Tableau Desktop Certification

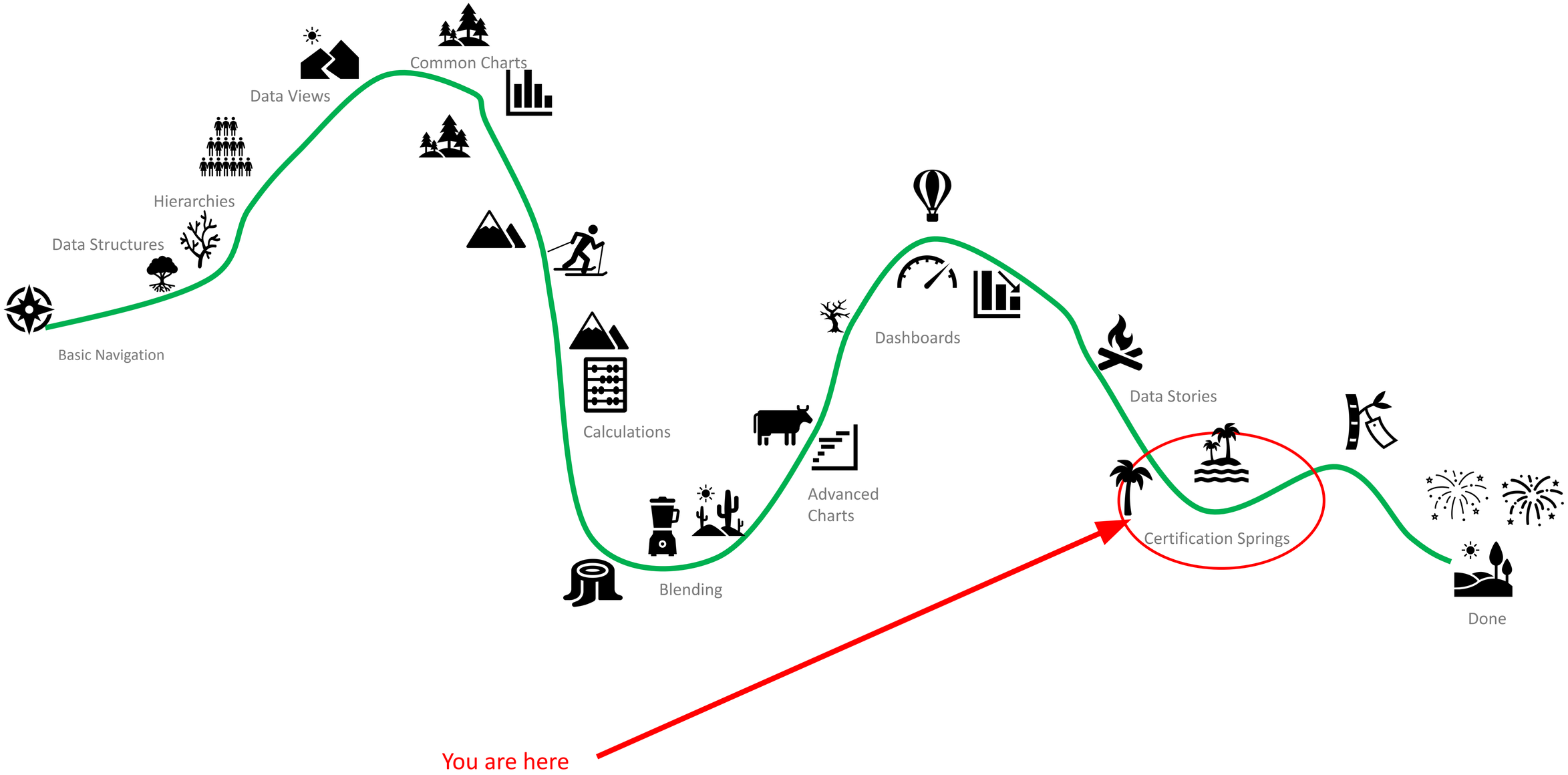

Basic Navigation
Data Structures
Hierarchies
Data Views
Common Charts
Calculations
Blending
Advanced Charts
Dashboards
Data Stories
Certification Springs
Done
You are here

Tableau Certifications

All Certifications

Tableau Desktop Specialist

Prove your basic skills and product knowledge

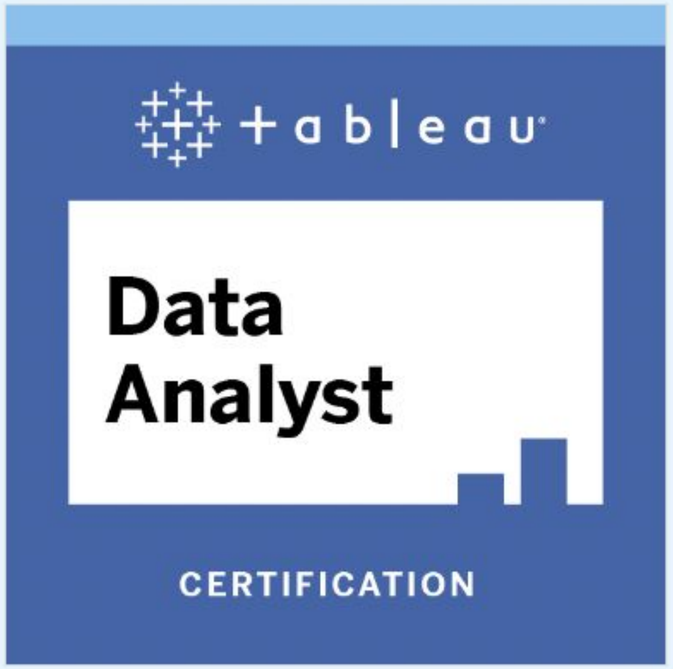


Tableau Certified Data Analyst

Get certified in the hottest role in data analytics.

Tableau Certified Server Associate

Prove your administrative skills and platform knowledge

Tableau Desktop Specialist Certification

Fee: ~~$100~~

Reschedule Fee: $25

Required Prerequisites: None

Suggested Product Experience: 3+ Months

Product Version: Currently testing on 2020.3

Title Valid For: No Expiration

Exam Prep Guide: Download here

Recommended Training: Explore courses

Language(s) Offered: English, Japanese, and Simplified Chinese

Format

Prerequisites

There are no required prerequisites for this exam. Everyone learns differently and every day use of Tableau varies. Recommendations for learning resources and experience with the product are guidelines, not requirements.

Exam Format

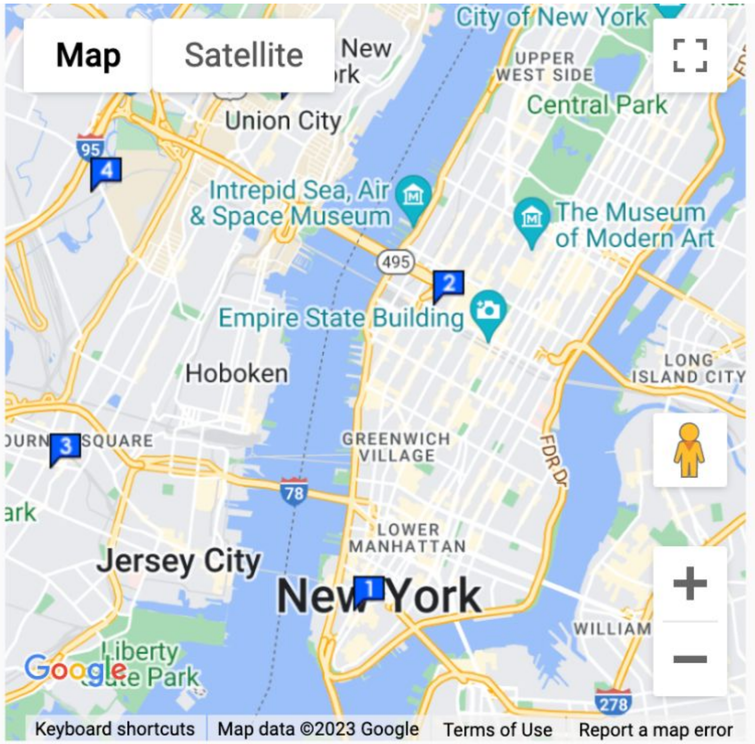
- **Time Limit:** 60 minutes
- **Question Format:** Multiple choice, multiple response
- **Number of Questions:** 45 (40 scored, 5 unscored)
- **Passing Score:** The passing scaled score for this exam is 750.
- **Language(s) Offered:** English, Japanese, and Simplified Chinese.
- **Exam Delivery Method:** Testing center and online delivery are both available. Learn more about the check-in process and testing experience for each method

Test Rubric

Domain Title	% of Exam Content
Domain 1: Connecting to & Preparing Data	25%
Domain 2: Exploring & Analyzing Data	35%
Domain 3: Sharing Insights	25%
Domain 4: Understanding Tableau Concepts	15%
TOTAL	100%

Pearson Authorized Test Centers

Test Center	Distance (Show km)
AVNA Learning Center-NYC 139 Fulton St. Unit 605 New York, New York 10038 United States Test Center Information	0.2 mi
Ace Institute of Technology 312 West 36th Street 2nd Floor New York, New York 10018 United States Test Center Information	2.9 mi
AVNA Learning Center 26 Journal Square Suite 803 Jersey City, New Jersey 07306 United States Test Center Information	3.3 mi



Testing space requirements:

The place where you'll take your exam is one of your most crucial decisions. See below for general information or visit the online testing guide for more specifics.

General:

- Choose an enclosed, private space. An ideal testing space will allow you to close all doors to avoid interruptions, since **no one else may enter or even pass through your space once you've started your exam.**
- Make sure it's well-lit, but be aware that too much background light (natural or electric) could create visibility issues for your proctor.
- Avoid testing near windows or glass partitions to prevent others from viewing your screen.
- Be prepared to take photos of your testing space during check-in.

Monitor and webcam:

- **You may only use one monitor during your exam.** If using an external monitor, your laptop lid must be closed. The use of touchscreen technology is prohibited.
- Position your monitor to face you directly and stay within the webcam's view throughout your exam. **No one else may appear through the webcam during the exam** and no one else's voice should be heard.

Desk/workspace:

- Clear your desk/workspace of all personal and preparatory items, except for those allowed by your exam program.
- Keep your mobile phone in the room where you're testing, but out of arm's reach.

ID requirements for testing online

Make sure you have acceptable ID

Before testing online, you'll need to provide identification (ID) that meets the requirements outlined below.

- All IDs must be valid government-issued originals (i.e., not a photocopy)
- IDs must include the test-taker's name and a recent, recognizable photo
- The first and last name on the ID must match the first and last name used to register for the exam
- Acceptable forms of ID:
  - I**nternational travel passport**
  - **Driver's license**
  - **Identification card (national, state or province ID card)**
  - **Alien registration card (green card or permanent resident/visa)**
- Unacceptable IDs:
  - Restricted IDs*, including the U.S. Department of Defense (DoD) Common Access Card (CAC) or certain secure access IDs
  - IDs from countries where OnVUE delivery is restricted: North Korea, Cuba, Syria, Sudan, Iran and the Sevastopol/Crimea region of Ukraine.

STEP 1. Do any last-minute prep

Be sure your computer and internet pass the pre-exam system test.
Clear your desk/workspace of prohibited items and prep your equipment.
Get your ID ready to present.

STEP 2. Check in

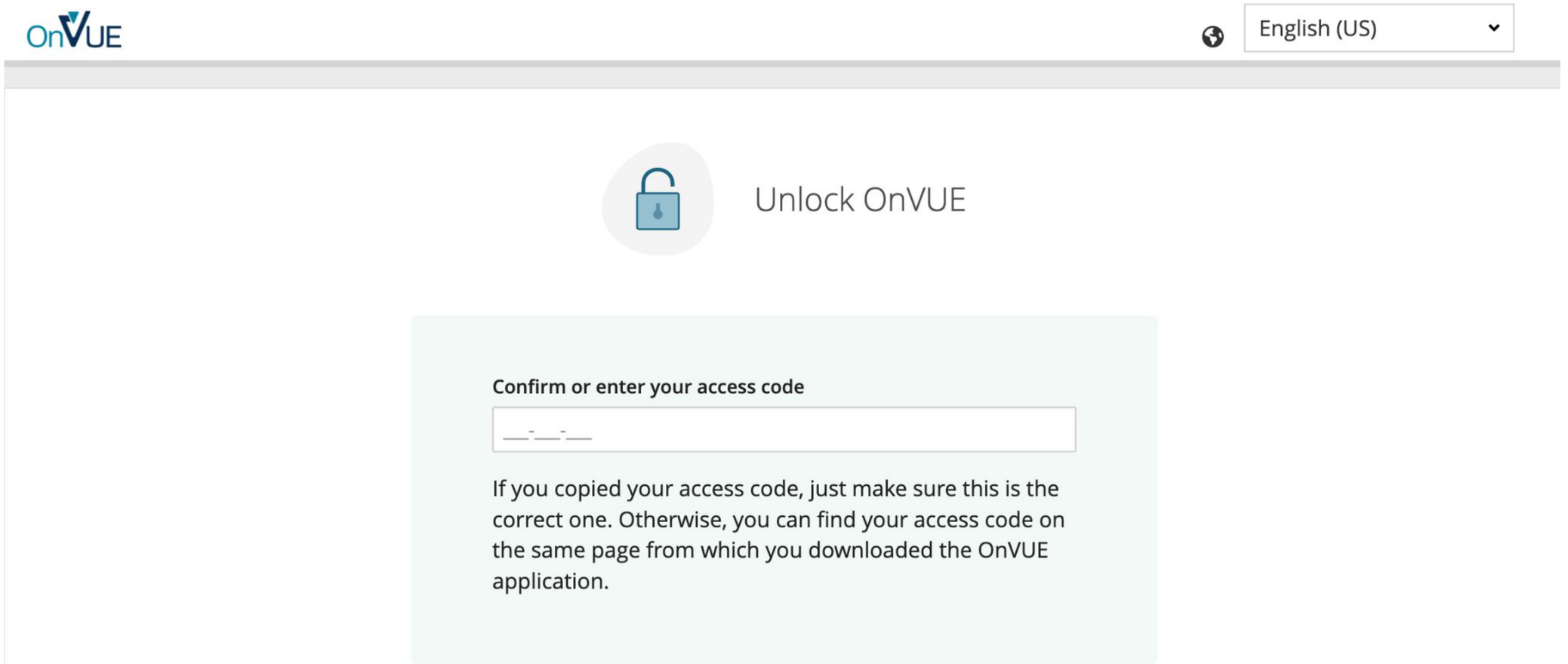
You can begin the check-in process up to 30 minutes before to 15 minutes after your appointment time.

