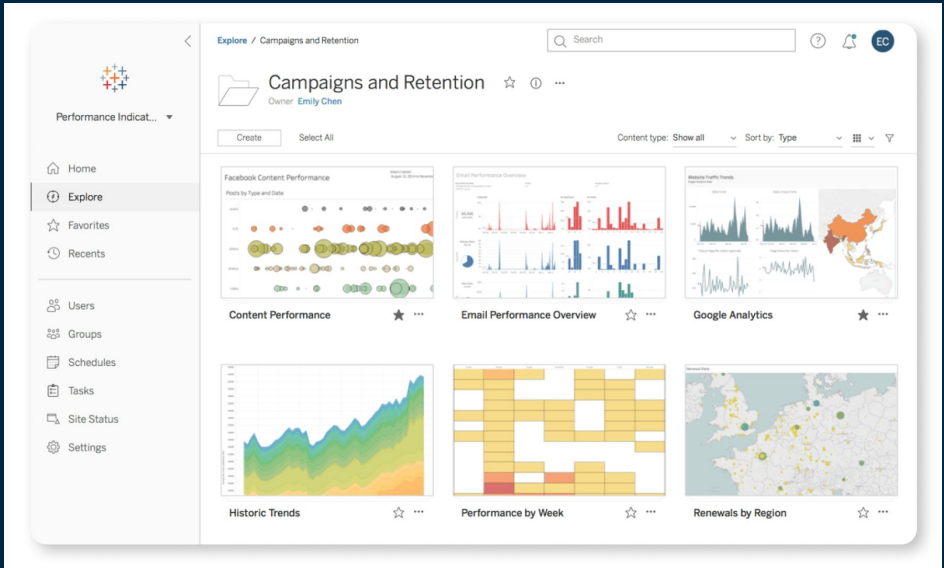
Tableau

By Ethan Johnson

What is Tableau?

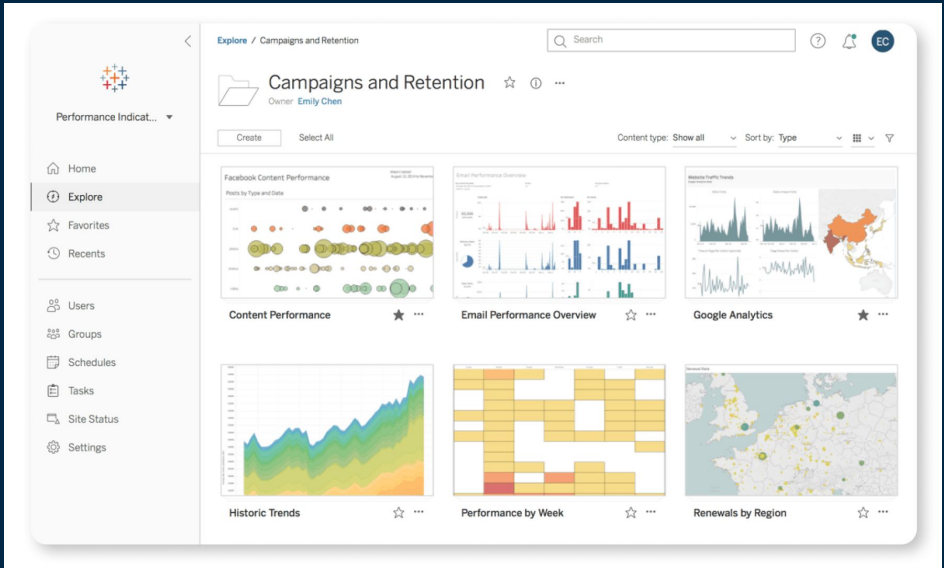
- Founded in 2003, **Tableau** is interactive software that **connects to data sources and makes visualizations** . The program makes it easy to handle and grasp large amounts of data through **charts** , **lists** , and other data **visualizations** .

Why use Tableau?



- Despite other programs such as Excel, which also include charts and visuals, Tableau is useful in the **data analytics industry** due to its focus on **visual analysis** . The program also focuses on data security, collaboration with team members, and a robust network.

Why use Tableau? (Pt. 2)



- Tableau also makes it easier to separate genres and create detailed reports as they offer many unique tools and features (plenty of those features being **organizational** and **collaboratory**)
- Business problems such as meeting profit goals, seeing what items are most profitable, seeing which season is the best for your store, and many more can be solved through Tableau

Who Uses Tableau?

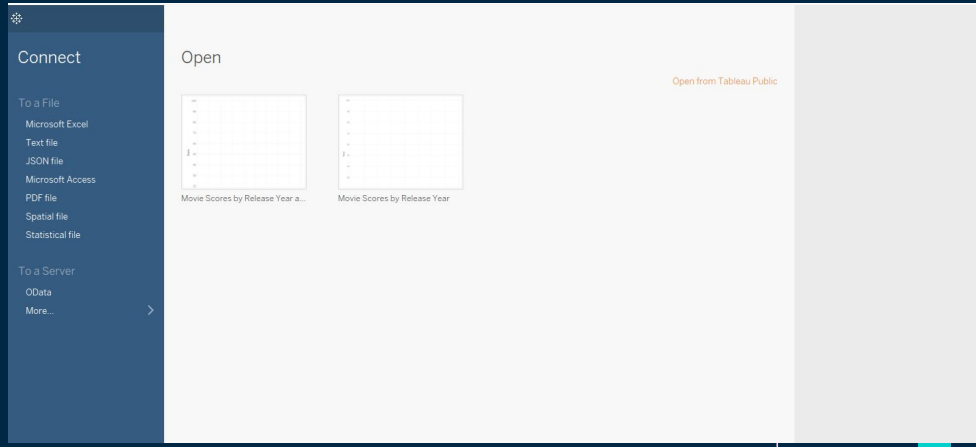
- Data Analysts in the following industries use Tableau:
  - Retail and Consumer Goods
  - Communications and Media
  - Industrial Products
  - Manufacturing
  - Many More
- With Data Analytics becoming more and more in demand, so are programs such as Tableau

Thank You for Watching!

Table of Contents

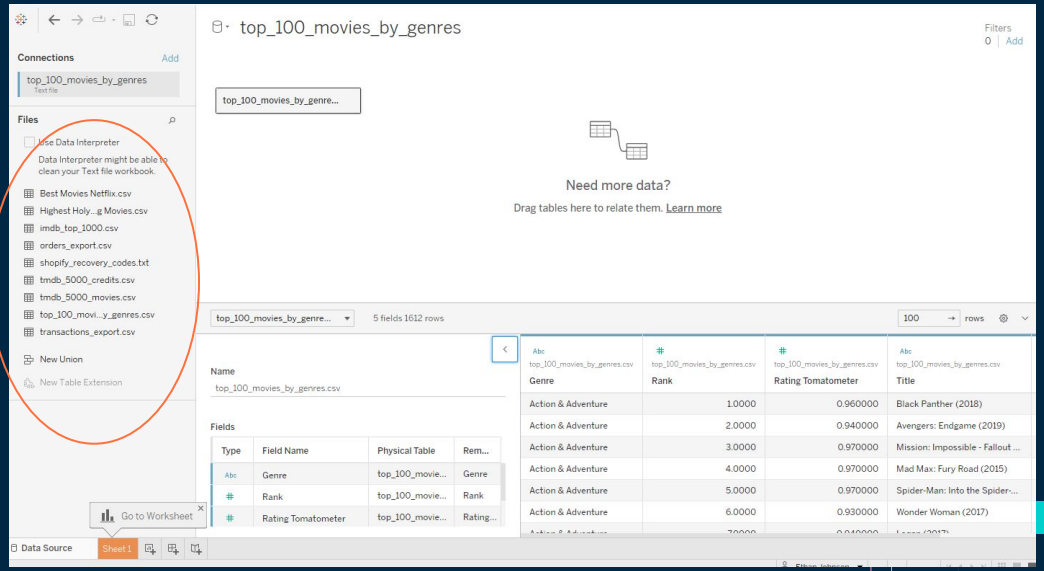
User Manual

- To create a new visualization, you can simply choose any of the options on the left. The most common option is “Text File”
- You simply select your file, and all of your data should appear in a summary screen (shown on the next slide)



