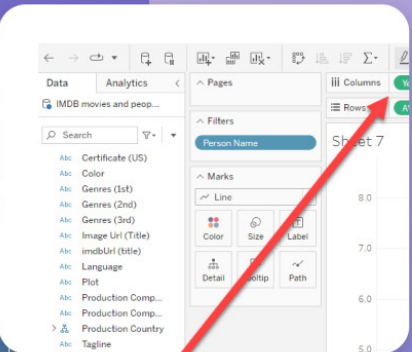# Tableau's Data+Movies Starter Kit
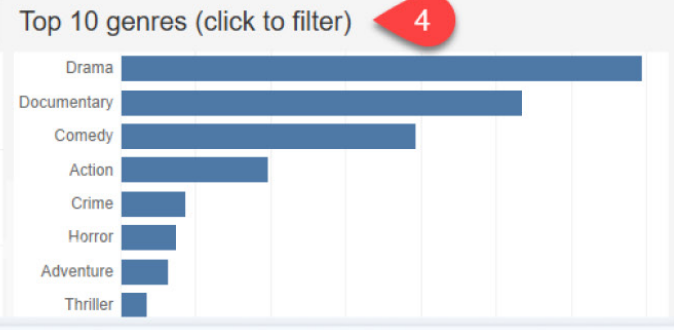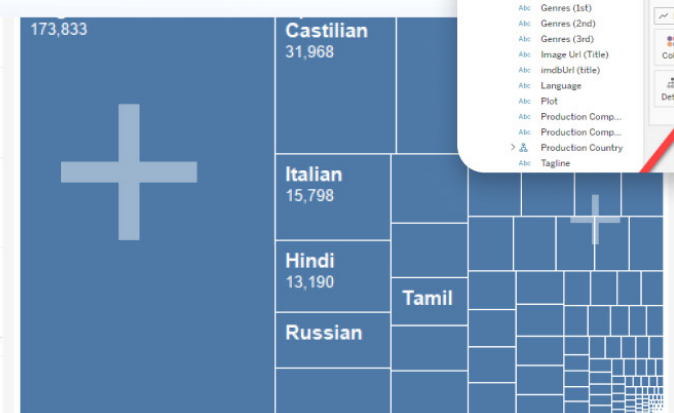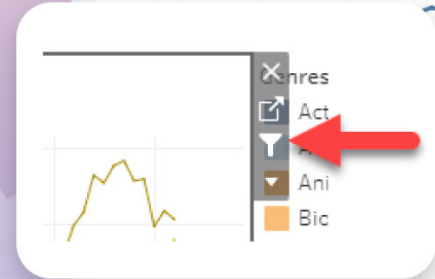
Andy Cotgreave, Senior Data Evangelist

Powered by **IMDb**

Contents

Introduction

Hello Movie Fan!

Welcome to the Get Started Guide for the Data + Movies Challenge. We are so excited to share this data, part of a partnership between Tableau and IMDb – the world's most popular and authoritative source for information on movies, TV shows, and celebrities. We're looking forward to the data stories you find and share about the movies you love. In the world of movie data, what insights will you be able to find and share? Will you track your favorite actors' careers? Do you want to know if Marvel movies are better than DC movies? Or perhaps you want a more international view and will explore the language of movies?

We've built a starter dashboard with the data for you to explore. If you are new to Tableau, fear not! We've got step-by-step instructions to help you create your movie viz. If you are already a Tableau data rockstar, feel free to skip these steps and start vizzing!

This guide will explain:

- How to get started on Tableau Public
- How to navigate the Starter Dashboard
- 4 examples of ways to explore the data to create your own movie viz
- Ideas about formatting

If you are new to Tableau, we have a massive amount of resources you can use to learn more.

Don't forget: we want you to share your movie viz!

We're very grateful to IMDb for providing the data and powering our Data + Movies Challenge.

My name is Andy Cotgreave, Senior Data Evangelist at Tableau, and I'm here to help you get going! Ready! Set! Action!

Andy

Note!

Due to trademark and copyright restrictions, if you want your visualization to be among those shared and highlighted by Tableau, you must not use any trademark or copyright-infringing materials. That includes any materials found on IMDb's websites. Tableau Ambassadors have obtained licenses that allowed them to create the inspiration vizzes using images. To read more about what you can and cannot do, read this.
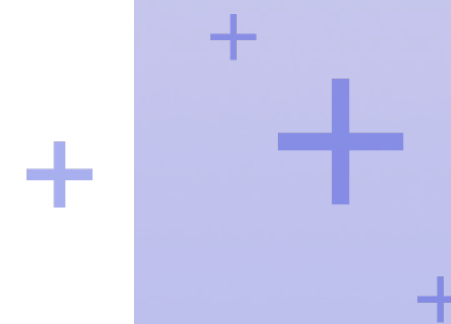
Andy Cotgreave is co-author of The Big Book of Dashboards, and Senior Data Evangelist at Tableau. He is the host of If Data Could Talk, co-host of Chart Chat and columnist for Information Age. He has over 15 years' experience in data visualization and business intelligence, first honing his skills as an analyst at the University of Oxford. Andy helps customers, media and analysts across all industries see and understand their data. He has inspired thousands of people with technical advice and ideas on how to identify trends in visual analytics and develop their own data-discovery skills.

Get Started:

Create your Tableau Public account

If you don't already have one, the first thing you'll need is a Tableau Public account. Head to the Tableau Public sign in page and click on the "Create an Account" option.
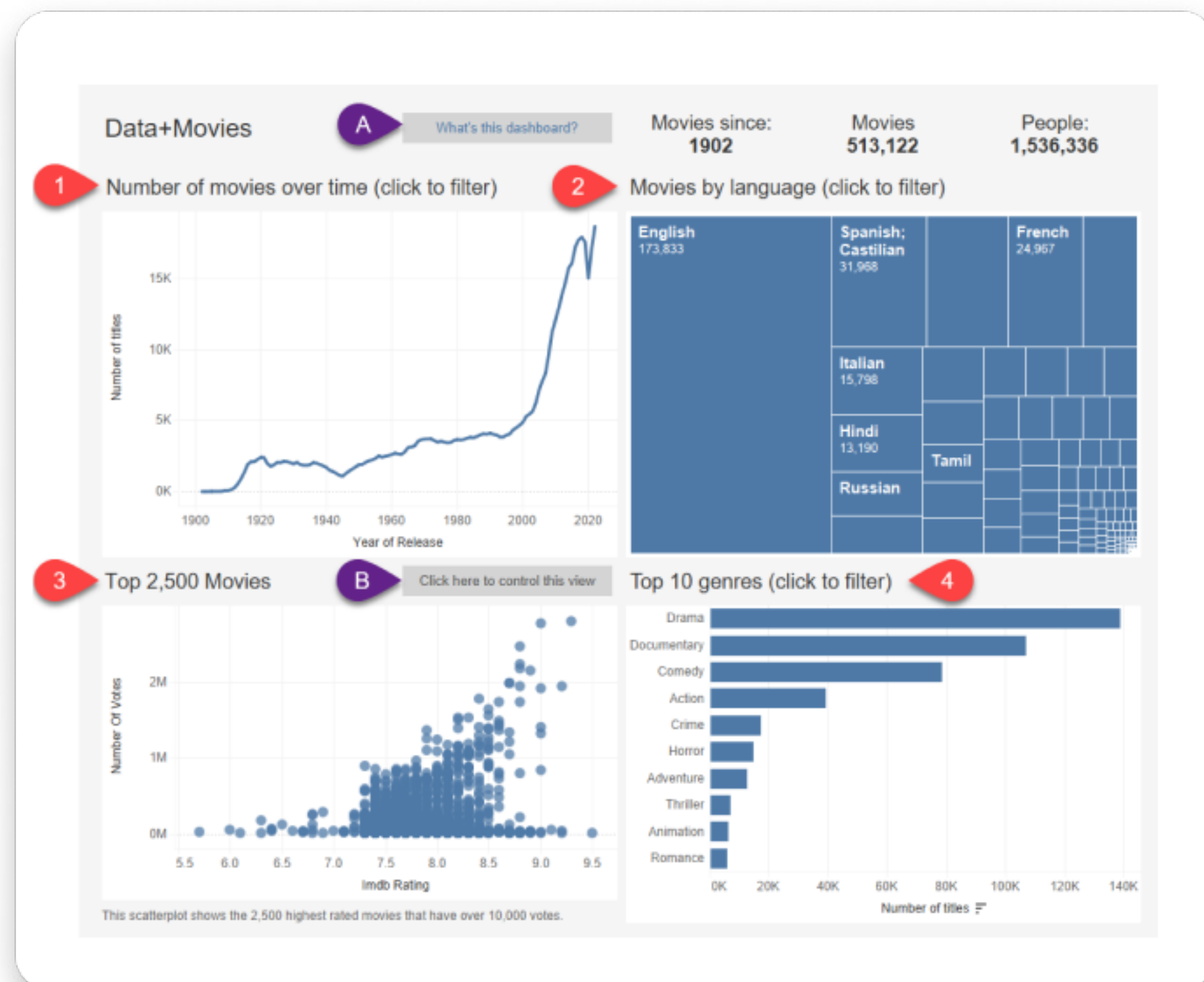

Follow the steps, and once your email is verified, you're ready to go.