STEP 3. Start your exam

While testing, it’s best to focus on the questions and not get distracted. Observe all the environmental and behavioral rules. If you need help during your exam, use the chat icon to request assistance.

Test Space

The OnVue Secure Browser



Domain 1: Connecting to & Preparing Data

1.1 Create live connections and extracts

- 1.1.1 Create a live connection to a data source
- 1.1.2 Explain the differences between using live connections versus extracts
- 1.1.3 Create an extract
- 1.1.4 Save metadata properties in a .TDS
- 1.1.5 Create a data source that uses multiple connections

1.2 Create and manage the data model

- 1.2.1 Add relationships to a data source
- 1.2.2 Add joins and unions
- 1.2.3 Explain when to use a join versus a relationship

1.3 Manage data properties

- 1.3.1 Rename a data field
- 1.3.2 Assign an alias to a data value
- 1.3.3 Assign a geographic role to a data field
- 1.3.4 Change data type for a data field (number, date, string, Boolean, etc.)
- 1.3.5 Change default properties for a data field (number format, aggregation, color, date format, etc.)

Live vs. Extract

Live connection

A data source that contains direct connection to underlying data

Tableau makes queries directly against the data source

Won’t work if not connected

Need to enter credentials

Extract

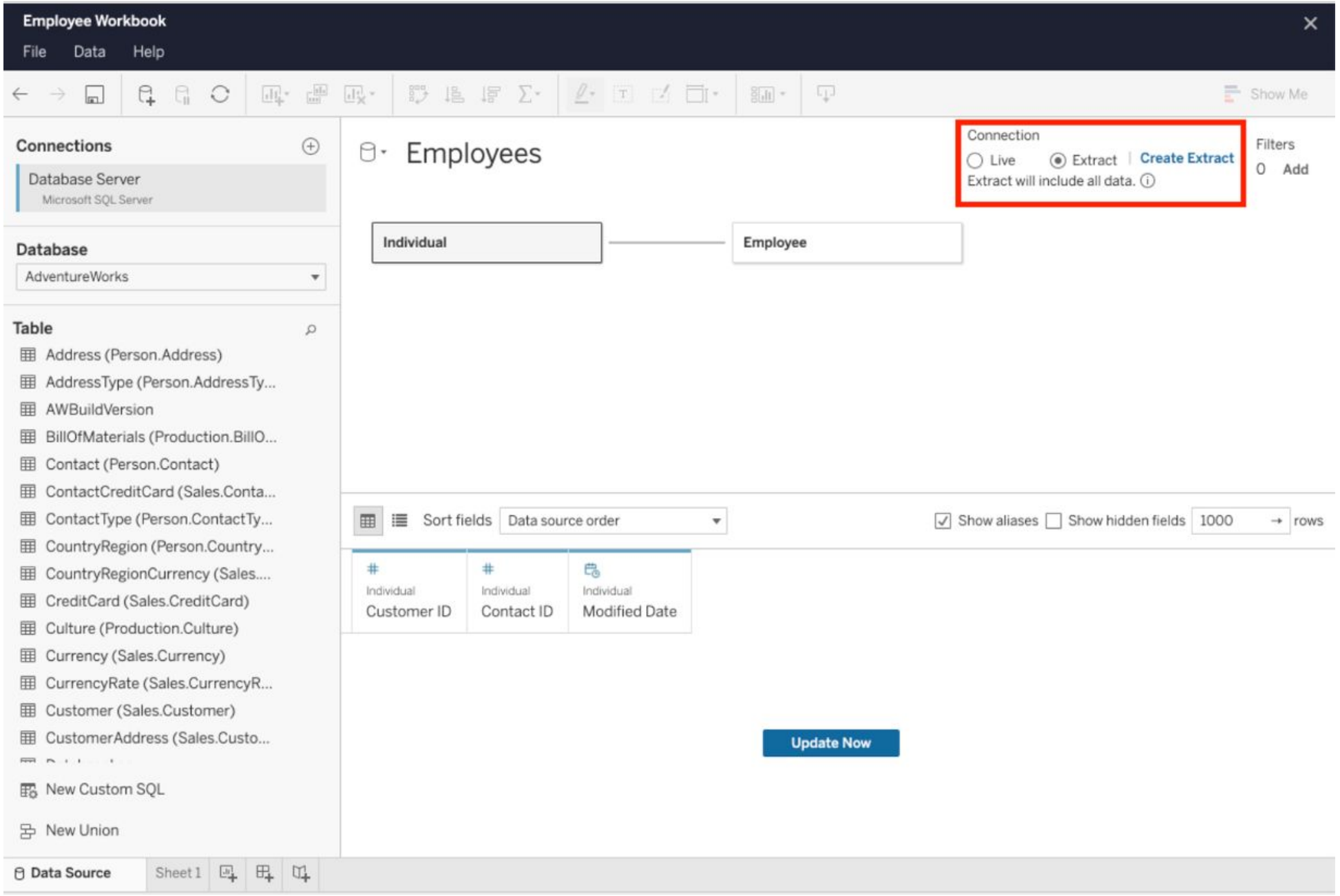
Saved subsets of data

Better performance than live

Full refresh/incremental refresh (only adds new rows)

Works without connection

No credentials


Employee Workbook
File
Data
Help
Show Me
Connections
Database Server
Microsoft SQL Server
Database
AdventureWorks
Table
Address (Person.Address)
AddressType (Person.AddressTy...
AWBuildVersion
BillOfMaterials (Production.BillO...
Contact (Person.Contact)
ContactCreditCard (Sales.Conta...
ContactType (Person.ContactTy...
CountryRegion (Person.Country...
CountryRegionCurrency (Sales....
CreditCard (Sales.CreditCard)
Culture (Production.Culture)
Currency (Sales.Currency)
CurrencyRate (Sales.CurrencyR...
Customer (Sales.Customer)
CustomerAddress (Sales.Custo...
New Custom SQL
New Union
Employees
Connection
Live
Extract
Create Extract
Extract will include all data.
Filters
0
Add
Individual
Employee
Sort fields
Data source order
Show aliases
Show hidden fields
1000
rows
Individual
Customer ID
Individual
Contact ID
Individual
Modified Date
Update Now
Data Source
Sheet 1

- **Workbooks (.twb)** – Tableau workbook files have the .twb file extension. Workbooks hold one or more worksheets, plus zero or more dashboards and stories.

- **Bookmarks (.tbm)** – Tableau bookmark files have the .tbm file extension. Bookmarks contain a single worksheet and are an easy way to quickly share your work.

- **Packaged Workbooks (.twbx)** – Tableau packaged workbooks have the .twbx file extension. A packaged workbook is a single zip file that contains a workbook along with any supporting local file data and background images. This format is the best way to package your work for sharing with others who don't have access to the original data.

- **Extract (.hyper or .tde)** – Depending on the version the extract was created in, Tableau extract files can have either the .hyper or .tde file extension. Extract files are a local copy of a subset or entire data set that you can use to share data with others, when you need to work offline, and improve performance.

- **Data Source (.tds)** – Tableau data source files have the .tds file extension. Data source files are shortcuts for quickly connecting to the original data that you use often. Data source files do not contain the actual data but rather the information necessary to connect to the actual data as well as any modifications you've made on top of the actual data such as changing default properties, creating calculated fields, adding groups, and so on.

- **Packaged Data Source (.tdsx)** – Tableau packaged data source files have the .tdsx file extension. A packaged data source is a zip file that contains the data source file (.tds) described above as well as any local file data such as extract files (.hyper or .tde), text files, Excel files, Access files, and local cube files. Use this format to create a single file that you can then share with others who may not have access to the original data stored locally on your computer.

