Hyperiondev

TASK

Data Visualisation III

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Tableau Desktop

Tableau Desktop is software that allows people to connect a database and easily create data visualisations. It has become one of the biggest and most used data visualisation tools today. Through Tableau, you can create many different and interactive visualisations and dashboards.

In this task, we will explore and learn the fundamental skills of Tableau Desktop.

Get in touch

Connect for support

Remember that with our courses, you're not alone! You can contact an expert code reviewer to get support on any aspect of your course.

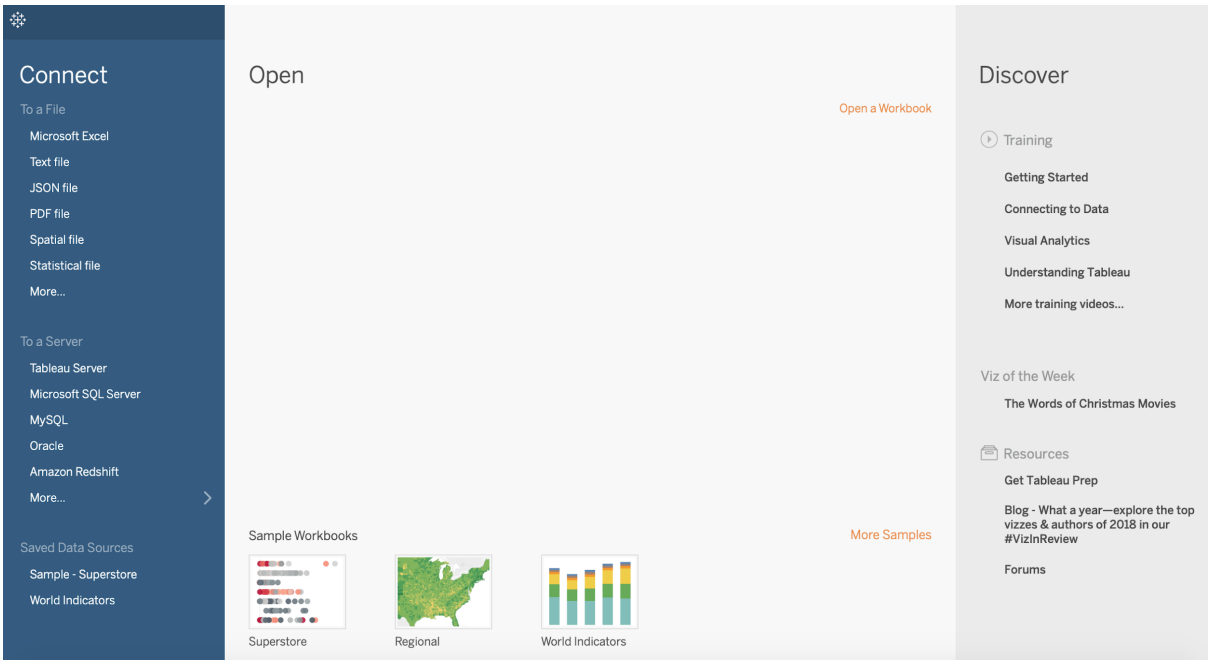
The best way to get help is to login to Discord at **https://discord.com/invite/hyperdev** where our specialist team is ready to support you.

Our team is happy to offer you support that is tailored to your individual career or education needs. Do not hesitate to ask a question or for additional support!