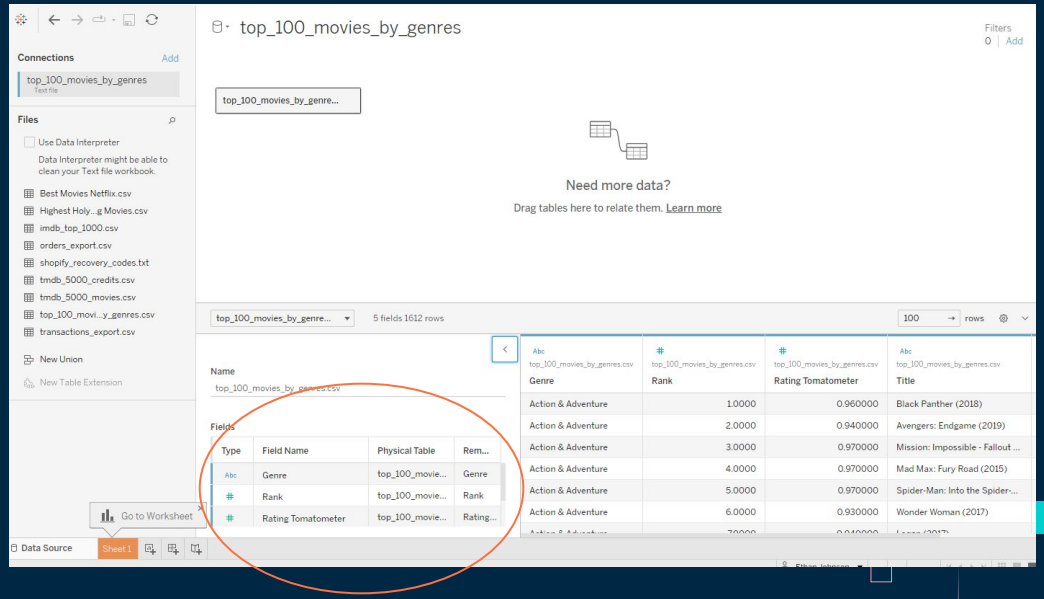
User Manual

- You are then brought to this screen which summarizes your file. On the left, those are other possible files that you can put into Tableau



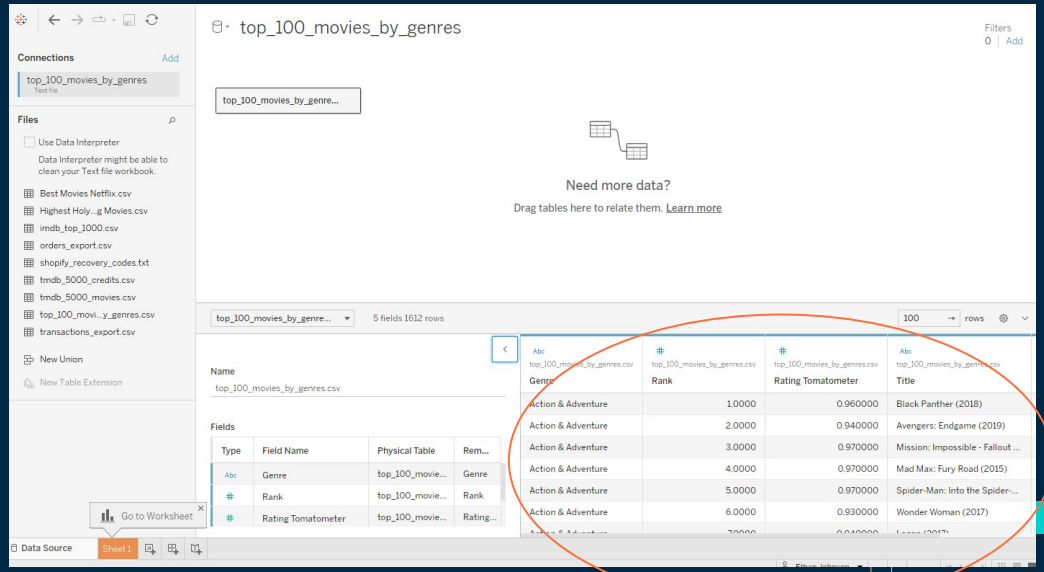
User Manual

- In the bottom left, those are the different types of categories, or fields, that your data has. This can be things such as Year, Profit, Revenue, Product Category, Etc. In this case, it can be seen as Genre, Rank, and Rating Tomatometer



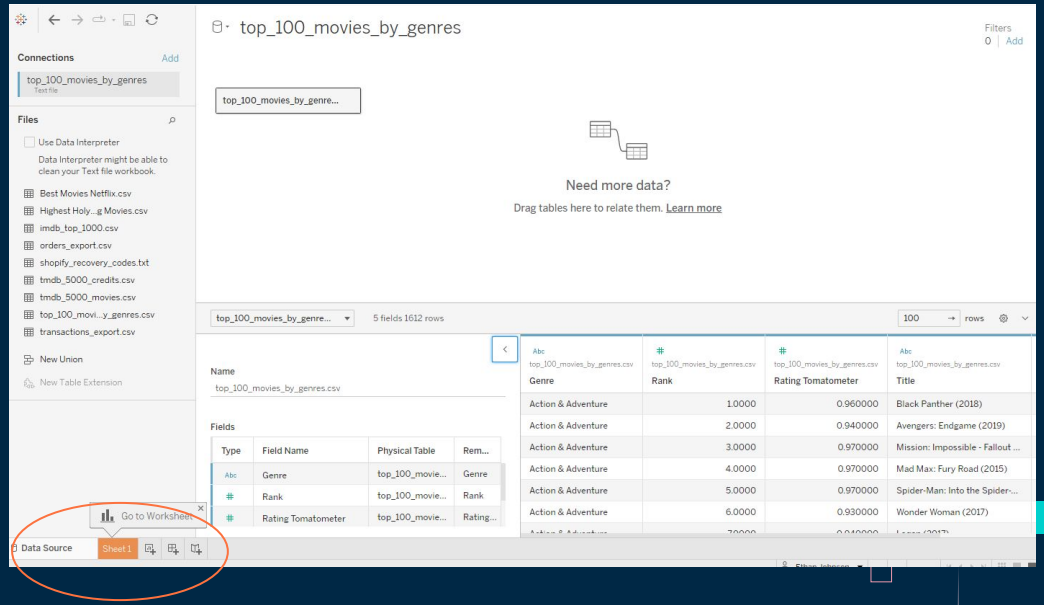
User Manual

- On the lower right side of your screen, this is a summary of all of your data. You can scroll through it to see if everything is correct and also just for a quick overview.



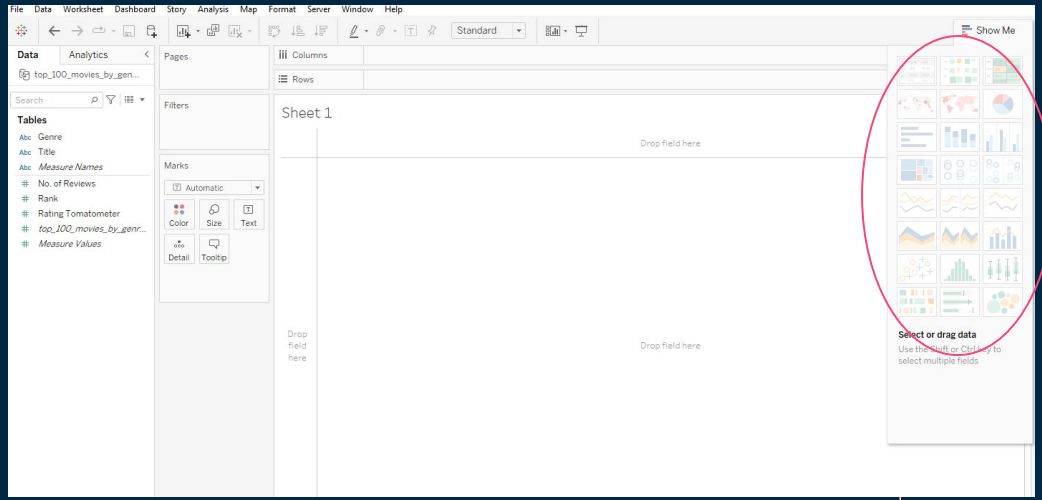
User Manual

- To start creating your visualization, click the Sheet 1 Button in the bottom corner.