Navigating around the starter dashboard

Let's familiarize ourselves with the Starter Dashboard.

There are four views pre-built for you. These are:

1. A line chart showing the number of movies over time.
2. A treemap showing the number of movies by language.
3. A scatterplot showing the top movies by IMDb Rating and by the number of votes for each movie. The tooltip on this chart shows the top 5 actors in the movie.
4. A bar chart showing the top 10 genres of movies over time.

You can filter the dashboard by clicking on the line chart, treemap, and bar chart (numbers 1, 2 and 4 above).

By default, the scatterplot shows the top 2,500 movies that have over 500,000 votes. You can change those thresholds by clicking on the "Click here to control this view" button (marked **B** in the image above).

To find out more details about the dashboard, click button **A**.

Make a copy of the Starter Dashboard

Now you're ready to make a copy of the movie starter dashboard. If you're a beginner we recommend doing your exploration in the browser. Here are the instructions for doing that.

1. Go to the starter dashboard.
2. Click on the Make a copy button at the top right of the page.
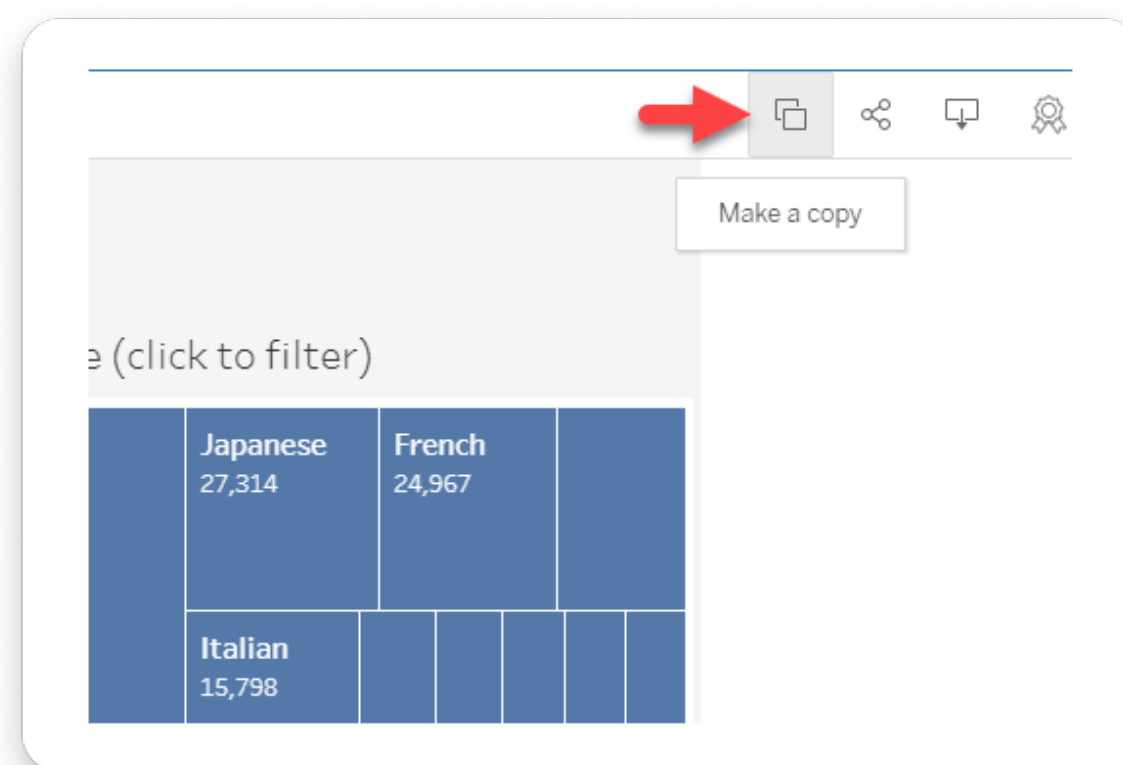
3. A new window opens: the editor window for Tableau Public vizzes and dashboards. You've made your copy of the dashboard and are ready to explore!

You're now ready to explore and make your own story! To help you along, the following sections give you some guided ideas to explore. For all of the following walk-throughs, make sure you are in Edit mode, which you can get to by clicking this button:
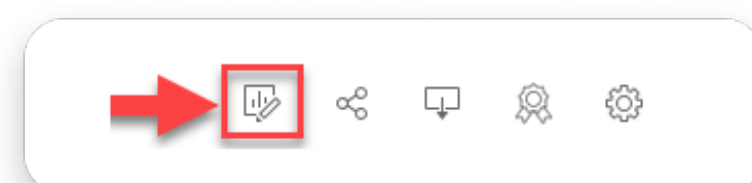
Note:

If you want to work on your local drive, you can download the workbook. To do that, click on the Download Workbook button. The dataset in this workbook is very large so performance might be an issue. You may also download this version of the workbook, which only has movies from the year 2000 to 2022.

To work locally you will need a copy of Tableau on your computer. You can get a free Tableau trial here.

Build a chart: find your favorite actors' movies

Let's find some insights about three actors: Morgan Freeman, Meryl Streep and Nicolas Cage. We'll explore how their movie ratings have changed over time.

Click on the New Worksheet button

Now we'll create a filter just for the actors we want to see.
It's important to do this first, otherwise we might end up asking Tableau to draw a chart with all 1.5 million people in the dataset!