INSTALL TABLEAU

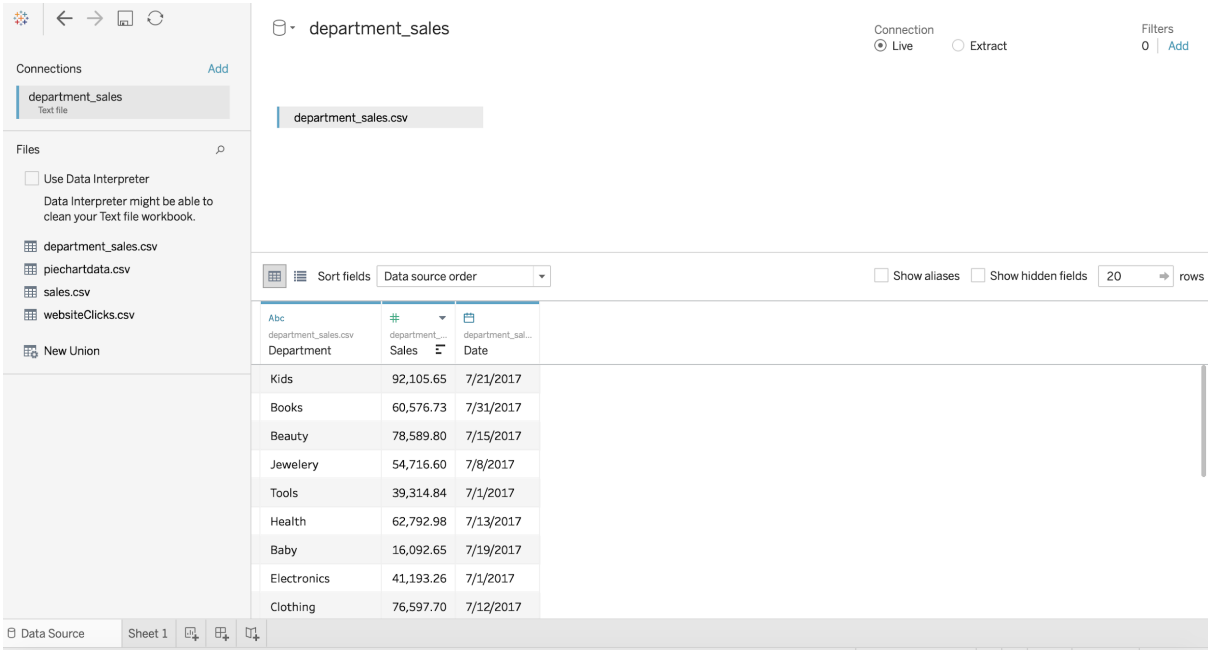
You can download and install a free 14-day trial of Tableau desktop from their site **here**.

LOAD DATA



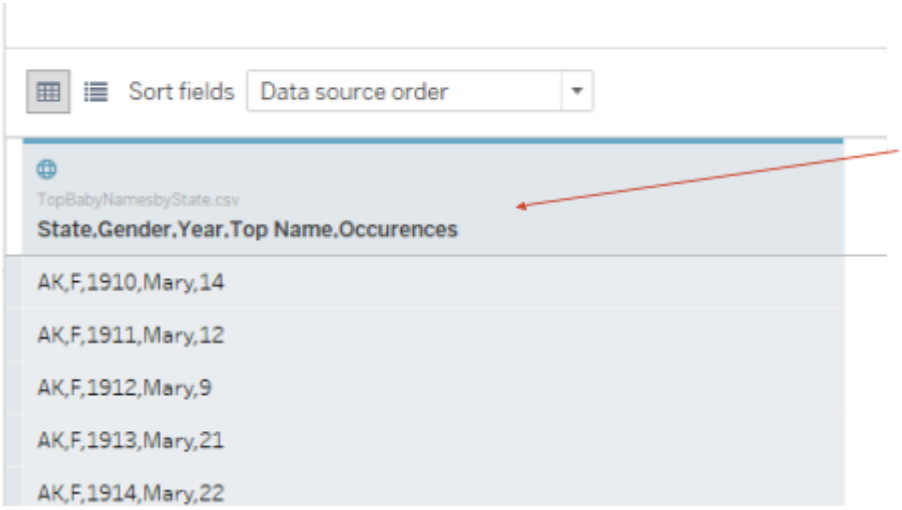
As you can see, Tableau offers a variety of ways to connect to your “data source” - this can range from a simple .csv file to a server such as Google Analytics.