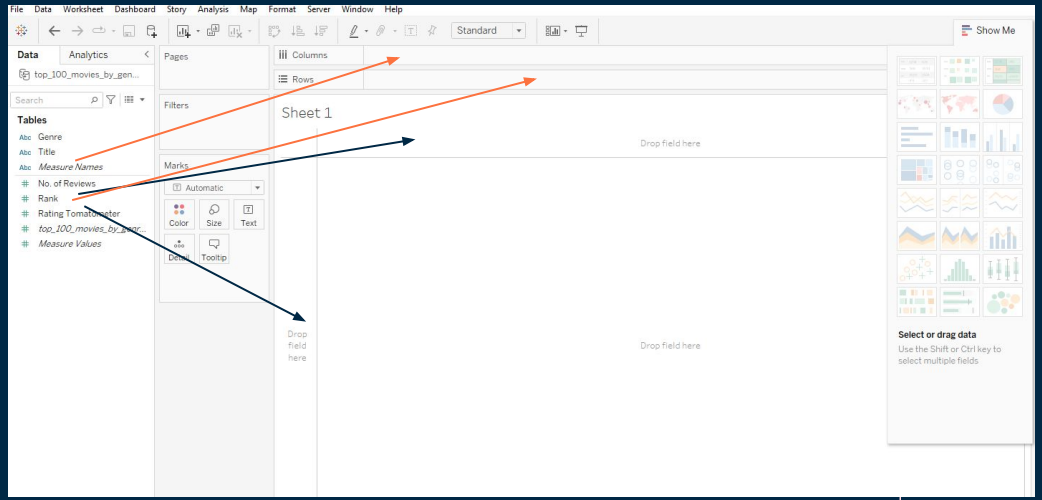
User Manual

- After clicking the Sheets button, you can start creating your visualizations.
- All of the different visualizations are on the right side and can either be selected, or they are automatically applied once you select the data that you wish



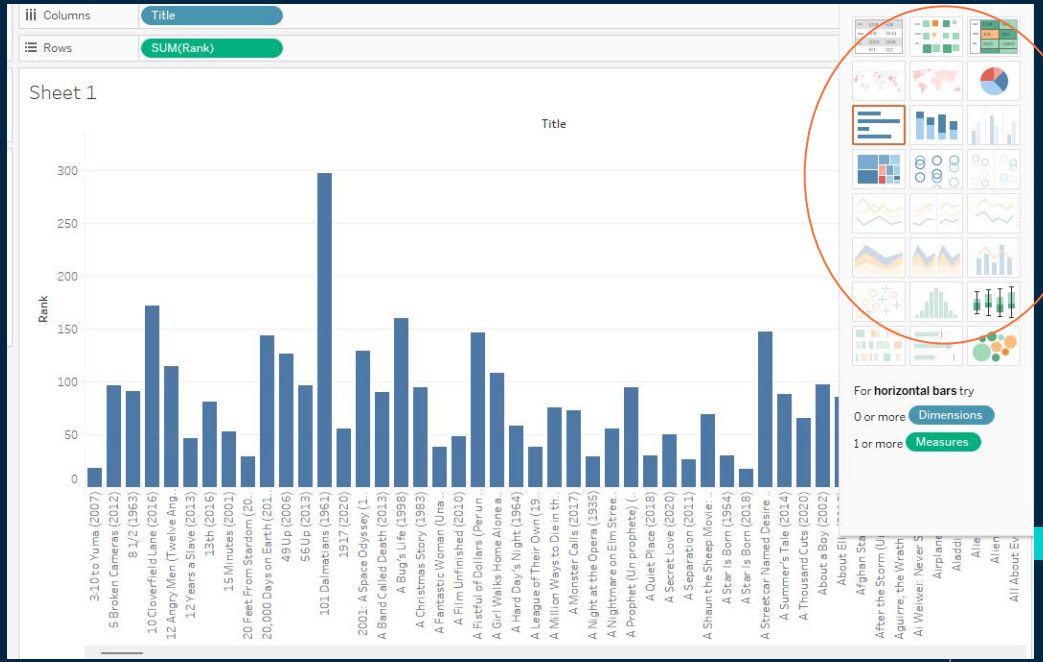
User Manual

- You can select the data that you want and start making your chart by dragging your different tables into the chart itself
- Typically, you need at least 1 Green table and 1 Blue table. The green table represents numerical values and the blue represents words. You can also add multiple tables



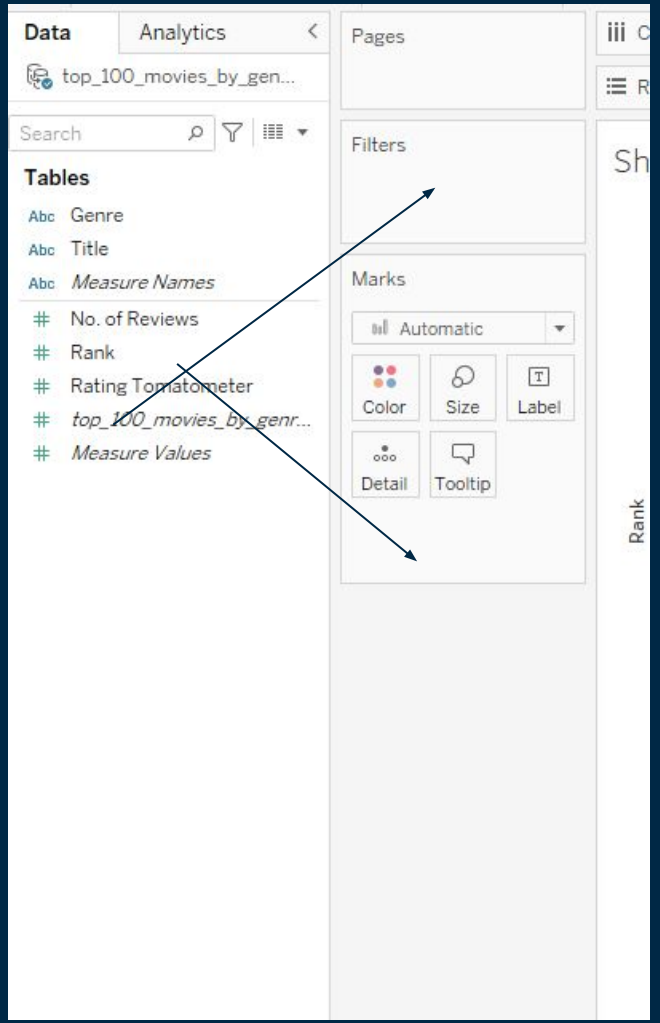
User Manual

- After selecting your data and putting them into columns, most of your work is complete! A chart should form and you can view your selected data
- You can also change your chart by clicking the different options on the left



User Manual

- To filter your data or add different constraints, you can drag different tables into the folders on the left.
- A menu is prompted, and you can follow the instructions to sort your data



User Manual

- After your chart is complete, now you can export your file by saving it in file or screenshotting it!
- Once you have exported, you’re all done!

Now it's your turn!

