

The background is a dark blue gradient. It features several thin, vertical white lines of varying lengths scattered across the frame. Interspersed among these lines are small squares in three colors: light pink, light orange, and light teal. Some squares are solid, while others are outlined. The overall aesthetic is modern and minimalist.

Tableau

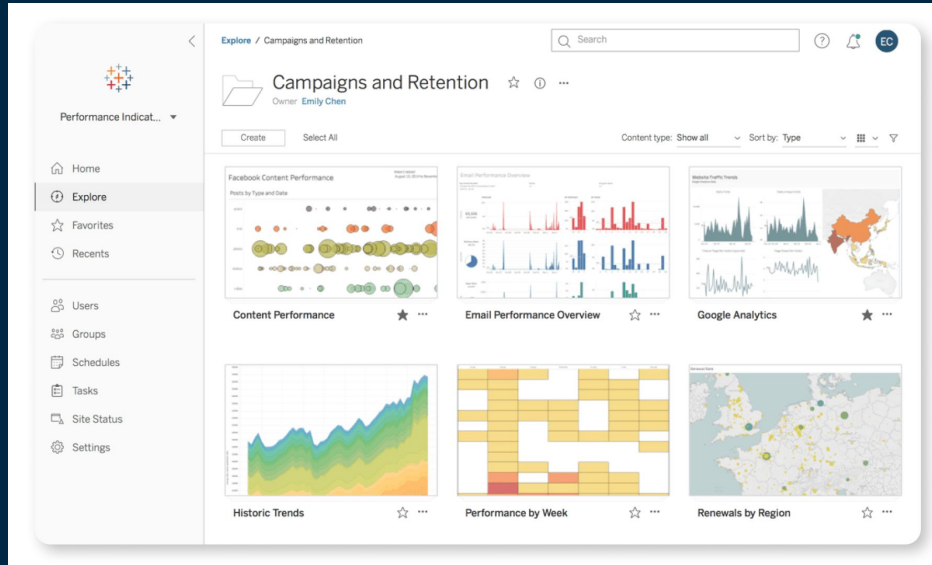
By Ethan Johnson

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** .

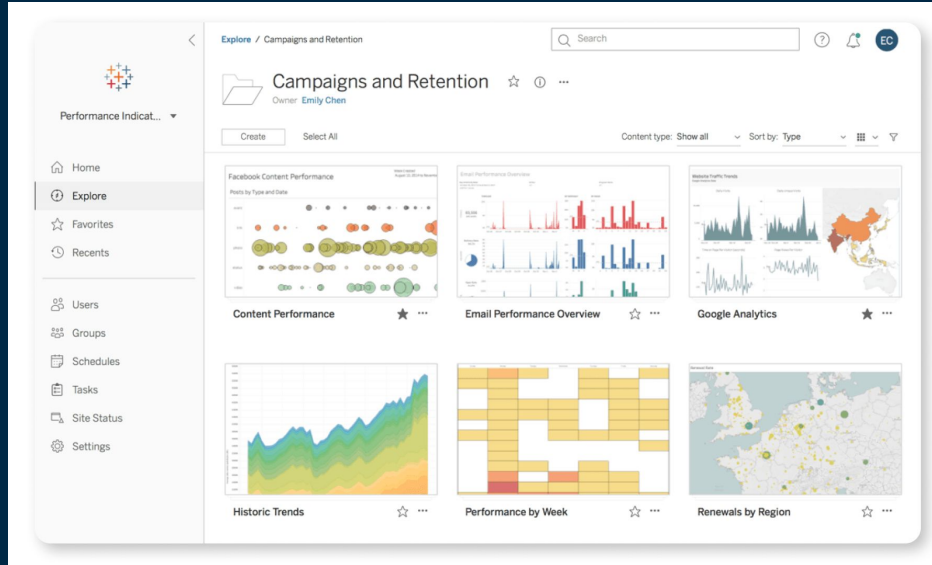


Why use Tableau?



- 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



The background is a dark blue field decorated with various geometric elements. There are several thin white vertical lines of varying lengths. Scattered throughout are small squares in teal, pink, and orange. Some squares are solid, while others are outlined in white or orange. The text "Thank You for Watching!" is centered in a large, white, sans-serif font.

Thank You
for Watching!

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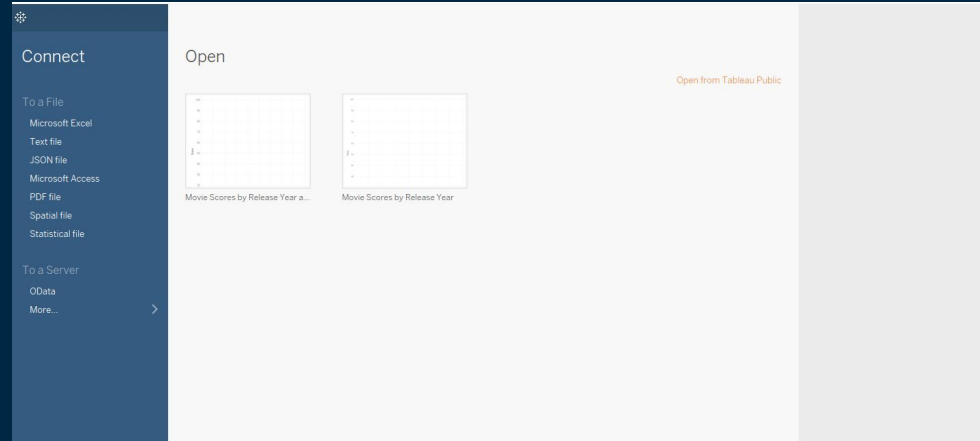
Get to know the software!
(Starts on Slide 7)

User Task

Make your own chart!
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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

The screenshot shows the Tableau interface with the 'top_100_movies_by_genres' data source selected. The left sidebar lists various CSV files, with 'top_100_movies_by_genres.csv' highlighted. The main area displays a summary of the data source, including a table of fields and a preview of the data.

