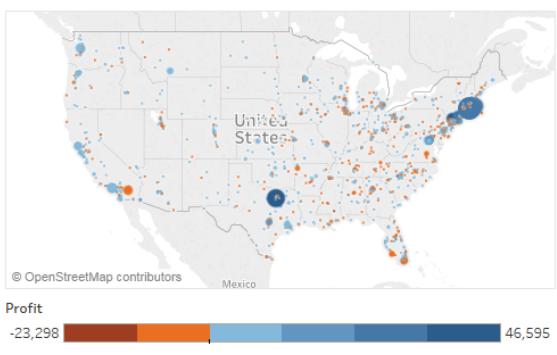
Sales by Department



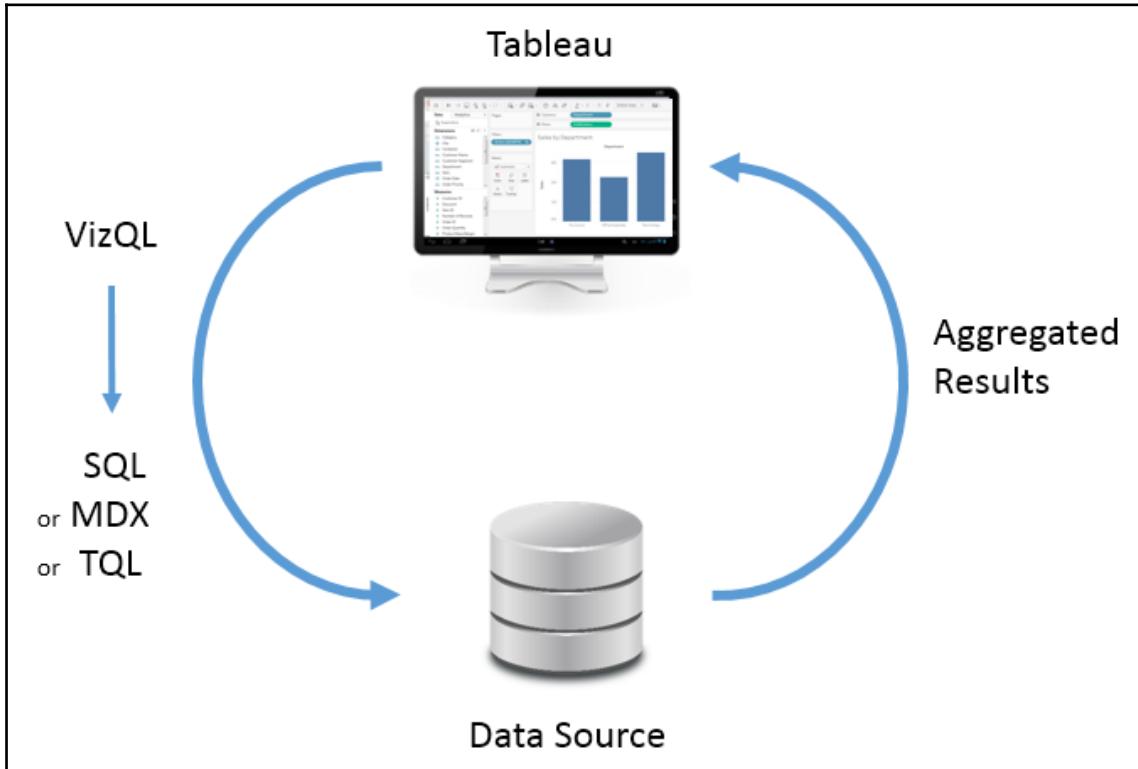
Sales over time

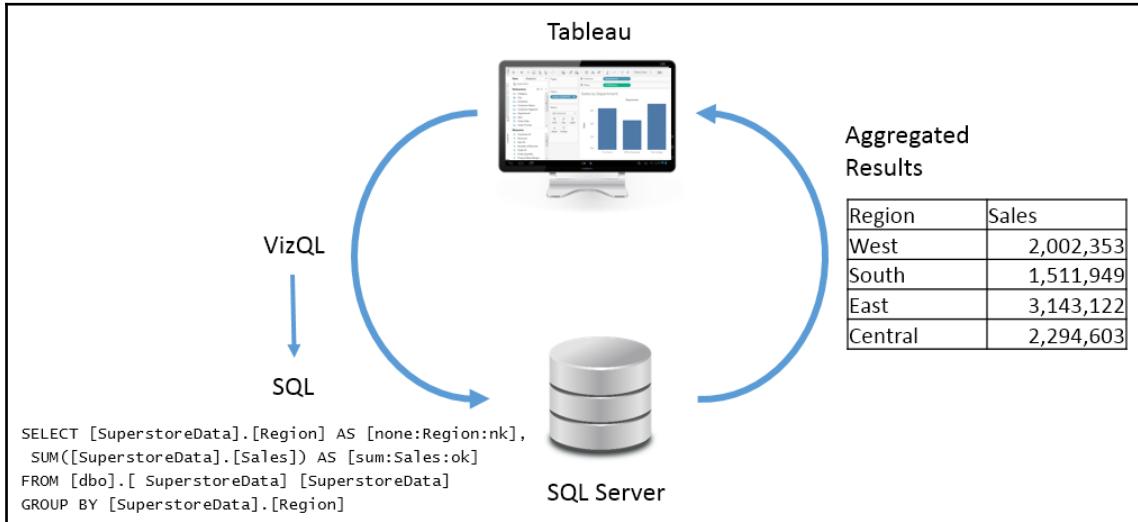
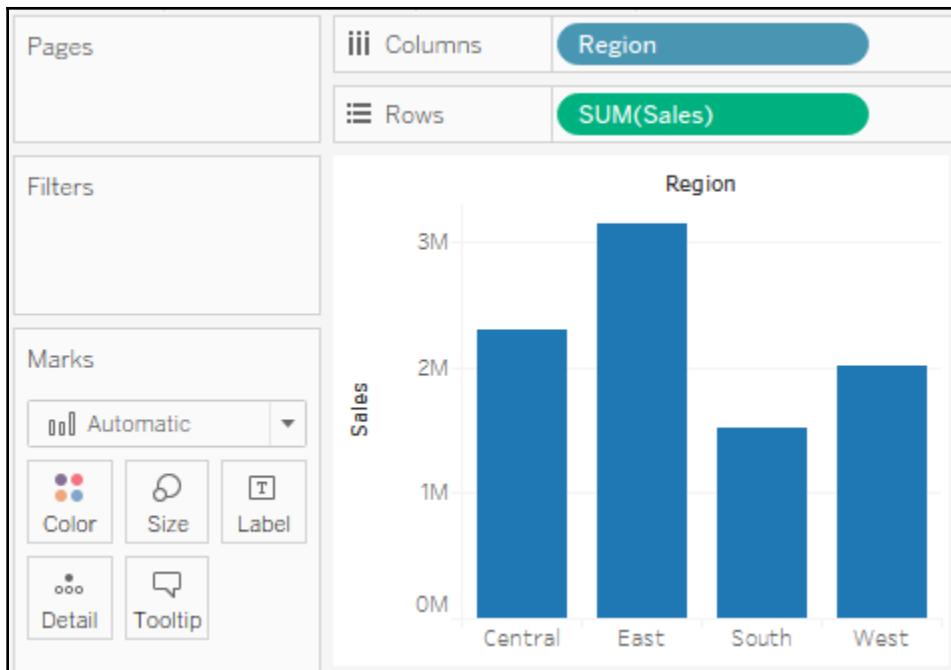


Sales by Postal Code



Chapter 2: Working with Data in Tableau





View Data

Show aliases

Region	Sales
West	2,002,353
South	1,511,949
East	3,143,122
Central	2,294,603

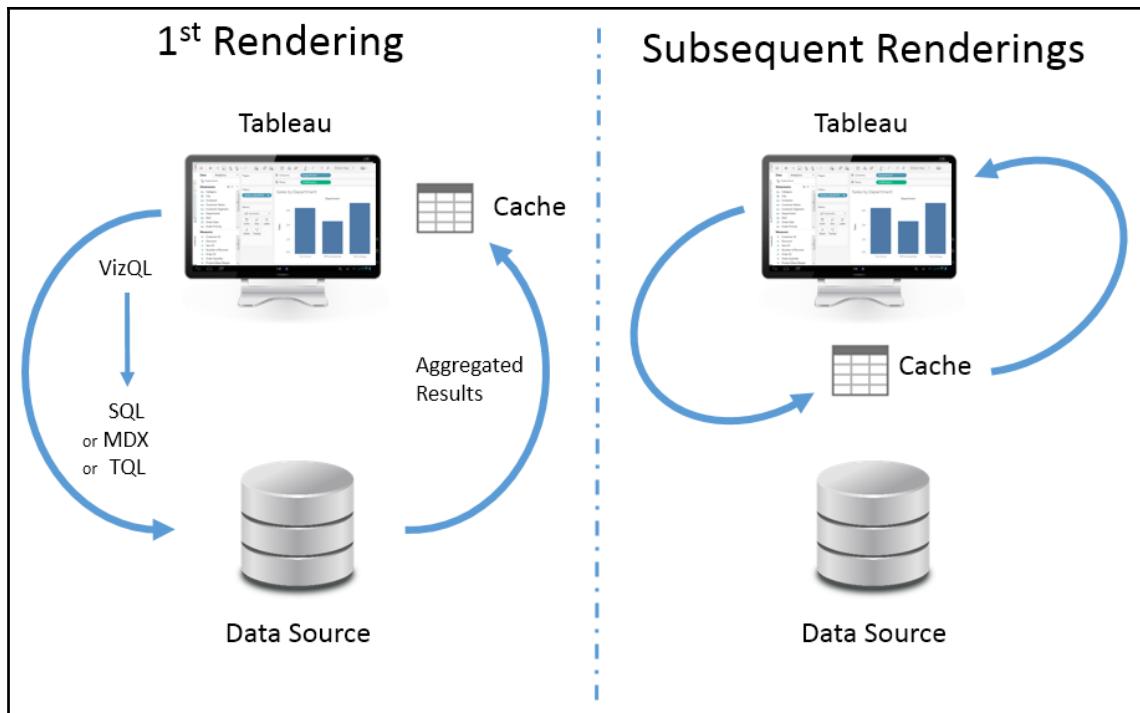
Summary Underlying 4 rows

View Data

9,426 rows Show aliases Show all fields

Category	City	Container	Customer ID	Customer Name
Appliances	Lancaster	Small Box	1890	Jonathan Drumney
Paper	Oxford	Small Box	607	Joe Mako
Paper	Boston	Small Box	608	Chuck Hooper
Paper	Conway	Small Box	3073	Shawn Wallwork

Summary Underlying 9,426 rows



1 Home icon

2 Connections (Superstore selected)

3 Sheets (Orders, Returns, New Union)

4 Data source tree (Orders & Returns)

5 Data source (Orders and Returns)

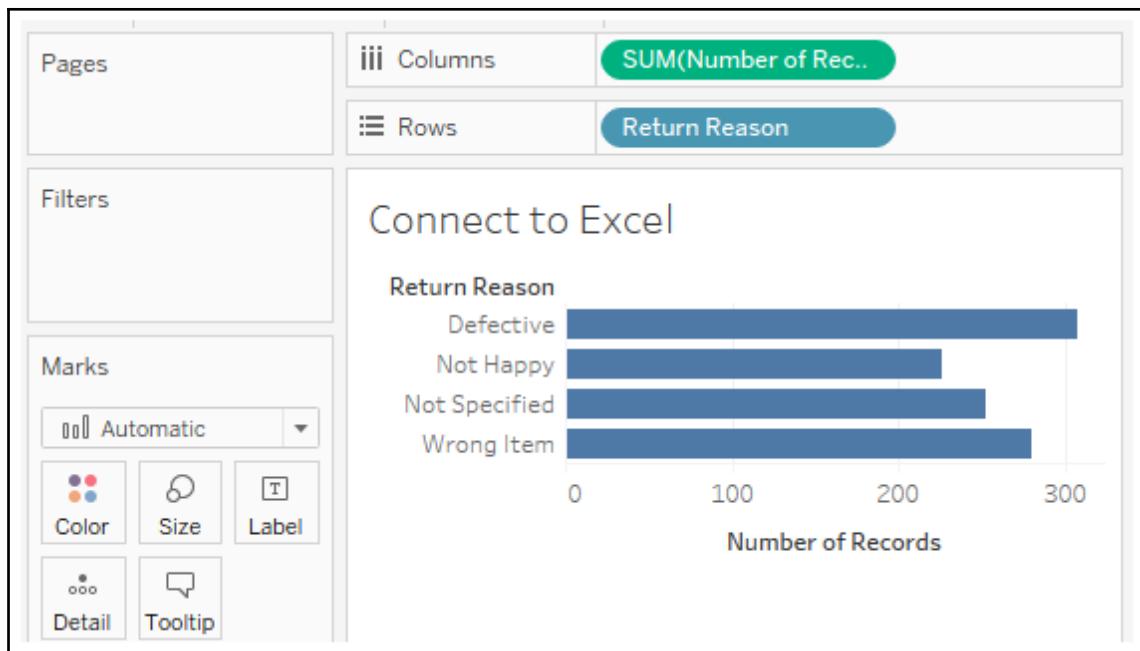
6 Connection type (Live selected)

7 Filters (0)

8 Sort fields (Data source order)

9 Row count (1,000)

Category	Orders	City	Orders	Container	Orders	Customer ID	Orders	Customer Name	Orders	Customer Segment
Paper	Ponca City	Small Box			3035	Larry Harris		Home Office		
Paper	Ponca City	Wrap Bag			3035	Larry Harris		Home Office		
Pens & Art Supplies	Stillwater	Wrap Bag			3385	J.B. Bond		Corporate		
Binders and Binder Ac...	Desoto	Small Box			3133	Kurt Krohn		Corporate		
Rubber Bands	Desoto	Wrap Bag			3133	Kurt Krohn		Corporate		
Storage & Organization	Argyle	Small Box			1697	Mark Piland		Home Office		
Tables	Grand Prairie	Jumbo Box			1603	Bill Eubanks		Small Business		
Office Furnishings	Tulsa	Medium Box			2924	Eric Bryan		Consumer		



Microsoft SQL Server X

Server:

Database:

Enter information to sign in to the database:

Use Windows Authentication (preferred)

Use a specific username and password:

Username:

Password:

Require SSL

Read uncommitted data

[Initial SQL...](#) Sign In

Connections [Add](#)

TDS-W541-JM\TDS
Microsoft SQL Server

Database [Hospital](#)

Table [🔍](#)

- Discharge Details
- Hospital Visit
- Hospital_Visits
- Patient
- Patient Visit
- Primary Physician
- v_Patients
- v_Visits

New Custom SQL

New Union

Stored Procedures [🔍](#)

- Get_Active_Doctors
- Get_Patient_Diagnoses
- Get_Patient_Treatments



Select Your Google Sheet

Signed in as milligan. [Sign Out](#)

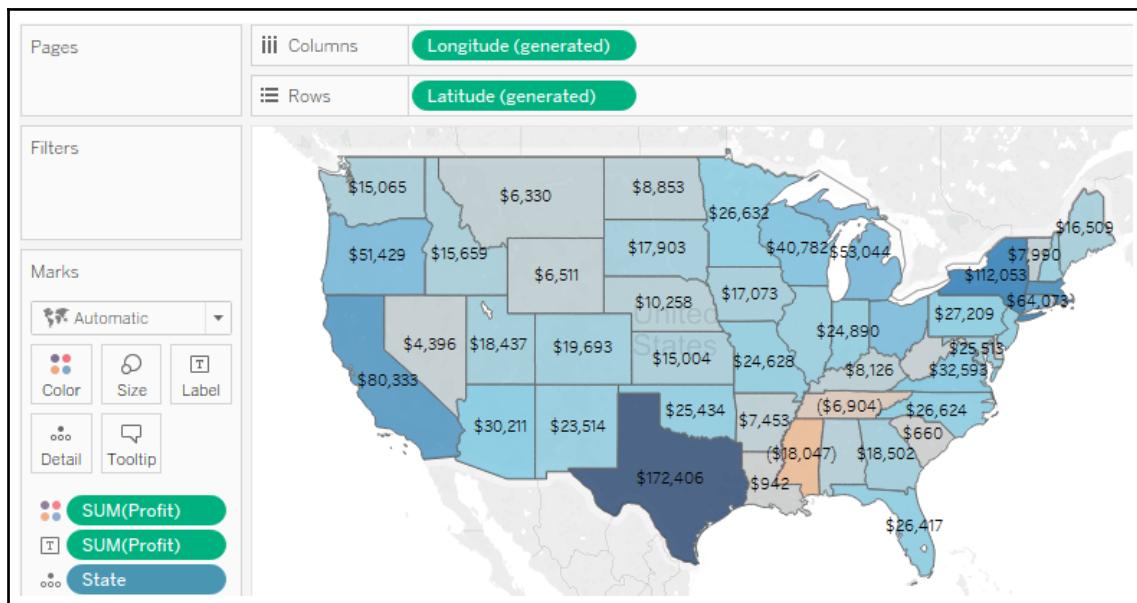
Search by sheet name or enter URL [Search](#)

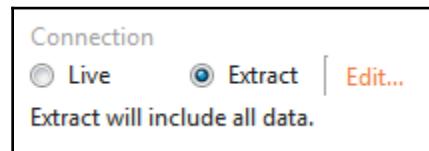
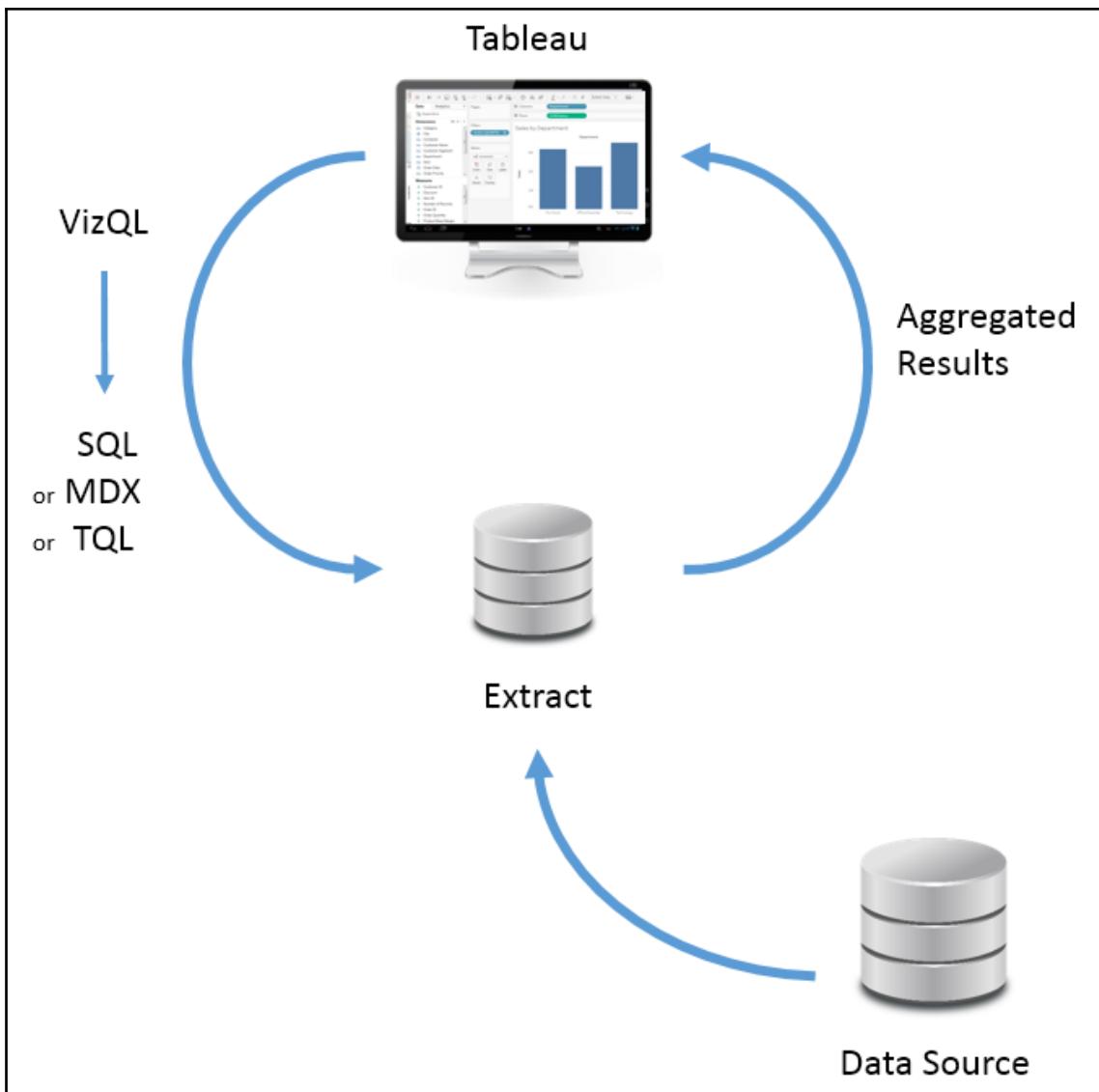
Name	Owned by	Last Opened By Me
Greek New Testament	Joshua Milligan	Mar 12, 2018
Polygonic Hex Map.xlsx	Joshua Milligan	Dec 20, 2017
SMS received	Joshua Milligan	Sep 25, 2017
Teknion Sign Up Sheet August – December 2017		Aug 11, 2017
Superstore	Joshua Milligan	Jul 10, 2017
Company Profit	Joshua Milligan	Jun 27, 2017
Test_1	Joshua Milligan	Dec 5, 2017
SMS received	Joshua Milligan	Sep 25, 2017
Assimilations	Borg Queen	Aug 11, 2017
Superstore	Joshua Milligan	Jul 10, 2017
Company Profit	Joshua Milligan	Jun 27, 2017

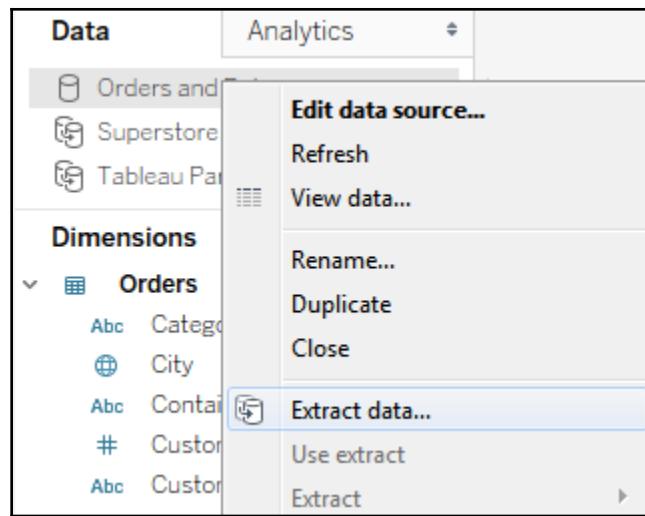
Greek New Testament

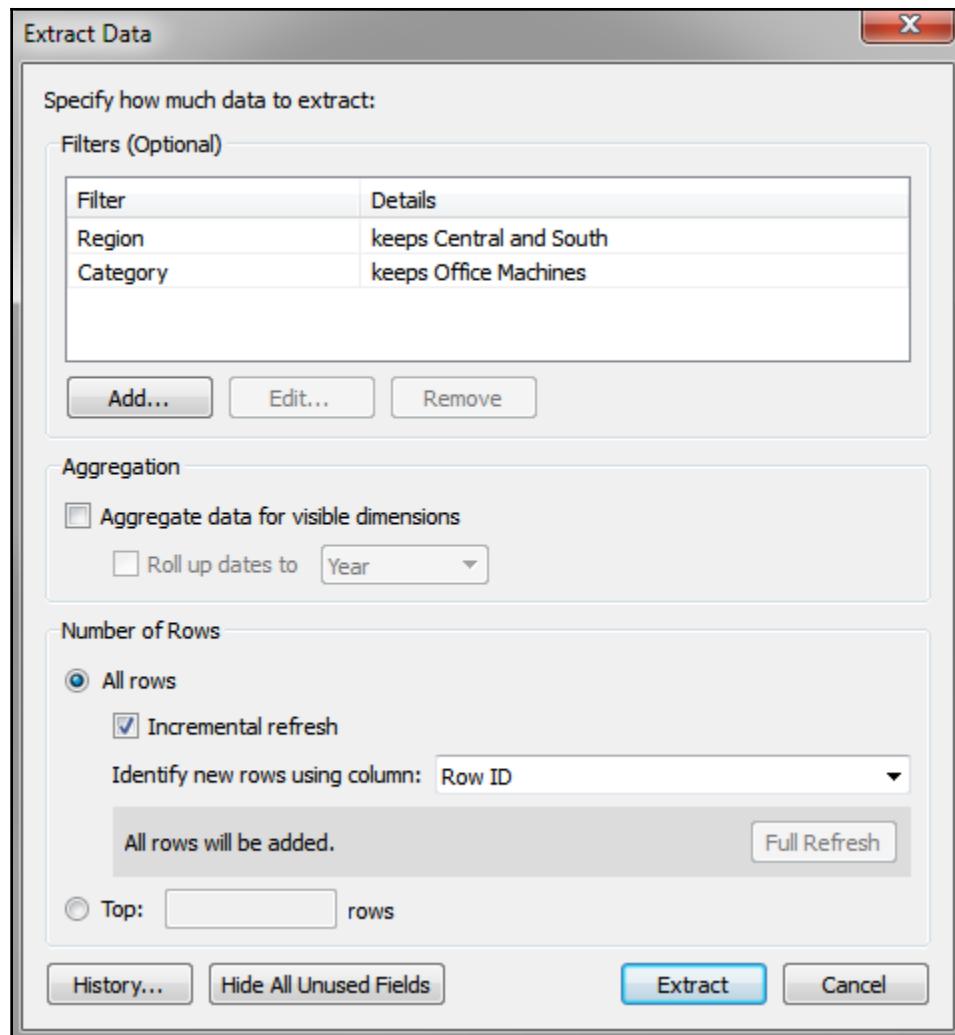
Last Modified On **Dec 7, 2017**
Last Modified By **Joshua Milligan**
[Open in Google Drive](#)

[Cancel](#) [Connect](#)







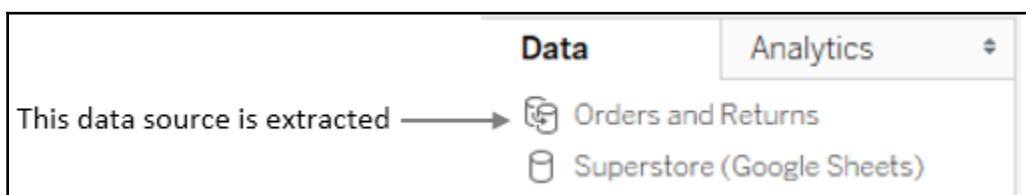


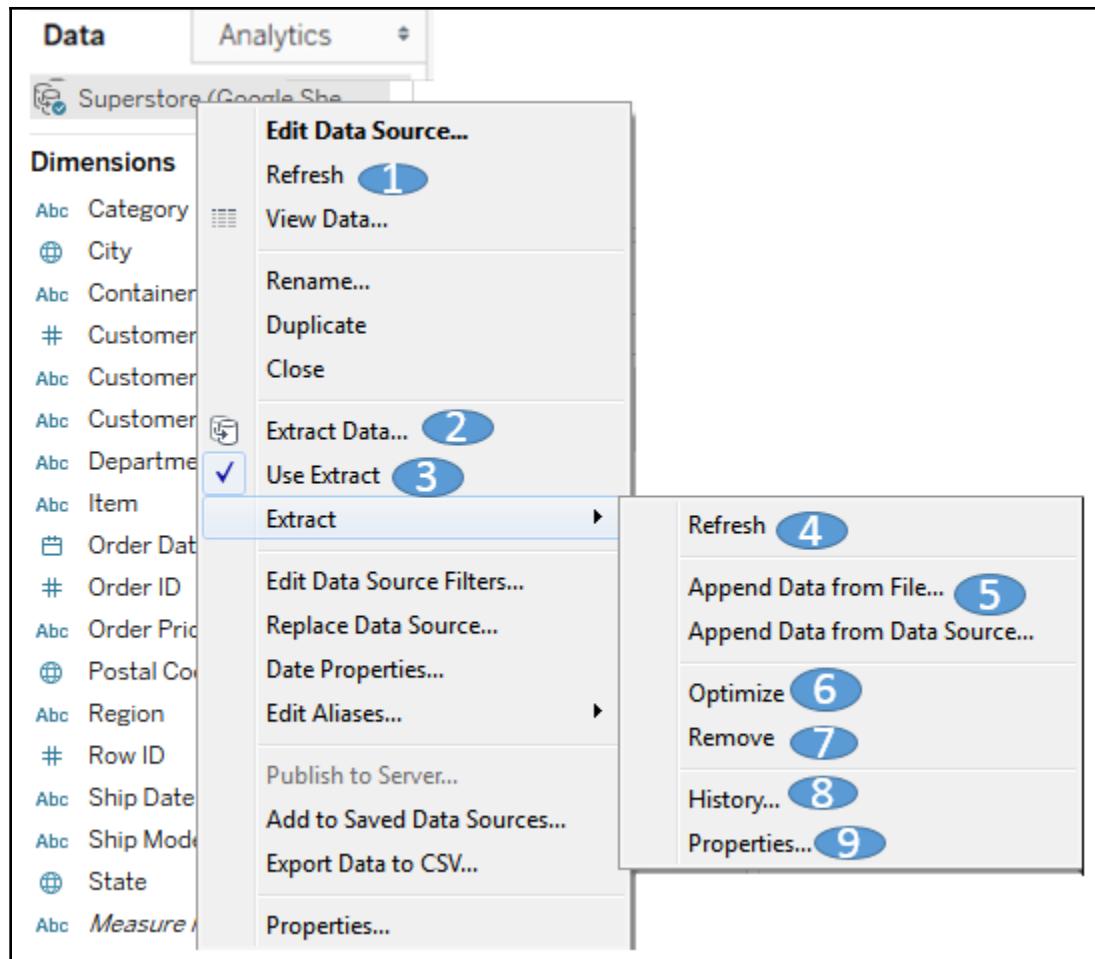
This data source is extracted →

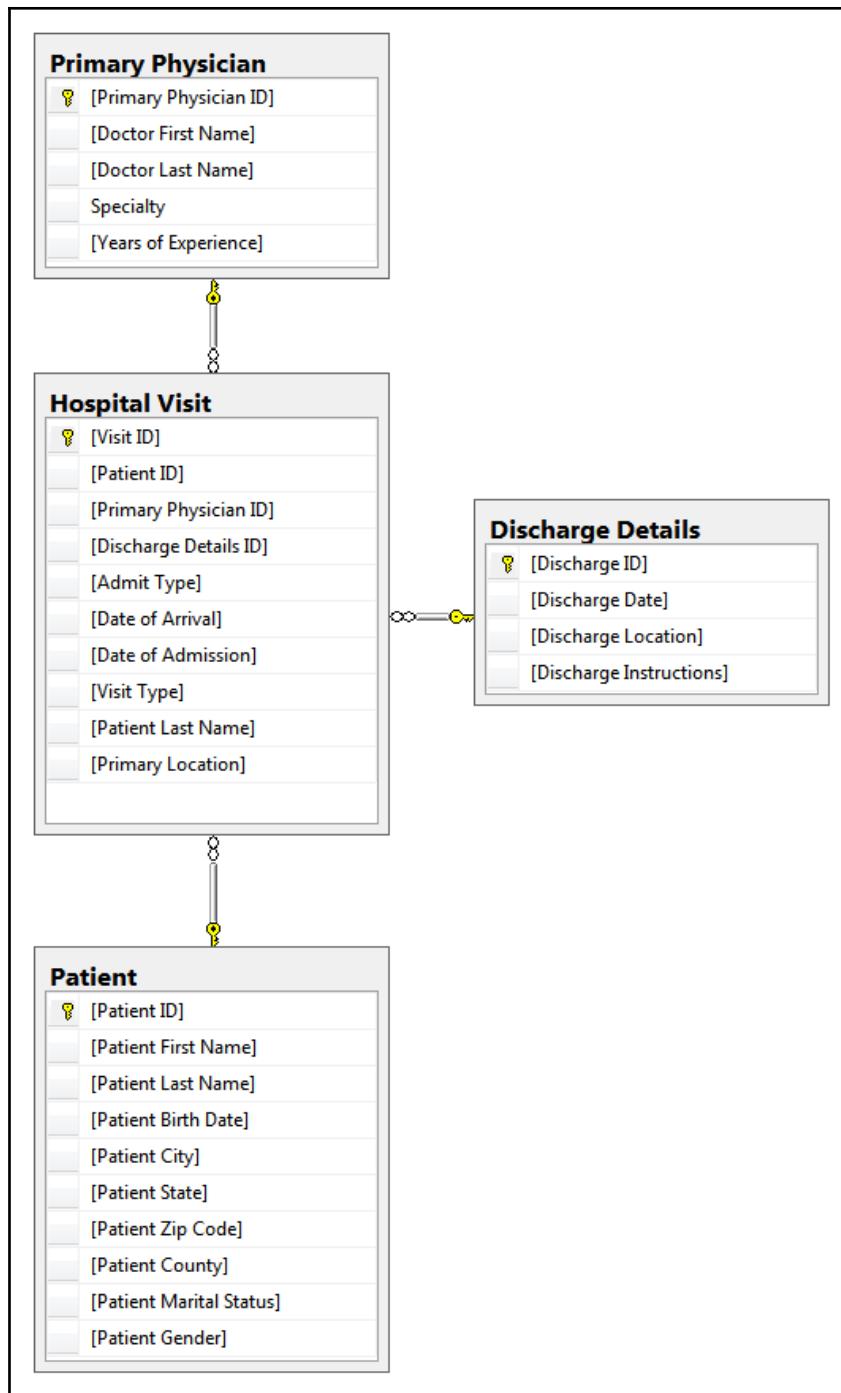
Data **Analytics** **+**

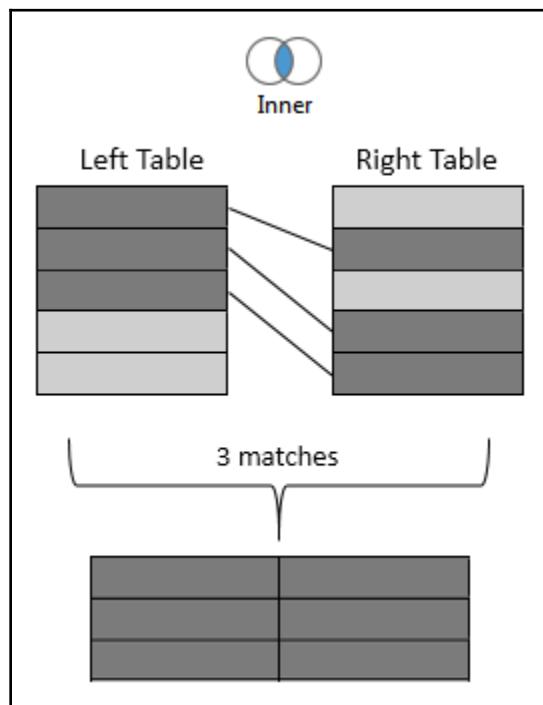
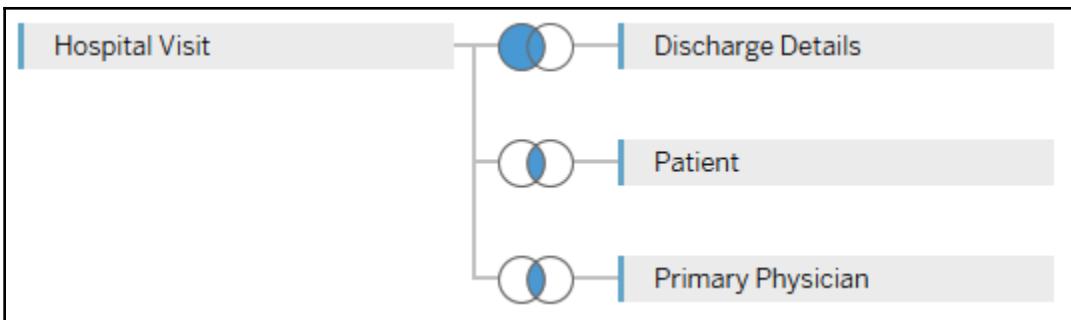
Orders and Returns

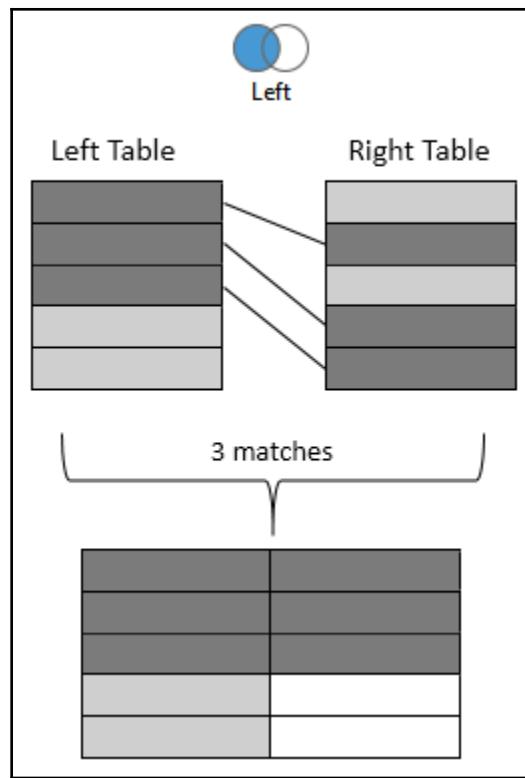
Superstore (Google Sheets)

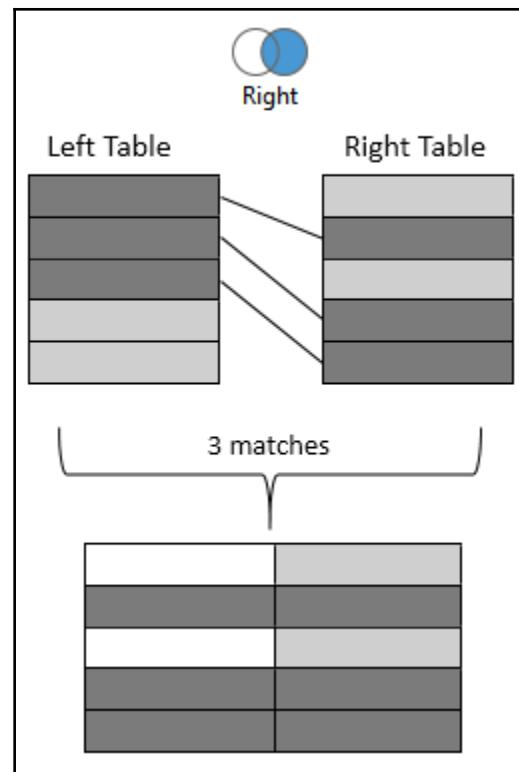


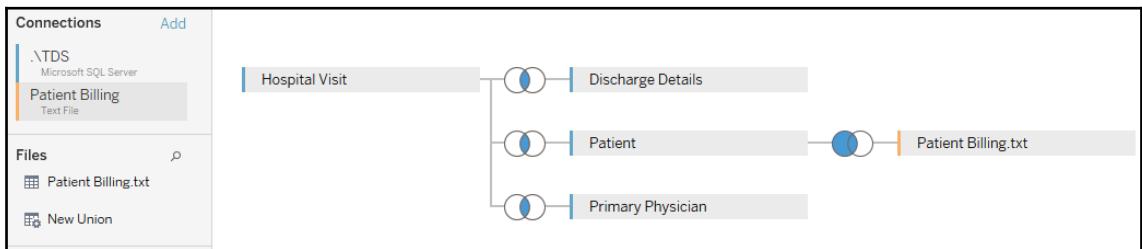
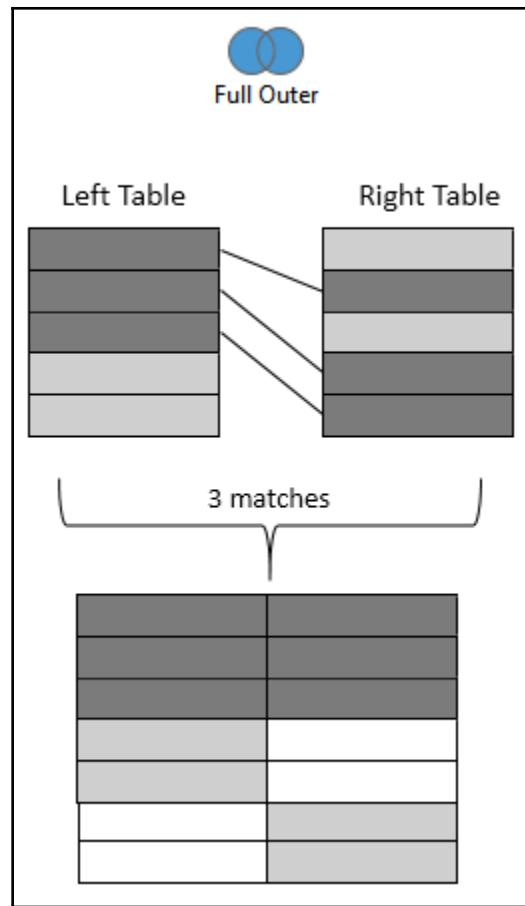


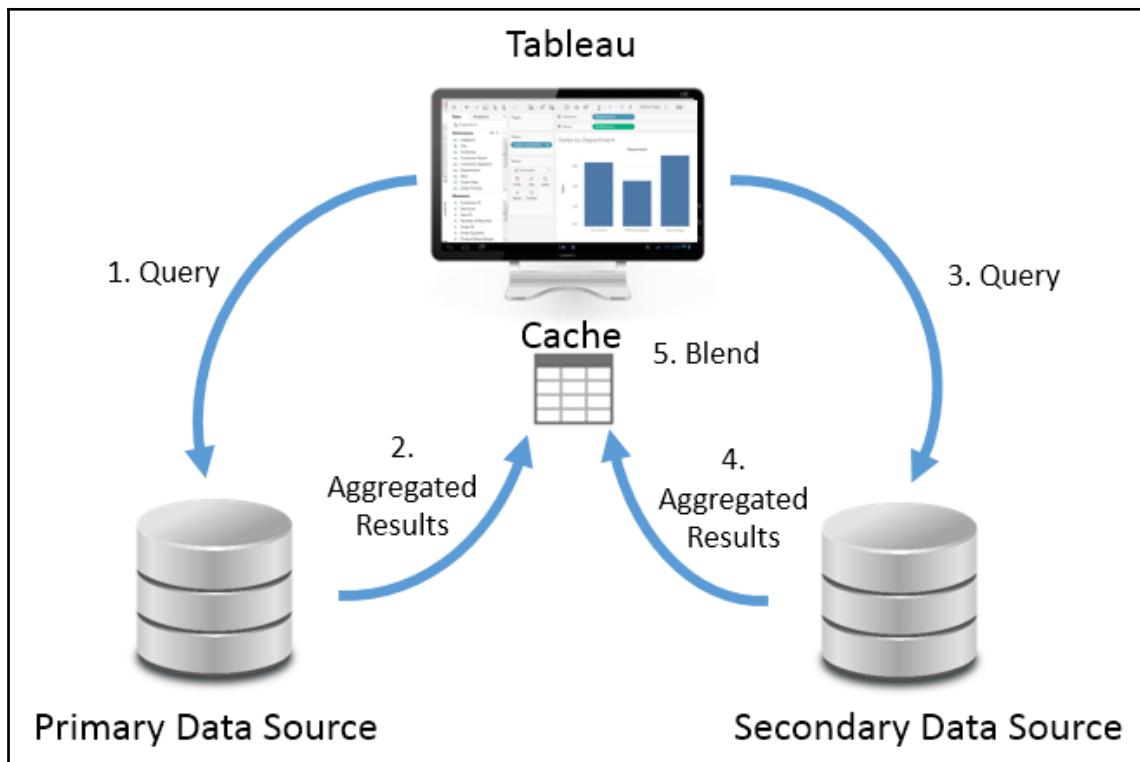












Relationships determine how data from secondary data sources are joined with primary data sources.

Primary data source:

Sales

Secondary data source:

Orders and Returns

Sales Goals

Automatic Custom

Custom

State

State

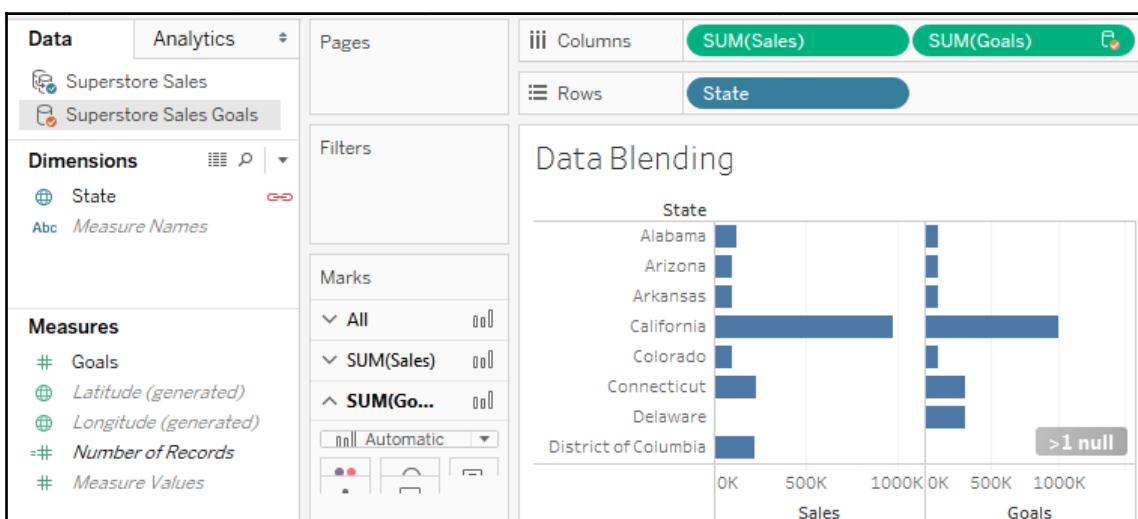
Add

[Edit](#)

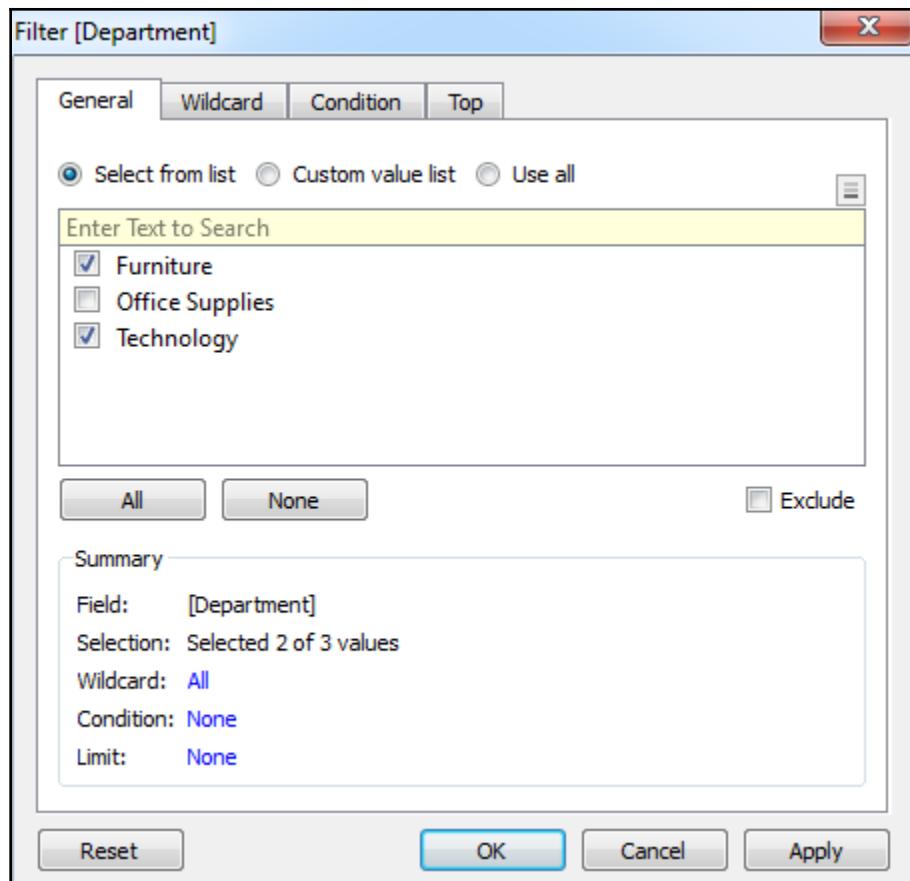
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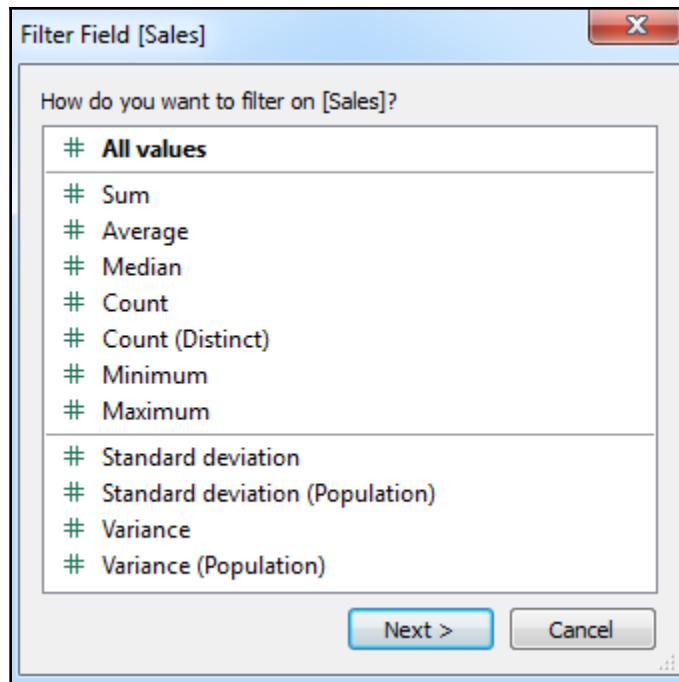
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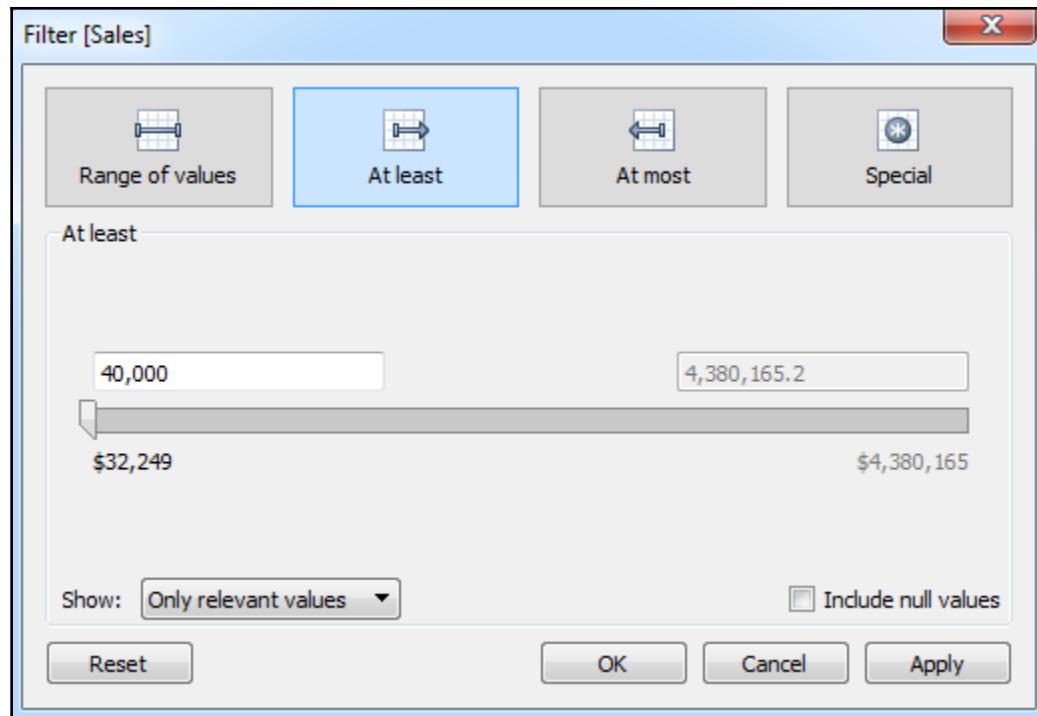
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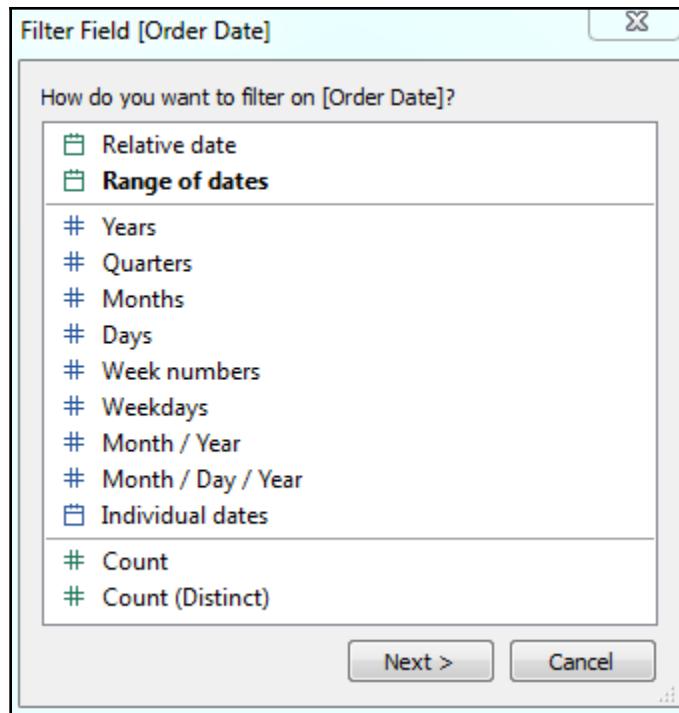


✓ Keep Only ✗ Exclude

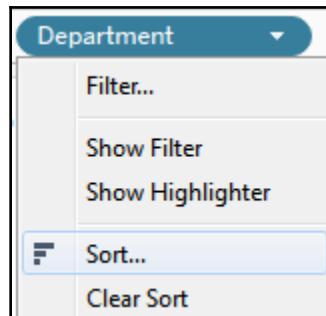
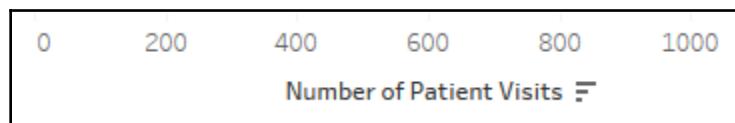
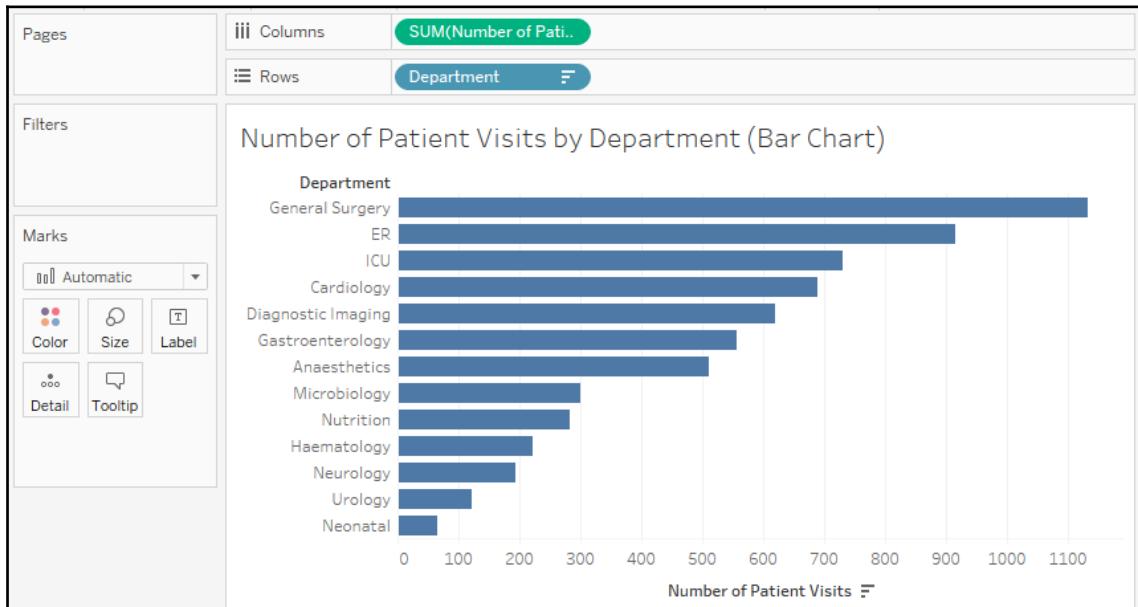


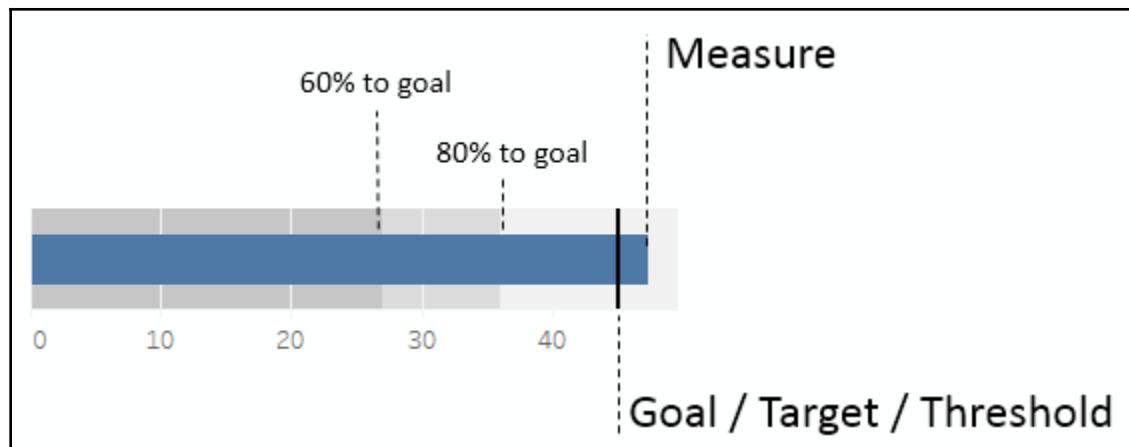




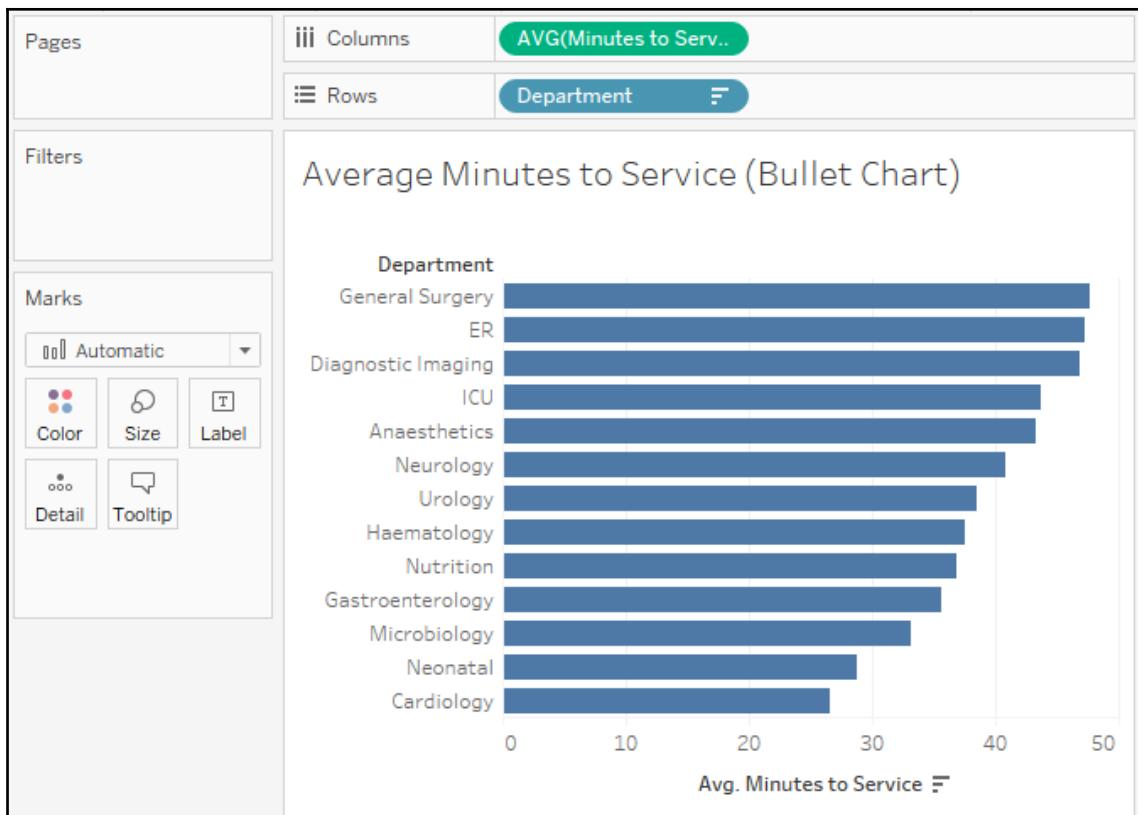


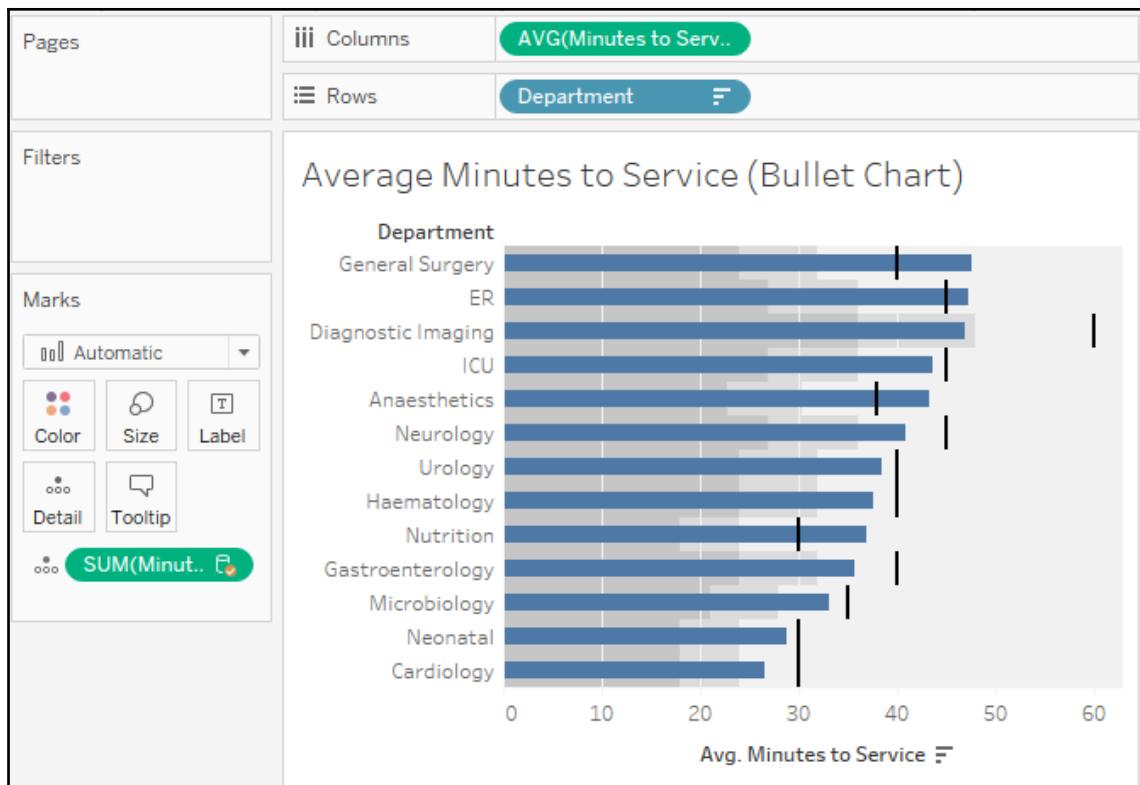
Chapter 3: Venturing on to Advanced Visualizations

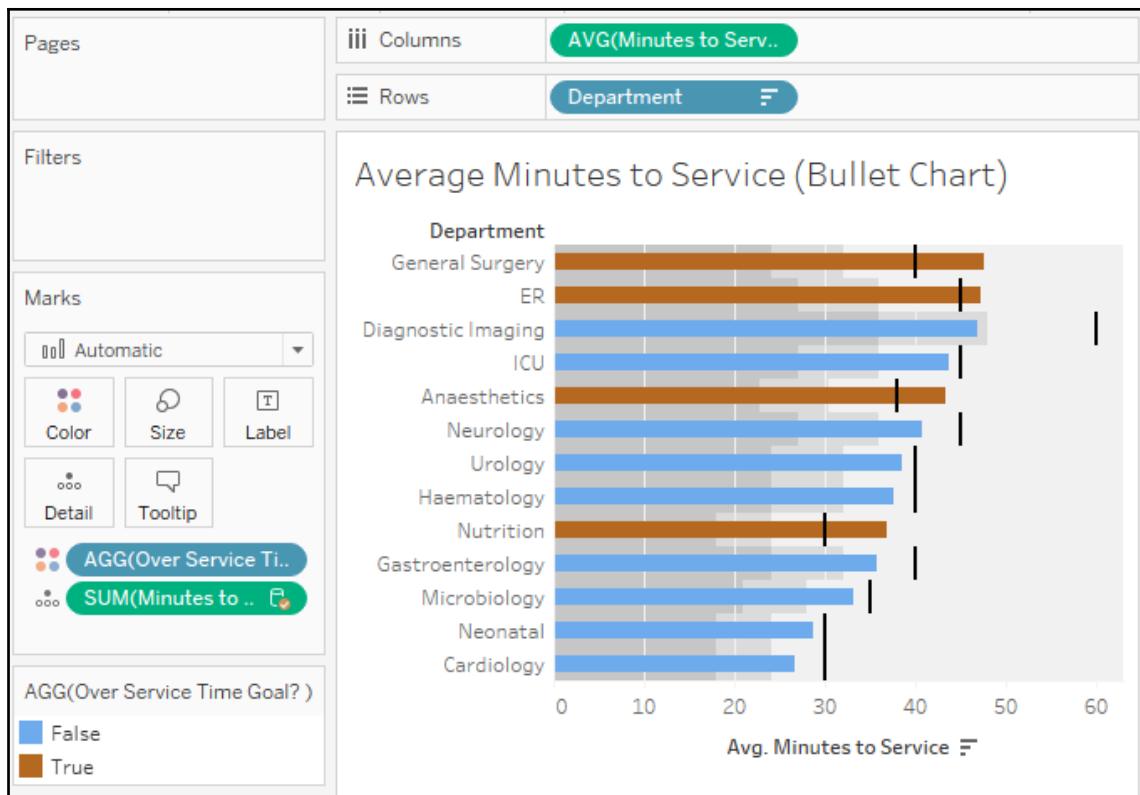


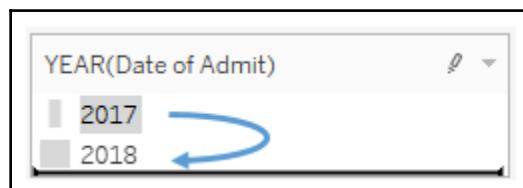
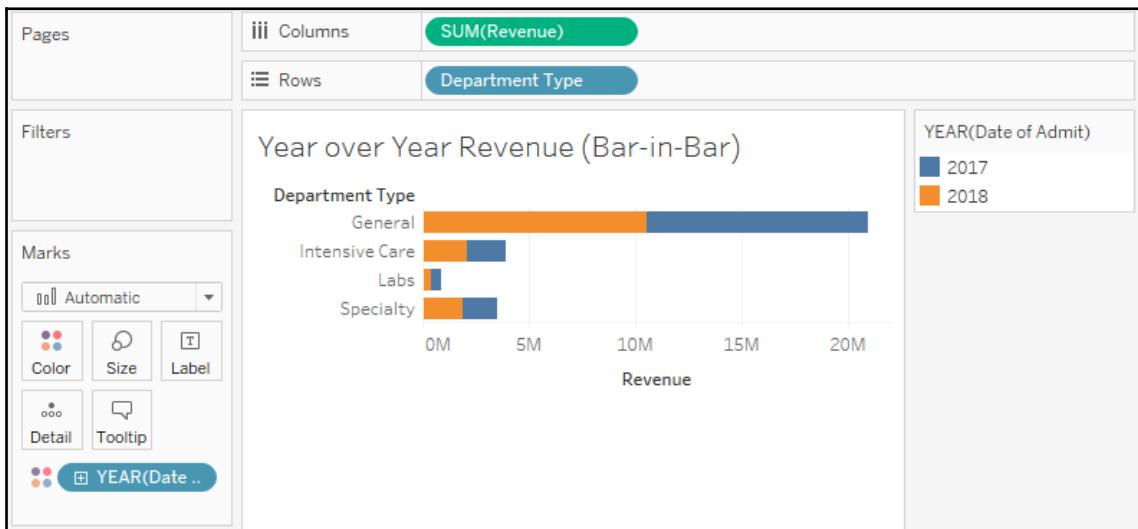
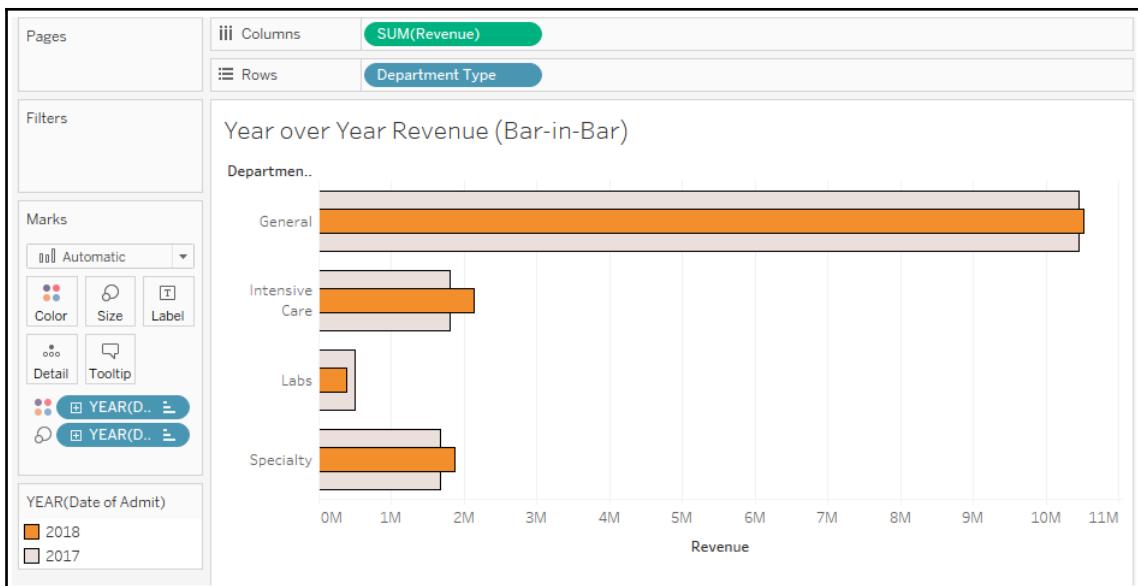