We can import sample .csv data by importing from “text files”. Once you do so, you will see a preview of your uploaded data:



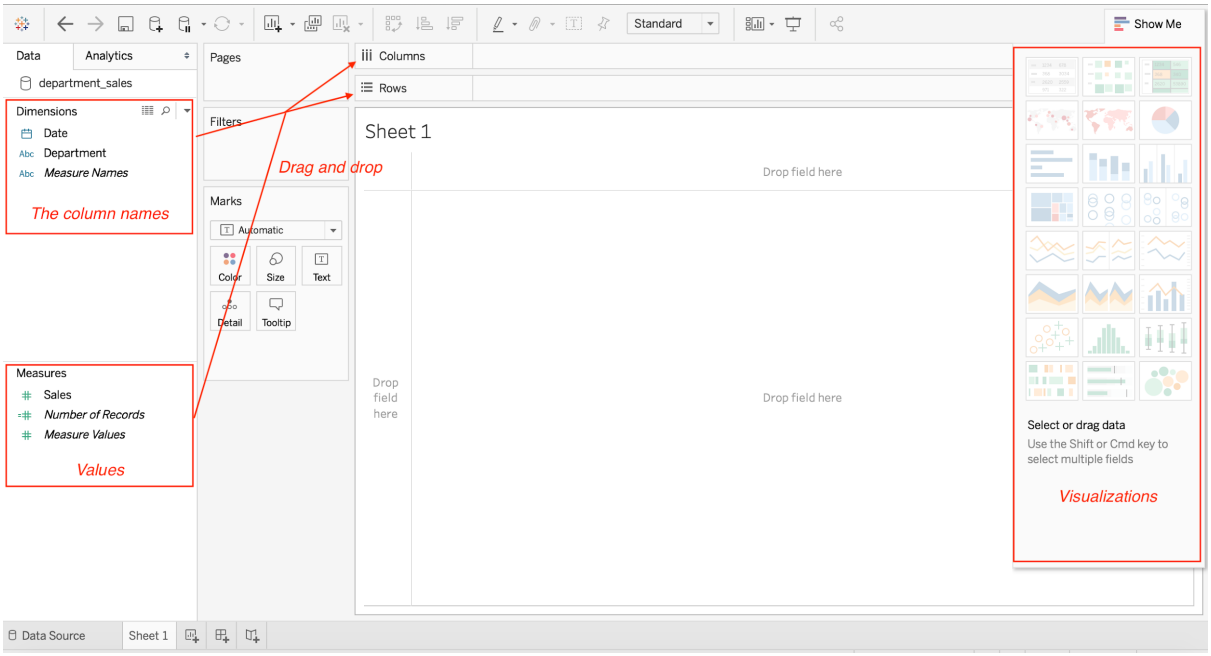
Take note:

When working with .csv files you may have to split the data before you can proceed. If once you have imported the .csv file the data is listed in one column separated by columns (as shown below), you can right-click on the column and select 'Split'. This should put all the data into separate columns. Be sure to rename the columns (Right-click > Rename).