Relationship vs. Join

Relationship

Logical layer

Noodles

Flexible

Good with different levels of aggregation

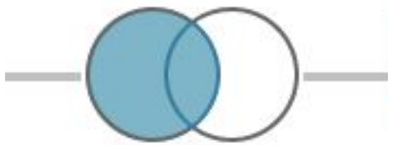
Join

Physical layer

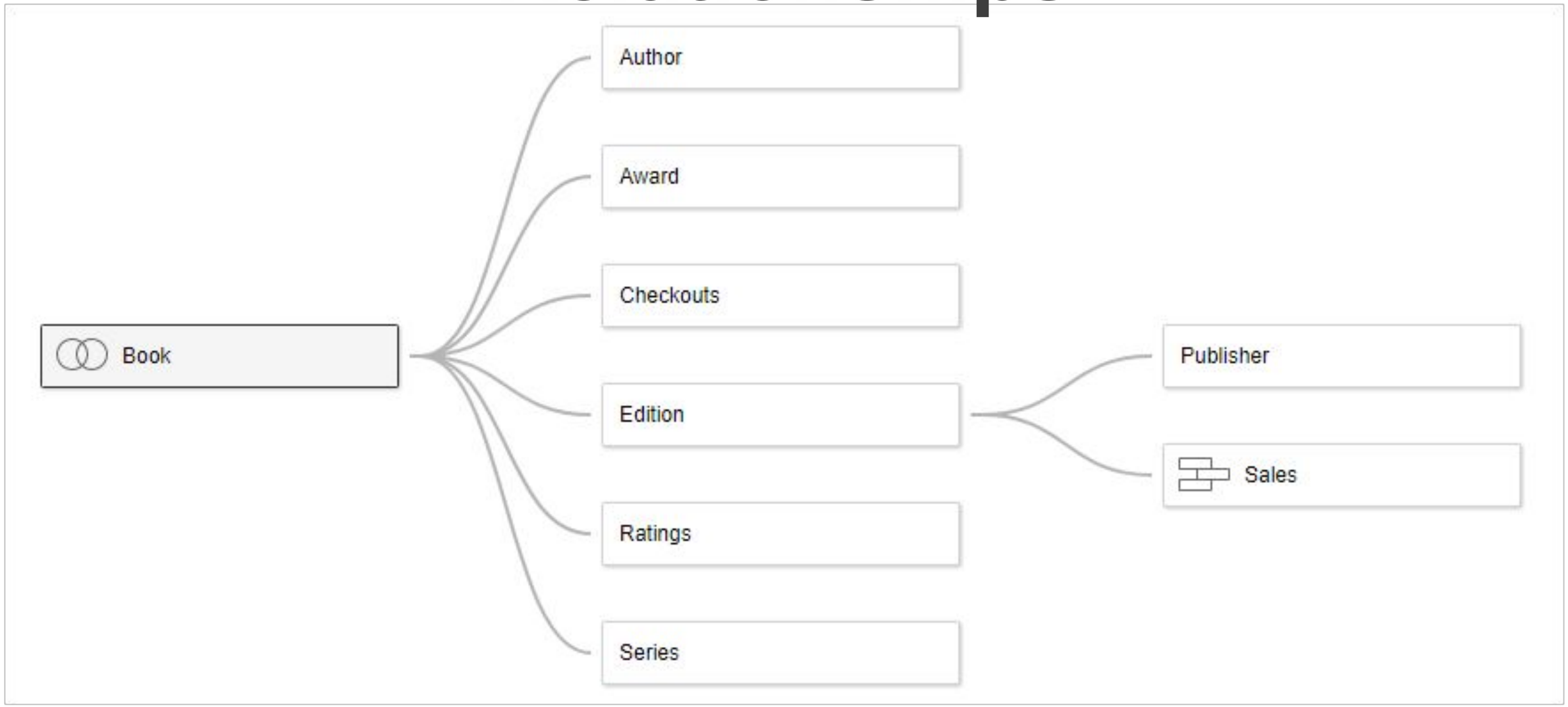
Rings

Rigid

Trouble with aggregation at different levels of detail



Relationships



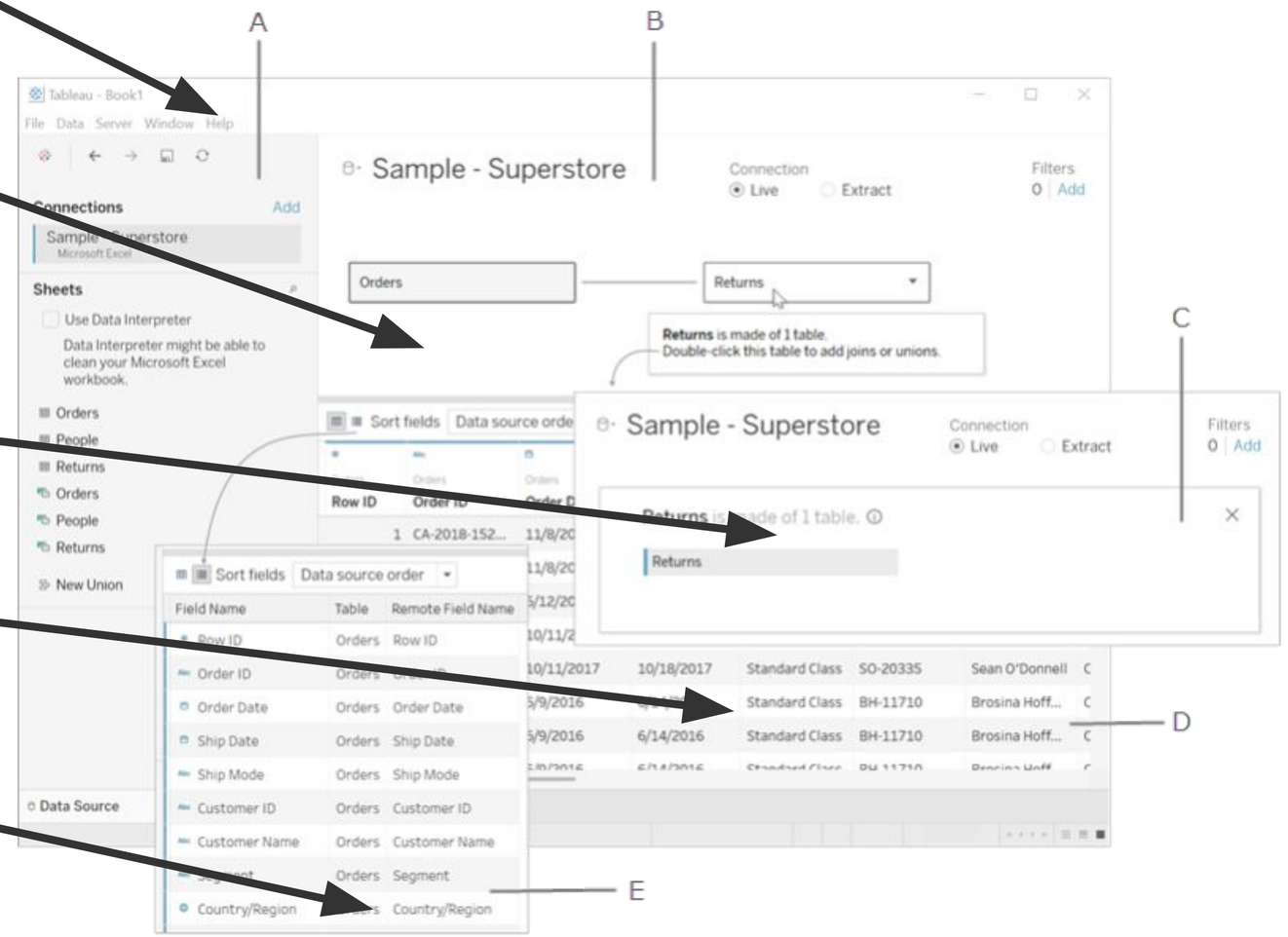
A. Left pane - Displays the connected data source and other details about your data.

B. Canvas: logical layer - The canvas opens with the logical layer, where you can create relationships between logical tables.

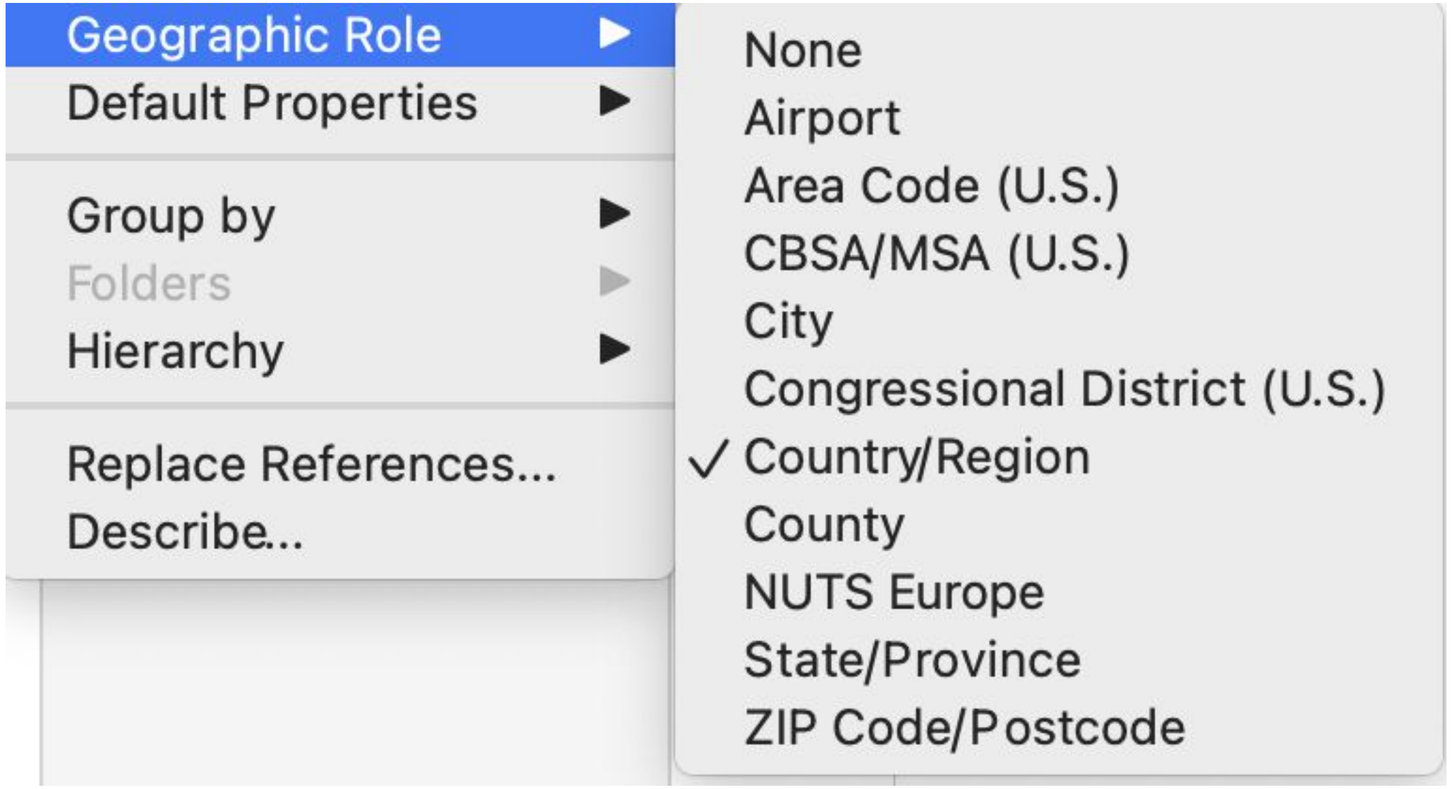
C. Canvas: physical layer - Double-click a table in the logical layer to go to the physical layer of the canvas, where you can add joins and unions between tables.

D. Data grid - Displays first 1,000 rows of the data contained in the Tableau data source.

E. Metadata grid - Displays the fields in your data source as rows.

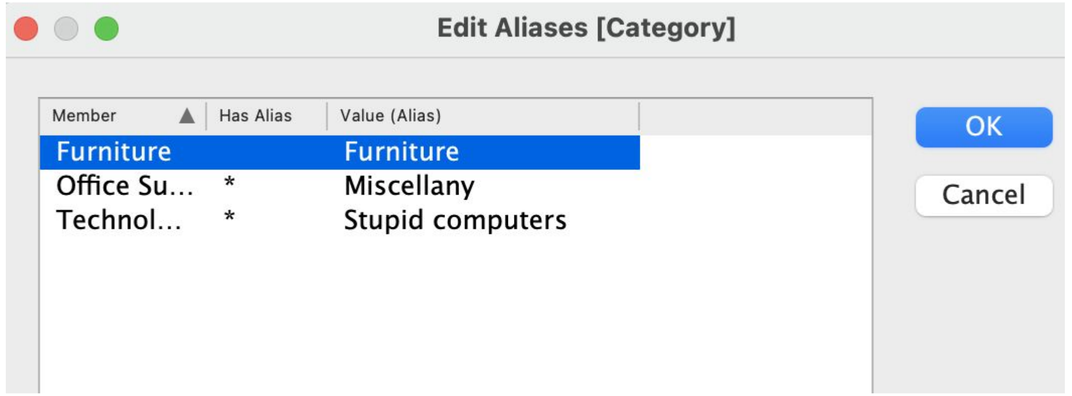


Geographic Roles



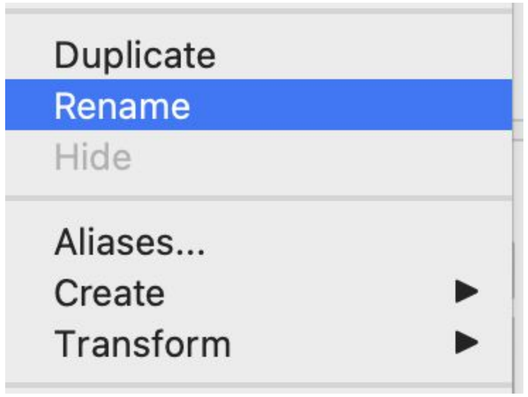
Alias and Rename

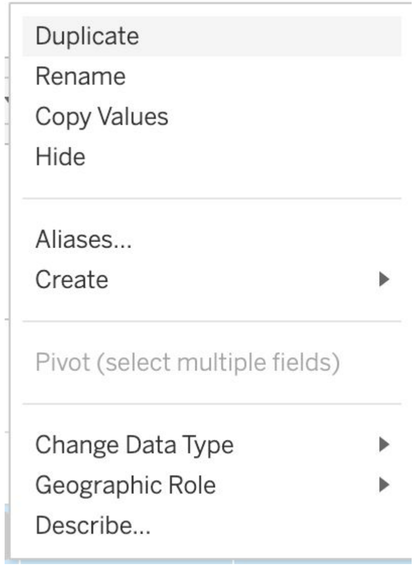
Aliases are for discrete categories



You can rename a variable by right clicking on its name

or in the metadata grid on the data connection



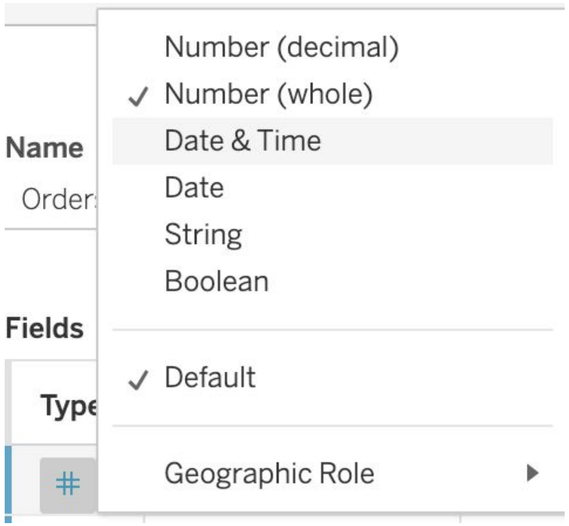


Change Data Type

You can change data type from the data pane

or

the metadata grid on the data connection page



Knowledge Check

1. Connecting multiple tables on the logical level is what kind of connection?
2. Why is a data extract preferable to a live data connection?
3. To change a data type in the metadata grid you should click on what?
4. What is stored in a .tds file?
5. Can a measure be discrete?
6. Is time zone a geographic role?