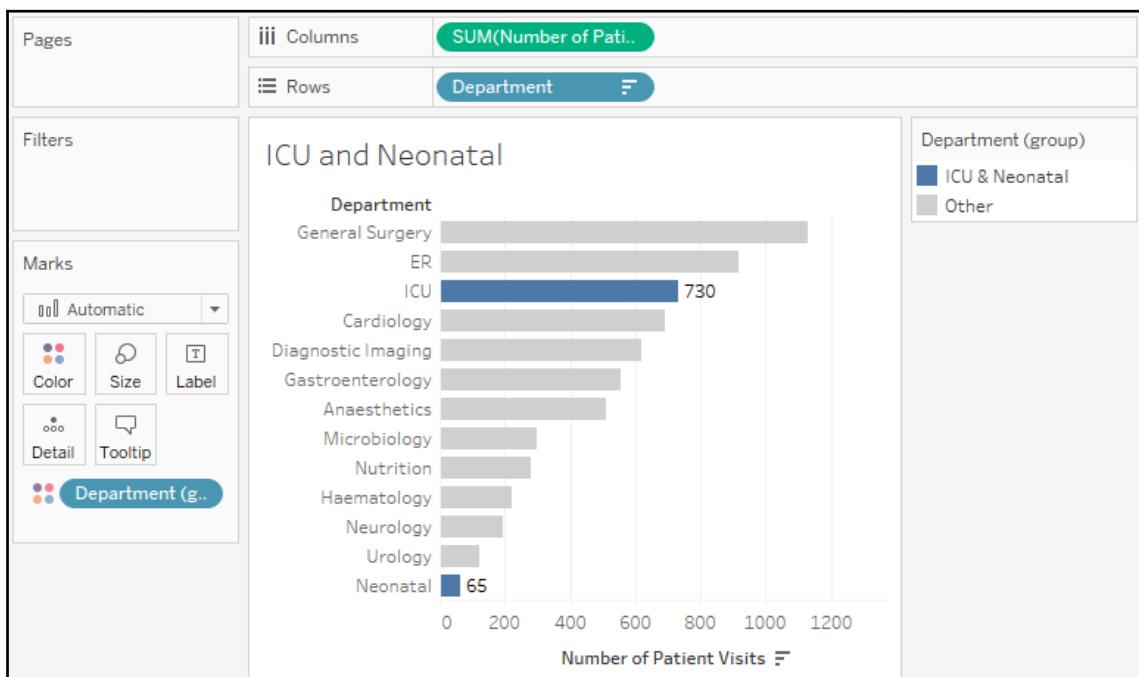
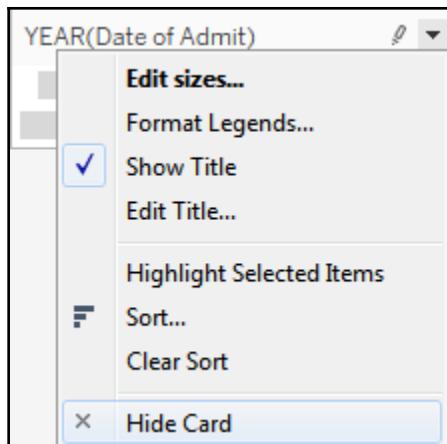
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Anaesthetics	38
Cardiology	30
Diagnostic Imaging	60
ER	45
Gastroenterology	40
General Surgery	40
Haematology	40
ICU	45
Microbiology	35
Neonatal	30
Neurology	45
Nutrition	30
Urology	40

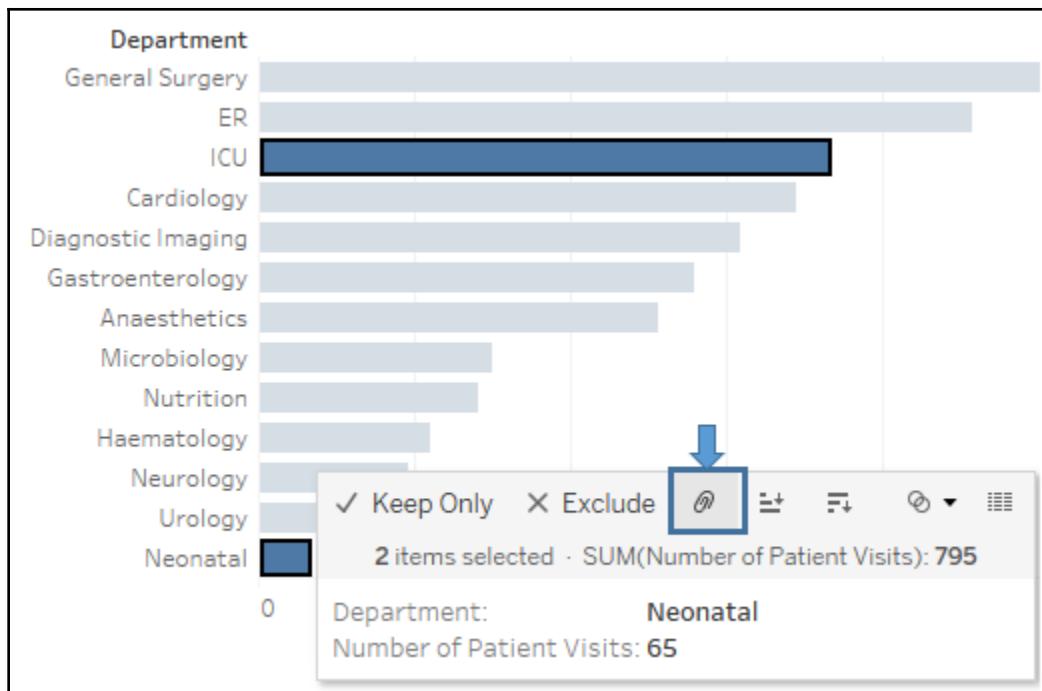




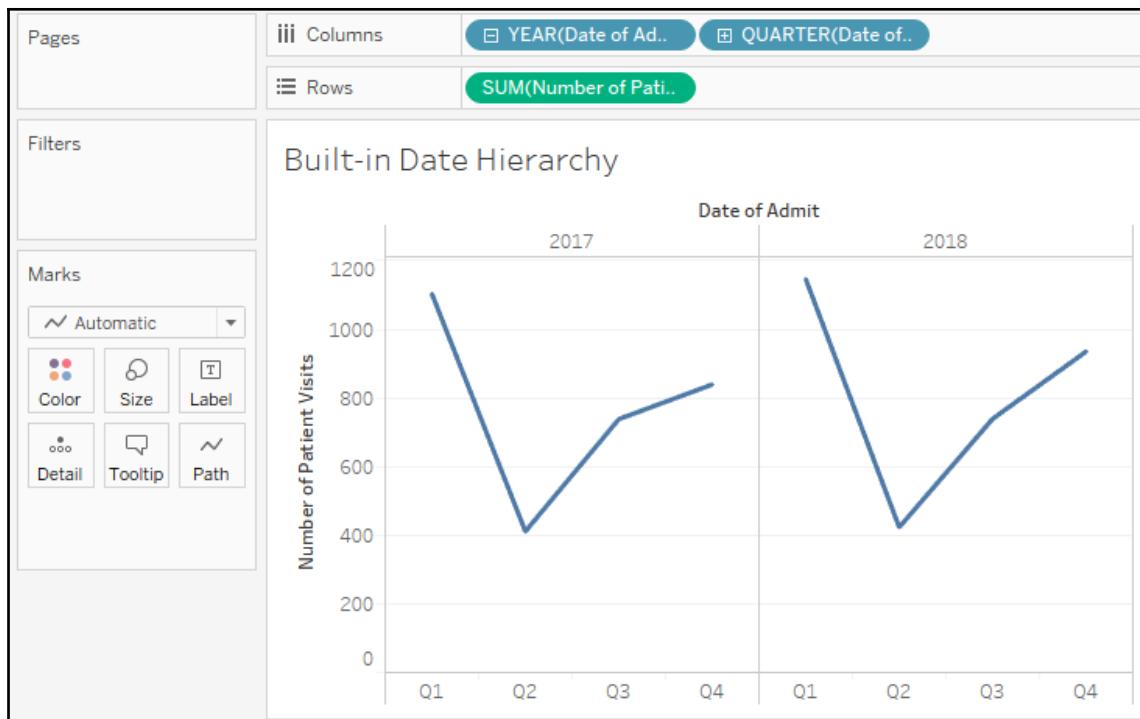


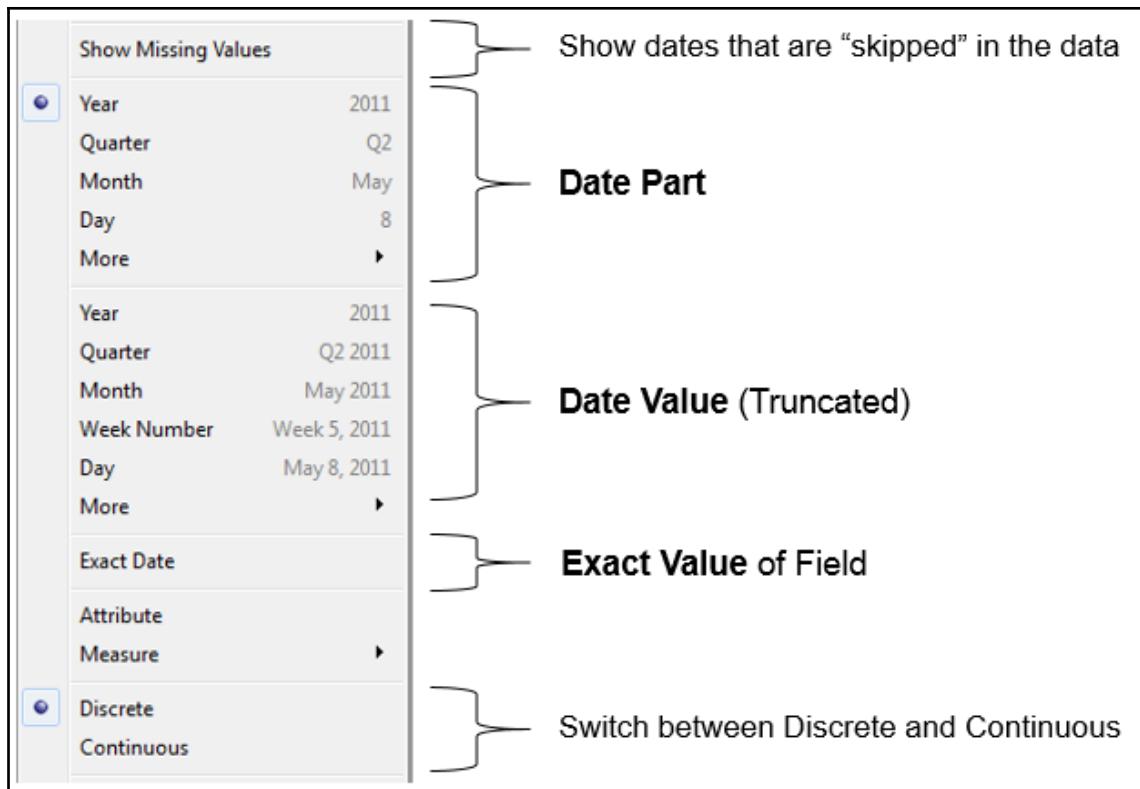


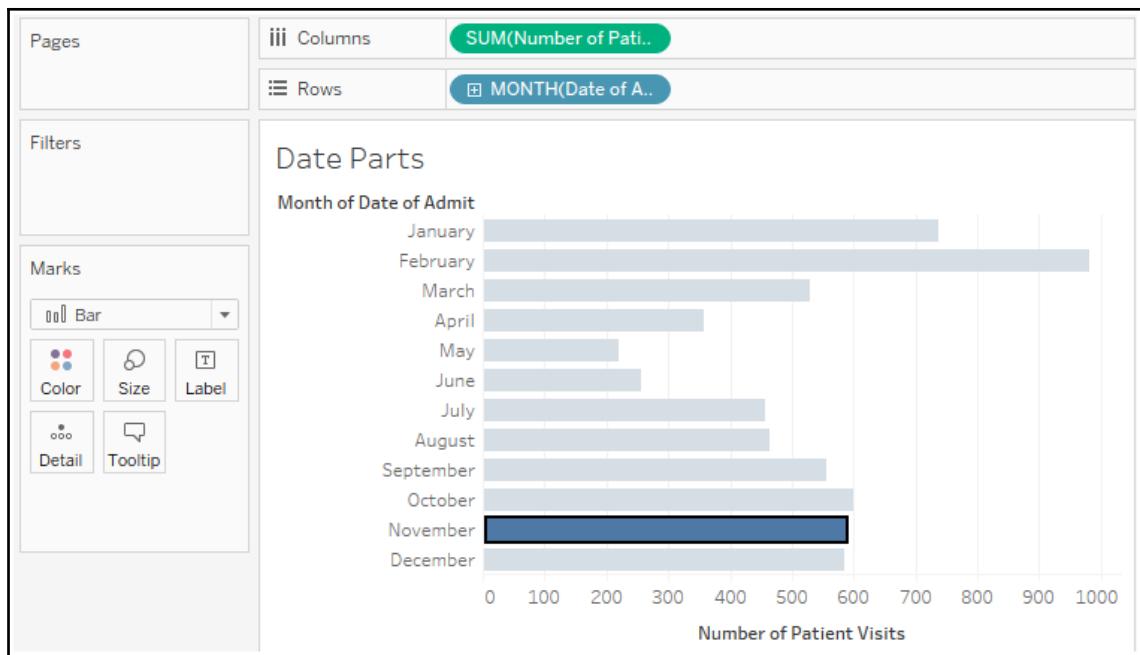


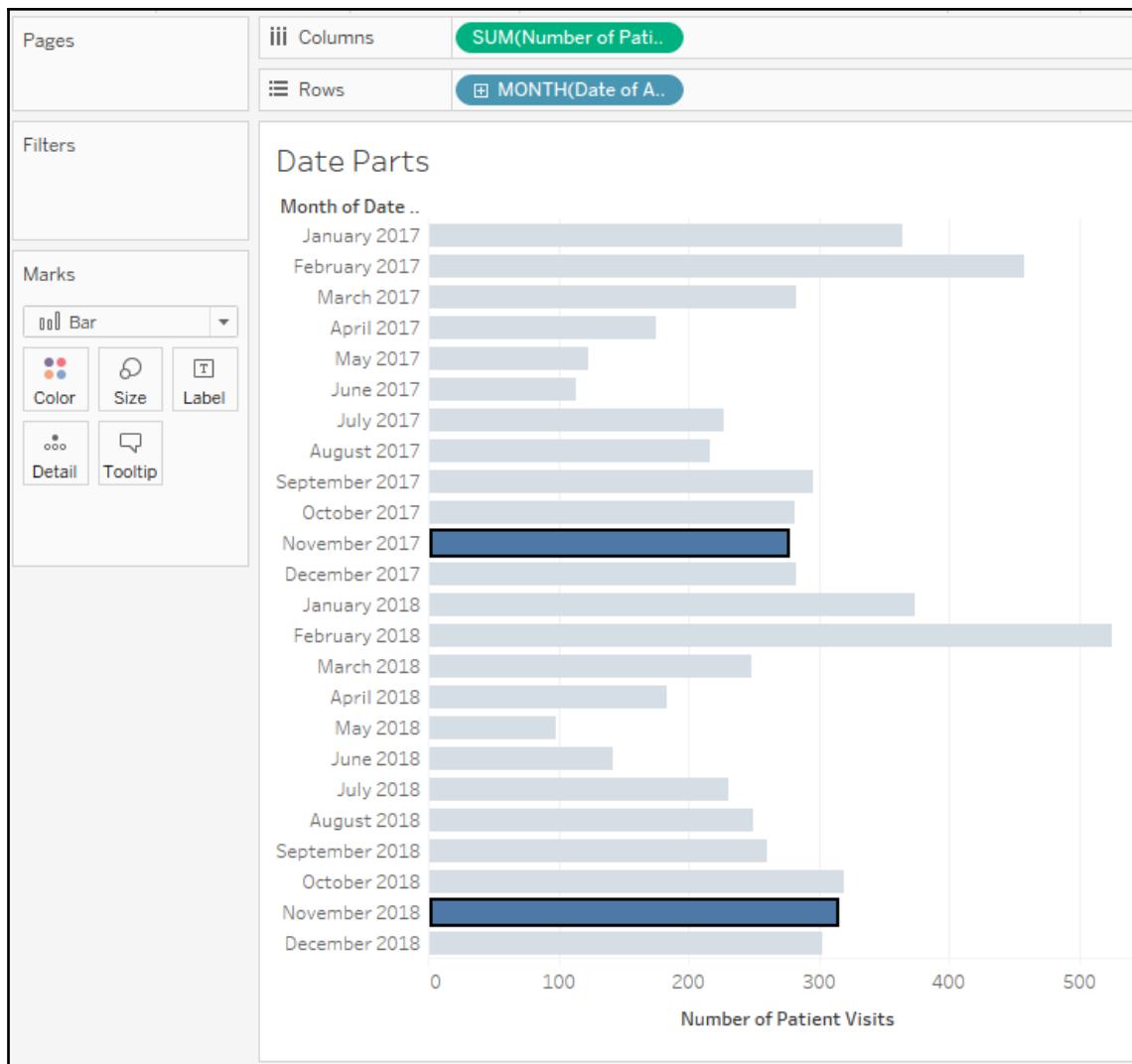


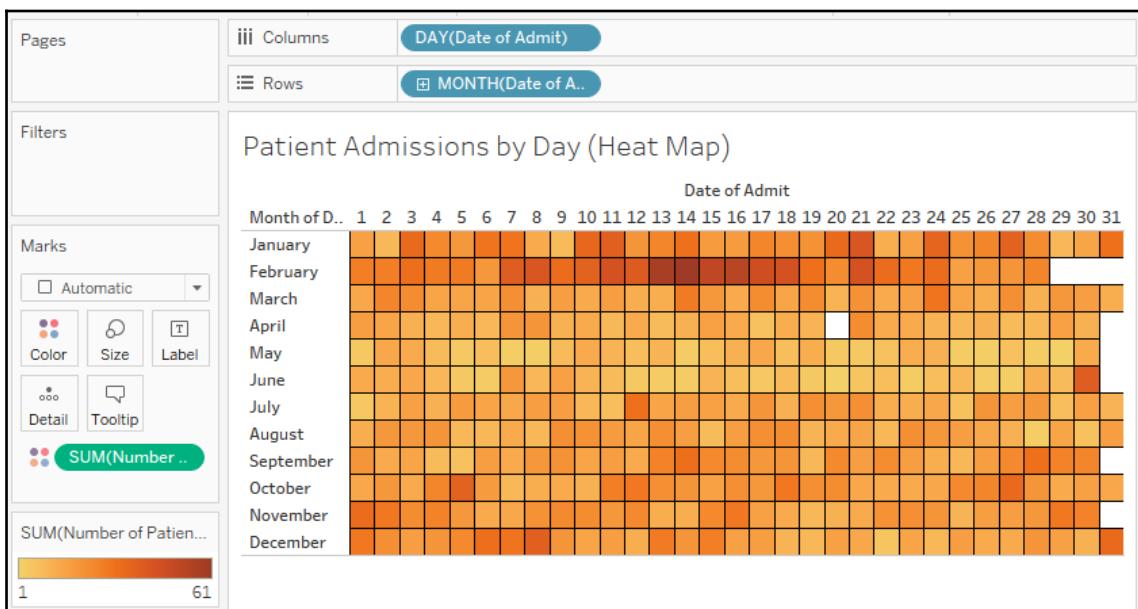
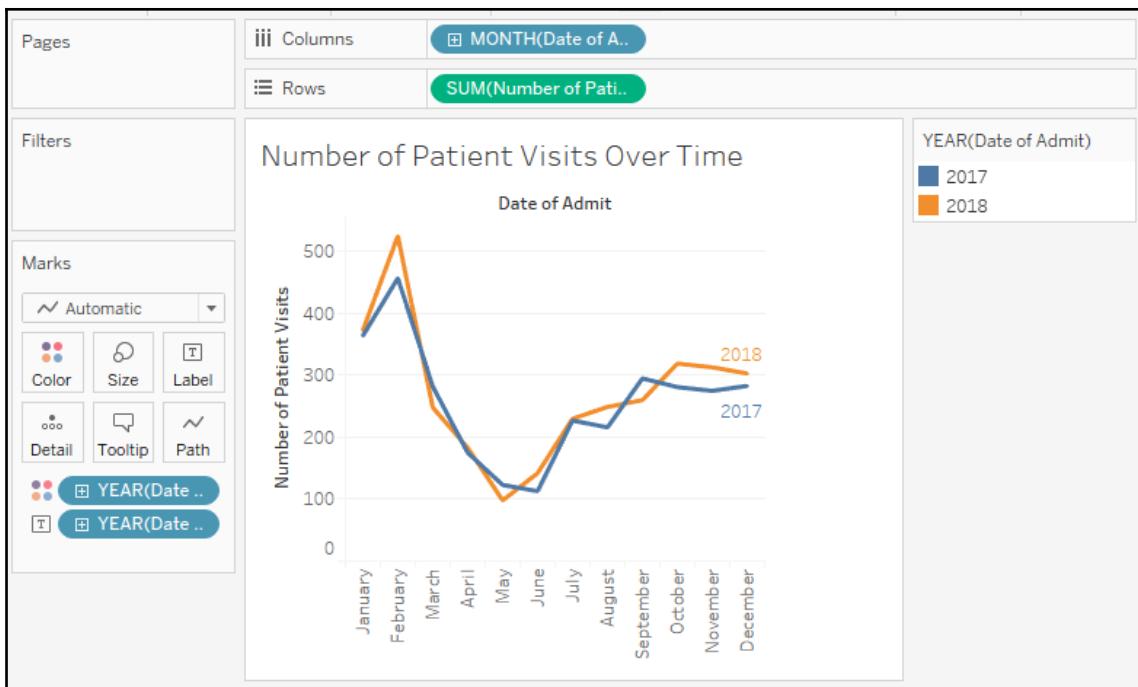
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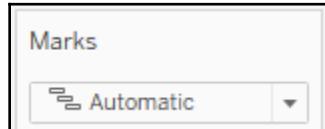
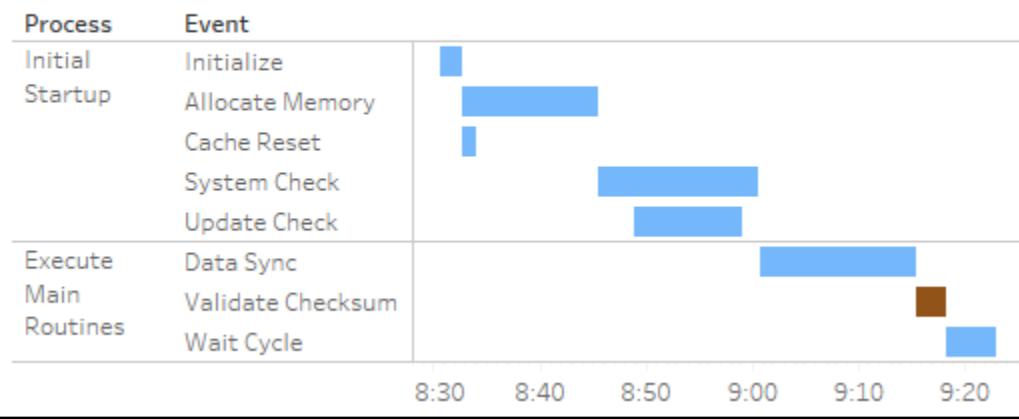






Software Event Log (Gantt Chart)

■ Error
■ Success



Sort [Patient Name] X

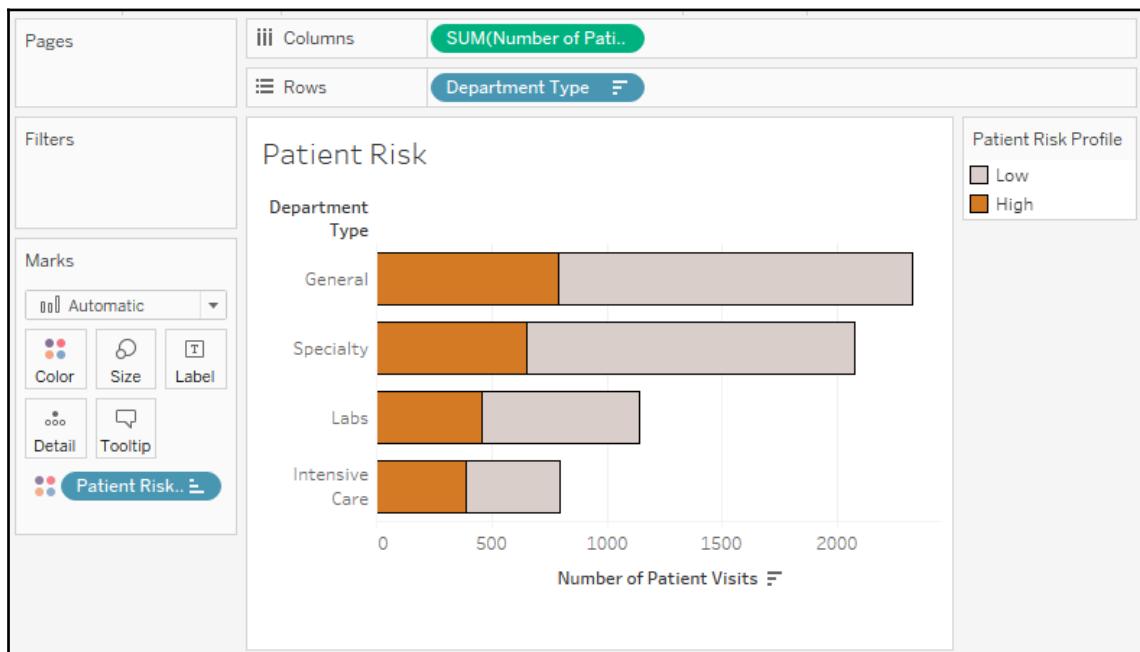
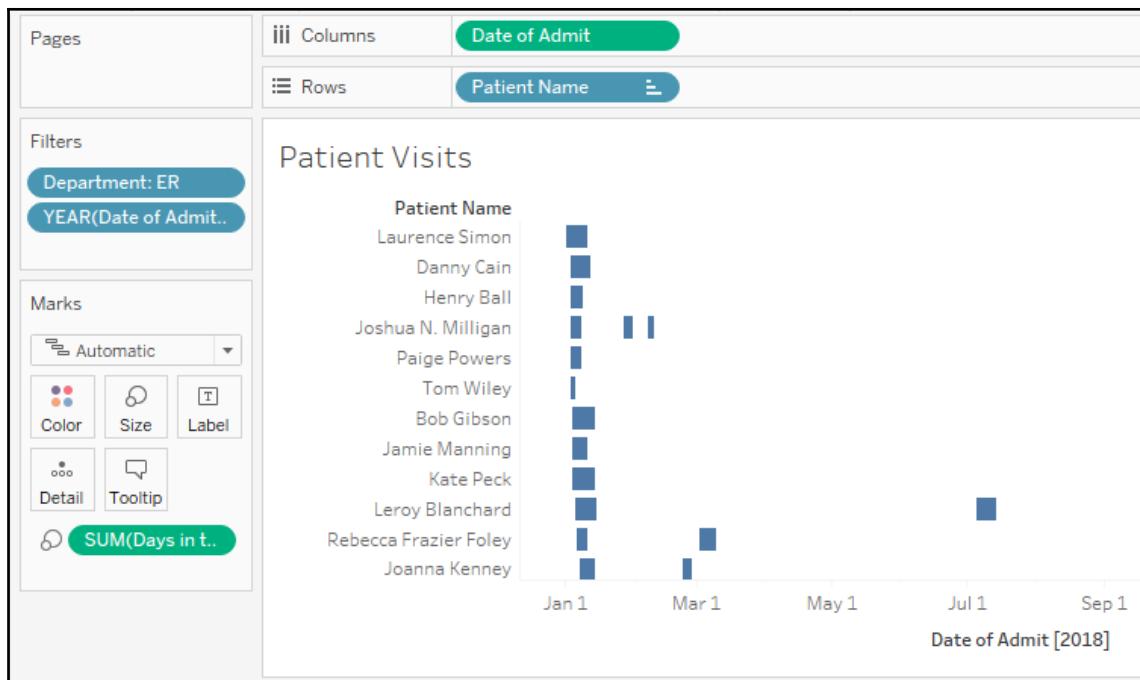
Sort By
Field ▼

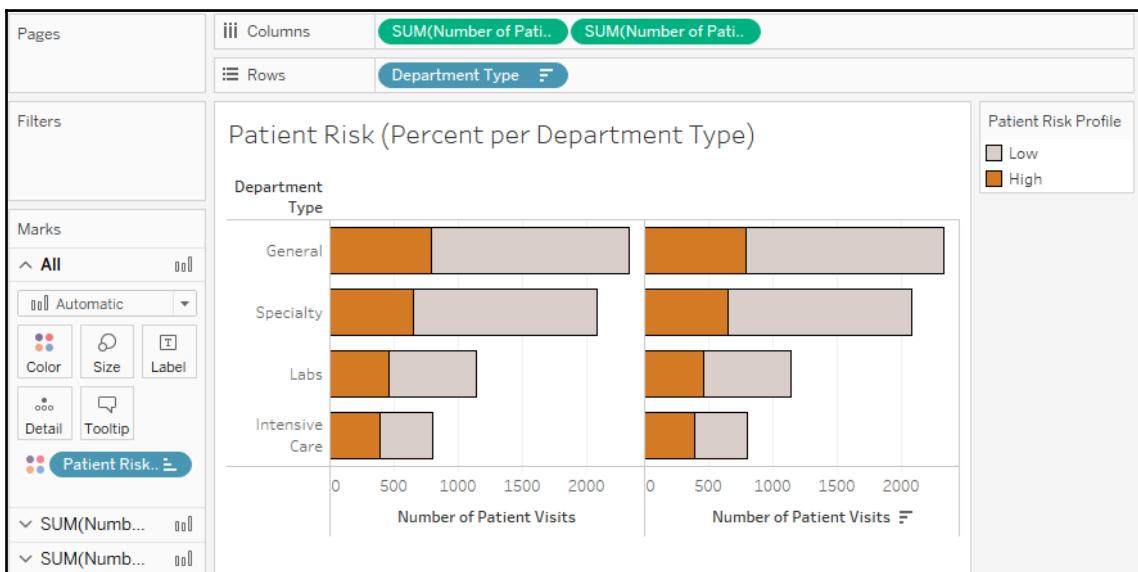
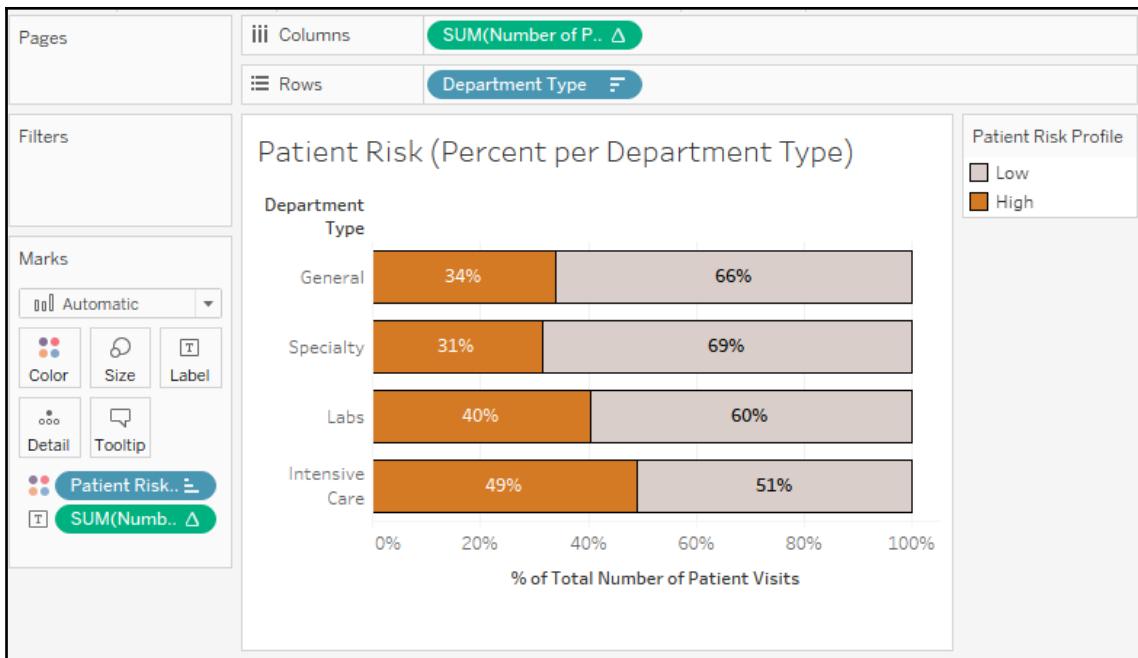
Sort Order
 Ascending
 Descending

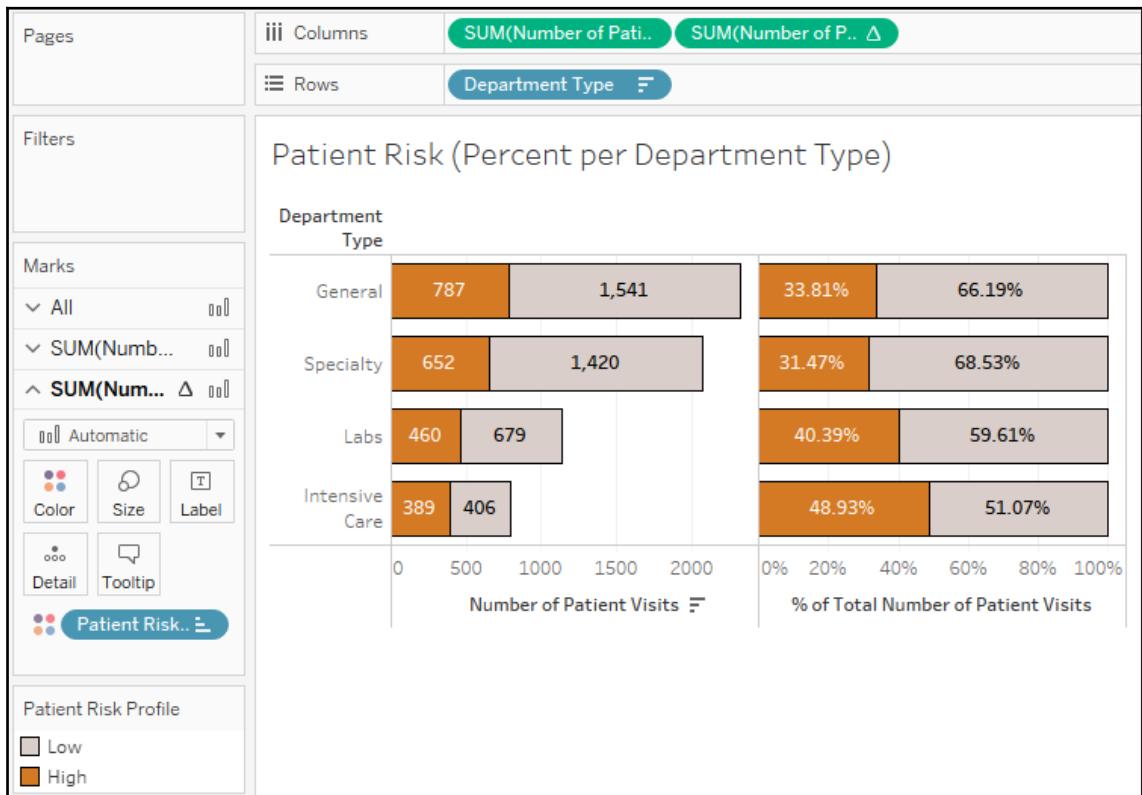
Field Name
Date of Admit ▼

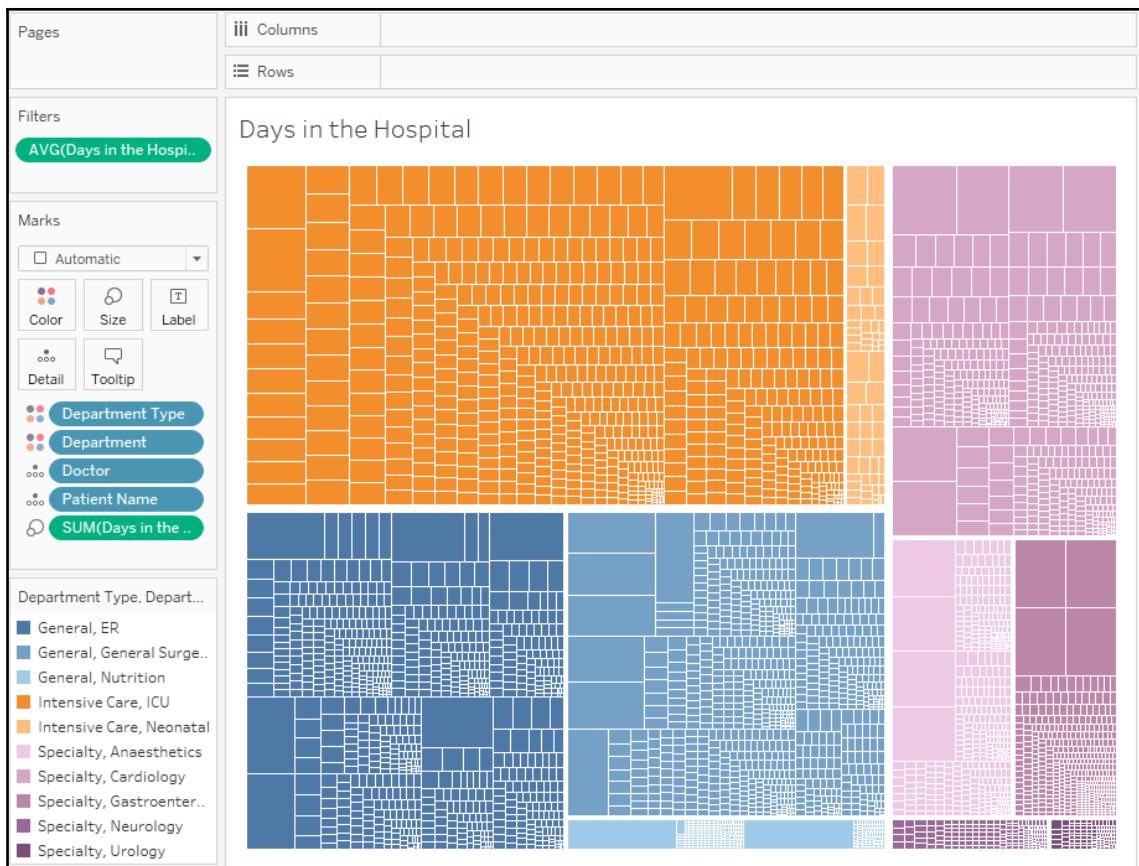
Aggregation
Minimum ▼

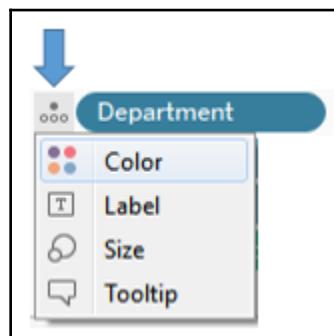
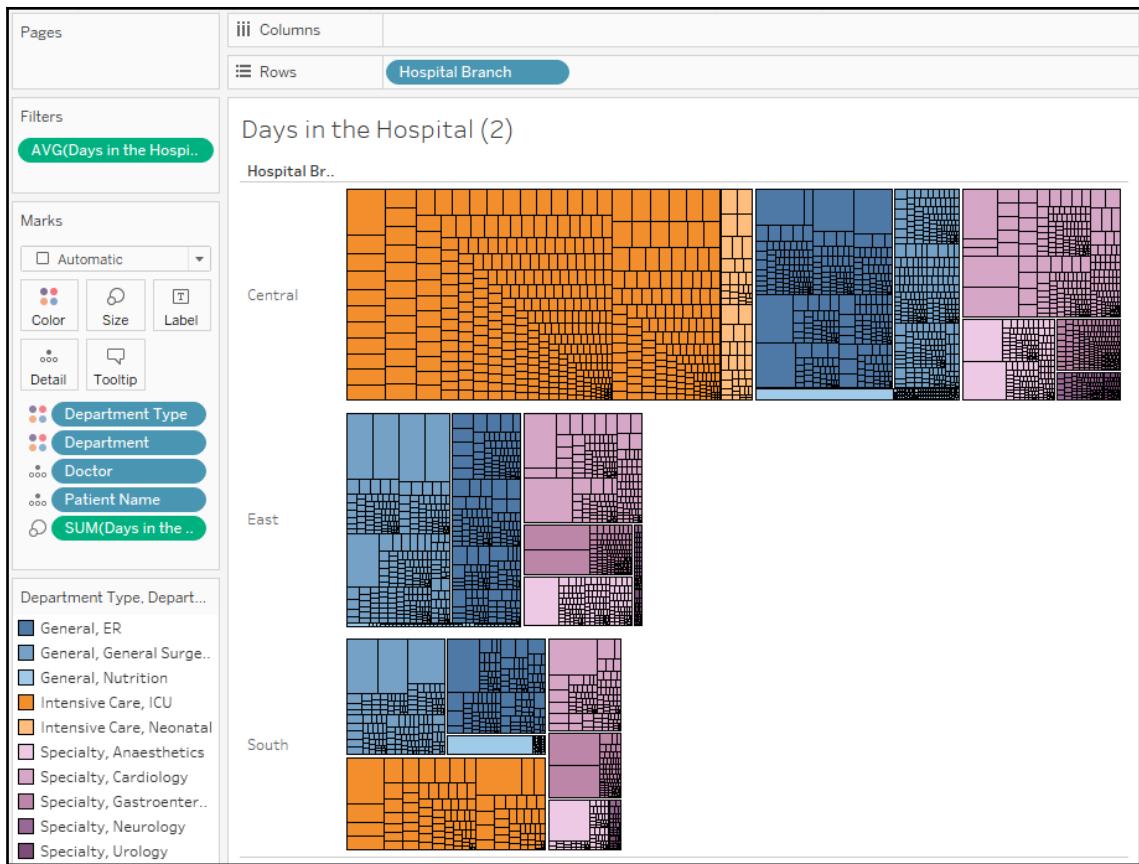
Clear

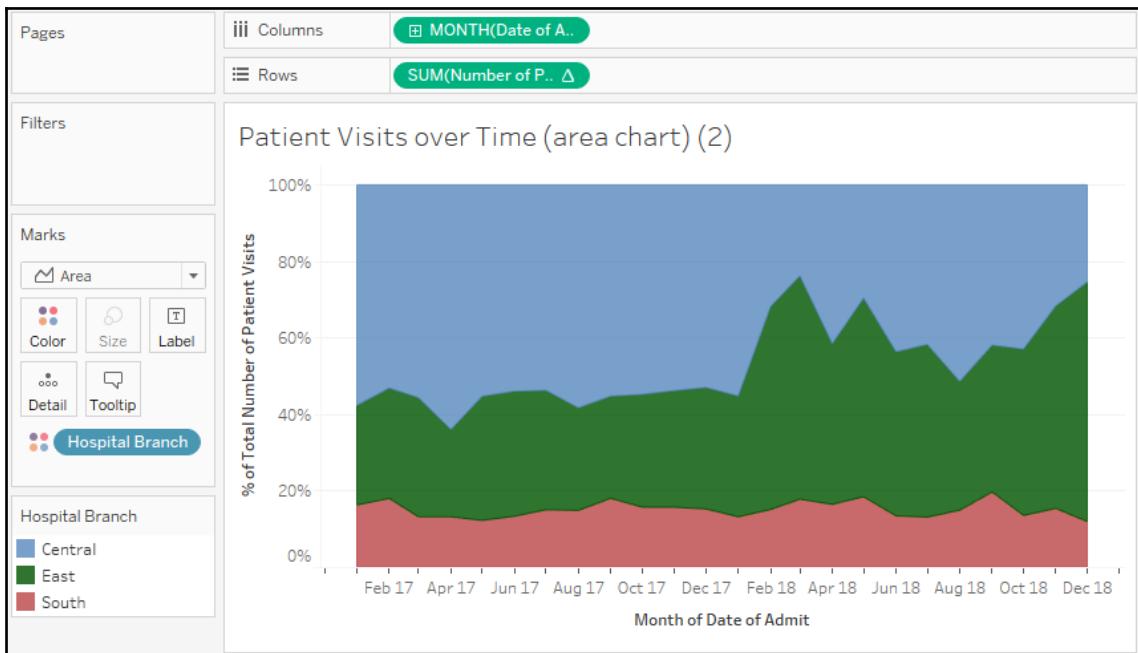
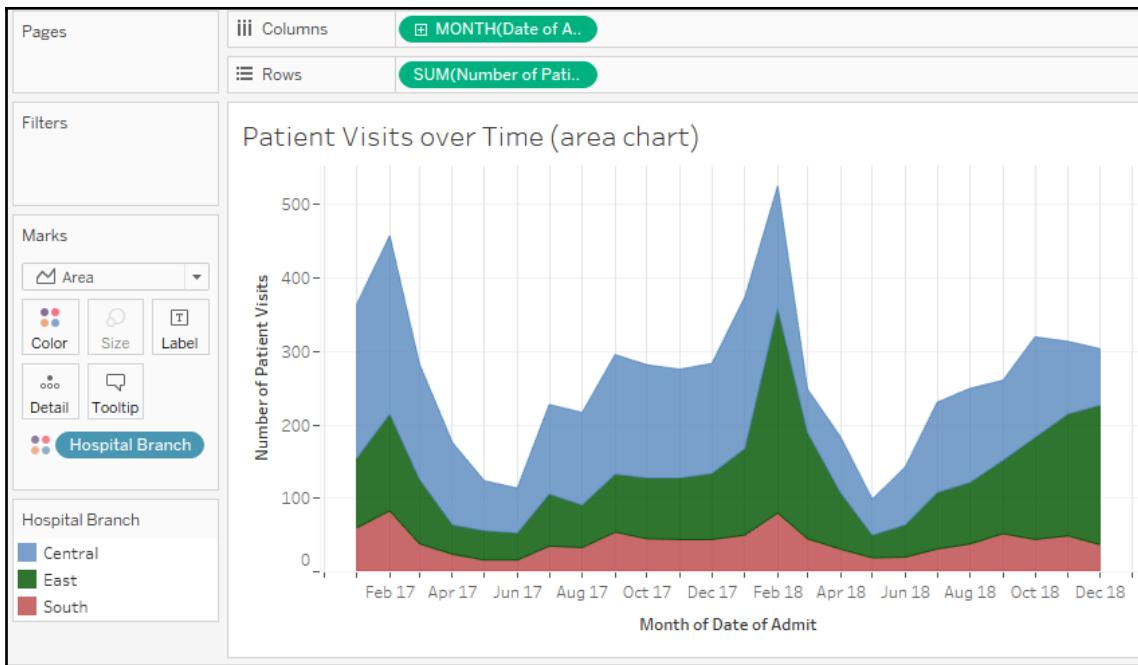


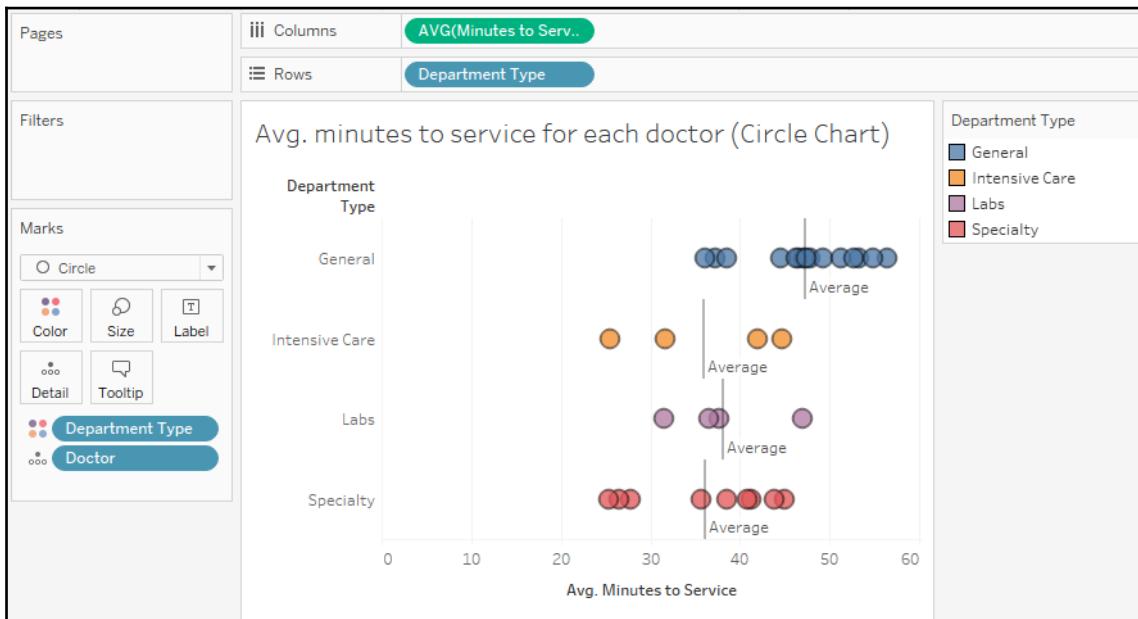
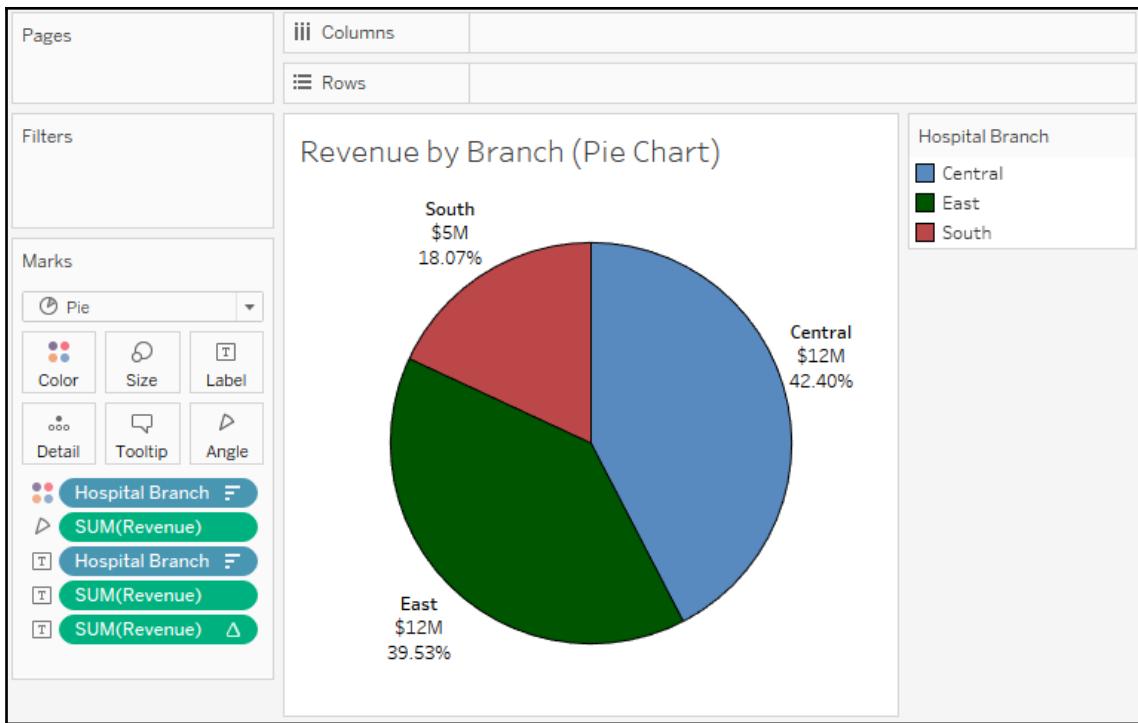


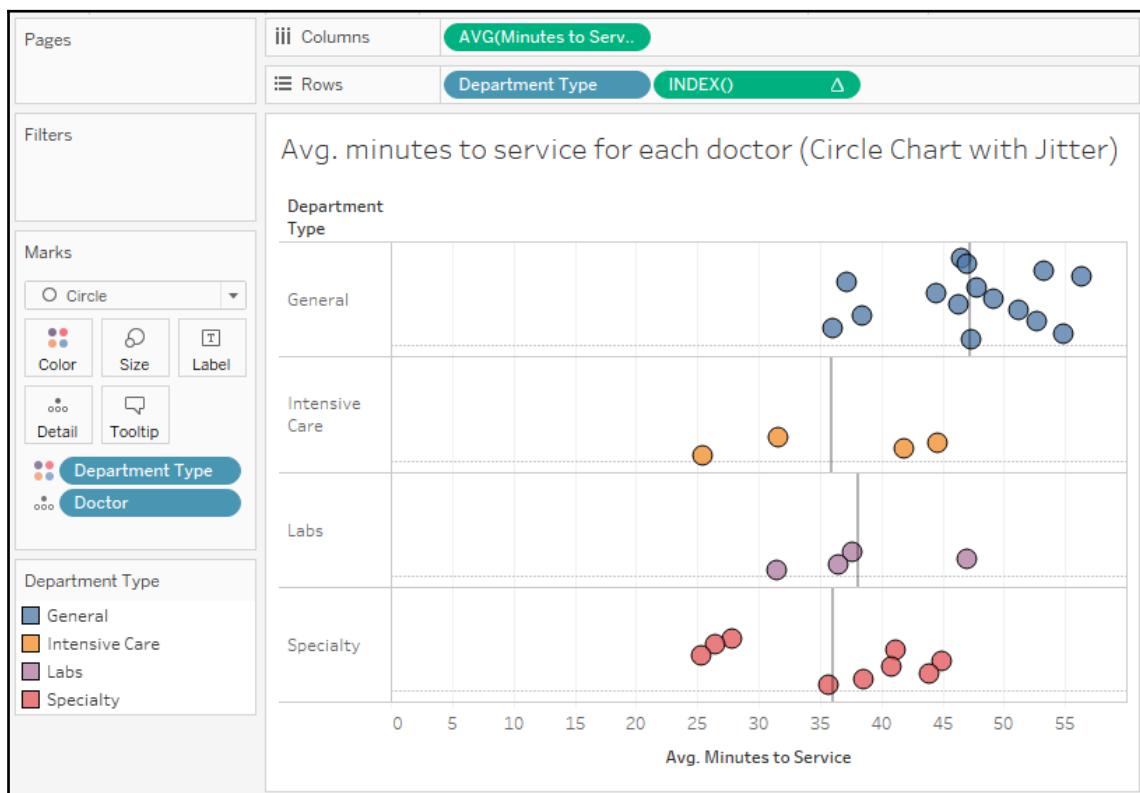
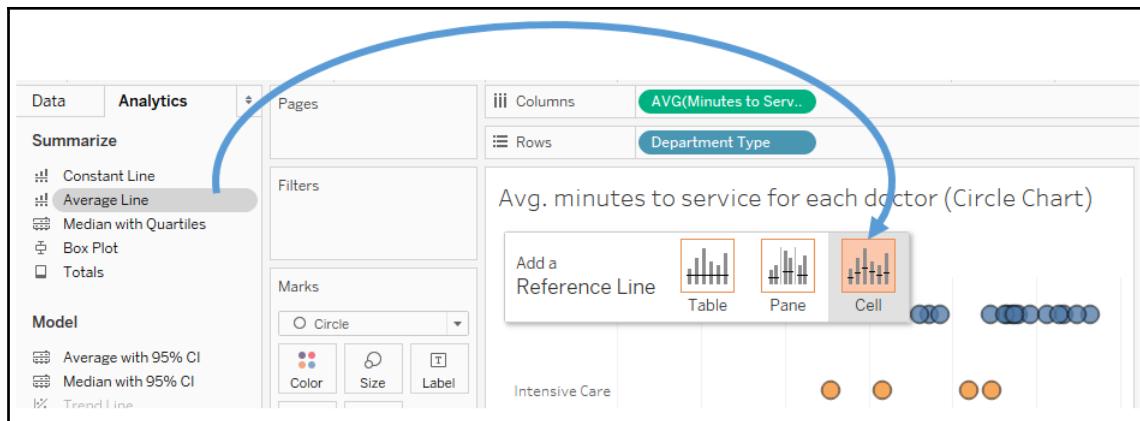


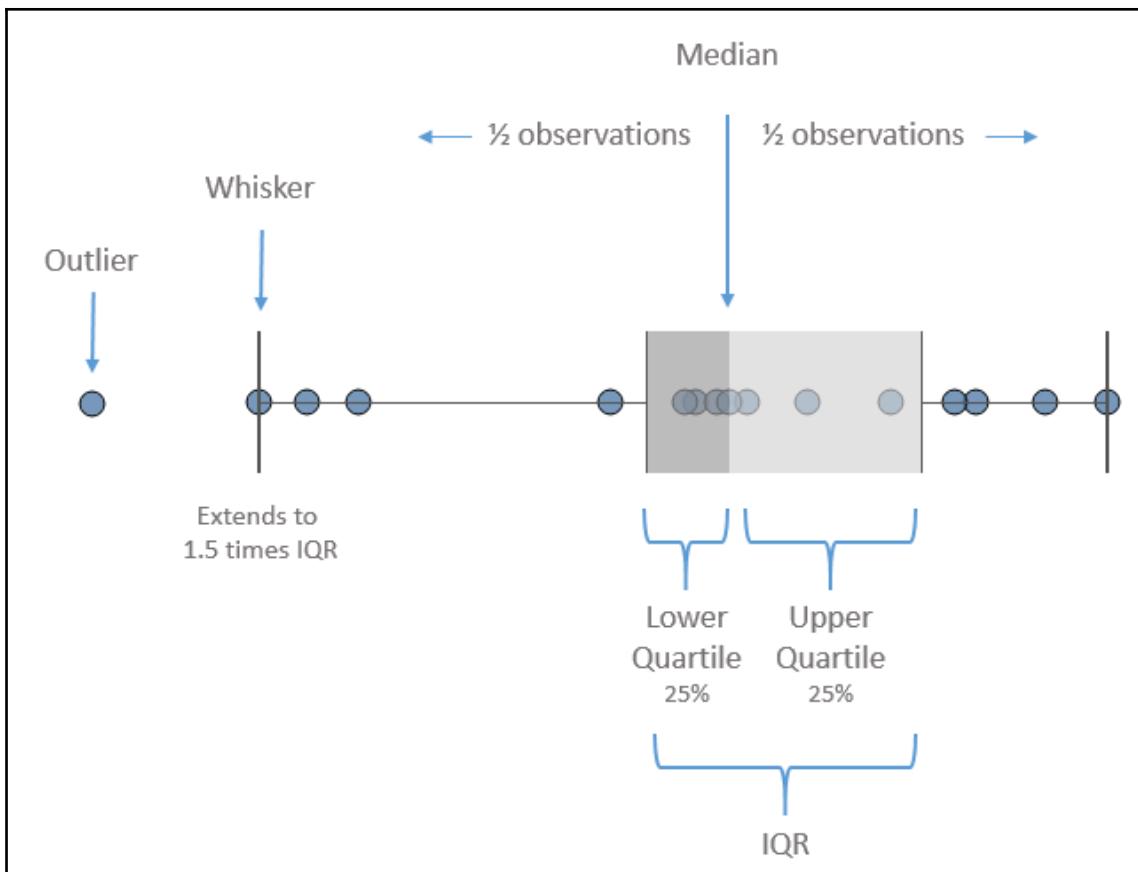


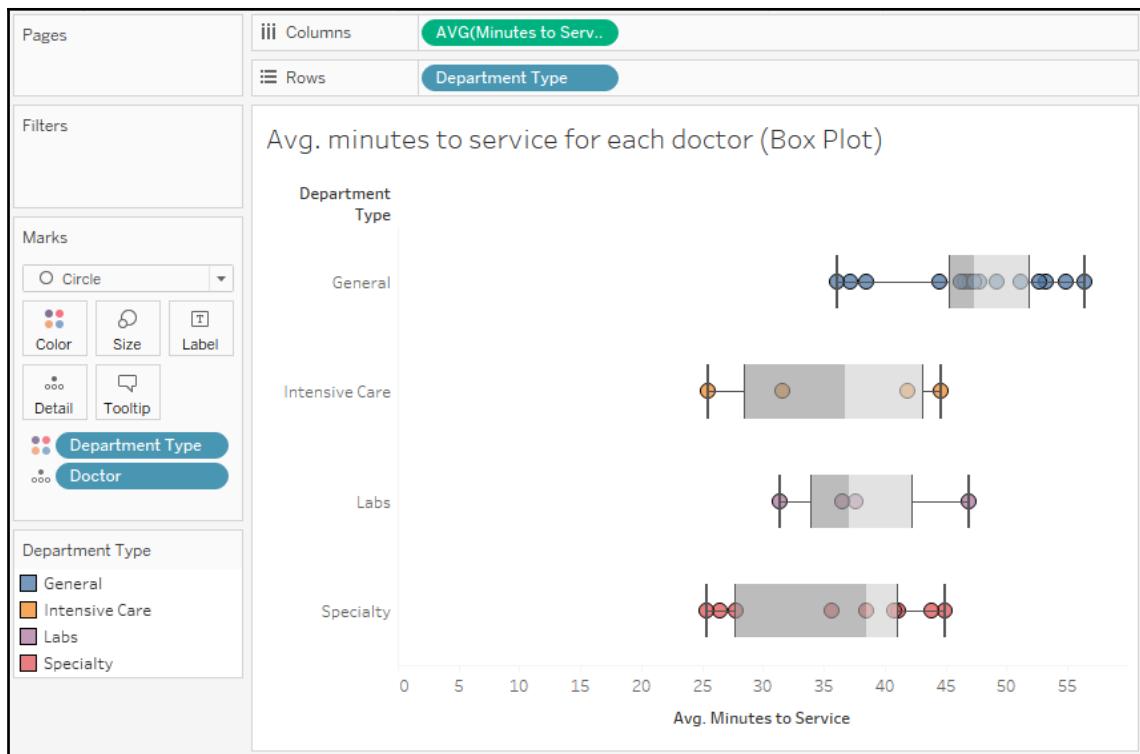


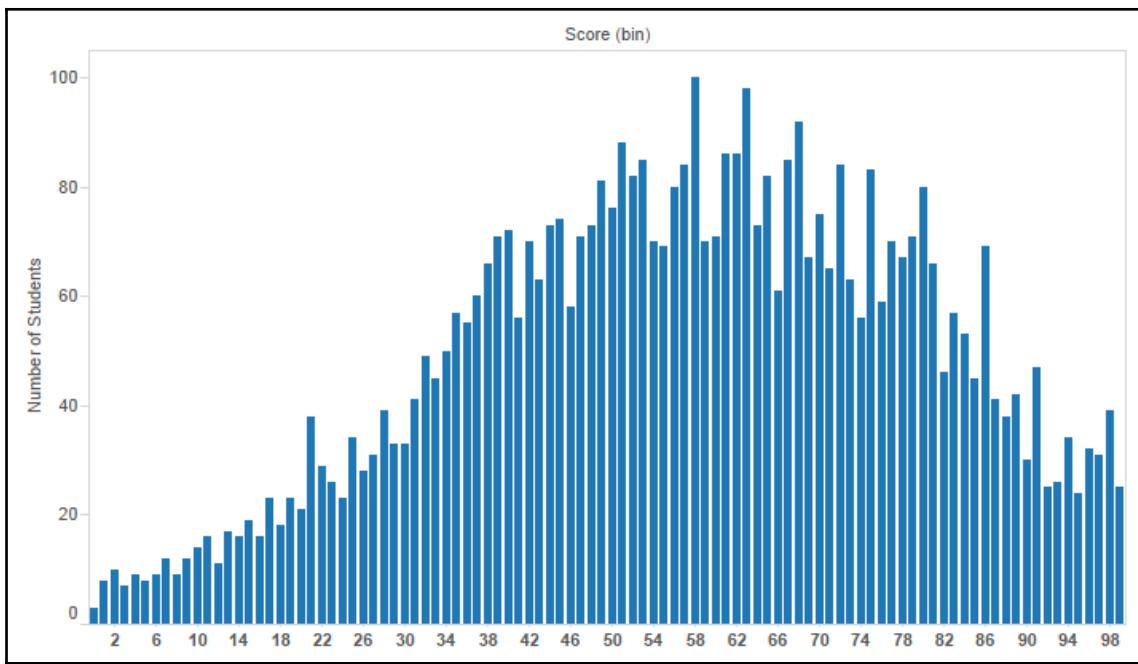


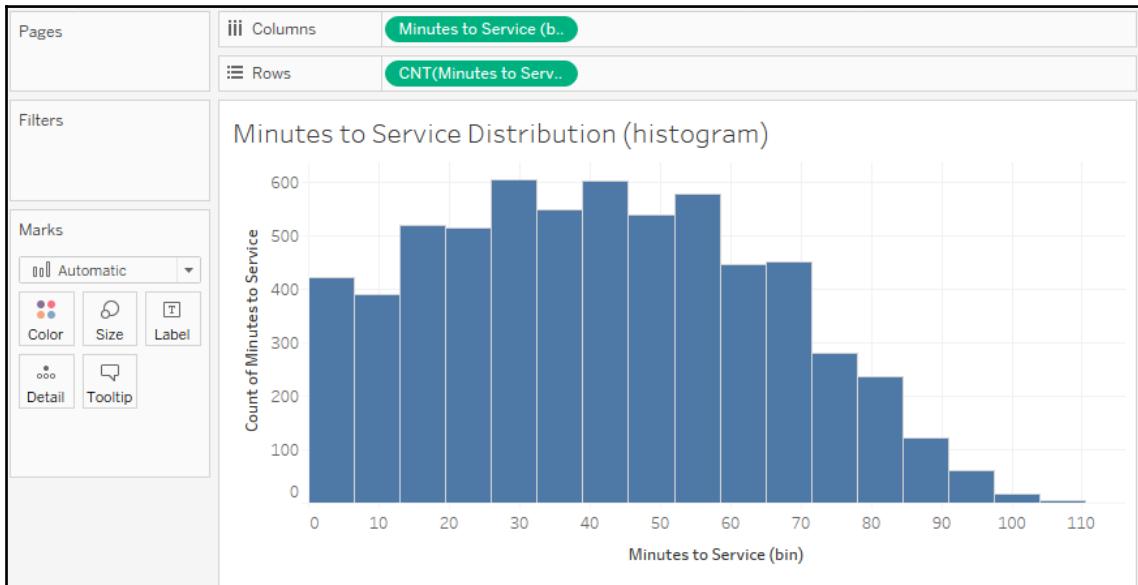
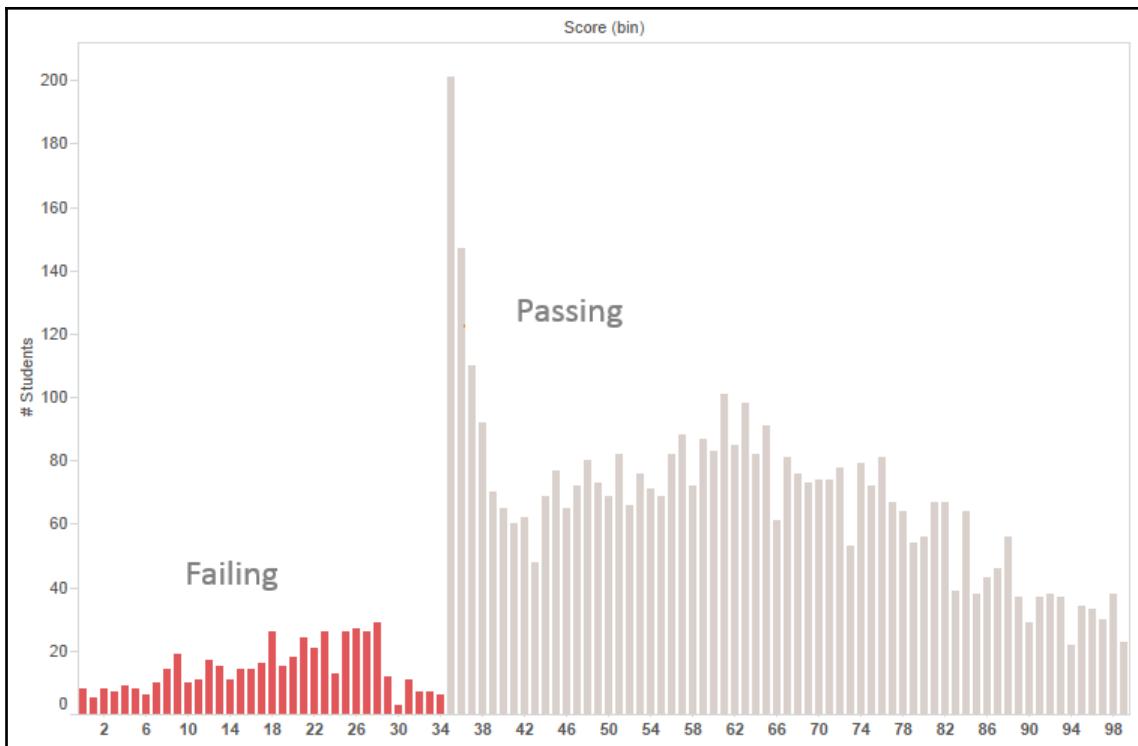


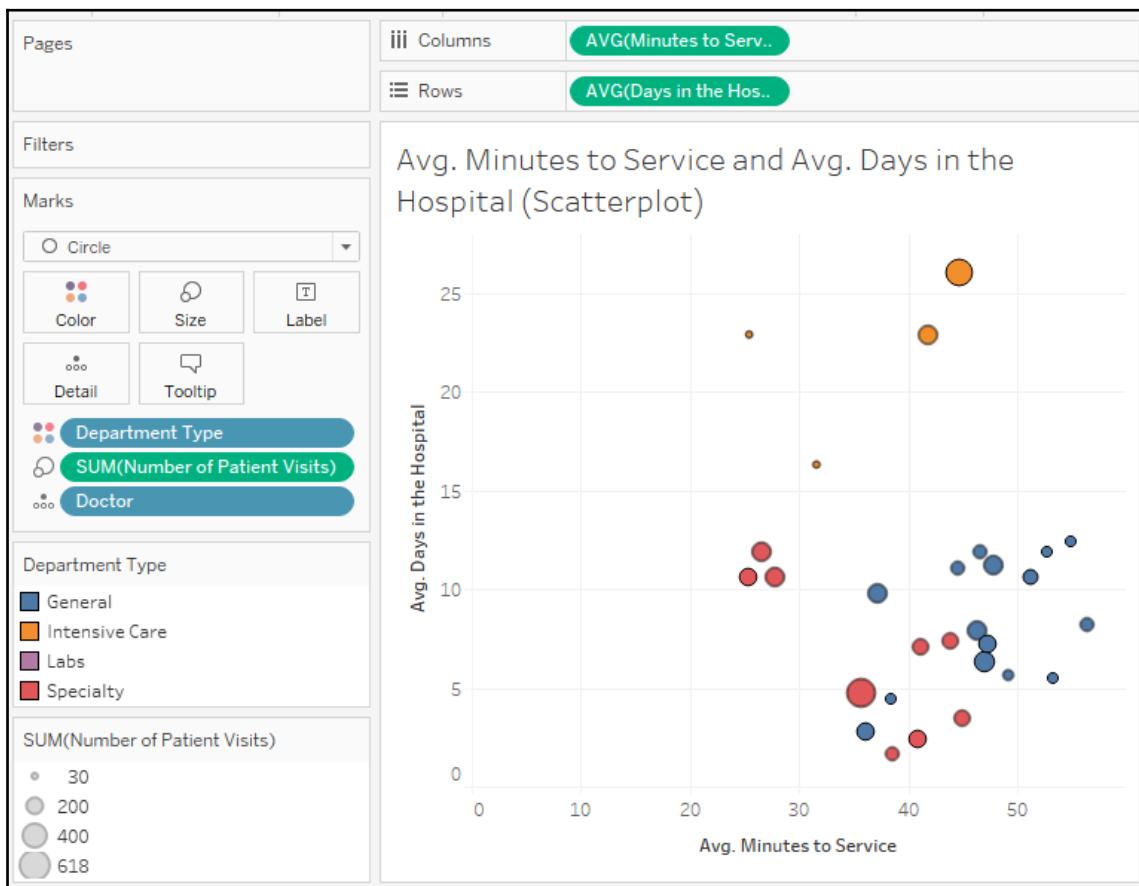
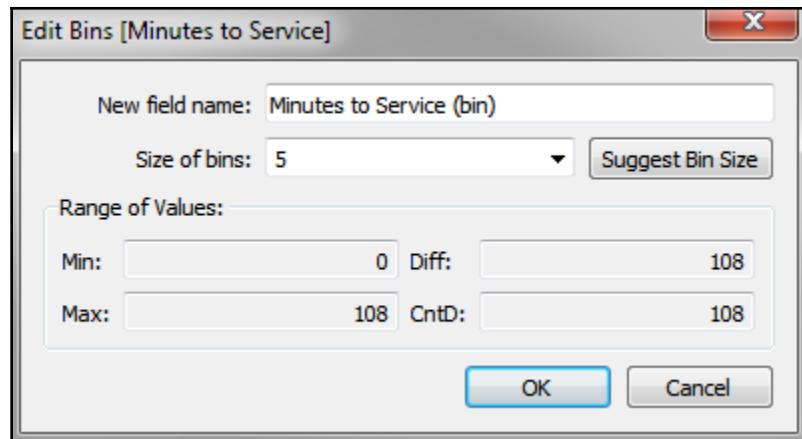