1. Drag the Person Name field from the Data Window on the left-hand side to the Filters shelf.
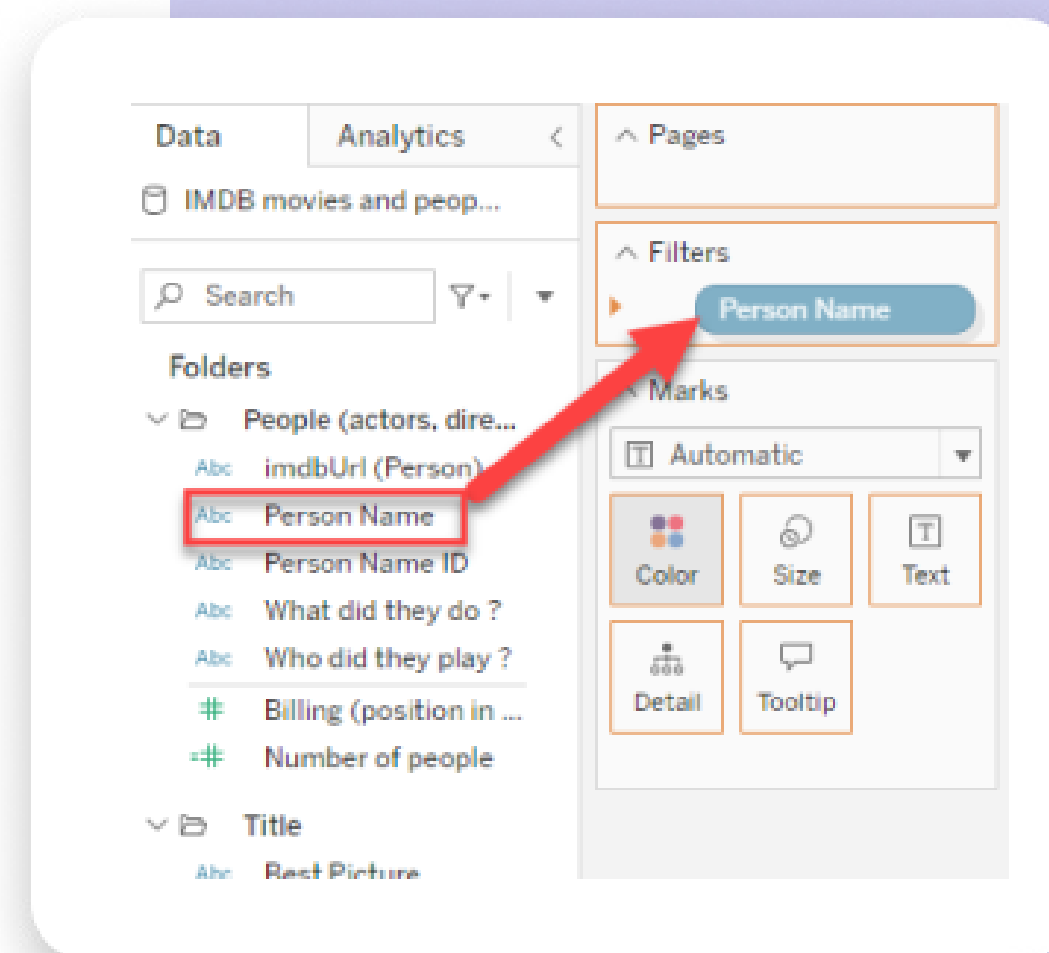
2. Next, type in the names of the actors you want to look at in the text box (make sure Custom Value List is selected). Type in an actor's name, then click the Add button.
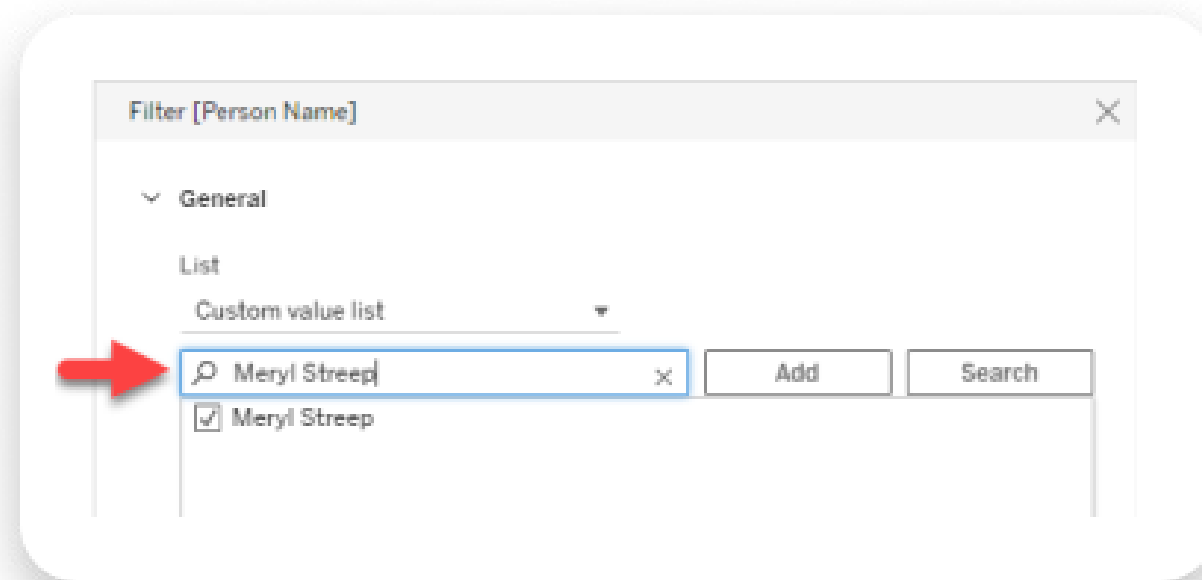
3. In this step, we'll drag some fields to the view. Drag Year of Release to the Columns shelf and IMDb rating to the Rows shelf

Cool! You have a line chart showing the average ratings of all these actors' movies over time. But what we really want to do is compare them, right?

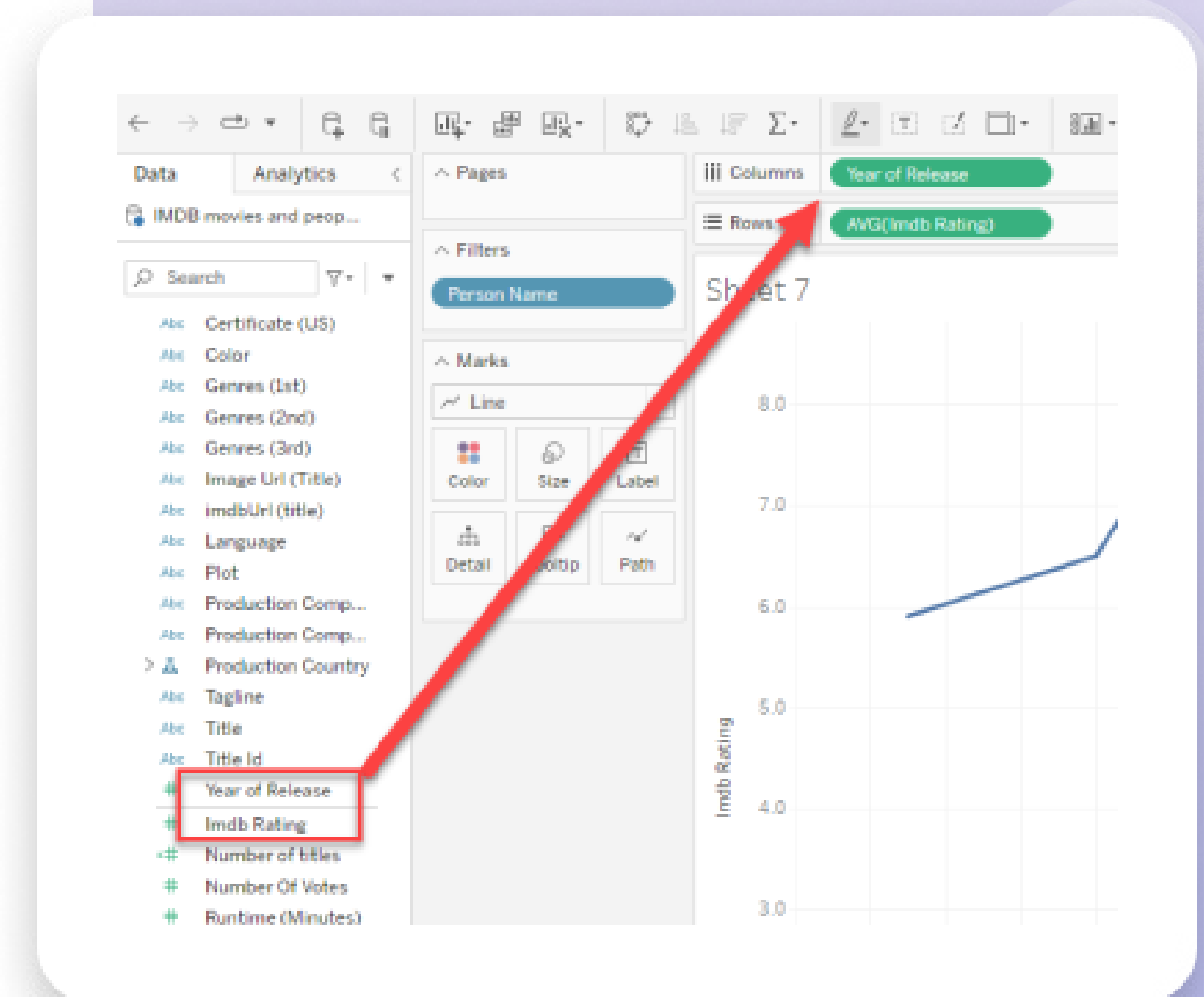Drag Person Name from the data window and drop it onto the Color Shelf. Tableau will draw a line for each actor. Congratulations, you built your first view! It should look like this:
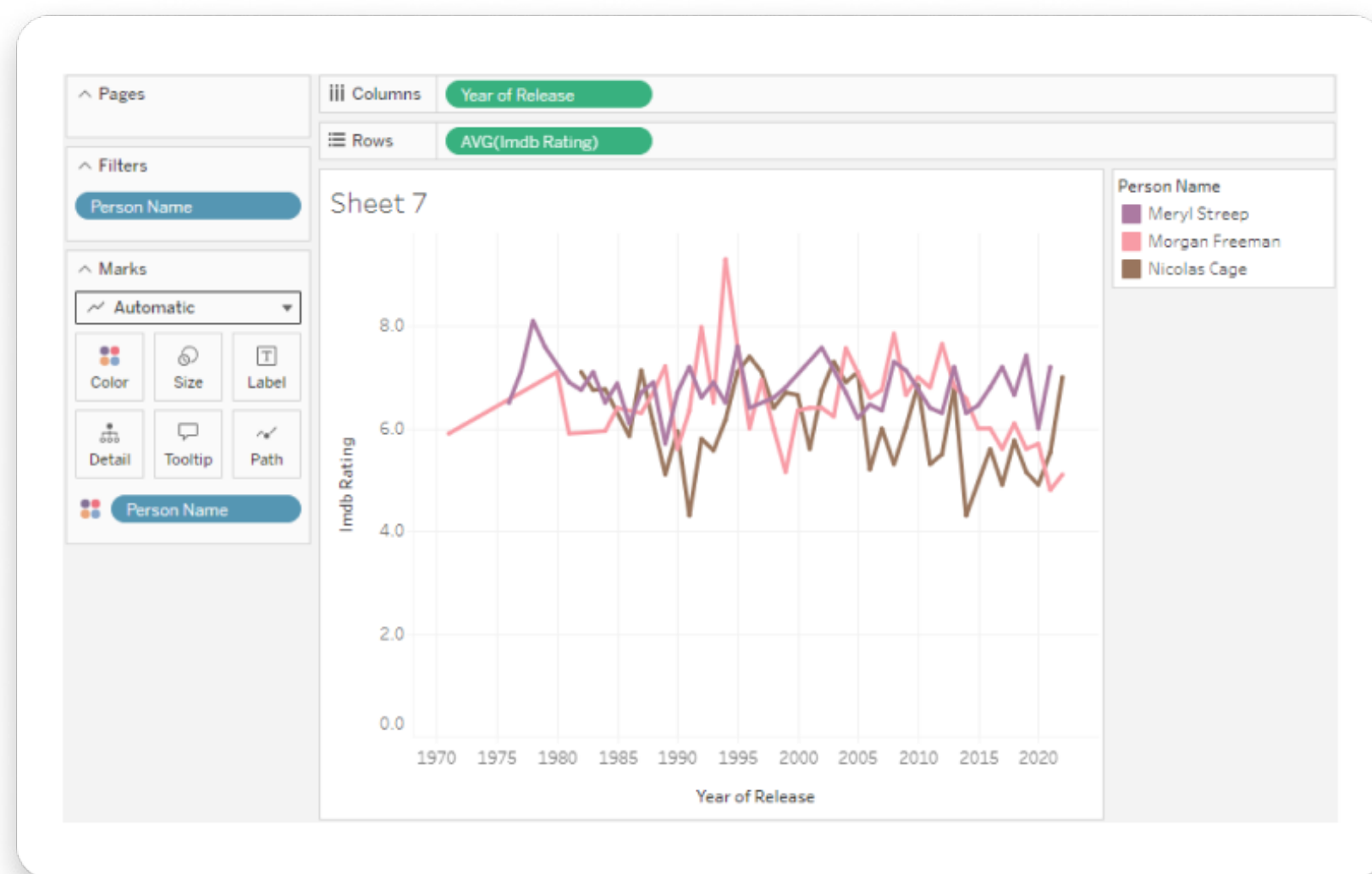
This chart certainly allows you to draw some insights, but we can make things a little clearer still.