Domain 2: Exploring & Analyzing Data

2.1 Create basic charts

- 2.1.1 Create a bar chart
- 2.1.2 Create a line chart
- 2.1.3 Create a scatterplot
- 2.1.4 Create a map using geographic data
- 2.1.5 Create a combined axis chart
- 2.1.6 Create a dual axis chart
- 2.1.7 Create a stacked bar
- 2.1.8 Create a density map
- 2.1.9 Create a chart to show specific values (crosstab, highlight table)

2.2 Organize data and apply filters

- 2.2.1 Create groups by using marks, headers, and the data pane
- 2.2.2 Create sets by using marks and the data pane
- 2.2.3 Organize dimensions into a hierarchy
- 2.2.4 Add a filter to a view
- 2.2.5 Add a date filter

2.3 Apply analytics to a worksheet

- 2.3.1 Add a manual or a computed sort
- 2.3.2 Add a reference line
- 2.3.3 Use a quick table calculation
- 2.3.4 Use bins and histograms
- 2.3.5 Create a calculated field (e.g. string, date, simple arithmetic)
- 2.3.6 Explain when to use a parameter
- 2.3.7 Display totals on a worksheet

Charts

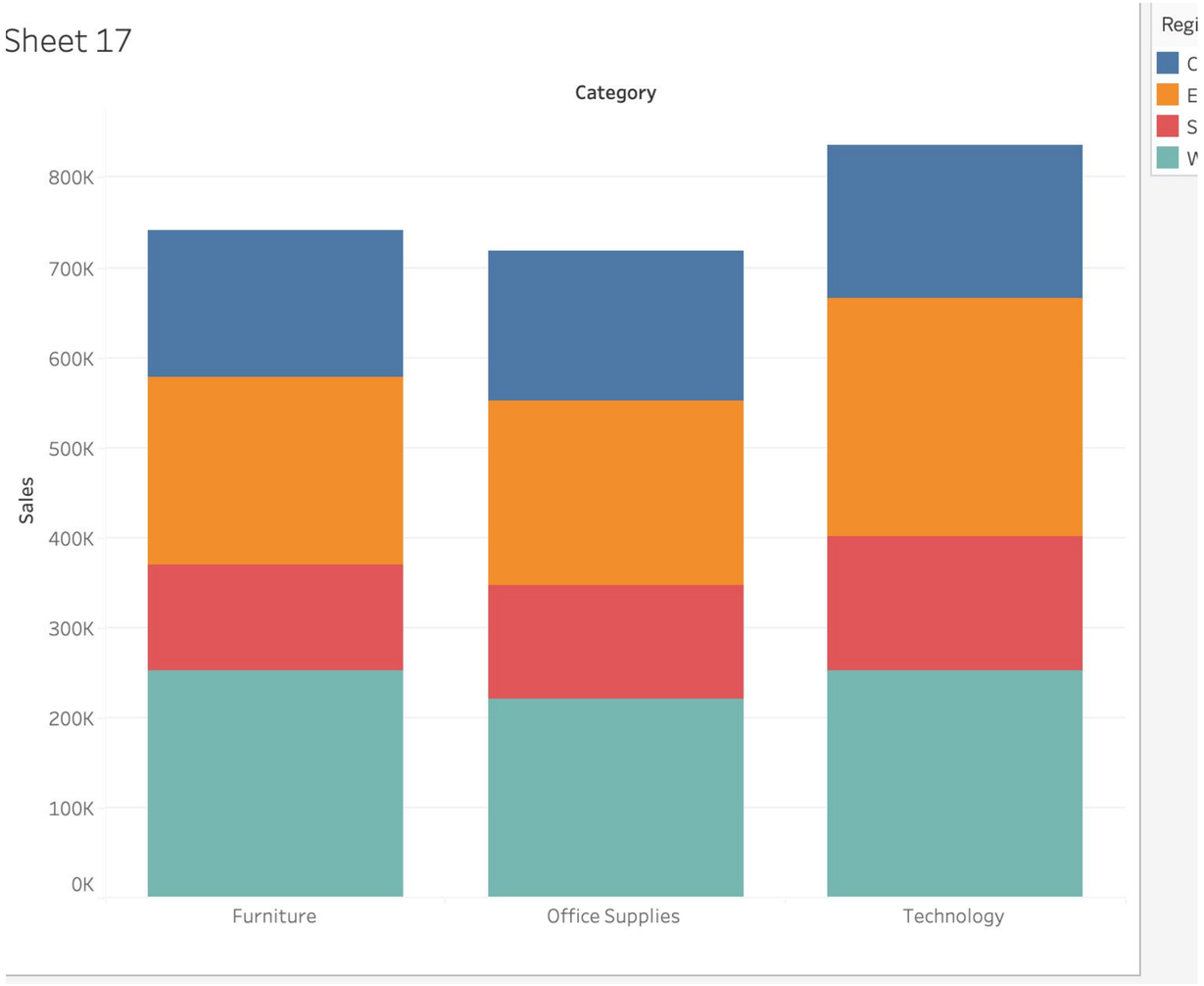
- Bar charts - show your categorical data with rectangular bars that have heights or lengths proportional to the values that they represent.
- Line charts - display your data as a series of points called 'markers' connected by straight line segments.
- Scatterplot - plots your data using two measures that plot on each axis.
- Geographical map charts - display your geographical data by categories or values.
- Combined axis charts - display your data by merging two or more measures into a single access so you can use multiple measures on the same chart.
- Dual axis charts - display your data using multiple mark types and shared axes.
- Stacked bar chart - display your data in a simple bar chart with segmented bars that represent distinct values of one data field on one axis.
- Crosstab - also known as a text table made up of one or more dimensions and one or more measures.

Creating a Stacked Bar

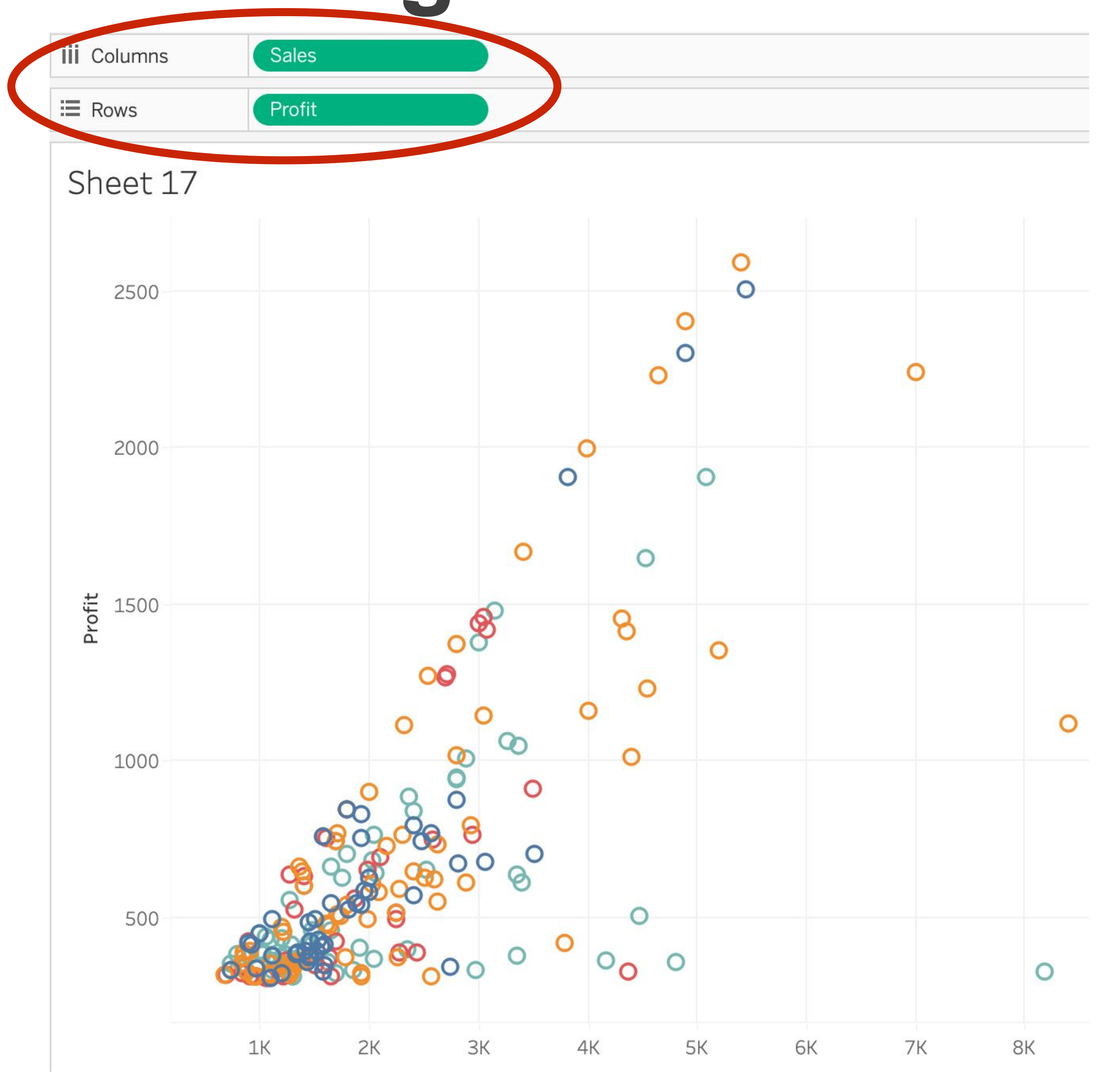
2 dimensions

(1 x-axis, 1 color)

1 measure



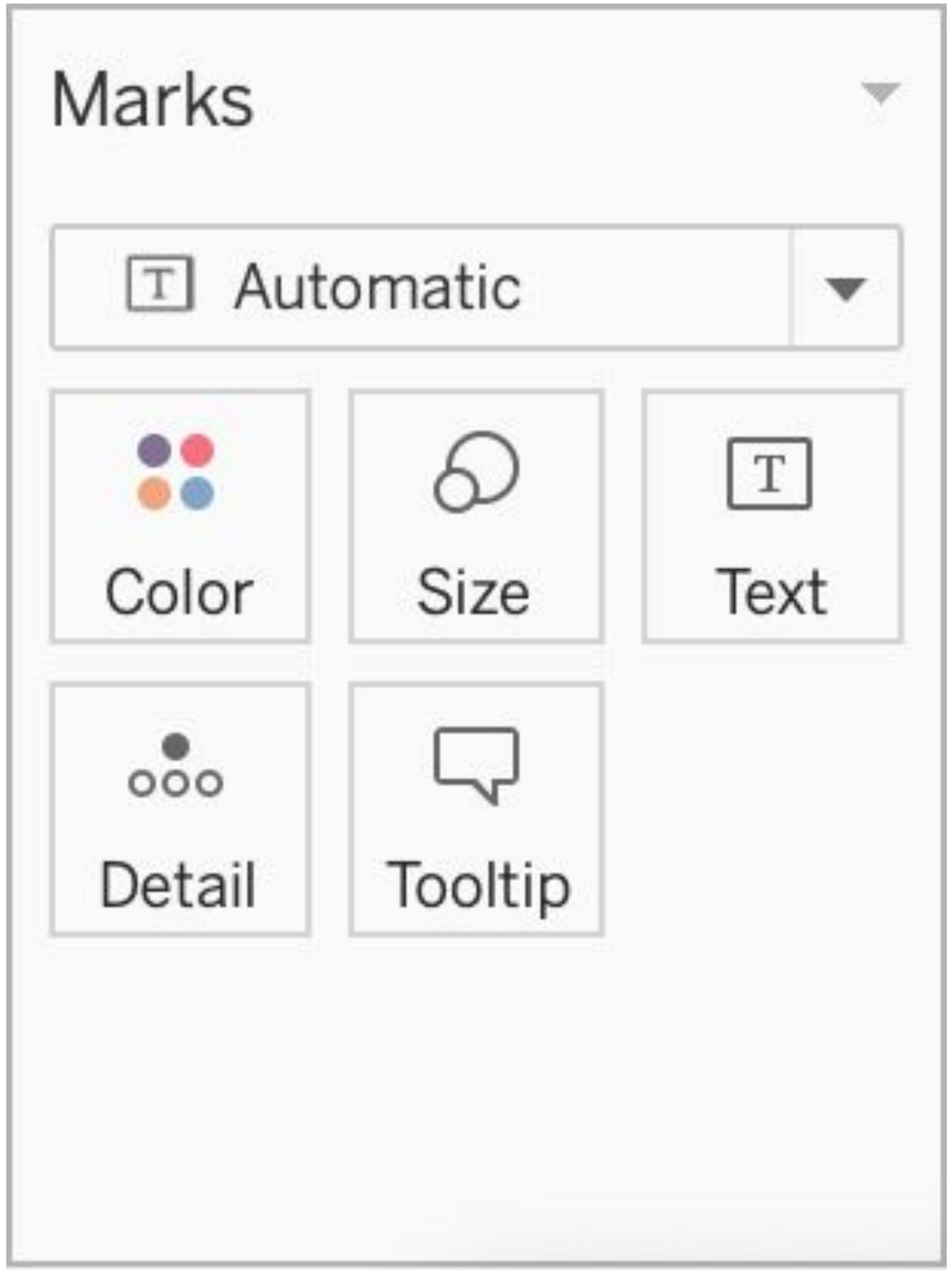
Creating a Scatter Plot



Crosstab

aka text tables

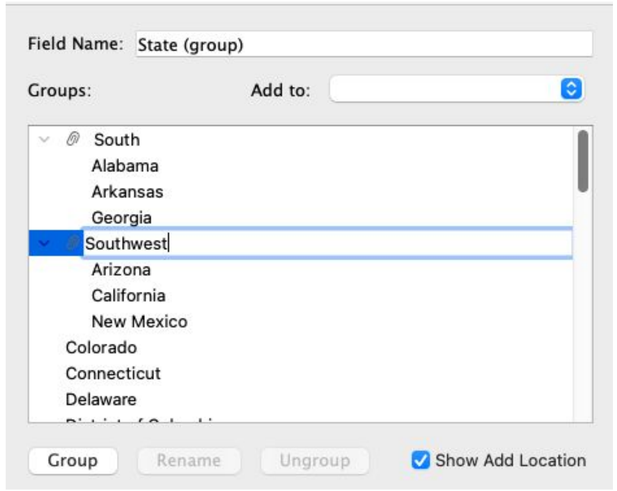
Year of Order Date	Quarter of Order Date	Profit	% Difference in ..
2014	Q1	3,811	
	Q2	11,204	193.98%
	Q3	12,805	14.29%
	Q4	21,724	69.66%
2015	Q1	9,265	-57.35%
	Q2	12,191	31.58%
	Q3	16,854	38.25%
	Q4	23,309	38.30%
2016	Q1	11,441	-50.91%
	Q2	16,390	43.26%
	Q3	15,824	-3.46%
	Q4	38,140	141.03%
2017	Q1	23,506	-38.37%
	Q2	15,499	-34.06%
	Q3	26,985	74.11%
	Q4	27,449	1.72%