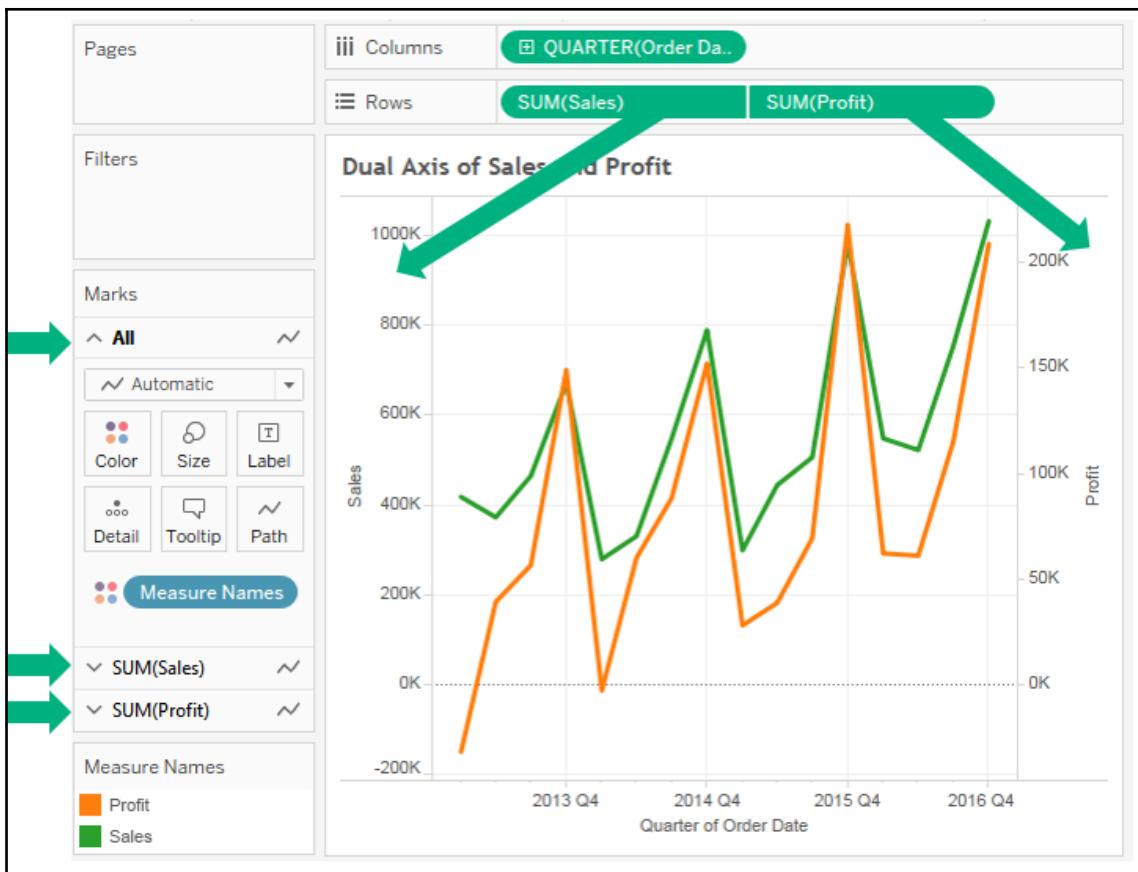


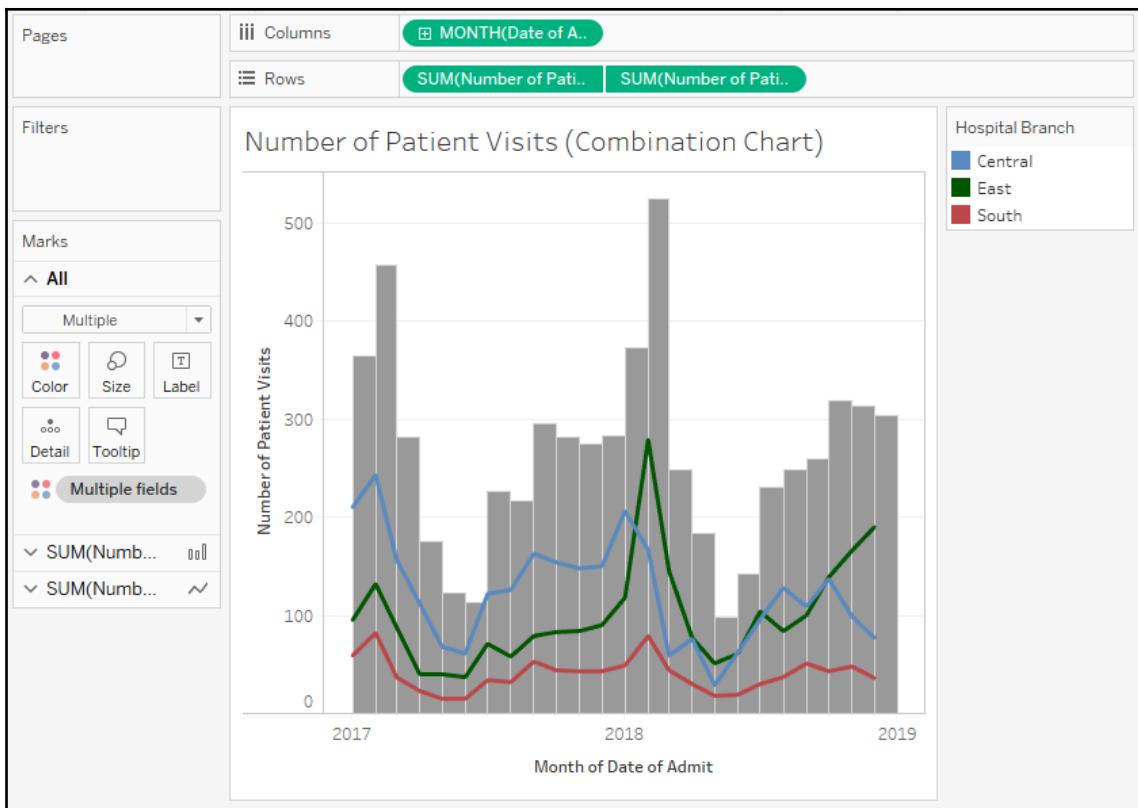




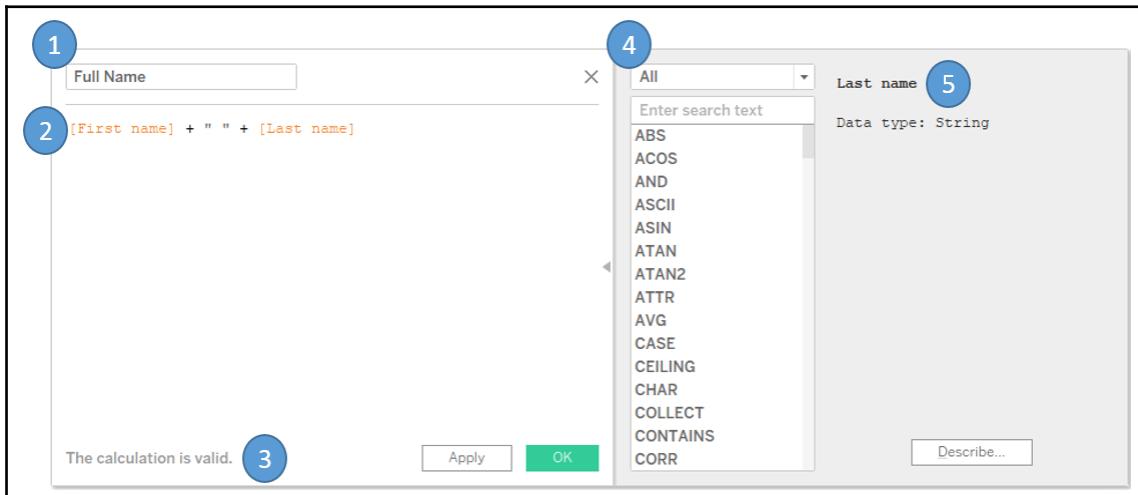
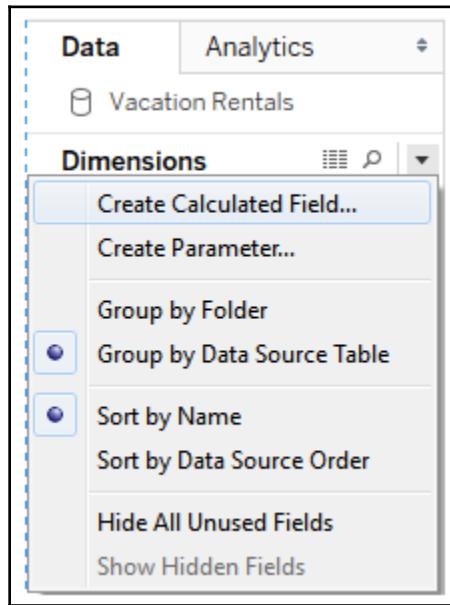








Chapter 4: Starting an Adventure with Calculations



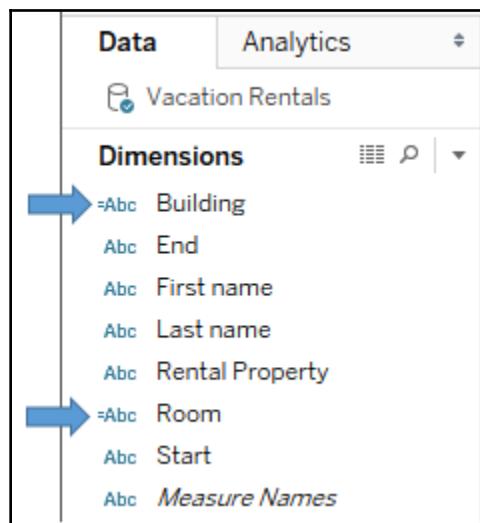
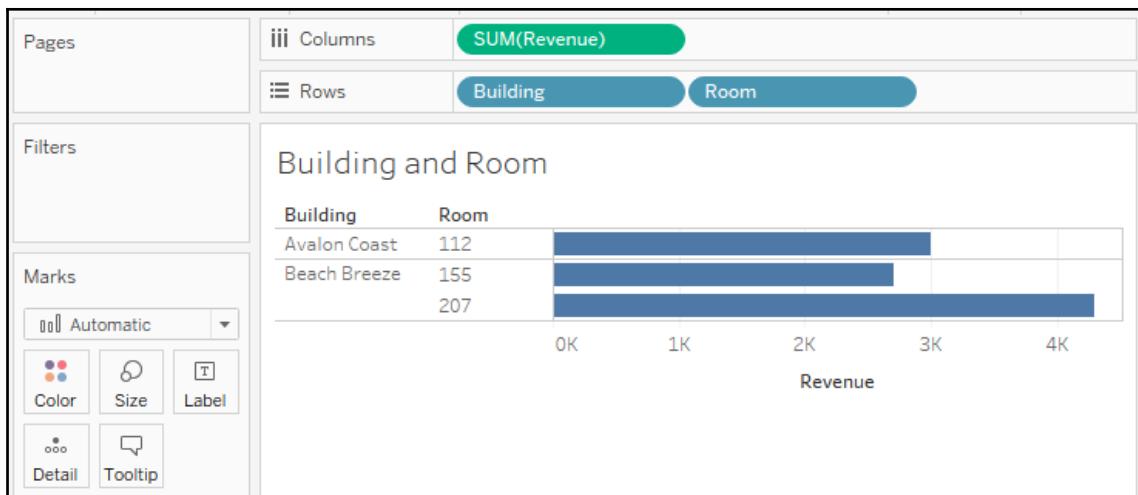


Tableau Data Prep interface showing the 'View Data: Vacation Rentals' window. The data is as follows:

Building	End	First name	Last name	Rental Property	Room	Start	Bedrooms	Number of Records	Revenue
Avalon Coast	Dec 9	Mary	Slessor	112-Avalon Coast	112	Dec 2	2	1	1,500.00
Avalon Coast	Dec 15	Amy	Carmichael	112-Avalon Coast	112	Dec 9	2	1	1,500.00
Beach Breeze	Dec 9	Charles	Ryrie	155-Beach Breeze	155	Dec 2	1	1	1,300.00
Beach Breeze	Dec 23	Dwight	Pentecost	155-Beach Breeze	155	Dec 16	2	1	1,400.00
Beach Breeze	Dec 23	Lewis	Chafer	207-Beach Breeze	207	Dec 9	3	1	2,800.00
Beach Breeze	Dec 16	John	Walvoord	207-Beach Breeze	207	Dec 9	3	1	1,500.00

Pages iii Columns Measure ..

Rows Building Room Full Name Start End

Filters Measure Names

Marks Automatic

Color Size Text

Detail Tooltip

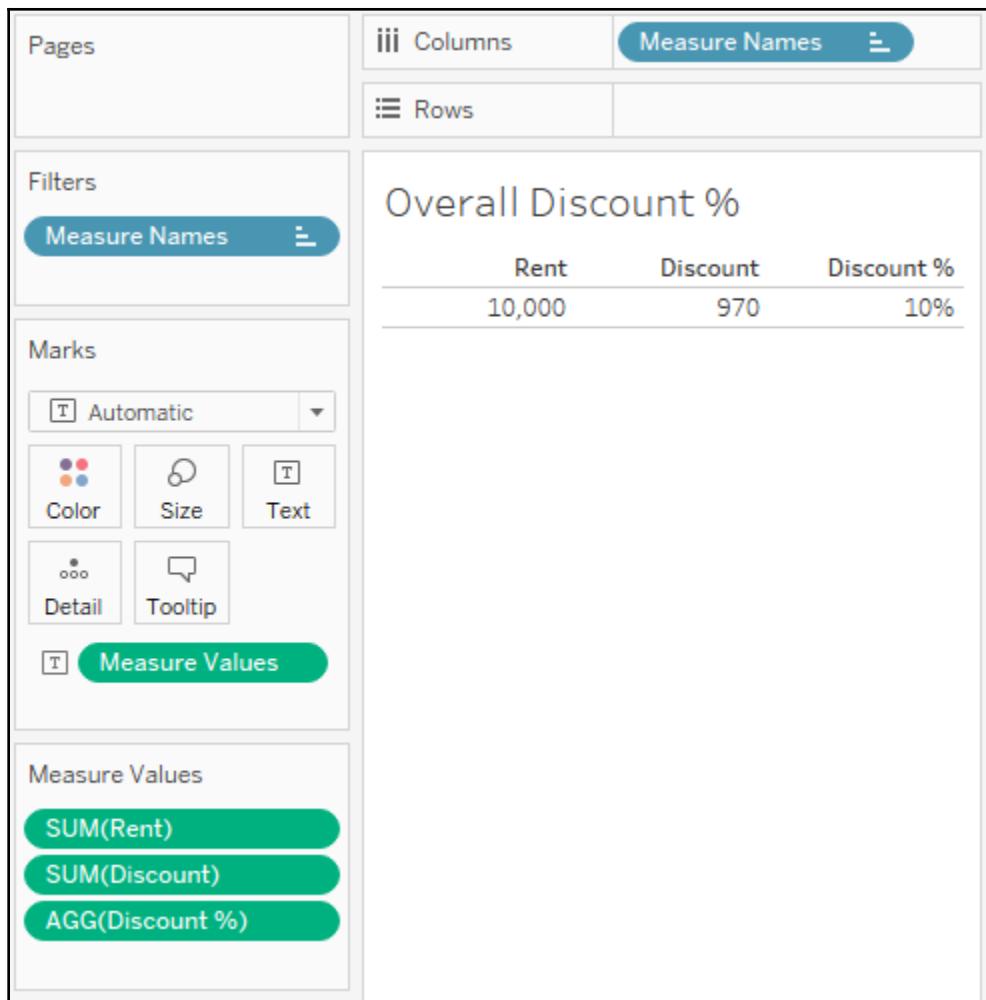
Measure Values SUM(Rent) SUM(Discount) AGG(Discount %)

Discount % Per Rental

Building	Room	Full Name	Start	End	Rent	Discount	Discount %
Avalon Coast	112	Amy Carmichael	Dec 9	Dec 15	1,500	0	0%
		Mary Slessor	Dec 2	Dec 9	1,500	150	10%
Beach	155	Charles Ryrie	Dec 2	Dec 9	1,300	260	20%
Breeze	207	Dwight Pentecost	Dec 16	Dec 23	1,400	280	20%
		John Walvoord	Dec 9	Dec 16	1,500	0	0%
		Lewis Chafer	Dec 9	Dec 23	2,800	280	10%

The screenshot shows the Tableau Data Prep interface. At the top, there are sections for 'Pages', 'Columns' (with a 'Measure Names' button), 'Rows' (with buttons for 'Building' and 'Room'), and 'Filters' (with a 'Measure Names' button). The main area displays a preview of a table titled 'Discount % Per Room'. The table has columns: Building, Room, Rent, Discount, and Discount %. The data rows are: 'Avalon Coast' (Room 112, Rent 3,000, Discount 150, Discount % 5%), 'Beach' (Room 155, Rent 2,700, Discount 540, Discount % 20%), and 'Breeze' (Room 207, Rent 4,300, Discount 280, Discount % 7%). On the left, there are sections for 'Marks' (with buttons for Color, Size, Text, Detail, and Tooltip) and 'Measure Values' (with buttons for SUM(Rent), SUM(Discount), and AGG(Discount %)).

Building	Room	Rent	Discount	Discount %
Avalon Coast	112	3,000	150	5%
Beach	155	2,700	540	20%
Breeze	207	4,300	280	7%



Pages

Columns

Measure Names

Rows

Filters

Measure Names

Marks

Automatic

Color

Size

Text

Detail

Tooltip

Measure Values

SUM(Rent)

SUM(Discount)

AGG(Discount %)

SUM(Discount % (row-level))

Overall Discount %
(Aggregate v. Row-Level)

Rent	Discount	Discount % (row-level)	Discount %
10,000	970	10%	60%

Rental Property **First name** **Discount** **Rent** **Discount %**

112-Avalon Coast	Mary	150	\$1,500	10%
112-Avalon Coast	Amy	0	\$1,500	0%
155-Beach Breeze	Charles	260	\$1,300	20%
155-Beach Breeze	Dwight	280	\$1,400	20%
207-Beach Breeze	Lewis	280	\$2,800	10%
207-Beach Breeze	John	0	\$1,500	0%

Row Level:

$$\text{[Discount]} / \text{[Rent]}$$
 Results calculated for each row

Final Aggregation:
 Sum of row-level results

60%

Table showing the calculation of average rental price per room:

	Discount	Rent	Discount %
	150	\$1,500	
	0	\$1,500	
	260	\$1,300	
	280	\$1,400	
	280	\$2,800	
	0	\$1,500	

Annotations:

- 970 (SUM([Discount]))
- \$10,000 (SUM([Rent]))
- 10% (100% / (SUM([Rent]) / SUM([Discount])))

Row Level:
Not calculated

Division of Sums:
 $\text{SUM}([\text{Discount}]) / \text{SUM}([\text{Rent}])$

* Rounding is due to display of no decimal places

Tableau interface showing the creation of a calculated field:

Pages: Building

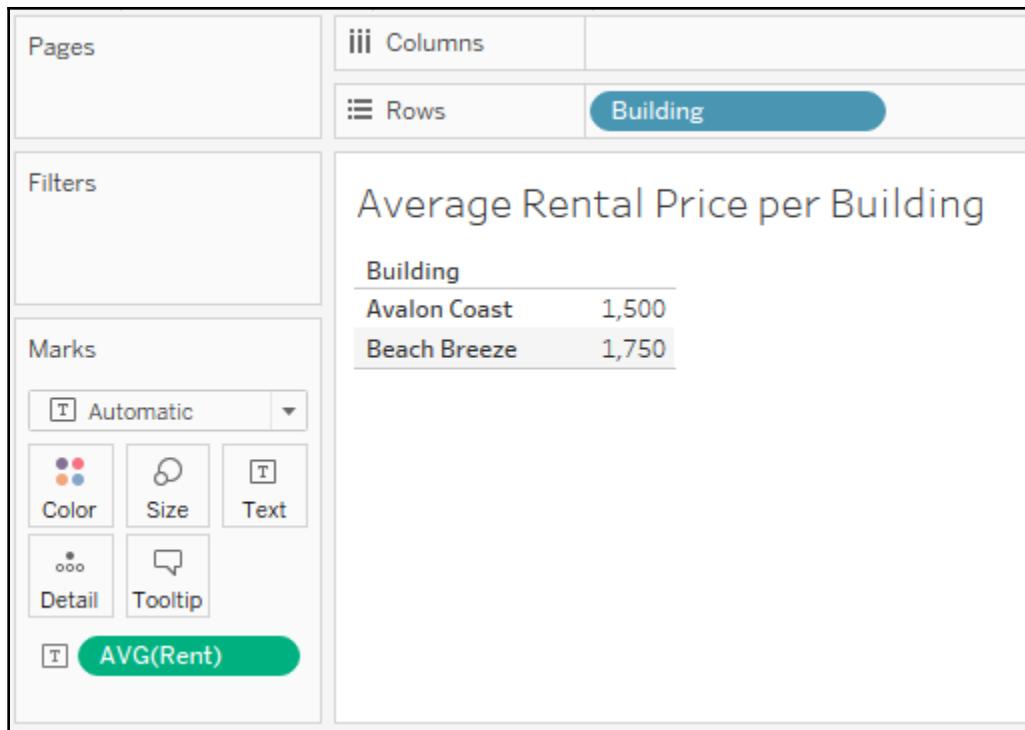
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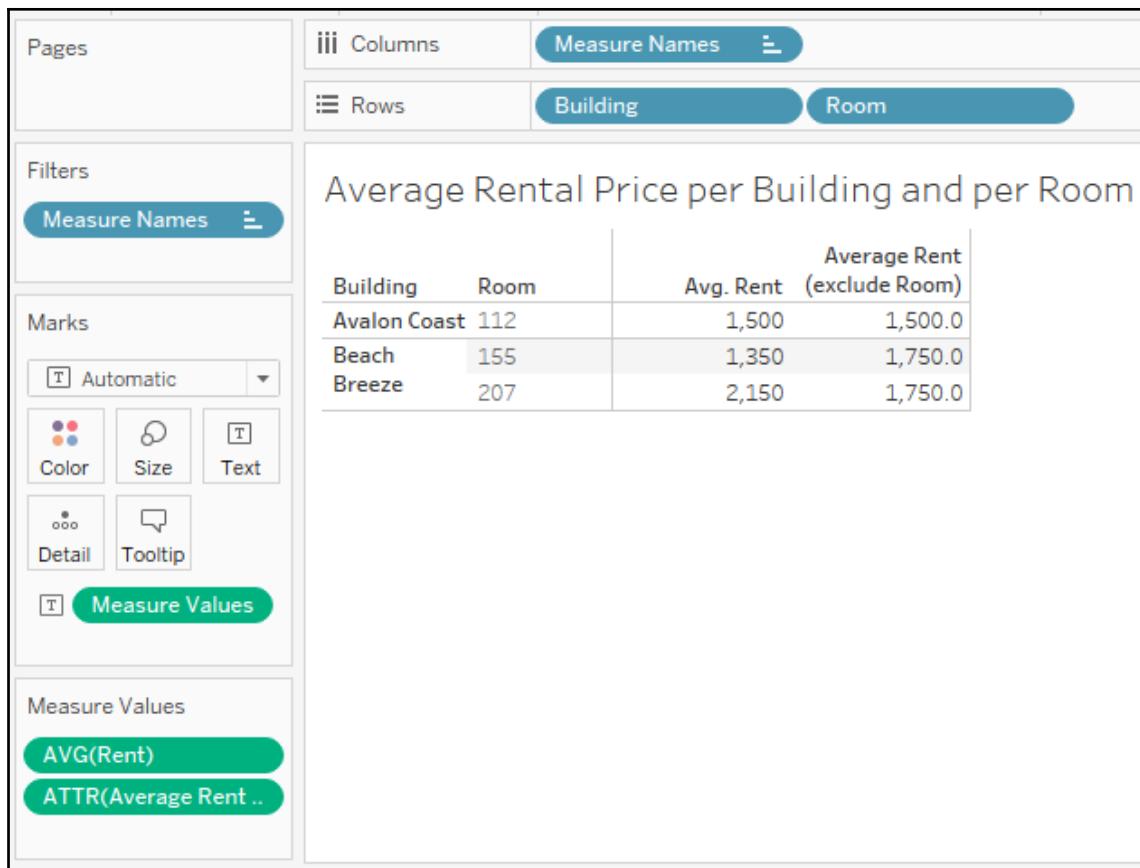
Marks: AVG(Rent)

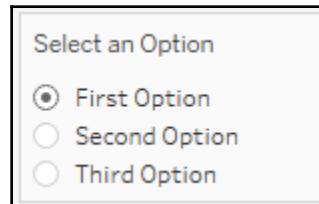
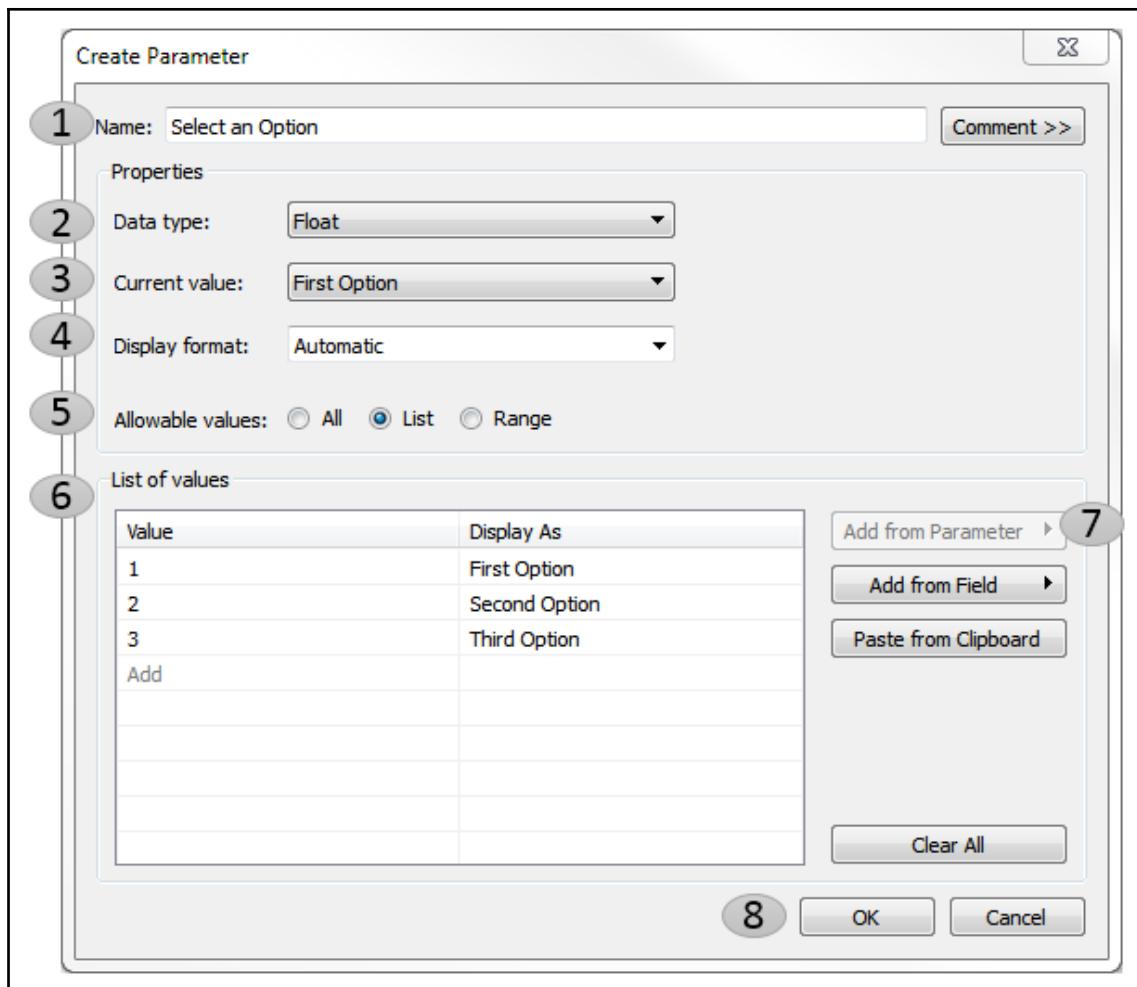
Table: Average Rental Price per Room

Building Room

Building	Room	Avg Rent
Avalon Coast	112	1,500
Beach	155	1,350
Breeze	207	2,150







Pages **iii Columns**

Rows **Rental Prop.. Room Start End Start Date End Date**

Filters

Marks **Automatic**

Color **Size** **Text**

Detail **Tooltip**

Fixed Dates

Rental Property	Room	Start	End	Start Date	End Date	
112-Avalon Coast	112	Dec 2	Dec 9	12/2/2018	12/9/2018	Abc
		Dec 9	Dec 15	12/9/2018	12/15/2018	Abc
155-Beach Breeze	155	Dec 2	Dec 9	12/2/2018	12/9/2018	Abc
		Dec 16	Dec 23	12/16/2018	12/23/2018	Abc
207-Beach Breeze	207	Dec 2	Dec 9	12/2/2018	12/9/2018	Abc
		Dec 9	Dec 23	12/9/2018	12/23/2018	Abc

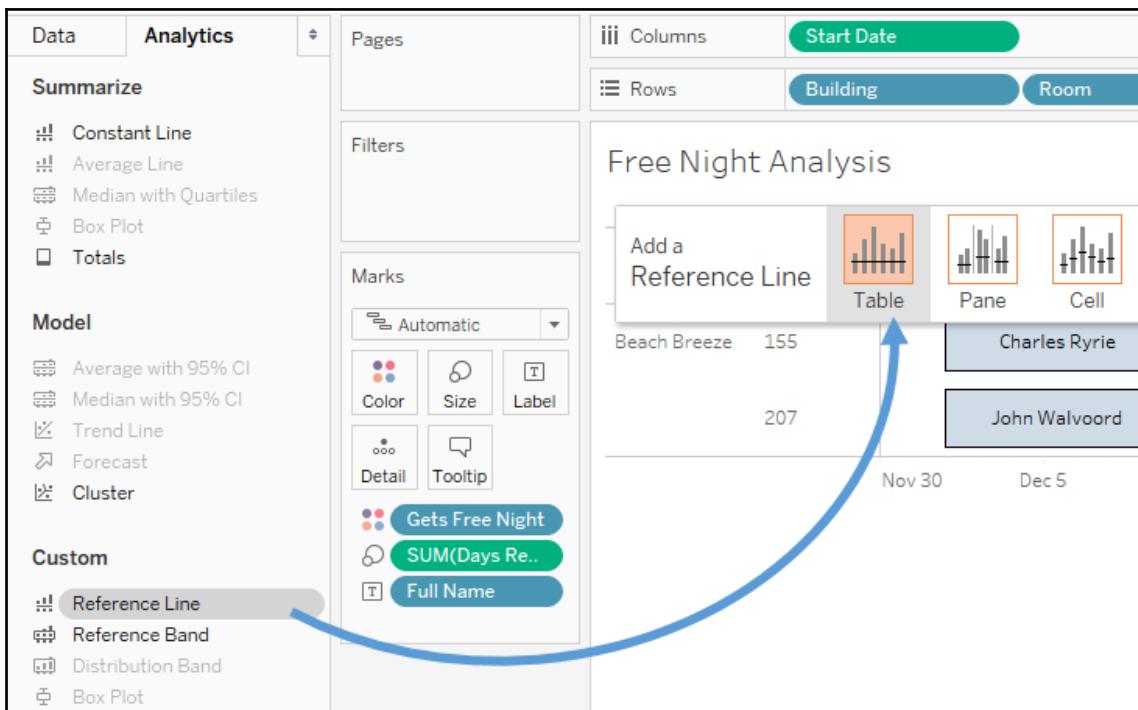
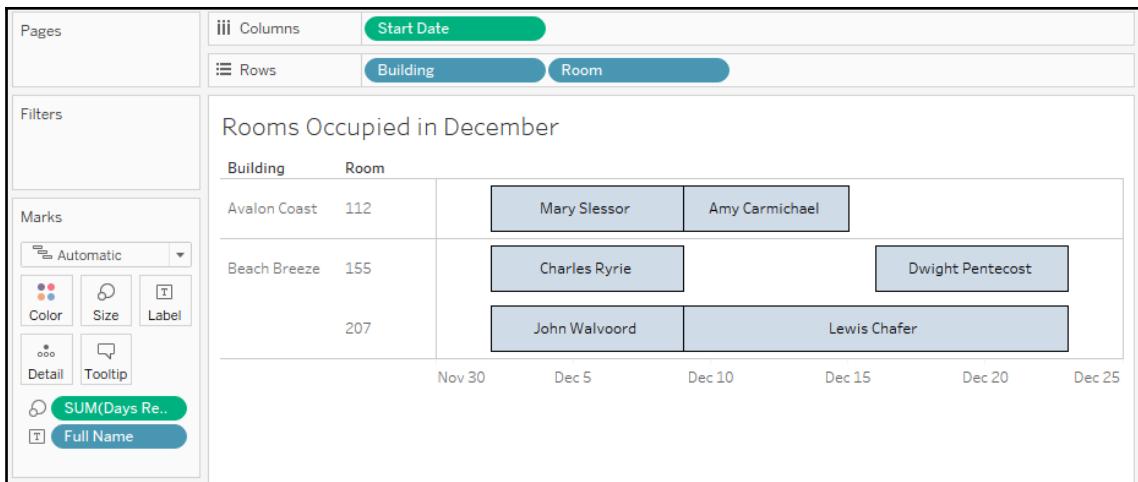
Length of Contract (days) **Rental Data** **X**

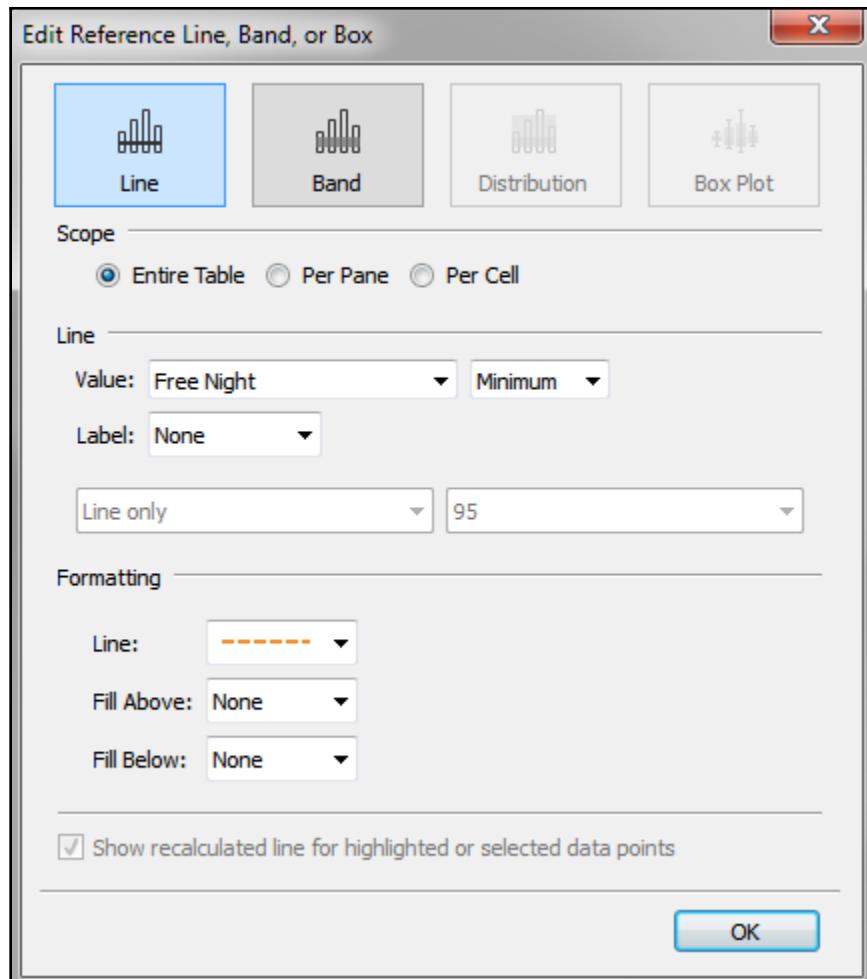
date

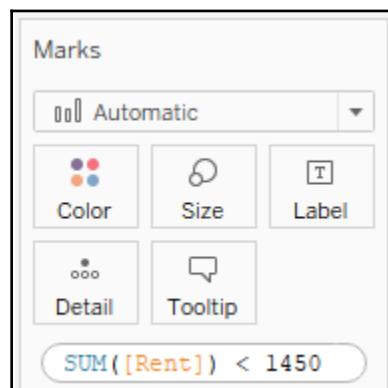
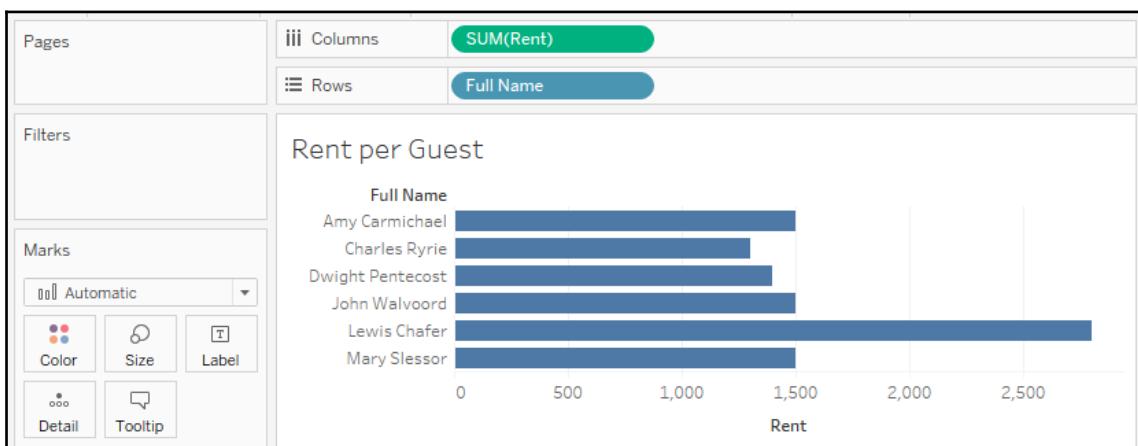
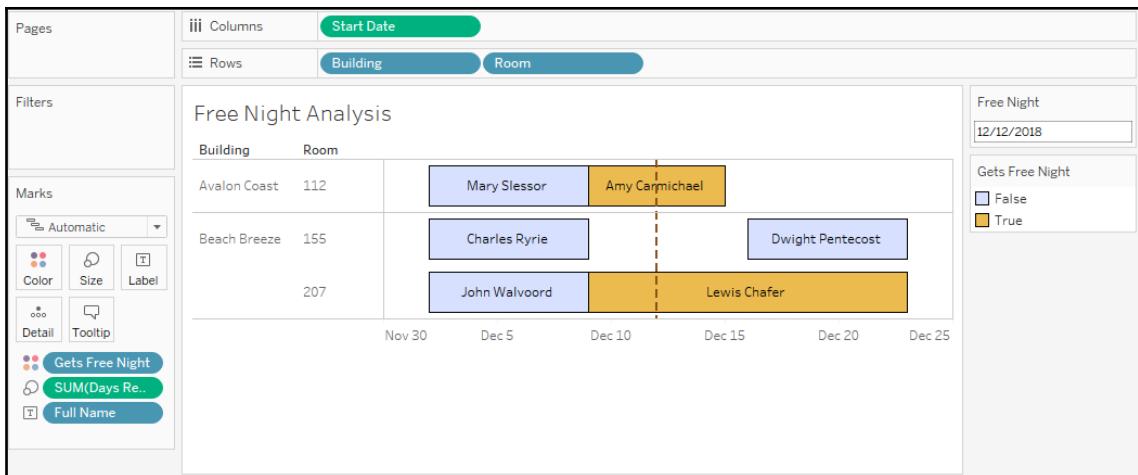
- DATE**
- DATEADD**
- DATEDIFF**
- DATENAME**
- DATEPARSE**
- DATEPART**
- DATETIME**
- DATETRUNC**

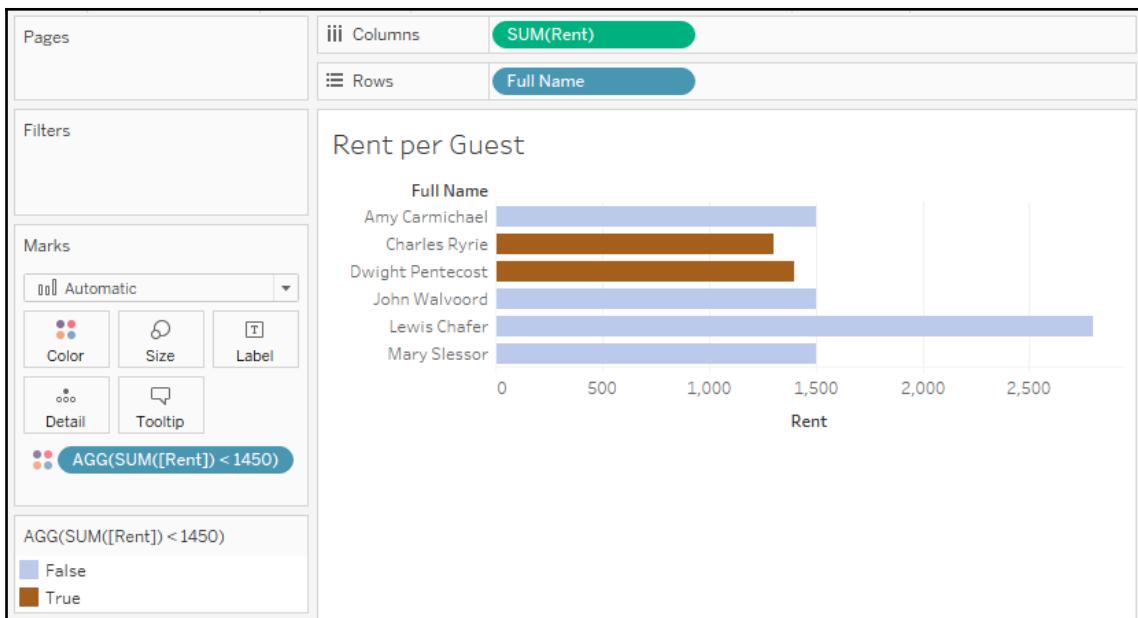
Rental Data

Apply **OK**

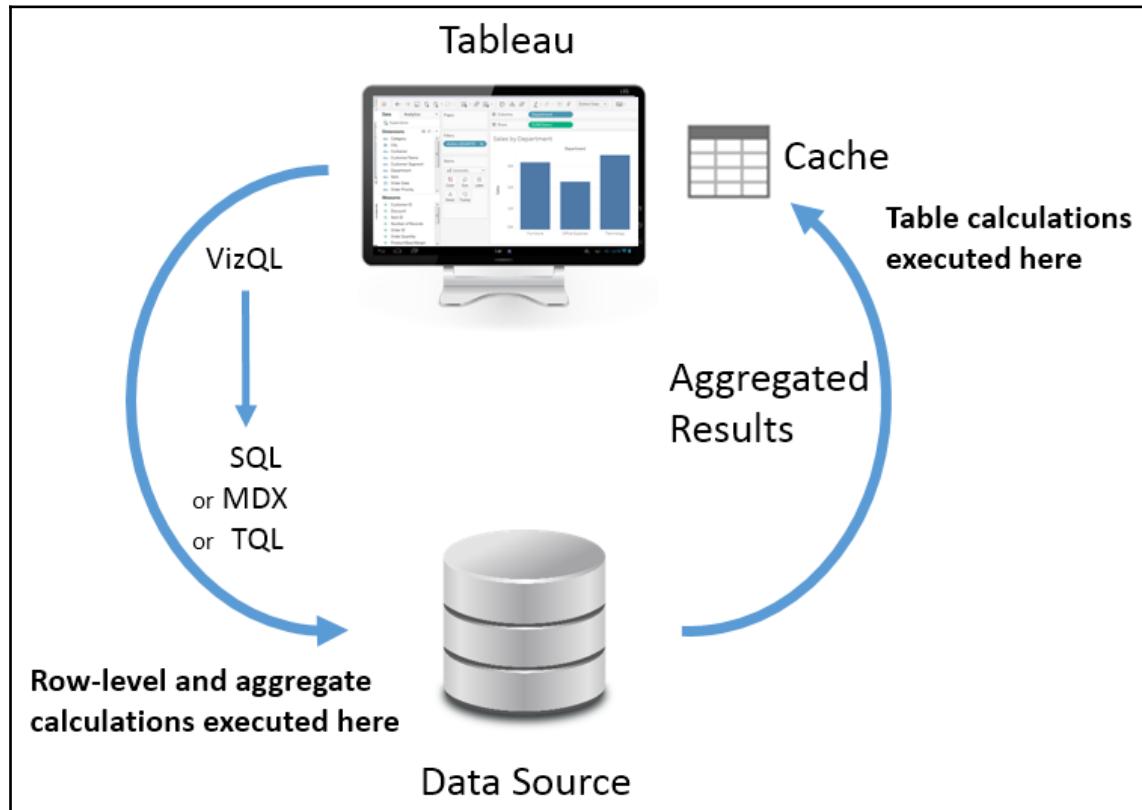


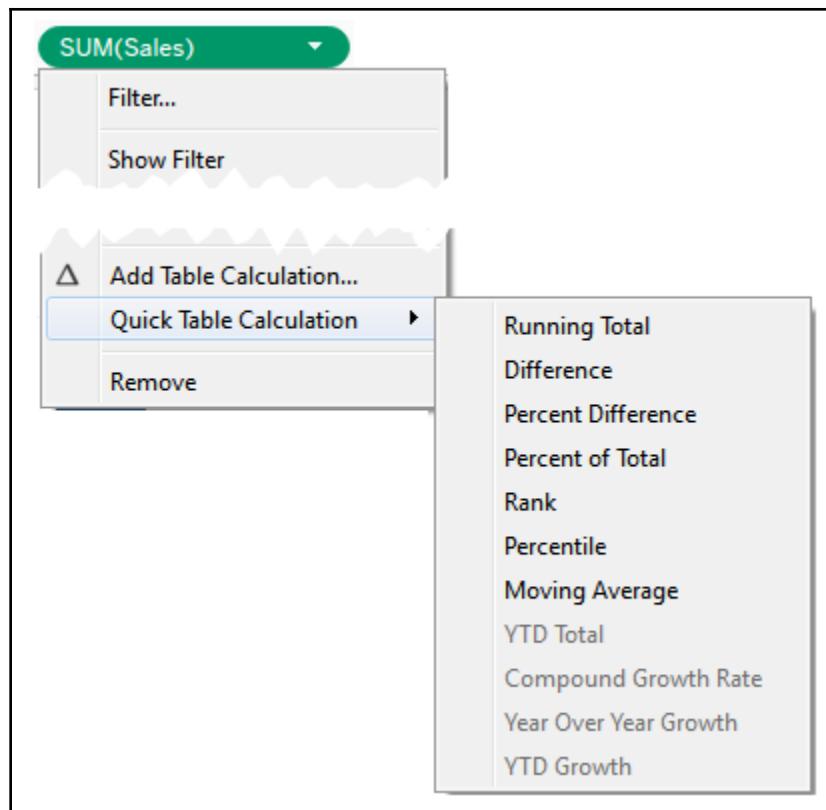


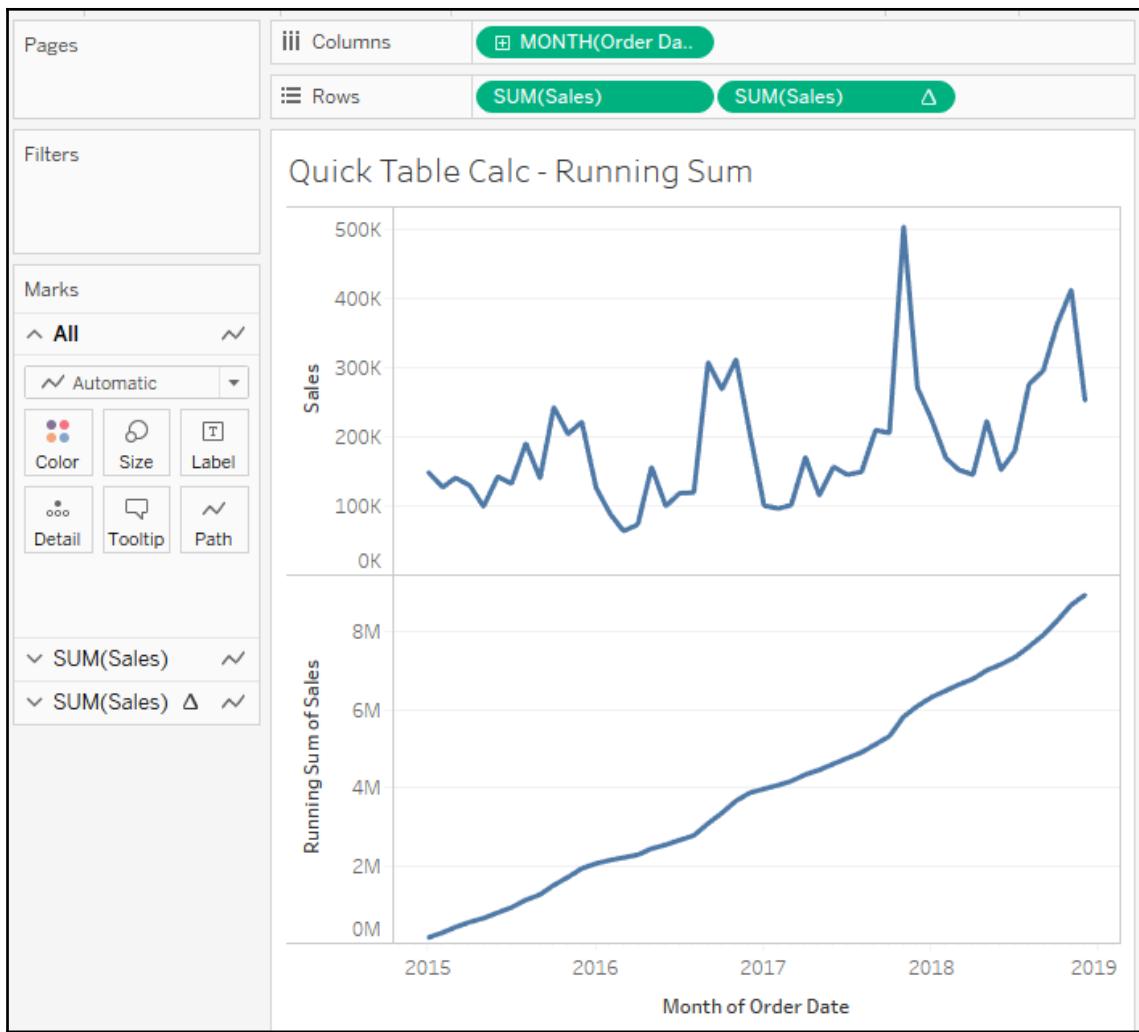




Chapter 5: Diving Deep with Table Calculations

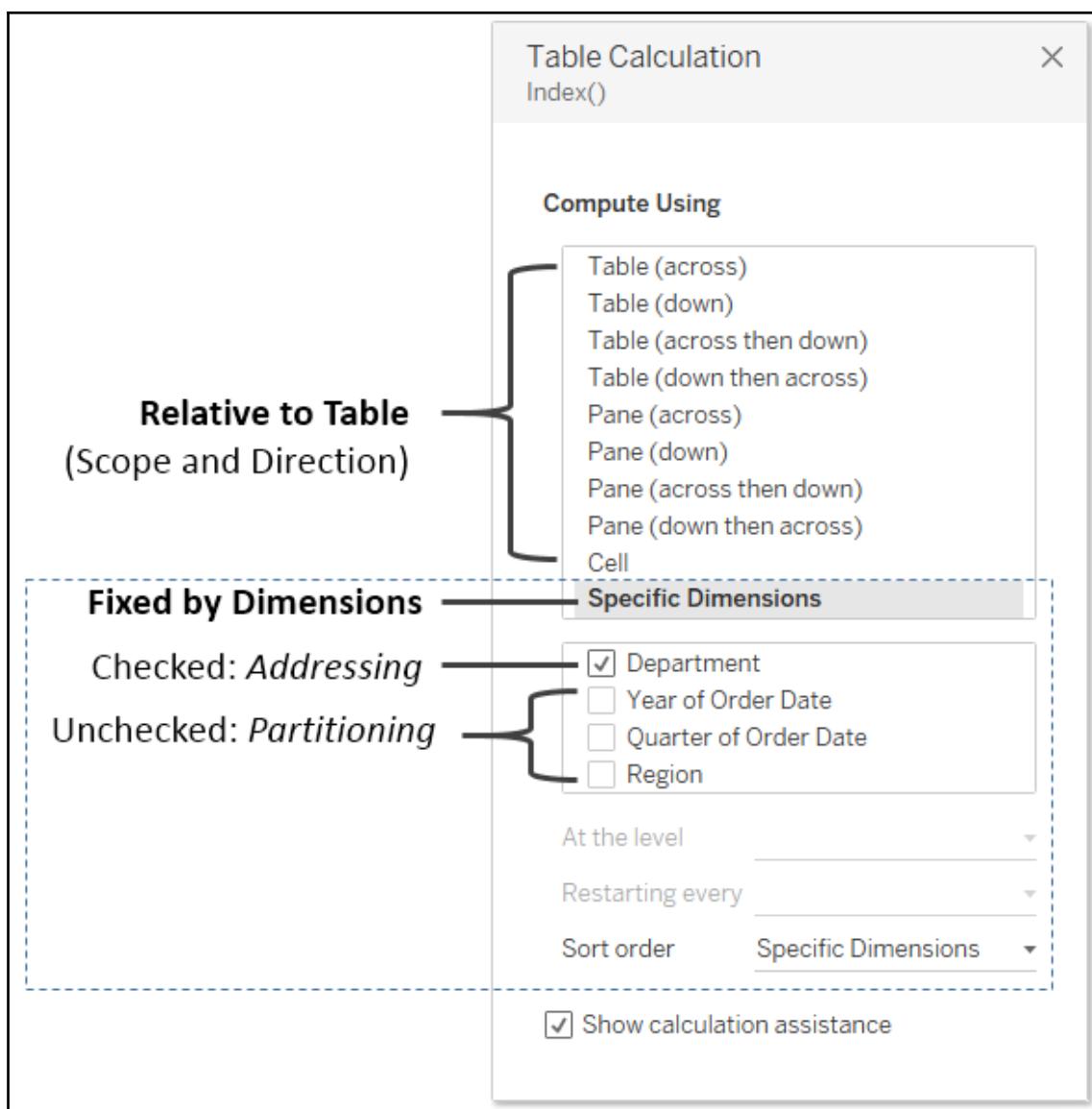






Some examples of Quick Table Calcs

Year of Order Date	Quarter of Order Date	Sales	Running Sum of Sales along Table	Difference in Sales from the Previous along Table (Down)	Rank of Sales along Table (Down)
2015	Q1	417,555	417,555		12
	Q2	372,289	789,844	-45,266	13
	Q3	464,319	1,254,163	92,030	10
	Q4	670,182	1,924,345	205,863	5
2016	Q1	279,148	2,203,493	-391,034	16
	Q2	330,269	2,533,762	51,121	14
	Q3	546,875	3,080,637	216,606	7
	Q4	788,255	3,868,892	241,380	3
2017	Q1	298,848	4,167,740	-489,407	15
	Q2	443,764	4,611,504	144,916	11
	Q3	505,453	5,116,957	61,689	9
	Q4	982,675	6,099,632	477,222	2
2018	Q1	547,656	6,647,288	-435,019	6
	Q2	521,650	7,168,938	-26,006	8
	Q3	752,933	7,921,871	231,283	4
	Q4	1,030,156	8,952,027	277,223	1



Pages iii Columns Region Department

Filters Rows YEAR(Order Date) QUARTER(Order Da..)

Table, Panes, Cells

Region / Department

Year of Order Date	Quarter of Order Date	East			West		
		Furniture	Office Supplies	Technolo..	Furniture	Office Supplies	Technolo..
2013	Q1	103,094	21,517	47,770	41,391	6,221	24,258
	Q2	50,254	77,176	35,663	44,256	5,275	30,549
	Q3	33,016	34,014	30,213	32,794	30,200	119,668
	Q4	72,409	124,765	108,417	43,313	35,524	26,782
2014	Q1	55,241	26,176	19,534	20,296	9,793	28,652
	Q2	47,499	29,320	41,988	22,534	19,487	31,268
	Q3	102,001	44,762	81,264	46,923	15,995	74,876
	Q4	63,724	75,442	110,800	41,742	39,343	101,173
2015	Q1	33,938	20,638	23,858	14,296	17,108	13,947
	Q2	47,778	51,273	73,519	37,173	36,998	35,092
	Q3	83,456	59,039	32,302	34,504	16,305	76,077
	Q4	124,363	65,704	86,405	171,909	51,372	62,808
2016	Q1	51,050	74,600	83,149	53,471	24,272	33,619
	Q2	57,299	83,749	52,066	22,994	19,818	42,868
	Q3	92,243	51,459	70,612	56,791	62,900	66,427
	Q4	132,884	98,473	157,206	42,129	45,894	71,268

Table
Pane
Cell

→

	East			West			
	Year of Order Date	Quarter of Order Date	Office		Office		
			Furniture	Supplies	Technolo..	Furniture	Supplies
2015	Q1	1	2	3	4	5	6
	Q2	1	2	3	4	5	6
	Q3	1	2	3	4	5	6
	Q4	1	2	3	4	5	6
2016	Q1	1	2	3	4	5	6
	Q2	1	2	3	4	5	6
	Q3	1	2	3	4	5	6
	Q4	1	2	3	4	5	6

		East			West		
		Furniture	Office Supplies	Technolo..	Furniture	Office Supplies	Technolo..
2015	Q1	1	1	1	1	1	1
	Q2	2	2	2	2	2	2
	Q3	3	3	3	3	3	3
	Q4	4	4	4	4	4	4
2016	Q1	5	5	5	5	5	5
	Q2	6	6	6	6	6	6
	Q3	7	7	7	7	7	7
	Q4	8	8	8	8	8	8

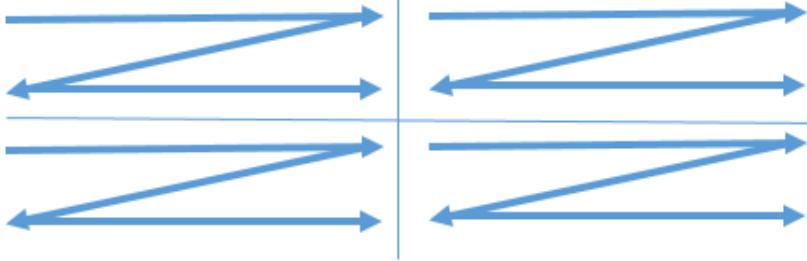



		East			West		
		Furniture	Office Supplies	Technolo..	Furniture	Office Supplies	Technolo..
2015	Q1	1	2	3	4	5	6
	Q2	7	8	9	10	11	12
	Q3	13	14	15	16	17	18
	Q4	19	20	21	22	23	24
2016	Q1	25	26	27	28	29	30
	Q2	31	32	33	34	35	36
	Q3	37	38	39	40	41	42
	Q4	43	44	45	46	47	48



		East			West		
		Furniture	Office Supplies	Technolo..	Furniture	Office Supplies	Technolo..
2015	Q1	1	2	3	1	2	3
	Q2	1	2	3	1	2	3
	Q3	1	2	3	1	2	3
	Q4	1	2	3	1	2	3
2016	Q1	1	2	3	1	2	3
	Q2	1	2	3	1	2	3
	Q3	1	2	3	1	2	3
	Q4	1	2	3	1	2	3

		East			West		
		Furniture	Office Supplies	Technolo..	Furniture	Office Supplies	Technolo..
2015	Q1	1	1	1	1	1	1
	Q2	2	2	2	2	2	2
	Q3	3	3	3	3	3	3
	Q4	4	4	4	4	4	4
2016	Q1	1	1	1	1	1	1
	Q2	2	2	2	2	2	2
	Q3	3	3	3	3	3	3
	Q4	4	4	4	4	4	4



		East			West		
		Furniture	Office Supplies	Technolo..	Furniture	Office Supplies	Technolo..
2015	Q1	1	2	3	1	2	3
	Q2	4	5	6	4	5	6
	Q3	7	8	9	7	8	9
	Q4	10	11	12	10	11	12
2016	Q1	1	2	3	1	2	3
	Q2	4	5	6	4	5	6
	Q3	7	8	9	7	8	9
	Q4	10	11	12	10	11	12

Pages

Columns: Region, Department

Rows: YEAR(Order Date), QUARTER(Order ..)

Filters: Region, YEAR(Order Date)

Marks: Automatic, Color, Size, Text, Detail, Tooltip, Index()

Addressing and Partitioning

		Region / Department			West		
		East		Technolo..	Furniture	Office Supplies	Technolo..
2016	Q1	1	2	3	1	2	3
	Q2	1	2	3	1	2	3
	Q3	1	2	3	1	2	3
	Q4	1	2	3	1	2	3
2017	Q1	1	2	3	1	2	3
	Q2	1	2	3	1	2	3
	Q3	1	2	3	1	2	3
	Q4	1	2	3	1	2	3

Table Calculation: Index()

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:

- Year of Order Date
- Quarter of Order Date
- Department
- Region

At the level: _____

Restarting every: _____

Sort order: Specific Dimensions

Show calculation assistance

Pages

iii Columns YEAR(Order Date) QUARTER(Order ..)

Rows Region Department

Filters

Region YEAR(Order Date)

Marks

Automatic Color Size Text Detail Tooltip Index()

Addressing and Partitioning

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
East	Furniture	1	1	1	1	1	1	1	1
	Office Supplies	2	2	2	2	2	2	2	2
	Technology	3	3	3	3	3	3	3	3
West	Furniture	1	1	1	1	1	1	1	1
	Office Supplies	2	2	2	2	2	2	2	2
	Technology	3	3	3	3	3	3	3	3

Table Calculation Index()

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

Year of Order Date Quarter of Order Date Department Region

At the level

Restarting every

Sort order Specific Dimensions

Show calculation assistance

Pages **iii Columns** **Region** **Department**

Rows **YEAR(Order Date)** **QUARTER(Order ...)**

Filters **Region** **YEAR(Order Date)**

Marks **Automatic** **Color** **Size** **Text** **Detail** **Tooltip** **Index()** **Δ**

Addressing and Partitioning

		Region / Department					
		East			West		
		Furniture	Office Supplies	Technology	Furniture	Office Supplies	Technology
2016	Q1	1	5	9	1	5	9
	Q2	2	6	10	2	6	10
	Q3	3	7	11	3	7	11
	Q4	4	8	12	4	8	12
2017	Q1	1	5	9	1	5	9
	Q2	2	6	10	2	6	10
	Q3	3	7	11	3	7	11
	Q4	4	8	12	4	8	12

Table Calculation X

Index()

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

- Department
- Quarter of Order Date
- Region
- Year of Order Date

At the level **Deepest**

Restarting every **None**

Sort order **Specific Dimensions**

Show calculation assistance

Pages

iii Columns Region Department

Rows YEAR(Order Date) QUARTER(Order ..)