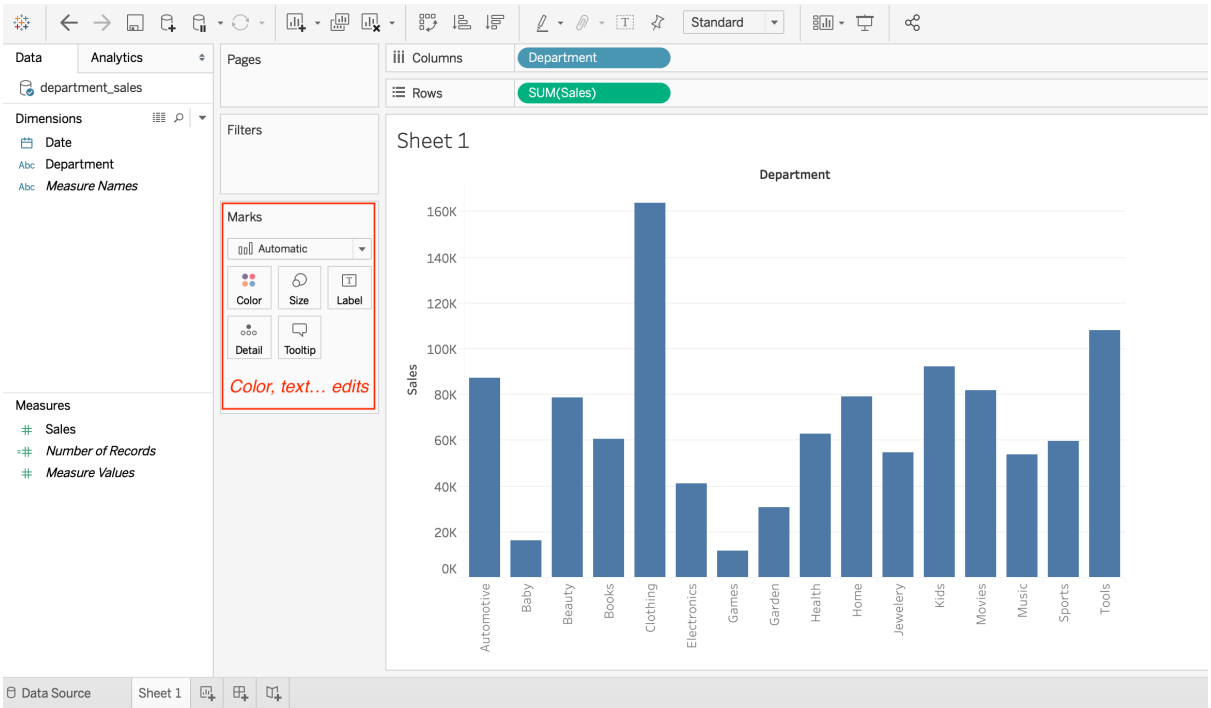


When you are ready, you can click on "Sheet 1" at the bottom to create a new visualisation sheet.