Let's look at their individual movies. Drag Title from the data window to the Detail shelf. Then drag another copy of Person Name to the Column shelf (drop it to the left-hand side of Year Of Release). You'll end up with something like the image below. Hover over any circle to see details.

8
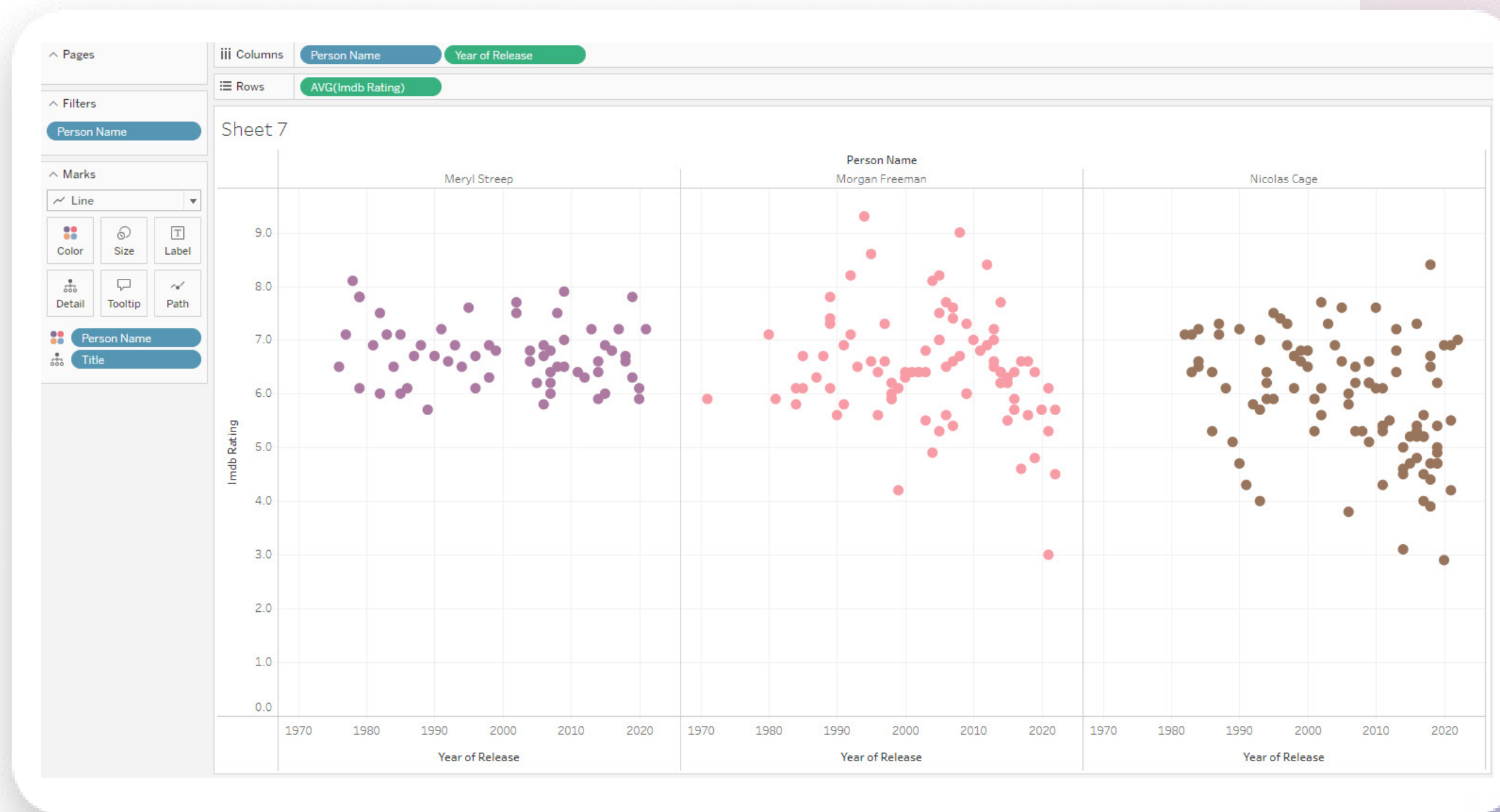
This view tells me a lot. I can see that Meryl Streep's movies had the narrowest range of ratings. Freeman and Cage have done excellent and terrible movies in their career! Morgan Freeman had the highest rated movie of the three actors. The lowest rated movie by all three featured Nick Cage (it was Jiu Jitsu from 2020 with a woeful 2.9/10 score).

From here, you could add an average reference line. Can you find out which actor has the highest average rating for all their movies? Or you could add more measures such as dragging Number of Votes onto the size shelf.

Build a chart: How have genres changed over time?

In this section, we'll look at movie genres in more detail and create a very simple dashboard.