Filters

Region

YEAR(Order Date)

Marks

Automatic

Color Size Text

Detail Tooltip

Index() △

Addressing and Partitioning

		Region / Department			West		
		East			West		
		Furniture	Office Supplies	Technology	Furniture	Office Supplies	Technology
2016	Q1	1	3	5	1	3	5
	Q2	1	3	5	1	3	5
	Q3	1	3	5	1	3	5
	Q4	1	3	5	1	3	5
2017	Q1	2	4	6	2	4	6
	Q2	2	4	6	2	4	6
	Q3	2	4	6	2	4	6
	Q4	2	4	6	2	4	6

Table Calculation X

Index()

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

- Department
- Quarter of Order Date
- Region
- Year of Order Date

At the level Deepest

Restarting every None

Sort order Specific Dimensions

Show calculation assistance

Meta Table Calculations

Department	Category	Index along Category	First along Category	Last along Category	Size along Category
Furniture	Bookcases	1	0	3	4
	Chairs & Chairmats	2	-1	2	4
	Office Furnishings	3	-2	1	4
	Tables	4	-3	0	4
Office Supplies	Appliances	1	0	8	9
	Binders and Binder Accessories	2	-1	7	9
	Envelopes	3	-2	6	9
	Labels	4	-3	5	9
	Paper	5	-4	4	9
	Pens & Art Supplies	6	-5	3	9
	Rubber Bands	7	-6	2	9
	Scissors, Rulers and Trimmers	8	-7	1	9
	Storage & Organization	9	-8	0	9
Technology	Computer Peripherals	1	0	3	4
	Copiers and Fax	2	-1	2	4
	Office Machines	3	-2	1	4
	Telephones and Communication	4	-3	0	4

Lookup and Previous Value

Departme..	Category	Lookup	Previous Value
Furniture	Bookcases	Null	,Bookcases
	Chairs & Chairmats	Bookcases	,Bookcases,Chairs & Chairmats
	Office Furnishings	Chairs & Chairmats	,Bookcases,Chairs & Chairmats,Office Furnishings
	Tables	Office Furnishings	,Bookcases,Chairs & Chairmats,Office Furnishings,Tables
Office Supplies	Appliances	Null	,Appliances
	Binders and Binder Accessor..	Appliances	,Appliances,Binders and Binder Accessories
	Envelopes	Binders and Binder Acc..	,Appliances,Binders and Binder Accessories,Envelopes
	Labels	Envelopes	,Appliances,Binders and Binder Accessories,Envelopes,Labels
	Paper	Labels	,Appliances,Binders and Binder Accessories,Envelopes,Labels,Paper
	Pens & Art Supplies	Paper	,Appliances,Binders and Binder Accessories,Envelopes,Labels,Paper,Pens & Art Supplies
	Rubber Bands	Pens & Art Supplies	,Appliances,Binders and Binder Accessories,Envelopes,Labels,Paper,Pens & Art Supplies,Rubber Bands
	Scissors, Rulers and Trimmers	Rubber Bands	,Appliances,Binders and Binder Accessories,Envelopes,Labels,Paper,Pens & Art Supplies,Rubber Bands,Scissors,
Technology	Storage & Organization	Scissors, Rulers and ..	,Appliances,Binders and Binder Accessories,Envelopes,Labels,Paper,Pens & Art Supplies,Rubber Bands,Scissors,
	Computer Peripherals	Null	,Computer Peripherals
	Copiers and Fax	Computer Peripherals	,Computer Peripherals,Copiers and Fax
	Office Machines	Copiers and Fax	,Computer Peripherals,Copiers and Fax,Office Machines
Telephones and Communication	Office Machines	Office Machines	,Computer Peripherals,Copiers and Fax,Office Machines,Telephones and Communication

Running Functions

Department	Category	Sales	Running Sum of Sales along Category	Running Min of Sales along Category
Furniture	Bookcases	507,496	507,496	507,496
	Chairs & Chairmats	1,164,586	1,672,082	507,496
	Office Furnishings	444,634	2,116,716	444,634
	Tables	1,061,922	3,178,638	444,634
Office Supplies	Appliances	456,736	456,736	456,736
	Binders and Binder ..	638,583	1,095,319	456,736
	Envelopes	147,915	1,243,234	147,915
	Labels	23,446	1,266,680	23,446
	Paper	253,620	1,520,300	23,446
	Pens & Art Supplies	103,265	1,623,565	23,446
	Rubber Bands	8,670	1,632,235	8,670
	Scissors, Rulers and ..	40,432	1,672,667	8,670
Technology	Storage & Organizat..	585,717	2,258,384	8,670
	Computer Periphera..	490,851	490,851	490,851
	Copiers and Fax	661,215	1,152,066	490,851
	Office Machines	1,218,655	2,370,721	490,851
	Telephones and Com..	1,144,284	3,515,005	490,851

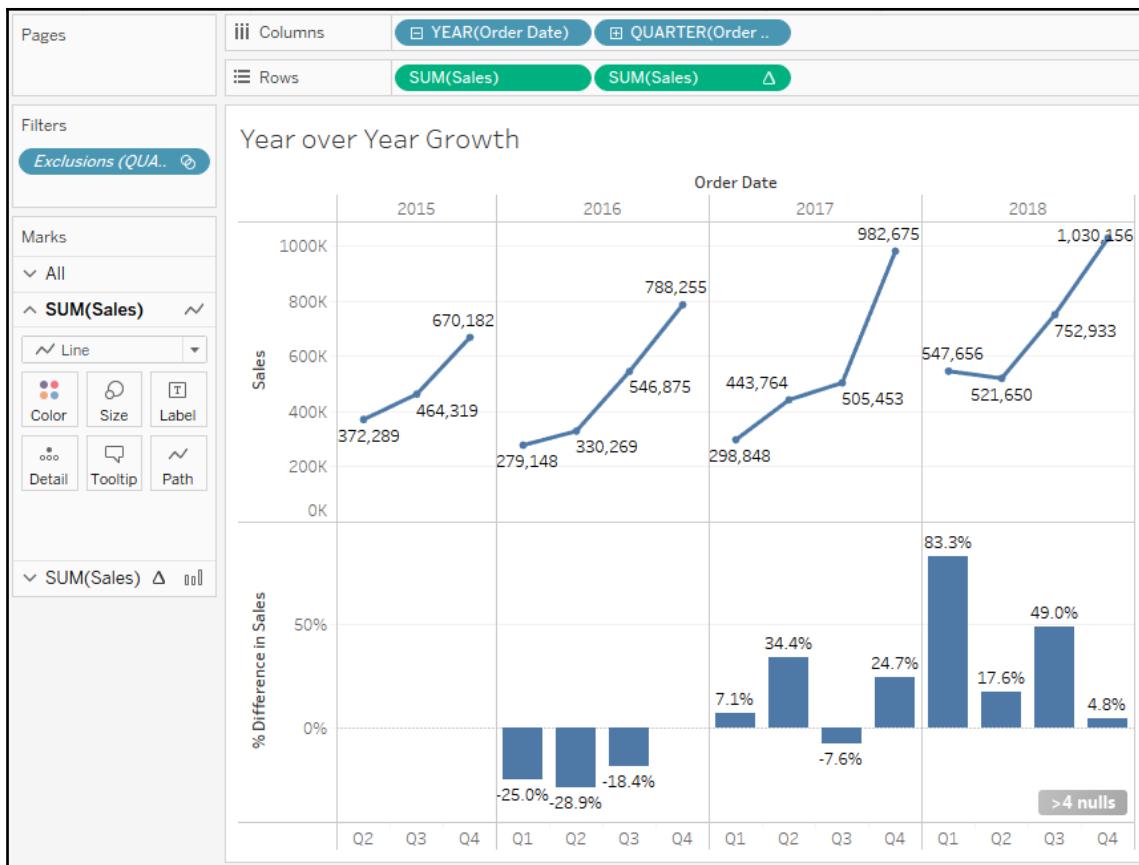
Window Functions

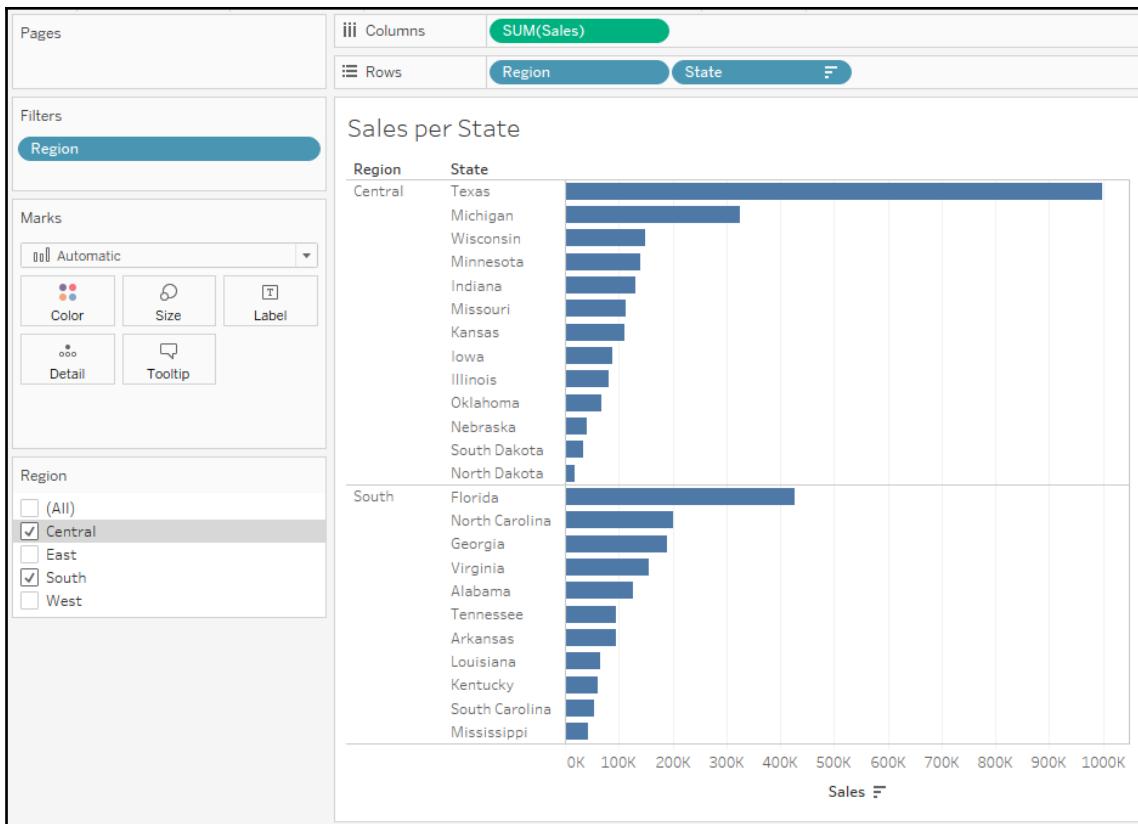
Department	Category	Sales	Window Sum along Category	Window Max along Category
Furniture	Bookcases	507,496	3,178,638	1,164,586
	Chairs & Chairmats	1,164,586	3,178,638	1,164,586
	Office Furnishings	444,634	3,178,638	1,164,586
	Tables	1,061,922	3,178,638	1,164,586
Office Supplies	Appliances	456,736	2,258,384	638,583
	Binders and Binder ..	638,583	2,258,384	638,583
	Envelopes	147,915	2,258,384	638,583
	Labels	23,446	2,258,384	638,583
	Paper	253,620	2,258,384	638,583
	Pens & Art Supplies	103,265	2,258,384	638,583
	Rubber Bands	8,670	2,258,384	638,583
	Scissors, Rulers and ..	40,432	2,258,384	638,583
	Storage & Organizat..	585,717	2,258,384	638,583
Technology	Computer Periphera..	490,851	3,515,005	1,218,655
	Copiers and Fax	661,215	3,515,005	1,218,655
	Office Machines	1,218,655	3,515,005	1,218,655
	Telephones and Com..	1,144,284	3,515,005	1,218,655

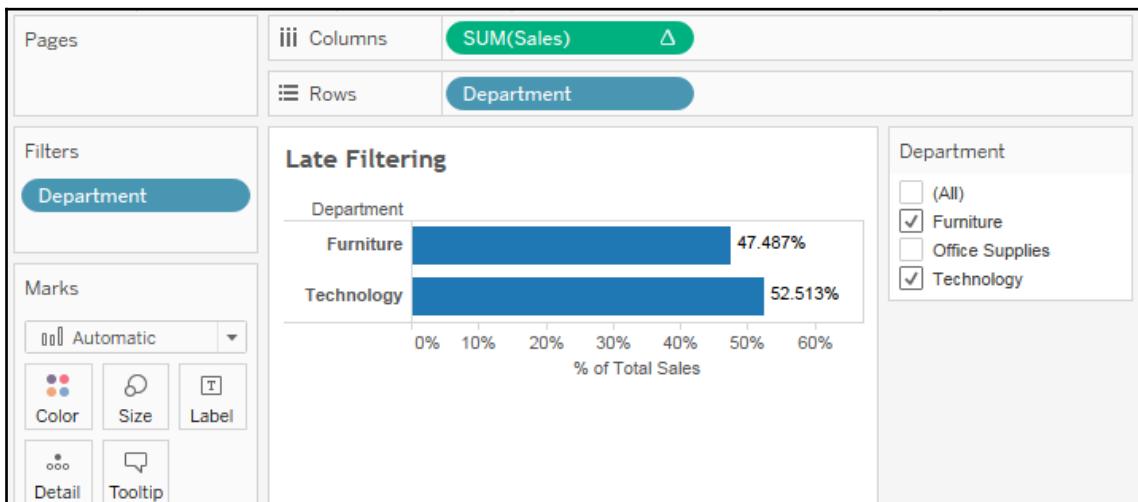
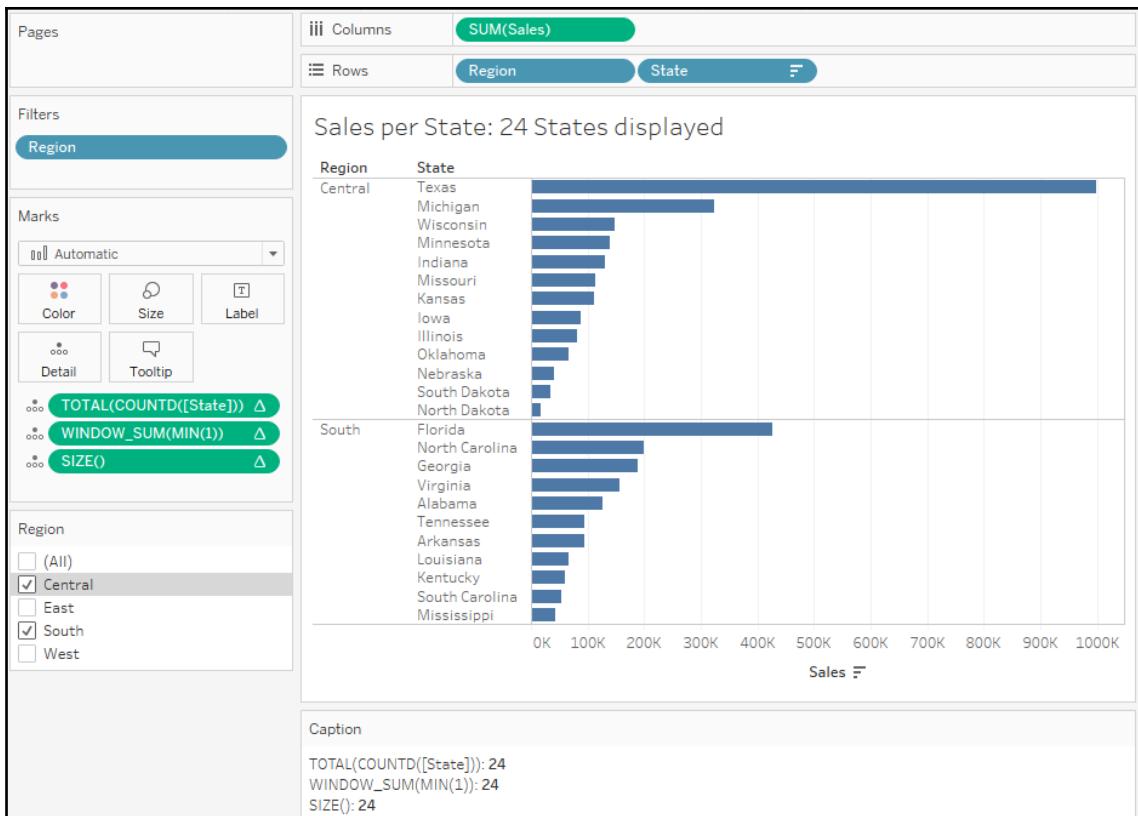
Rank Functions

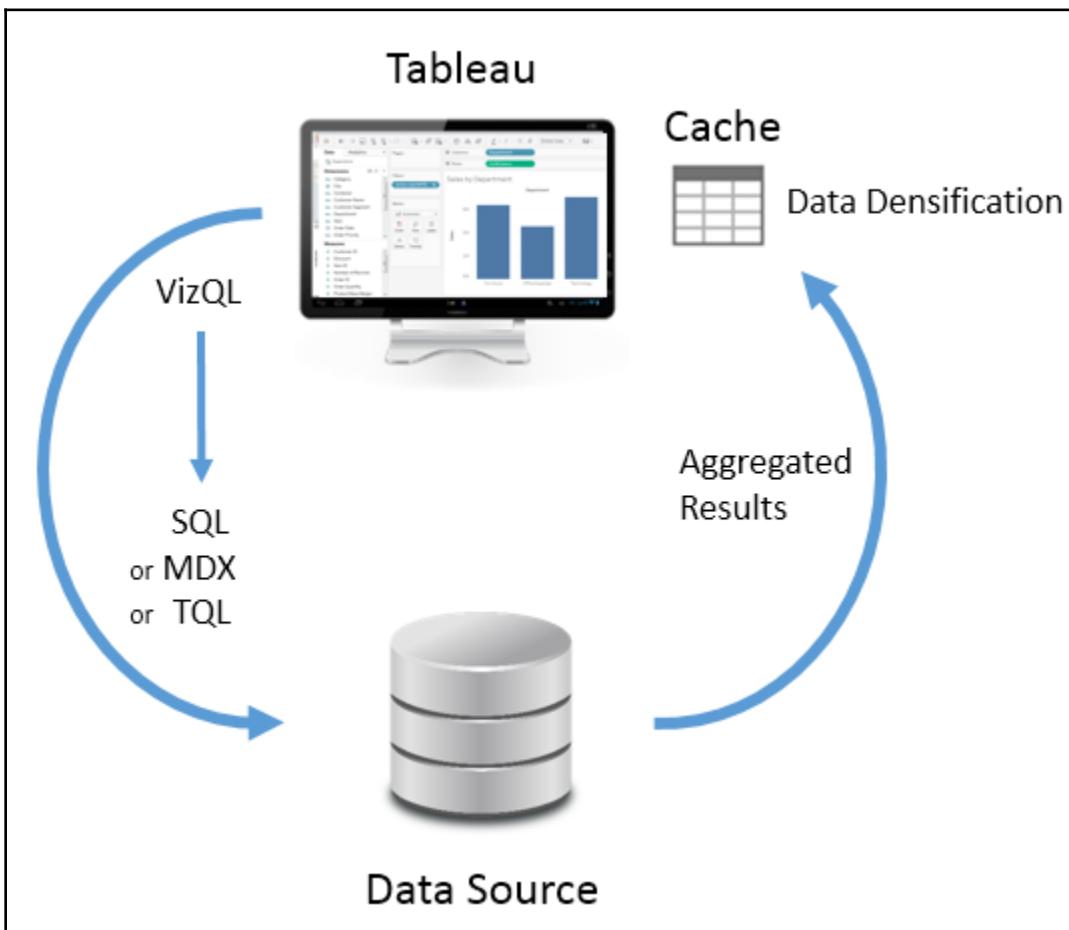
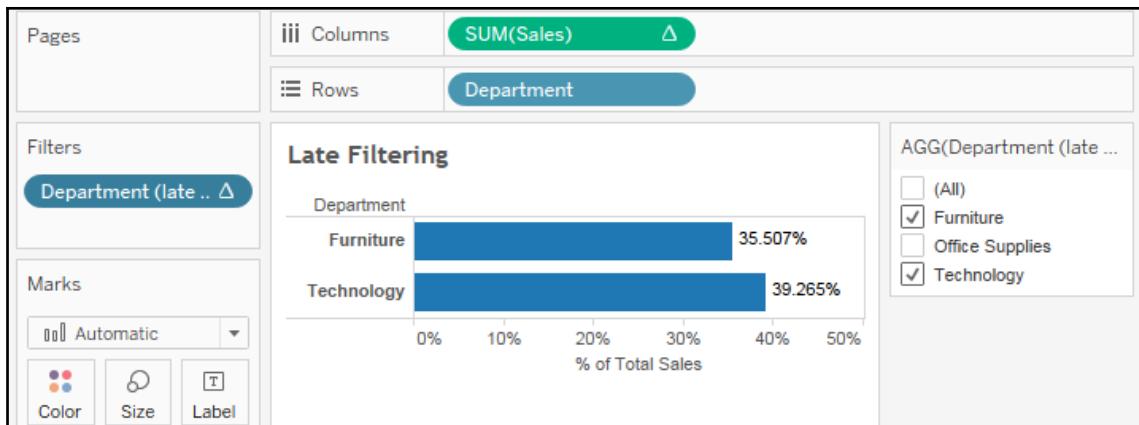
Department	Category	Sales	Rank along Category
Furniture	Bookcases	507,496	3
	Chairs & Chairmats	1,164,586	1
	Office Furnishings	444,634	4
	Tables	1,061,922	2
Office Supplies	Appliances	456,736	3
	Binders and Binder ..	638,583	1
	Envelopes	147,915	5
	Labels	23,446	8
	Paper	253,620	4
	Pens & Art Supplies	103,265	6
	Rubber Bands	8,670	9
	Scissors, Rulers and ..	40,432	7
Technology	Storage & Organizat..	585,717	2
	Computer Periphera..	490,851	4
	Copiers and Fax	661,215	3
	Office Machines	1,218,655	1
	Telephones and Com..	1,144,284	2

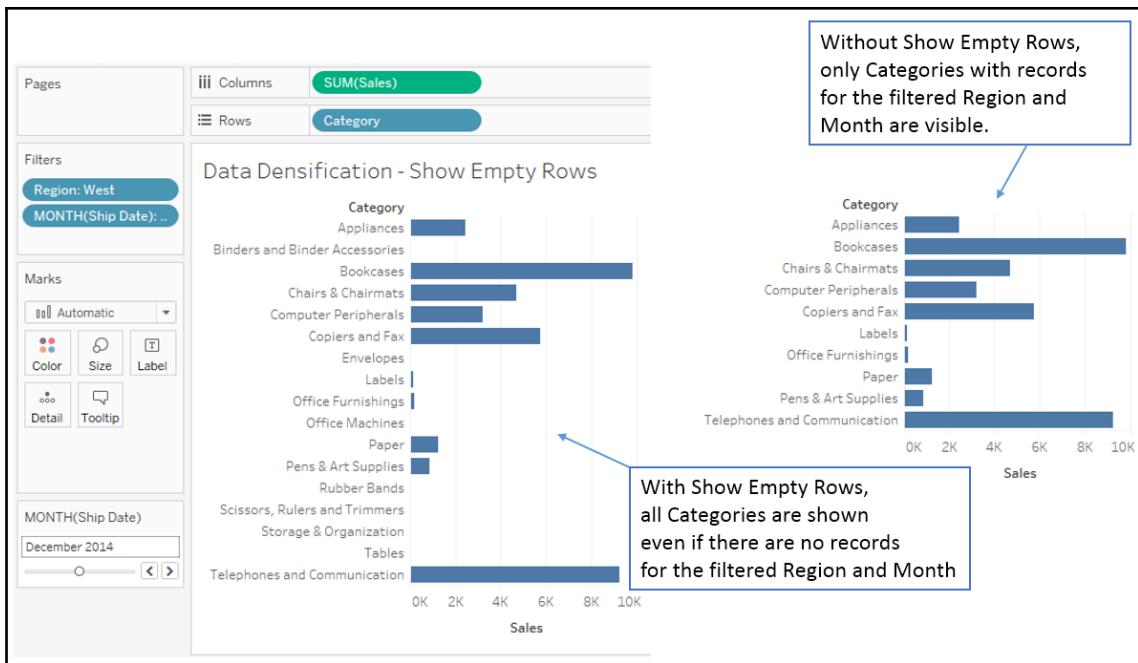












Pages

iii Columns Ship Mode

Rows Container

Filters

Data Densification - Rows and Columns w/ Certain Table Calculations

Marks

Automatic

Color

Size

Text

Detail

Tooltip

14 marks 7 rows by 3 columns

		Ship Mode		
Container		Delivery Truck	Express Air	Regular Air
Jumbo Box		Abc		Abc
Jumbo Drum		Abc		Abc
Large Box			Abc	Abc
Medium Box			Abc	Abc
Small Box			Abc	Abc
Small Pack			Abc	Abc
Wrap Bag			Abc	Abc

Pages

iii Columns Ship Mode

Rows Container

Filters

Data Densification - Rows and Columns w/ Certain Table Calculations

Marks

Automatic

Color

Size

Text

Detail

Tooltip

INDEX() Δ

Container	Ship Mode		
	Delivery Truck	Express Air	Regular Air
Jumbo Box	Abc	Abc	Abc
Jumbo Drum	Abc	Abc	Abc
Large Box	Abc	Abc	Abc
Medium Box	Abc	Abc	Abc
Small Box	Abc	Abc	Abc
Small Pack	Abc	Abc	Abc
Wrap Bag	Abc	Abc	Abc

21 marks 7 rows by 3 columns SUM of AGG(INDEX()): 42

Pages  ATTR(Ship Mode)

Filters  Container

Marks

Text   

Color  

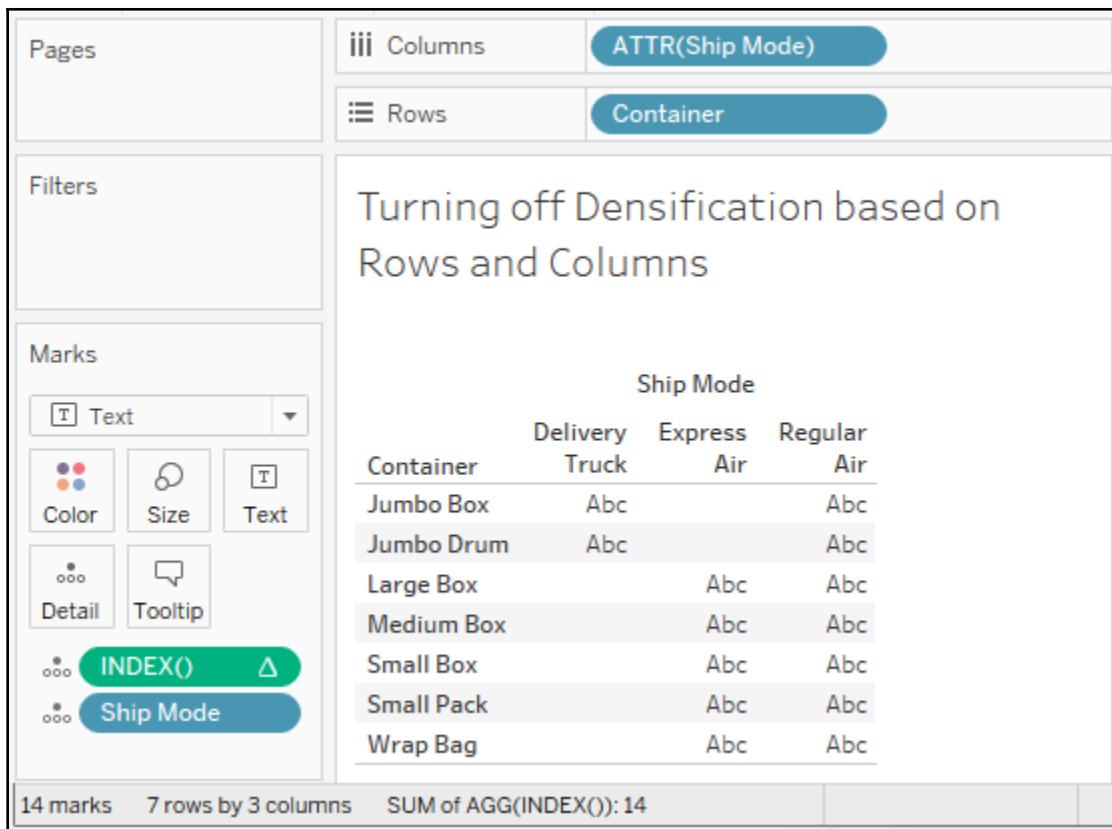
Delivery Truck Express Air Regular Air

Container	Delivery Truck	Express Air	Regular Air
Jumbo Box	Abc		Abc
Jumbo Drum	Abc		Abc
Large Box		Abc	Abc
Medium Box		Abc	Abc
Small Box		Abc	Abc
Small Pack		Abc	Abc
Wrap Bag		Abc	Abc

14 marks 7 rows by 3 columns SUM of AGG(INDEX()):14

Ship Mode

Turning off Densification based on Rows and Columns



Pages    

Filters

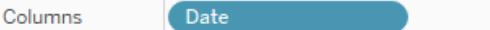
Marks


8 marks 5 rows by 6 columns

Generators

	Date					
Generator	Jan 13	Jan 22	Jan 25	Jan 27	Jan 29	Jan 30
A	On					Off
B		On		Off		
C			On			Off
D			On			
E					On	

Pages    

Filters

Marks


Generators

	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
B	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0
C	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0
D	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

Table Calculation X

Generators Operating

Nested Calculations

Action Value for Date

Compute Using

Table (across)

Table (down)

Table (across then down)

Table (down then across)

Pane (down)

Pane (across then down)

Pane (down then across)

Cell

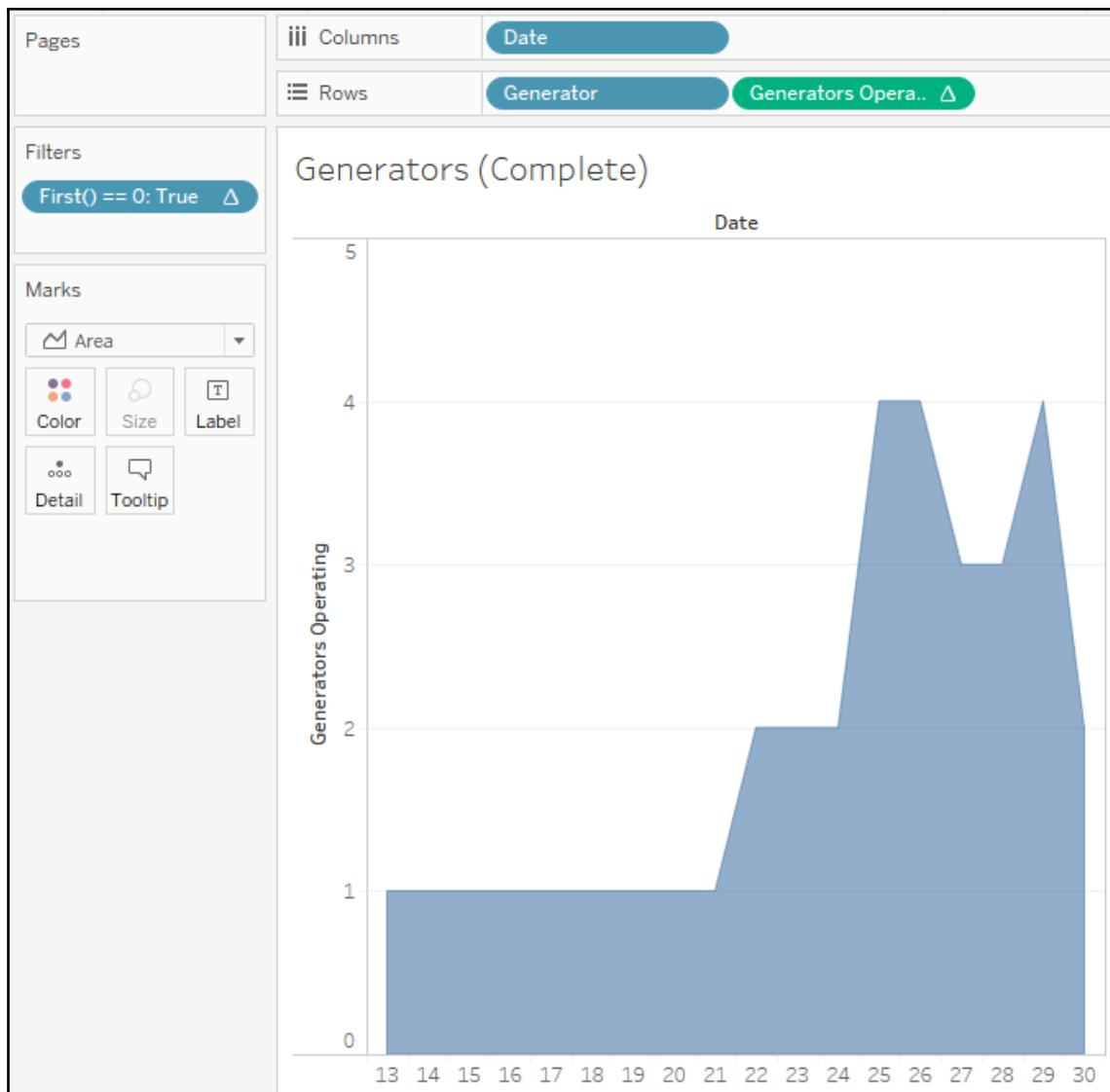
Specific Dimensions

Date

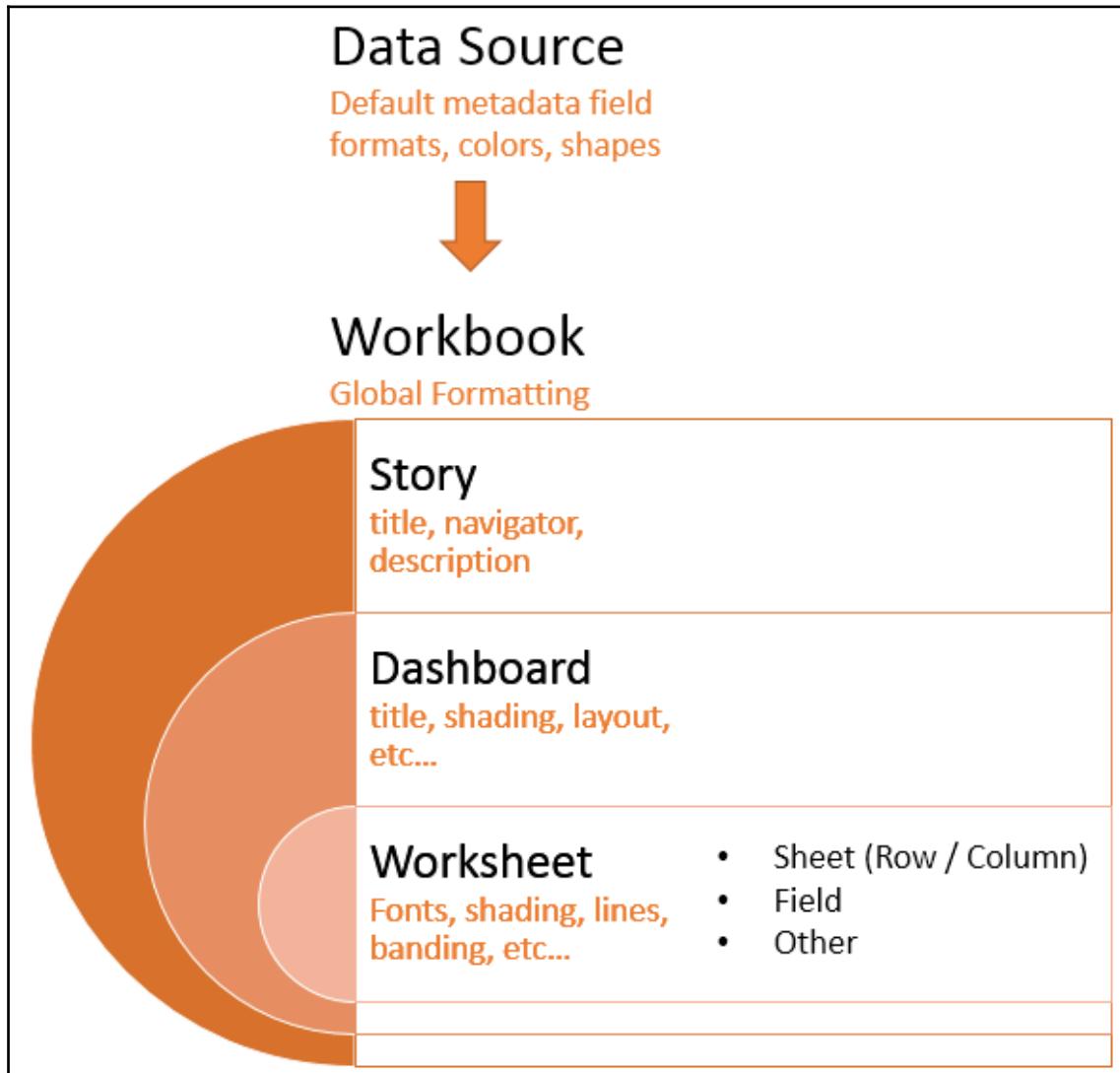
Generator

At the level

Restarting every



Chapter 6: Making Visualizations That Look Great and Work Well



Format Workbook

Fonts

All
Tableau Book

Worksheets
Tableau Book 9 ▾

Tooltips
Tableau Book 10 ▾

Worksheet Titles
Tableau Light 15 ▾

Dashboard Titles
Tableau Book 18 ▾

Story Titles
Tableau Regular 18 ▾

Less ▾

Lines

Grid Lines

Zero Lines

Trend Lines

Reference Lines

Drop Lines

Axis Rulers

Axis Ticks

Reset to Defaults

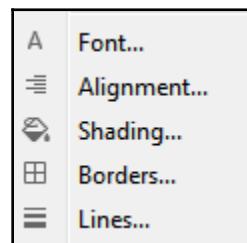
Formatting: Parts of the View

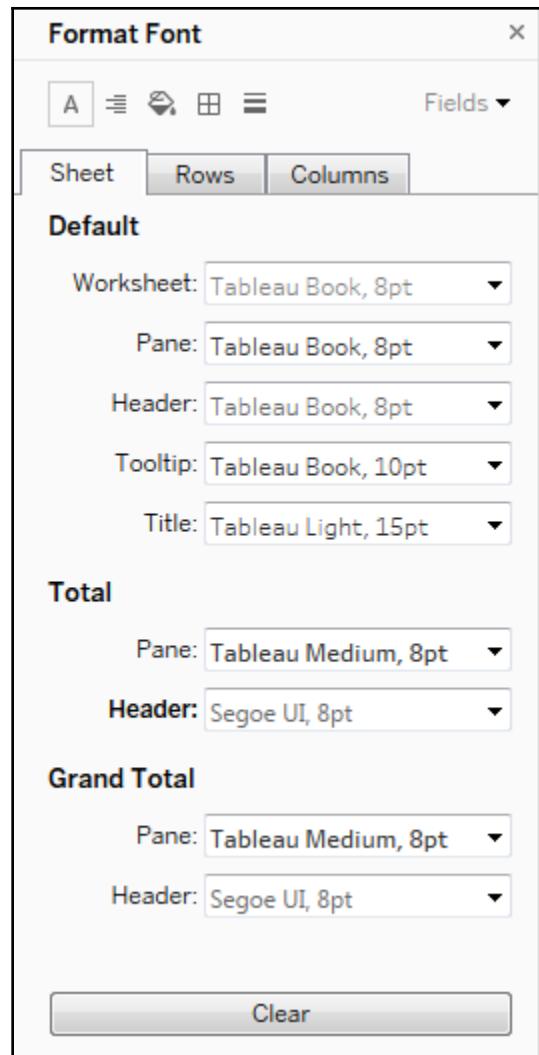
Diagram illustrating the parts of a view in a table:

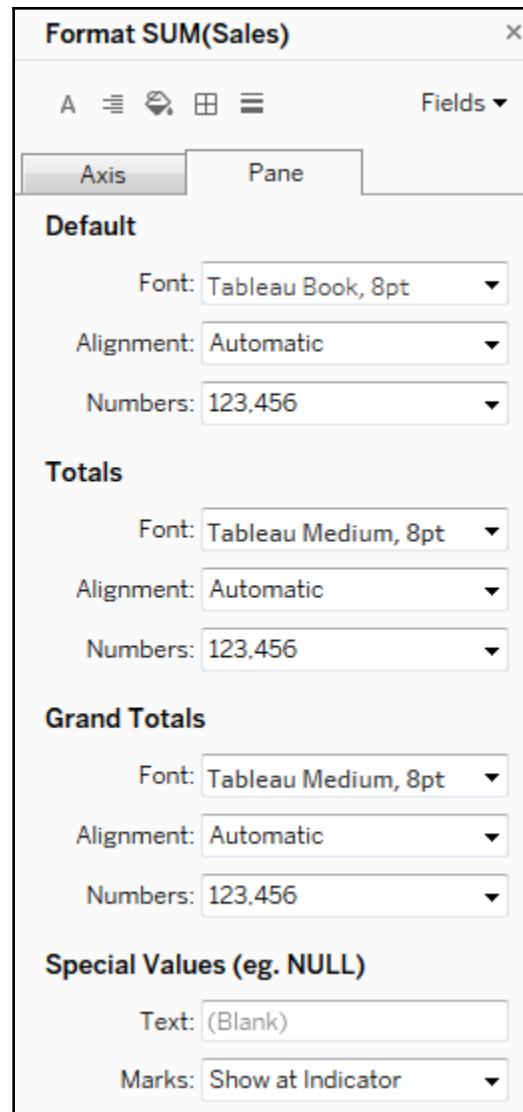
- 1**: Department (Column header)
- 2**: Customer Segment (Column header)
- 3**: Category (Row header)
- 4**: Consumer (Column header)
- 5**: Corporate (Column header)
- 6**: Home Office (Column header)
- 7**: Small Business (Column header)
- a**: Grand Total (Column header)
- b**: Grand Total (Table footer)

Table Data:

Department	Category	Consumer	Corporate	Home Office	Small Business	Grand Total
Furniture	Bookcases	92,626	262,085	79,404	73,381	507,496
	Chairs & Chairmats	305,381	407,724	212,830	238,651	1,164,586
	Office Furnishings	69,528	115,506	197,188	62,412	444,634
	Tables	228,934	363,979	287,507	181,502	1,061,922
	Total	696,469	1,149,294	776,929	555,946	3,178,638
Office Supplies	Appliances	63,813	167,941	124,757	100,225	456,736
	Binders and Binder Accessor..	103,625	225,160	148,472	161,326	638,583
	Envelopes	37,643	44,462	22,577	43,233	147,915
	Labels	3,713	7,929	5,411	6,393	23,446
	Paper	53,004	89,312	61,123	50,181	253,620
	Pens & Art Supplies	24,027	36,004	21,765	21,469	103,265
	Rubber Bands	1,710	2,197	2,294	2,469	8,670
	Scissors, Rulers and Trimme..	14,628	9,625	12,947	3,232	40,432
	Storage & Organization	121,719	154,918	179,151	129,929	585,717
Technology	Total	423,882	737,548	578,497	518,457	2,258,384
	Computer Peripherals	80,805	224,142	110,840	75,064	490,851
	Copiers and Fax	148,504	205,639	174,718	132,354	661,215
	Office Machines	260,011	516,513	245,019	197,112	1,218,655
	Telephones and Communicat..	225,571	436,295	282,962	199,456	1,144,284
Total	Total	714,891	1,382,589	813,539	603,986	3,515,005
	Grand Total	1,835,242	3,269,431	2,168,965	1,678,389	8,952,027







Format String	Resulting Value
#;-#	34331 and -8157
#,###.##; (#,###.##)	34,331.34 and (8,156.78)
#,###.00000;-#,###.00000	34,331.33600 and -8,156.77770
"up "#,###;"down "#,###;"same"	up 34,331 and down 8,157
#,###"▲"; #,###"▼"	34,331▲ and 8,157▼

Format String	Resulting Value
m/d/yyyy	11/8/2018
dd/mm/yyyy	08/11/2018
"The date is" m/d/yyyy	The date is 11/8/2018
mmm d, yyyy	Nov 8, 2018
mmmm dd yyyy	November 08 2018
mm/dd/yyyy h:mm AM/PM	11/08/2018 1:30PM
tttt	1:30:28 PM
dddd, mmmm d, HH:MM:ss	Thursday, November 8, 13:30:28
ddd	Thu

Special Values (eg. NULL)

Text:

Marks:

Show at Indicator



Show at Default Value

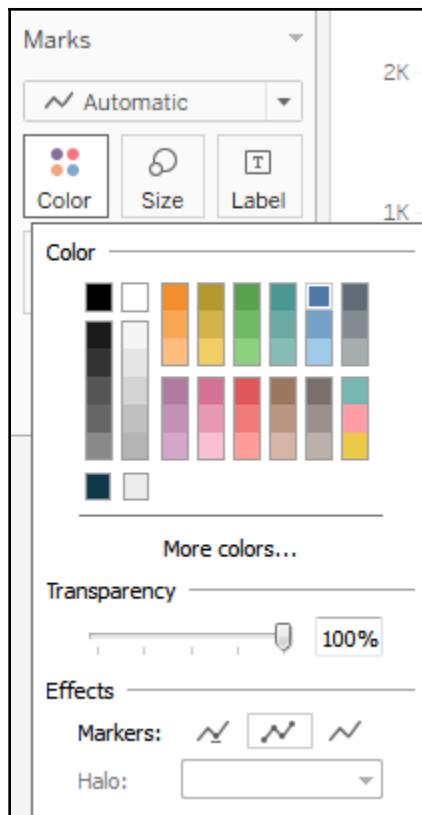


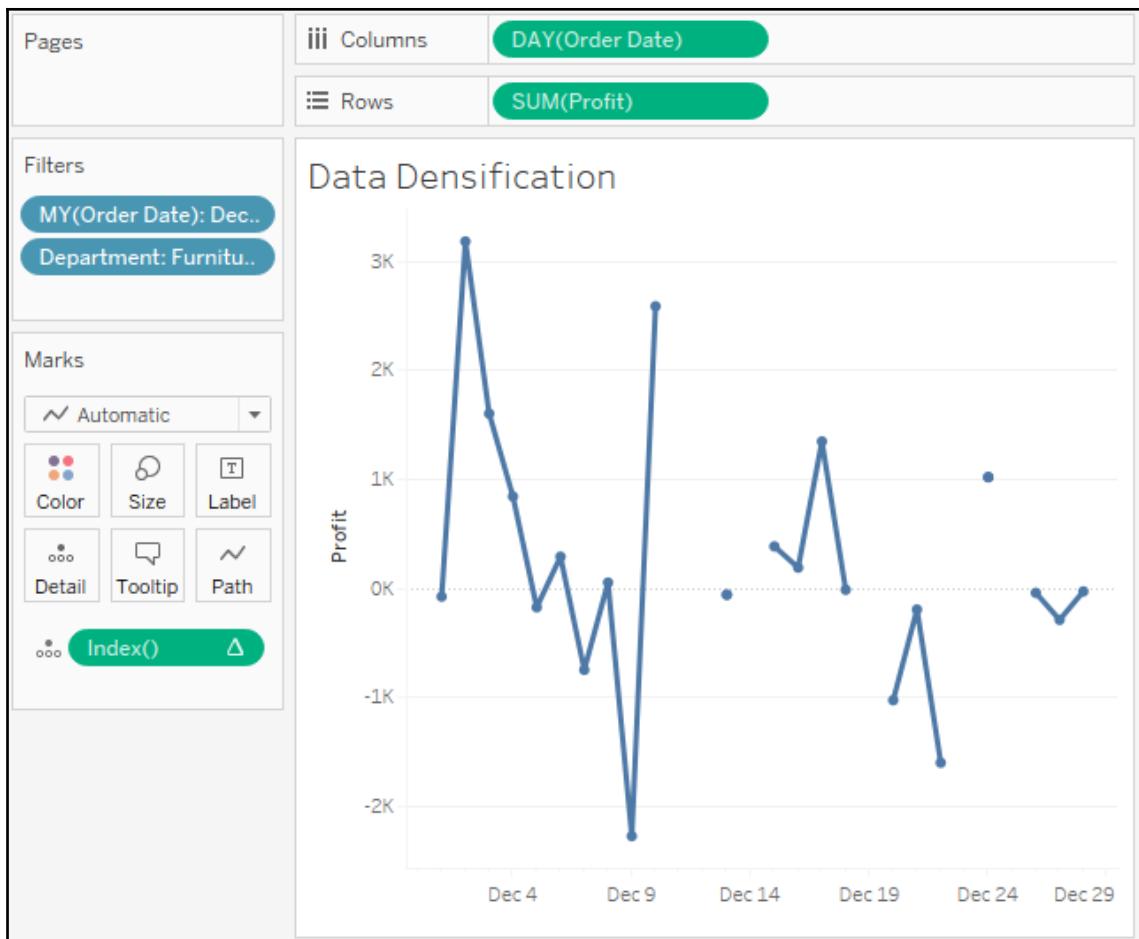
Hide (Connect Lines)

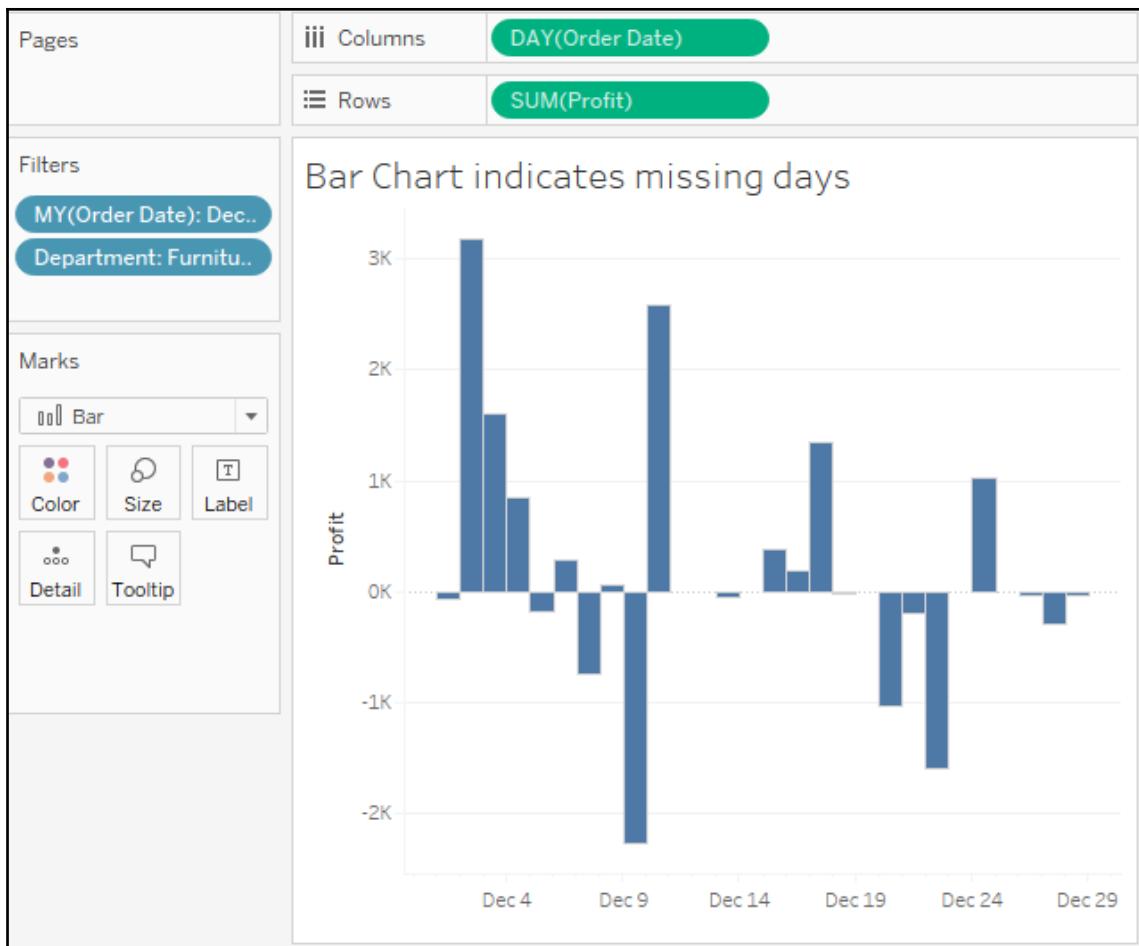


Hide (Break Lines)

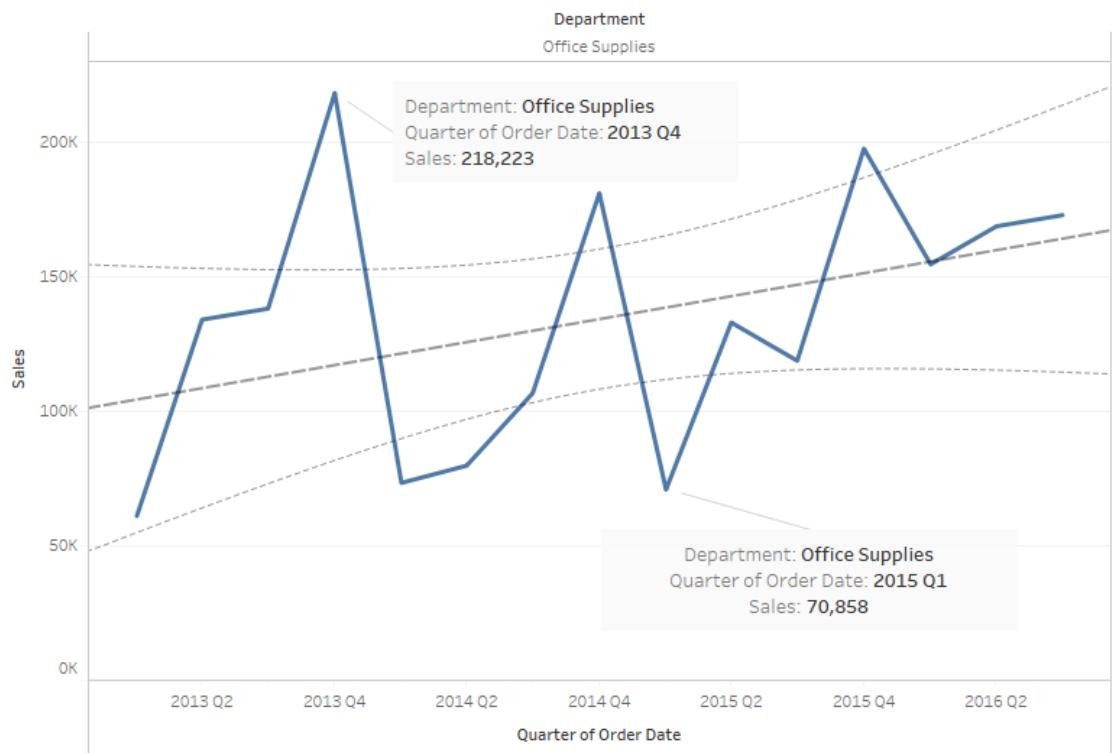




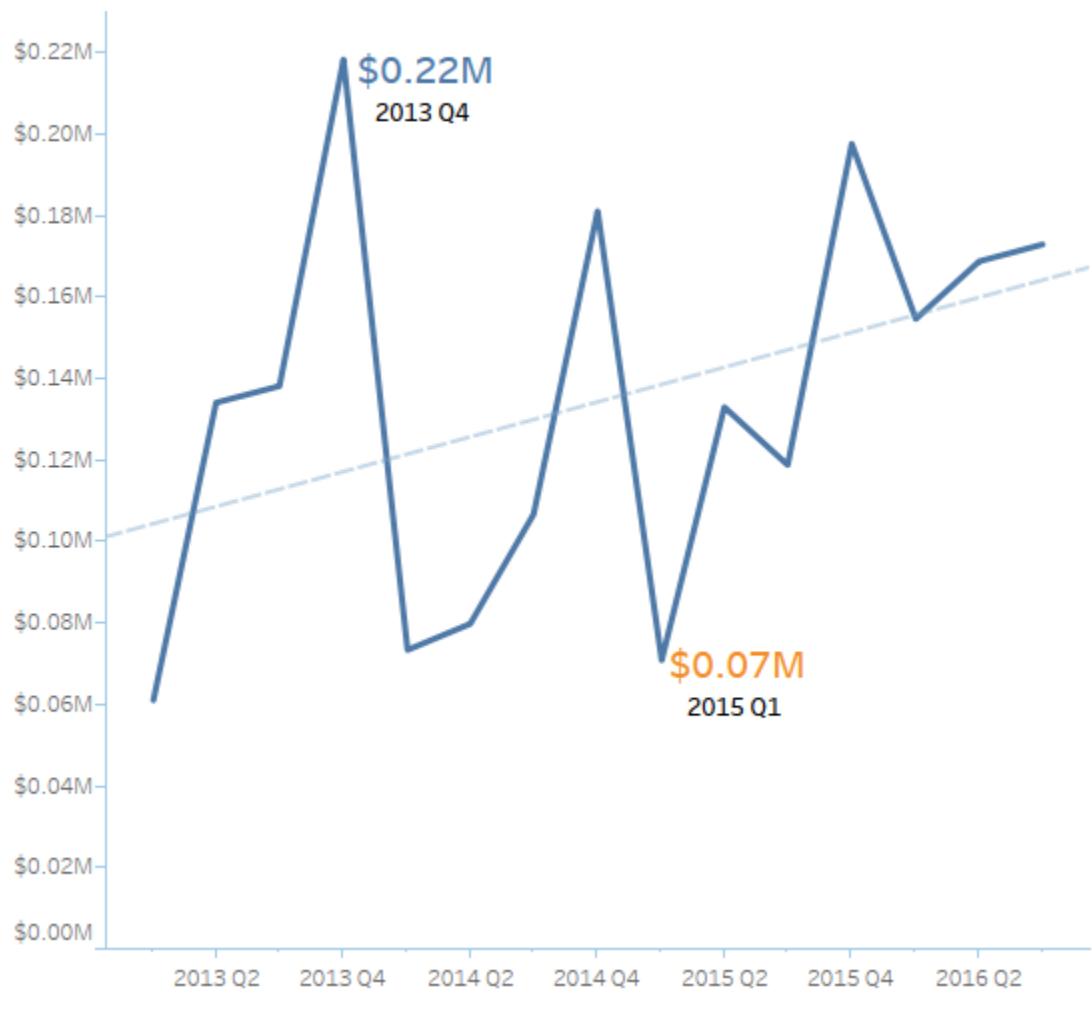




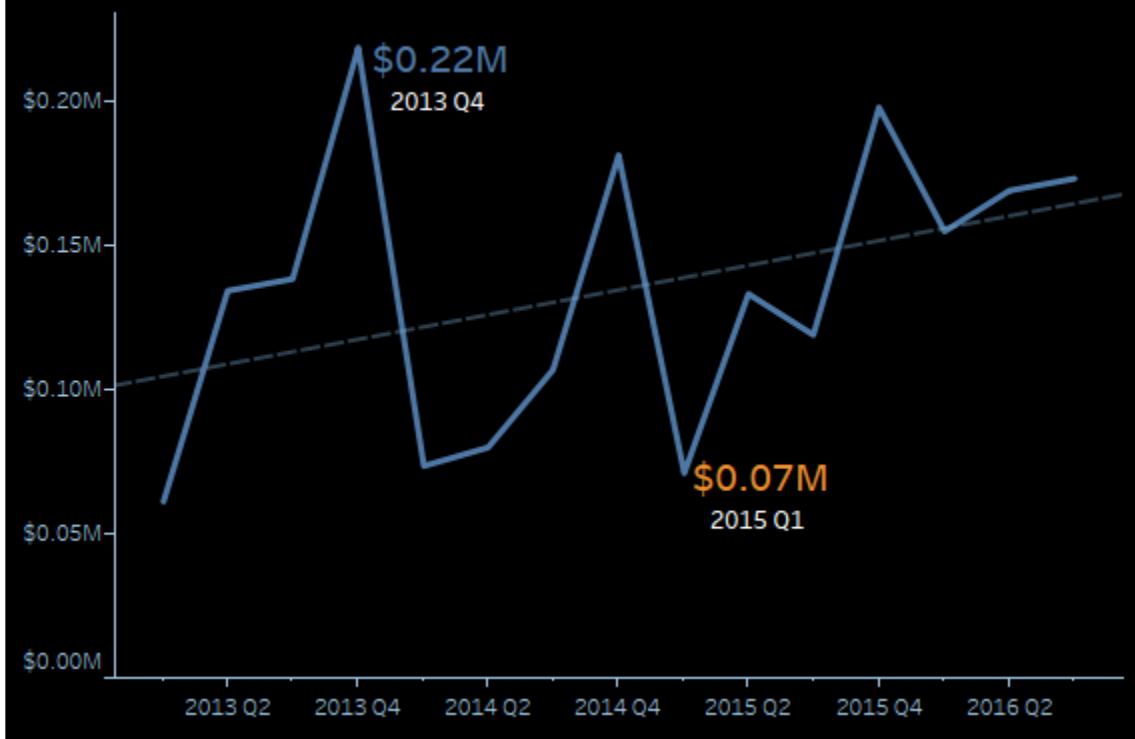
Sales Trends



Sales Trends for Office Supplies

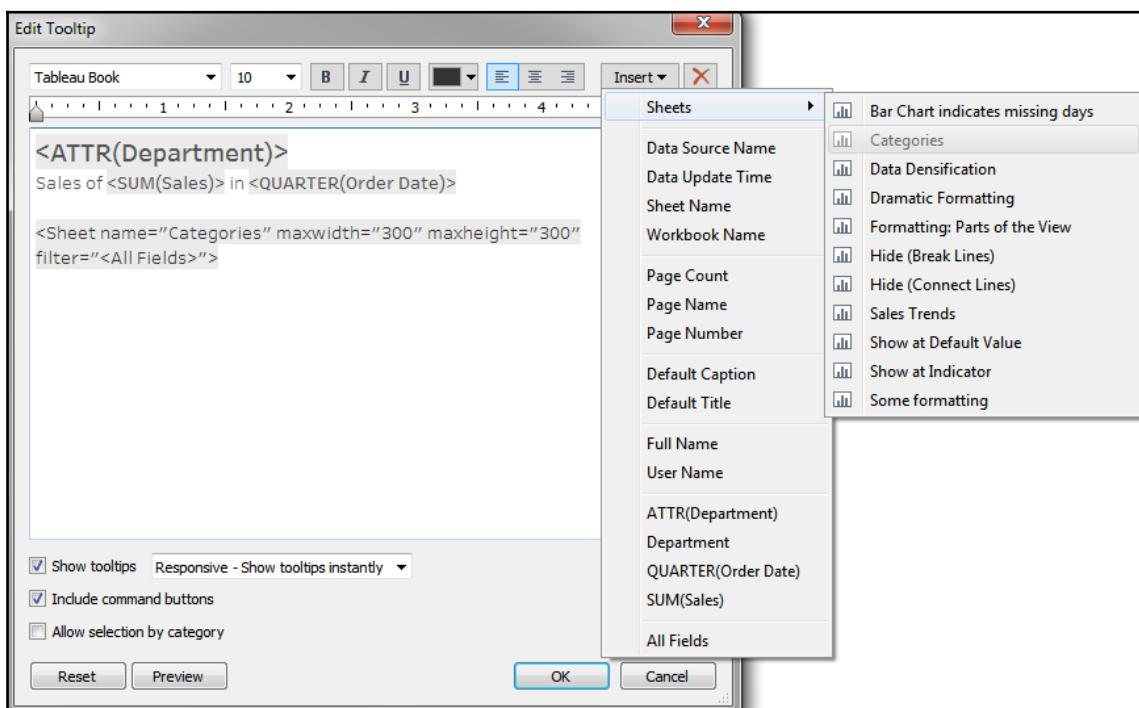
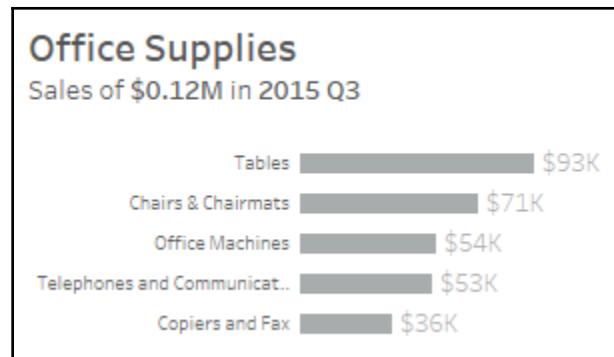


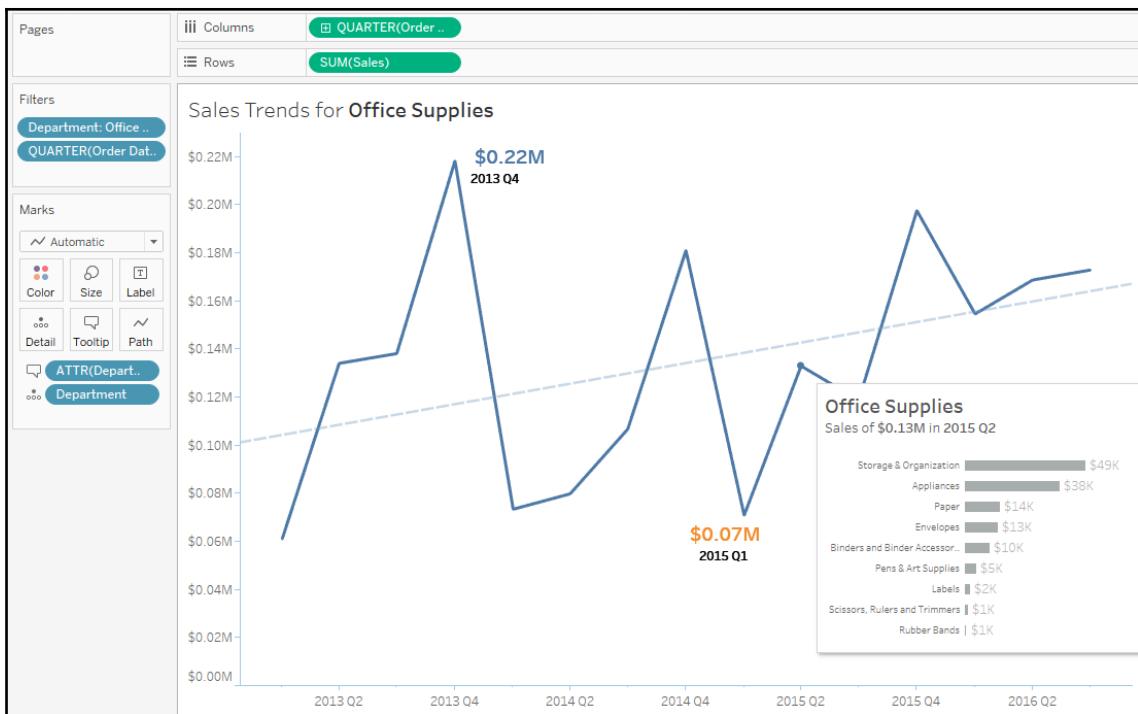
Sales Trends for Office Supplies



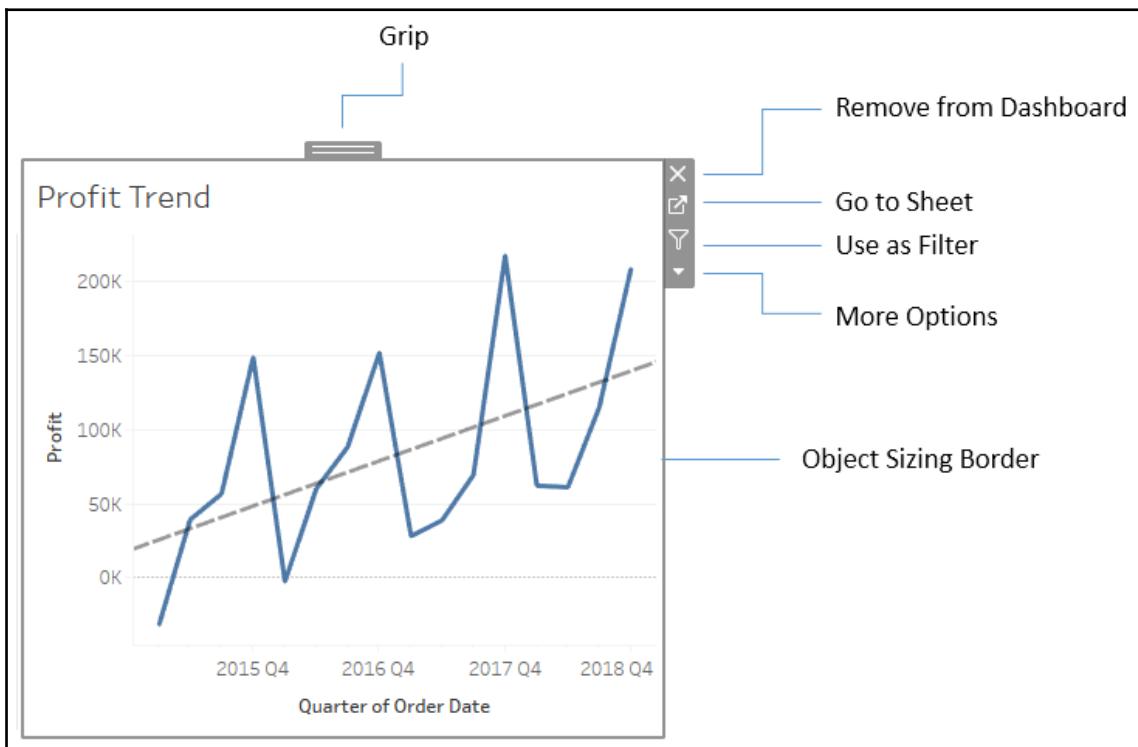
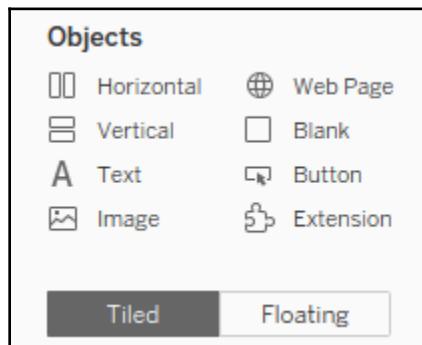
✓ Keep Only Exclude

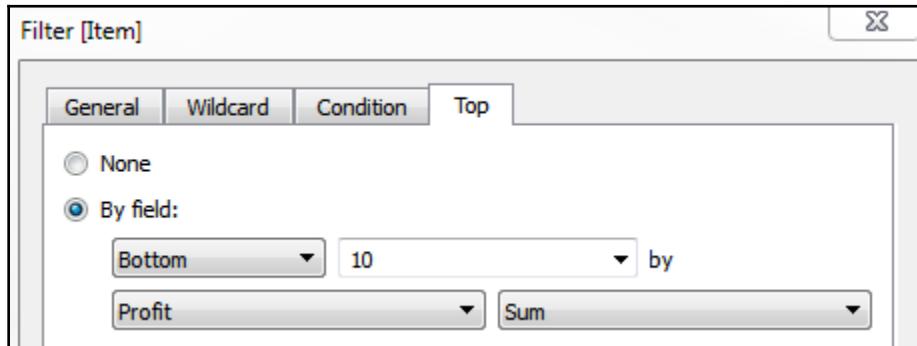
Quarter of Order Date: 2016 Q1
Sales: \$0.15M

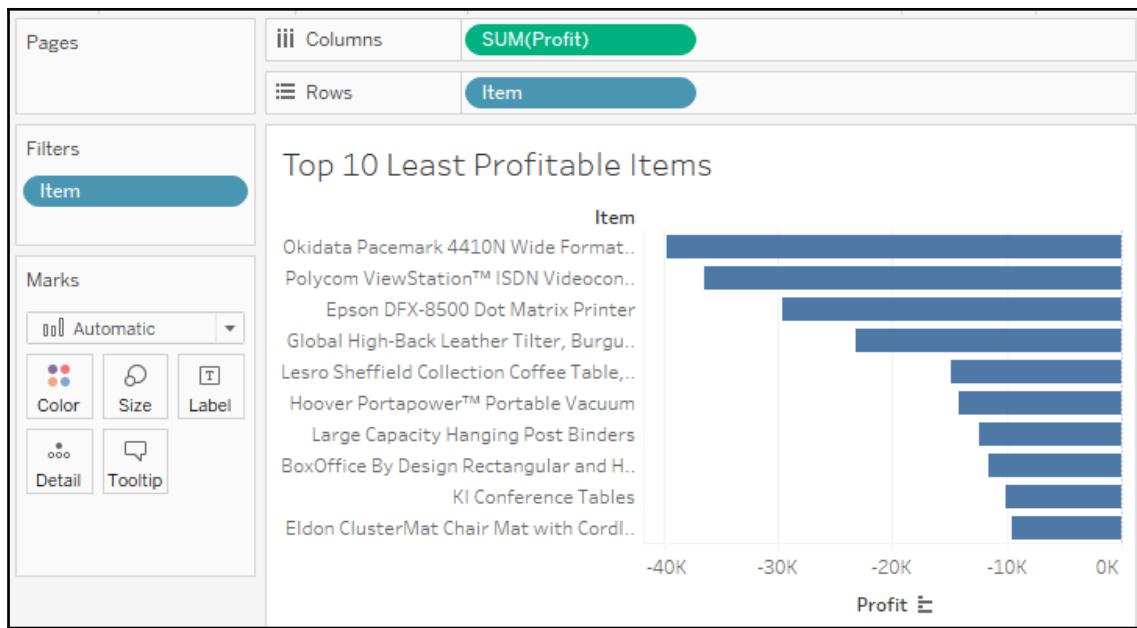


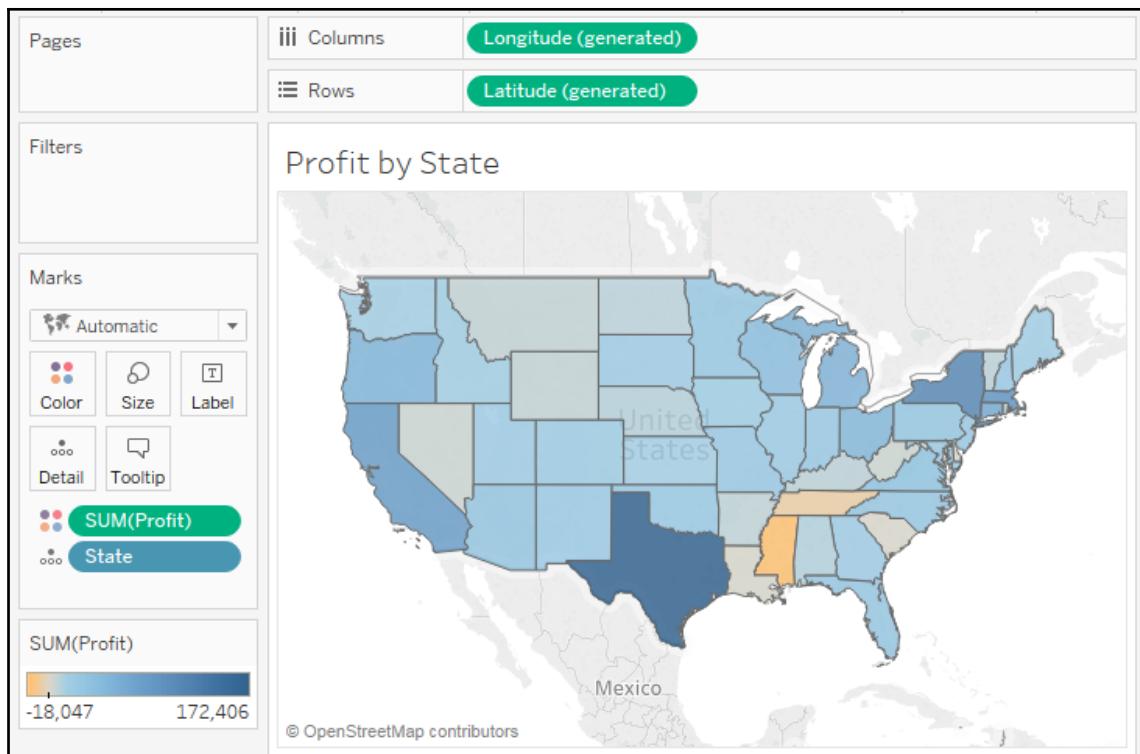


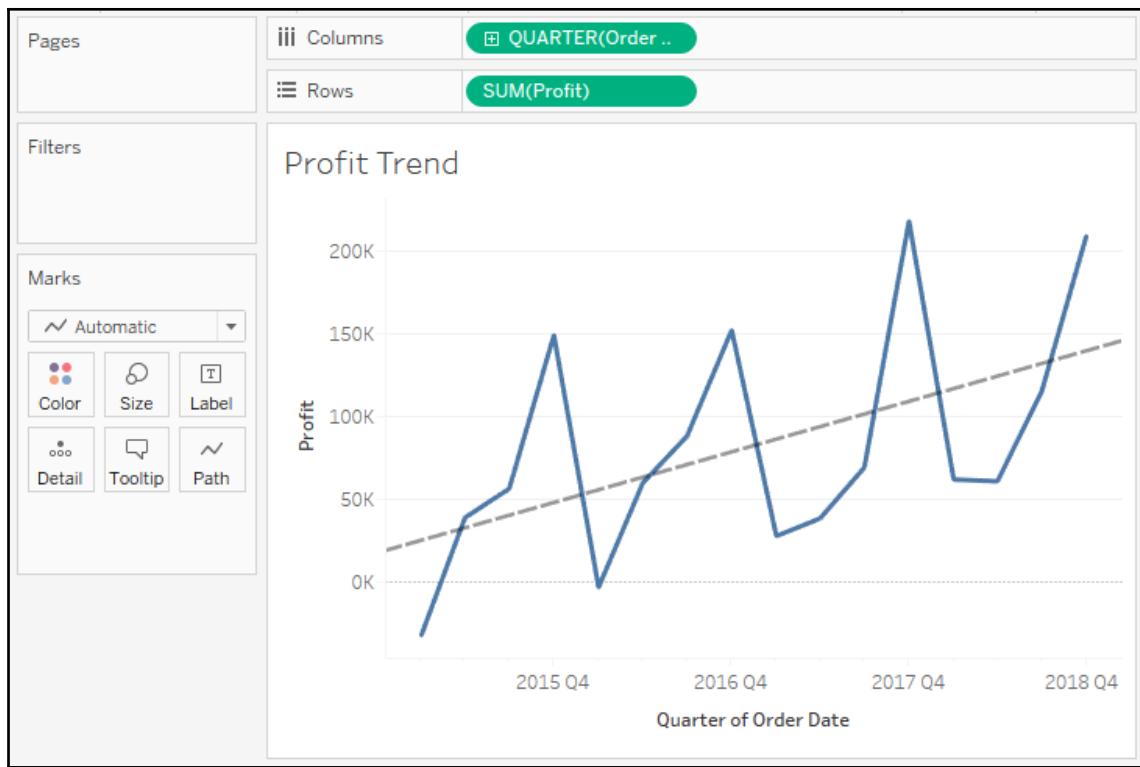
Chapter 7: Telling a Data Story with Dashboards





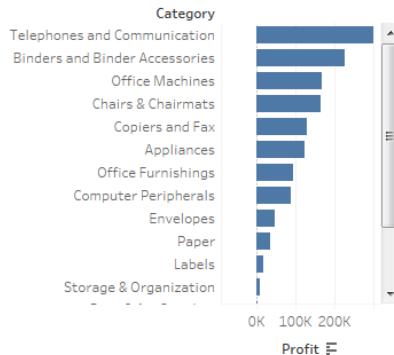




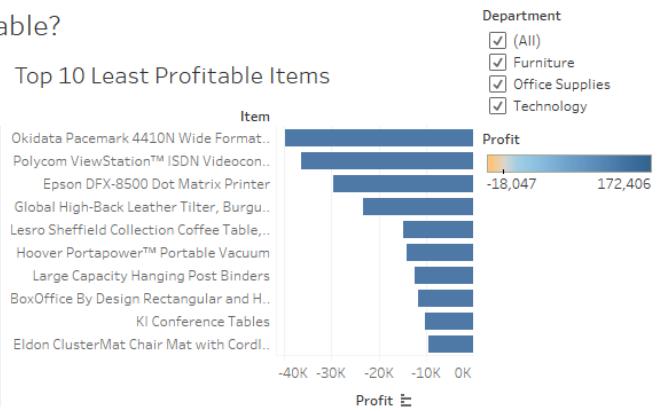


Is Least Profitable Always Unprofitable?

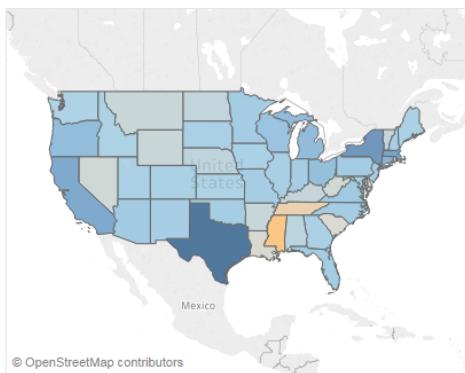
Overall Profit by Category



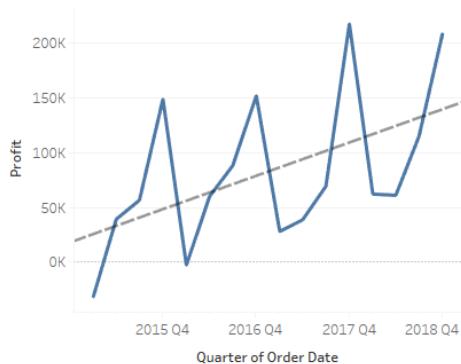
Top 10 Least Profitable Items



Profit by State



Profit Trend



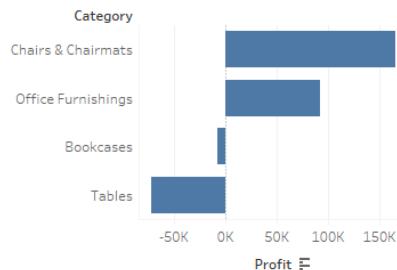
Is Least Profitable Always Unprofitable?

