Tableau Questions

(from Textbook: O'Reilly Database: https://guides.newman.baruch.cuny.edu/databases/O-P)

Chapter 5. Getting a Lay of the Land

1. Name 3 options to see the underlying data: all data vs one field at a time.

- Right-click the data connection in the data window and choose View Data.
- Click Data in the top navigation, hover over the data connection, and choose View Data.
- Click the first tab in the bottom of the worksheet view.

- If you want to look at one field at a time, a handy trick is to **right-click that field on the Dimensions/Measures area of the Data pane** and **choose Describe**. A window will pop up to provide you with helpful information about the respective field.

2. Display the number of records in a DataSet.

- If you look at the bottom of the list of measures on the Measures area of the Data pane, you will see a field called Number of Records.

  This is a special field that Tableau automatically generates for you, which is indicated by the italic formatting. Number of Records is actually a calculated field that simply equals 1.

  What this does is adds a column with an entry of 1 to each row of your data, so Tableau can count the number of records in the dataset.

  To view how many records are in your dataset, on a blank worksheet, drag the Number of Records field to the Text Marks Card.

Chapter 6. Dimension Versus Measure

3. What is a measure?

- Measure is a field that is a dependent variable; that is, its value is a function of one or more dimensions. Tableau treats **any field containing numeric (quantitative) information as a measure**.

4. What is a dimension?

- Dimension is a field that can be considered an independent variable. By default, Tableau treats **any field containing qualitative, categorical information as a dimension**.

  Generally, the measure is the number; the dimension is what you "slice and dice" the number by.

5. Is Order ID a measure or dimension?

- Dimension

6. If it does not make sense to sum up a number, is it a measure or a dimension?

- If it doesn't make sense to sum up a number, it is likely a dimension.

7. Is it possible to change a field from a dimension to measure?

- The good news is that any field that is misclassified can easily be **reclassified by right-clicking the field from within the Dimensions or Measures area of the Data pane and choosing "Convert to dimension" or "Convert to measure"** as appropriate.

  The same thing can be achieved by dragging and dropping the field into the Dimensions or Measures area of the Data pane.

Chapter 7. Discrete Versus Continuous

8. Tableau blue or green field icons give what indication?

- It is easy to know if a field is being used as discrete or continuous based on its color. Blue indicates that a field is discrete, while green indicates that a field is continuous.

9. A vertical bar chart vs line chart: what is plotted on x-axis, discrete or continuous field?

- Discrete fields draw headers; continuous fields draw axes.

  Bar → Date is a discrete field (can change order of dates (months))
  Line → Date is a continuous field (cannot change order of dates - they follow a chronological order from oldest to most recent)

  * Discrete fields can be sorted; continuous fields cannot

Chapter 8. Five Ways to Make a Bar Chart/An Introduction to Aggregation

10. How would you make a bar chart five different ways?

1. Double-click the measure you want to visualize from the Measures area of the Data pane. By default, this will place a continuous pill which creates a vertical bar.

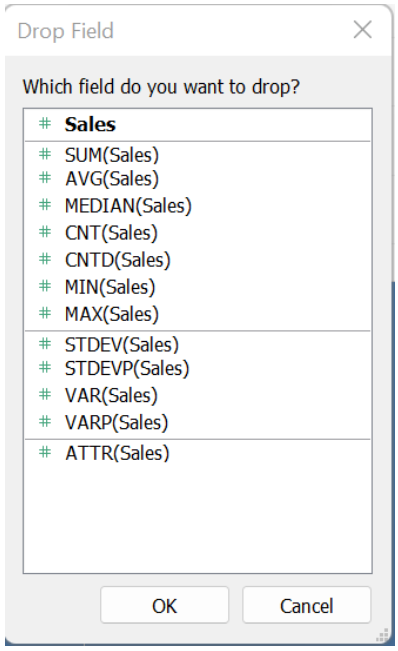
2. Left-click and drag the measure from the Measures area of the Data pane to the Rows Shelf.

3. “Pre-select” the measure by clicking it, then click “horizontal bars” in the Show Me options. This creates a different orientation than the first two approaches because the measure is placed on the *Columns Shelf* instead of the *Rows Shelf*.

4. You can change the mark type on an existing view to Bar.

   Let’s say you are looking at the measure as a line graph. You can convert the line graph to a bar chart by changing the mark type on the Marks Shelf from Automatic (line) to Bar.

5. Similar to option #2, but if you right-click and drag the measure from the Measures area of the Data pane to the Rows Shelf, you will be presented with the option to choose the data aggregation before the bar chart is created:



11. On a Mac, how is it different?

- ?

This topic is easiest to illustrate, so take a look at the first image, which is meant to be similar to a typical report in Excel:

Sweet Excel Table					
	Q1	Q2	Q3	Q4	Total
Sales	$	$	$	$	$$$$
Profit	$	$	$	$	$$$$
Orders	#	#	#	#	####

The ideal format for Tableau looks like this:

Quarter	Sales	Profit	Orders
Q1	$	$	#
Q2	$	$	#
Q3	$	$	#
Q4	$	$	#

As one additional tip, if your dataset includes a date field that is not in a traditional date format (as we've shown here with quarters), I recommend adding a column that looks like an actual date. In this case, I've added a column for quarter as date, and chosen the first date in each quarter as the entries:

Date	Quarter	Sales	Profit	Orders
1/1/2018	Q1	$	$	#
4/1/2018	Q2	$	$	#
7/1/2018	Q3	$	$	#
10/1/2018	Q4	$	$	#

If data reshaping is required for you to work with a dataset in Tableau, you can reshape it prior to connecting—which is my personal preference—or use Tableau's data interpreter and data pivot tools when you connect. Regardless of the method you choose, putting some thought into the shape of your data will help you get off to a strong start with your analyses in Tableau.