Let's explore the changing trends in genres. Create another new sheet and drag Year of Release to the Column shelf. Next, drag Number of Titles to the row shelf. This creates a chart with the number of titles over time. Now drag Genres (1st) to the Color shelf, and you should have a chart the looks like this:
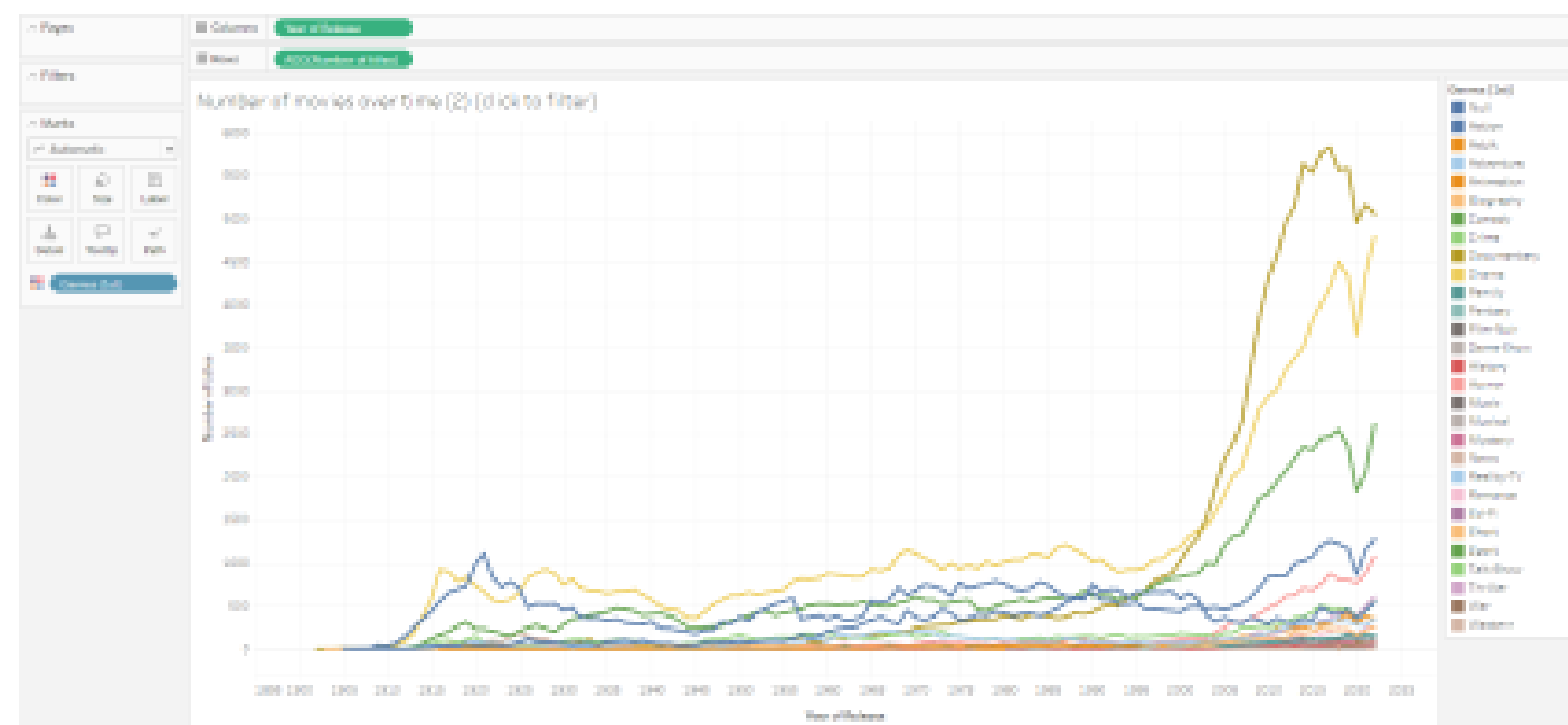
Look at the growth of Documentaries since 2000! They are now the most common movie genre on IMDb, followed by Drama and Comedy. You can click on a Genre in the Color legend to highlight one genre at a time. The most common genre is "Null", meaning that lots of movies don't have anything in the Genre category. You can right-click on Null in the Color legend to exclude those from your chart.

Note that by adding Genre to the Color field, we've used a lot of colors, some of which repeat. While this is ok for your own personal exploratory data analysis, a shared visualization should use fewer colors. Check out our "Good enough to great" white-paper for more ideas about visualization best practice.

Double-click on the sheet tab in the bottom of the screen and call this sheet "Genres over time".

10

Build a chart: which movies have the most votes?

Finally, let's build a bar chart that lets us see which movies have the most votes.

First, we should filter so we only see the top 100 movies. Drag Title from the Data Window to the Filters shelf. When the Filter dialog opens, click on Top/Bottom. Enter the details below to ensure only 100 movies are shown.

Next, drag Number of Votes to the Columns shelf and Title to the row shelf. Click the Sort toolbar button, and we can see which movies have the most votes of all time. Which movies are on top?

If you want, you can drag Genre to the Color shelf to show extra detail. Your view will look like this:

Double-click on the Sheet name tab in the bottom of the screen and rename this sheet Top Movies by Genre.
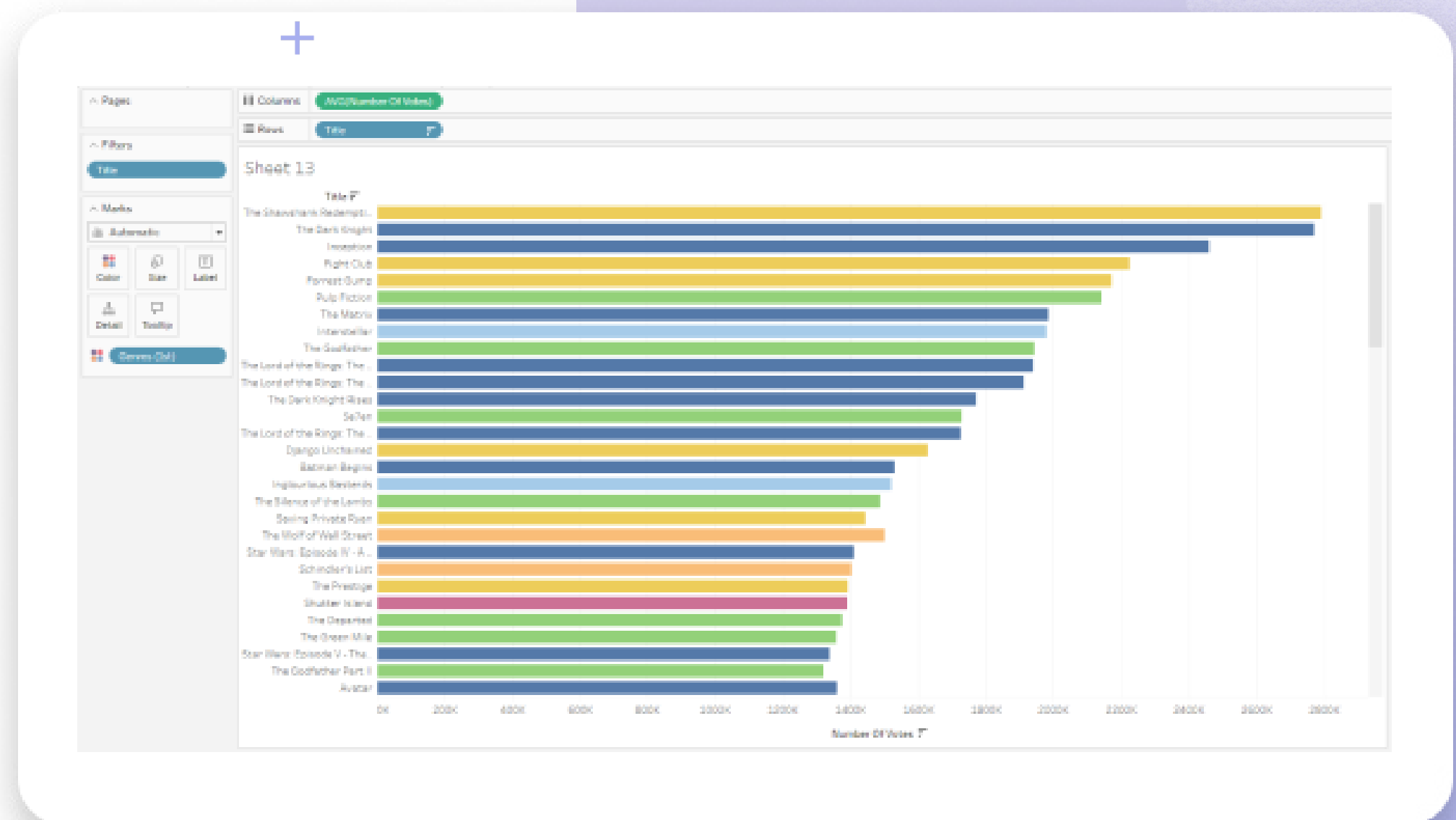
Build a dashboard: combine the Genre charts into a dashboard

Finally, let's combine the two genre charts into one dashboard so we can explore the most voted movies in any given year, by genre.