1. Select a Department from the dropdown
2. Select a category below
3. Select an Item below

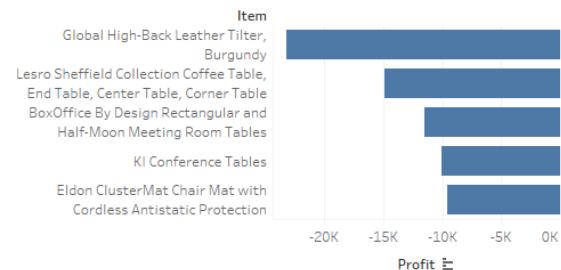
Department

Furniture

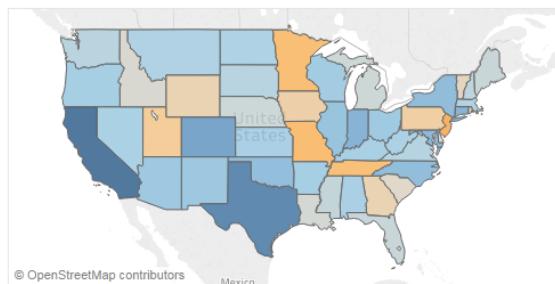
Overall Profit by Category



Top 10 Least Profitable Items



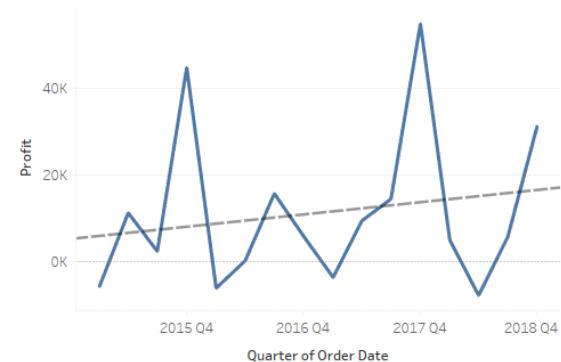
Profit by State



Profit

-7,191 [orange] 29,672 [dark blue]

Profit Trend

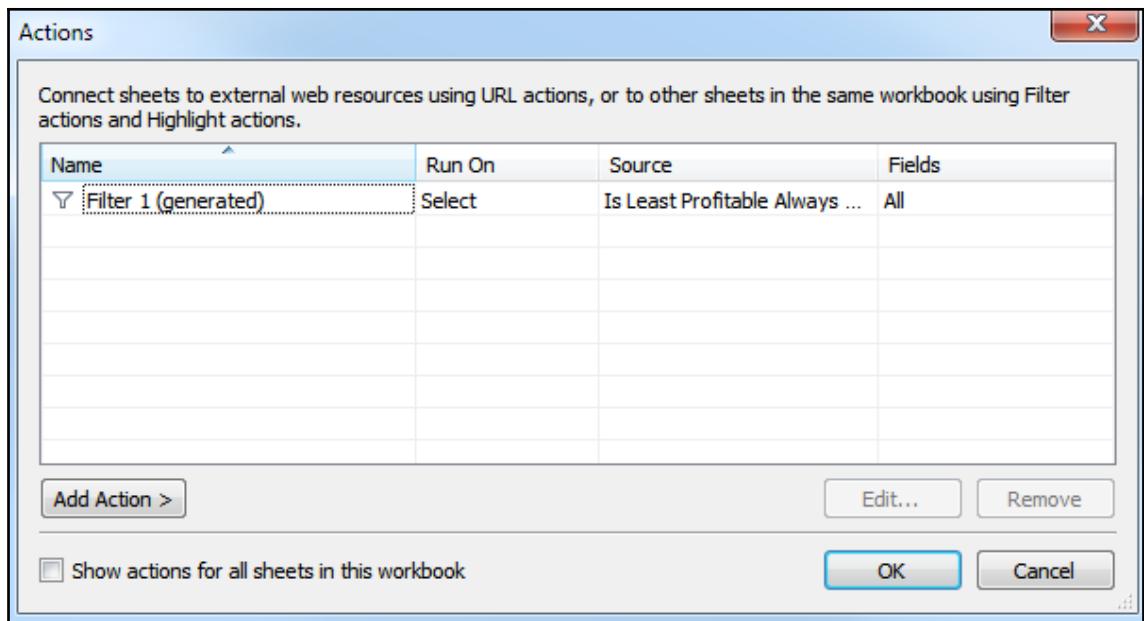


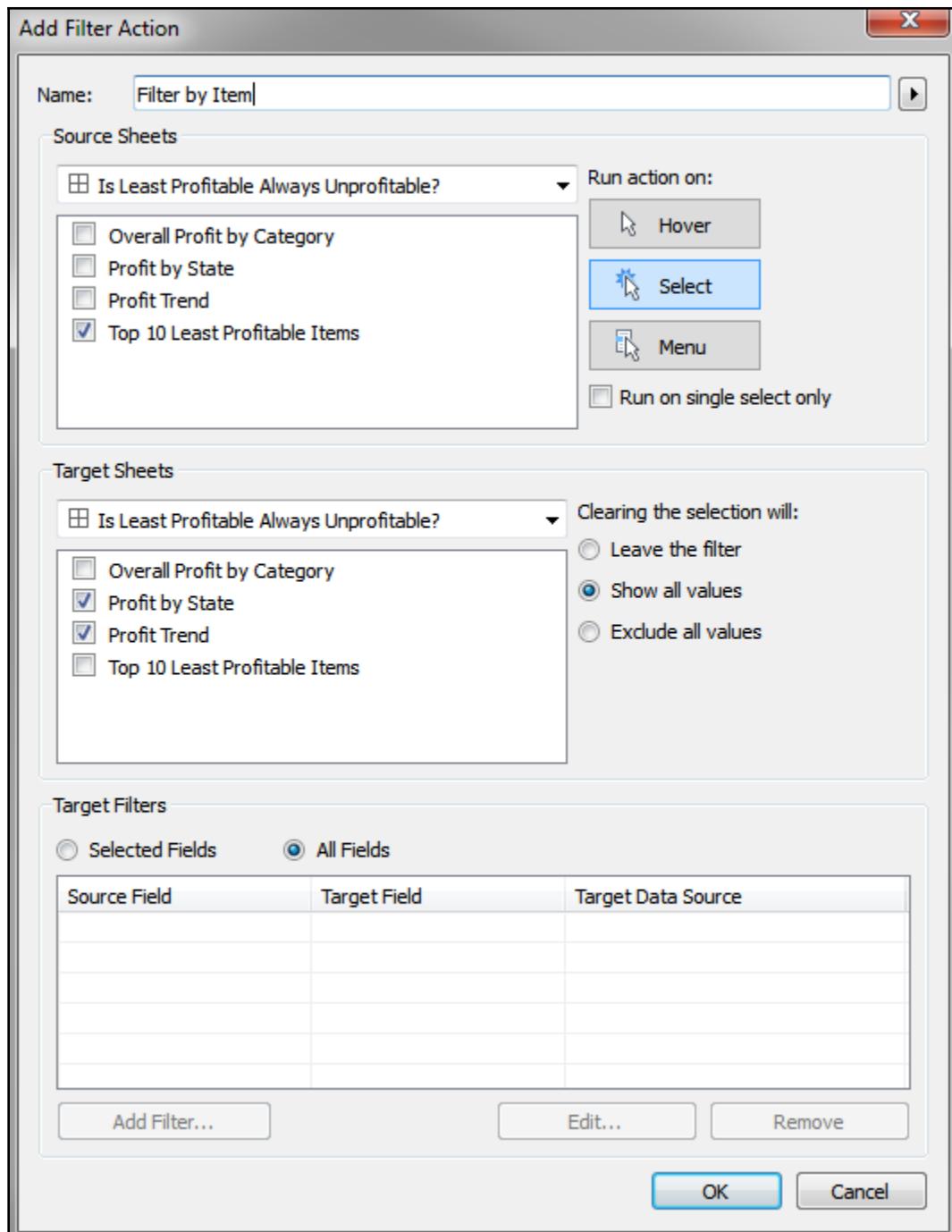
Overall Profit by Category

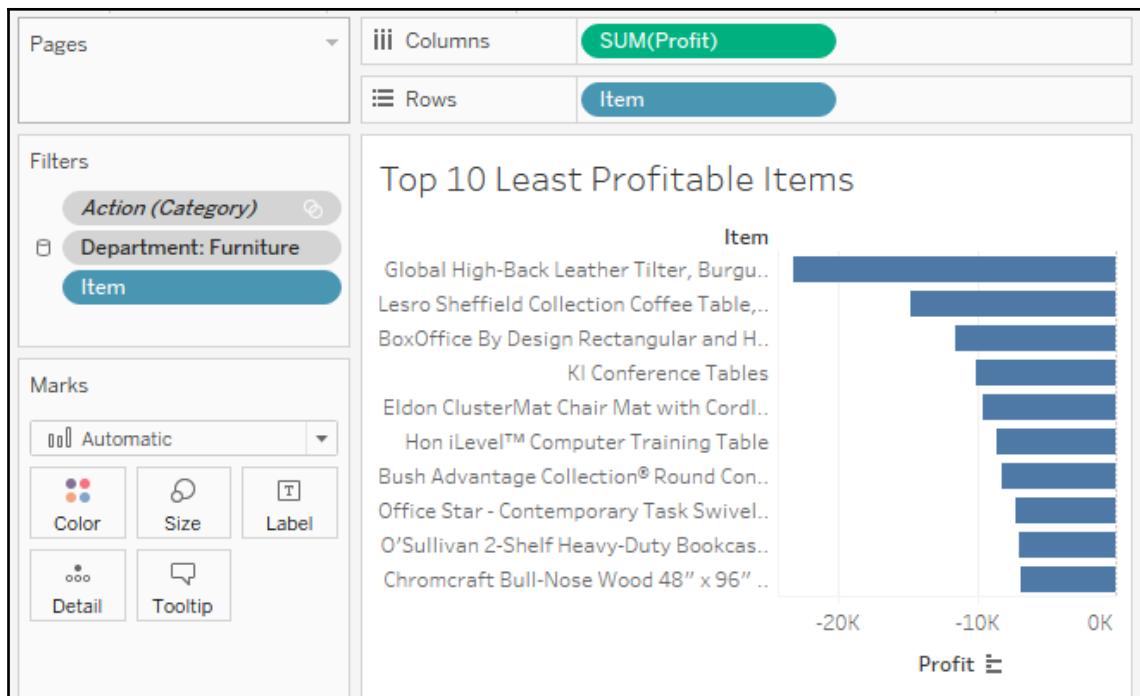
Category

Chairs & Chairmats





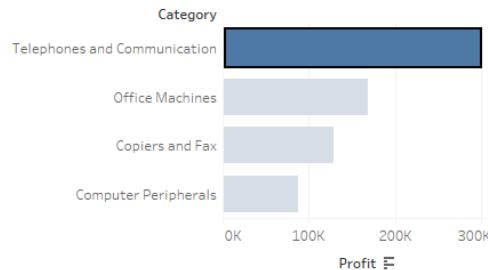




Is Least Profitable Always Unprofitable?

1. Select a Department from the dropdown
2. Select a category below
3. Select an item below

Overall Profit by Category



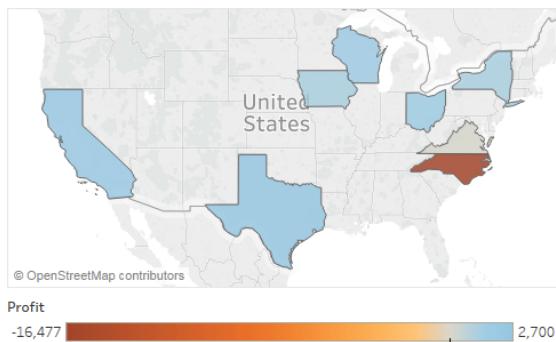
Department

Technology

Top 10 Least Profitable Items



Profit by State



Profit Trend



Dashboard Layout 

Device Preview

Size

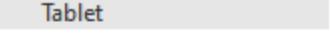
Desktop Browser (1000 x 800) 

Sheets

-  Overall Profit by Category
-  Profit Trend
-  Profit by State
-  Top 10 Least Profitable Ite...

Device type  Tablet  Model  iPad (1024 x 768)   Tableau Mobile app 

Dashboard Layout 

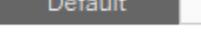
Default
Tablet 
Phone

Device Preview

Size - Tablet

Default
 Fit all
 Fit width
Height 

Layout - Tablet

Default  Custom

The content and layout of the dashboard on all devices will match the Default dashboard.

Click "Custom" to change how the dashboard will look for the devices.

Dashboard **Layout**

Default
Phone

Device Preview

Device type Phone

Mod

Size - Phone

Default
 Fit all
 Fit width
Height

Layout - Phone

Default Custom

- Overall Profit by Category
- Department
- Profit Trend
- Profit by State
- Profit
- Top 10 Least Profitable Items
- A. 1. Select a Department ...
- Is Least Profitable Always Unprofitable?

Objects

- Horizontal Web Page
- Vertical Blank
- Text Extension
- Image

Tiled Floating

Show dashboard title

Clear all

Is Least Profitable Always Unprofitable?

1. Select a Department from the dropdown
2. Select a category below
3. Select an item below

Department

Overall Profit by Category

Category

Category	Profit
Telephones and Commu...	300K
Office Machines	180K
Copiers and Fax	120K
Computer Peripherals	80K

0K 100K 200K 300K

Top 10 Least Profitable Items

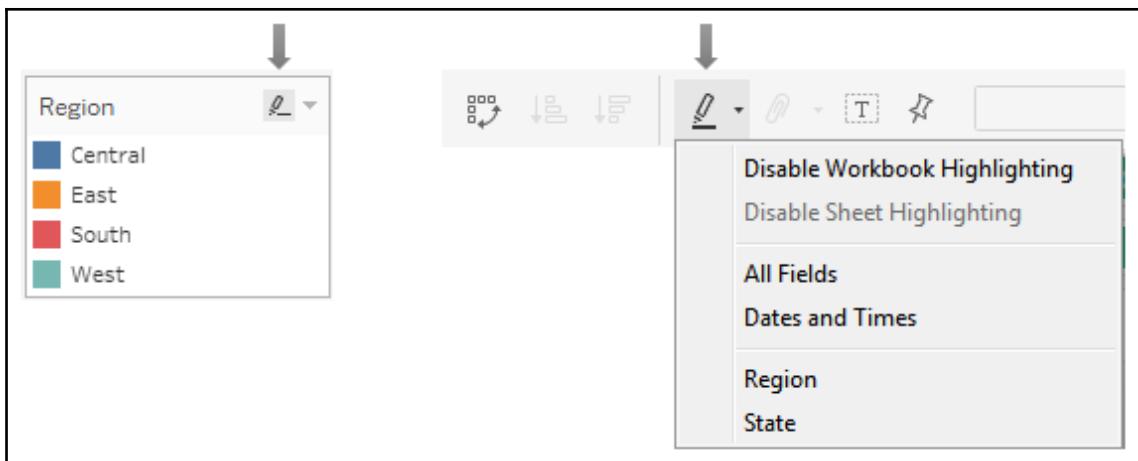
Item

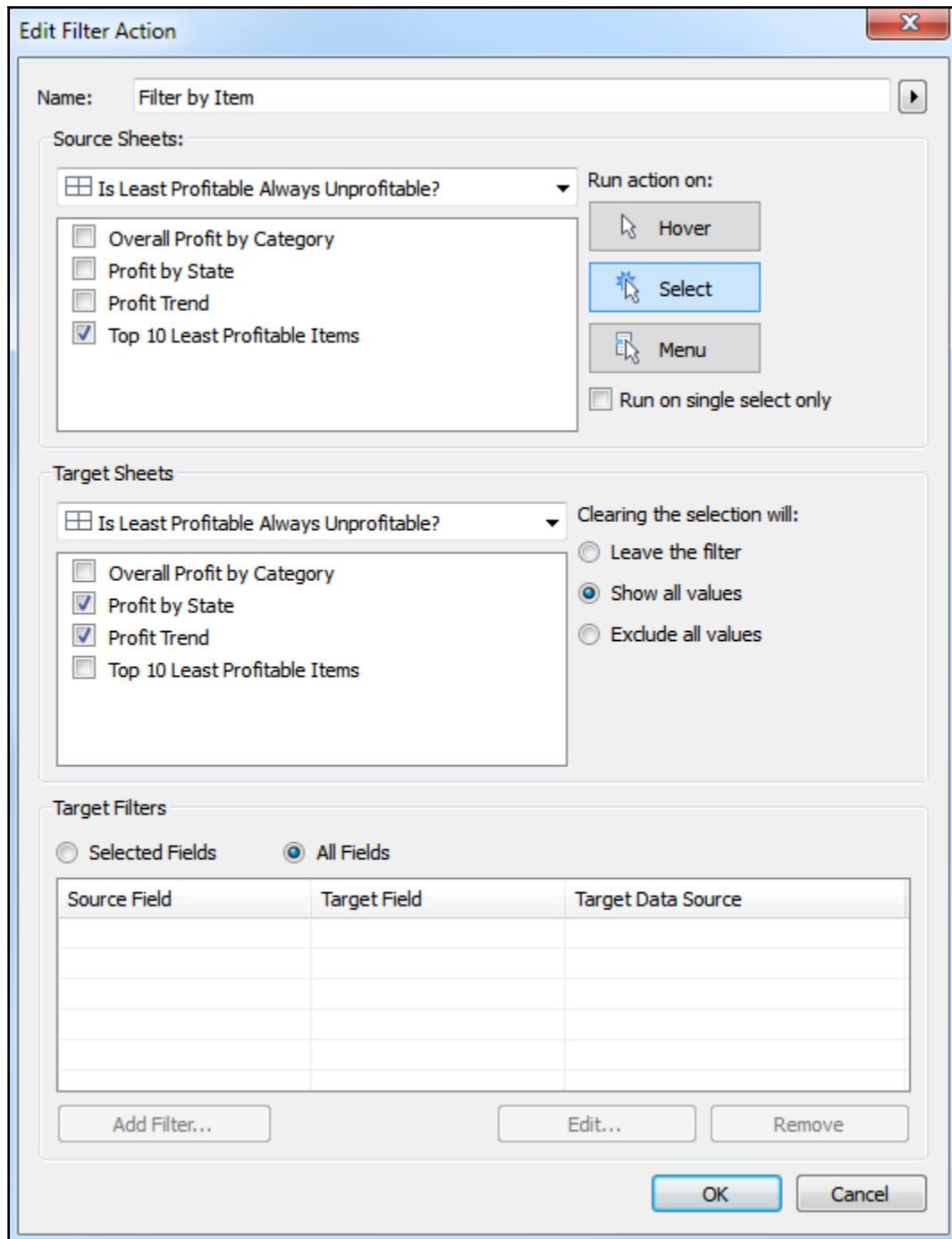
Item	Profit
Item 10631	-3000
Accessory36	-2000
Accessory6	-1500
Bell Sonecor JB700 Caller ID	-1000
Accessory27	-800
Accessory28	-700
Accessory39	-600
Item 10385	-500
Accessory37	-400
Accessory17	-300

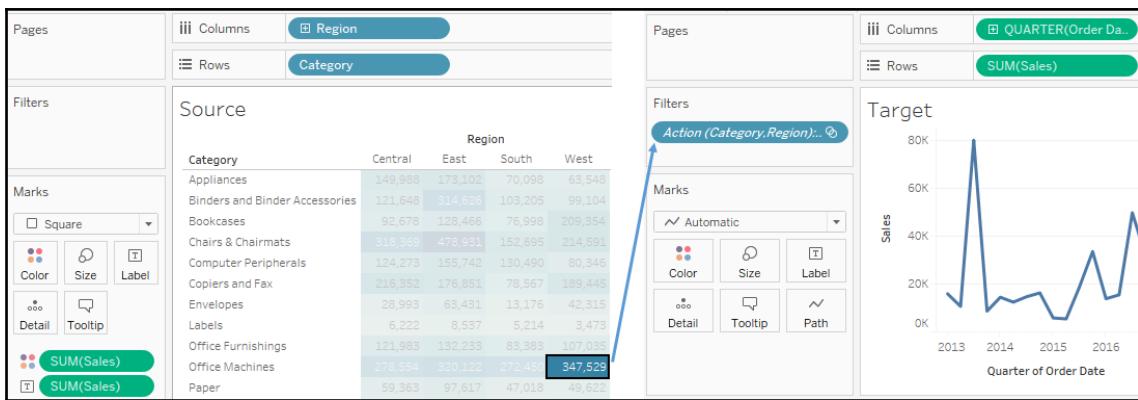
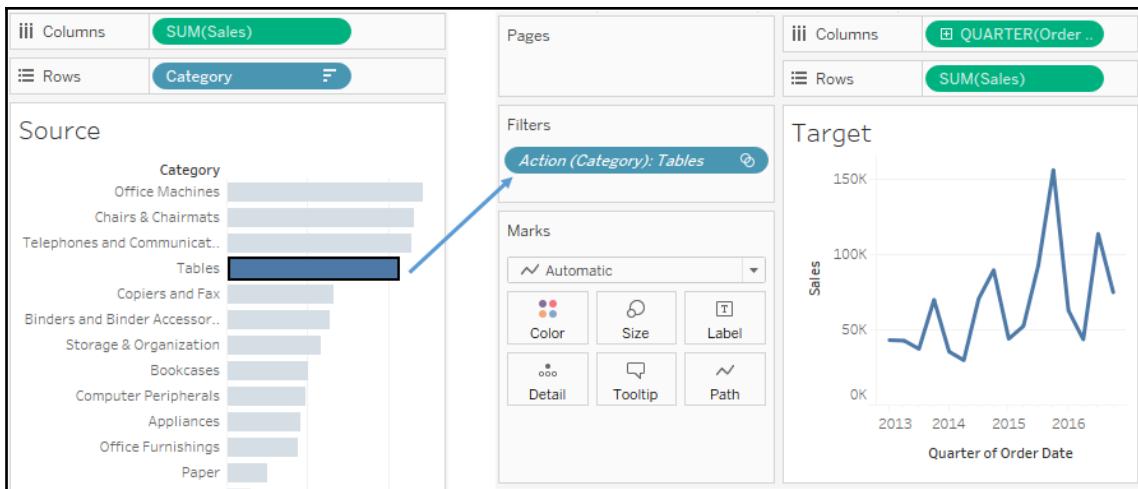
-4K -2K 0K

Profit by State

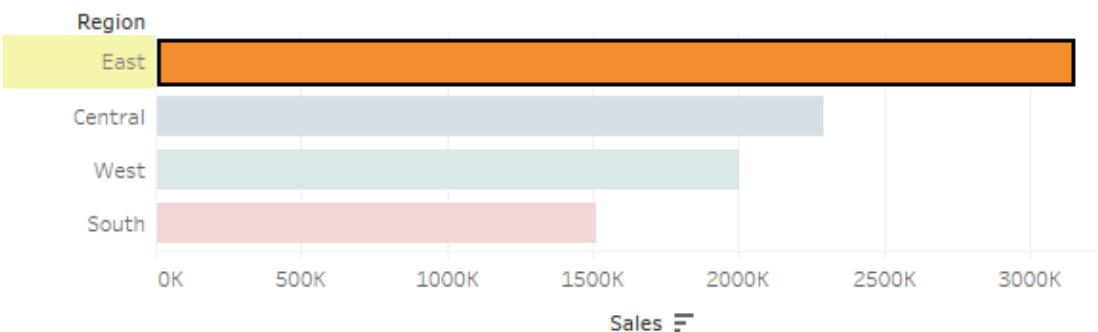
United States



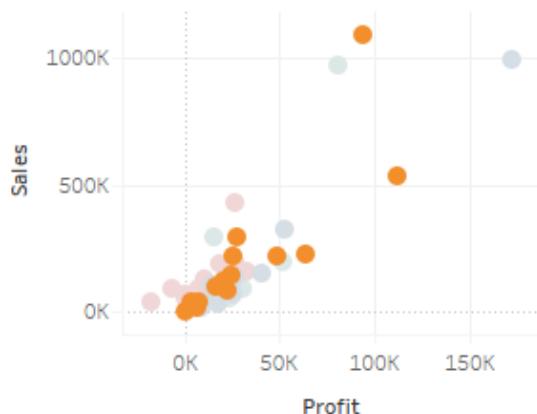




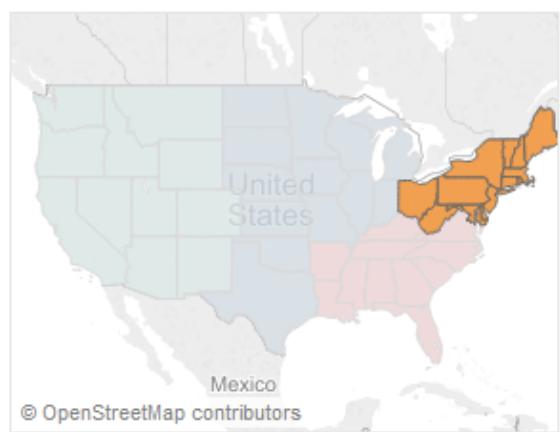
Sales by Region



Sales and Profit by State



Regions

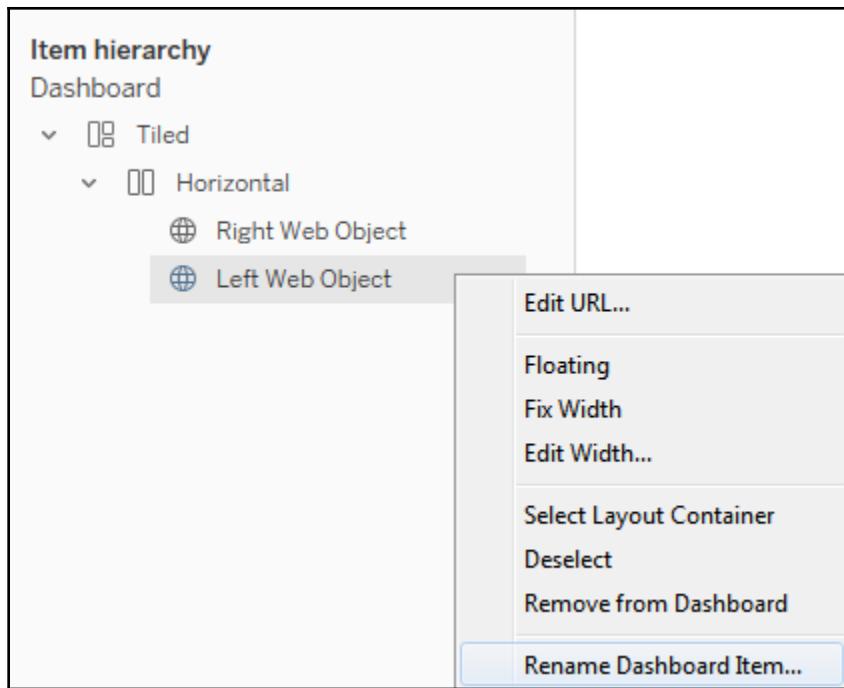


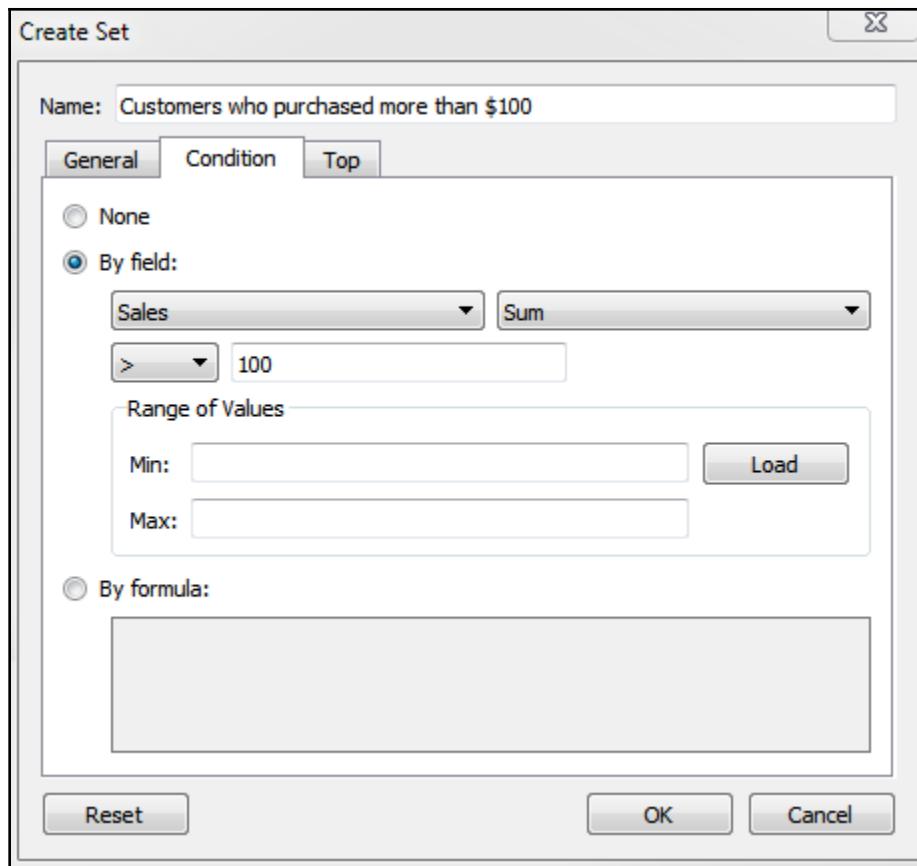
URL Target

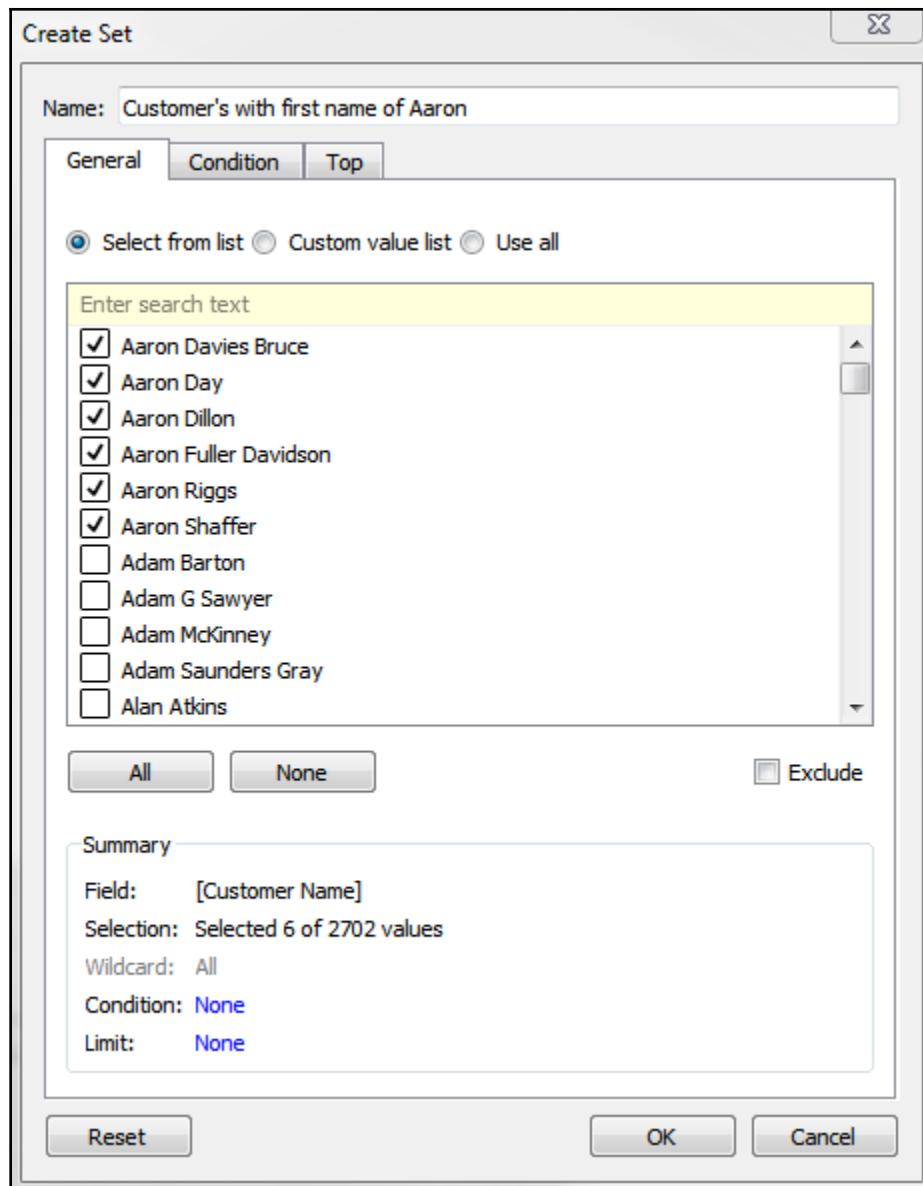
- New Browser Tab
- Web Page Object
- Browser Tab if No Web Page Object Exists

- Left Web Object
- Left Web Object
- Right Web Object

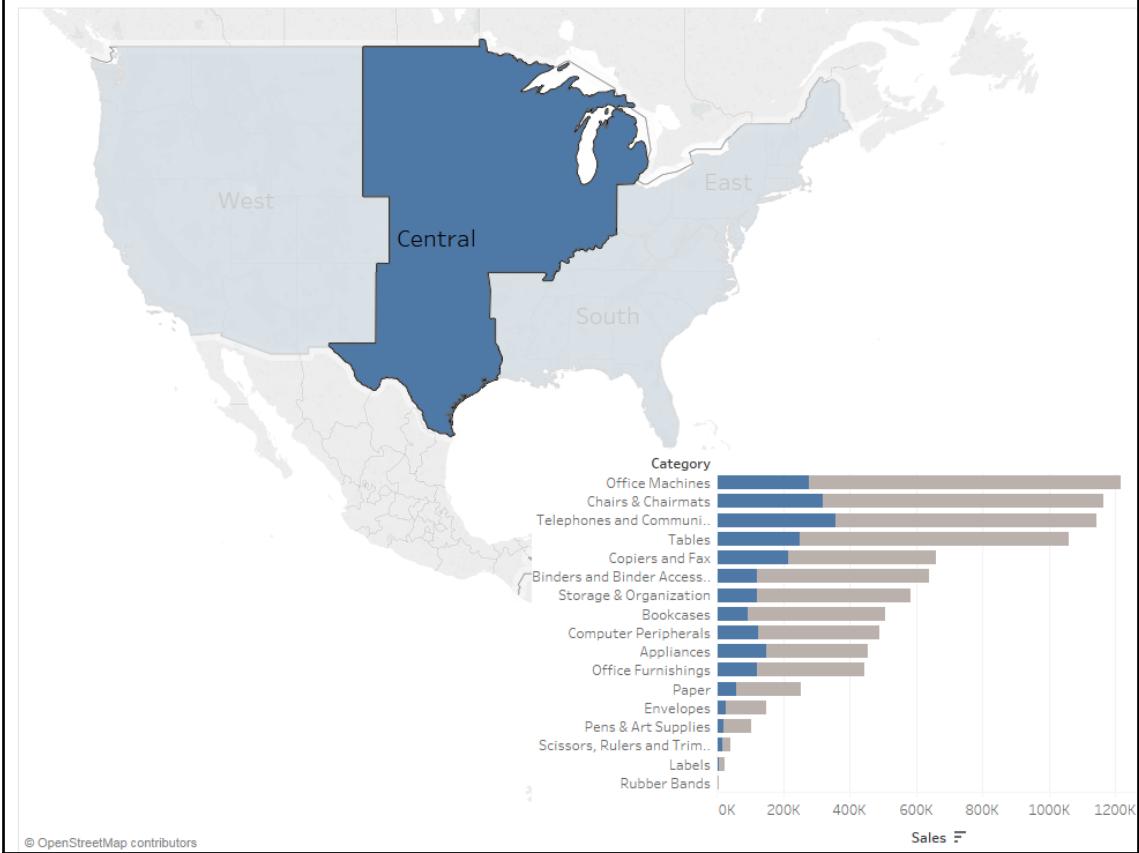
OK Cancel

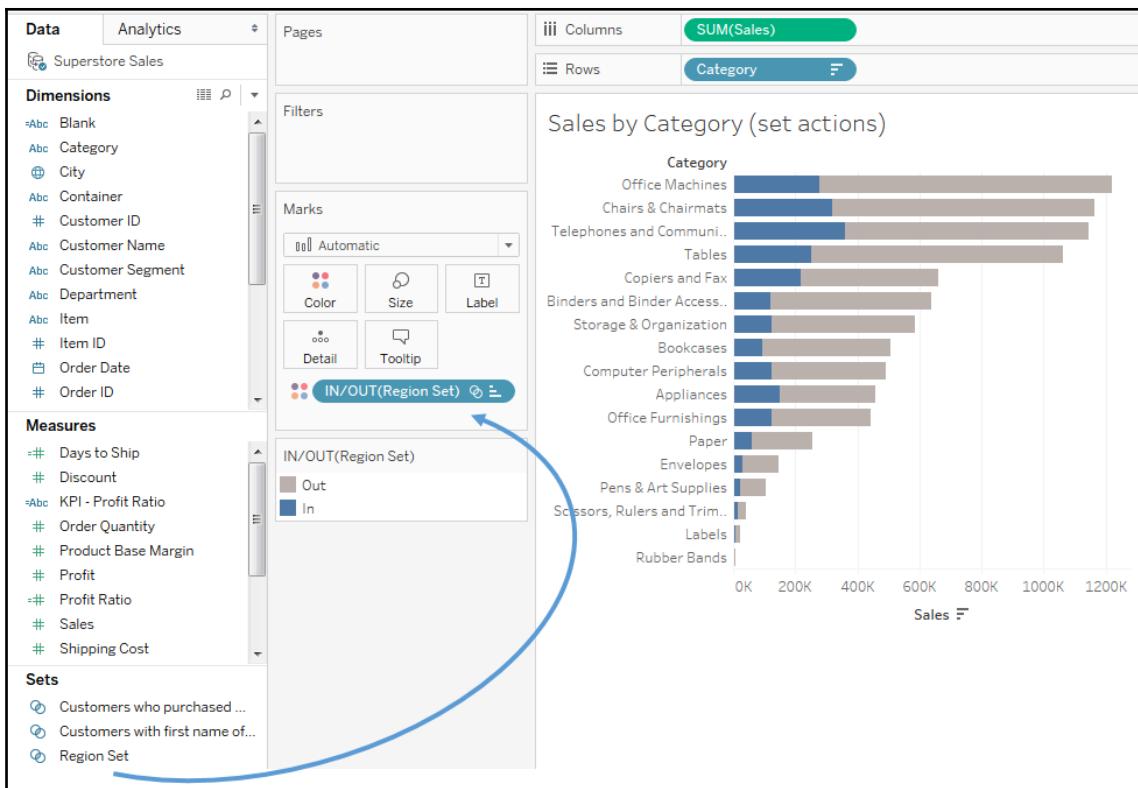


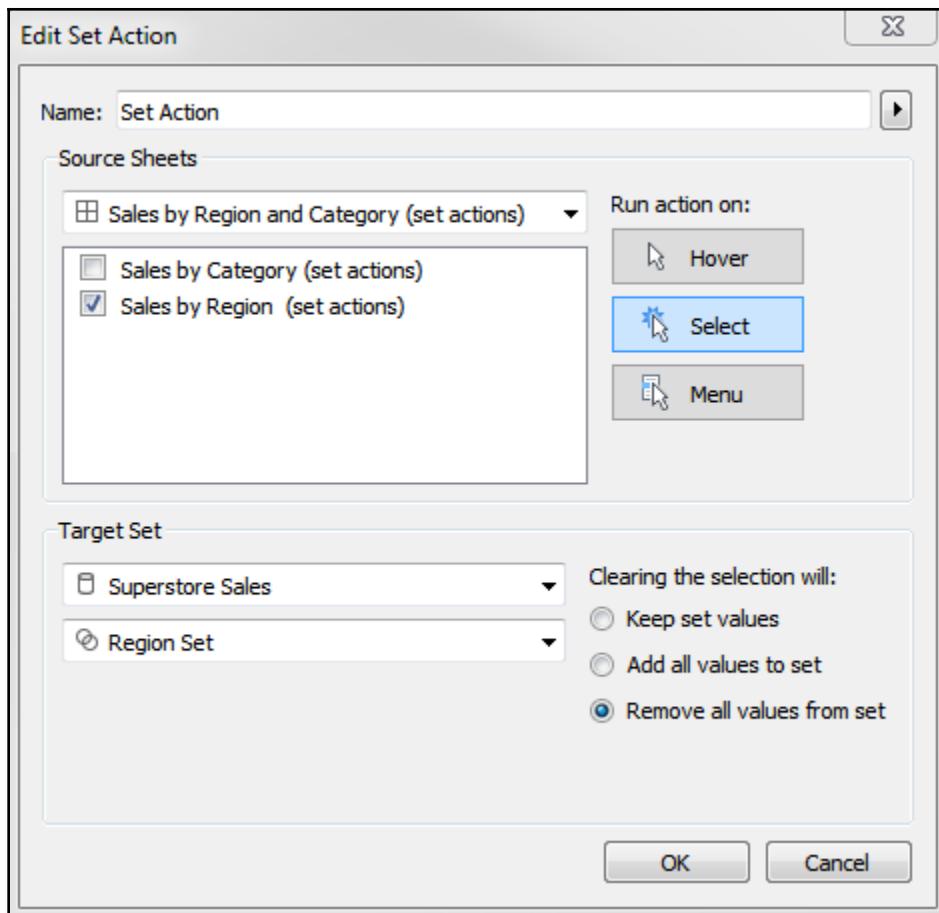




Sales by Region and Category (set actions)

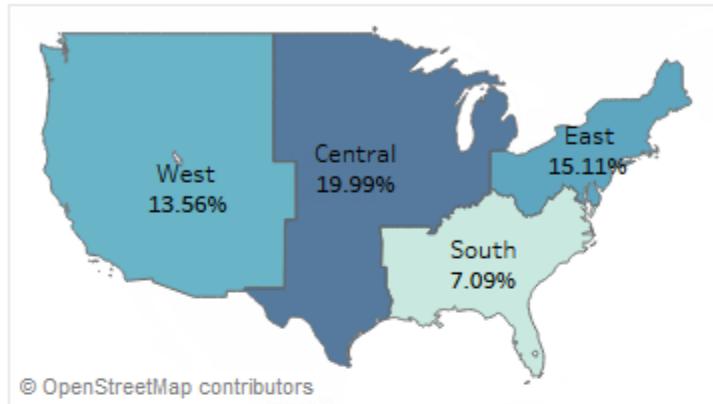






Profit Ratio KPI

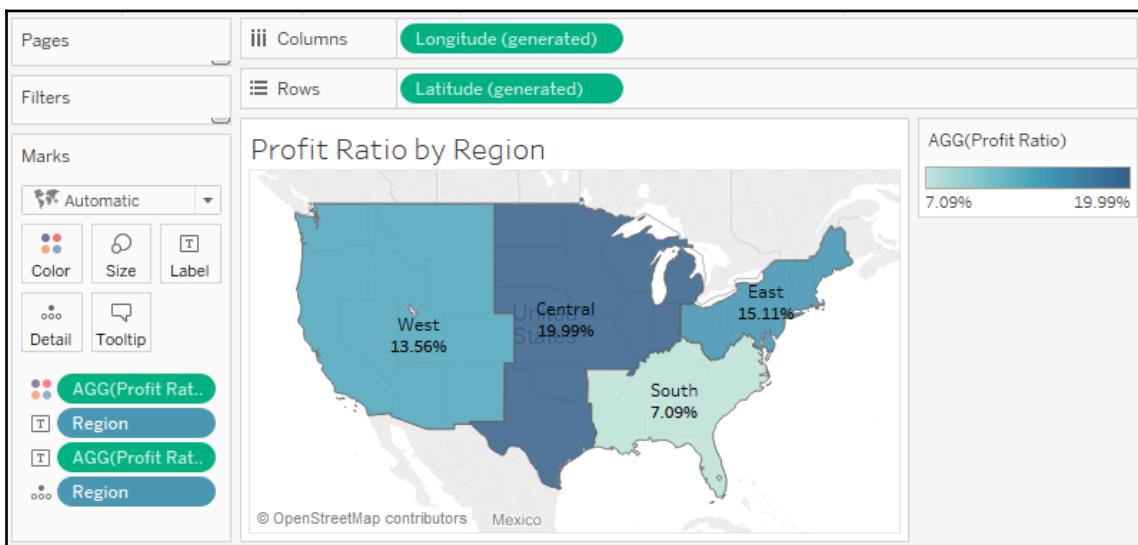
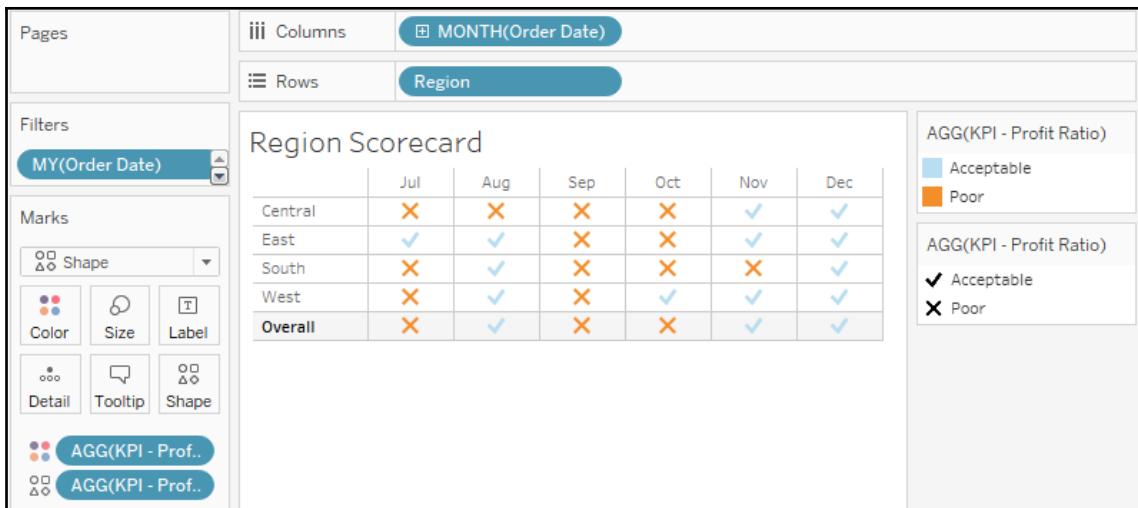
Regional Scorecard (last 6 months)

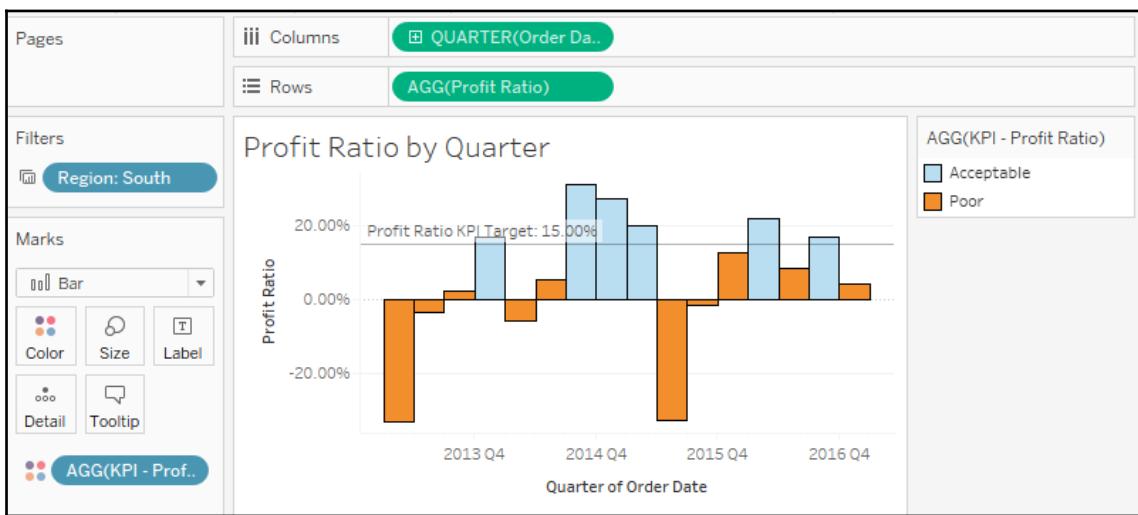
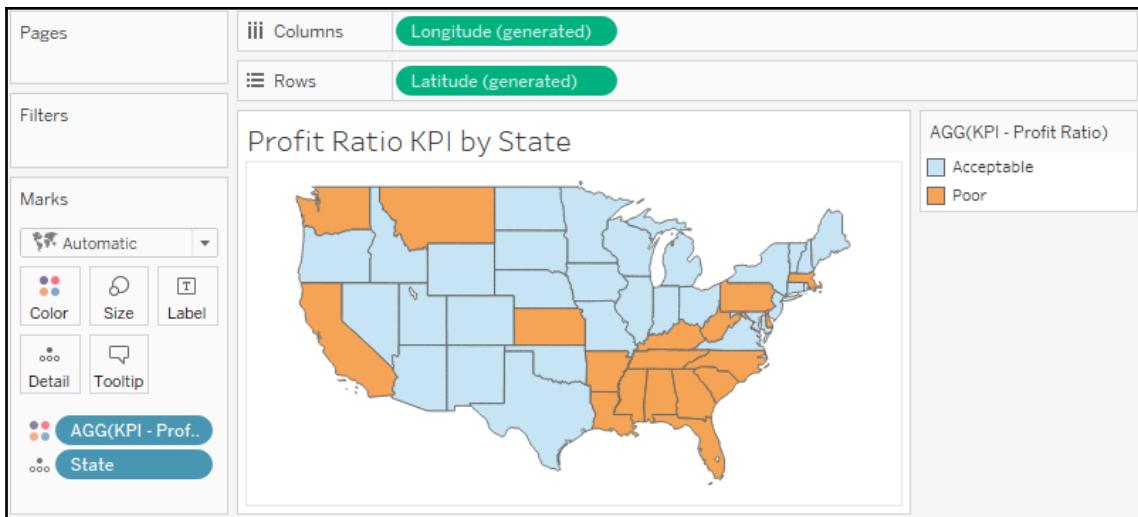


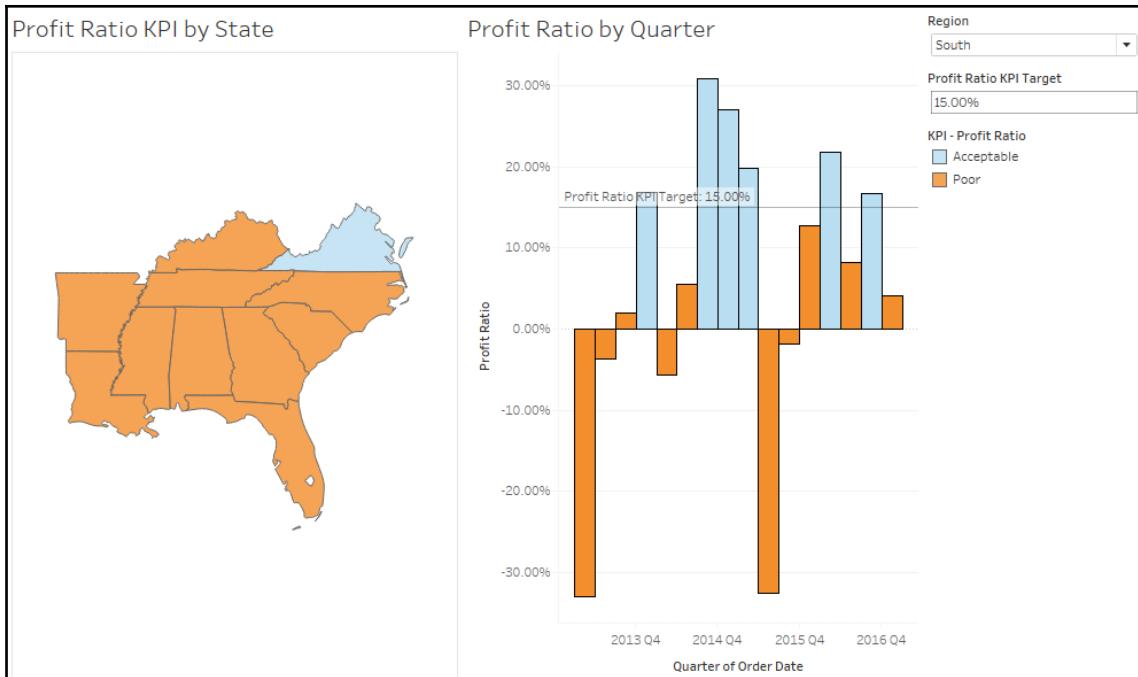
Profit Ratio KPI Target

15.00%

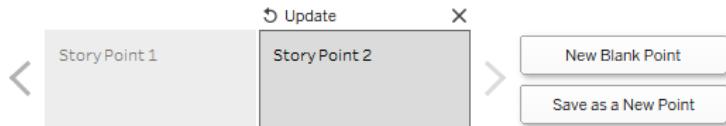
	Jul	Aug	Sep	Oct	Nov	Dec
Central	✗	✗	✗	✗	✓	✓
East	✓	✓	✗	✗	✓	✓
South	✗	✓	✗	✗	✗	✓
West	✗	✓	✗	✓	✓	✓
Overall	✗	✓	✗	✗	✓	✓



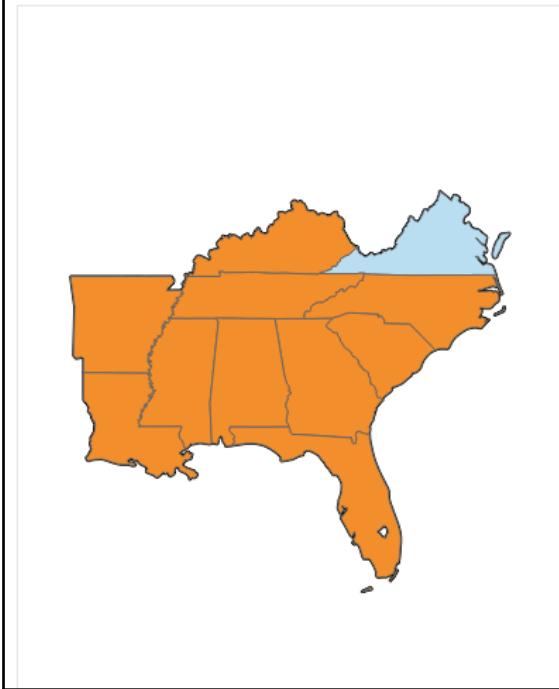




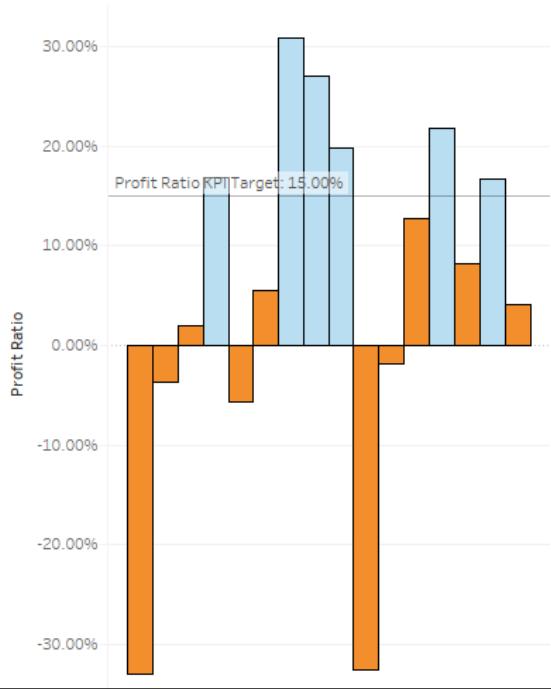
Story Title



Profit Ratio KPI by State



Profit Ratio by Quarter



South Region Analysis

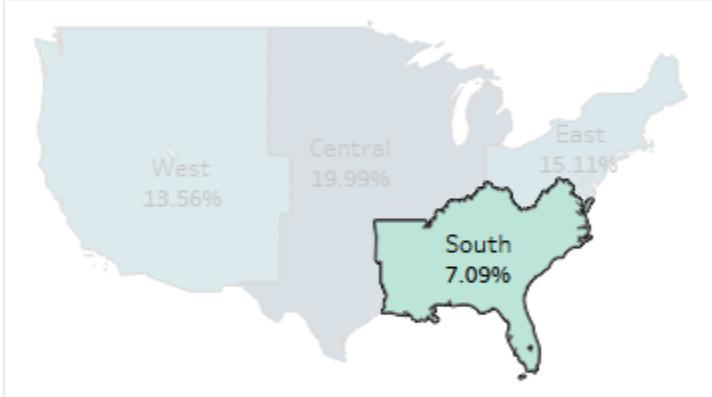
The South Region has not performed well the last 6 months.

New Blank Point

Duplicate

Profit Ratio KPI

Regional Scorecard (last 6 months)



Profit Ratio KPI Target

15.00%

	Jul	Aug	Sep	Oct	Nov	Dec
Central	✗	✗	✗	✗	✓	✓

South Region Analysis



The South Region has not performed well the last 6 months.

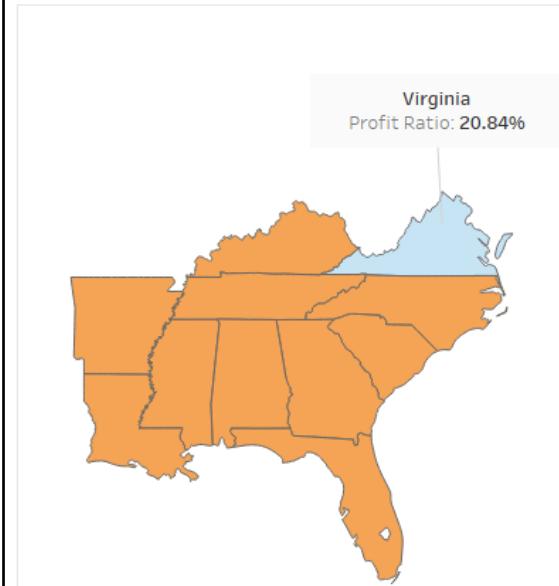
Only one state has met the 15% target overall



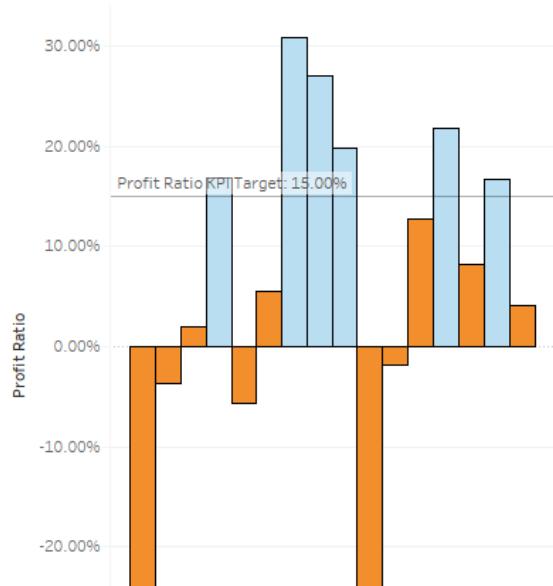
New Blank Point

Duplicate

Profit Ratio KPI by State



Profit Ratio by Quarter



South Region Analysis



The South Region has not performed well the last 6 months.

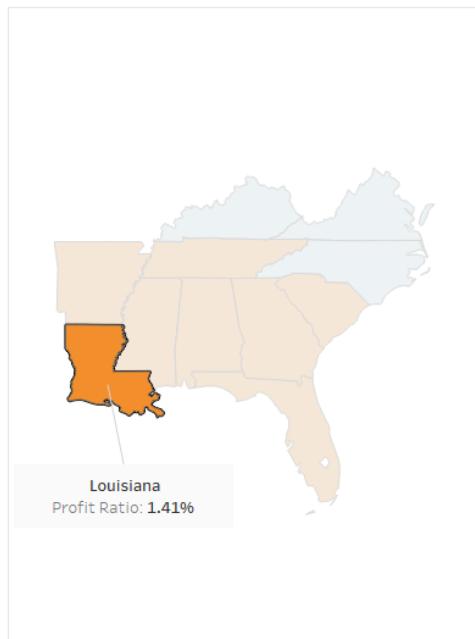
Only one state has met the 15% target overall

3 states would meet a goal of 10%

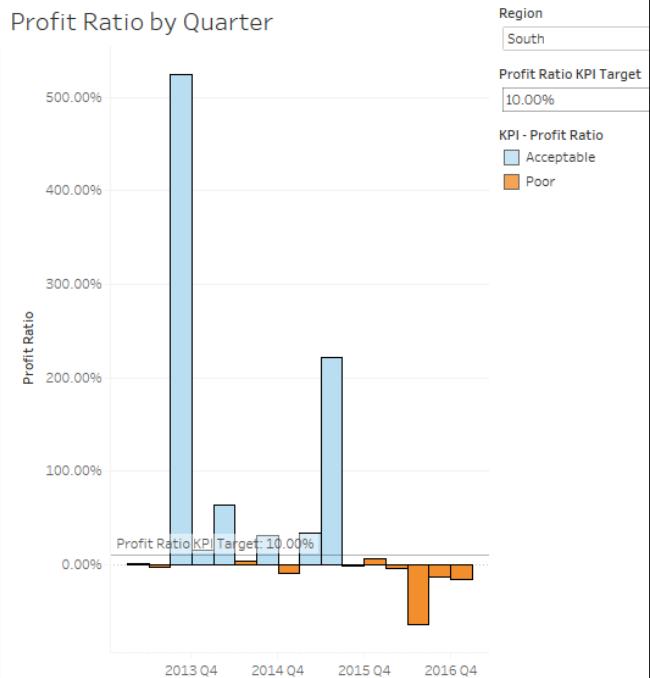
Certain states have performed well historically



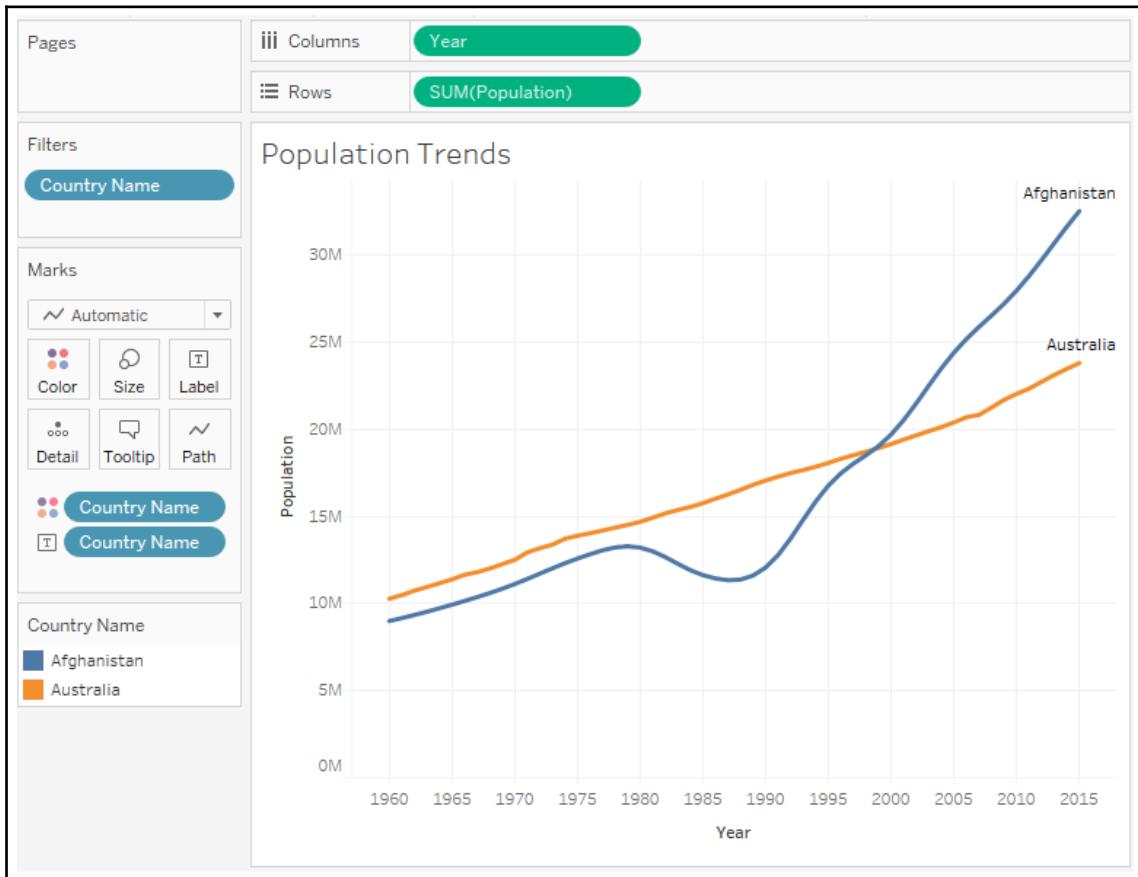
Profit Ratio KPI by State

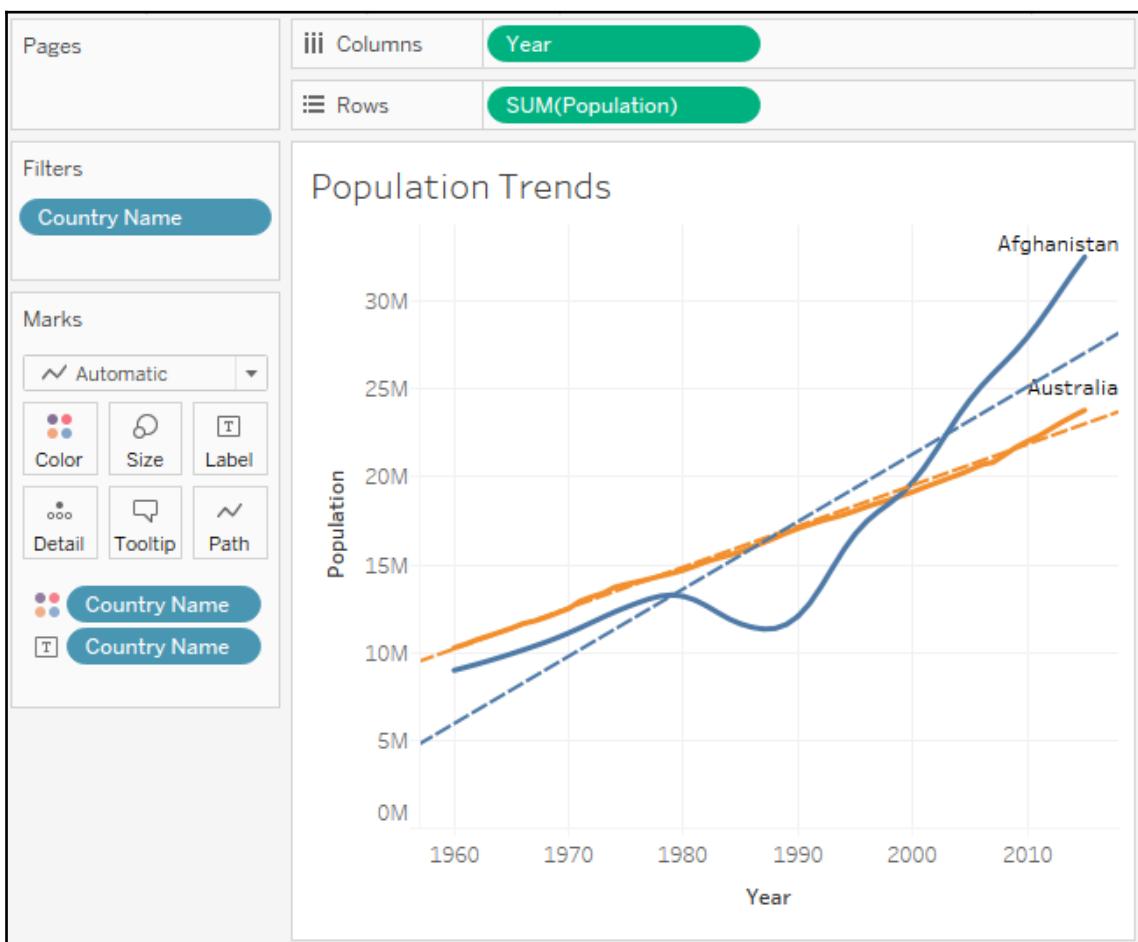
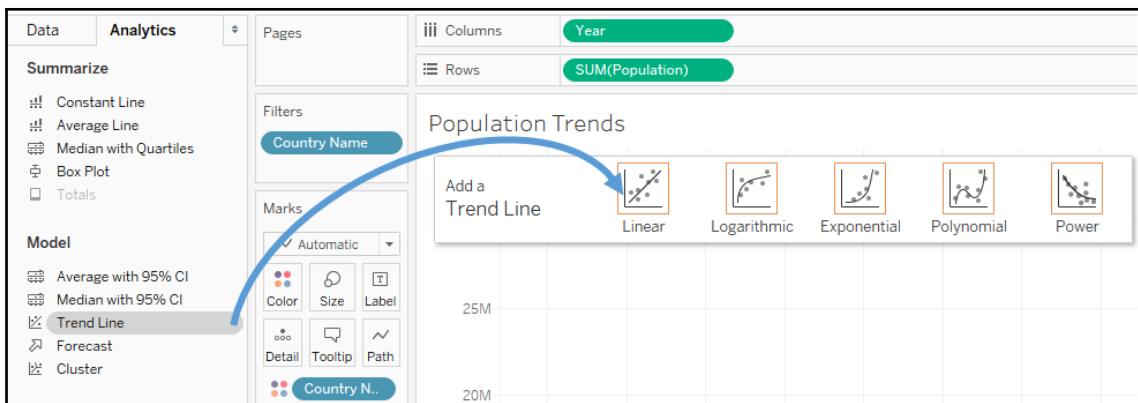