Fields

Type	Field Name	Physical Table	Rem...
Abc	Genre	top_100_movie...	Genre
#	Rank	top_100_movie...	Rank
#	Rating Tomatometer	top_100_movie...	Rating...

Preview

Genre	Rank	Rating Tomatometer	Title
Action & Adventure	1.0000	0.960000	Black Panther (2018)
Action & Adventure	2.0000	0.940000	Avengers: Endgame (2019)
Action & Adventure	3.0000	0.970000	Mission: Impossible - Fallout ...
Action & Adventure	4.0000	0.970000	Mad Max: Fury Road (2015)
Action & Adventure	5.0000	0.970000	Spider-Man: Into the Spider...
Action & Adventure	6.0000	0.930000	Wonder Woman (2017)

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

The screenshot shows a data visualization tool interface. On the left, there's a sidebar with 'Connections' and 'Files' sections. The 'Files' section lists various CSV and TXT files. The main area displays a table titled 'top_100_movies_by_genres'. A red circle highlights the 'Fields' section in the bottom left, which lists the fields: Genre, Rank, and Rating Tomatometer. The table itself has columns for Genre, Rank, Rating Tomatometer, and Title. The data rows show movie information, such as 'Black Panther (2018)', 'Avengers: Endgame (2019)', and 'Mission: Impossible - Fallout'.

Genre	Rank	Rating Tomatometer	Title
Action & Adventure	1.0000	0.960000	Black Panther (2018)
Action & Adventure	2.0000	0.940000	Avengers: Endgame (2019)
Action & Adventure	3.0000	0.970000	Mission: Impossible - Fallout
Action & Adventure	4.0000	0.970000	Mad Max: Fury Road (2015)
Action & Adventure	5.0000	0.970000	Spider-Man: Into the Spider...
Action & Adventure	6.0000	0.930000	Wonder Woman (2017)

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.

The screenshot shows a data management interface. On the left, there's a sidebar with 'Connections' and 'Files' sections. The 'Connections' section lists 'top_100_movies_by_genres' as a text file. The 'Files' section lists various CSV and TXT files. The main workspace displays a table titled 'top_100_movies_by_genres'. The table has columns for 'Genre', 'Rank', 'Rating Tomatometer', and 'Title'. The table is filtered to show 5 fields and 1612 rows. A red circle highlights the table data.

Genre	Rank	Rating Tomatometer	Title
Action & Adventure	1.0000	0.960000	Black Panther (2018)
Action & Adventure	2.0000	0.940000	Avengers: Endgame (2019)
Action & Adventure	3.0000	0.970000	Mission: Impossible - Fallout ...
Action & Adventure	4.0000	0.970000	Mad Max: Fury Road (2015)
Action & Adventure	5.0000	0.970000	Spider-Man: Into the Spider...
Action & Adventure	6.0000	0.930000	Wonder Woman (2017)

User Manual

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

The screenshot shows a data visualization tool interface. On the left, there's a sidebar with 'Connections' and 'Files' sections. The 'Files' section lists various CSV files. The main area displays a table titled 'top_100_movies_by_genres'. Below the table, there's a 'Data Source' section with a 'Sheet 1' button circled in orange. A tooltip 'Go to Worksheet' is visible over the 'Sheet 1' button.

top_100_movies_by_genres

Need more data?
Drag tables here to relate them. [Learn more](#)

top_100_movies_by_genres... 5 fields 1612 rows

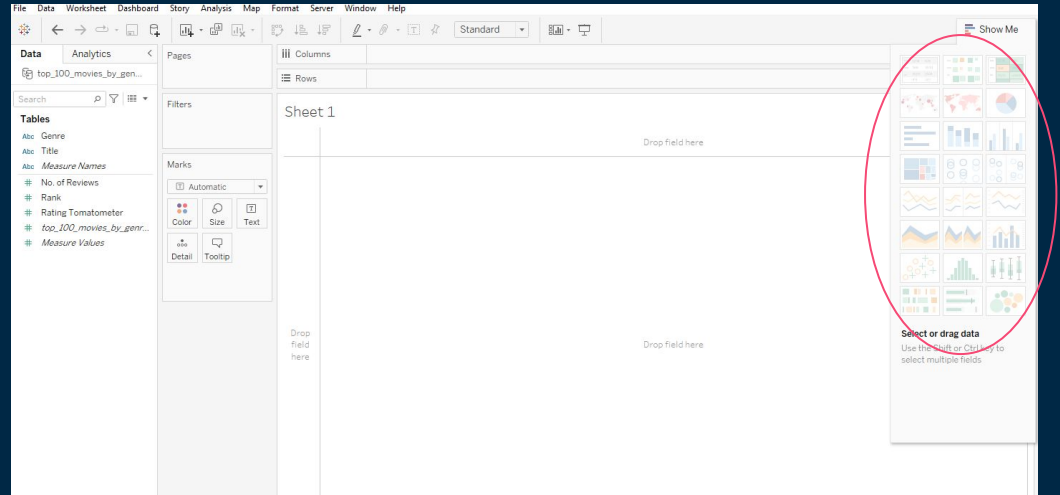
Name	Genre	Rank	Rating Tomatometer	Title
top_100_movies_by_genres.csv	Action & Adventure	1.0000	0.960000	Black Panther (2018)
top_100_movies_by_genres.csv	Action & Adventure	2.0000	0.940000	Avengers: Endgame (2019)
top_100_movies_by_genres.csv	Action & Adventure	3.0000	0.970000	Mission: Impossible - Fallout ...
top_100_movies_by_genres.csv	Action & Adventure	4.0000	0.970000	Mad Max: Fury Road (2015)
top_100_movies_by_genres.csv	Action & Adventure	5.0000	0.970000	Spider-Man: Into the Spider...
top_100_movies_by_genres.csv	Action & Adventure	6.0000	0.930000	Wonder Woman (2017)