Create a new dashboard by clicking on the new sheet toolbar button.
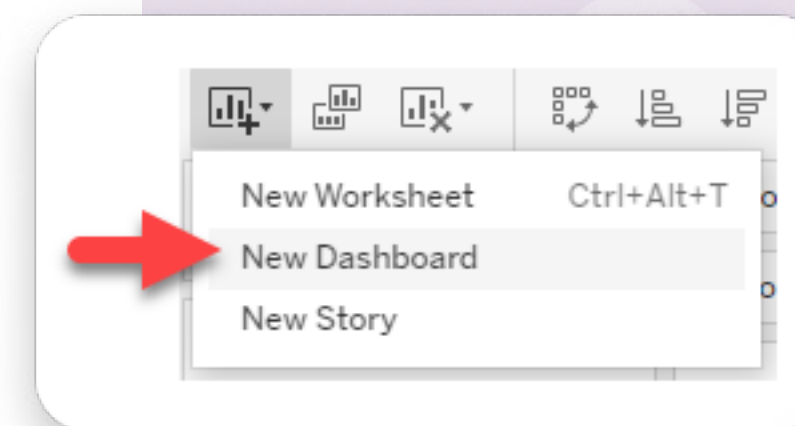
On the left hand side is a list of all the sheets in the workbook.

Drag the Genres over Time sheet onto the Dashboard canvas. It will appear, along with its Color legend.

Next, drag the Top Movies by Genre sheet onto the dashboard. Tableau previews where it will drop before you release the mouse button. I suggest dropping it below the line chart. It will look like this:

Congratulations! You've built a dashboard. Now let's connect the sheets.
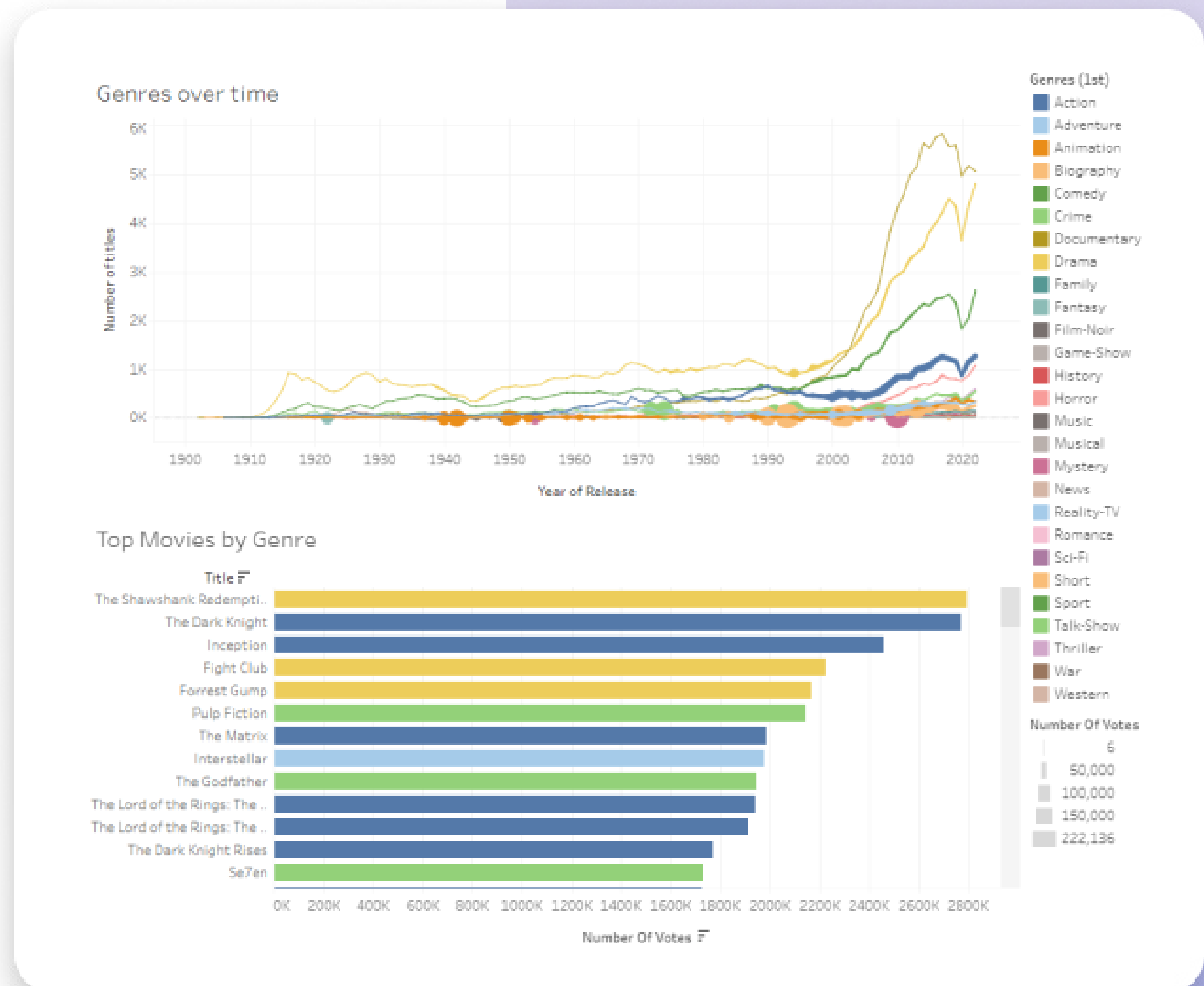
Let's make the line chart act as a filter: when it is clicked on, the bar chart should filter down to the top movies for that year.

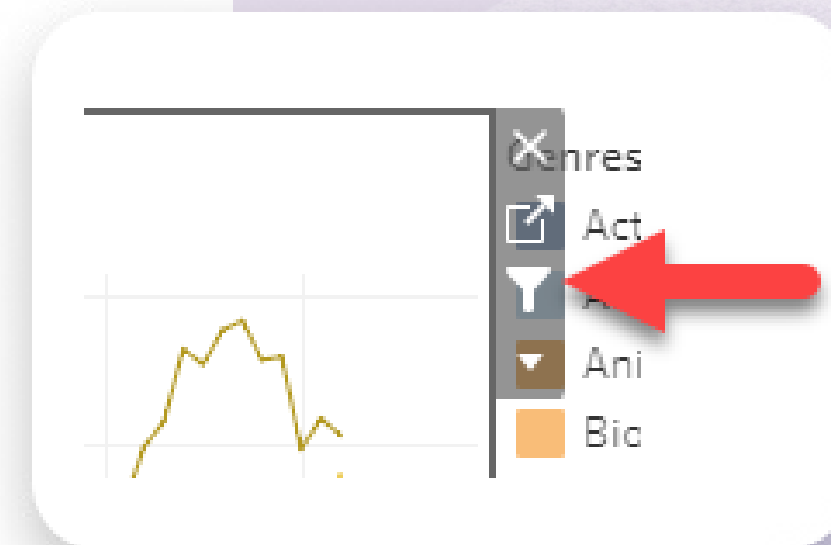Adding dashboard filters is easy: click on the line chart sheet, then click on the Use as Filter button in the top right.

Click on one of the lines in the line chart to filter the bar chart. Hmm. Where did the bar chart go?

Well, in this case we need to do one more step. Go back to the Top Movies by Genre sheet. You'll now see 2 filters in the Filter shelf: there's a new one with "Action" in it. That's the filter action we just created on the dashboard.

We need the Action filter to happen before the Top 100 filter. In order to do that, we create a context filter. Right click on the Action filter and choose Add To Context. The filter pill will turn from blue to gray and your chart should look complete again! Learn more about Context filters here.