Profit Ratio by Quarter

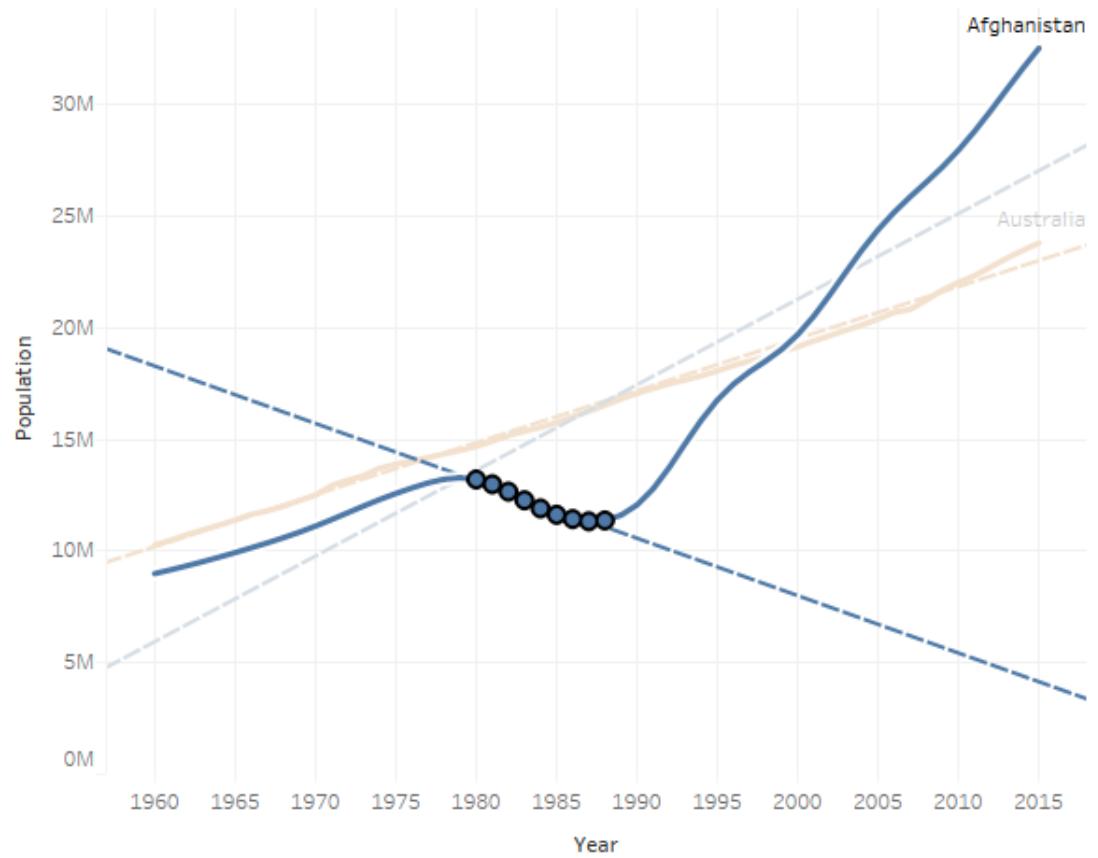


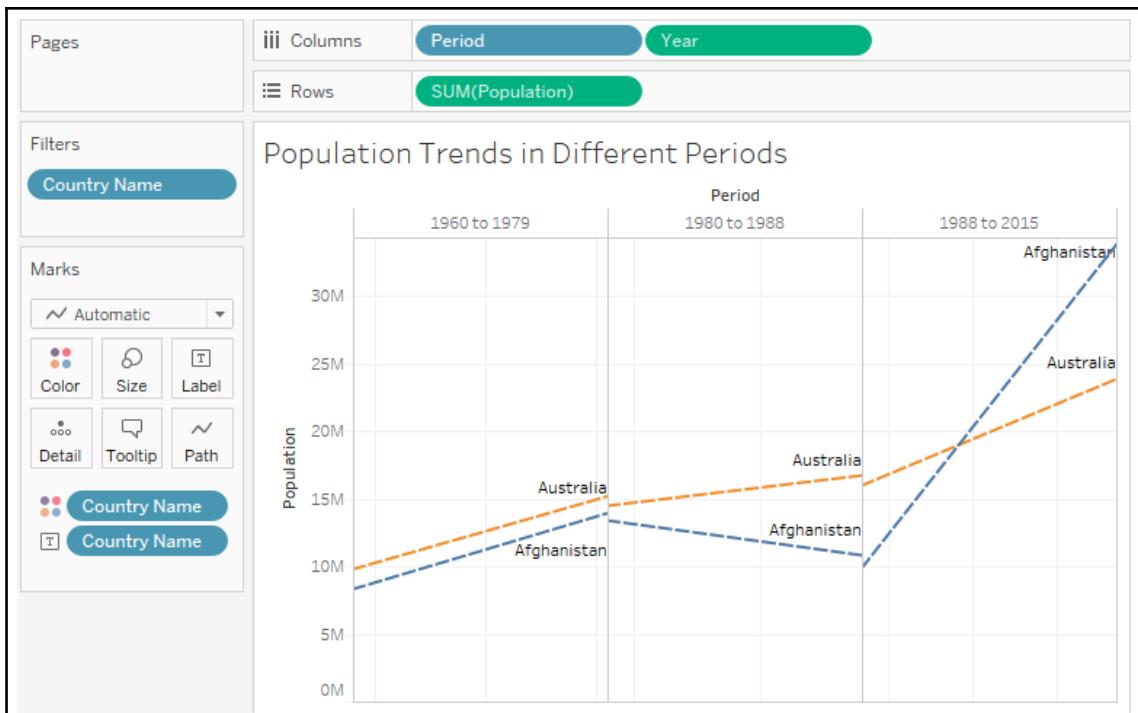
Chapter 8: Digging Deeper - Trends, Clustering, Distributions, and Forecasting

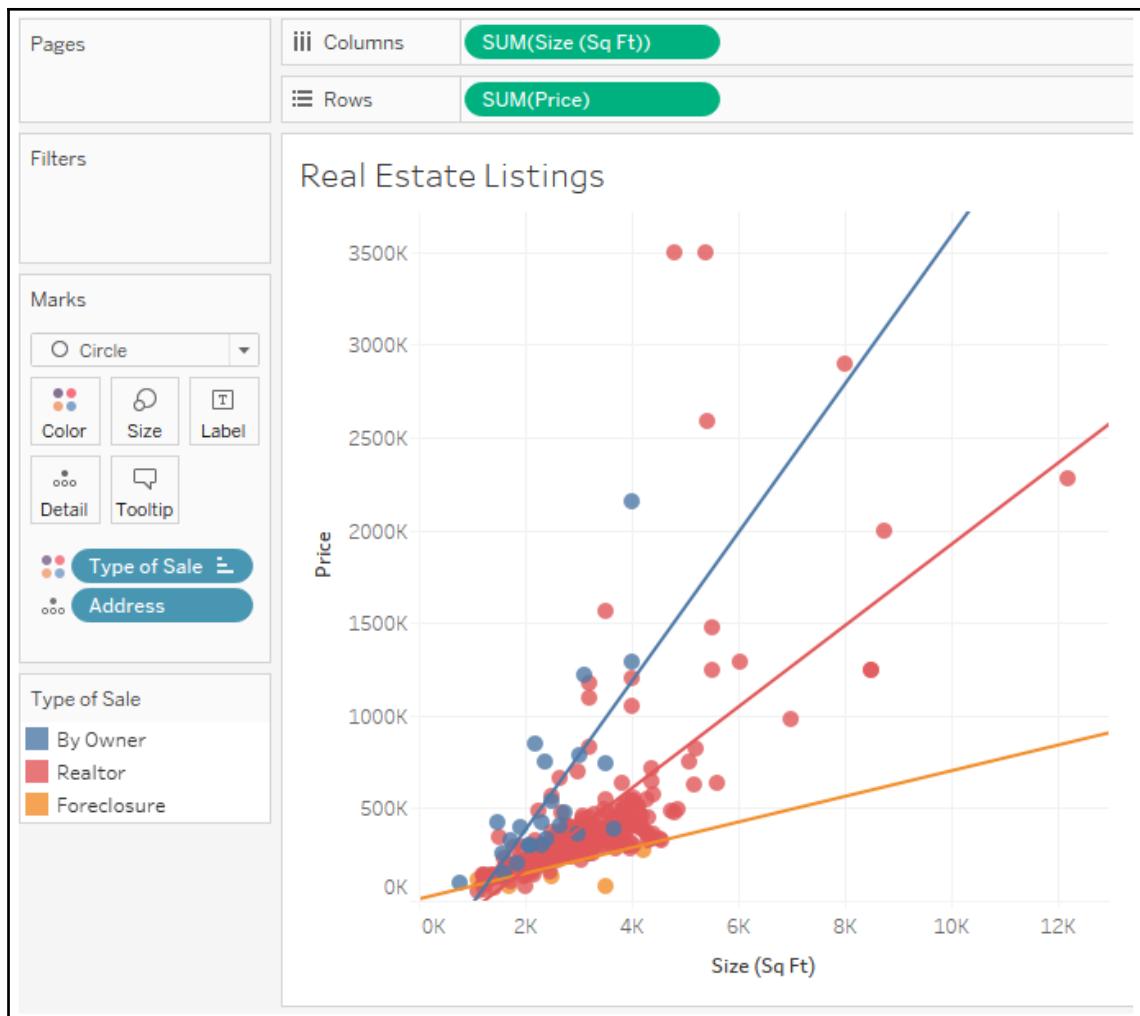


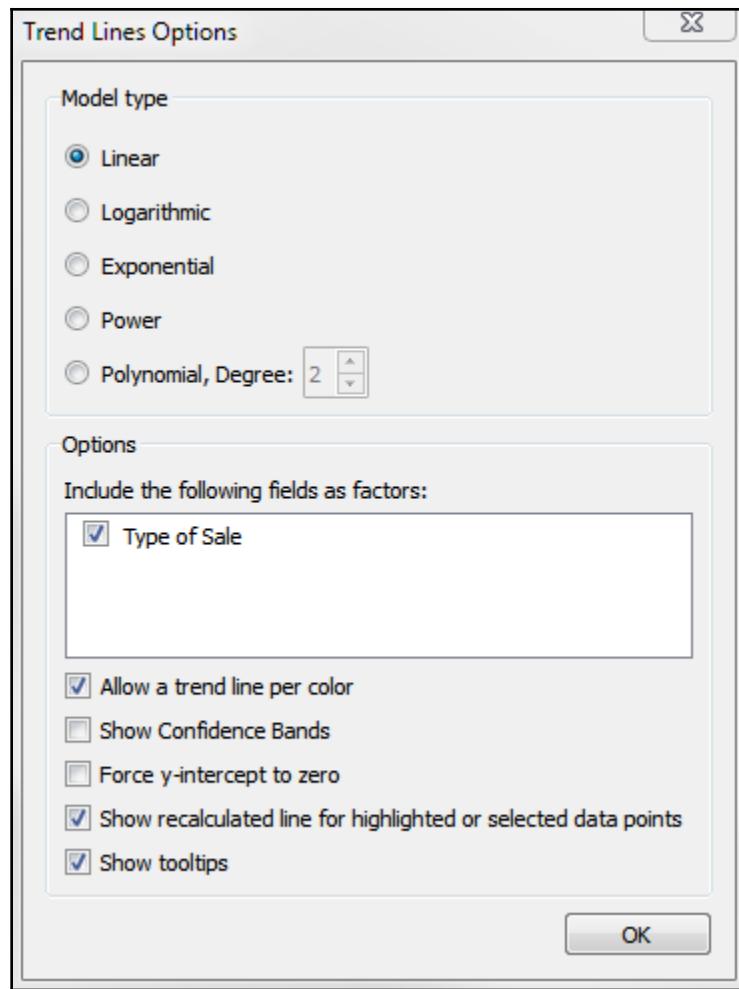


Population Trends



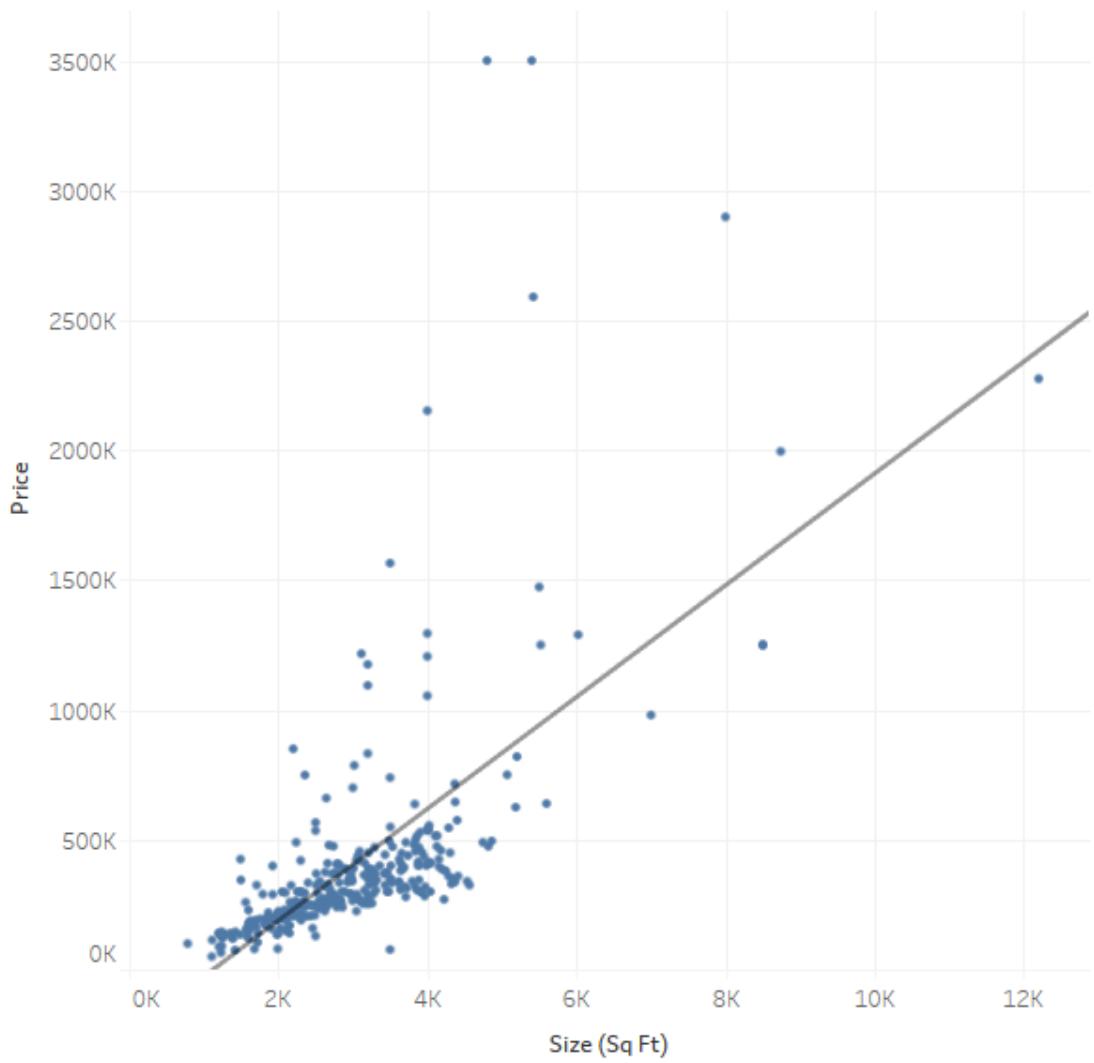




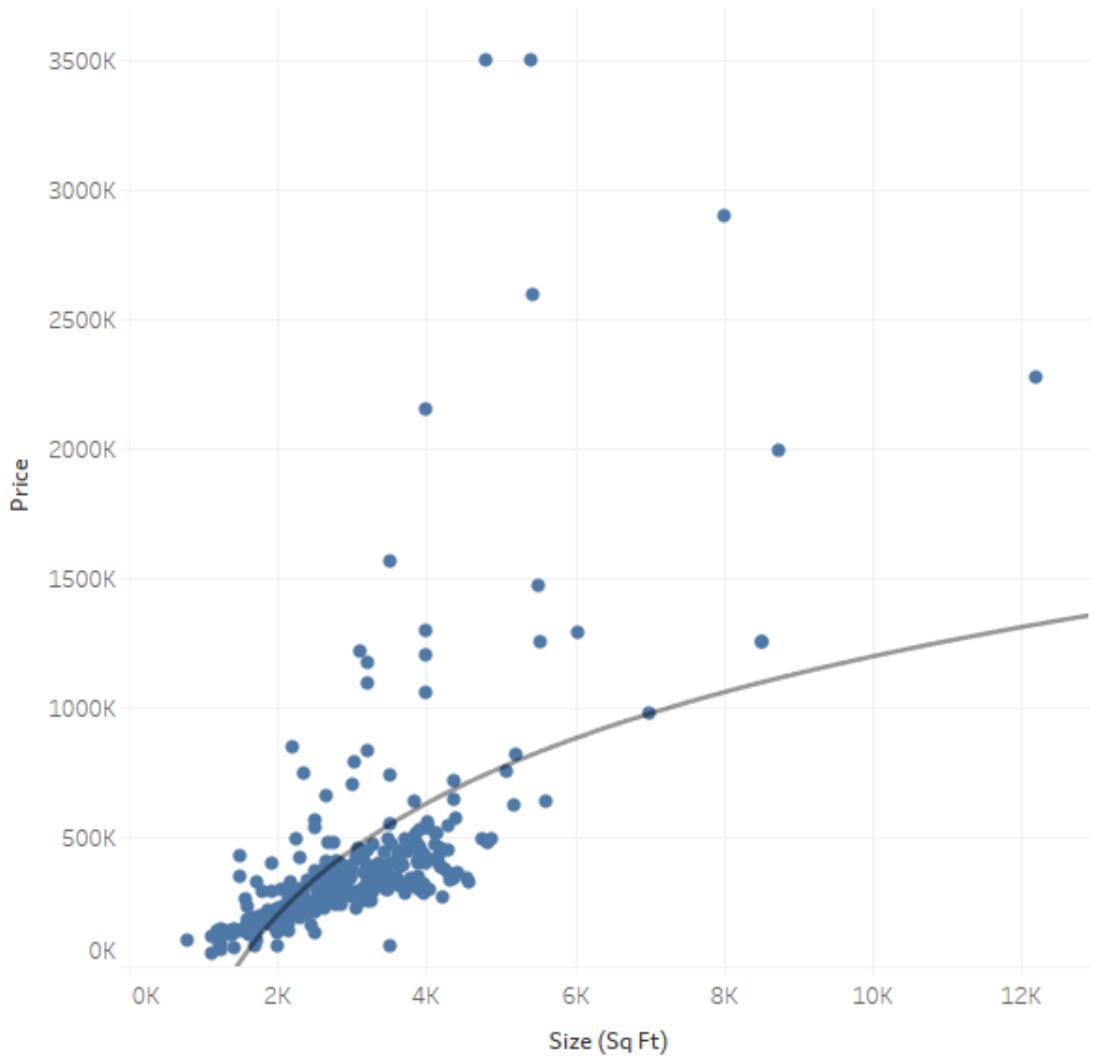




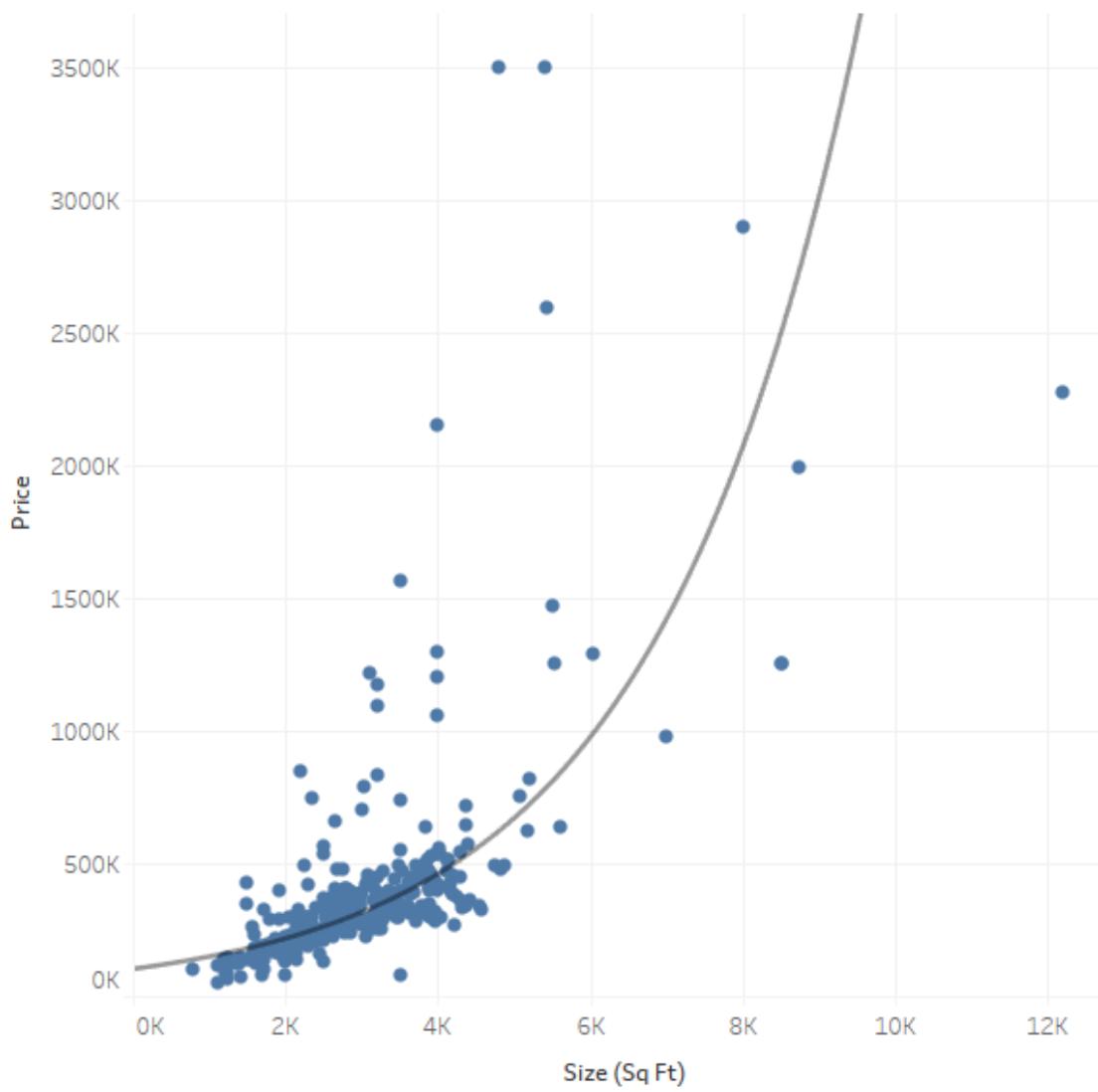
Linear Trend



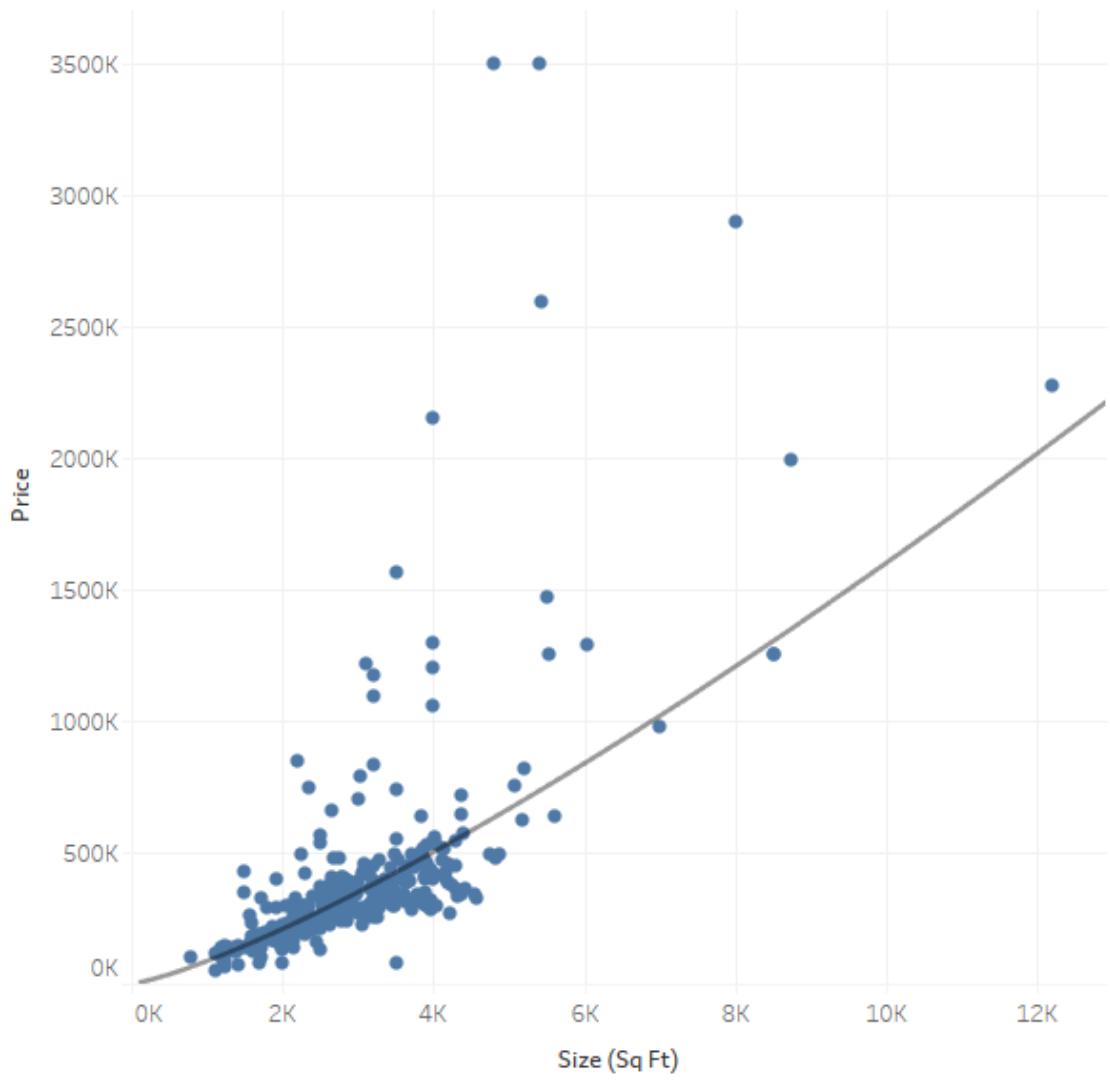
Logarithmic Trend



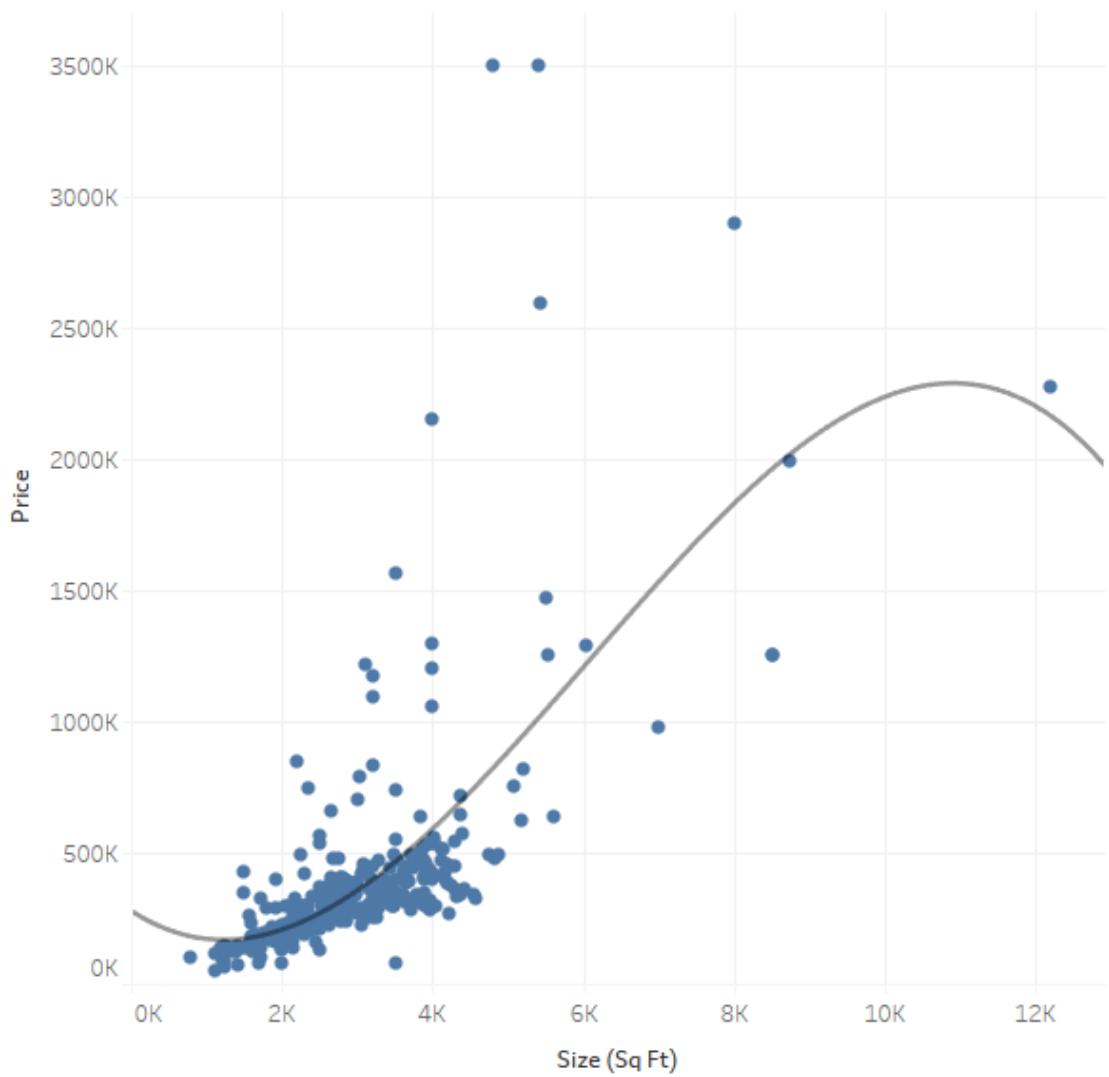
Exponential Trend

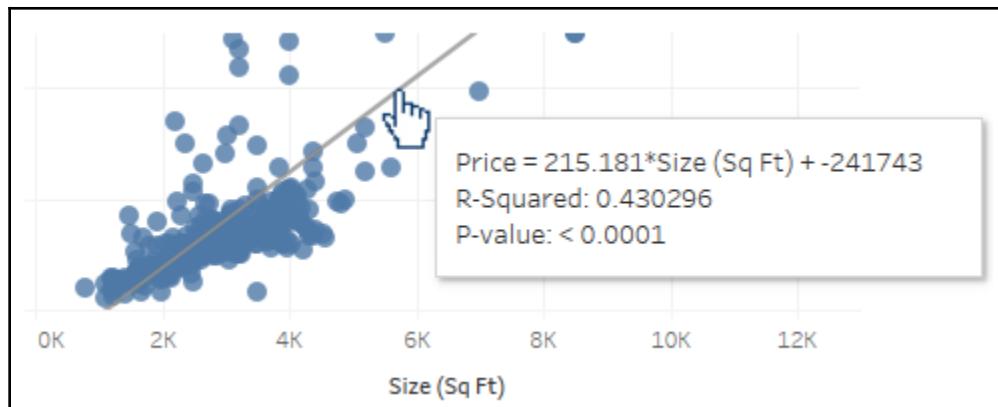


Power Trend



3rd Degree Polynomial Trend





Describe Trend Model X

Trend Lines Model

A linear trend model is computed for sum of Price given sum of Size (Sq Ft). The model may be significant at $p \leq 0.05$. The factor Type of Sale may be significant at $p \leq 0.05$.

Model formula: Type of Sale*(Size (Sq Ft) + intercept)

Number of modeled observations: 336

Number of filtered observations: 0

Model degrees of freedom: 6

Residual degrees of freedom (DF): 330

SSE (sum squared error): 2.99019e+13

MSE (mean squared error): 9.06118e+10

R-Squared: 0.480548

Standard error: 301018

p-value (significance): < 0.0001

Analysis of Variance:

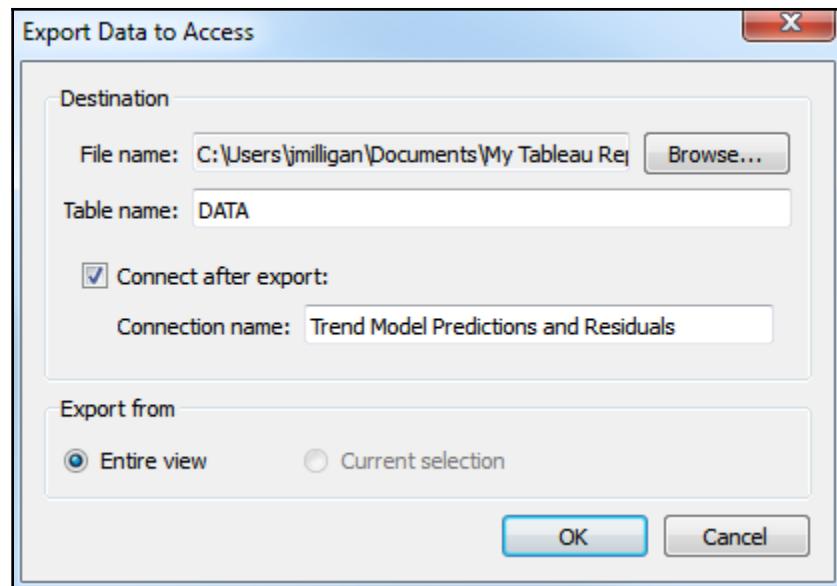
Field	DF	SSE	MSE	F	p-value
Type of Sale	4	2.8926758e+12	7.23169e+11	7.98095	< 0.0001

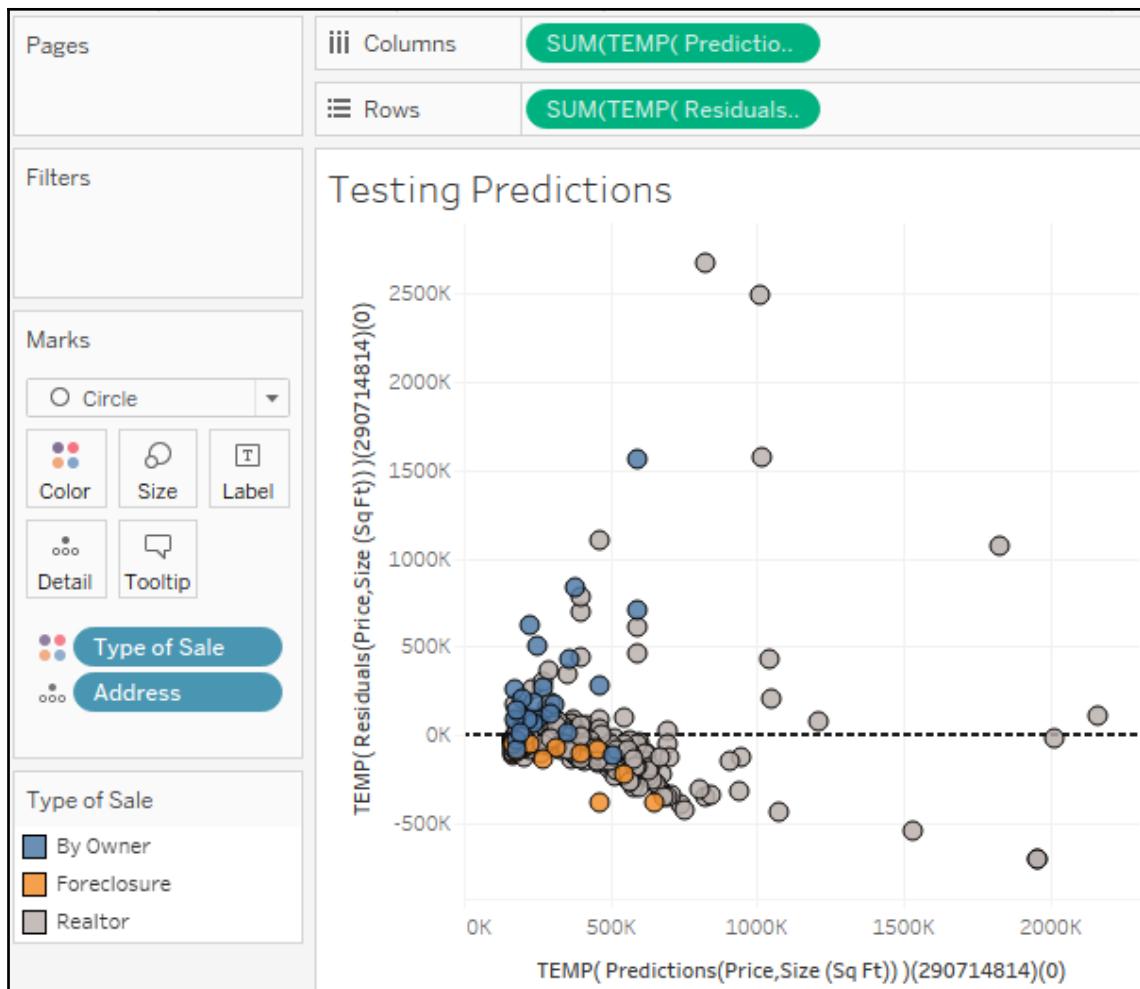
Individual trend lines:

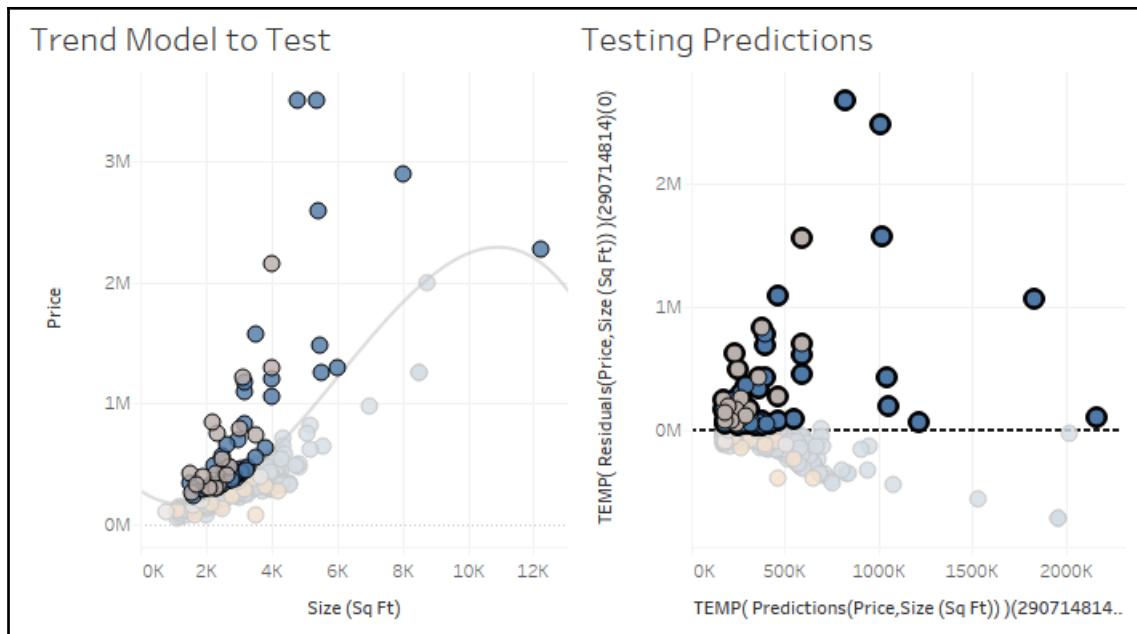
Panes	Color	Line	Coefficients						
Row	Column	Type of Sale	p-value	DF	Term	Value	StdErr	t-value	p-value
Price	Size (Sq Ft)	Realtor	< 0.0001	300	Size (Sq Ft)	219.042	13.5019	16.2231	< 0.0001
					intercept	-269860	44427	-6.07422	< 0.0001
Price	Size (Sq Ft)	Foreclosure	0.0455421	8	Size (Sq Ft)	69.1147	29.2138	2.36583	0.0455421
					intercept	9557.19	87526	0.1092	0.915733
Price	Size (Sq Ft)	By Owner	< 0.0001	22	Size (Sq Ft)	400.666	82.8705	4.83484	< 0.0001
					intercept	-421058	213628	-1.97099	0.0614346

Copy Close

Summary	
Count:	336
SUM(Price)	
Sum:	134,239,384
Average:	399,521.98
Minimum:	50,000
Maximum:	3,500,000
Median:	300,000.00
Standard deviation:	414,528
First quartile:	211,500.00
Third quartile:	410,000.00
Skewness:	4.59
Excess Kurtosis:	25.74
SUM(Size (Sq Ft))	
Sum:	1,001,318
Average:	2,980.11
Minimum:	784
Maximum:	12,200
Median:	2,800.50
Standard deviation:	1,264
First quartile:	2,108.50
Third quartile:	3,627.00
Skewness:	2.27
Excess Kurtosis:	10.95







External Service Connection

Select an External Service

TabPy/External API

Specify a server name and a port

Server: localhost Port: 9004

Sign in with a username and password

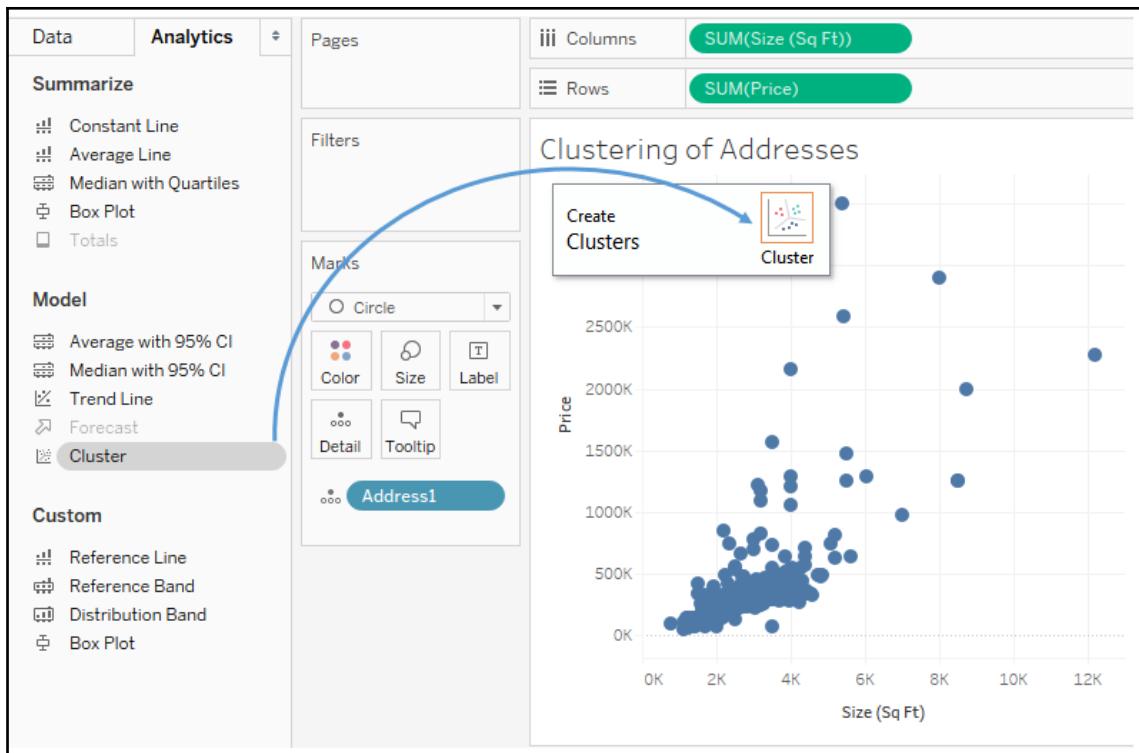
Username:

Password:

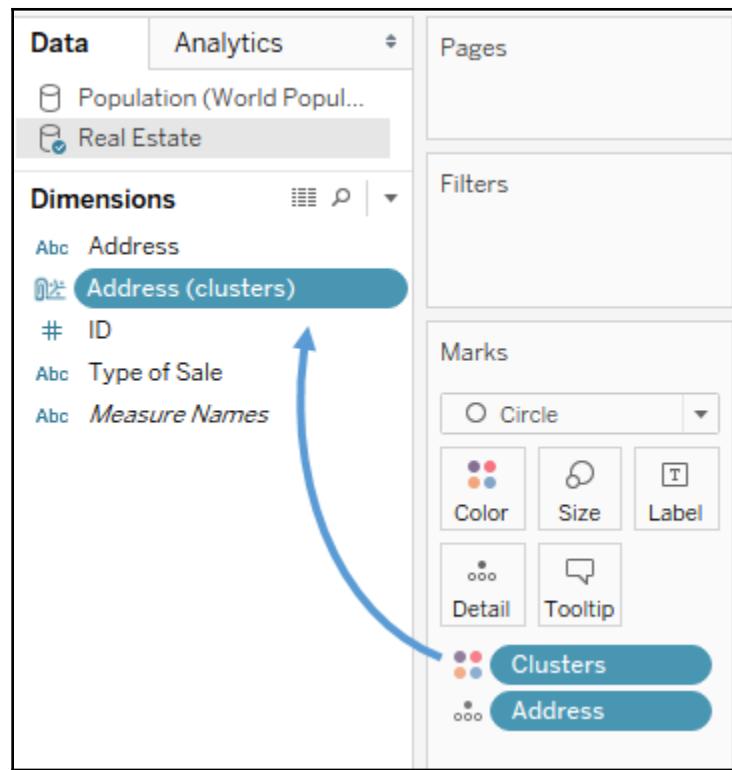
Require SSL

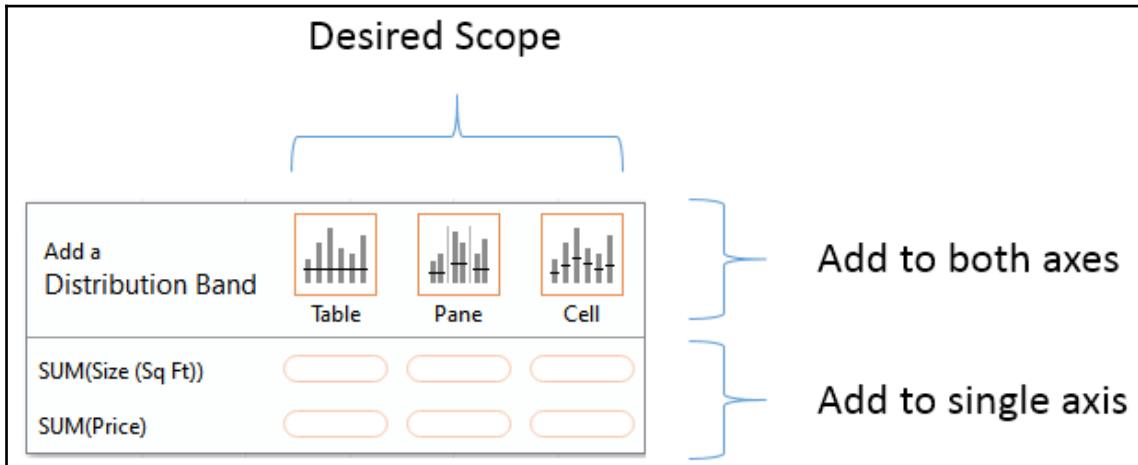
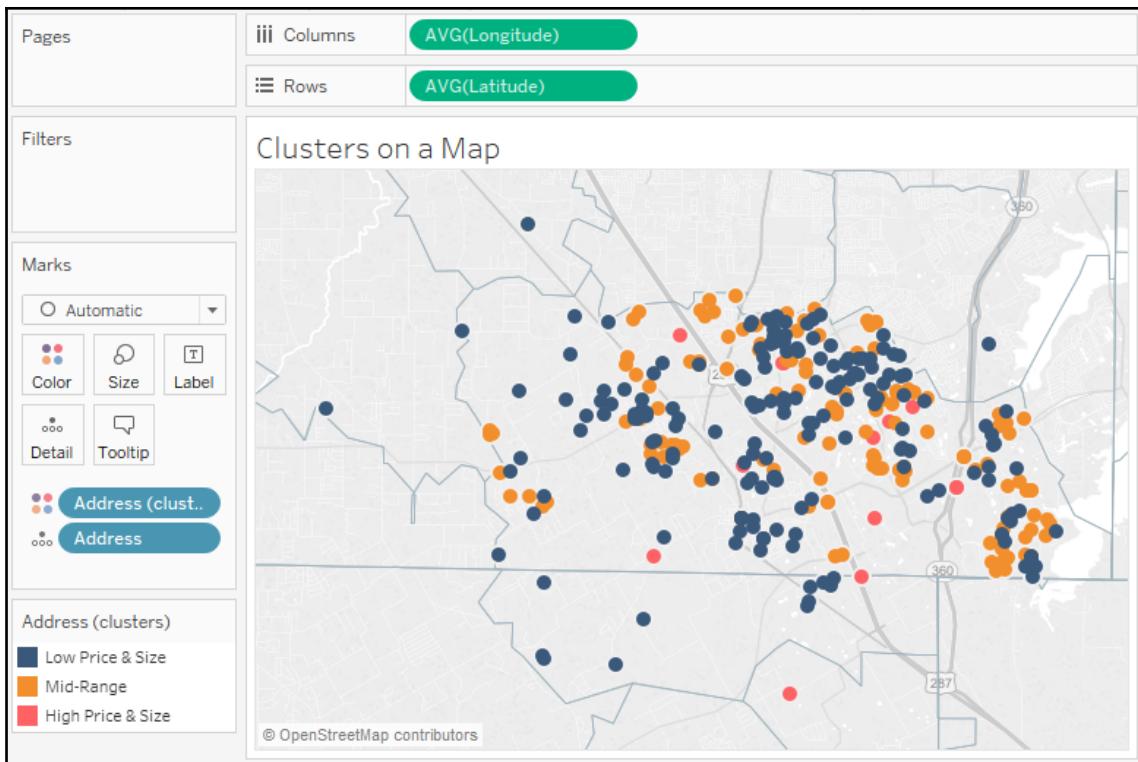
No custom configuration file specified (click to change)...

Test Connection **OK** **Cancel**

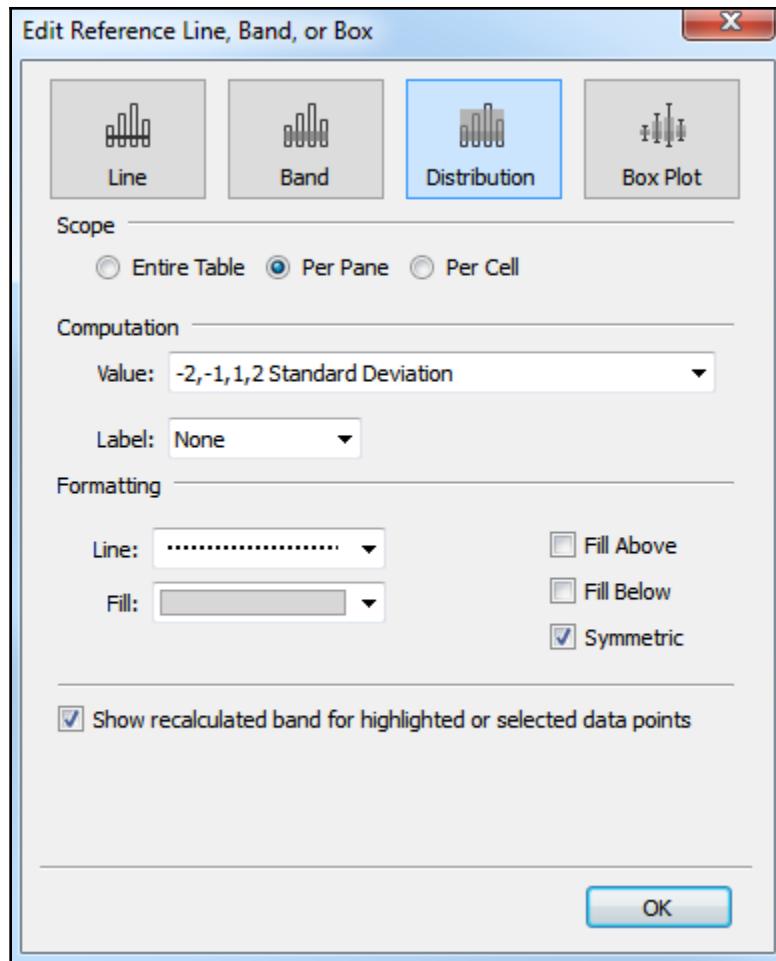




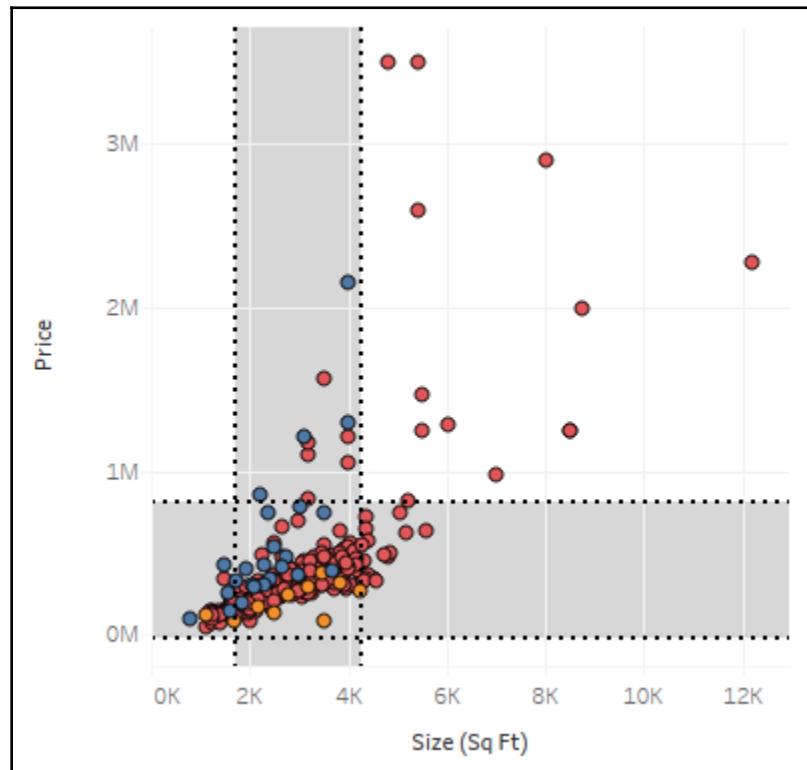
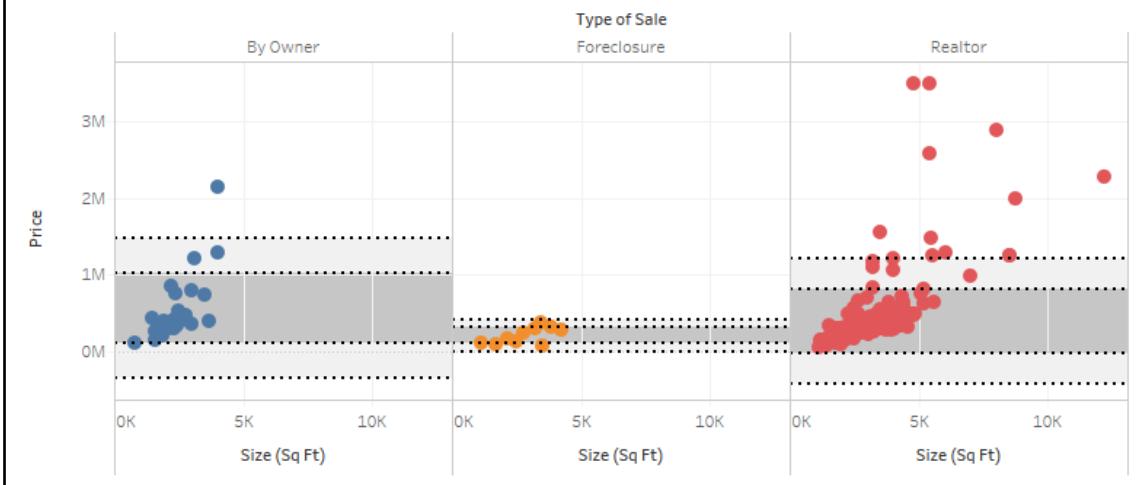


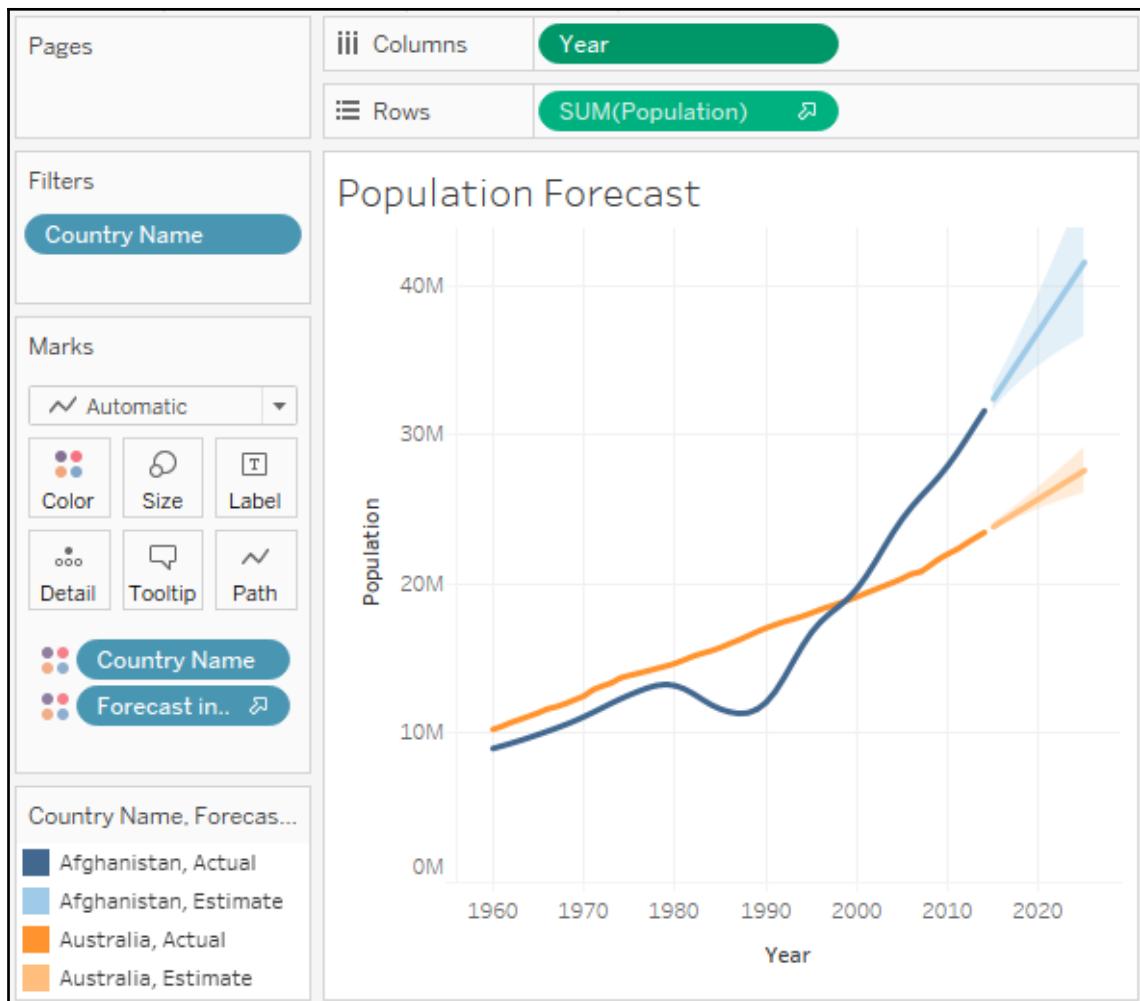


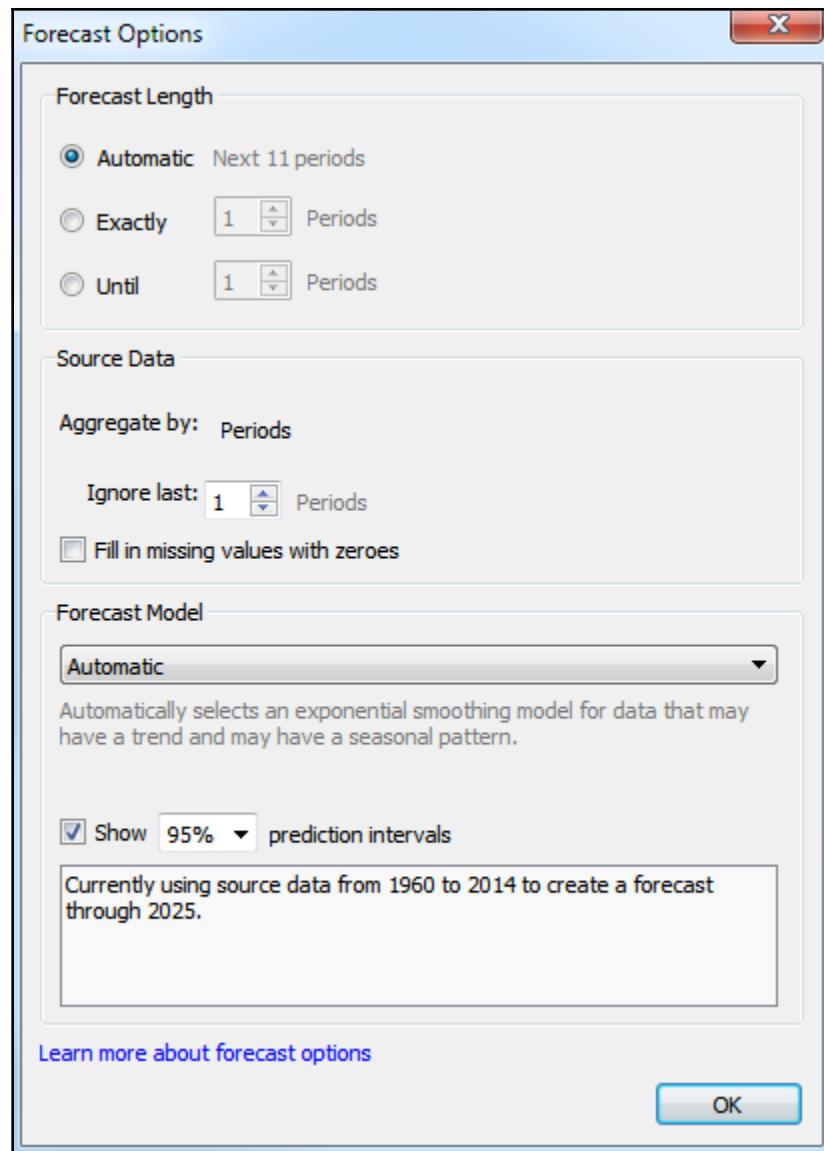


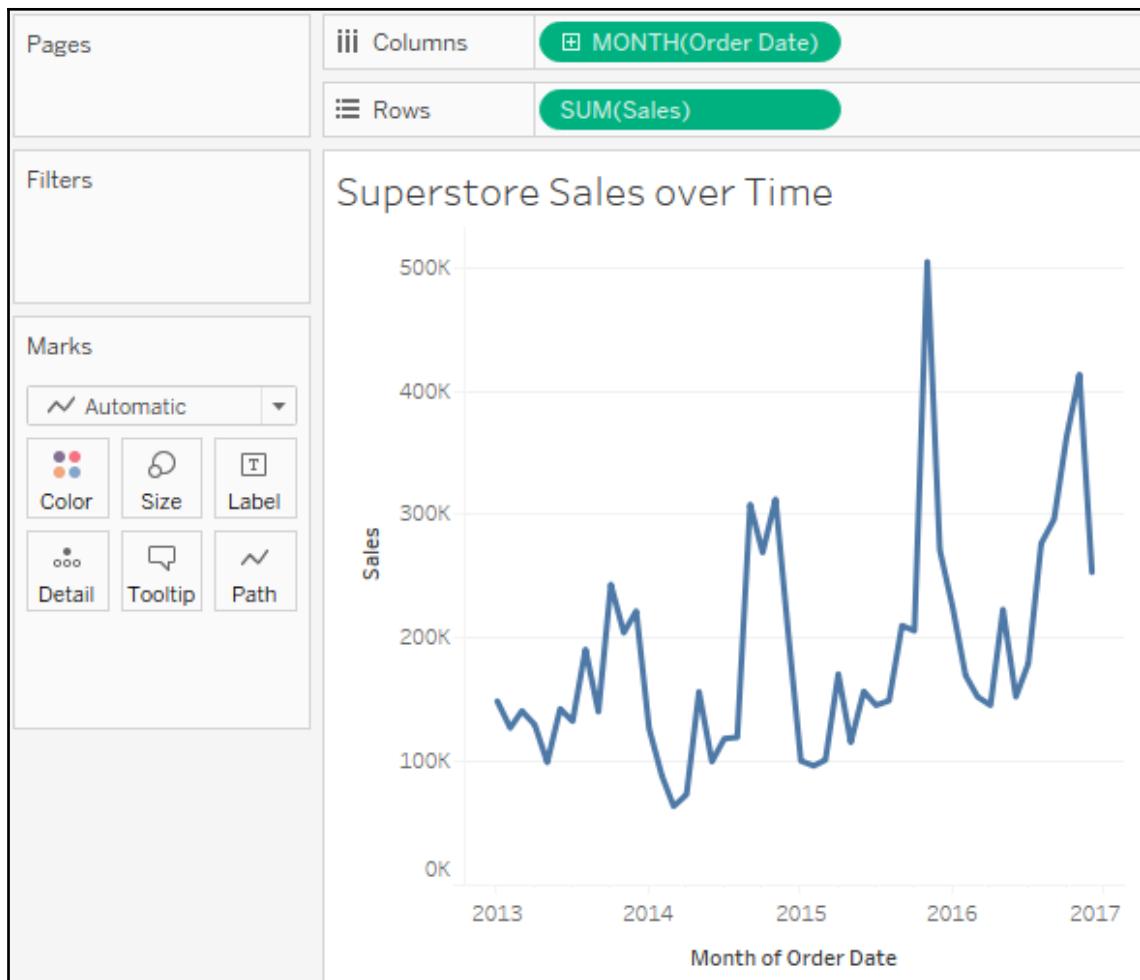


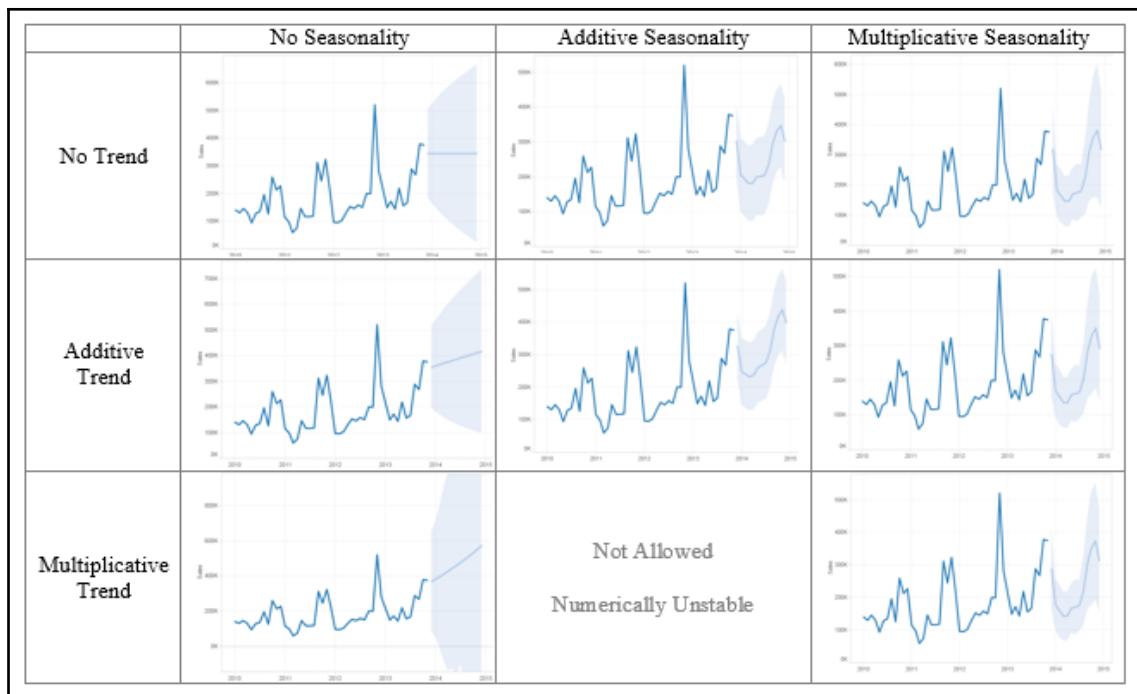
Distributions: Standard Deviation











Describe Forecast

Summary **Models**

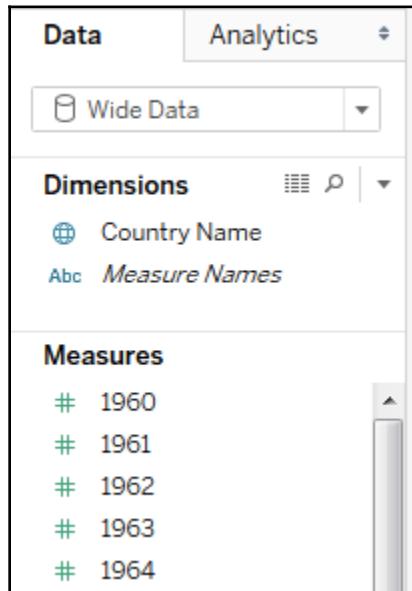
Options Used to Create Forecasts

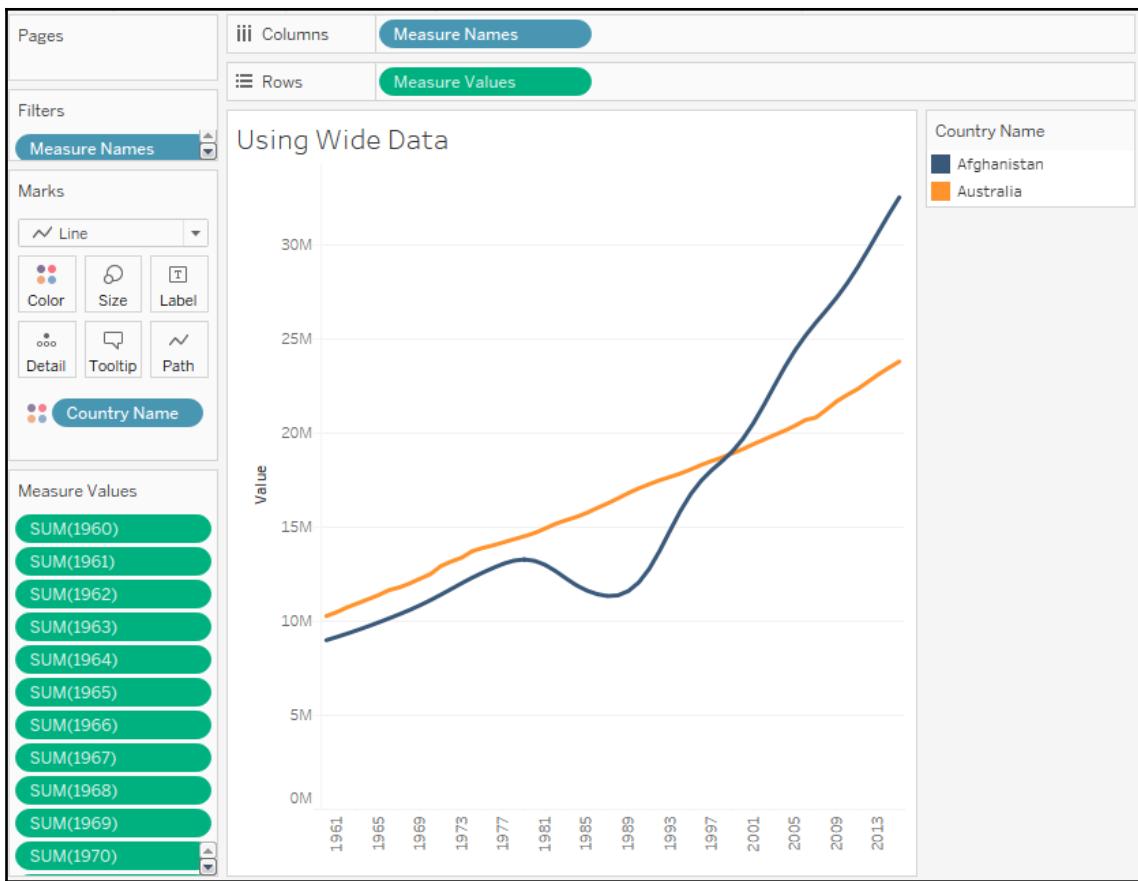
Time series: Month of Order Date
Measures: Sum of Sales
Forecast forward: 13 months (Dec 2016 – Dec 2017)
Forecast based on: Jan 2013 – Nov 2016
Ignore last: 1 month (Dec 2016)
Seasonal pattern: 12 month cycle

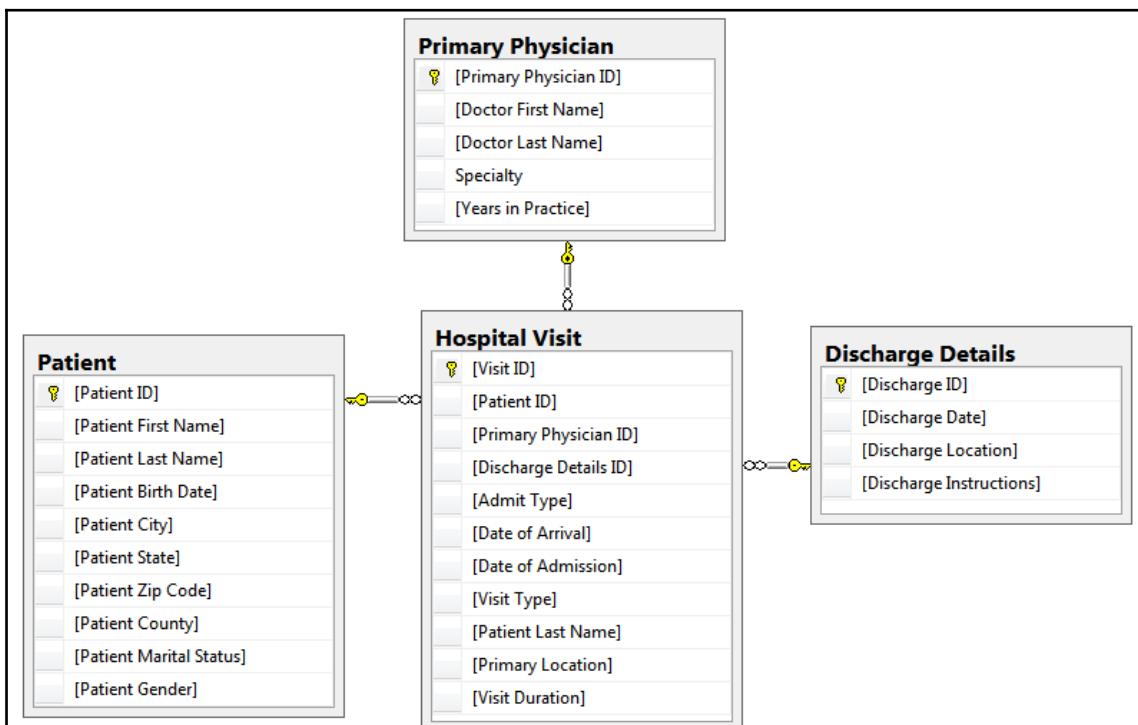
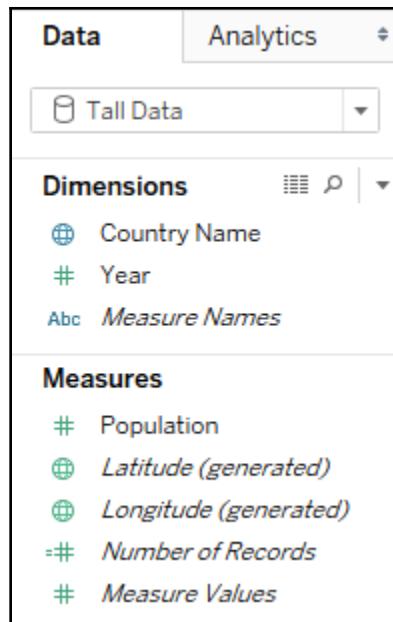
Sum of Sales

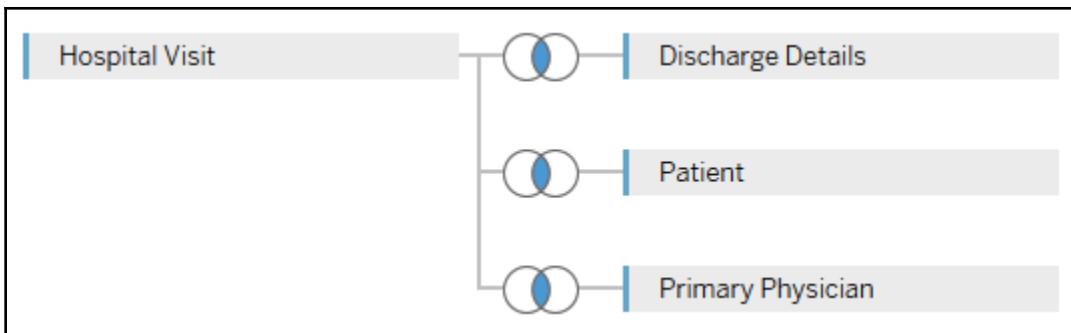
Initial Dec 2016	Change From Initial Dec 2016 – Dec 2017	Seasonal Effect	Contribution	Quality
275,593 ± 128,837	23,738	Nov 2017 2 Apr 2017 1	Trend 100.0% Season 0.0%	Ok
<input type="checkbox"/> Show values as percentages				
Copy to Clipboard Learn more about the forecast summary		Close		

Chapter 9: Cleaning and Structuring Messy Data









Data Analytics

Hospital Visit+ (Hospital)

Dimensions

- Discharge Details
 - Discharge Date
 - Discharge Instructions
 - Discharge Location
- Hospital Visit
 - Admit Type
 - Date of Admission
 - Date of Arrival
 - Patient Last Name
 - Visit Type
- Patient
 - Patient Birth Date
 - Patient City
 - Patient First Name
 - Patient Gender
 - Patient State
 - Patient Zip Code
- Primary Physician
 - Doctor First Name
 - Doctor Last Name

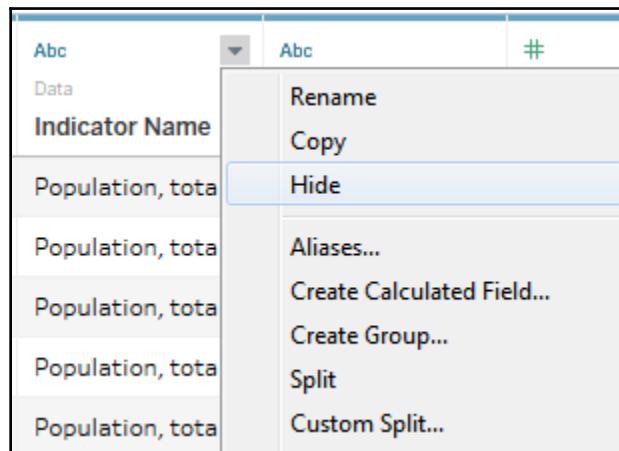
Measures

- Visit Duration
- Latitude (generated)
- Longitude (generated)
- Number of Records
- Measure Values

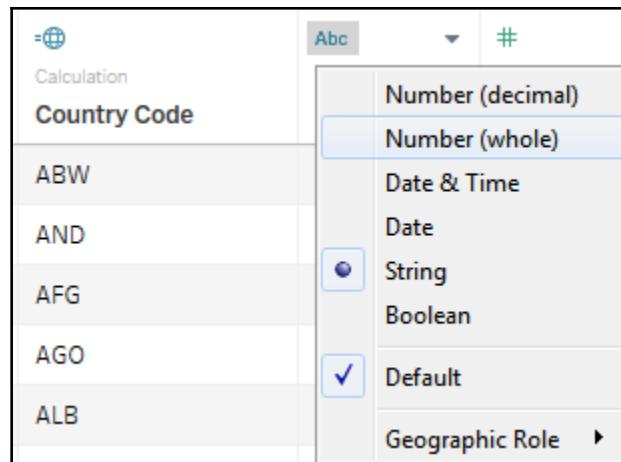
A	B	C	D	E	F	G	H	I	J	K	
World Population Data											
This is sample data only. Accuracy and completeness is not guaranteed.											
6	Country Name and Code	Indicator Name	Indicator Code	1960	1961	1962	1963	1964	1965	1966	1967
7	Aruba (ABW)	Population, total	SP.POP.TOTL	54208	55435	56226	56697	57029	57360	57712	58049
8	Andorra (AND)	Population, total	SP.POP.TOTL	13414	14376	15376	16410	17470	18551	19646	20755
9	Afghanistan (AFG)	Population, total	SP.POP.TOTL	8774440	8953544	9141783	9339507	9547131	9765015	9990125	10221902
10	Angola (AGO)	Population, total	SP.POP.TOTL	4965988	5056688	5150076	5245015	5339893	5433841	5526653	5619643
11	Albania (ALB)	Population, total	SP.POP.TOTL	1608800	1659800	1711319	1762621	1814135	1864791	1914573	1965598
12	United Arab Emirates (ARE)	Population, total	SP.POP.TOTL	89608	97727	108774	121574	134411	146341	156890	167360
13	Argentina (ARG)	Population, total	SP.POP.TOTL	20623998	20959241	21295290	21630854	21963952	22293817	22618887	22941477
14	Armenia (ARM)	Population, total	SP.POP.TOTL	1867396	1934239	2002170	2070427	2138133	2204650	2269475	2332624
15	American Samoa (ASM)	Population, total	SP.POP.TOTL	20012	20478	21118	21883	22701	23518	24320	25116
16	Antigua and Barbuda (ATG)	Population, total	SP.POP.TOTL	54681	55403	56311	57368	58500	59653	60818	62002
17	Australia (AUS)	Population, total	SP.POP.TOTL	10276477	10483000	10742000	10950000	11167000	11388000	11651000	11799000
18	Austria (AUT)	Population, total	SP.POP.TOTL	7047539	7086299	7129864	7175811	7223801	7270889	7322066	7376998
19	Azerbaijan (AZE)	Population, total	SP.POP.TOTL	3897889	4030130	4167558	4307315	4445653	4579759	4708485	4832098

The screenshot shows the Power BI Data view interface. On the left, the 'Connections' pane is open, showing the 'World Population Data' connection (Excel). The main area is the 'Data' pane, which displays a preview of the 'World Population Data' table. The preview shows columns for Country Name and Code, Indicator Name, Indicator Code, and years from 1960 to 1967. The interface includes various filters and sorting options at the top of the preview table.