Go to Worksheet

Sheet 1

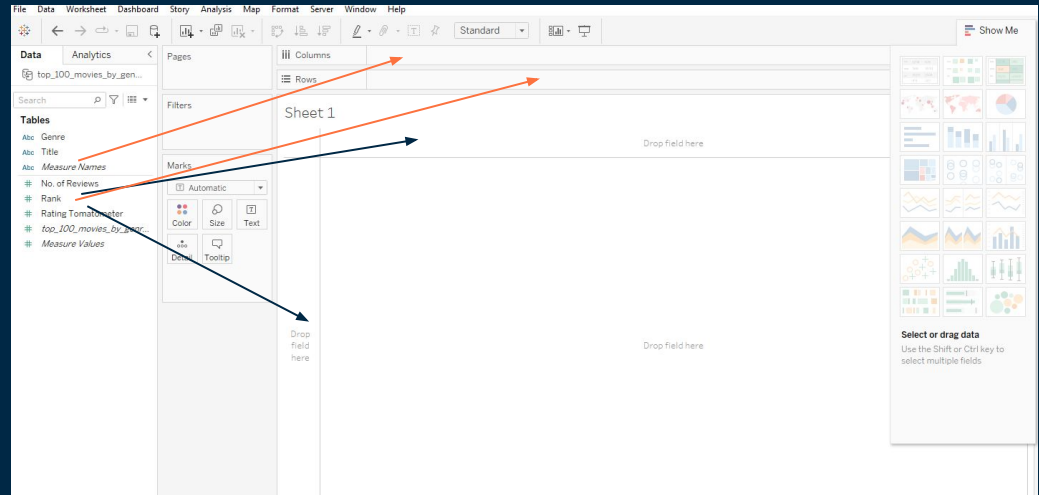
User Manual

- 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



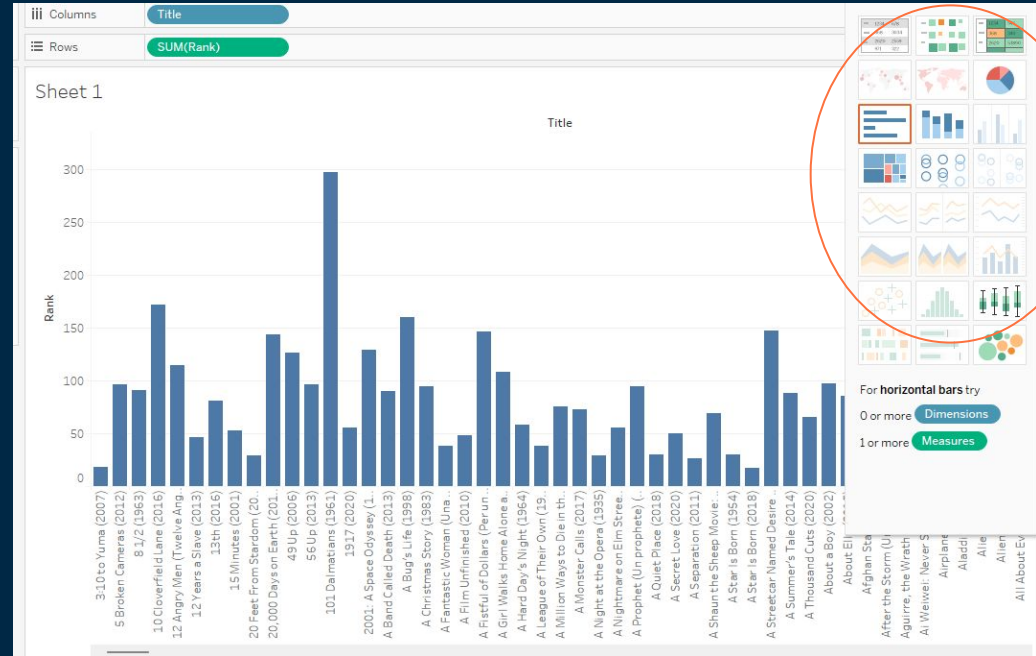
User Manual

- 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



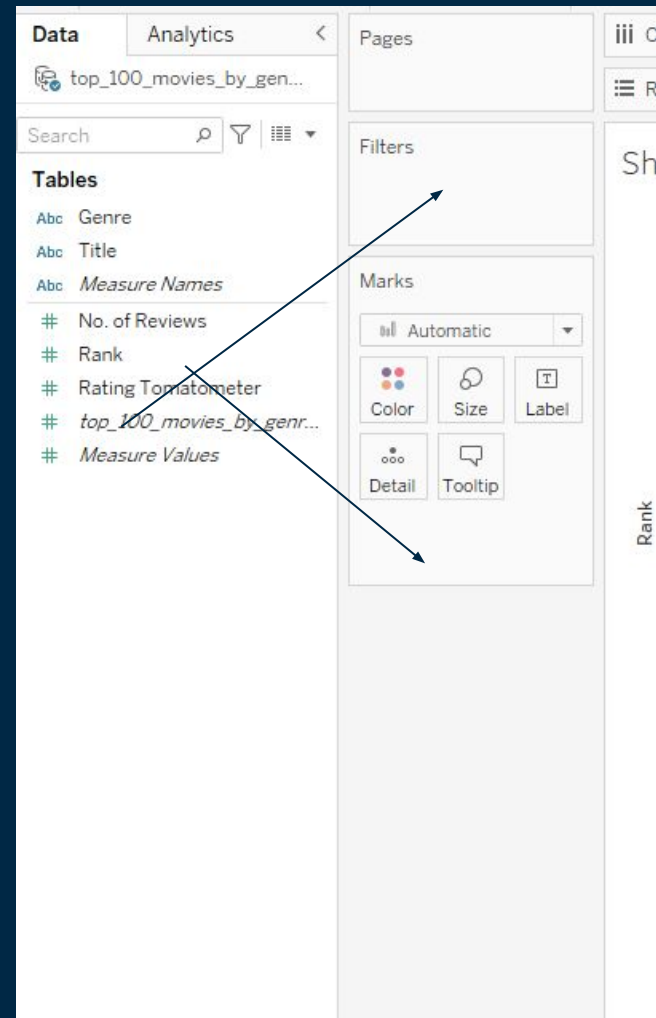
User Manual