Go back to the dashboard and try it out. You've now got an interactive dashboard that allows you to click on any genre/year and see what the most voted movies of that time are.
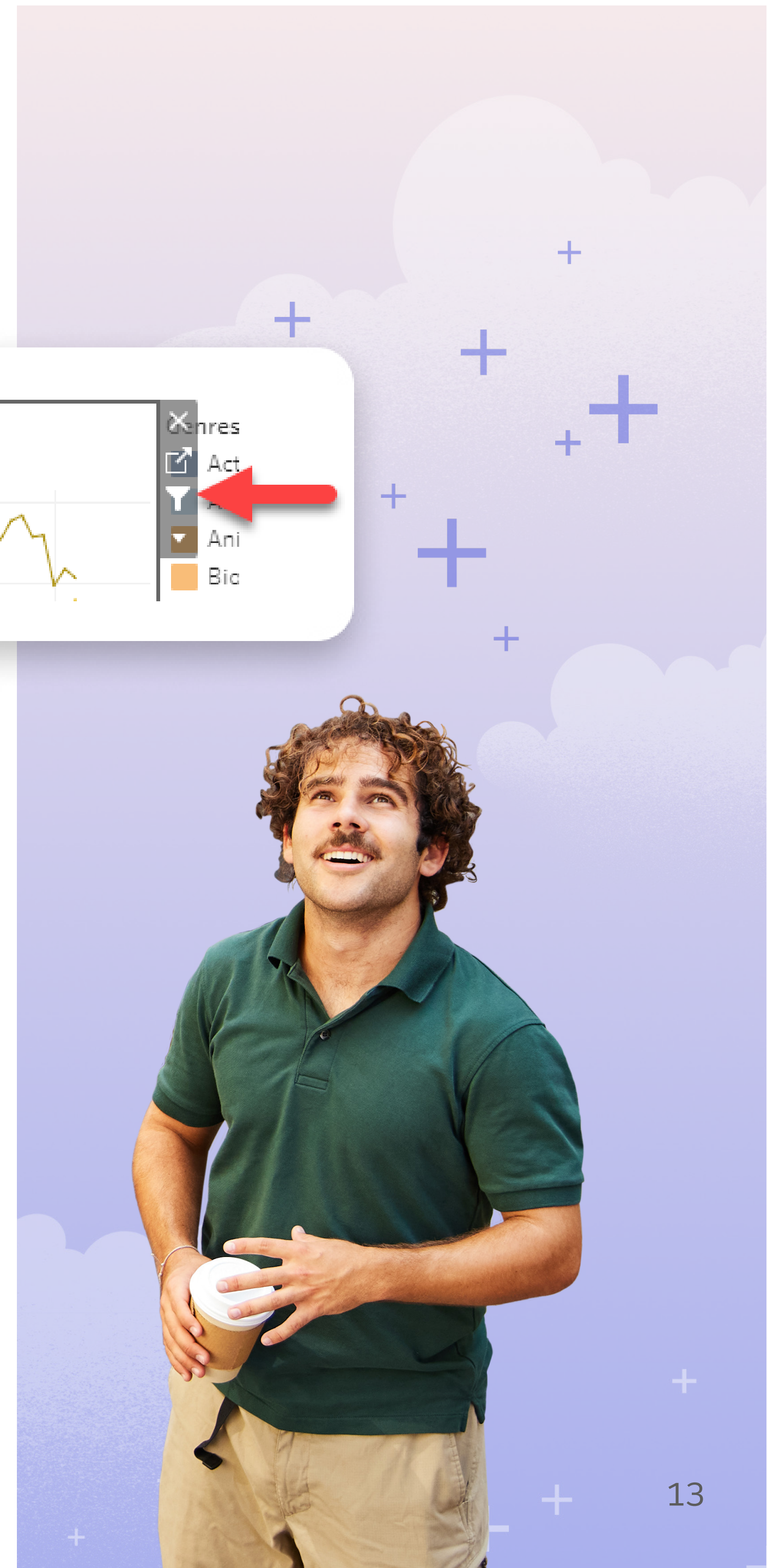
Format your work

Congratulations! You have now built some charts and a dashboard. Using the principles of drag and drop to explore, you are now able to find more stories.

Once you have found a story you want to share, you can begin to format your results and turn them into a great story. A full description of formatting is beyond the scope of this ebook. You can play with color, annotations, layouts, backgrounds and much much more. Check out our help page for instructions.
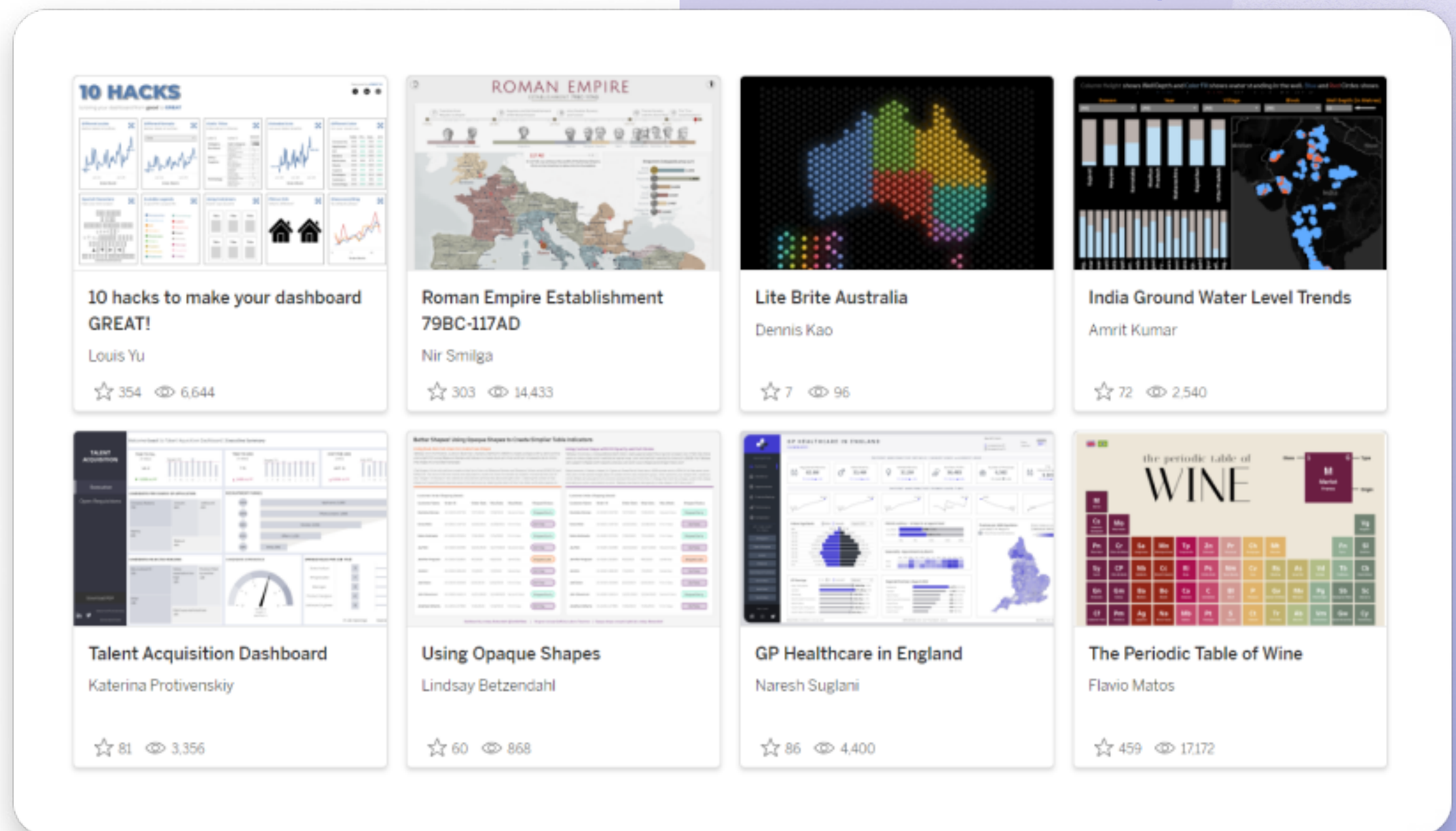
For formatting ideas, look at Tableau Public's Viz of the Day, a daily dose of inspiration drawing on the latest posted to Tableau Public. You can also search specifically for vizzes about movies:

10 HACKS	**ROMAN EMPIRE**		
10 hacks to make your dashboard GREAT!	Roman Empire Establishment 79BC-117AD	Lite Brite Australia	India Ground Water Level Trends
Louis Yu	Nir Smilga	Dennis Kao	Amrit Kumar
☆ 354 👁 6,644	☆ 303 👁 14,433	☆ 7 👁 96	☆ 72 👁 2,540
Talent Acquisition Dashboard	Using Opaque Shapes	GP Healthcare in England	The Periodic Table of Wine
Katerina Protivenskiy	Lindsay Betzendahl	Naresh Suglani	Flavio Matos
☆ 81 👁 3,356	☆ 60 👁 868	☆ 86 👁 4,400	☆ 459 👁 17,172