Today's Task:

Create your first Tableau Visuation

Goals:

1. Show how to convert big numbers into easy to read charts
2. Show the different charts and graphs that Tableau has to offer
3. Learn how to create your own visualization using Tableau

Different Sections of Our Task:

Note: These directions are for Windows users. Mac user instructions may vary

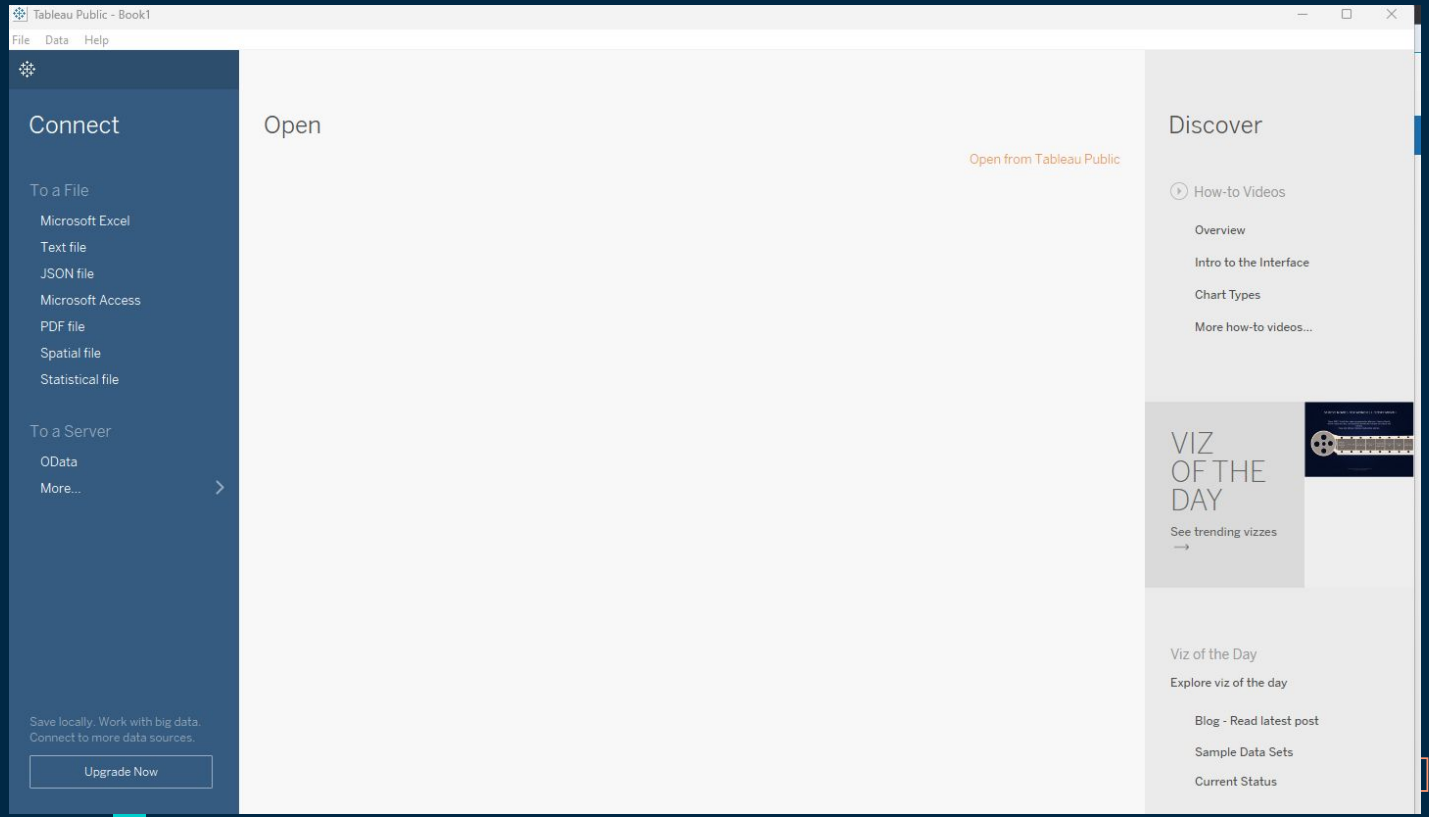
Also Note: *Words in Italics and grey are not instructions, but simply observations*. Words not in italics are instructions

1. Downloading Tableau (The free version)
2. Gathering Data for our visualizations
3. Making our chart
4. Exporting our file

1. Downloading Tableau (the free version)

- Go to https://public.tableau.com/app/discover
- Hover over the “Create” Tab in the top left corner
- Press “Download Tableau Desktop Public Edition”
- After entering the new page, press the “Download Tableau Public” button in the middle of the screen
- Make an account by entering your information and finish by pressing the “Download the App” button.
- After the file is finished downloading, open the file and go through the prompted window instructions, and accept.
- *You should now be taken to the Tableau Main Menu.*

Your Tableau Should Look Like This

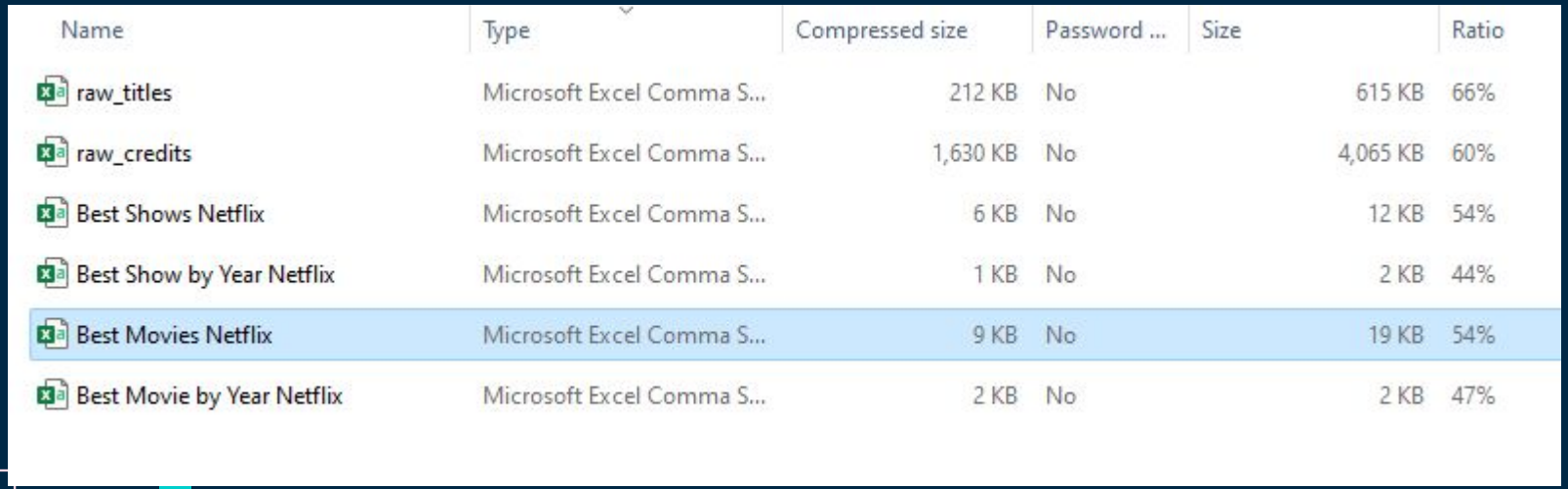


2. Gathering Data for our Visualizations

- *Now that our Tableau app is ready, we need to get data*
- First, go to https://www.kaggle.com/datasets/thedevastator/the-ultimate-netflix-tv-shows-and-movies-dataset
  - *This website, Kaggle, is a free website that has tons of free datasets to download*
  - *We will be downloading this dataset that categorizes Netflix TV Shows and Movies*
- Press the grey “Download” button in the top right
- To download, you must make an account if you do not have one already. Simply follow the prompted boxes and instructions to make your account.
- *Your ZIP file should be able to be downloaded now*