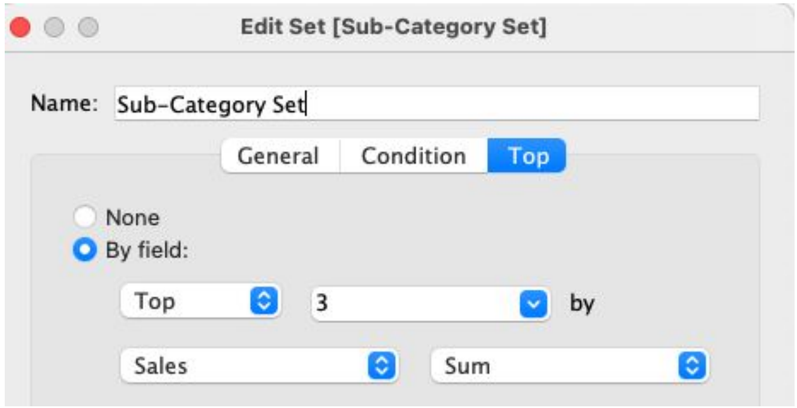


Marks

- Color
- Size
- Text
- Detail
- Tooltip
- Shape
- Angle

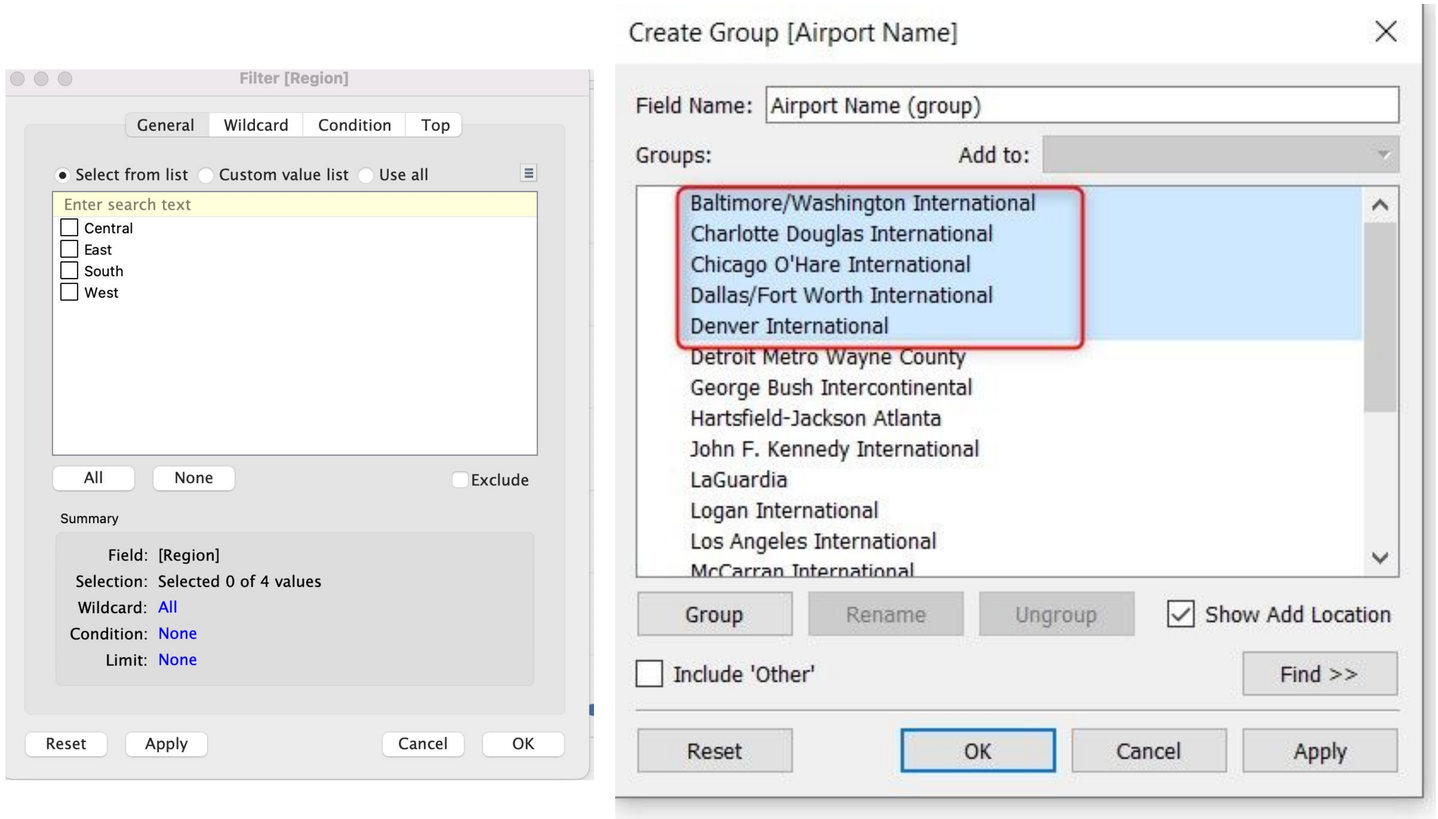
Groups, Sets, Hierarchies



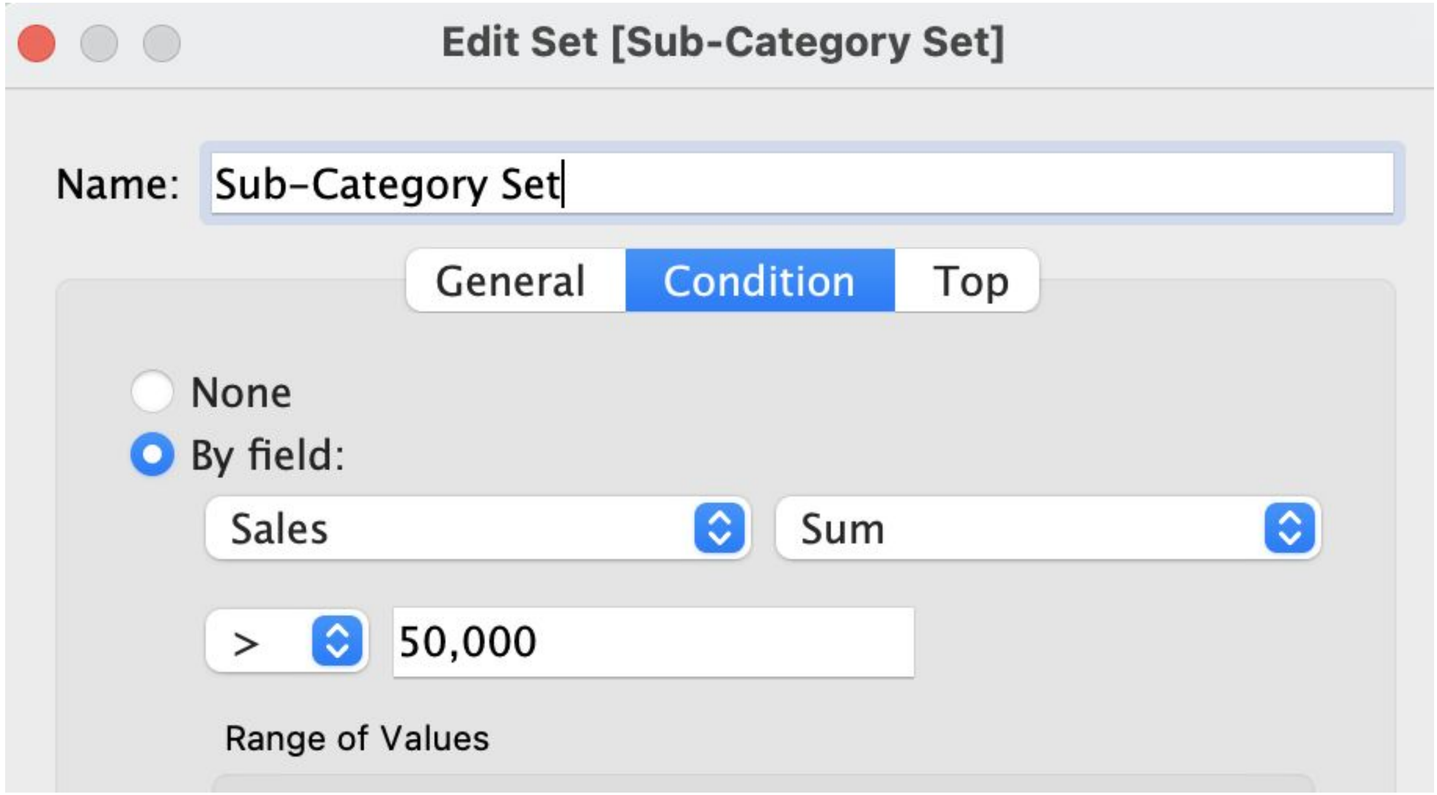


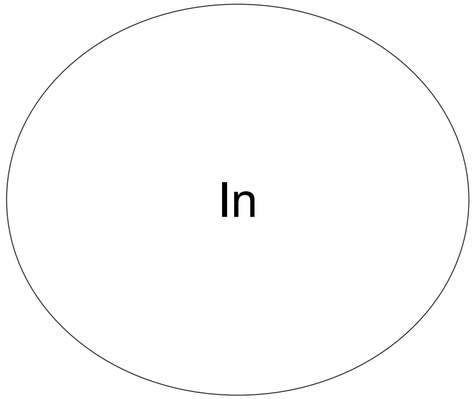
Groups vs. Sets

- Groups - dimension categories that can be “collapsed” into one
- Sets - collections with ‘membership’, either selected or based on criteria



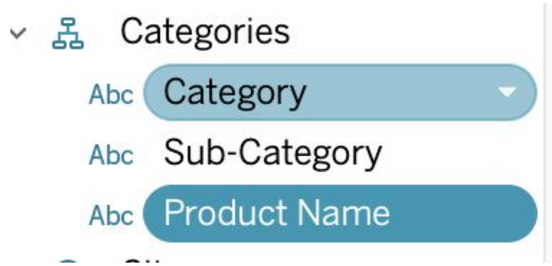
Sets


Edit Set [Sub-Category Set]
Name:
Sub-Category Set
General
Condition
Top
None
By field:
Sales
Sum
>
50,000
Range of Values