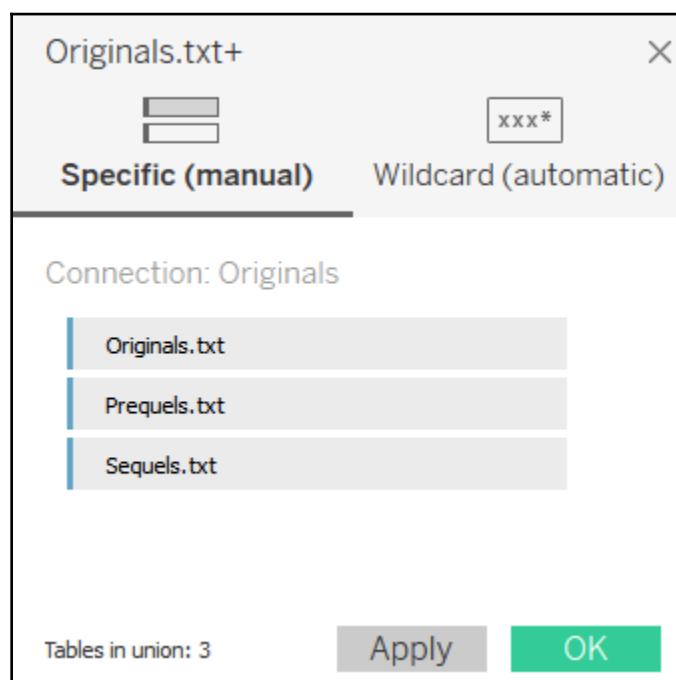
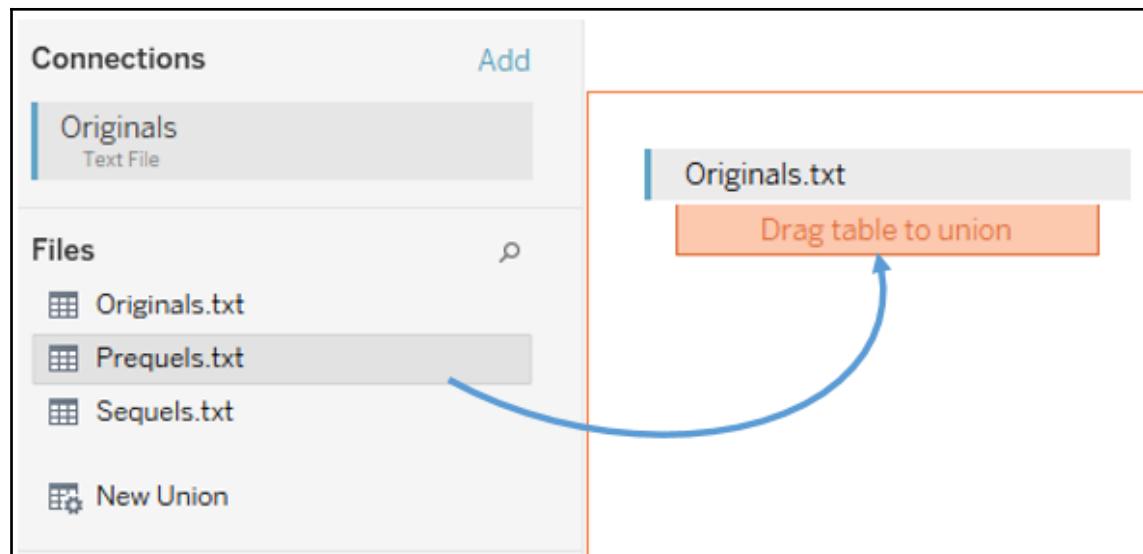
⊕ Data Country Name and ...	Abc Data Indicator Name	Abc Data Indicator Code	# Data 1960	# Data 1961	# Data 1962	# Data 1963	# Data 1964	# Data 1965
Aruba (ABW)	Population, total	SP.POP.TOTL	54,208	55,435	56,226	56,697	57,029	57,360
Andorra (AND)	Population, total	SP.POP.TOTL	13,414	14,376	15,376	16,410	17,470	18,551
Afghanistan (AFG)	Population, total	SP.POP.TOTL	8,774,440	8,953,544	9,141,783	9,339,507	9,547,131	9,765,015
Angola (AGO)	Population, total	SP.POP.TOTL	4,965,988	5,056,688	5,150,076	5,245,015	5,339,893	5,433,841
Albania (ALB)	Population, total	SP.POP.TOTL	1,608,800	1,659,800	1,711,319	1,762,621	1,814,135	1,864,791
United Arab Emirates (...)	Population, total	SP.POP.TOTL	89,608	97,727	108,774	121,574	134,411	146,341



⊕ Calculation Country Name	⊕ Calculation Country Code	# Data 1961	# Data 1962	# Data 1963	# Data 1964	# Data 1965	# Data 1966
Aruba	ABW	55,435	56,226	56,697	57,029	57,360	57,712
Andorra	AND	14,376	15,376	16,410	17,470	18,551	19,646
Afghanistan	AFG	8,953,544	9,141,783	9,339,507	9,547,131	9,765,015	9,990,125
Angola	AGO	5,056,688	5,150,076	5,245,015	5,339,893	5,433,841	5,526,653
Albania	ALB	1,659,800	1,711,319	1,762,621	1,814,135	1,864,791	1,914,573
United Arab Emirates	ARE	97,727	108,774	121,574	134,411	146,341	156,890



Calculation	Calculation	#	#
Country Name	Country Code	Pivot	Pivot
Year		Population	
Aruba	ABW	1961	55,435
Andorra	AND	1961	14,376
Afghanistan	AFG	1961	8,953,544
Angola	AGO	1961	5,056,688
Albania	ALB	1961	1,659,800
United Arab Emirates	ARE	1961	97,727
Argentina	ARG	1961	20,959,241
Armenia	ARM	1961	1,934,239
American Samoa	ASM	1961	20,478
Antigua and Barbuda	ATG	1961	55,403
Australia	AUS	1961	10,483,000



Abc
Originals+
Name

Abc
Originals+
Occupation

Abc
Originals+
Job

Abc
Abc

Luke Farmer null

Leia Princess null

Han Smuggler null

Watto null Junk Dealer

Darth Maul null Face Painter Prequels Prequels

Jar Jar null Sith Lord Prequels Prequels

Rey Scavenger null Sequels Sequels

Poe Pilot null Sequels Sequels

Kylo Unemployed null Sequels Sequels

Merge Mismatched Fields

Abc Originals+ Name	Abc Originals+ Occupation	Abc Originals+ Job	Abc	Abc
Luke	Farmer	null		
Leia	Princess	null		
Han	Smuggler	null		
Watto	null	Junk Dealer		
Darth Maul	null	Face Painter	Prequels	Prequels
Jar Jar	null	Sith Lord	Prequels	Prequels
Rey	Scavenger	null	Sequels	Sequels
Poe	Pilot	null	Sequels	Sequels
Kylo	Unemployed	null	Sequels	Sequels

Patient ID	Patient Name	Admit Date	Discharge Date
1	David	12/1/2018	12/20/2018
2	Solomon	12/3/2018	12/7/2018
3	Asa	12/5/2018	12/22/2018
4	Jehoshaphat	12/5/2018	12/6/2018
5	Joash	12/9/2018	12/16/2018
6	Amaziah	12/10/2018	12/14/2018
7	Uzziah	12/12/2018	12/24/2018
8	Jotham	12/16/2018	12/29/2018
9	Hezekiah	12/18/2018	12/22/2018
10	Josiah	12/22/2018	12/23/2018

A	
1	Date
2	12/1/2018
3	12/2/2018
4	12/3/2018
5	12/4/2018
6	12/5/2018
7	12/6/2018
8	12/7/2018
9	12/8/2018
10	12/9/2018
26	12/25/2018
27	12/26/2018
28	12/27/2018
29	12/28/2018
30	12/29/2018
31	12/30/2018
32	12/31/2018

Hospital Patients.txt+ (Multiple Connections)

Connections Add

Hospital Patients (Text file)

Hospital Patients Dates (Microsoft Excel)

Sheets

Dates

New Union

Hospital Patients.txt Dates

Join

Inner Left Right Full Outer

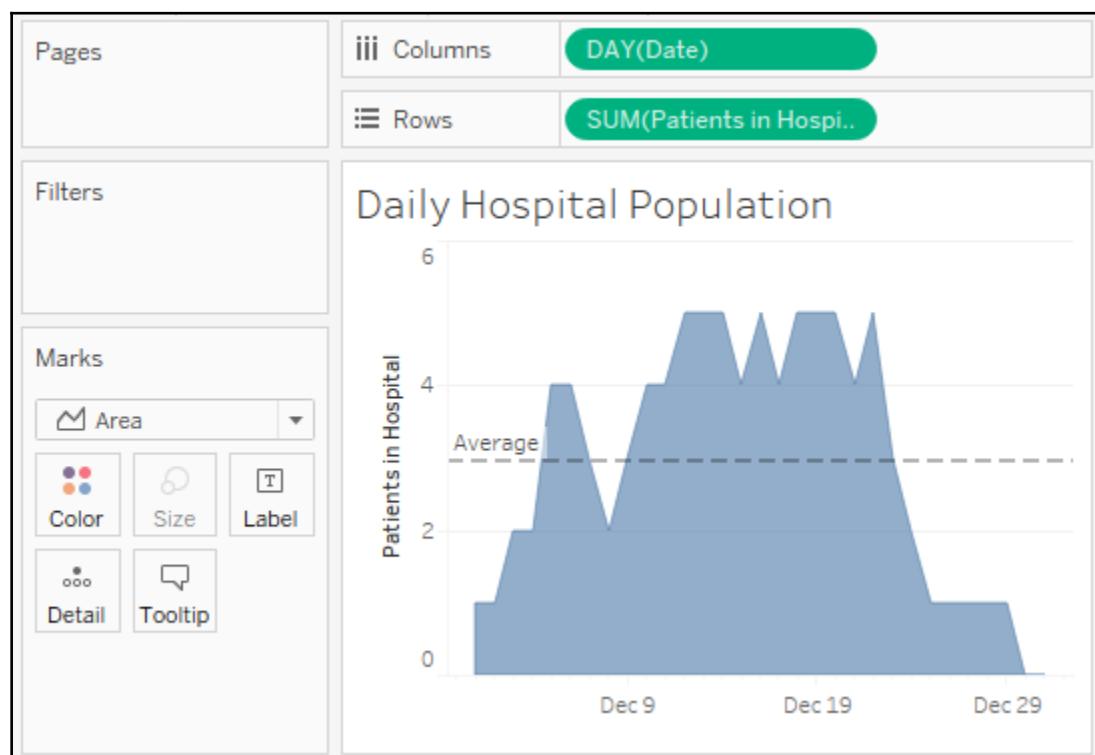
Data Source = Dates

1 Enter search text Date Create Join Calculation...

Convert to Custom SQL

```
SELECT [Patient Visit].[Patient ID] AS [Patient ID],  
    [Patient Visit].[Patient Name] AS [Patient Name],  
    [Patient Visit].[Admit Date] AS [Admit Date],  
    [Patient Visit].[Discharge Date] AS [Discharge Date],  
    1 AS [Join]  
FROM [dbo].[Patient Visit] [Patient Visit]
```

Preview Results... Insert Parameter OK Cancel



Apartment	Month	Rent Collected	Square Feet
A	Jan	\$0	900
	Feb	\$0	900
	Mar	\$0	900
	Apr	\$0	900
	May	\$0	900
	Jun	\$1,500	900
	Jul	\$1,500	900
	Aug	\$1,500	900
	Sep	\$1,500	900
	Oct	\$1,500	900
	Nov	\$1,500	900
	Dec	\$1,500	900
B	Jan	\$1,200	750
	Feb	\$1,200	750
	Mar	\$1,200	750
	Apr	\$1,200	750
	May	\$1,200	750
	Jun	\$1,200	750
	Jul	\$0	750
	Aug	\$0	750
	Sep	\$0	750
	Oct	\$0	750
	Nov	\$0	750
	Dec	\$0	750

Pages ▼

Columns Measure Names ≡

Rows Apartment

Filters

Measure Names ≡

Marks

Automatic ▼

Color Size Text

Detail Tooltip

Measure Values Measure Values

Measure Values

SUM(Rent Collected)

SUM(Square Feet)

AVG(Square Feet)

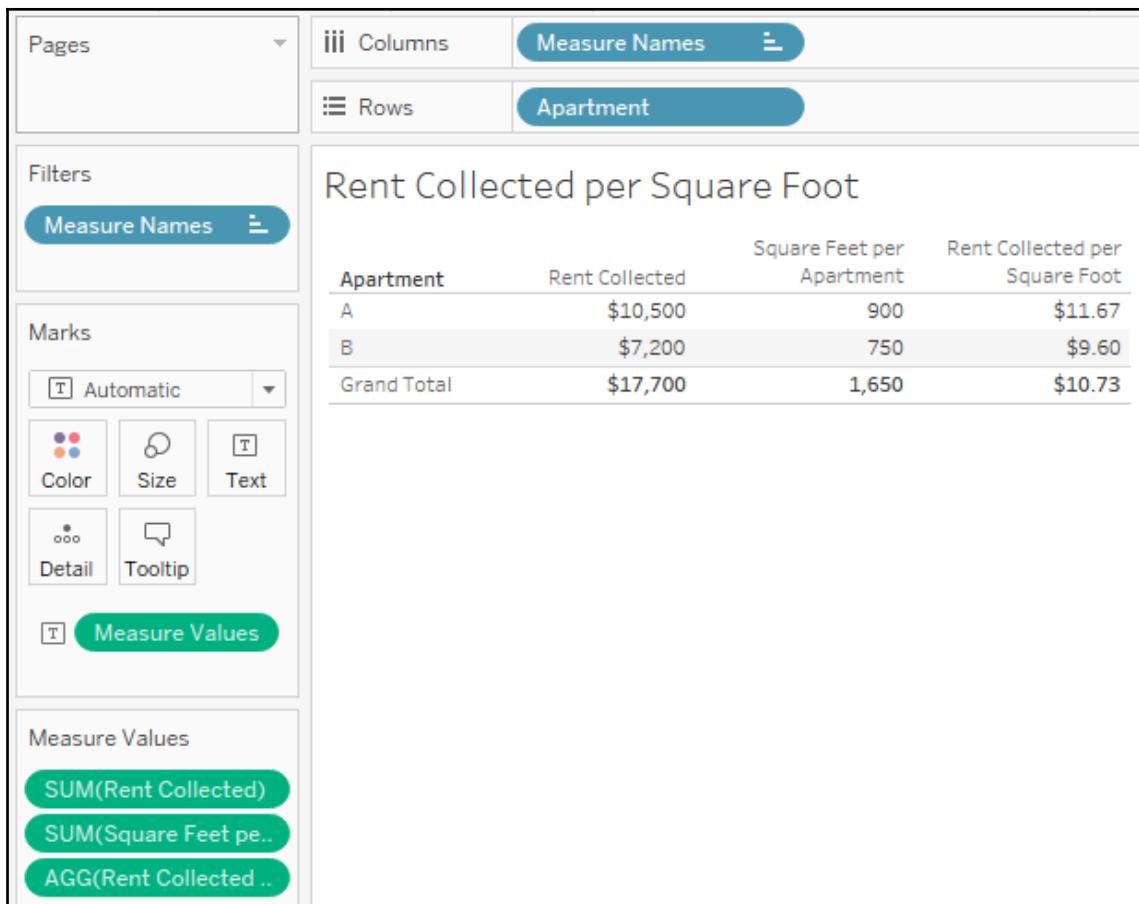
MIN(Square Feet)

MAX(Square Feet)

Apartment	Rent Collected	Sum of Square Feet	Avg. Square Feet	Min. Square Feet	Max. Square Feet
A	\$10,500	10,800	900	900	900
B	\$7,200	9,000	750	750	750

Apartment	Rent Collected	Sum of Square Feet	Avg. Square Feet	Min. Square Feet	Max. Square Feet
A	\$10,500	10,800	900	900	900
B	\$7,200	9,000	750	750	750
Grand Total	\$17,700	19,800	825	750	900

Apartment	Rent Collected	Square Feet per Apartment
A	\$10,500	900
B	\$7,200	750
Grand Total	\$17,700	1,650



Chapter 10: Introducing Tableau Prep

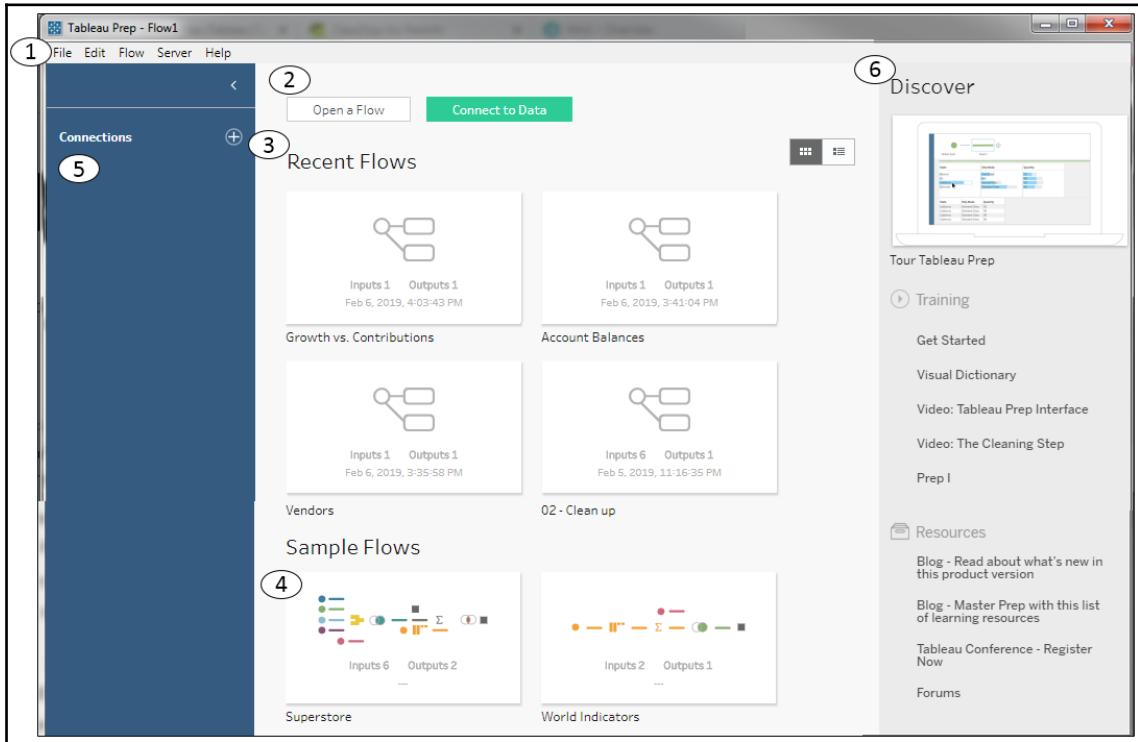


Tableau Prep - Superstore*

File Edit Flow Server Help

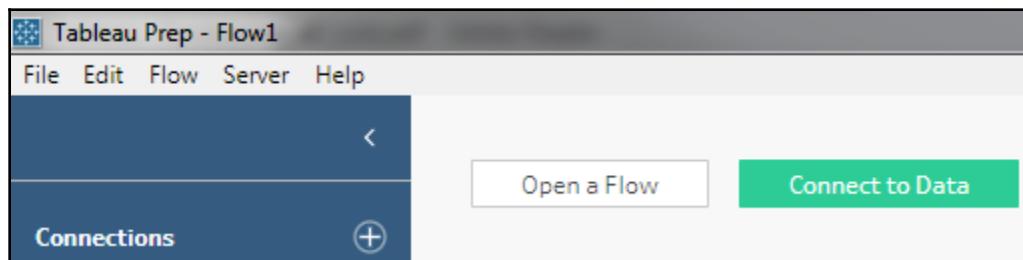
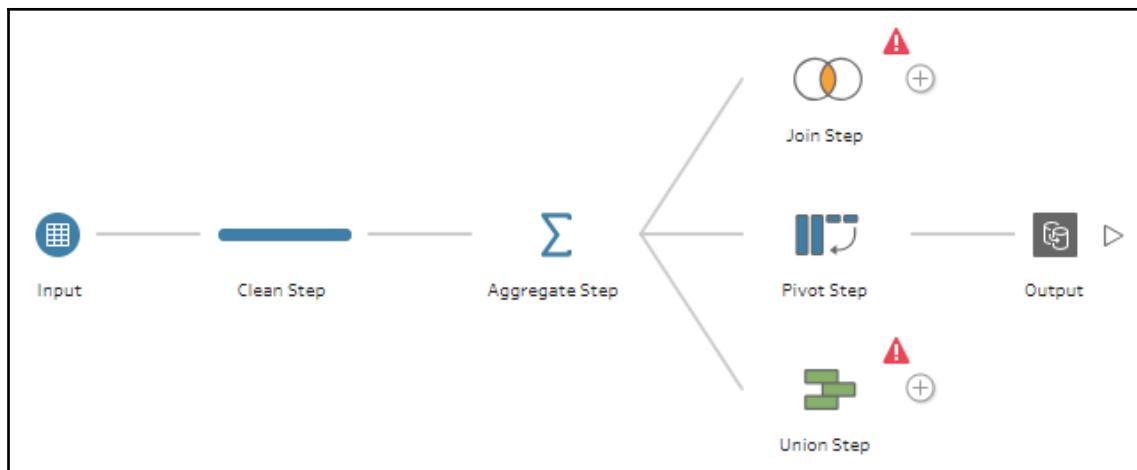
1 Orders (Central) → Fix Dates → Orders + Returns → Roll Up Sales → Create 'Annual ...

2 Returns (all) → Clean Notes/Ap...

3 Order Date 720

4 Order Date Ship Mode Customer ID Customer Name Segment Cou

Order Date	Ship Mode	Customer ID	Customer Name	Segment	Cou
11/22/2016	Standard Class	HP-14815	Harold Pawlan	Home Office	U
11/22/2016	Standard Class	HP-14815	Harold Pawlan	Home Office	U
11/11/2015	Standard Class	PK-19075	Pete Kriz	Consumer	U
12/09/2017	Standard Class	KB-16585	Ken Black	Corporate	U
12/09/2017	Standard Class	KB-16585	Ken Black	Corporate	U
10/19/2018	Second Class	MA-17560	Matt Abelman	Home Office	U
12/08/2017	First Class	GH-14485	Gene Hale	Corporate	U
12/08/2017	First Class	GH-14485	Gene Hale	Corporate	U
12/27/2016	Standard Class	SN-20710	Steve Nguyen	Home Office	U



The screenshot shows the Tableau Prep interface for the "Employee Flights" connection:

- Connections:** Employee Flights.xlsx (Microsoft Excel).
- Input:** Employee Flights (Single table selected).
- Tables:** Employee Flights, Employee Flights C3:E7, Employee Flights Table1.
- Fields:** A table showing selected fields and their details:

	Type	Field Name	Original Field Name	Changes	Sample Values
<input checked="" type="checkbox"/>	#	Row ID	Row ID		4,144, 9,102, 2,194
<input checked="" type="checkbox"/>	Abc	Passenger Email	Passenger Email		ekiefer@vizpainter.com, abarton@vizp...
<input checked="" type="checkbox"/>	Abc	Purchase Date	Purchase Date		01/10/2019, 09/10/2017, 10/22/2018
<input checked="" type="checkbox"/>	Abc	Travel Date	Travel Date		02/06/2019, 11/12/2017, 12/17/2018
<input checked="" type="checkbox"/>	Abc	Passenger ID	Passenger ID		EH-14125, AB-10105, AP-10915
<input checked="" type="checkbox"/>	Abc	Airline	Airline		United, American Airlines
<input checked="" type="checkbox"/>	#	Ticket Price	Ticket Price		184, 214, 199
<input checked="" type="checkbox"/>	Abc	Route	Route		DFW-CMH, DFW-COS
<input checked="" type="checkbox"/>	Abc	TicketType	TicketType		Economy
<input checked="" type="checkbox"/>	Abc	Person	Person		Eileen Kiefer, Adrian Barton, Anna Chur...

Employee Flights

Clean 1

Clean 1 10 Fields 1K Rows

Keep Only

Search

Changes (0)

Ticket Price 445

Route 17

Ticket Type 3

DFW-BUF

DFW-BUR

DFW-CHS

DFW-CMH

DFW-COS

DFW-DSM

DFW-ELP

DFW-GRB

DFW-HIO

DFW-IAD

DFW-JFK

DFW-LNK

Row ID	Passenger Email	Purchase Date	Travel Date	Passenger ID
23	tboeckenhauer@vizpainter.com	12/11/2016	04/10/2017	VT-21700
28	tsissman@vizpainter.com	04/11/2019	05/23/2019	TS-21340
51	kharms@vizpainter.com	12/04/2019	12/19/2019	KM-16660
54	tturnell@vizpainter.com	10/02/2018	11/08/2018	XP-21865



Southwest 2016

Input

Text Settings Multiple Files Data Sample Changes (0)

Connection

Text file
Southwest 2016.csv [Edit](#)
Original Table Name: Southwest 2016

Text Options

First line contains header
 Generate field names automatically

Field Separator
Comma

Text Qualifier
Automatic

Southwest 2016 Fields selected: 9 of 9 [Filter Values...](#)

Select the fields to include in your flow. If you make changes to the

	Type	Field Name	Original Field Name
<input checked="" type="checkbox"/>	Abc	Passenger Email	Passenger Email
<input checked="" type="checkbox"/>	T F	Travel Insurance?	Travel Insurance?
<input checked="" type="checkbox"/>	File	Purchase Date	Purchase Date
<input checked="" type="checkbox"/>	File	Travel Date	Travel Date
<input checked="" type="checkbox"/>	Abc	Fare Type	Fare Type
<input checked="" type="checkbox"/>	#	Ticket Price	Ticket Price
<input checked="" type="checkbox"/>	Abc	Route	Route
<input checked="" type="checkbox"/>	#	Row_ID	Row_ID
<input checked="" type="checkbox"/>	Abc	Person	Person

Input

Text Settings **Multiple Files** Data Sample Changes (0)

Single table Wildcard union

Search in
Chapter 10

Include subfolders

Files

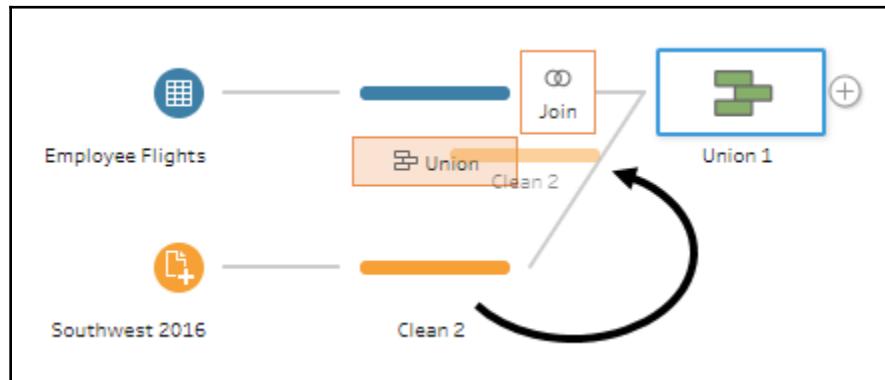
Include

Matching Pattern (xxx*)
Southwest*

Included files (4)

Southwest 2016.csv
Southwest 2017.csv
Southwest 2018.csv
Southwest 2019.csv

Apply



Union 1 15 Fields 5K Rows  

[Settings](#) [Changes \(0\)](#)

Inputs

-  Clean 1
-  Clean 2

Resulting Fields

8 Mismatching fields from 15 resulting fields.

Mismatched Fields

Travel Insurance?	 
Fare Type	 
Row_ID	 
File Paths	 
Row ID	 
Passenger ID	 
Airline	 
Ticket Type	 

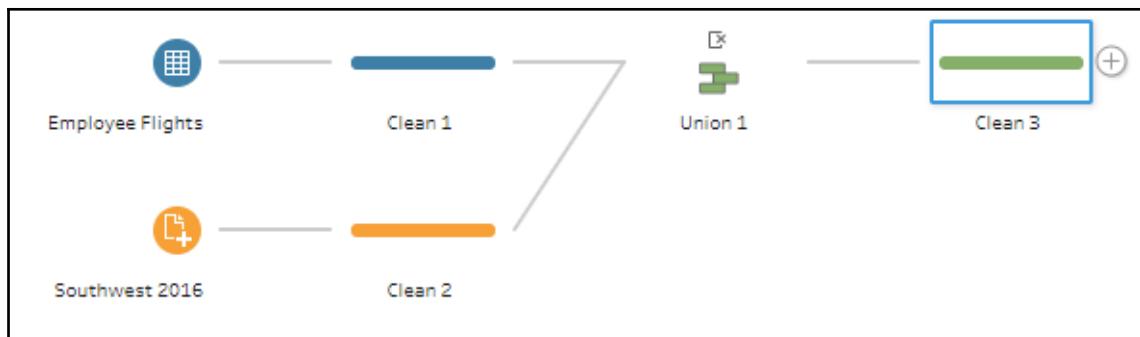
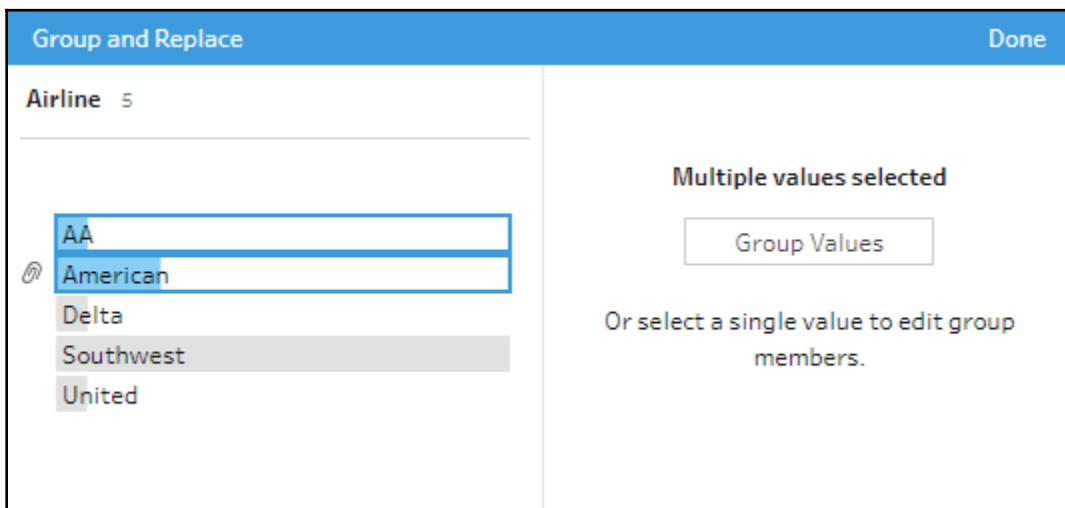
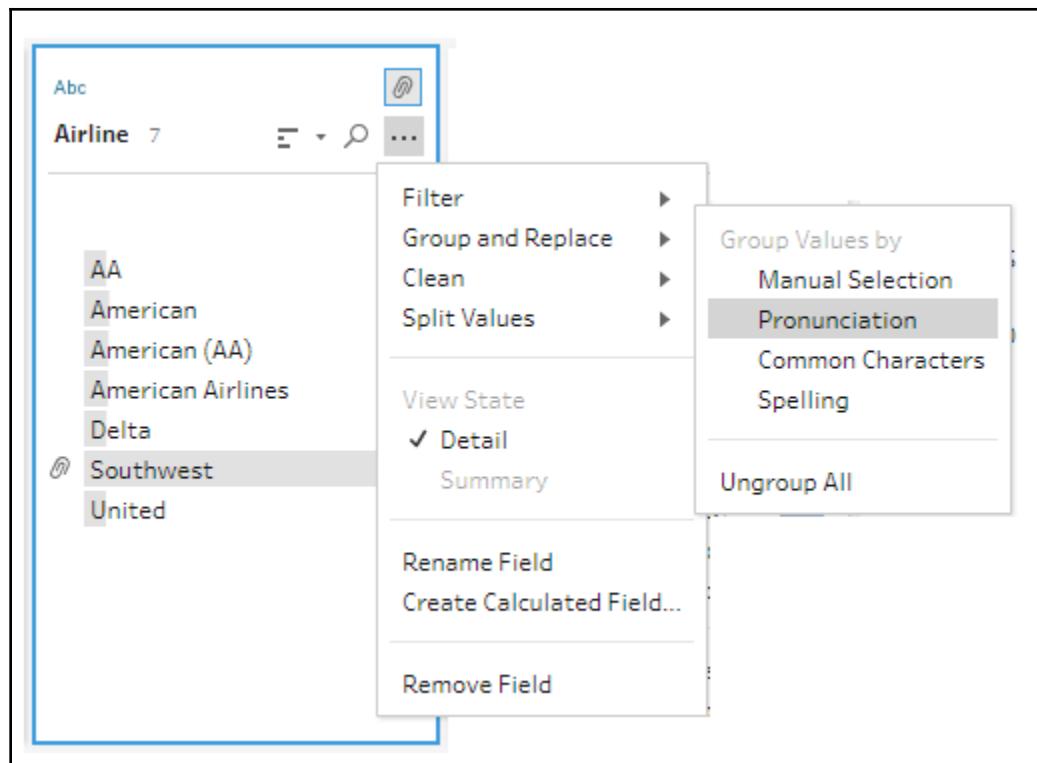
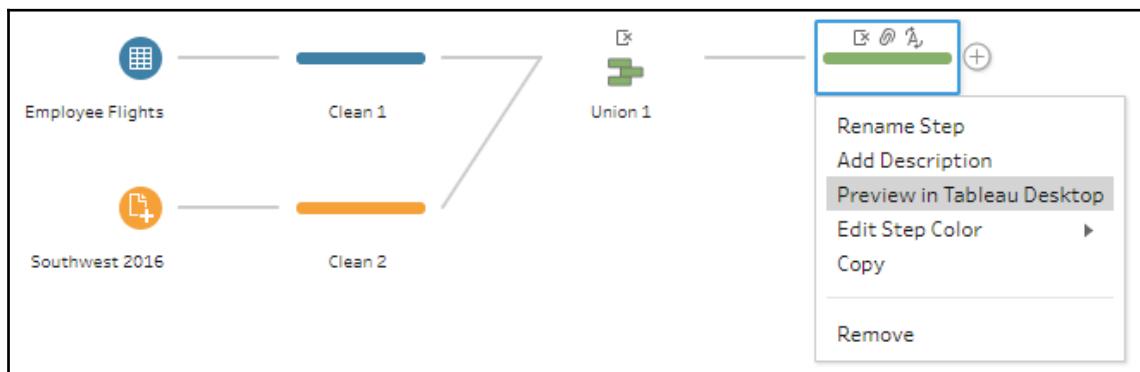
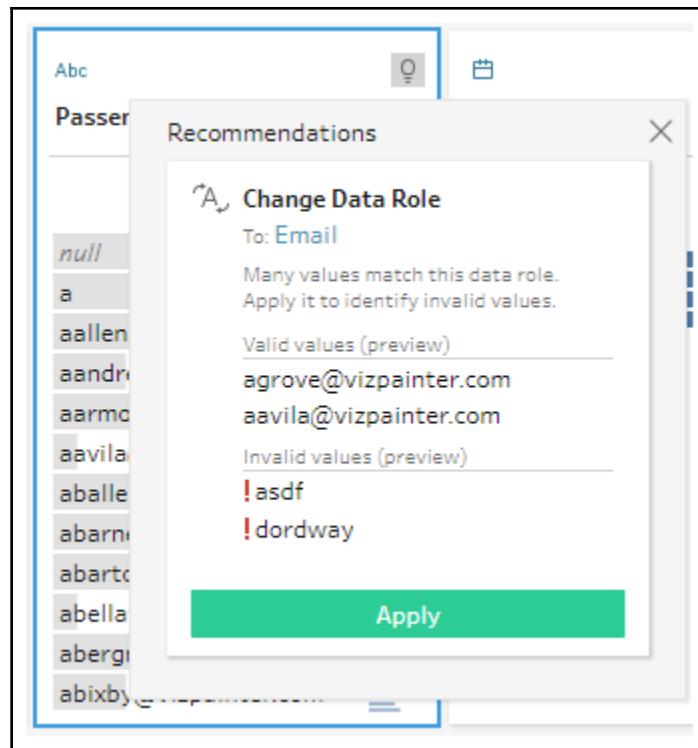
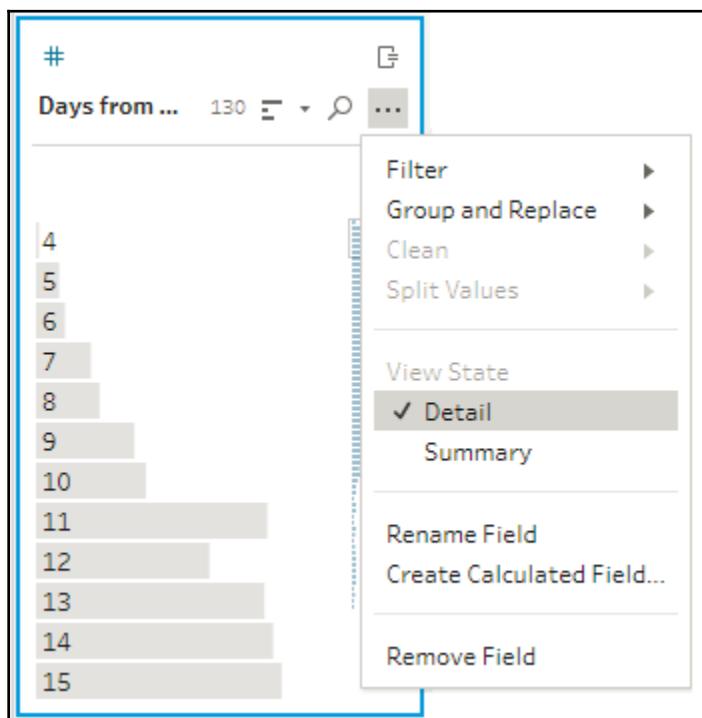


Table Names	2
Employee Flights.xlsx/Employee Flights	
Southwest 2016	

Airline	7
null	
AA	
American	
American (AA)	
American Airlines	
Delta	
United	









Settings Changes (0)

Additional Fields
Drag fields to aggregate or group them.

Search 🔍

Add All Remove All

Abc GROUP Airline
 # SUM Days from Purchase to Travel
 Abc GROUP Fare Type
 Abc GROUP Passenger Email
 ☐ GROUP Purchase Date
 Abc GROUP Route
 # SUM Row_ID
 # SUM Ticket Price
 ☐ GROUP Travel Date

Grouped Fields

Abc GROUP
Person 765

Aaron Bergman
 Aaron Hawkins
 Aaron Smayling
 Adam Bellavance
 Adam Hart
 Adam Shillingsburg
 Adrian Barton
 Adrian Hane
 Adrian Shami
 Aimee Bixby
 Alan Barnes
 Alan Dominguez

Aggregated Fields

SUM ⓘ
Number of Rows ... 21

0 8 16 24

Changes (2)

Rename Field
 [Trips]
 From [Number of Rows (Aggregated)] to
 [Trips]

Calculated Field
 [Type of Traveler]
 IF [Trips] > 15 THEN "Extreme" ELSEIF
 [Trips] > 10 THEN "Frequent" ELSEIF [Trips]

Type of Traveler 4

Abc
Trips 21

Casual
 Extreme
 Frequent
 Infrequent

Person 765

Aaron Bergman
 Aaron Hawkins
 Aaron Smayling
 Adam Bellavance
 Adam Hart
 Adam Shillingsburg
 Adrian Barton
 Adrian Hane
 Adrian Shami
 Aimee Bixby
 Alan Barnes
 Alan Dominguez

Join 1 13 Fields 5K Rows Filter Values... Create Calculated Field...

Settings Changes (0)

Applied Join Clauses

Clean 3 Clean 4

Person = Person

Join Type: Inner join

Click the graphic to change the join type.

Clean 3 Clean 4

Summary of Join Results

Click the bar segments to view the included and excluded values.

Mismatched values

	Included
Clean 3	4,579
Clean 4	765
Join Result	4,579

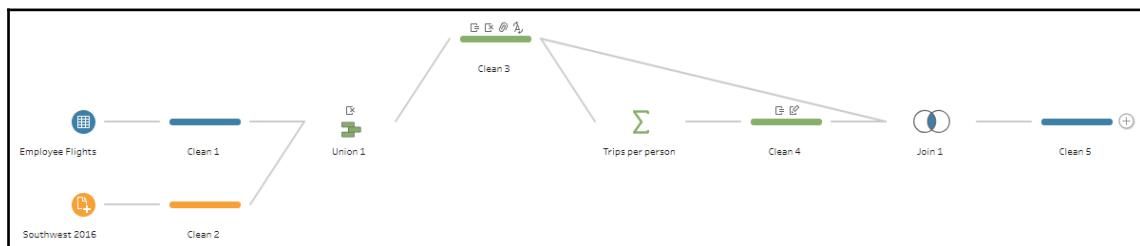
Join Clause Recommendations

Join Clauses Show only mismatched values

Clean 3 Clean 4

↑ Person ↑ Person

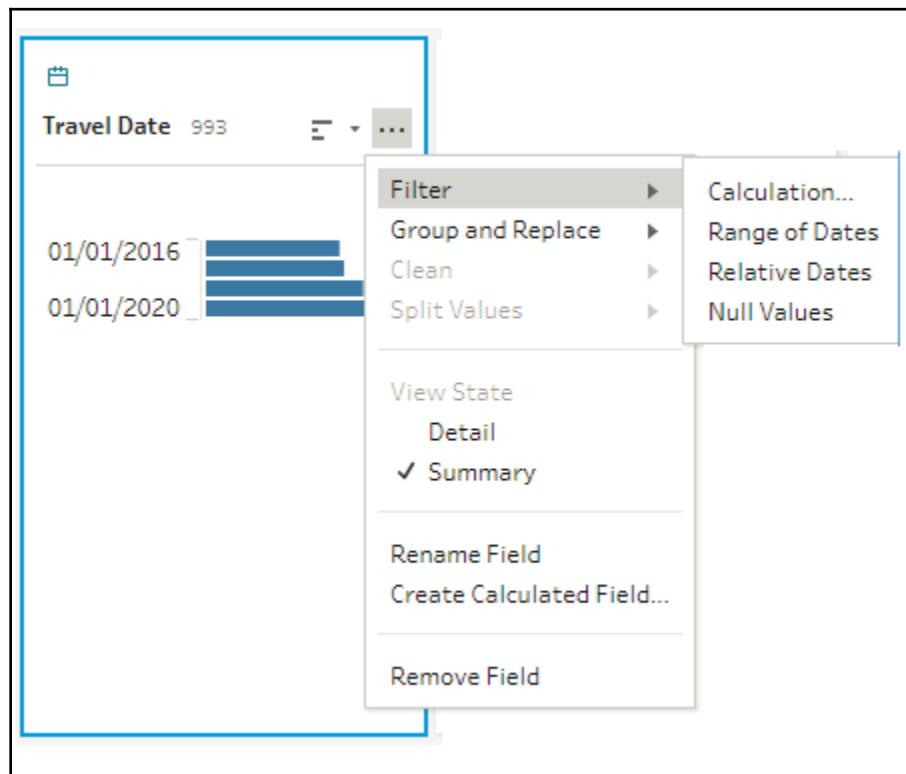
Aaron Bergman Aaron Bergman
Aaron Hawkins Aaron Hawkins
Aaron Smayling Aaron Smayling
Adam Bellavance Adam Bellavance
Adam Hart Adam Hart
Adam Shillingsburg Adam Shillingsburg
Adrian Barton Adrian Barton
Adrian Hane Adrian Hane
Adrian Shami Adrian Shami
Aimee Bixby Aimee Bixby
Alan Barnes Alan Barnes
Alan Dominguez Alan Dominguez
Alan Haines Alan Haines
Alan Hwang Alan Hwang
Alan Schoenberger Alan Schoenberger
Alan Shonely Alan Shonely
Alejandro Ballentine Alejandro Ballentine
Alejandro Grove Alejandro Grove
Alejandro Savelly Alejandro Savelly
Aleksandra Gannaway Aleksandra Gannaway
Alex Avila Alex Avila
Alex Grayson Alex Grayson
Alex Dussell Alex Dussell



Employee Flights Fields selected: 10 of 10 [Filter Values...](#)

Select the fields to include in your flow. If you make changes to the data, the data source will be queried again.

Type	Field Name	Original Field Name	Changes	Sample Values
<input checked="" type="checkbox"/>	Row ID	Row ID		4,144, 9,102, 2,194
<input checked="" type="checkbox"/>	Passenger Email	Passenger Email		ekiefer@vizpainter.com, abarton@vizpainter.com, achung@vizpainter.com
<input checked="" type="checkbox"/>	Purchase Date	Purchase Date		01/10/2019, 09/10/2017, 10/22/2018
<input checked="" type="checkbox"/>	Travel Date	Travel Date		02/06/2019, 11/12/2017, 12/17/2018



Clean 5 15 Fields 5K Rows Filter Values... Automatic Split Custom Split... ... route X

Changes (2)

- Calculated Field
[Route - Split 1]
TRIM(SPLIT([Route], ".", 1))
- Calculated Field
[Route - Split 2]
TRIM(SPLIT([Route], ".", 2))

Route 33

Route - Split 1 2

Route - Split 2 30

Route	Route - Split 1	Route - Split 2
DAL-AMA	DAL	AMA
DAL-ATL	DFW	ATL
DAL-AUS		AUS
DAL-CLE		BUF
DAL-ELP		BUR
DAL-GR		CHS
DAL-HOU		CLE
DAL-LAS		CMH
DAL-LGA		COS
DAL-MDW		DSM
DAL-OKC		ELP
DAL-PHX		GRB

Pivoted Fields

Columns to Rows

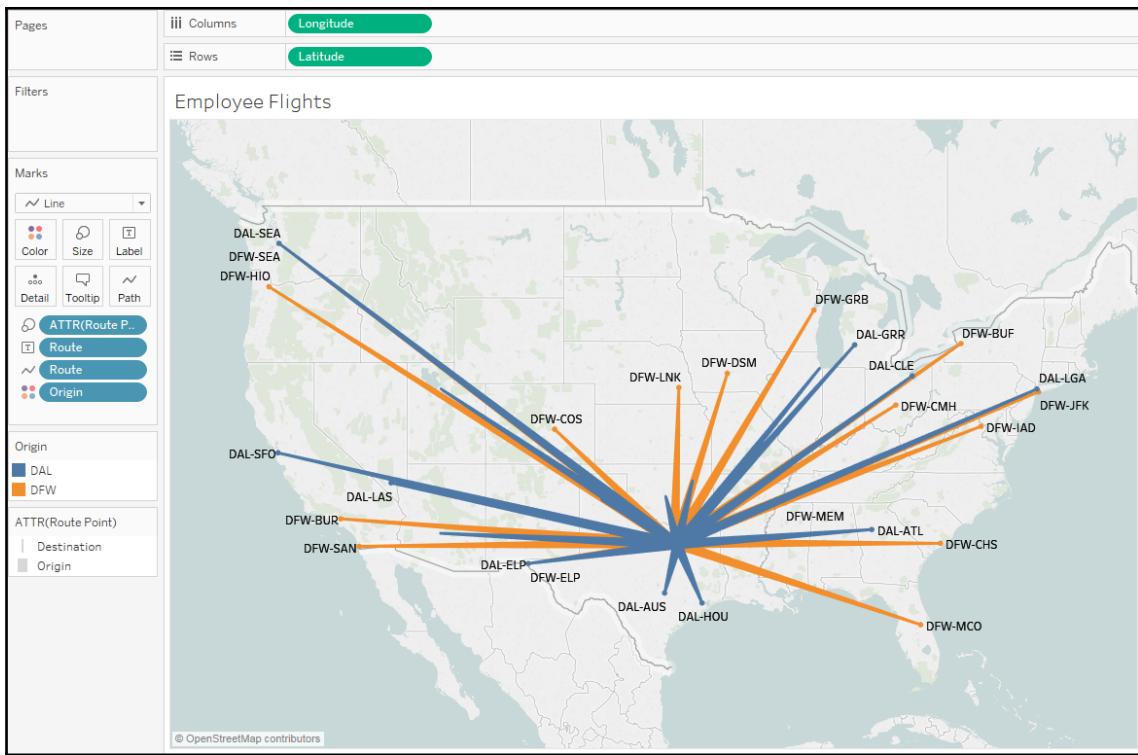
Pivot1 Names	Pivot1 Values
Origin	Abc Origin
Destination	Abc Destination

Pivot Results

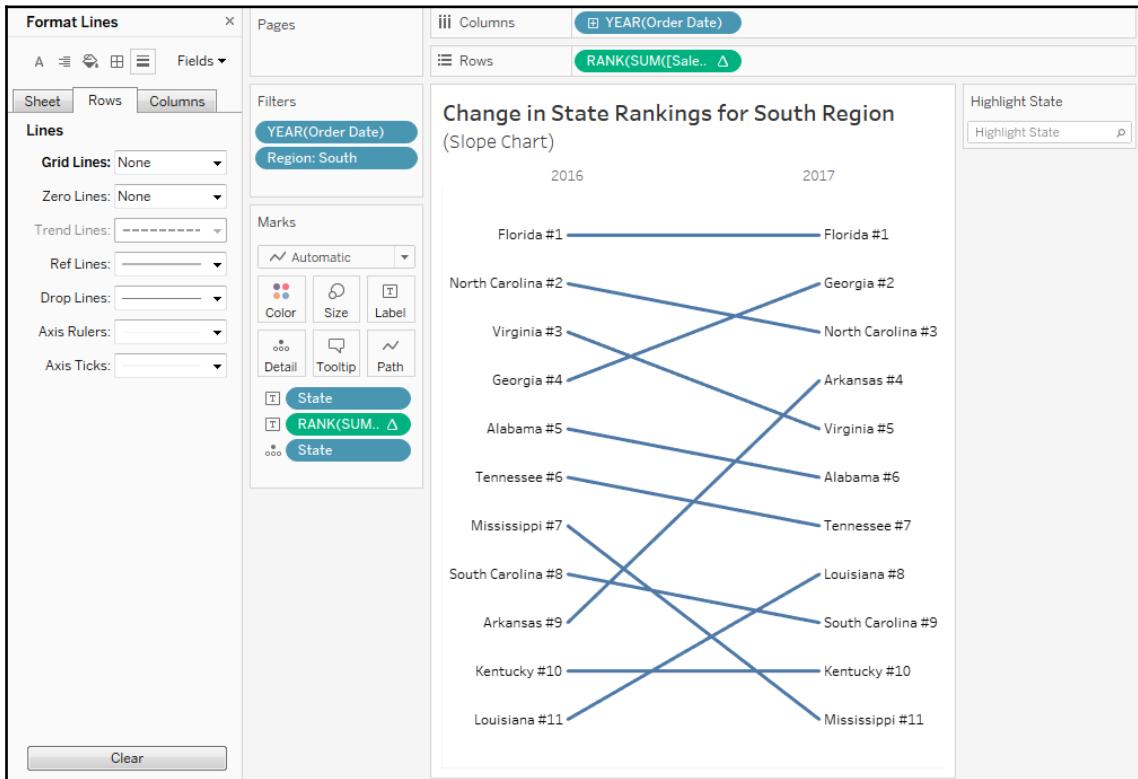
Abc

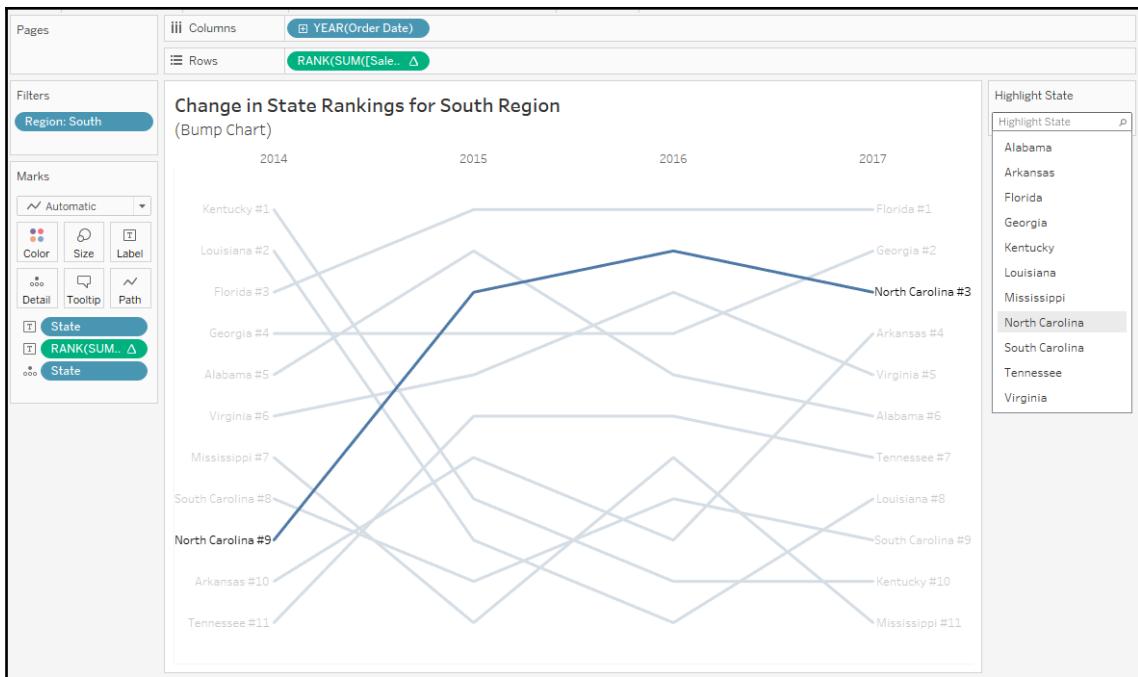
Pivot1 Values	Pivot1 Names
AMA	Origin
ATL	Origin
AUS	Origin
BUF	Origin
BUR	Origin
CHS	Origin
CLE	Origin
CMH	Origin
COS	Origin
DAL	Origin
DFW	Origin
DSM	Origin

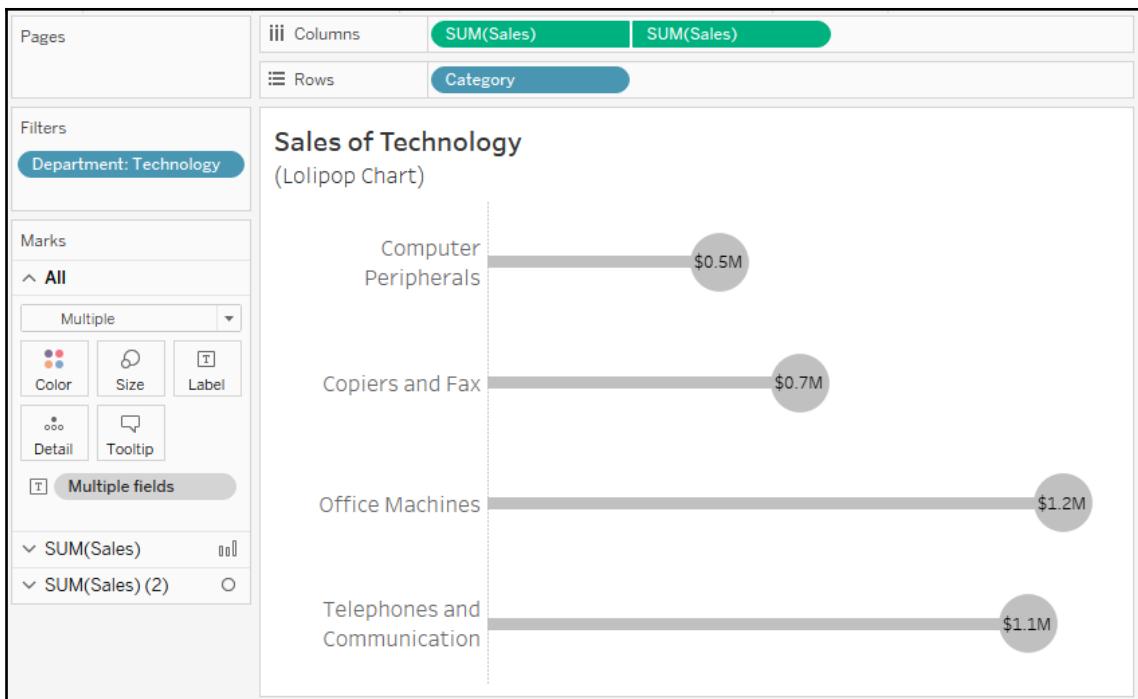
Pivot1 Values	Pivot1 Names	Route	Type of Traveler
MDW	Destination	DAL-MDW	Casual
DAL	Origin	DAL-MDW	Casual
DAL	Origin	DAL-SLC	Infrequent
SLC	Destination	DAL-SLC	Infrequent
DAL	Origin	DAL-AMA	Infrequent
AMA	Destination	DAL-AMA	Infrequent
DAL	Origin	DAL-SLC	Infrequent
SLC	Destination	DAL-SLC	Infrequent
DAL	Origin	DAL-OKC	Extreme

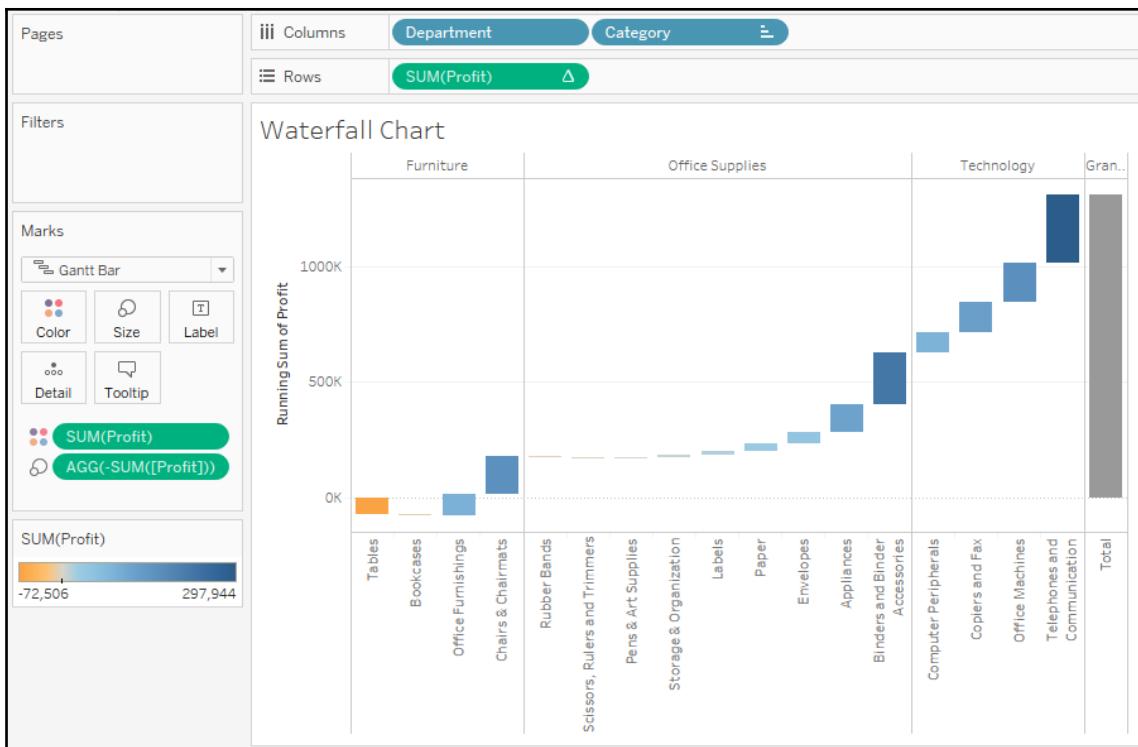


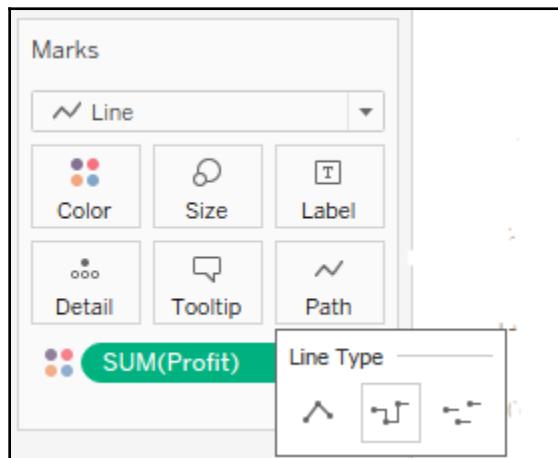
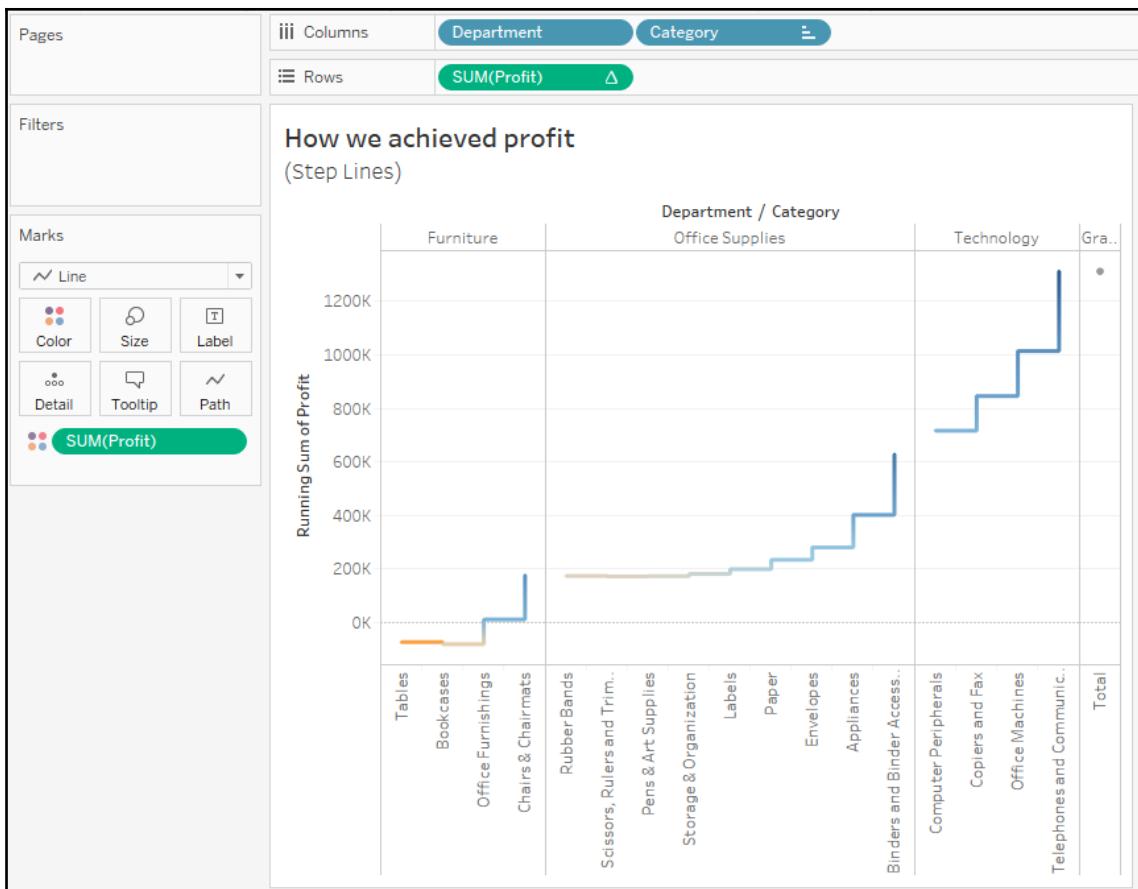
Chapter 11: Advanced Visualizations, Techniques, Tips, and Tricks