2. Gathering Data for our Visualizations

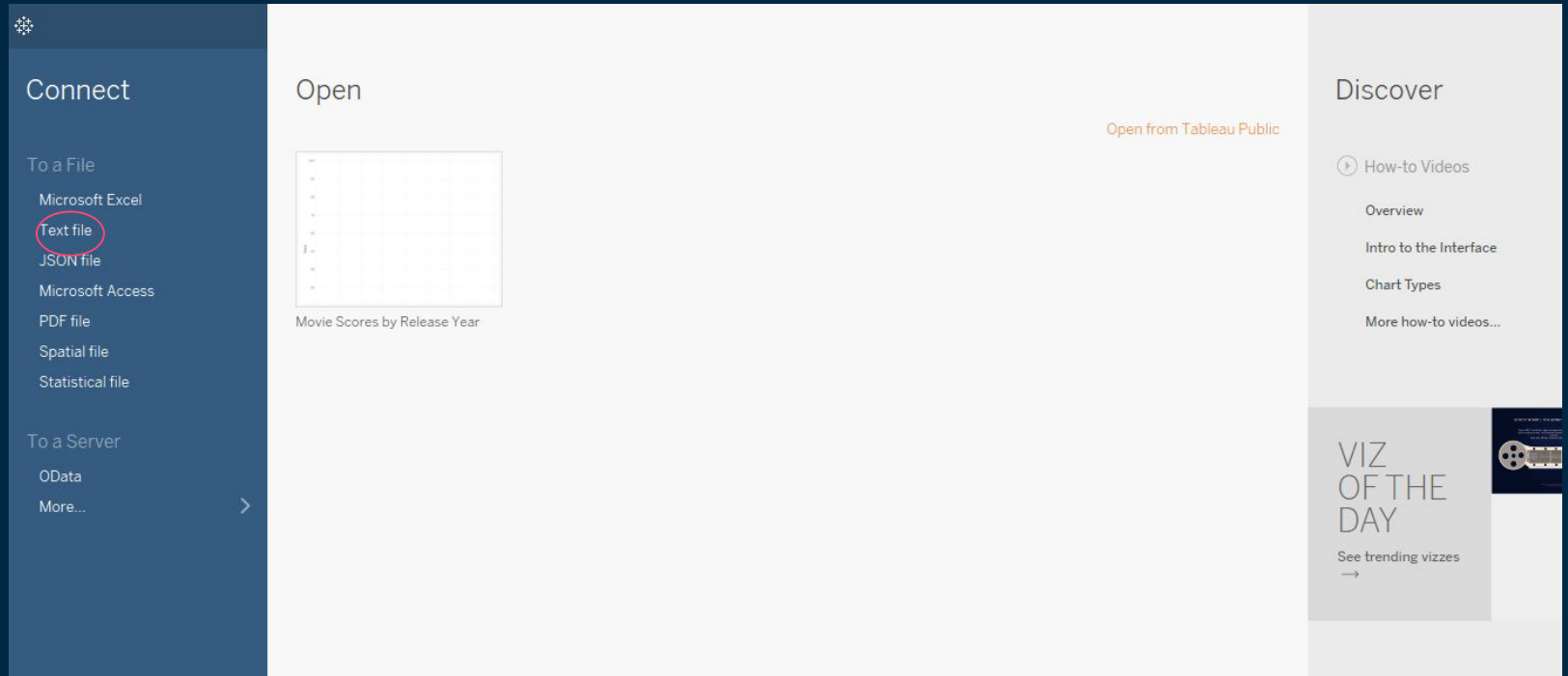
- After the Zip file downloads, open the zip file
  - *After opening the zip file, you will see multiple different Excel files. Today, you will only need to use the "Best Movies Netflix" File.*
- Drag the "Best Movies Netflix" File into your downloads



Name	Type	Compressed size	Password ...	Size	Ratio
raw_titles	Microsoft Excel Comma S...	212 KB	No	615 KB	66%
raw_credits	Microsoft Excel Comma S...	1,630 KB	No	4,065 KB	60%
Best Shows Netflix	Microsoft Excel Comma S...	6 KB	No	12 KB	54%
Best Show by Year Netflix	Microsoft Excel Comma S...	1 KB	No	2 KB	44%
Best Movies Netflix	Microsoft Excel Comma S...	9 KB	No	19 KB	54%
Best Movie by Year Netflix	Microsoft Excel Comma S...	2 KB	No	2 KB	47%

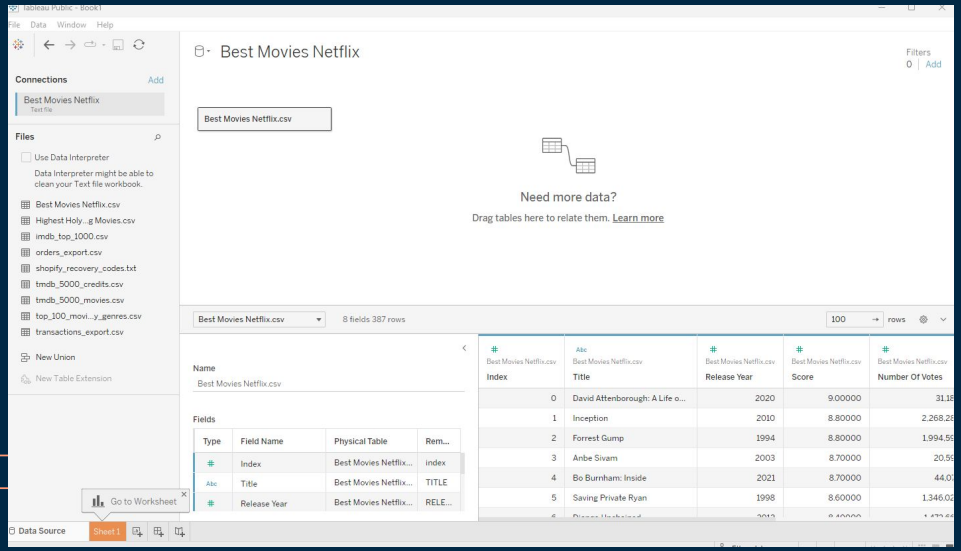
3. Making Our Chart

- Now that we have our data downloaded, we can open Tableau
- Select the tab titled “Text File”



3. Making Our Chart

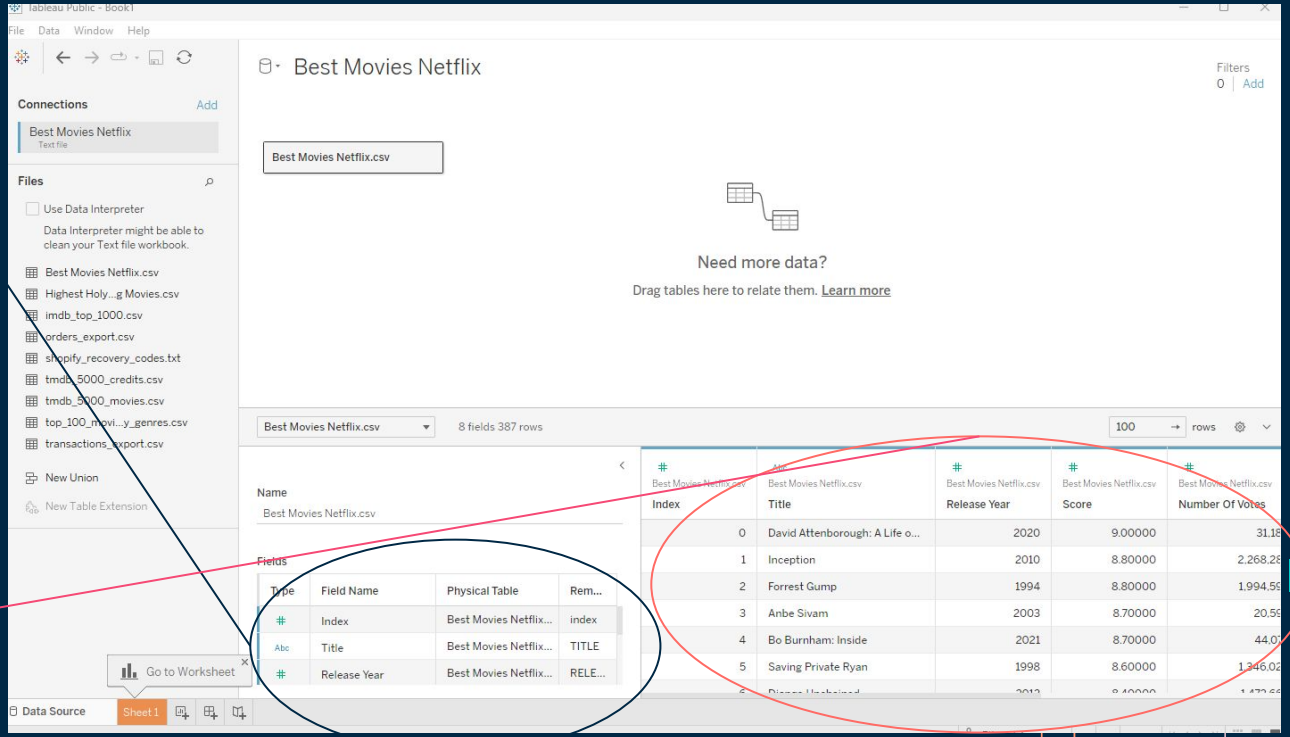
- *Your folders file should pop up*
- Select the CSV file that we just downloaded, titled “Best Movies Netflix”
- *You should be taken to this screen*