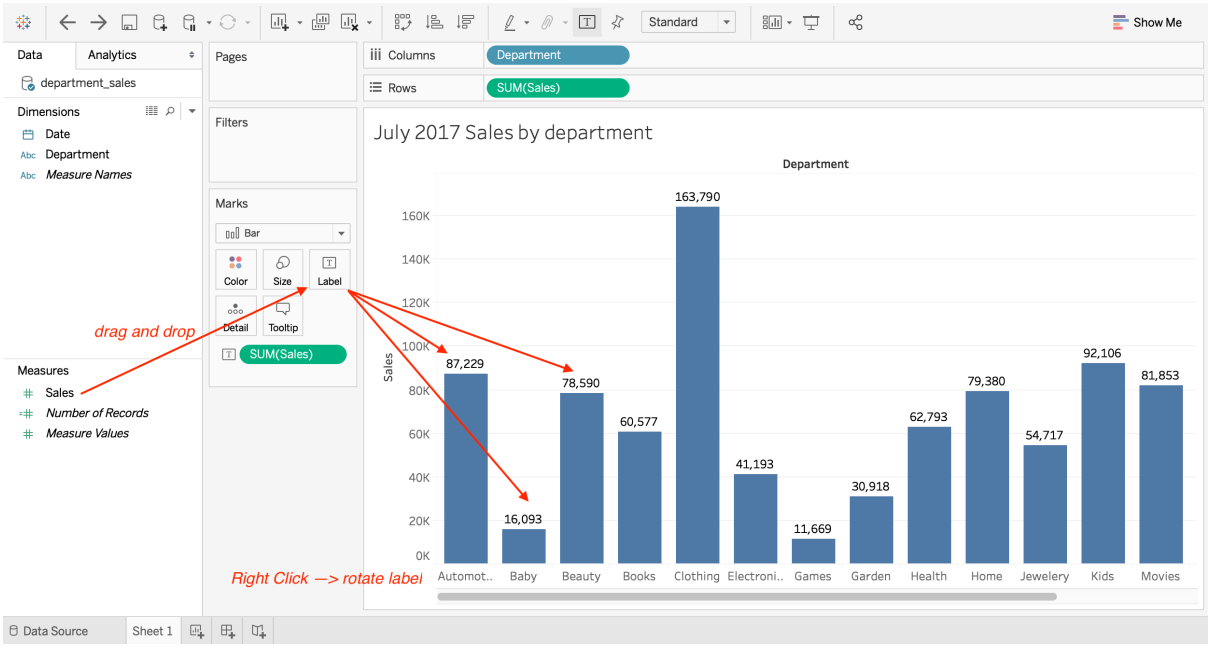
CREATE VISUALISATIONS



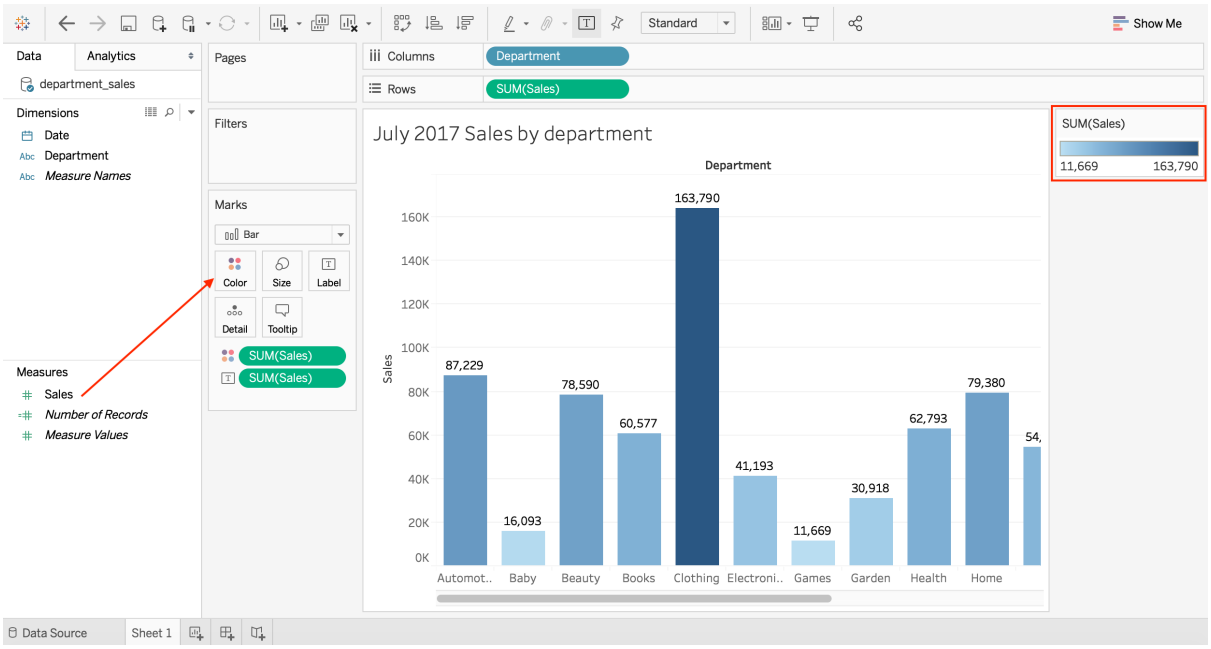
On the left side, the data file has been extracted and sorted. You can simply do a drag and drop onto the “columns” and “rows” depending on how you want your visualisation to look.