- 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

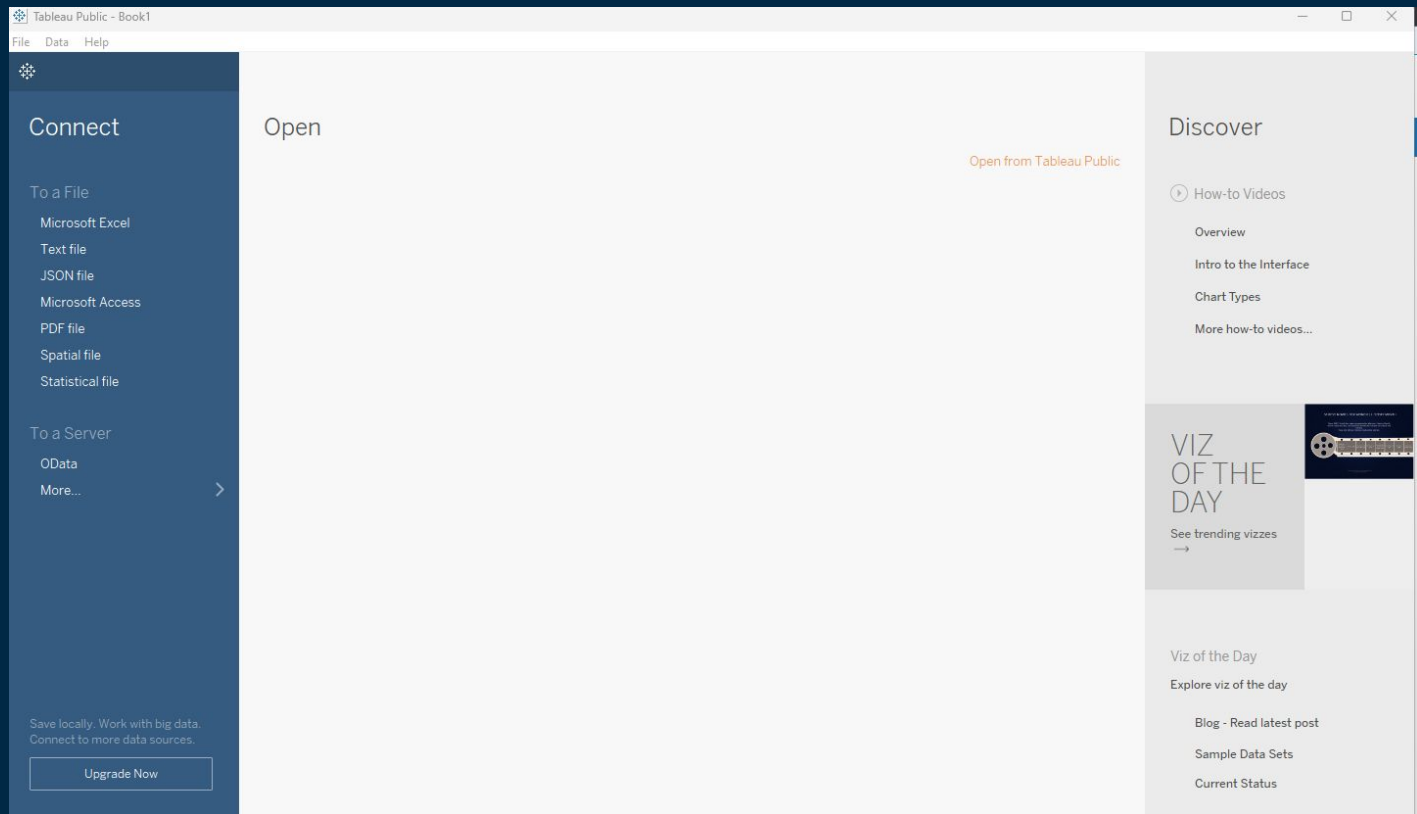
Also Note: *Words in Italics and grey are not instructions, but simply observations.* Words not in italics are instructions

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*

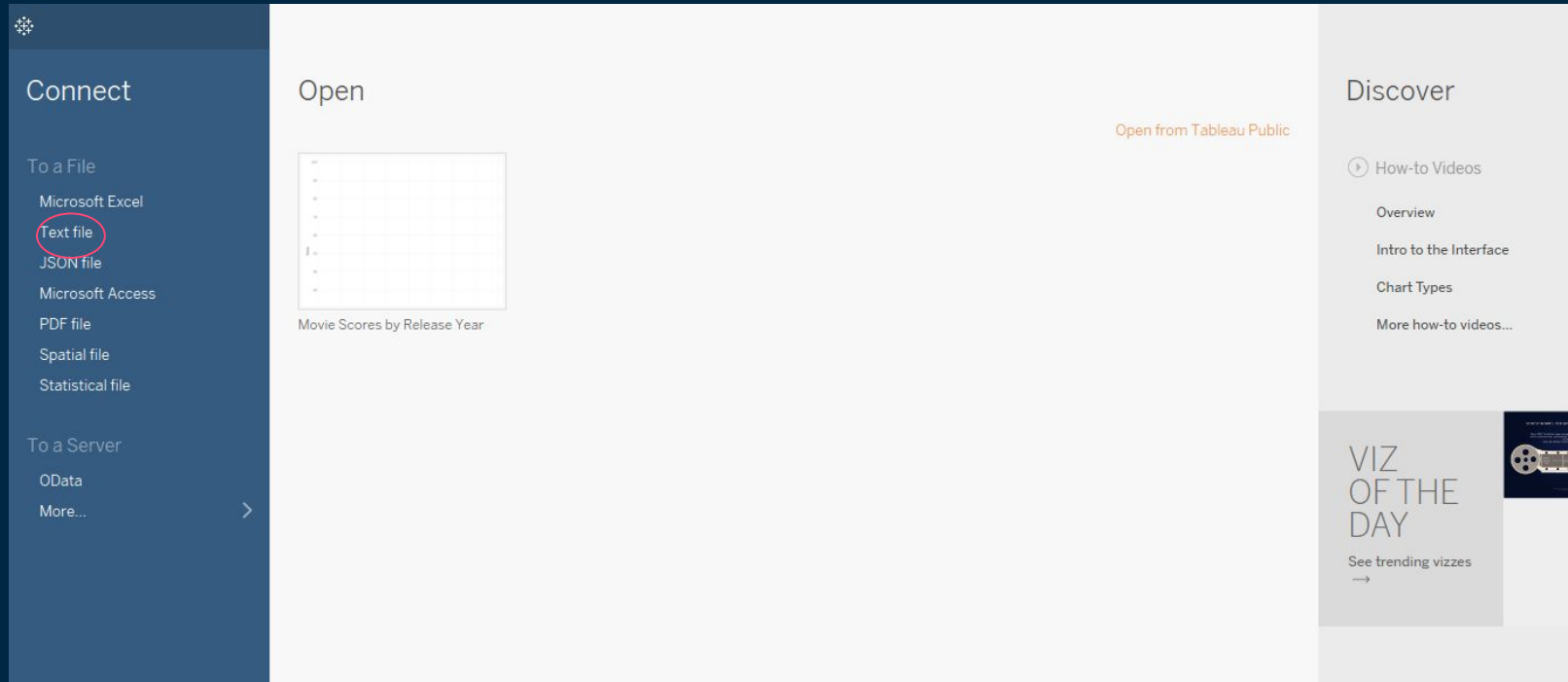
2. Gathering Data for our Visualizations