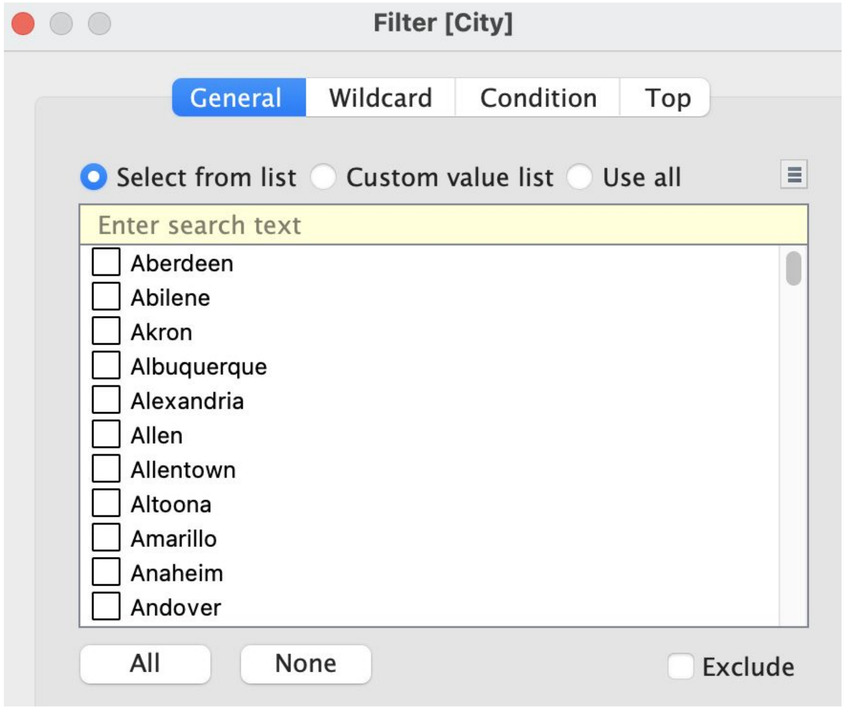

In

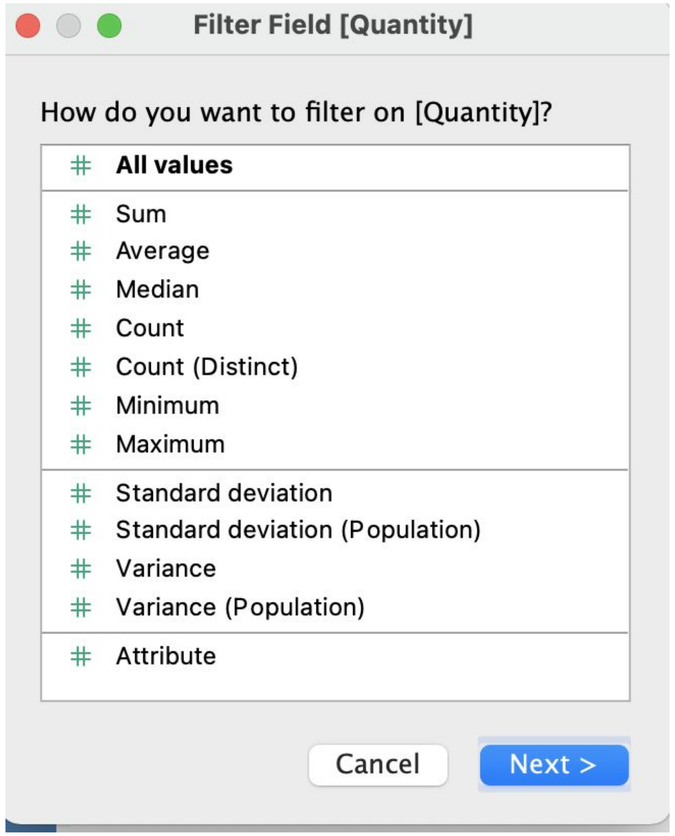
Out

Hierarchies



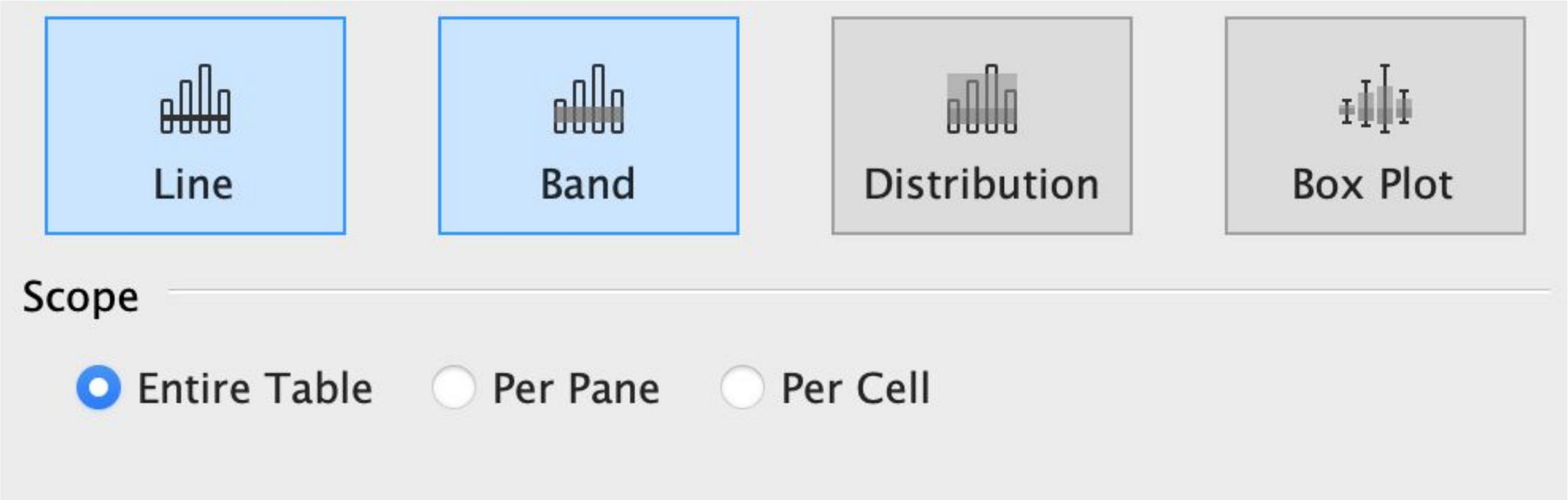
Filters


Filter [City]
General
Wildcard
Condition
Top
Select from list
Custom value list
Use all
Enter search text
Aberdeen
Abilene
Akron
Albuquerque
Alexandria
Allen
Allentown
Altoona
Amarillo
Anaheim
Andover
All
None
Exclude

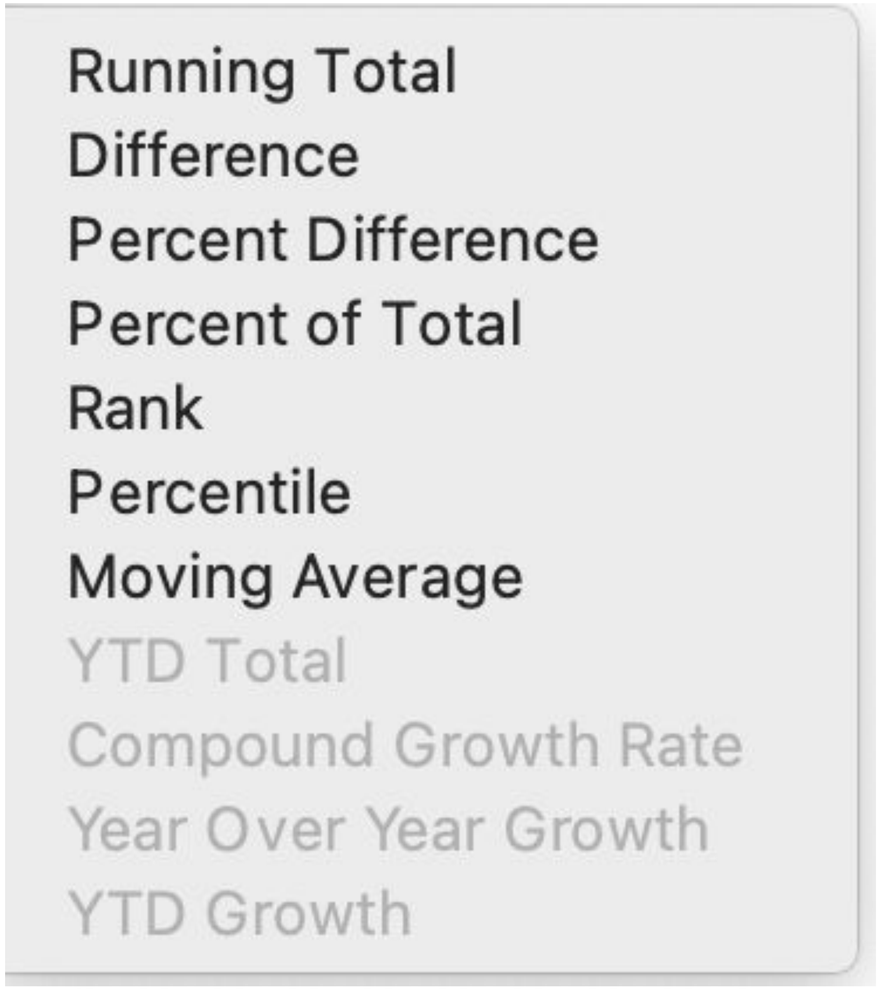

Filter Field [Quantity]
How do you want to filter on [Quantity]?
All values
Sum
Average
Median
Count
Count (Distinct)
Minimum
Maximum
Standard deviation
Standard deviation (Population)
Variance
Variance (Population)
Attribute
Cancel
Next >


Range of values
At least
At most
Special
Range of values

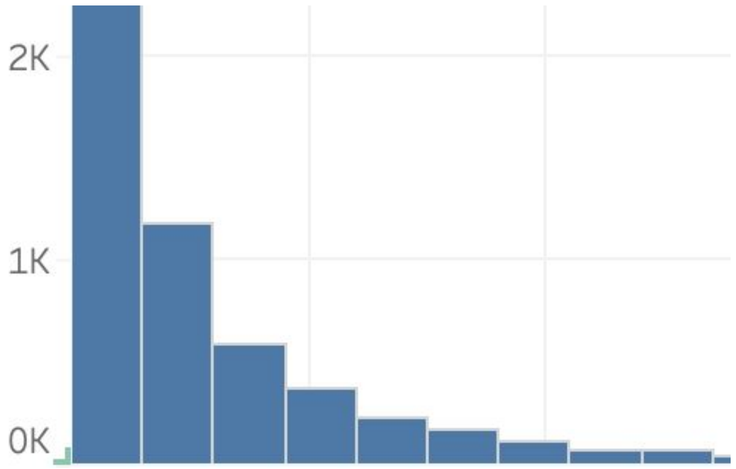
Reference Lines/Bands

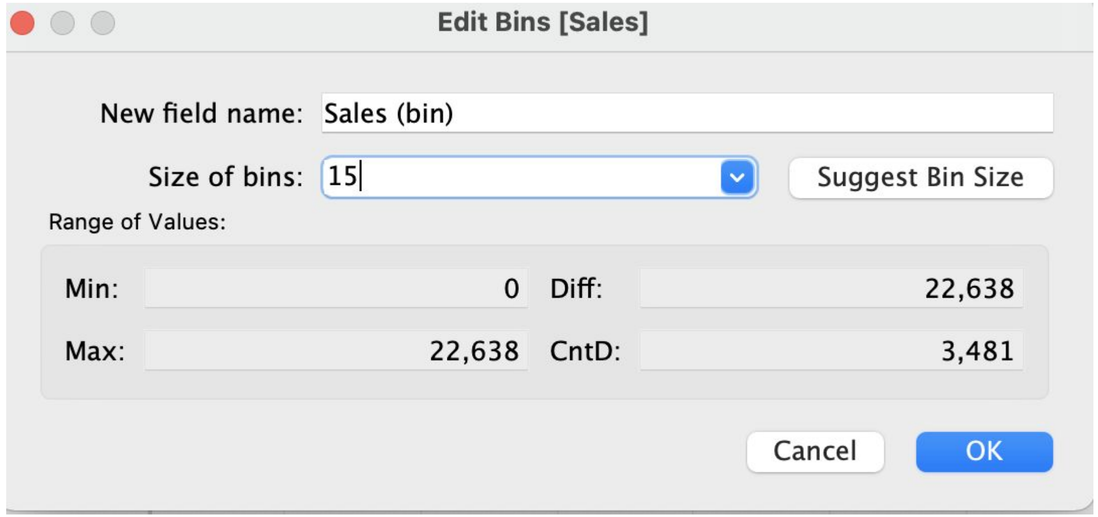


Quick Table Calculations



Bins and Histograms





Analytics

Data | **Analytics**

Summarize

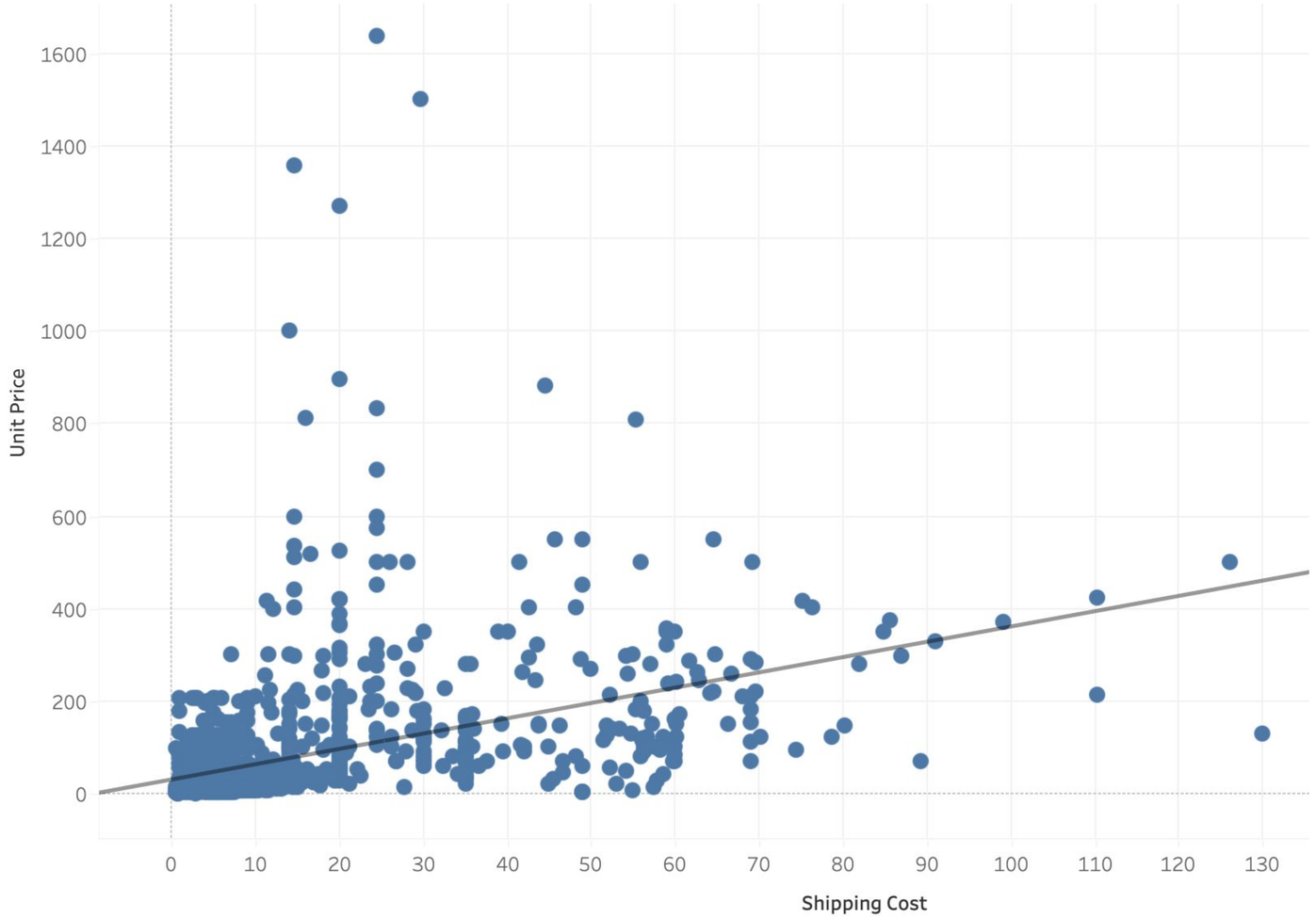
- Constant Line
- Average Line
- Median with Quartiles
- Box Plot
- Totals

Model

- Average with 95% CI
- Median with 95% CI
- Trend Line
- Forecast
- Cluster

Custom

- Reference Line
- Reference Band
- Distribution Band
- Box Plot



Knowledge Check

1. How can you change the size of all the marks on sheet?
2. What does ‘bin size’ mean?
3. What are the two types of sets?
4. Why would you use hierarchies?
5. What’s a crosstab in Tableau?
6. What kind of data do you need for a scatter plot?
7. What’s a highlight table?