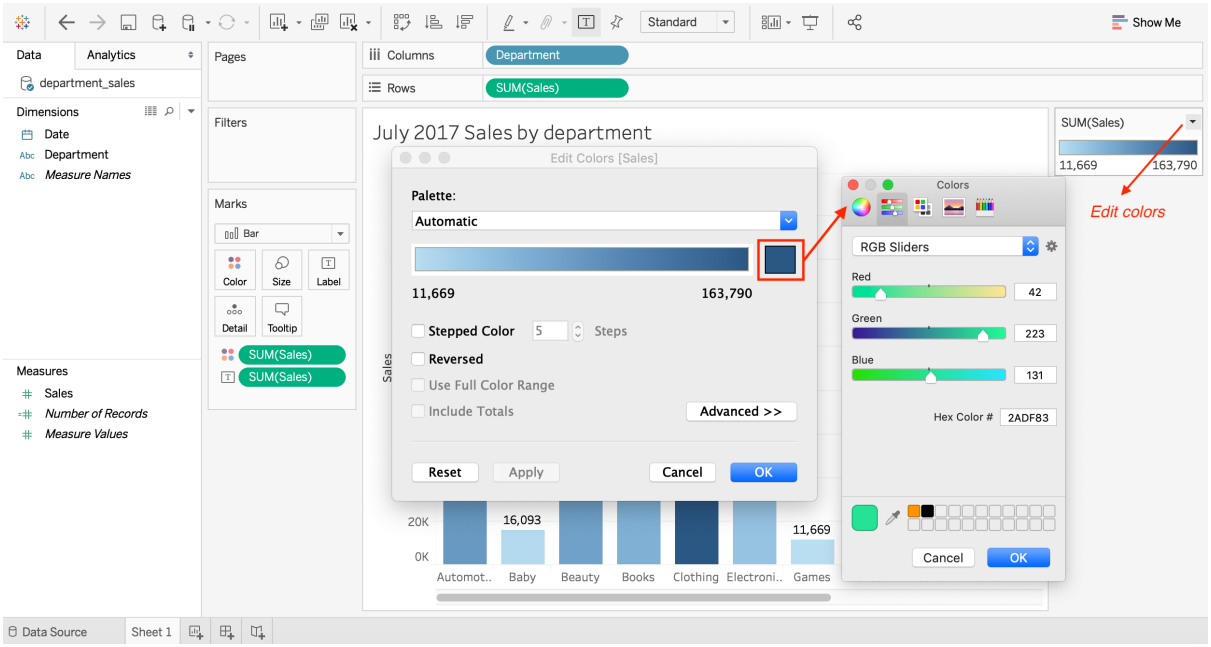
Then change the look of your visualisation by modifying elements such as labels and titles.



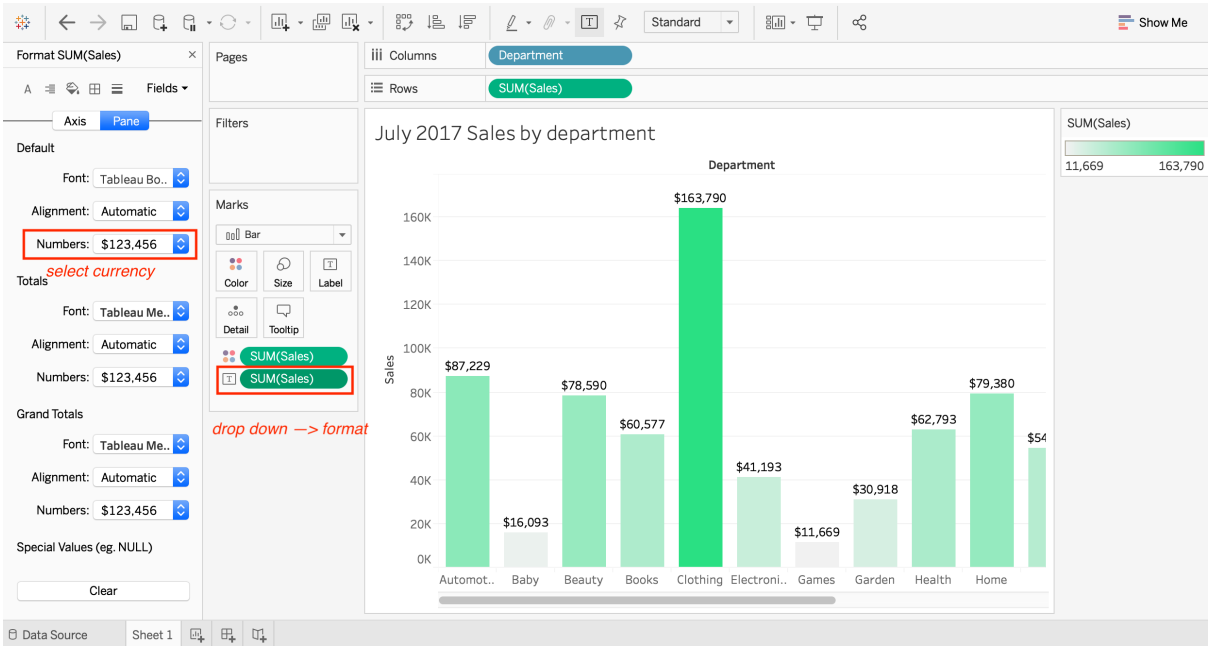
You can even colour your visualisation by the number of sales, and Tableau will automatically calculate the range of colour based on the data values.