- 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*

The screenshot shows the Microsoft Power BI Desktop interface. On the left sidebar, under 'Connections', 'Best Movies Netflix' is listed as a 'Text file'. Below it, under 'Files', a list of files is shown, including 'Best Movies Netflix.csv'. The main workspace area displays 'Best Movies Netflix' with a prompt 'Need more data? Drag tables here to relate them. [Learn more](#)'. At the bottom, a data table is visible with the following structure:

#	Best Movies Netflix.csv Index	Alt: Best Movies Netflix.csv Title	# Best Movies Netflix.csv Release Year	# Best Movies Netflix.csv Score	# Best Movies Netflix.csv Number Of Votes
0		David Attenborough: A Life o...	2020	9.00000	3118
1		Inception	2010	8.80000	2,268,28
2		Forrest Gump	1994	8.80000	1,994,59
3		Anbe Sivam	2003	8.70000	20,56
4		Bo Burnham: Inside	2021	8.70000	44,03
5		Saving Private Ryan	1998	8.60000	1,346,02
6		Princess Mononoke	2003	8.60000	1,473,84

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

The screenshot shows the Tableau Public interface with the 'Best Movies Netflix' data source loaded. The 'Fields' pane on the left lists various fields including Index, Title, Release Year, Score, and Number Of Votes. The main view displays a summary table of the data.

Name	Best Movies Netflix.csv
Index	0
Title	David Attenborough: A Life o...
Release Year	2020
Score	9.00000
Number Of Votes	3118

Additional data rows visible in the background:

Index	Title	Release Year	Score	Number Of Votes
1	Inception	2010	8.80000	2,268,28
2	Forrest Gump	1994	8.80000	1,994,56
3	Anbe Sivam	2003	8.70000	20,56
4	Bo Burnham: Inside	2021	8.70000	44,00
5	Saving Private Ryan	1998	8.60000	1,346,02
6	Diary of a Wimpy Kid	2017	8.40000	1,133,66

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.

The screenshot shows the Tableau Public interface with the 'Best Movies Netflix' data source loaded. The interface includes a sidebar with connections and files, a main workspace with a data preview, and a bottom navigation bar. A pink arrow points to the 'Sheet 1' button in the bottom left corner.

Connections

- Best Movies Netflix (Text file)

Files

- Best Movies Netflix.csv
- Highest Holy...g Movies.csv
- imdb_top_1000.csv
- orders_export.csv
- shopify_recovery_codes.txt
- tmdb_5000_credits.csv
- tmdb_5000_movies.csv
- top_100_moviel_y_genres.csv
- transactions_export.csv

Best Movies Netflix

Best Movies Netflix.csv

Need more data?
Drag tables here to relate them. [Learn more](#)

Best Movies Netflix.csv 8 fields 387 rows 100 rows

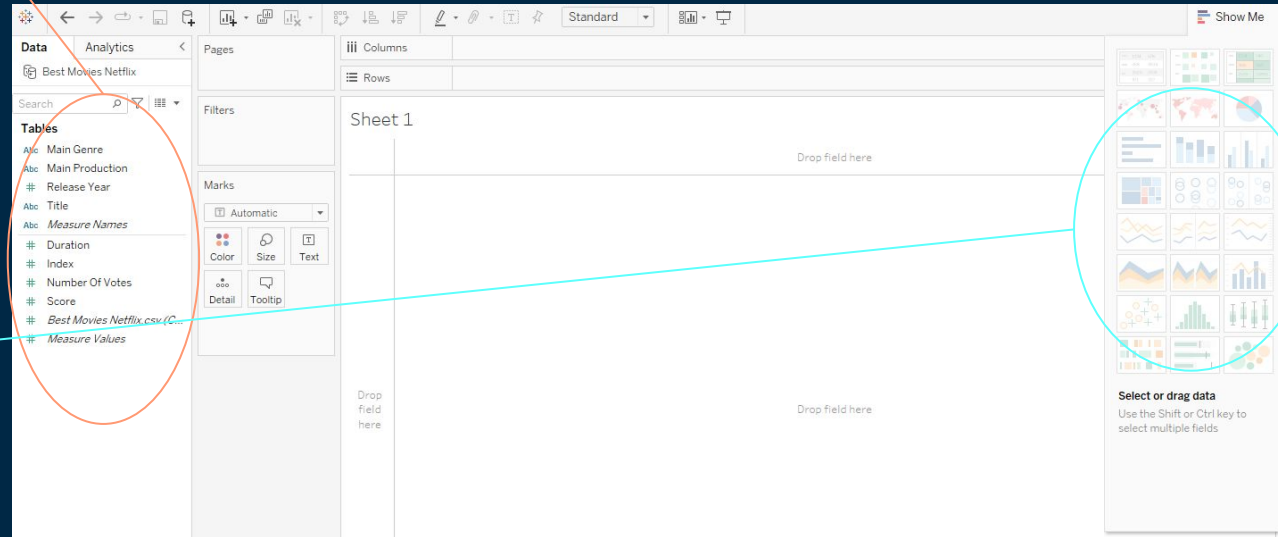
Name	Best Movies Netflix.csv
Index	Index
Title	Title
Release Year	Release Year