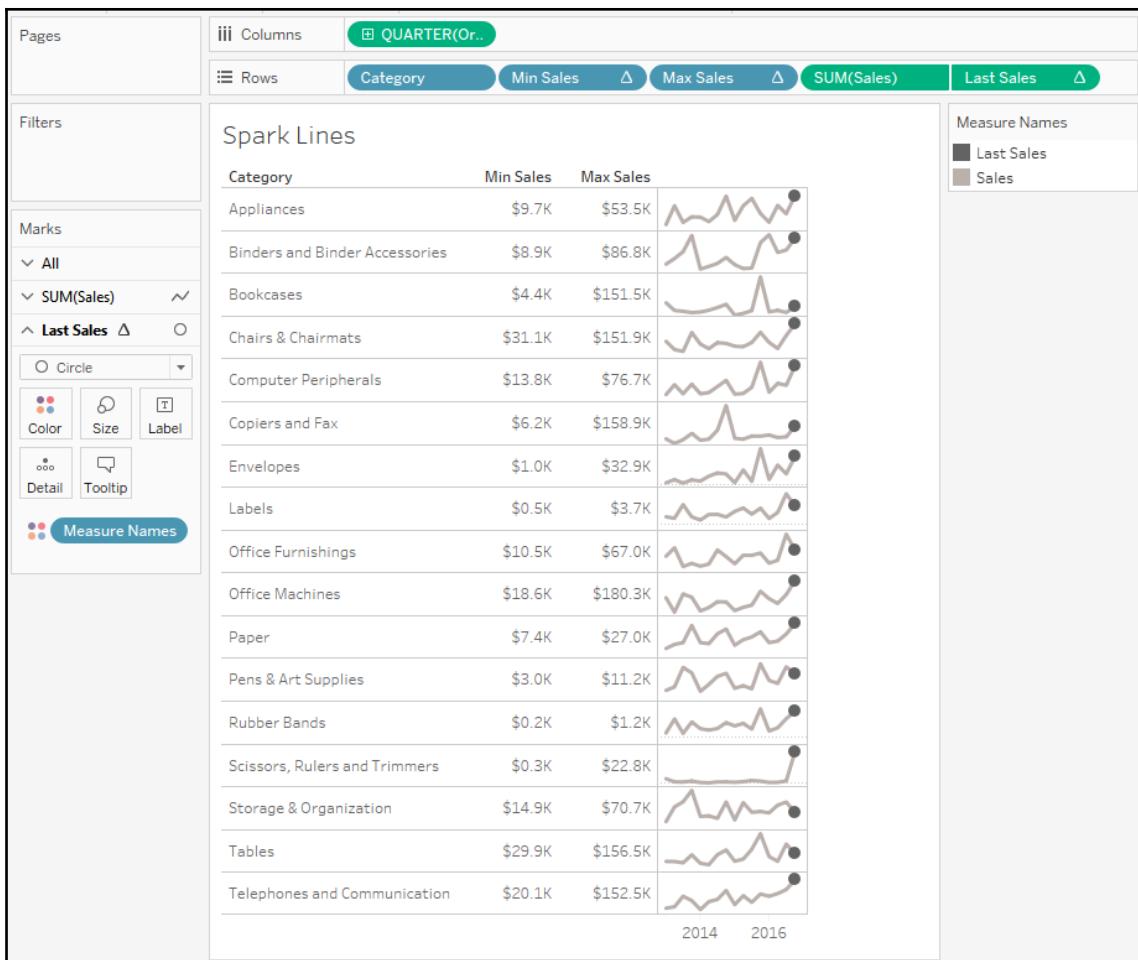


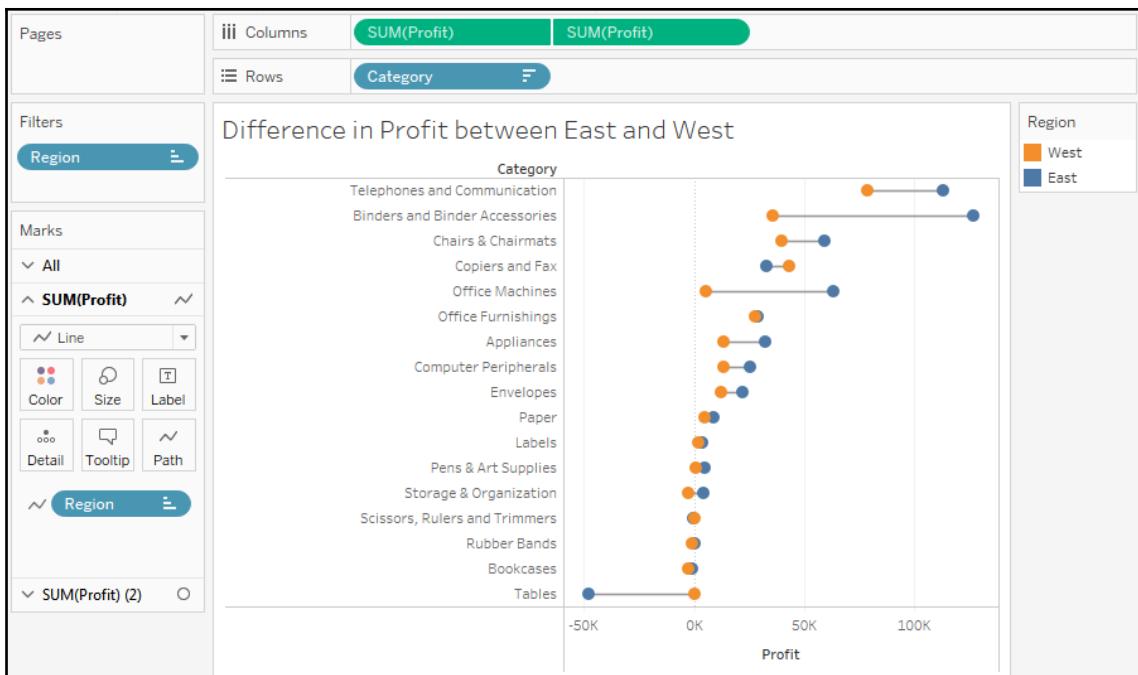


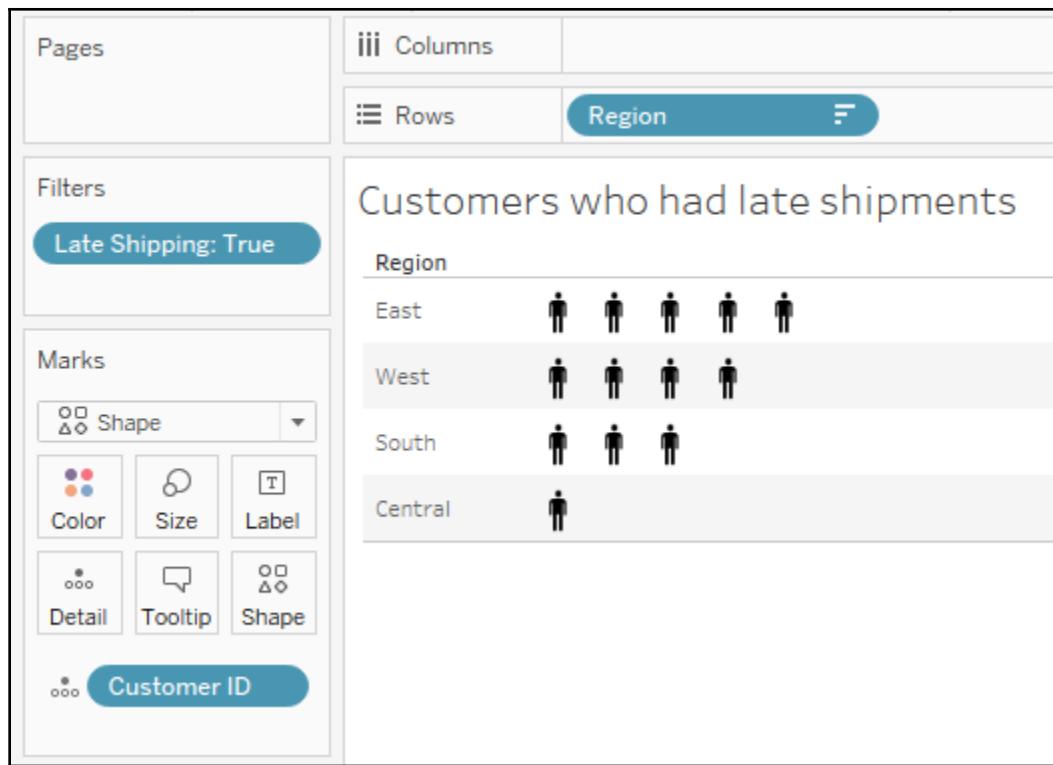


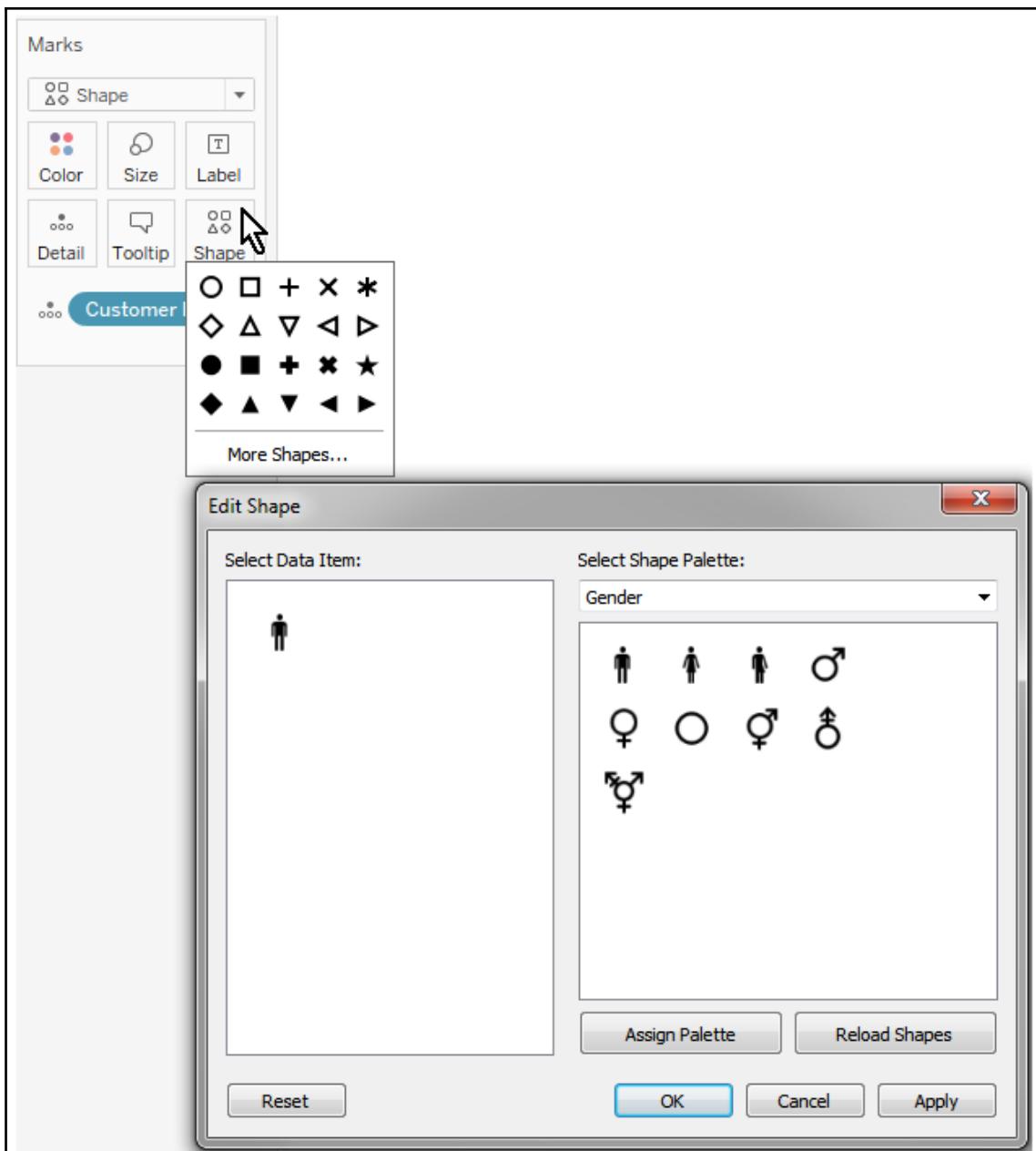


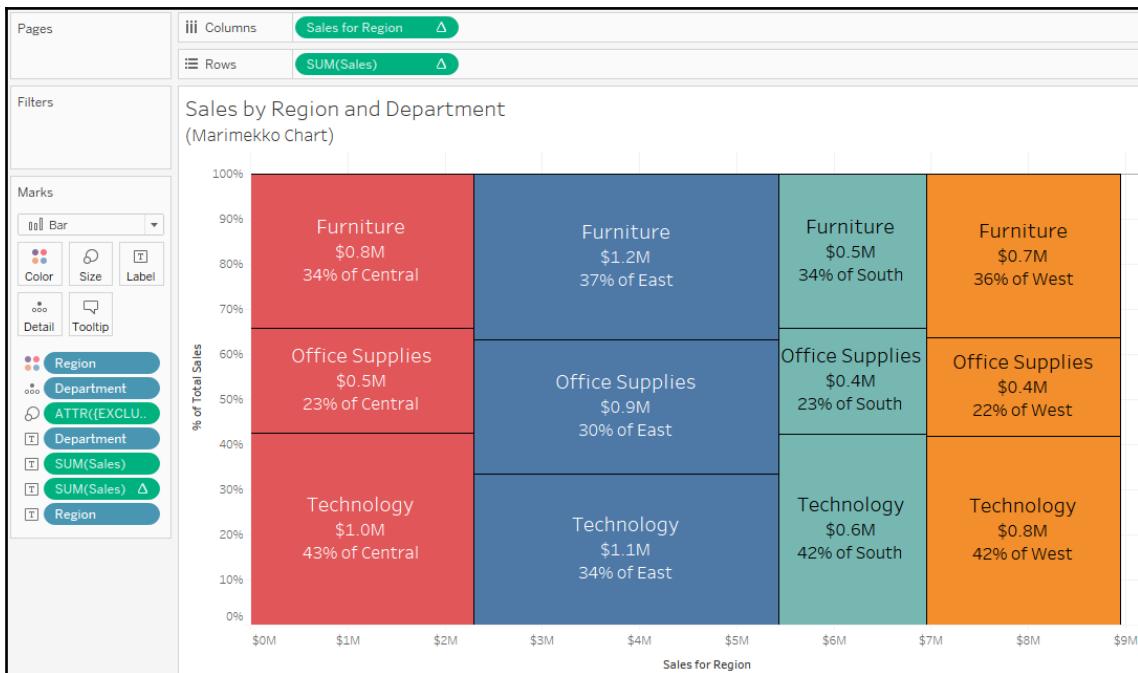




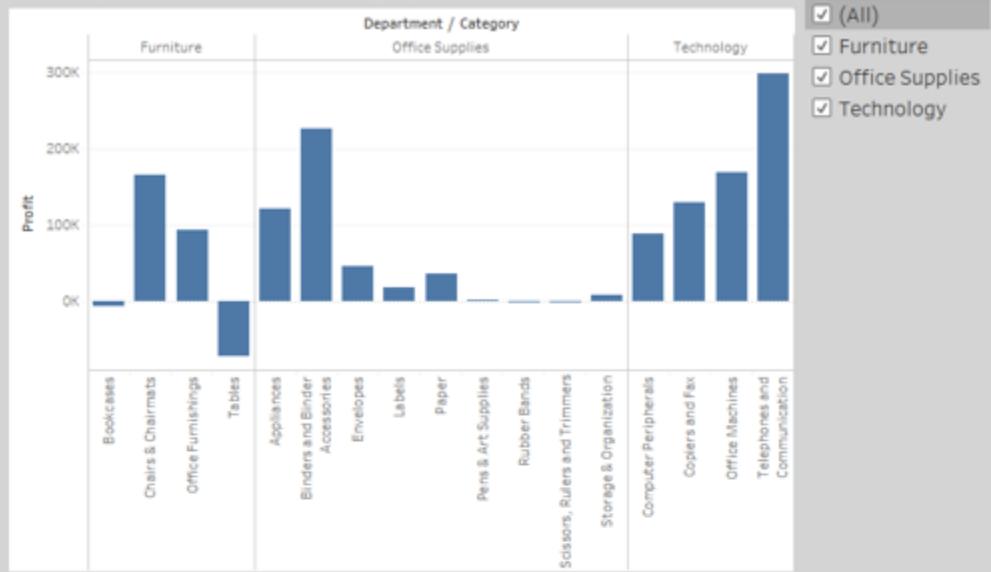






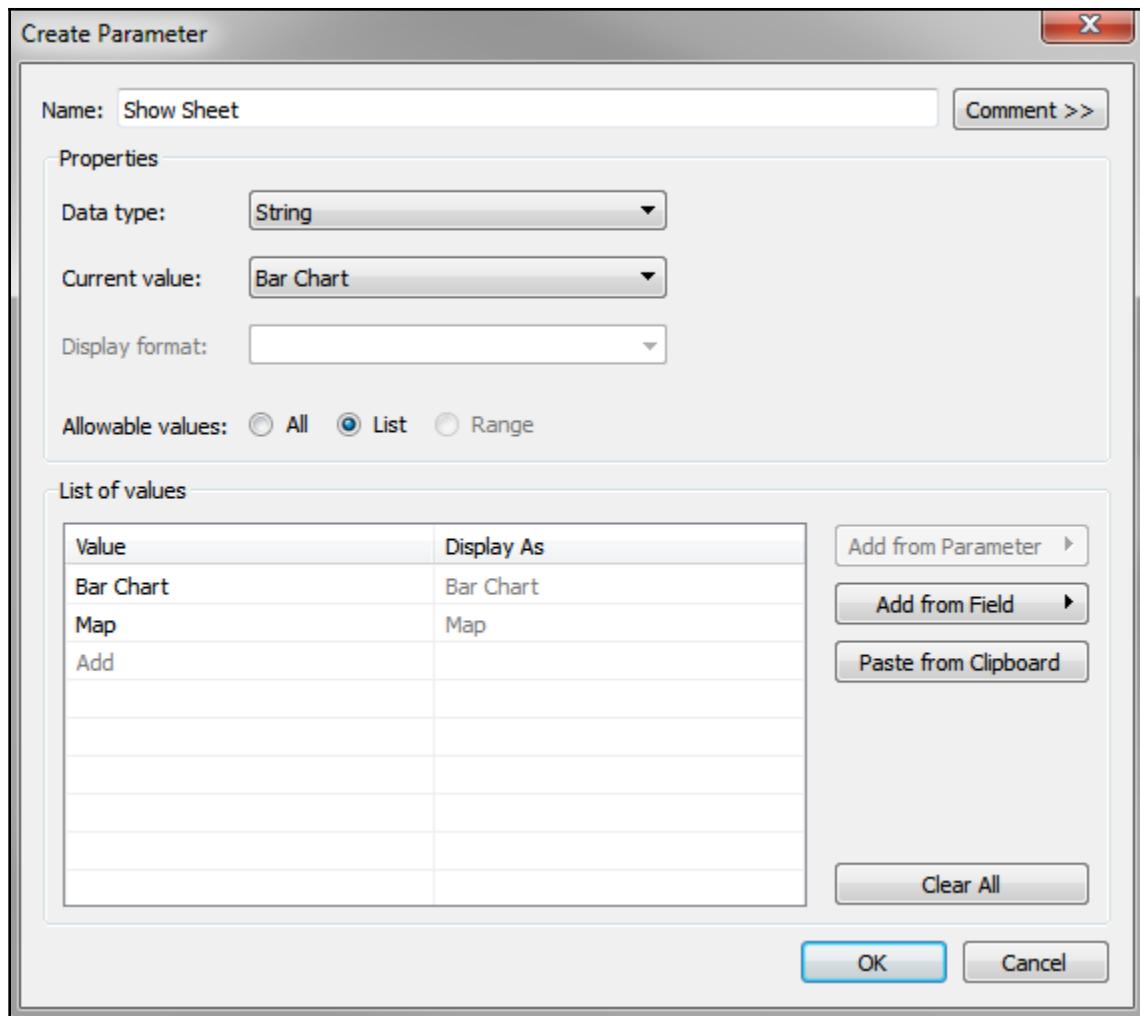


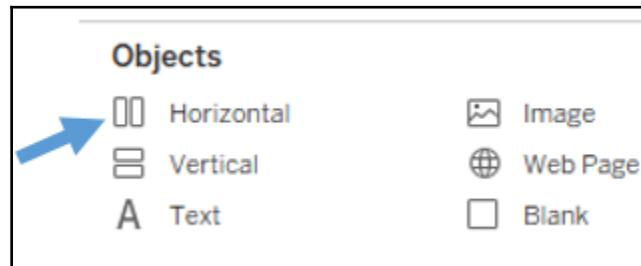
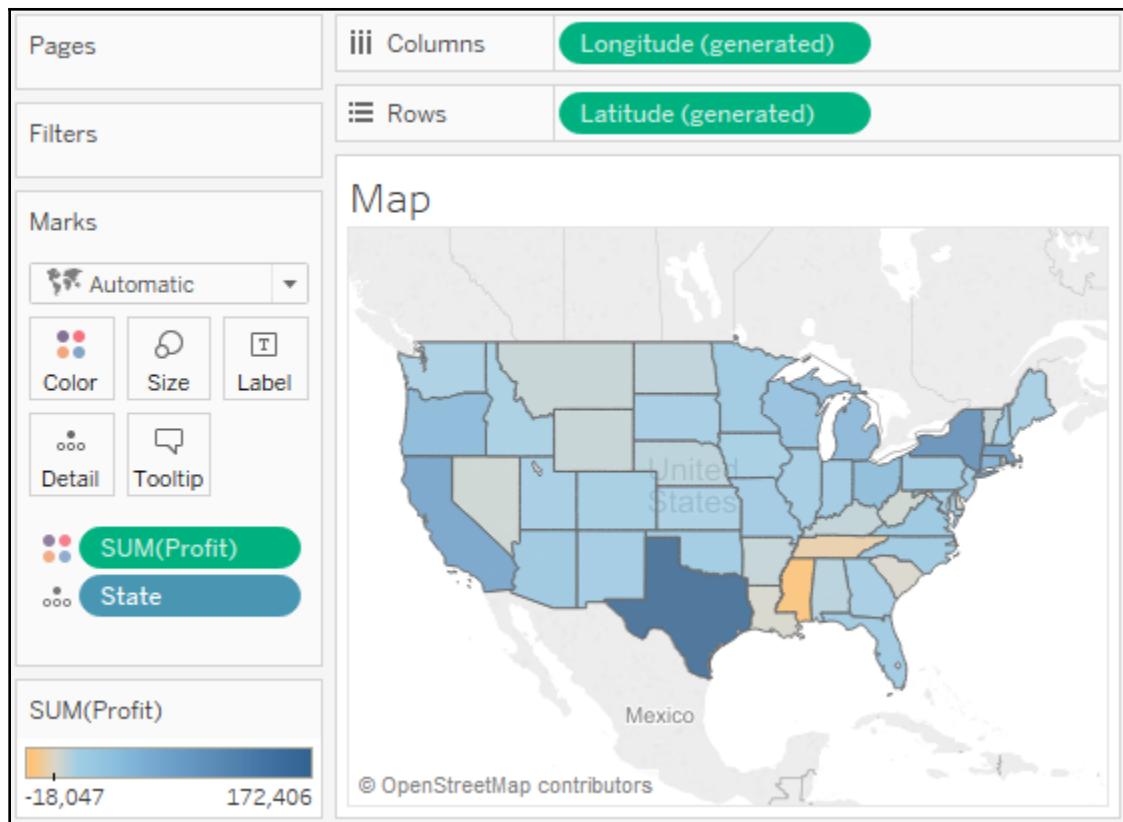
Profit by Department and Category



Profit by Department and Category

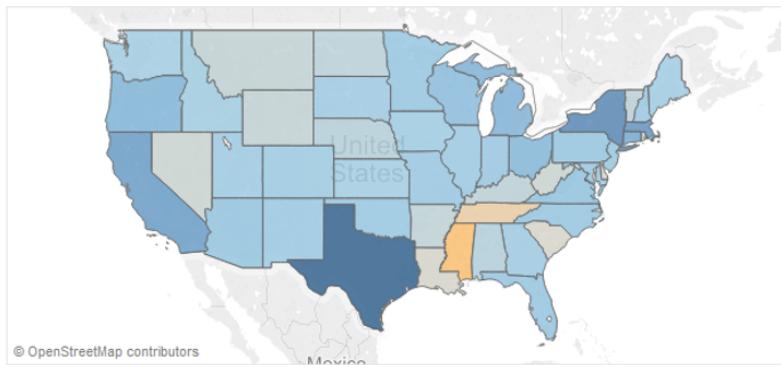






Bar Chart
collapsed

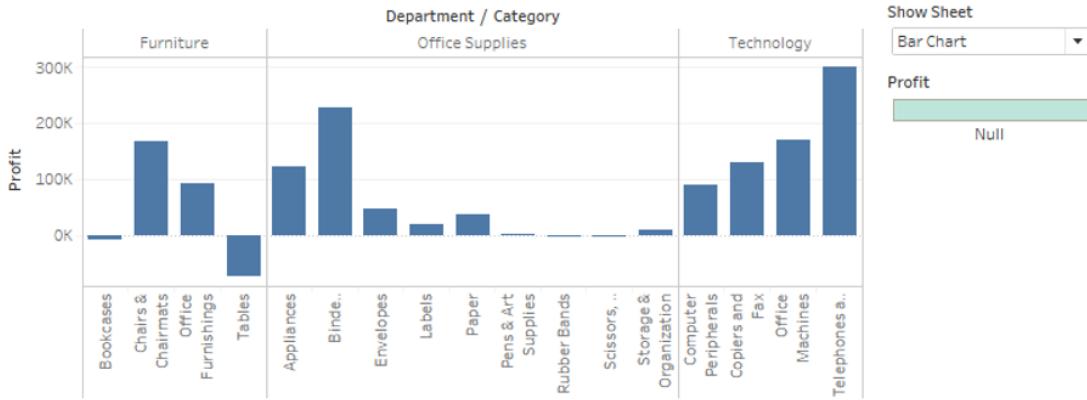
Map visible



Show Sheet
Map
Profit
-18,047 172,406

Bar Chart visible

Map
collapsed



Pages **AGG(MIN(1))**

Filters **AGG(MIN(1))**

Show/Hide Legend

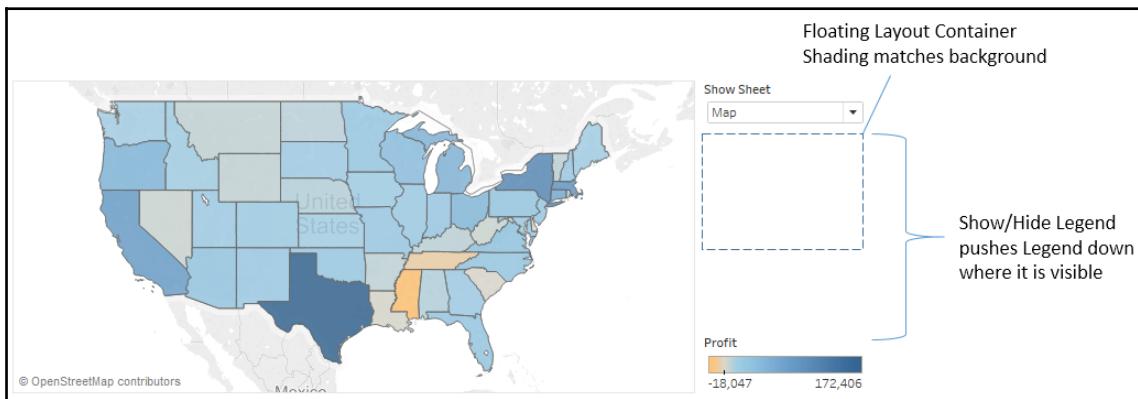
Show Sheet **Map**

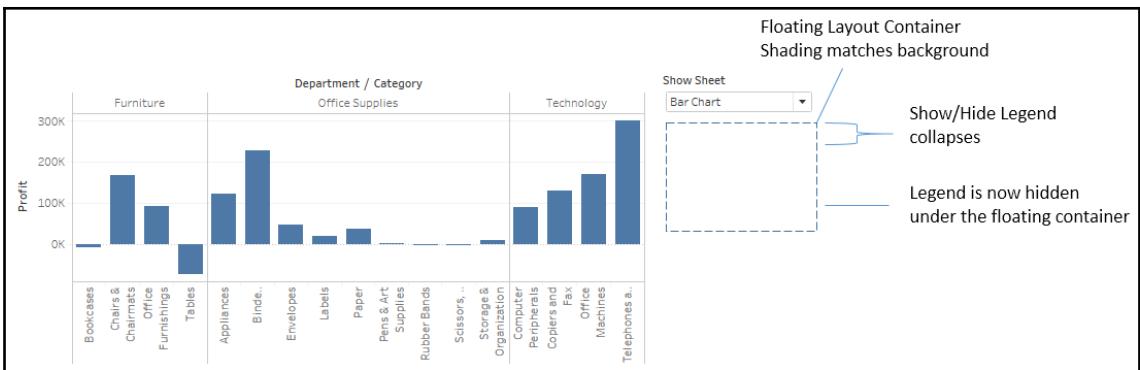
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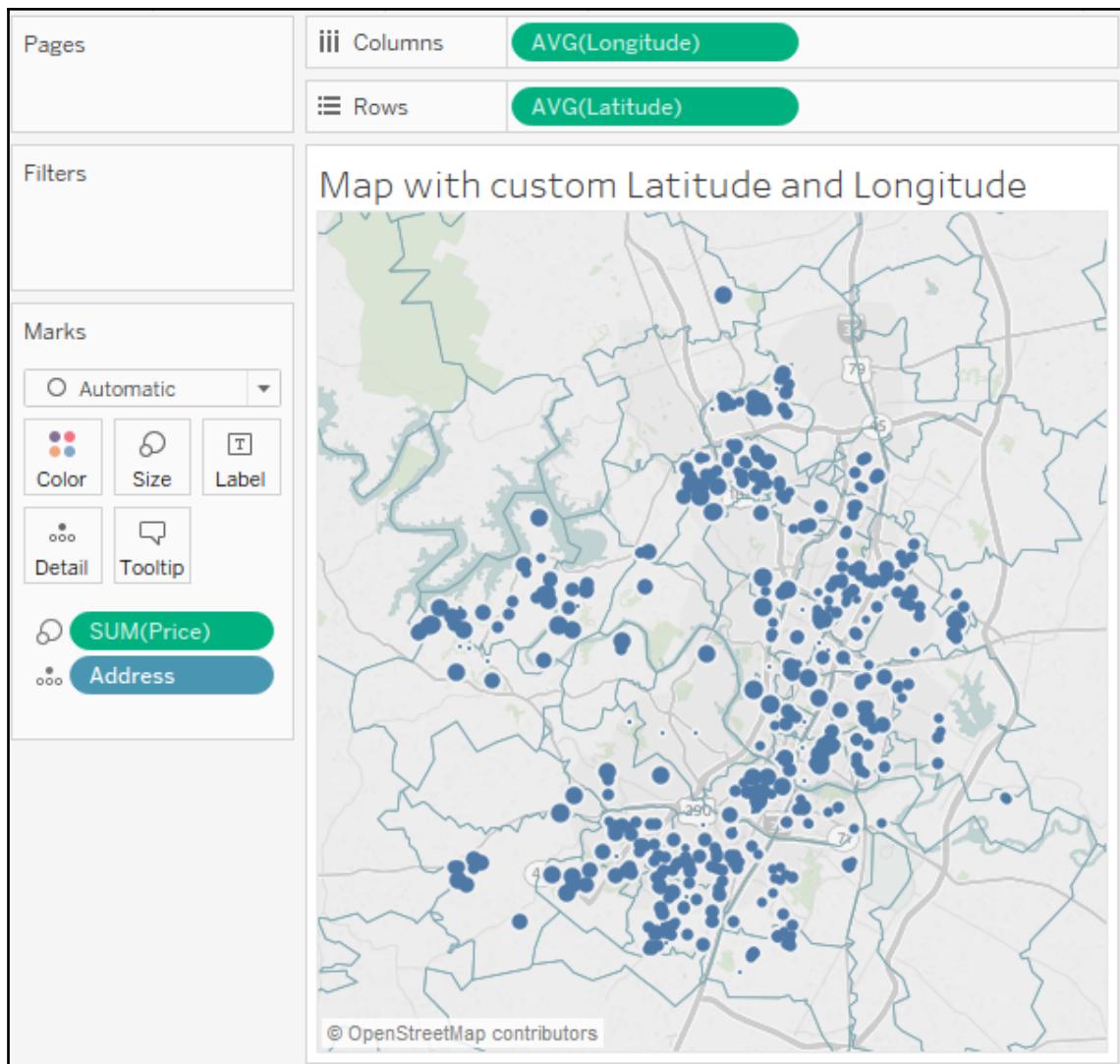
Automatic

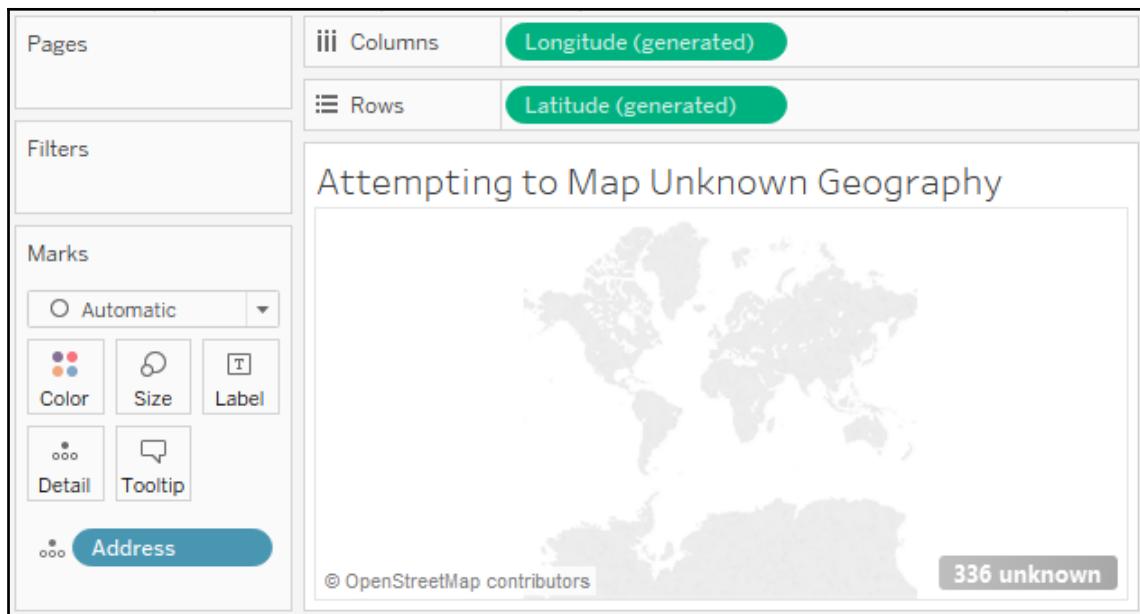
Color Size Label

Detail Tooltip Shape









Edit Locations X

Geographic roles

Country:

State:

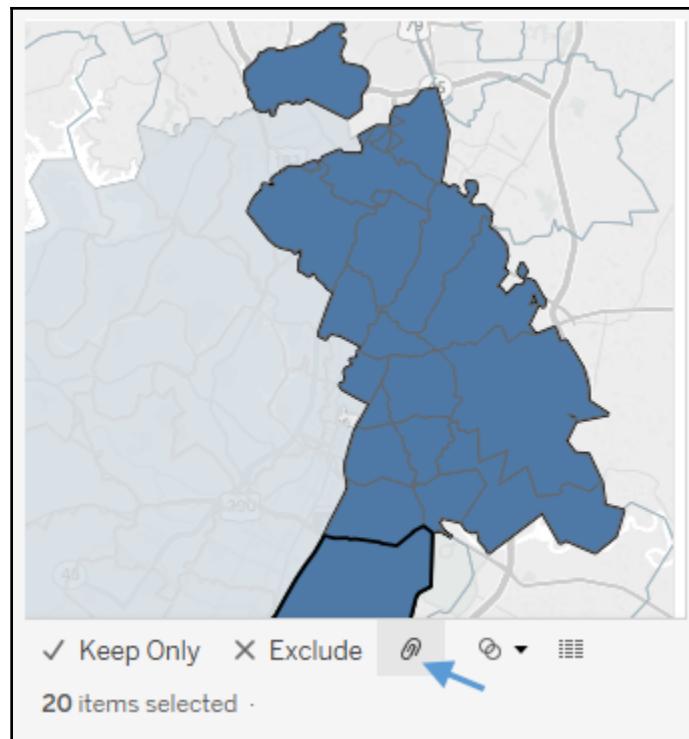
County: ! 117 issues

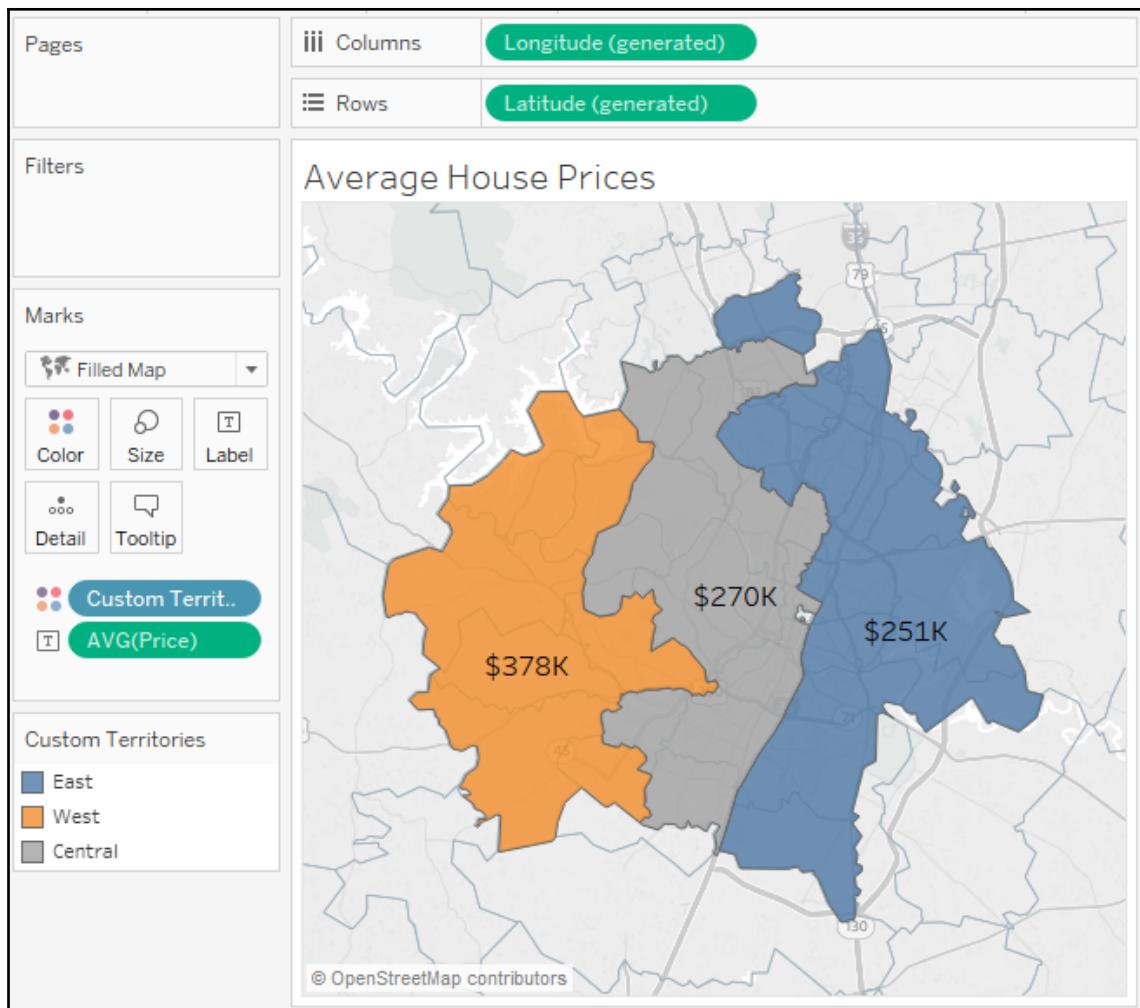
Match values to locations

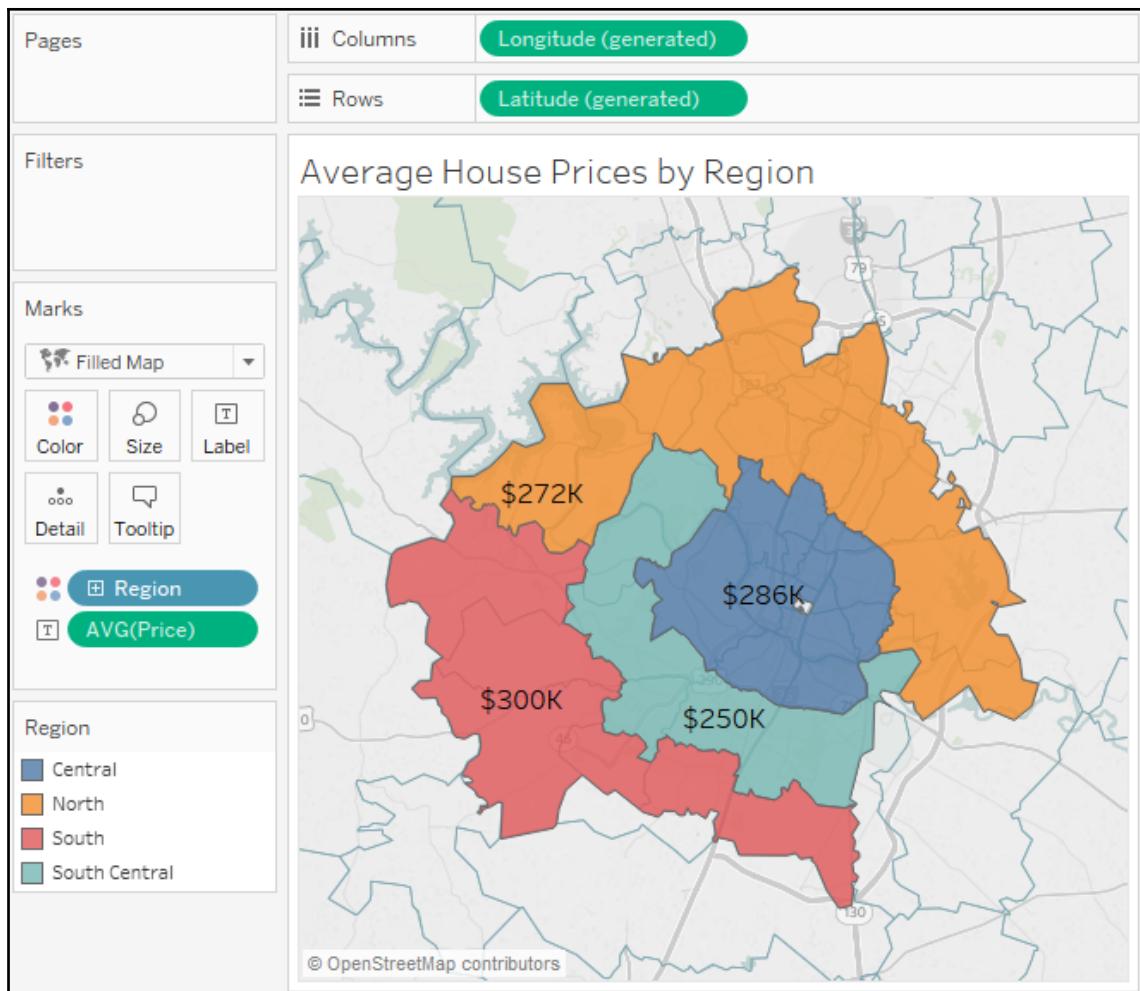
County

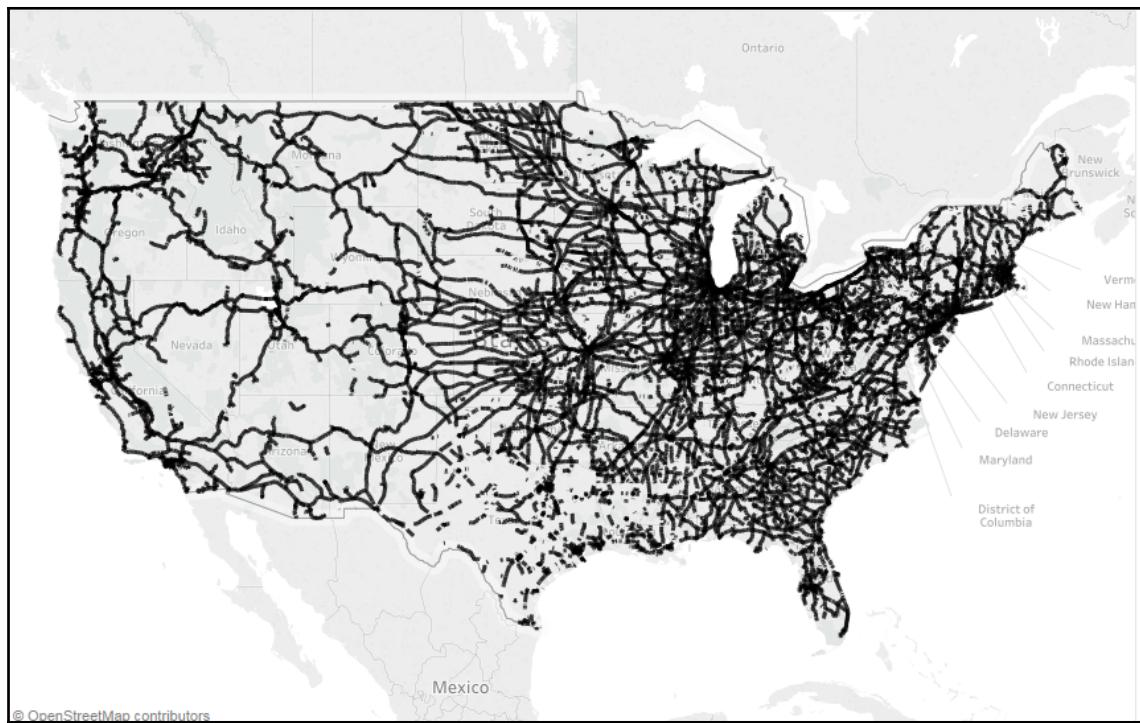
Your Data	Matching Location
12375 Stoepel St	Unrecognized
12385 E Horton Rd	Unrecognized
12455 Berkey Hwy	Unrecognized
12457 The Bend Rd	Unrecognized
12515 Frankfort Rd	Unrecognized
12700 Airport Rd	Unrecognized
12721 Lagoon Dr	Unrecognized
12755 Angola Rd	Unrecognized
12816 River Dance Dr	Unrecognized

Show only unmatched location in drop down list









Connections Add

Connections

tl_2015_us_rails Spatial file

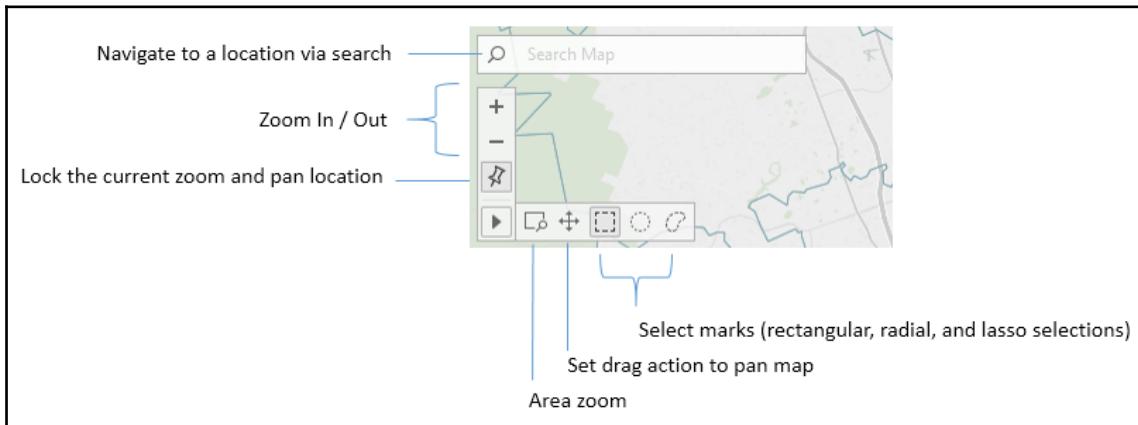
Files

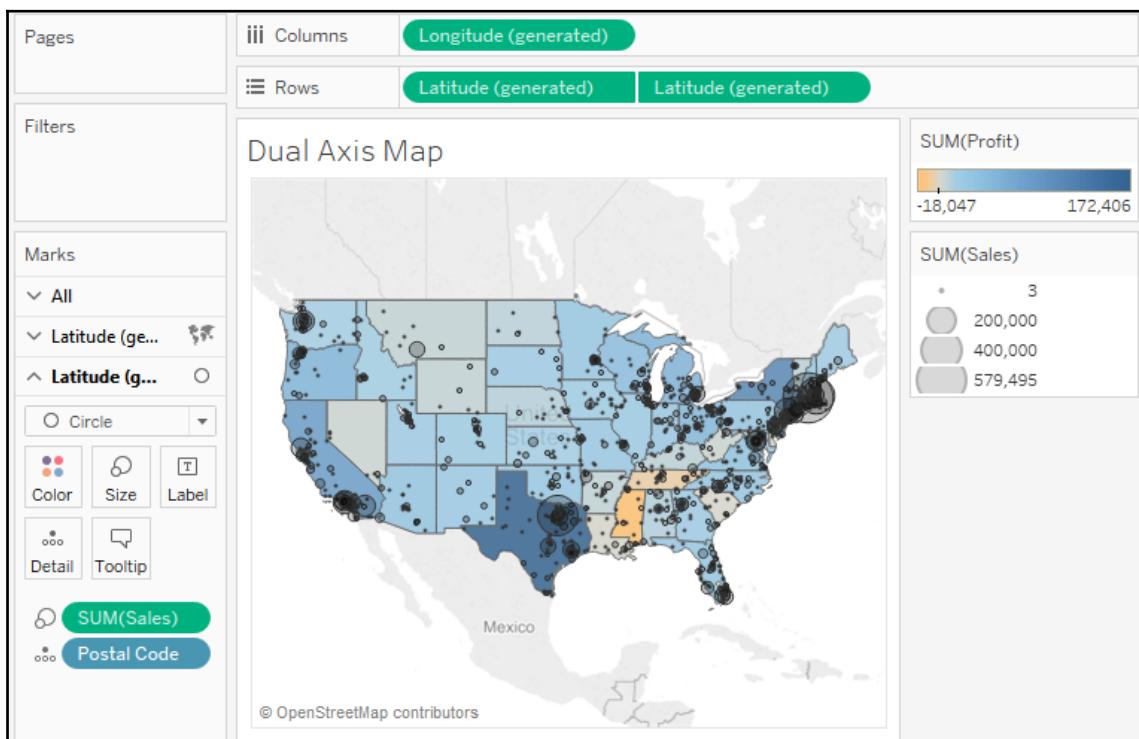
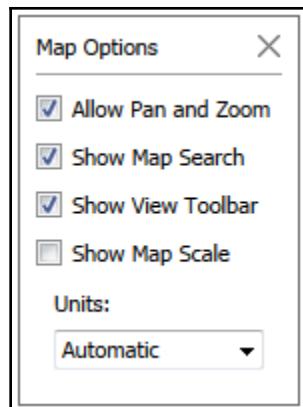
tl_2015_us_rails.shp

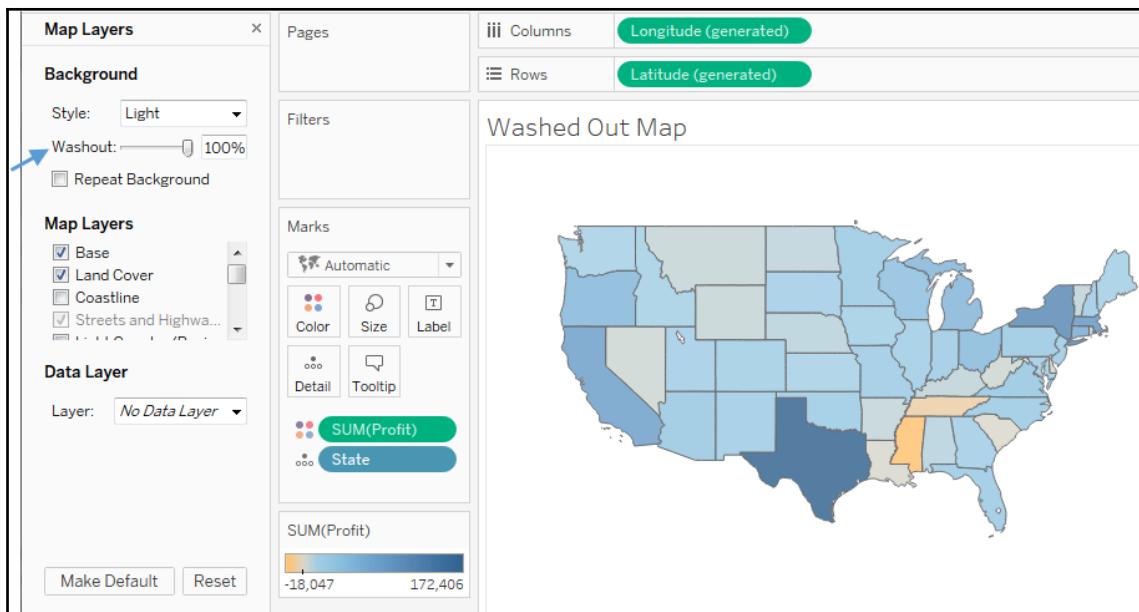
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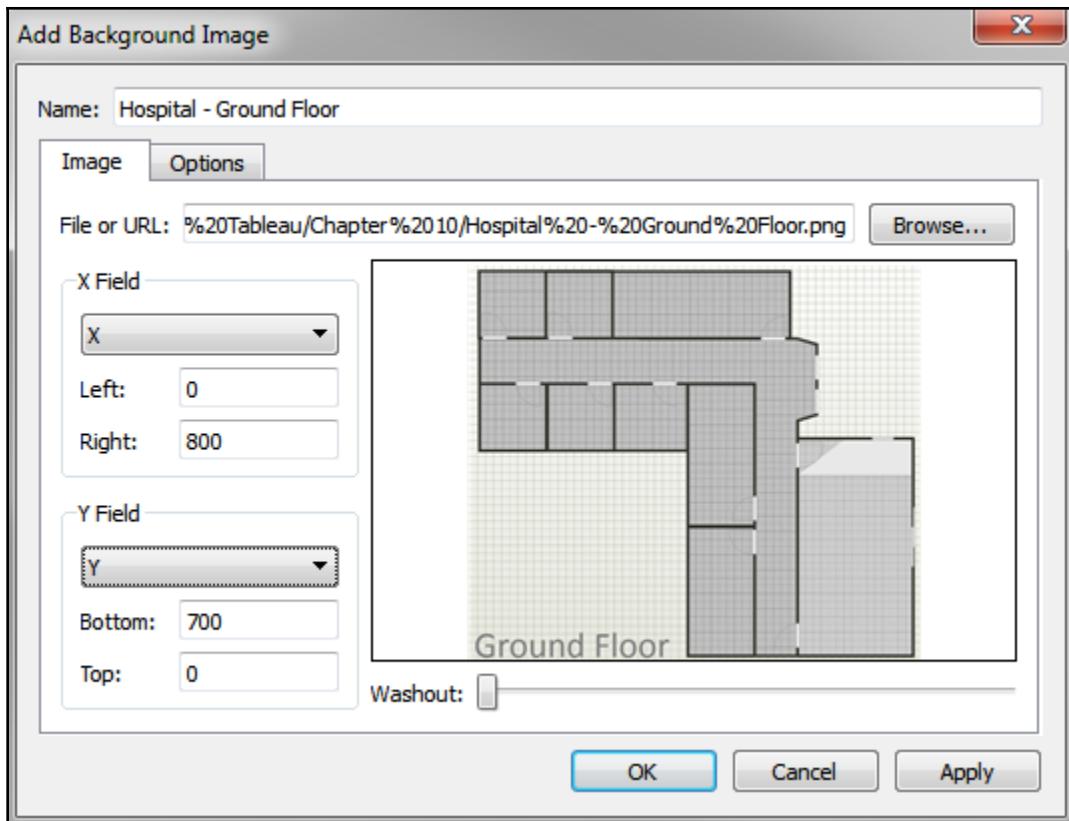
Sort fields Data source order

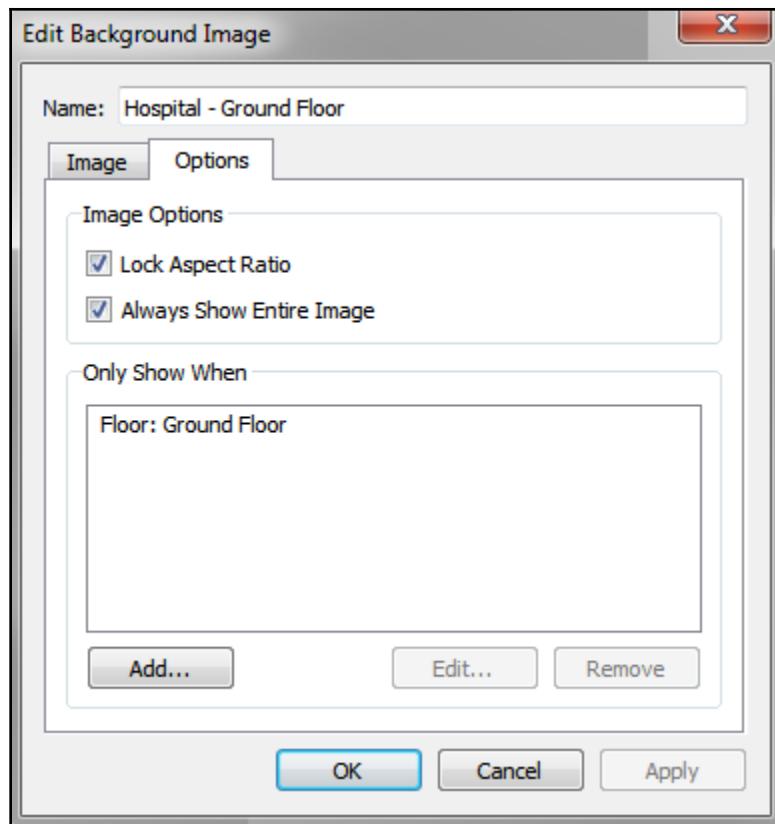
Abc tl_2015_us_rails.shp Linearid	Abc tl_2015_us_rails.shp Fullname	Abc tl_2015_us_rails.s... Mtfcc	tl_2015_us_rails.shp Geometry
110430696185	Union Pacific RR	R1011	LINESTRING
110430696262	Prescott and Northwestern RR	R1011	LINESTRING
110430744914	Norfolk Southern Rlwy	R1011	LINESTRING
110430744915	Norfolk Southern Rlwy	R1011	LINESTRING
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110430744917	Norfolk Southern Rlwy	R1011	LINESTRING

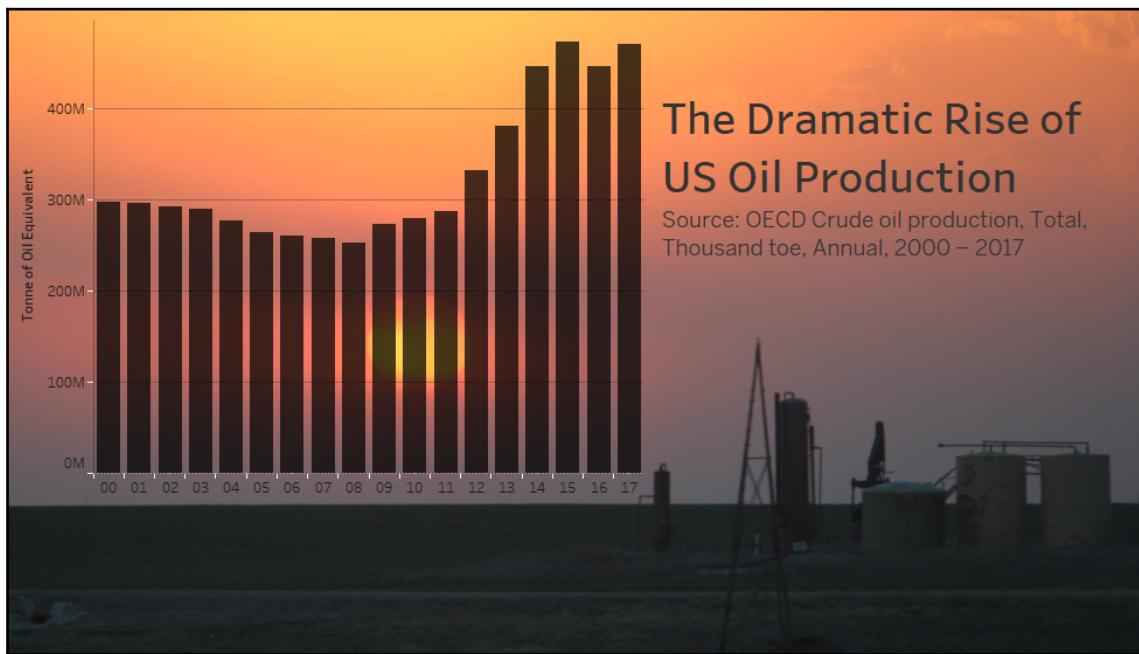
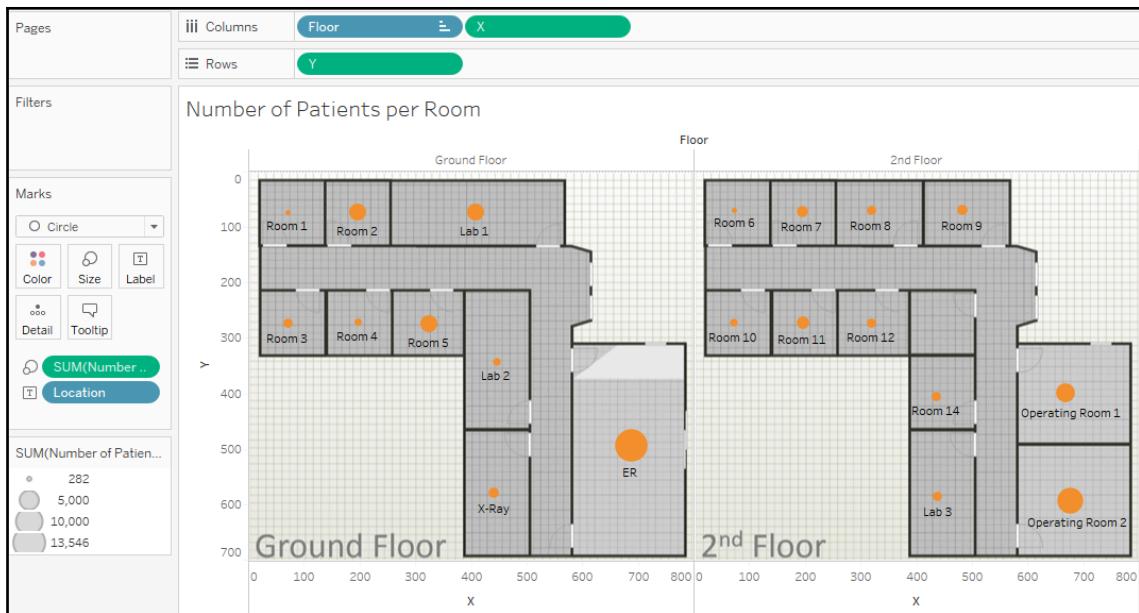


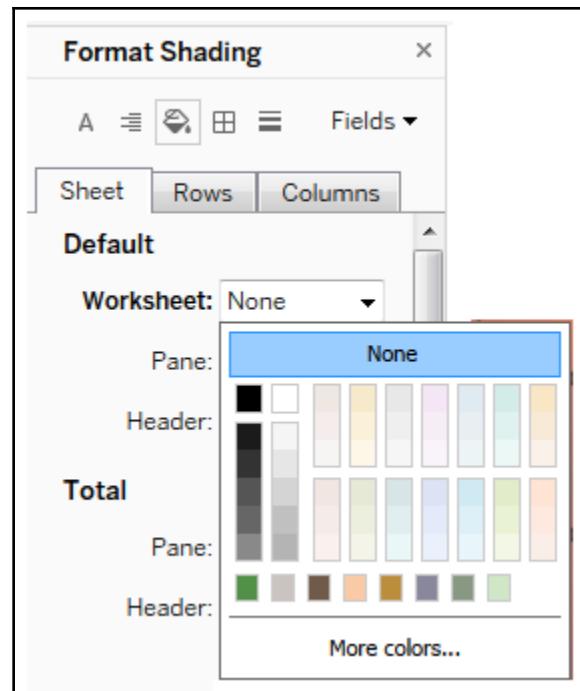


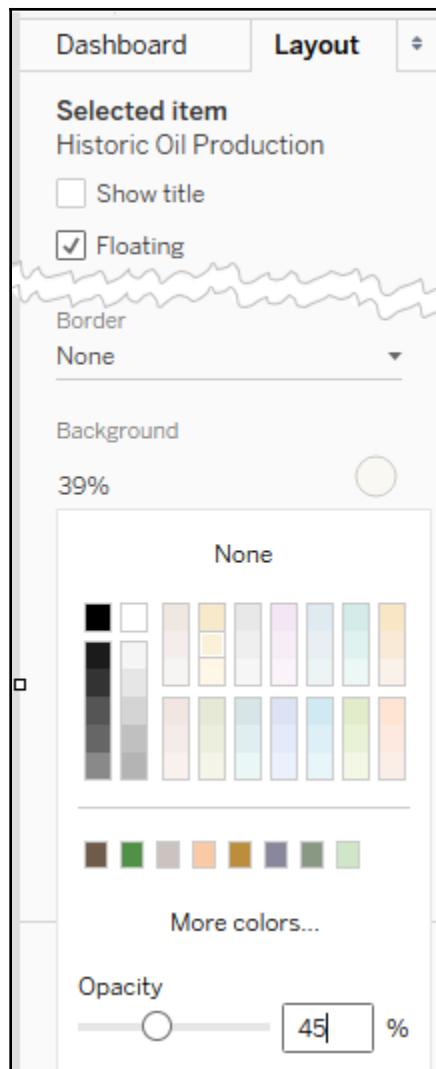




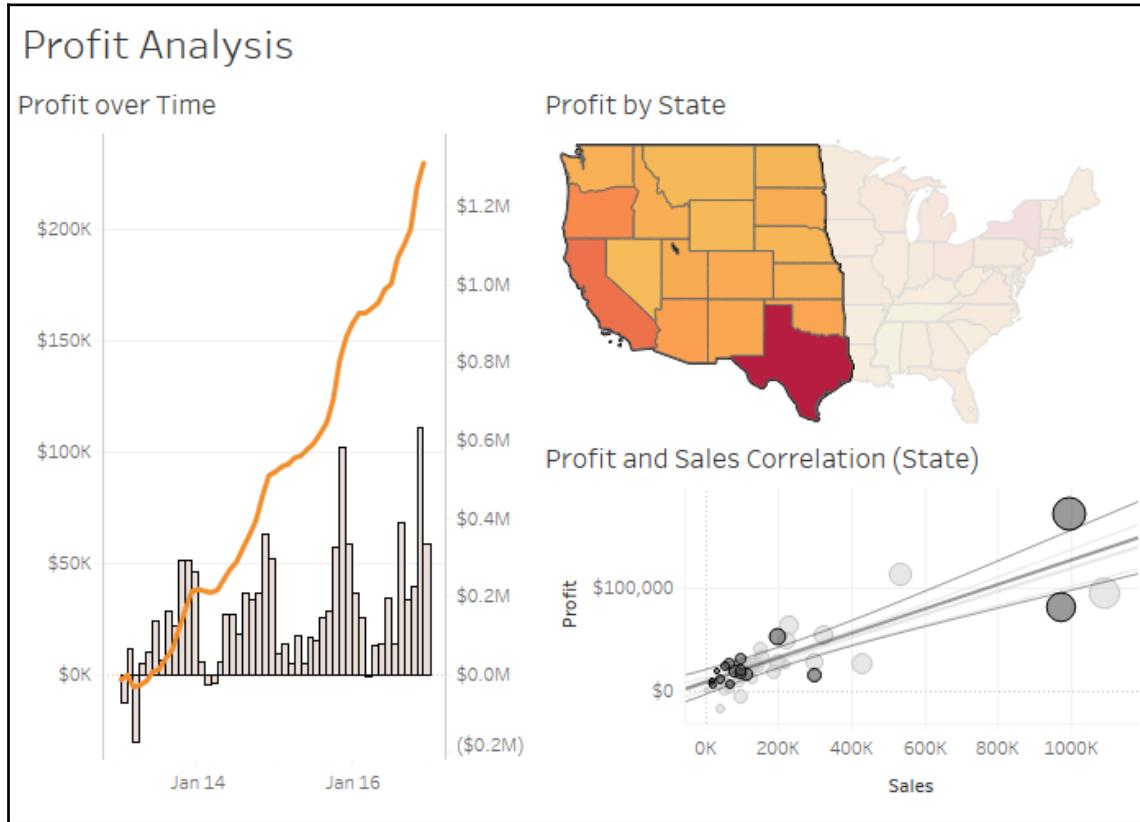


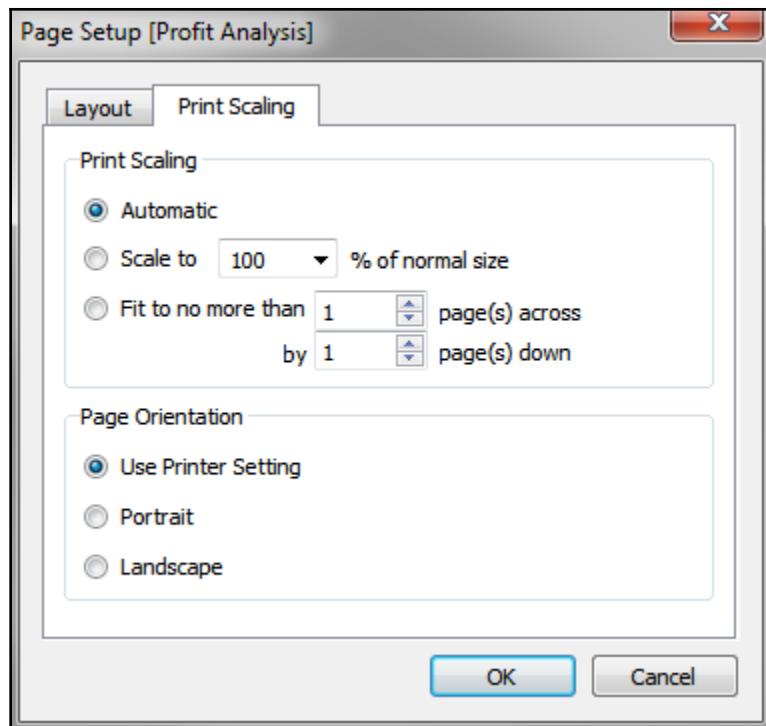


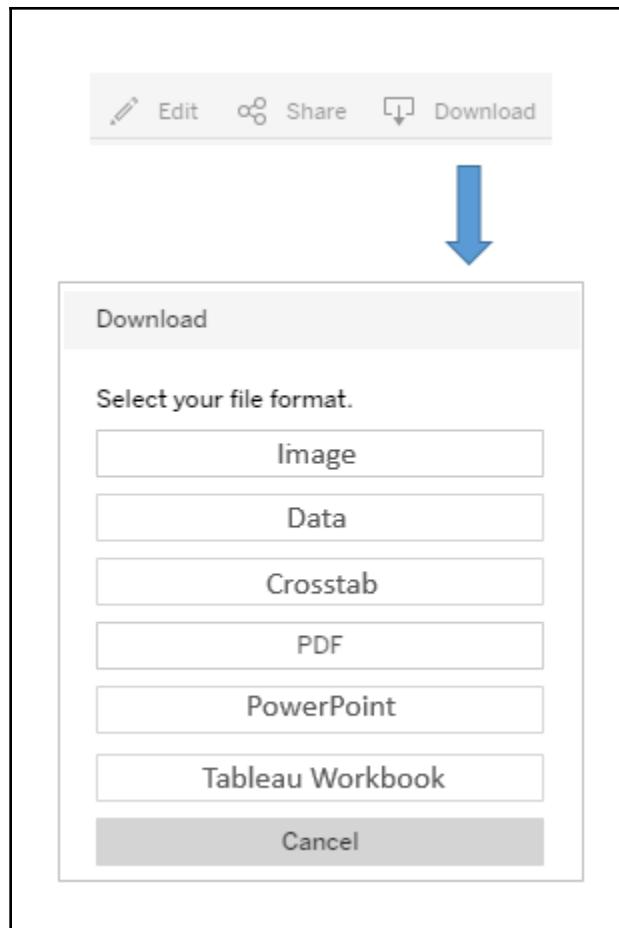




Chapter 12: Sharing Your Data Story









Publish Workbook to Tableau Online

X

Project

Default

Name

Engage

Description

Tags

Add

Sheets

All [Edit](#)

Permissions

Same as project (**Default**) [Edit](#)

Data Sources

1 embedded in workbook [Edit](#)

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