You can change this too - perhaps make the bars green to represent money.

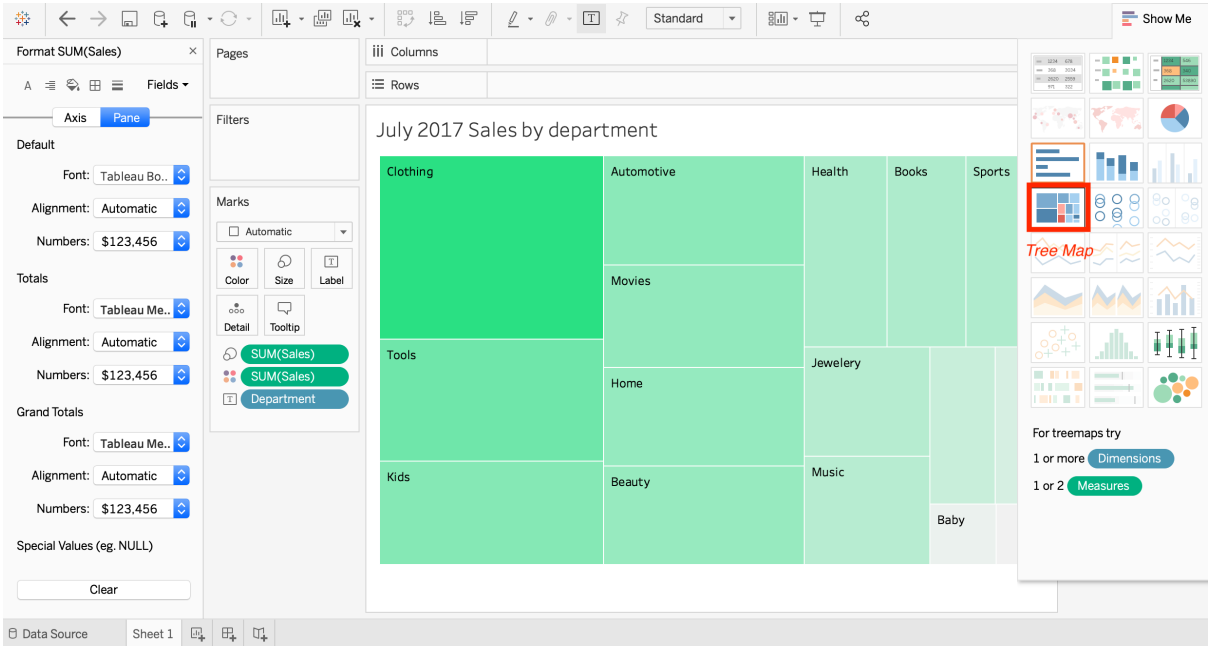


Put a dollar sign on labels on top of the bars.