Type	Field Name	Physical Table	Rem...
Index	Index	Best Movies Netflix...	index
Text	Title	Best Movies Netflix...	TITLE
Text	Release Year	Best Movies Netflix...	RELEASE YEAR

Index	Title	Release Year	Score	Number Of Votes
0	David Attenborough: A Life o...	2020	9.00000	31.18
1	Inception	2010	8.80000	2,268.26
2	Forrest Gump	1994	8.80000	1,994.56
3	Anbe Sivam	2003	8.70000	20.59
4	Bo Burnham: Inside	2021	8.70000	44.07
5	Saving Private Ryan	1998	8.60000	1,346.02
6	Disney's The Lion King	2019	8.60000	1,475.61

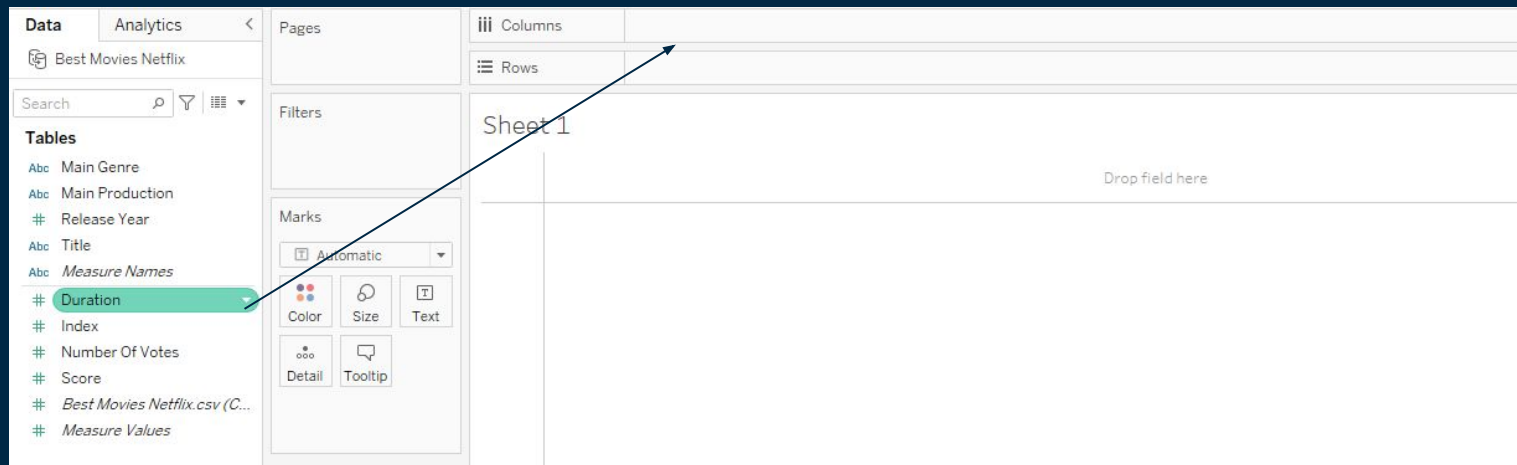
3. Making Our Chart

- 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:*



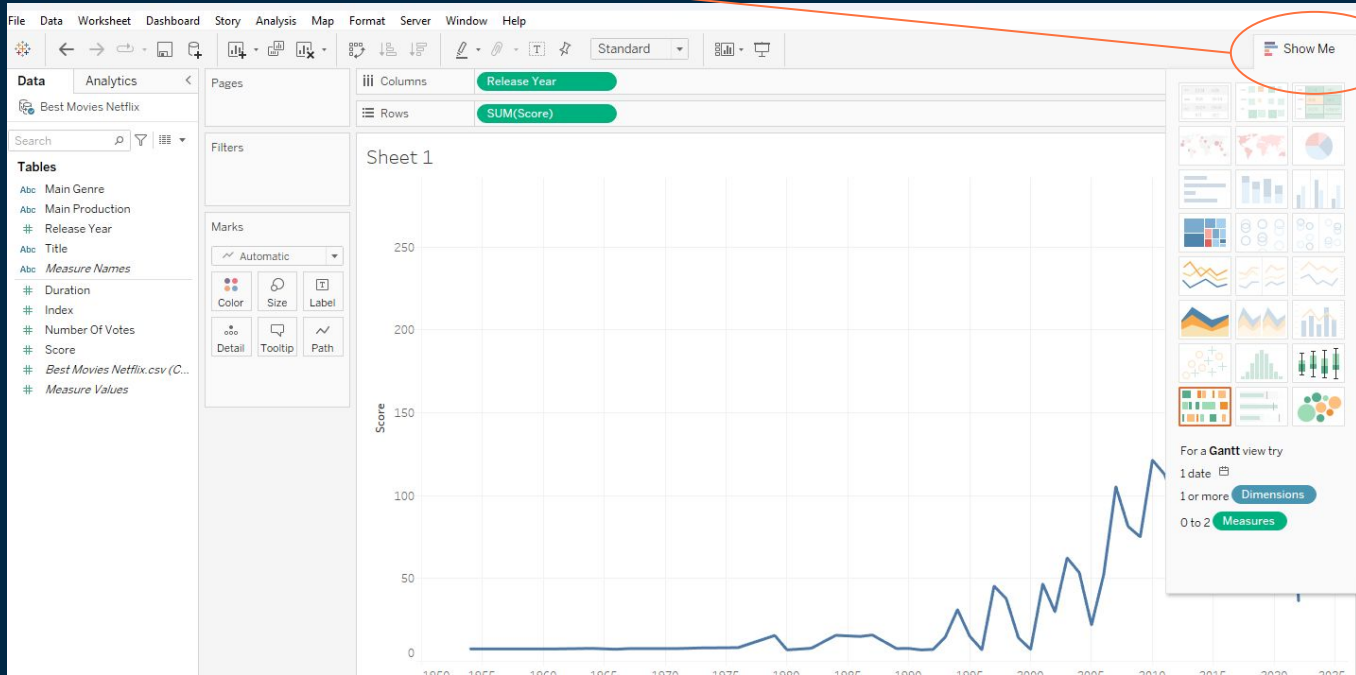
3. Making Our Chart

- *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*

Columns	Release Year
Rows	SUM(Score)