3. Making Our Chart

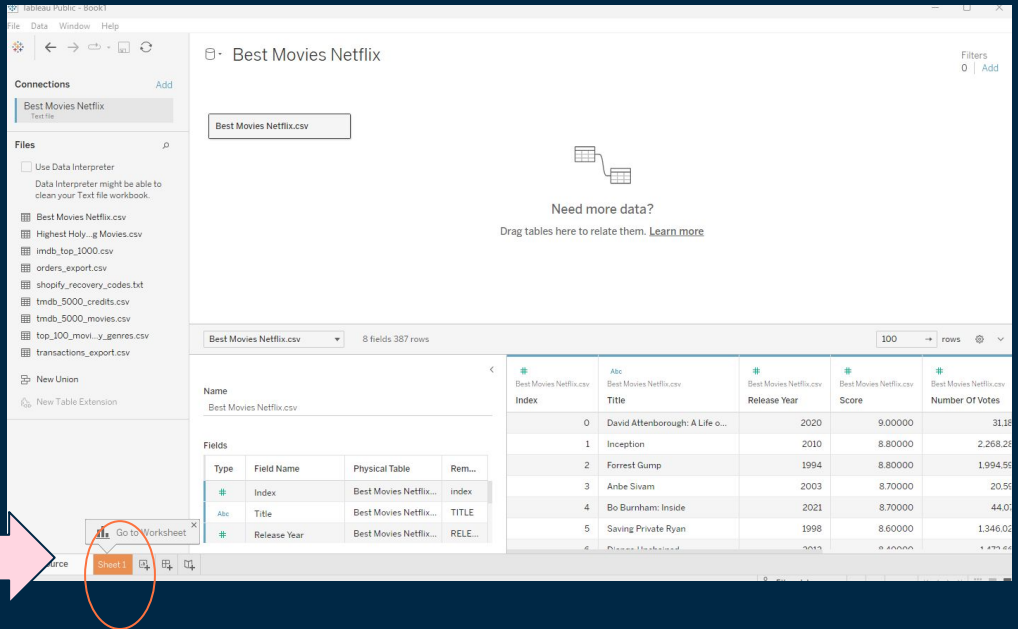
On the lower left, you can see the different categories or fields such as Index, Title, Release Year, etc.

In the lower right, you can see a summary of the data that we downloaded



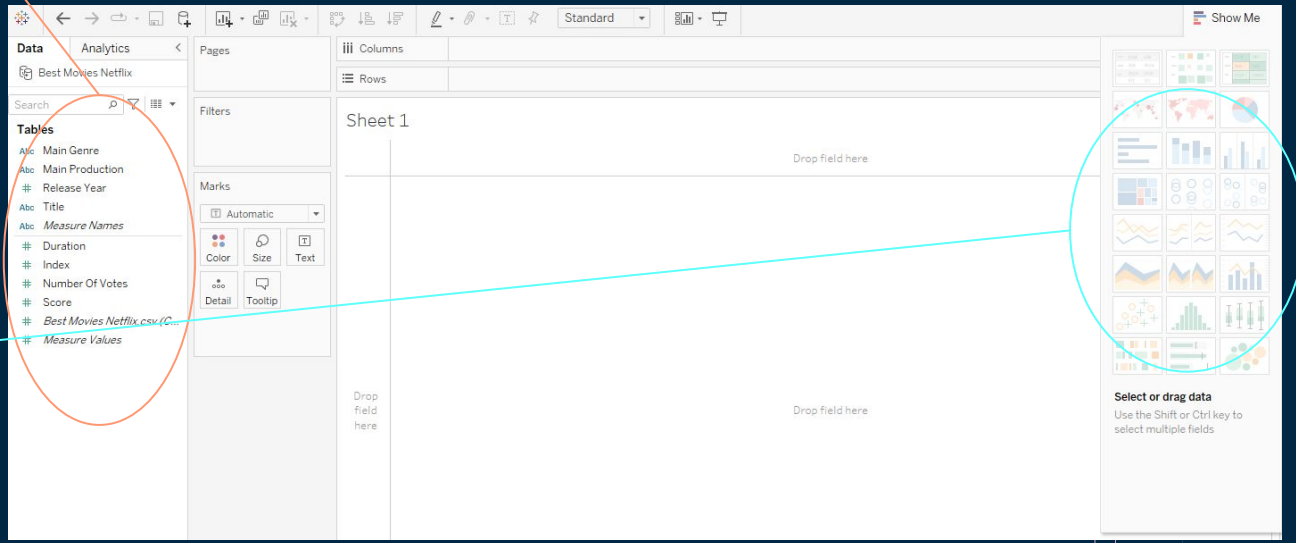
3. Making Our Chart

- In the bottom left corner, there is a glowing orange button titled “Sheet 1”. To format the data and create charts, we will click this button and open a new sheet.



3. Making Our Chart

- *On the left, under " Tables" is all the fields or categories*
- *On the Right, there are different visualization options. When you hover over them, you can see the different categories or requirements you need to make that visualization*
  - *The visualization types should update*
  - *automatically as you put data into columns and rows*



3. Making Our Chart

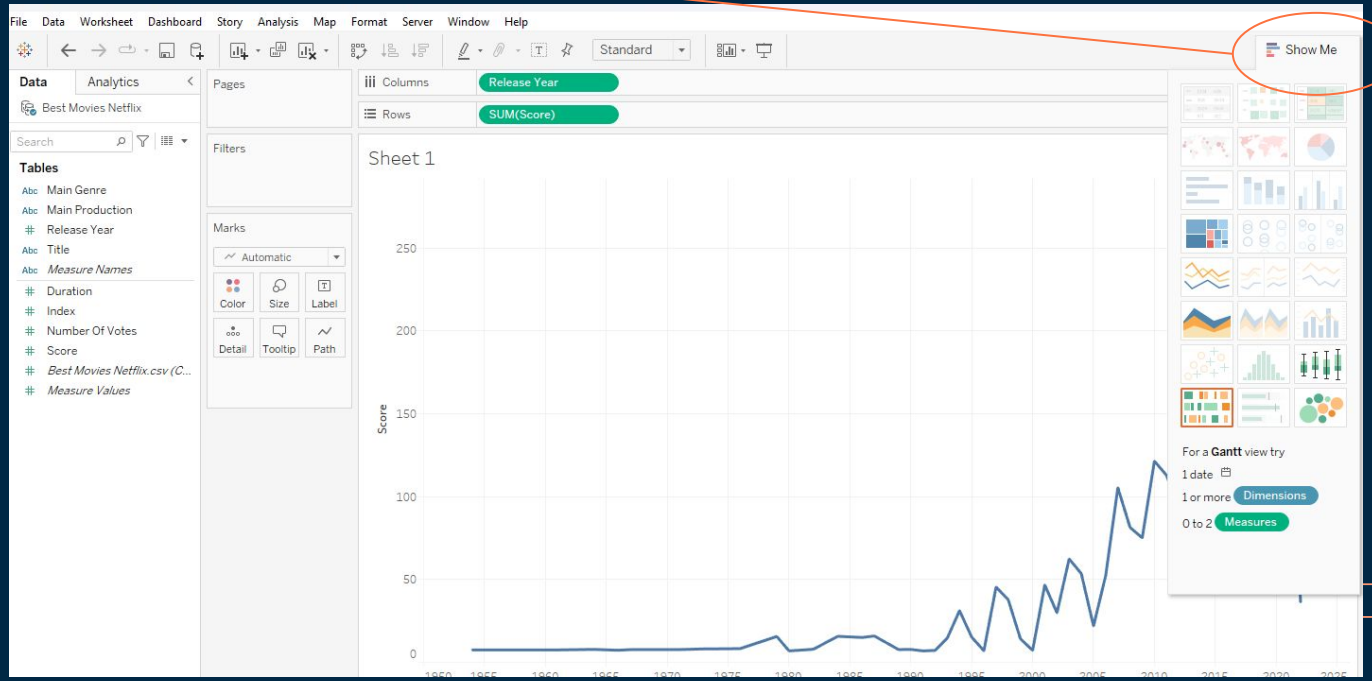
- *To put data into columns and rows, it can be dragged into the top "Columns" and "Rows" bar:*