Domain 3: Sharing Insights

3.1 Format view for presentation

- 3.1.1 Use color from the marks card
- 3.1.2 Configure fonts
- 3.1.3 Format marks as shapes
- 3.1.4 Configure viz animations
- 3.1.5 Change size of marks
- 3.1.6 Show and hide legends

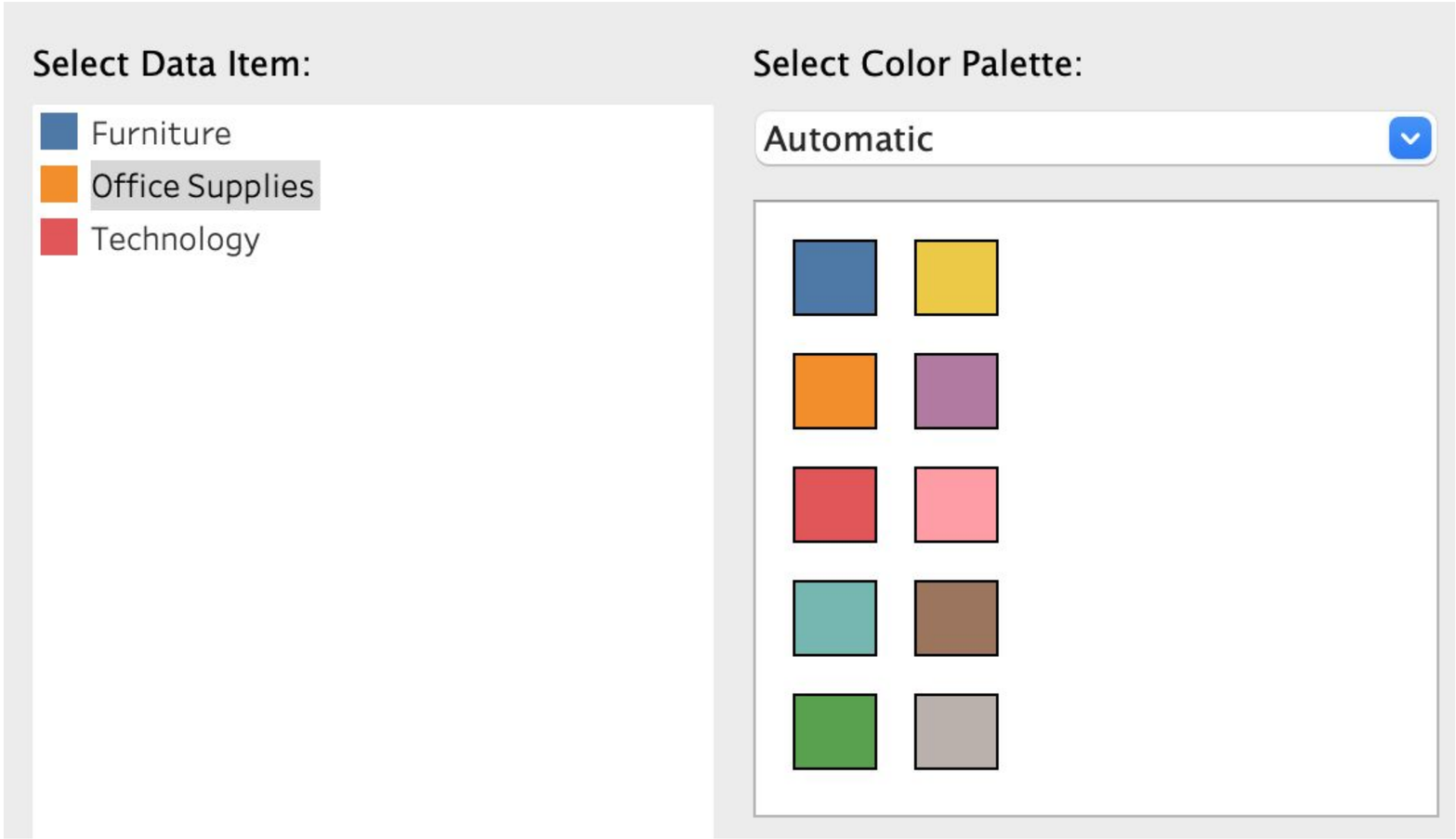
3.2 Create and modify a dashboard

- 3.2.1 Add worksheets to a dashboard
- 3.2.2 Add interactive elements for consumers (e.g. show filters, data highlighter, tooltips)
- 3.2.3 Add dashboard actions (e.g. filter action, highlight action, parameter control, URL action)
- 3.2.4 Configure a dashboard layout and create device-specific dashboards
- 3.2.5 Create a story and a story point

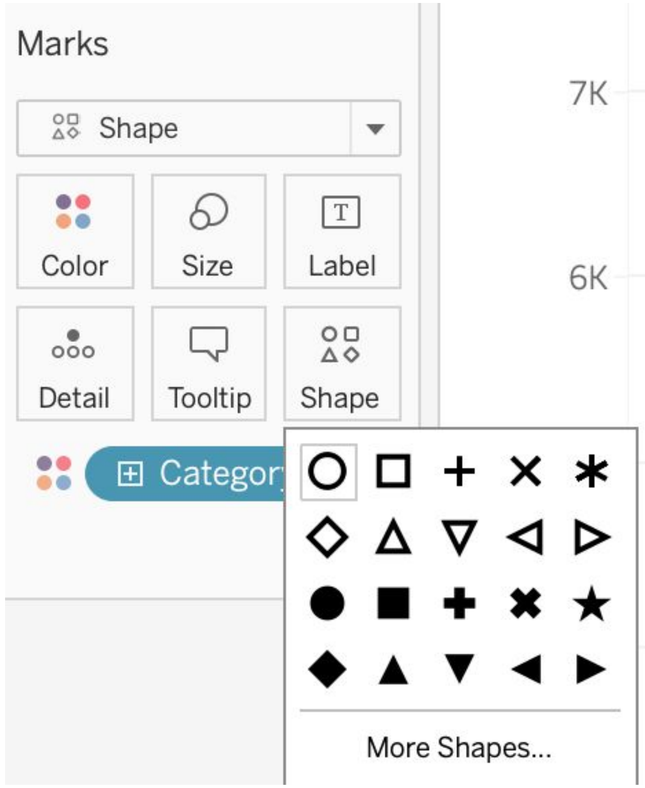
3.3 View and share workbook data

- 3.3.1 Share a workbook (e.g. twbx as a PDF or an image, publish to Tableau Server)
- 3.3.2 View and export underlying data
- 3.3.3 Export to Microsoft PowerPoint

Changing Colors

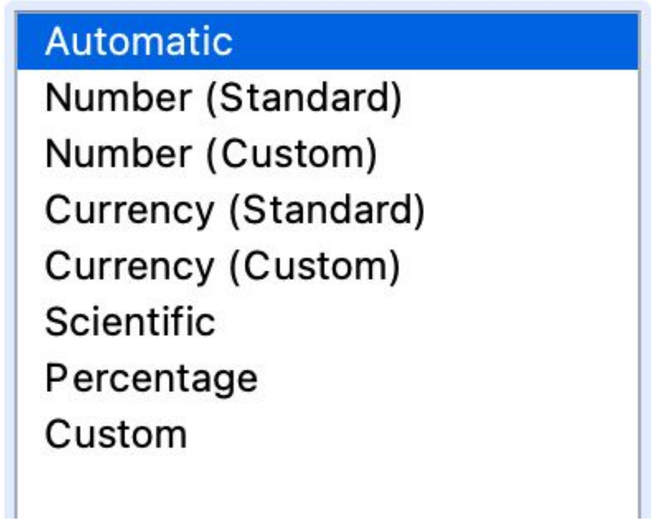


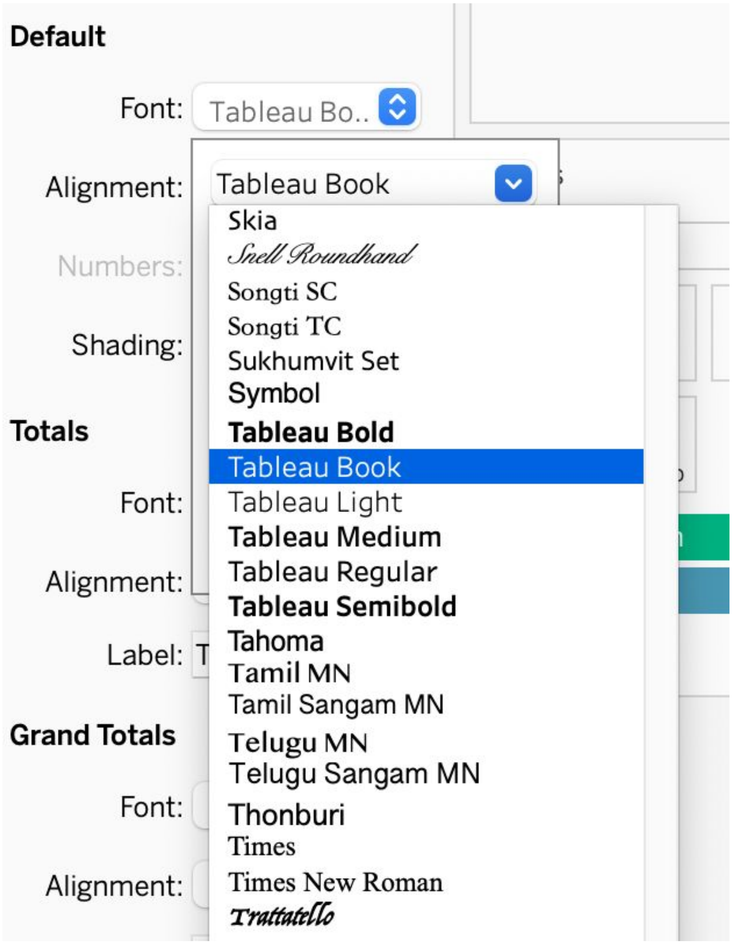
Shapes and Colors



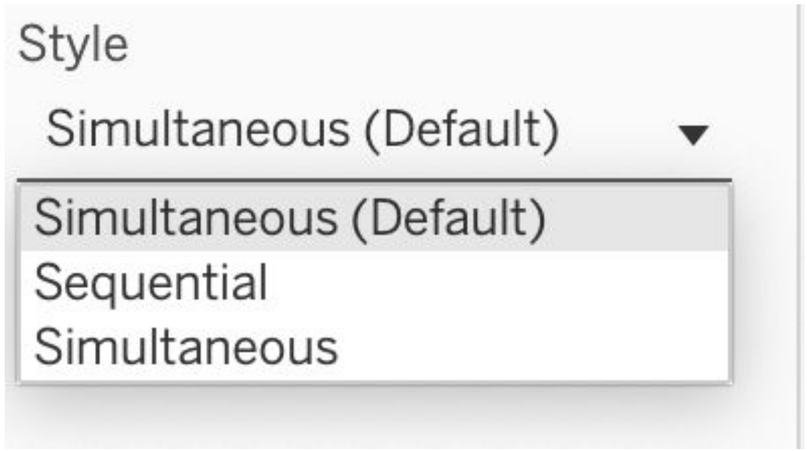
	Region			
Category	Central	East	South	West
Furniture	1,827	2,214	1,291	2,696
Office Supplies	5,409	6,462	3,800	7,235
Technology	1,544	1,942	1,118	2,335