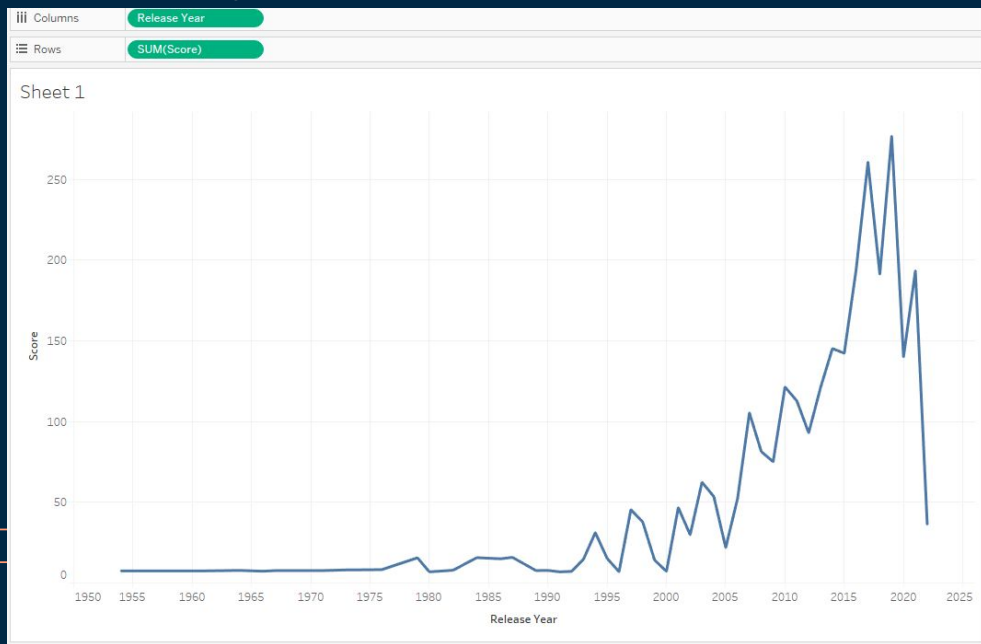
3. Making Our Chart

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



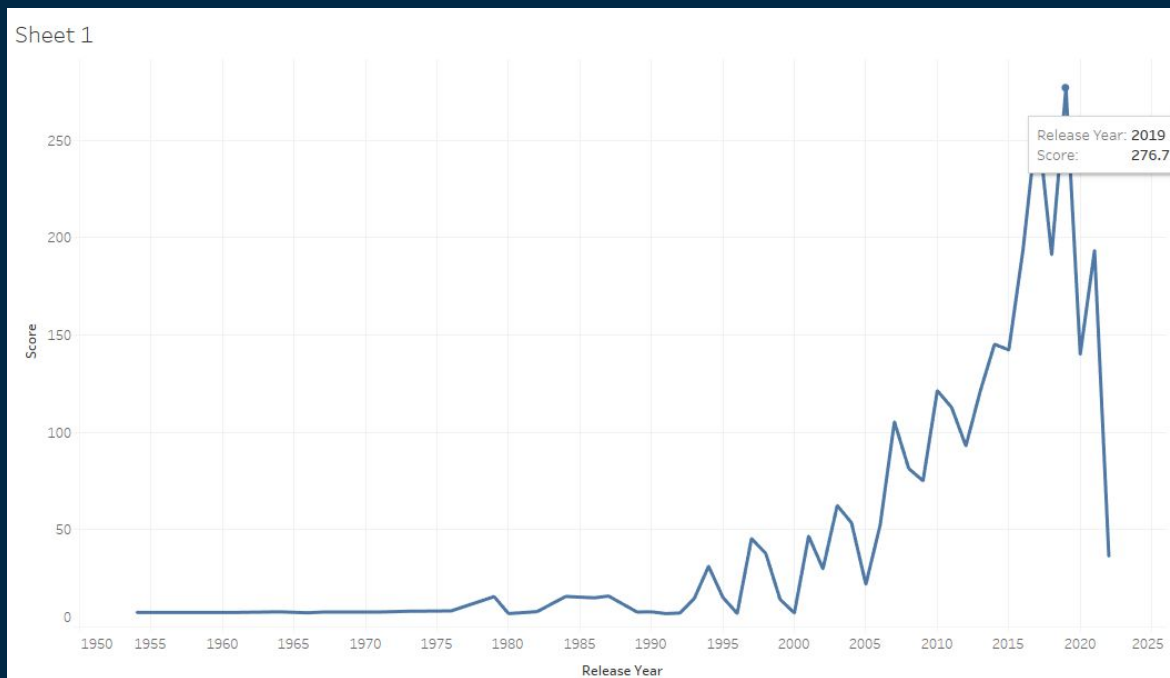
3. Making Our Chart

- *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

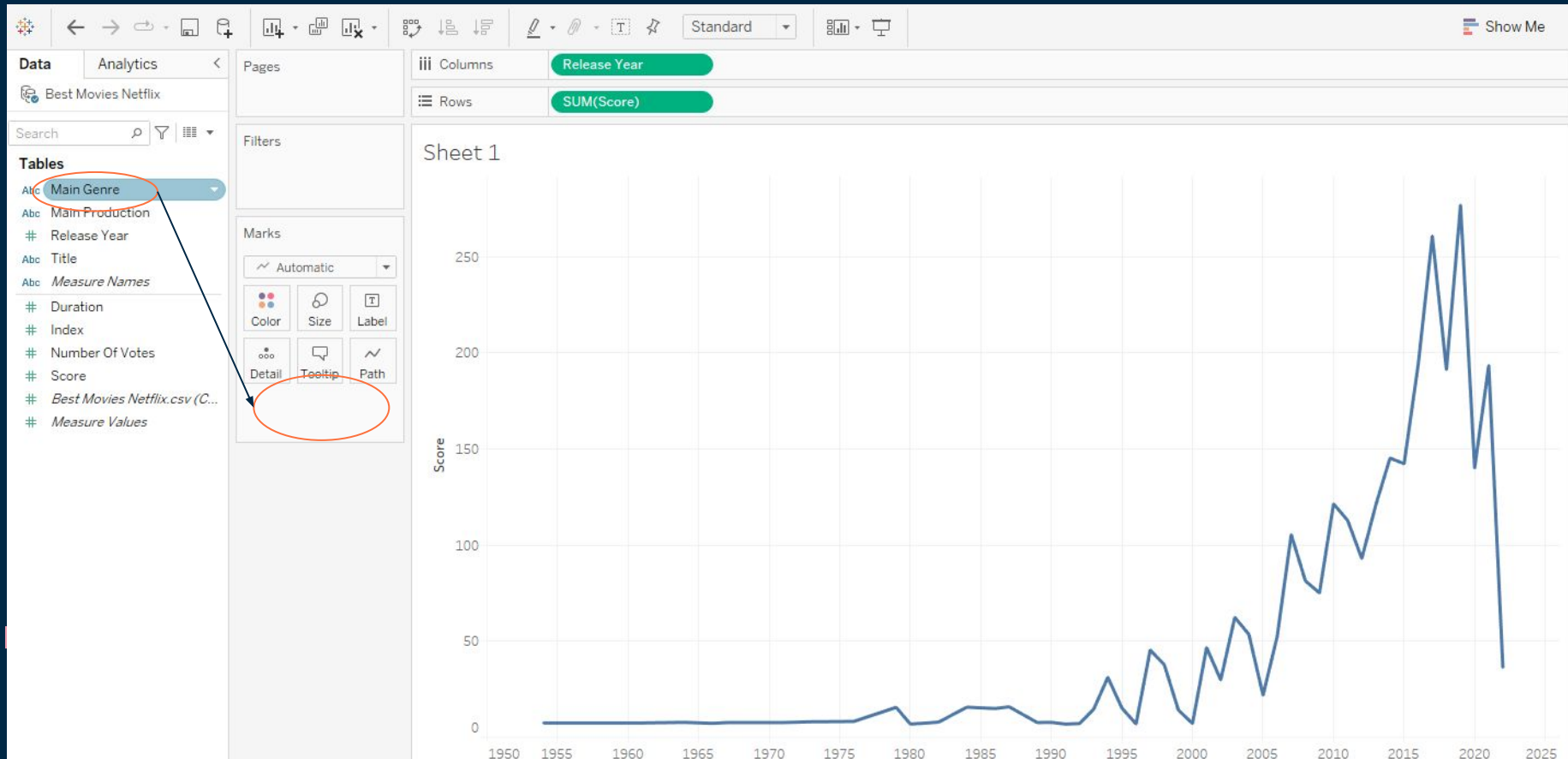
- *You can get more details of each point by hovering over the line graph*



3. Making Our Chart

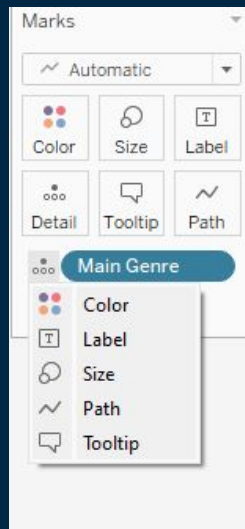