Save and view your work

At any point you can save your work using the "Publish" button (1) in the top right of the screen. Then, click on the X button (2) to exit the Editor and see your work.
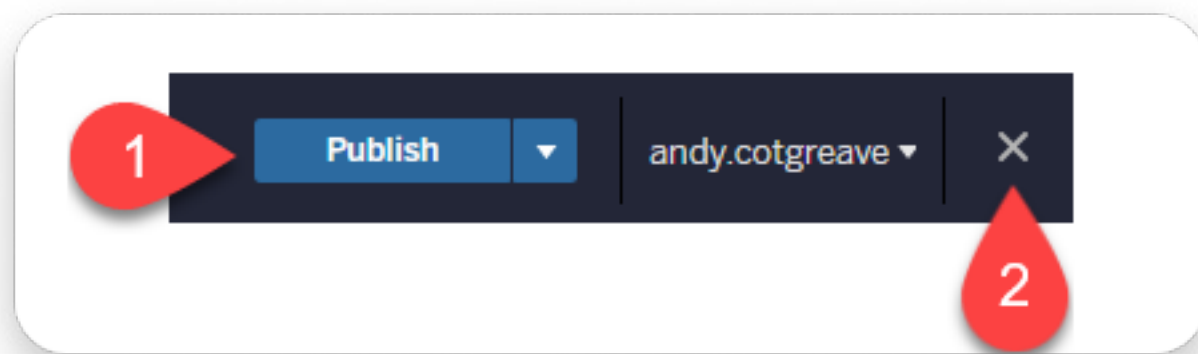
If you're working locally, publish your workbook via the following menu options:

- In Tableau Public, go to File>Save to Tableau Public.
- In Tableau Desktop, it's Server>Tableau Public>Save to Tableau Public.

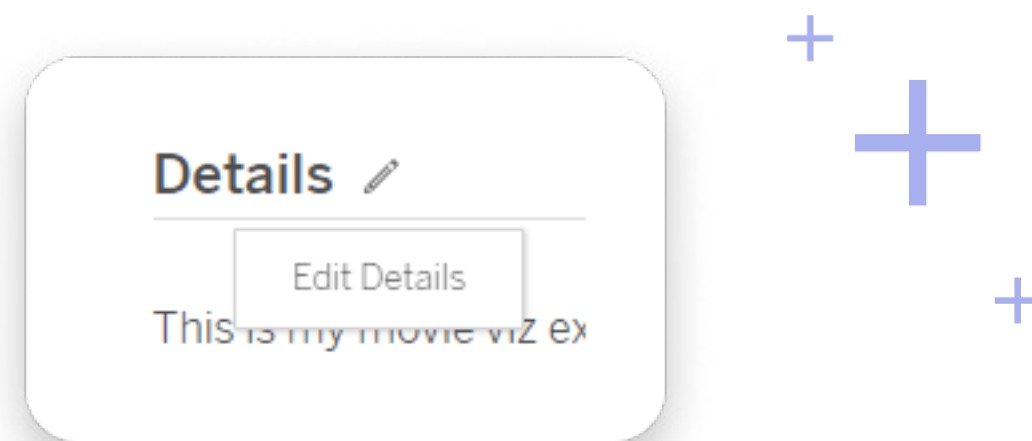Congratulations! Your workbook can now be viewed on your profile.

Love the dataset from IMDb? For IMDb commercial licensing inquiries please reach out to imdb-licensing-support@imdb.com

Add - #DataPlusMovies to your viz

1. On your published view's page, scroll to the bottom and click the edit button next to Details

Details ✎

Edit Details

This is my movie viz ex

2. Give your viz a title and a description. **In the description you must add the hashtag #DataPlusMovies for us to be able to include your work.** Something like this:

Details ✎

This is my movie viz exploring ratings **#DataPlusMovies**
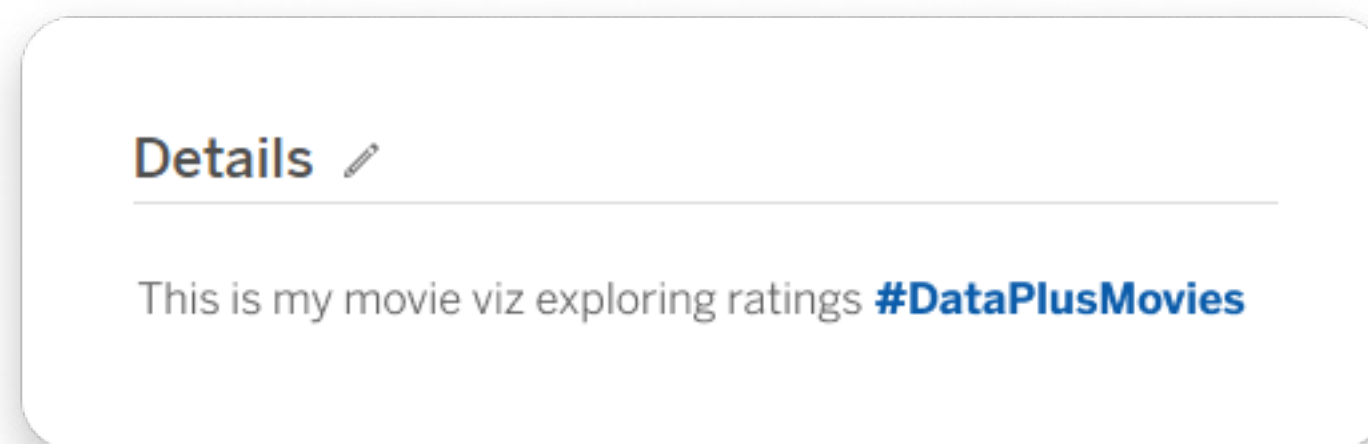
Thank you for participating in the Data+Movies challenge. We hope you have had fun!

Next Steps

At this point, you probably want to know how to get more out of Tableau. I have you covered!

1. Start a Tableau free trial

2. Check out other movies dashboards on Tableau Public

3. Join the Tableau Community. It's for everyone, not just customers.

4. Try our free training videos

5. Sign up for the DataFam Newsletter

6. Learn more about Tableau Public

Appendix: Data Dictionary

What do all the fields in the dataset represent? You can hover your mouse over any field name in the Data Window to see a description.

Title
There is one record per movie.

Field Name	Description and Notes
Best Picture	Was the picture Nominated or a Winner of Best Picture?
Certificate (GB)	What rating certificate was this film given in Great Britain?
Certificate (US)	What rating certificate was this film given in the USA?
Color	Was the film black & white, color, or a mix?
Genre	What genre is the movie? • Genre (full list): Complete list of genres from IMDb • Genre (1st): 1st listed genre • Genre (2nd): 2nd listed genre • Genre (3rd): 3rd listed genre
Image URL (Title)	Image URL (Title)

IMDb URL (Title)	URL for the movie
Language	First listed language for the movie
Plot	Plot of the movie
Production Companies	Contains the names (List) of the first three production companies. The first three are broken out into separate fields. Note: to find a specific production company (e.g. "Marvel Studios") it is best to do a string calculation on the List field.
Production Country	Country where production companies are based. It isn't always a good indicator of what country the movie is from. Use with care!
Tagline	What was the tagline used when marketing the movie?
Title	What is the main name of the movie?
Title ID	Unique IMDb identifier for this movie
Year of Release	When was the movie released?
IMDb Rating	What is the IMDb score for the movie?
Number of titles	Distinct Title IDs. Use this field to avoid double-counting movies.
Number of votes	How many people have voted for this movie (defaults to 'Average')
Runtime	How long is the movie (minutes)?

People (actors, directors)

There is one record per person per movie. Thus, Tom Hanks appears multiple times in the database; once for each time he acted/directed a movie.

Field Name	Description and Notes
IMDb Url (person)	URL for the person
Person Name	Primary name by which this person is known, usually the one by which they are most often credited. For more information about how IMDb defines the primary name see IMDb help site
Person Name ID	Unique identifier used by IMDb for this person
What did they do?	Were they an actor or director in the movie. (other roles are not included in this dataset)?
Who did they play?	What was the name of the character they played in the movie?
Number of people	Distinct count of people; it counts each person ID once. Use it if you want to count people without double counting individuals.