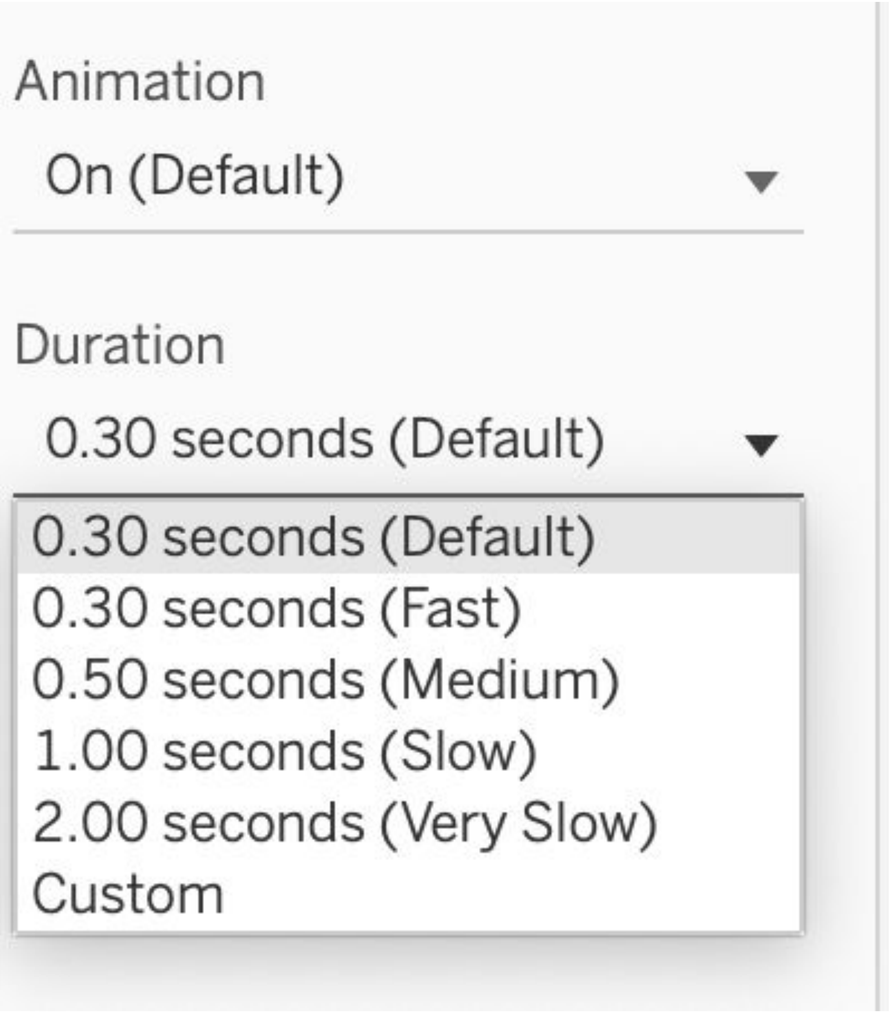
Formatting


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


Default
Font:
Tableau Bo..
Alignment:
Tableau Book
Numbers:
Shading:
Totals
Font:
Alignment:
Label:
Grand Totals
Font:
Alignment:
Skia
Snell Roundhand
Songti SC
Songti TC
Sukhumvit Set
Symbol
Tableau Bold
Tableau Book
Tableau Light
Tableau Medium
Tableau Regular
Tableau Semibold
Tahoma
Tamil MN
Tamil Sangam MN
Telugu MN
Telugu Sangam MN
Thonburi
Times
Times New Roman
Trattatello

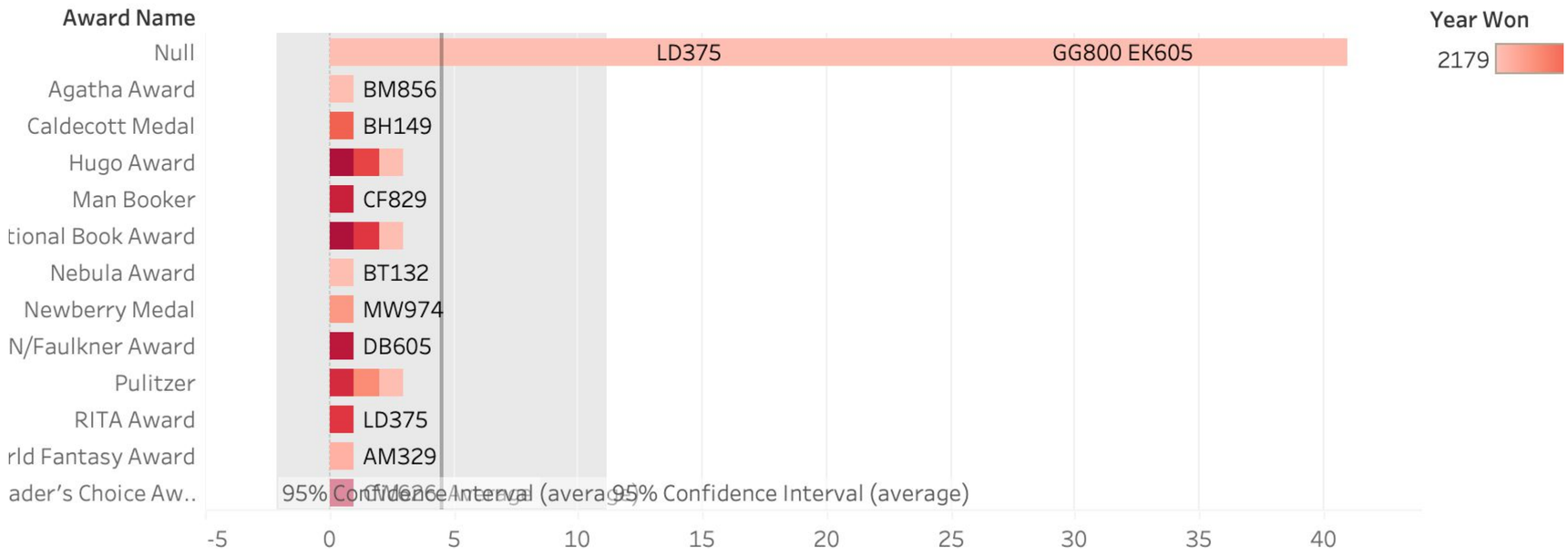
Animations


Style
Simultaneous (Default)
Simultaneous (Default)
Sequential
Simultaneous


Animation
On (Default)
Duration
0.30 seconds (Default)
0.30 seconds (Default)
0.30 seconds (Fast)
0.50 seconds (Medium)
1.00 seconds (Slow)
2.00 seconds (Very Slow)
Custom

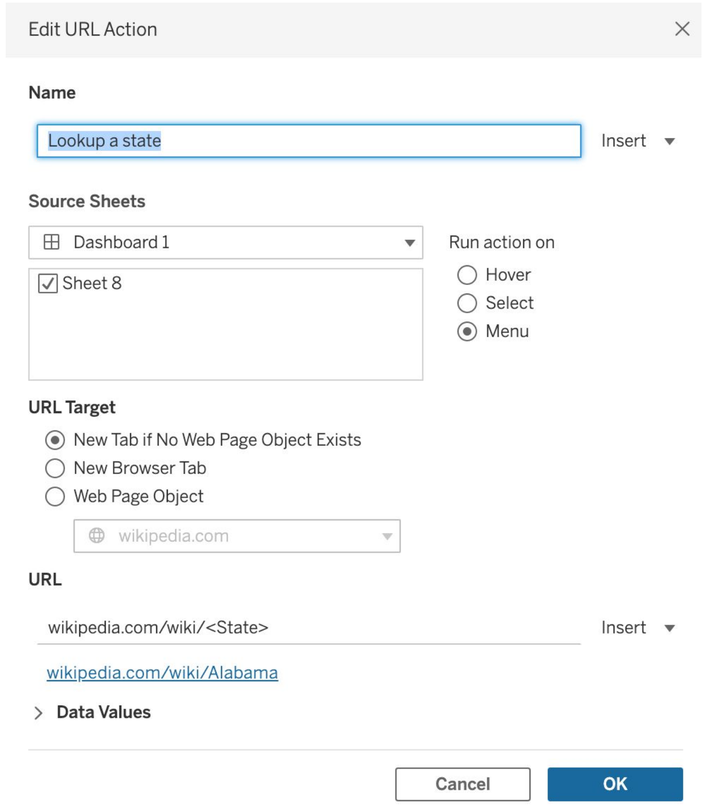
Stories

On a dark desert highway | Cool wind in my hair | Warm smell of colitas | **Rising up through the air** | Up ahead in the distance



Dashboards

Dashboard URL action



Knowledge Check

1. What kinds of charts use shapes?
2. What's a URL action in a dashboard?
3. What's the purpose of a story?
4. How do you change the font of headers in a crosstab?
5. What is preserved when you save a workbook as pdf?
6. What animation parameters can be changed?
7. How can you change the colors in a stacked bar chart?

Domain 4: Understanding Tableau Concepts

4.1 Understand dimensions and measures

- 4.1.1 Explain what kind of information dimensions usually contain
- 4.1.2 Explain what kind of information measures usually contain
- 4.1.3 Explain the difference between dimensions and measures

4.2 Understand discrete and continuous fields

- 4.2.1 Explain how discrete fields are displayed
- 4.2.2 Explain how continuous fields are displayed
- 4.2.3 Explain the difference between discrete date parts and continuous date values

4.3 Understand aggregations

- 4.3.1 Explain the default aggregation for measures
- 4.3.2 Describe how an aggregated measure changes when dimensions are added to a view

Dimensions vs. Measures

Dimensions

Qualitative

Blue

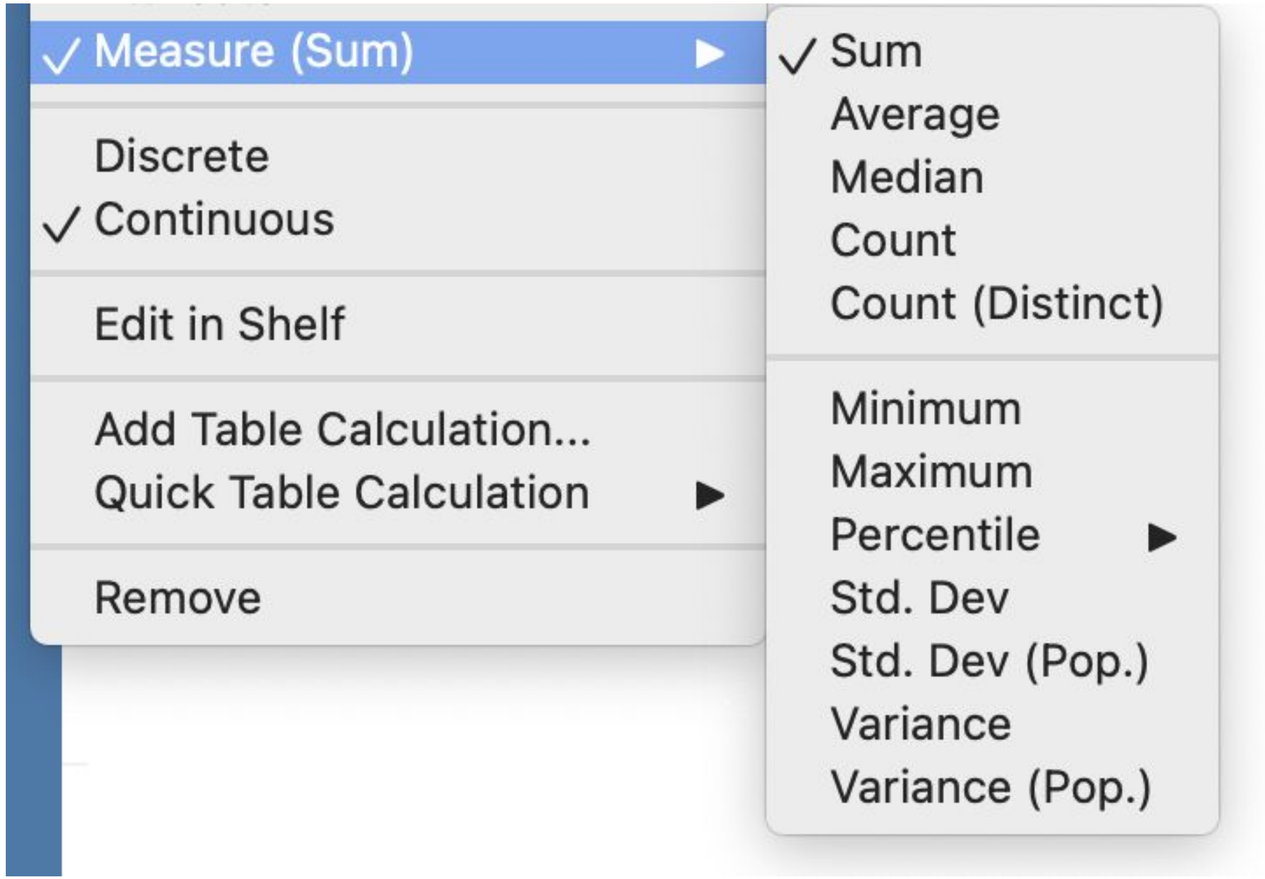
Measures

Quantitative

Green

	Dimension	Measure
Discrete	strings date parts boolean	bins IDs
Continuous	dates	measured values

Aggregations



Date Part

Day

Month

Quarter

Year

	Order Date											
	Q1			Q2			Q3			Q4		
Year of Ord..	January	February	March	April	May	June	July	August	Septem..	October	Novem..	Decemb..
2014	14,237	4,520	55,691	28,295	23,648	34,595	33,946	27,909	81,777	31,453	78,629	69,546
2015	18,174	11,951	38,726	34,195	30,132	24,797	28,765	36,898	64,596	31,405	75,973	74,920
2016	18,542	22,979	51,716	38,750	56,988	40,345	39,262	31,115	73,410	59,688	79,412	96,999
2017	43,971	20,301	58,872	36,522	44,261	52,982	45,264	63,121	87,867	77,777	118,448	83,829

Knowledge Check

1. Can dimensions be continuous?
2. What is a date part?
3. Can you use percentile for an aggregation?
4. What is the default aggregation type for a measure?

Practice!