- For our chart, we also want to see how the different Genres play a role in our data. To do so:
- Drag the "Main Genres" under "Tables" to the "Marks" Box
- See a visual representation on the next slide:

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”

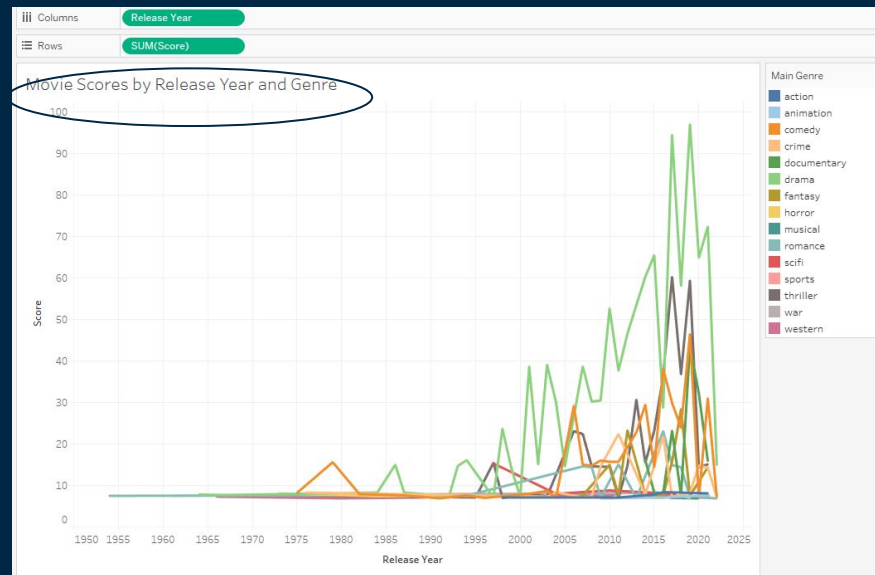


- 



3. Making Our Chart

- *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!