You can also choose different visualisations under “Show Me”. Below is an example of a tree map of the same data selected.

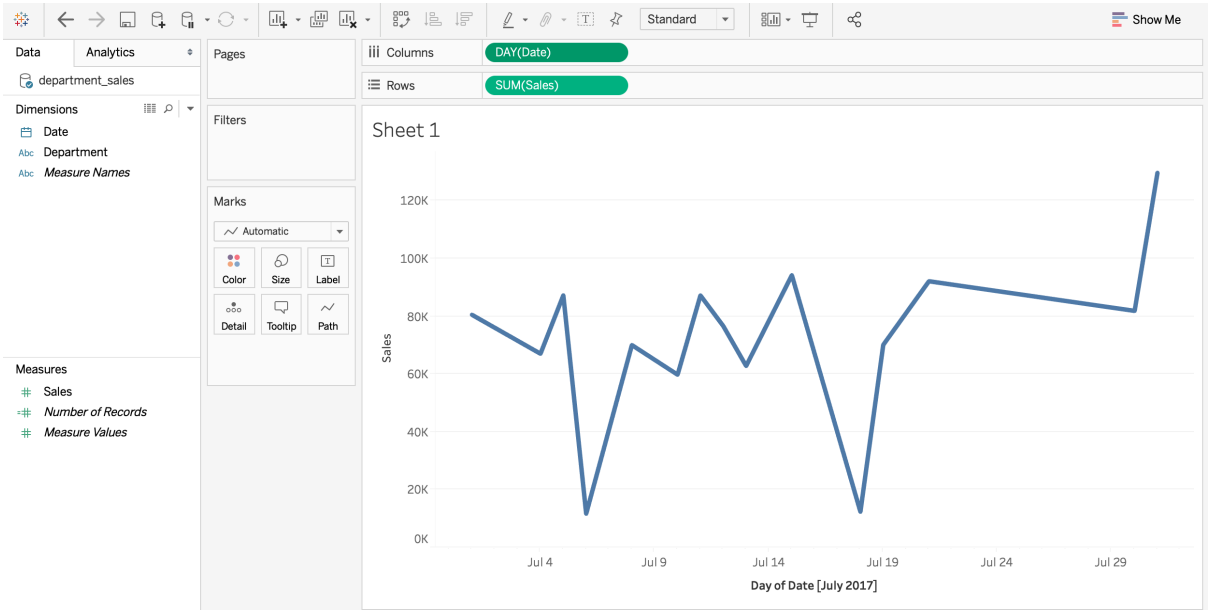
Tree Map



Keep in mind that the visualisations from which you can choose are based on the values you've dragged into columns and rows. For example, "Department" shown in *columns* and "Sales" displayed in *rows*. You cannot create a line graph, because a line graph visualises a period of time and thus requires "time" value data.

Line Graph

If we drag "Date" into columns and "Sales" into rows, we can create a line graph.



Extra resource

*Tableau's official website also has its own training videos; these **videos** are very detailed and in-depth. They are updated when Tableau releases new versions. Feel free to check them out!*

Compulsory Task 1

Follow these steps:

- Download Tableau:
  - https://www.tableau.com/products/desktop/download
- Set up:
  - Registration of account
  - Open Tableau and make sure it is working

Compulsory Task 2

Follow these steps:

- Choose and download a dataset from Tableau's resources:
  - **https://public.tableau.com/en-us/s/resources** (make sure that the "Sample Data" tab is selected instead of the "How-to Videos" tab).
- Download the **2014 Inc. 5000 dataset**. (Or, alternatively, search for it **here**.)
- Answer the following questions by using a graph (to be included in your submission):
  - Which industries saw the most growth?
  - Do companies that have been on this list longer have a higher chance of appearing again in this list?
  - Does the number of workers in the company affect the growth of the company?
  - Which state can you find most of the IT companies in?
  - Which cities have seen the most growth?

Completed the task(s)?

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