3. Making Our Chart

- *You can put multiple types of data into these columns and rows, but to keep it simple,*
- Drag “Release year” into “Columns” and “Score” into rows
- *As we put “Score” into rows, you can see that it says “SUM(Scores)” instead. This is because it automatically adds up all the scores to make the visuals easier to read*

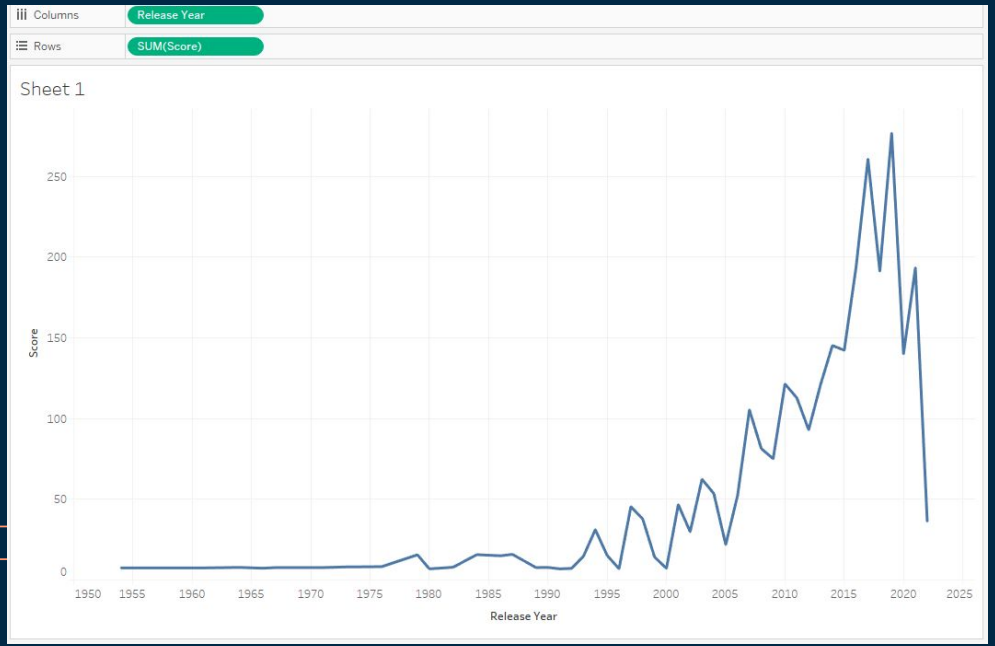
3. Making Our Chart

- To get rid of the display on the right, press the “Show Me” tab to collapse



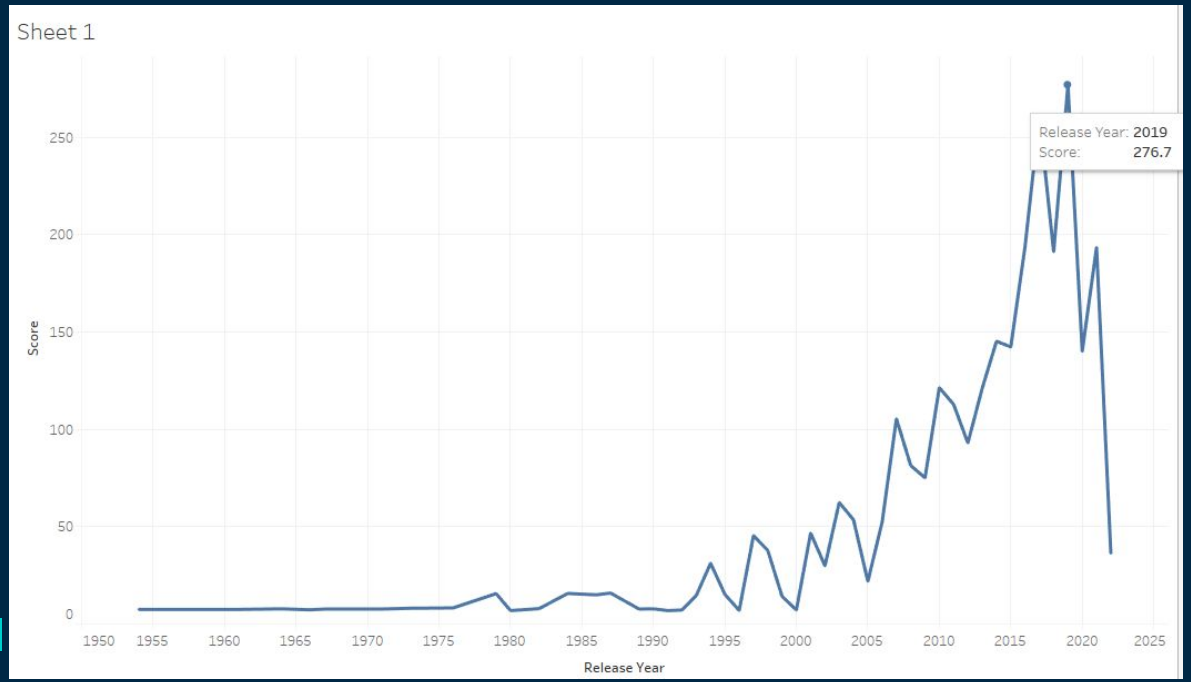
3. Making Our Chart

- *Your chart should look like this:*
- *Currently, you are viewing the Scores of the movies by critics on the Y axis, and the release year of movies on the X axis*



3. Making Our Chart

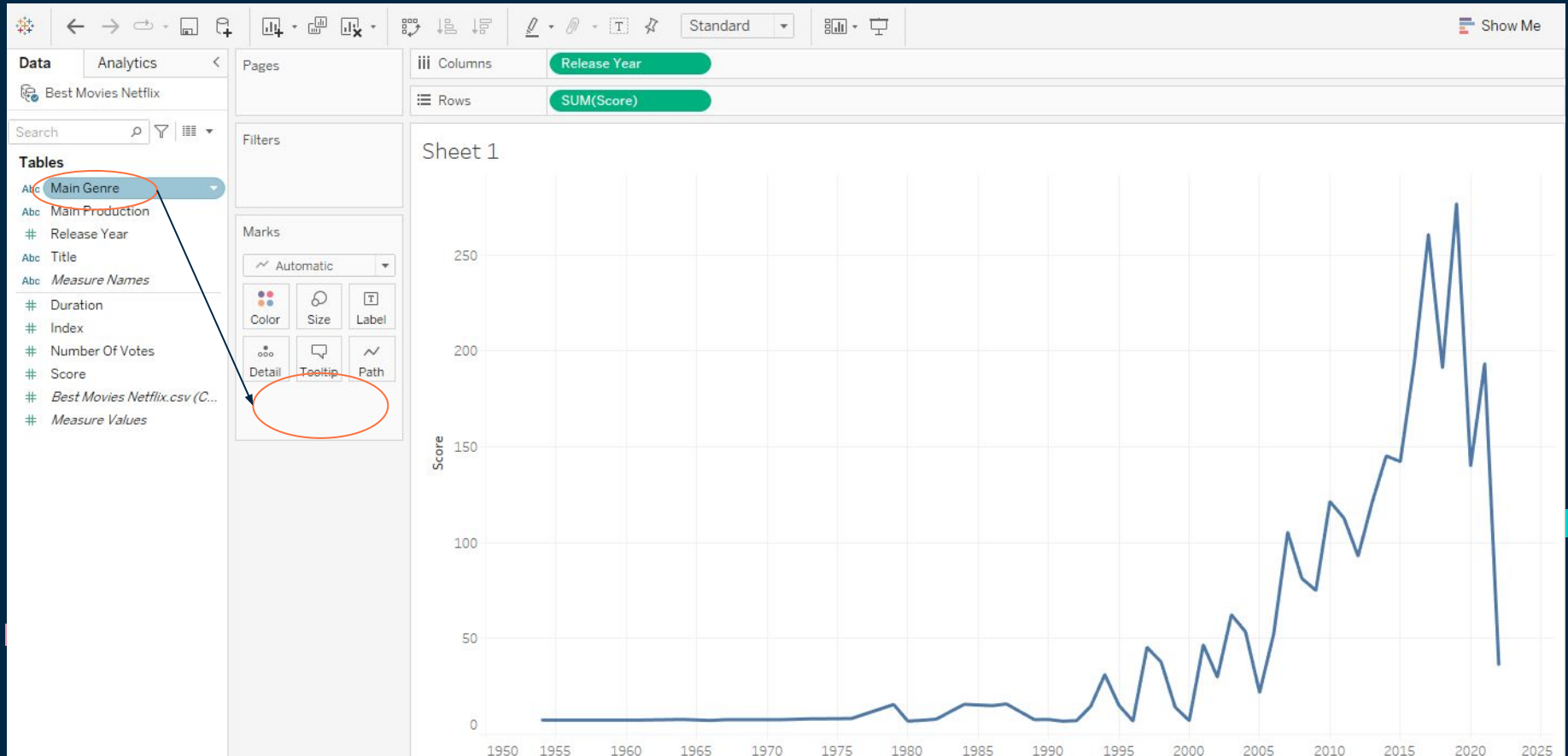
- *You can get more details of each point by hovering over the line graph*



3. Making Our Chart

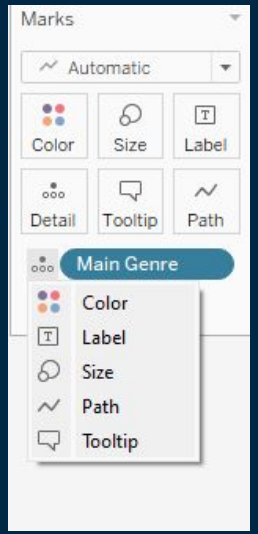
- *For our chart, we also want to see how the different Genres play a role in our data. To do so:*
- Drag the “Main Genres” under “Tables” to the “Marks” Box
- *See a visual representation on the next slide:*

3. Making Our Chart



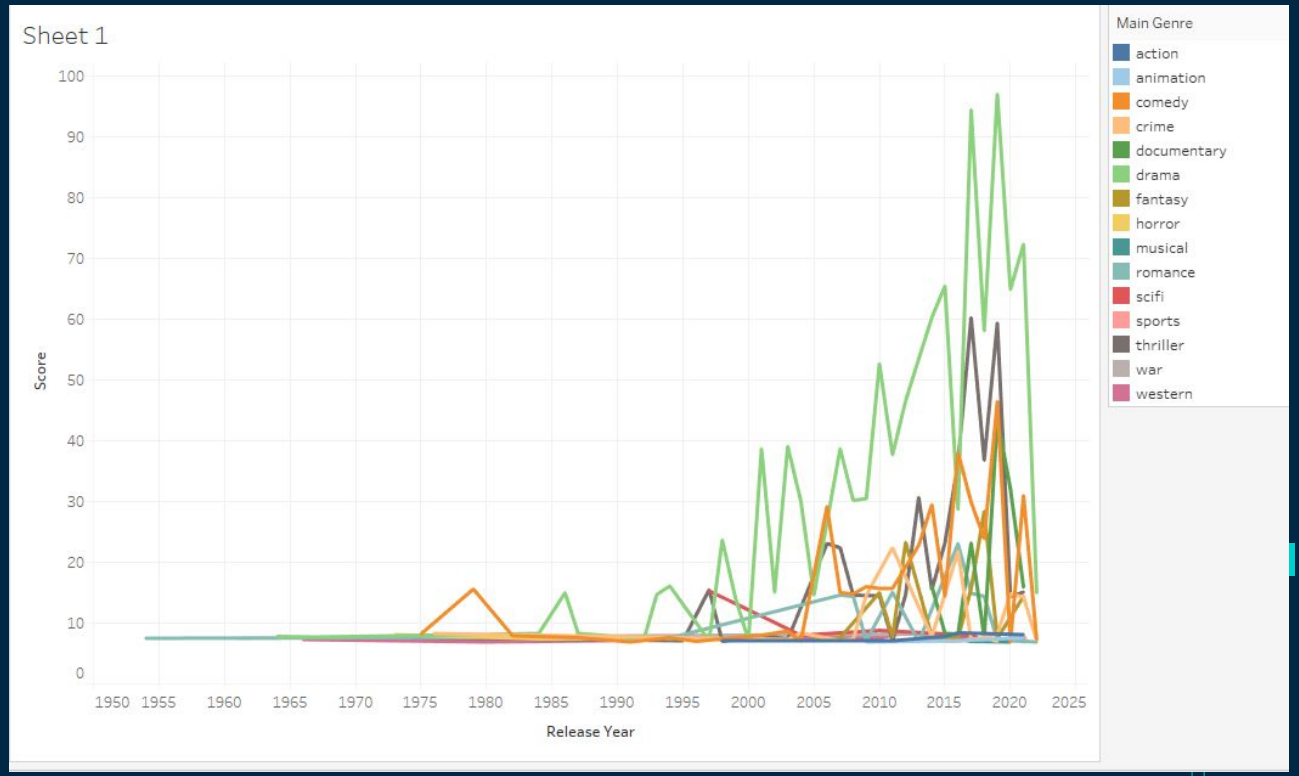
3. Making Our Chart

- *A bunch of new lines should pop up, and it should look a little cluttered. To separate them and see them more clearly:*
- Click on the icon next to “Main Genre” and select “Color”



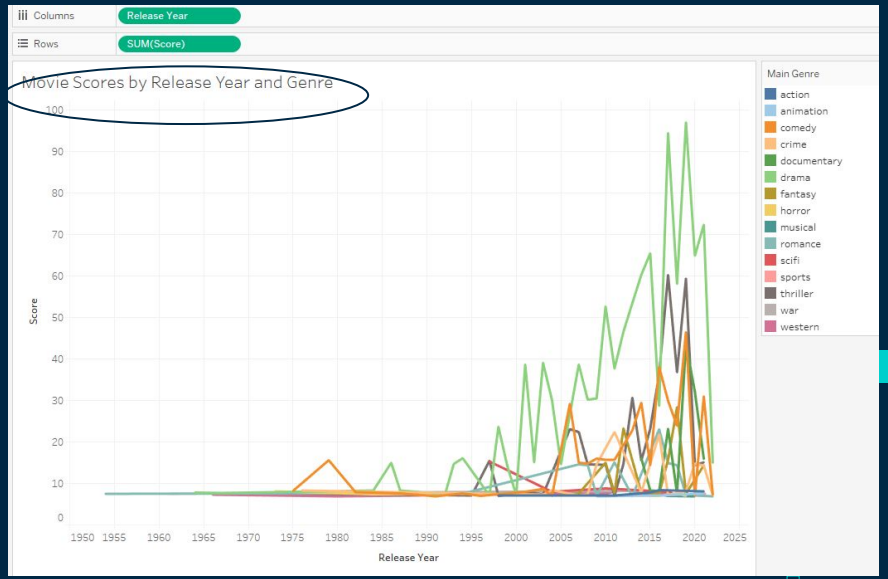
3. Making Our Chart

- *Now, you will be able to see how different Genres compare by clicking the lines or using the legacy box on the right*



3. Making Our Chart

- *The chart is almost all done!*
- The last thing we need to do is name our Sheet. Double click the title, “Sheet 1”, at the top of the data chart and name the data “Movie Scores by Release Year and Genre”



4. Exporting our File

- To save our file:
  - Go to File
  - Save to Tableau Public As...
  - Name the file
  - Sign into Tableau, as prompted
  - Press Continue
- *It should bring you back to the Tableau Website with your chart.*
- You can share your chart by screenshotting and also by copying and pasting the link!

Congratulations!

You have created and exported your first Tableau data chart. Share your work by screenshotting or sharing your link!