



4 LESSONS - 22 MIN

Business Reporting: Research, analyze and visualize data from companies.

The tools in this course will help business journalists research companies, import company data to Google Sheets, and visualize the data.

Tools Used:

Google Finance, Google Sheets, Flourish, Google Alerts

LESSON 1
5 MIN ESTIMATED TIME

Google Finance: Research company performance

Google Finance allows you to track companies across 53 exchanges on five continents.

Lesson overview

Search global stock market data

Every day, there are millions of movements on stock markets across the world. Google Finance can help you track the companies and markets that you are reporting on. For a full list of the stock exchanges tracked on Google Finance, [click here](#).

The screenshot shows the Google Finance homepage. At the top, there's a search bar with the Google logo and navigation links for All, Images, Maps, Shopping, Finance, and More. Below the search bar, there are tabs for Market Summary, Your Stocks, Local Markets, and World Markets. The main content area is divided into several sections: 'Recently searched' with a table of stocks, 'View more recently searched stocks', 'You may be interested in' with another table of stocks, 'View more', and 'Top stories' with news headlines and a video player.

Company	Ticker	Price (USD)	Change (%)
Spire Inc	SR	84.13 USD	0.00 (0.00%)
SEI Investments Company	SEIC	65.07 USD	-0.19 (0.29%)

Company	Ticker	Price (USD)	Change (%)
Blackstone Group Inc	BX	61.17 USD	+0.38 (0.63%)
Wells Fargo & Co	WFC	48.94 USD	-0.23 (0.47%)
PowerShares QQQ Trust, Series 1	QQQ	223.28 USD	-0.10 (0.045%)

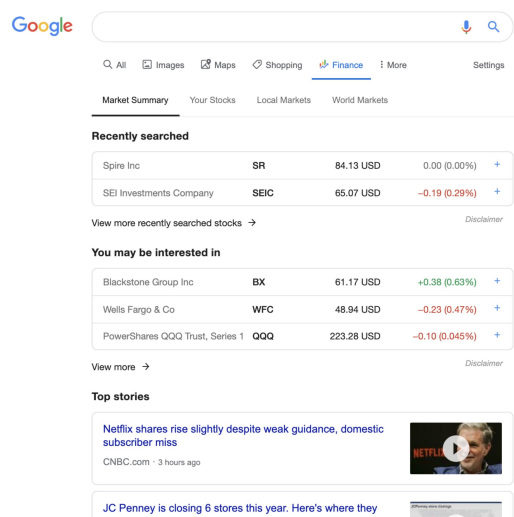
1. Find companies and build a watch list
2. Research and compare companies

Find companies and build a watch list

Google Finance is a gateway to a huge collection of financial information on listed companies across the globe. You can streamline your workflow by building a list of companies you'd like to follow regularly.

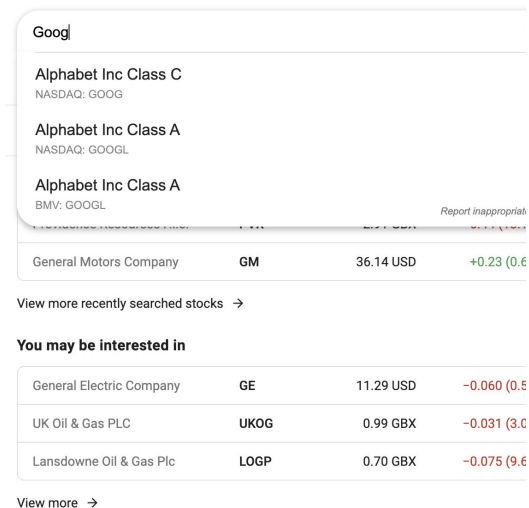
STEP 1 OF 5

To begin, go to finance.google.com.



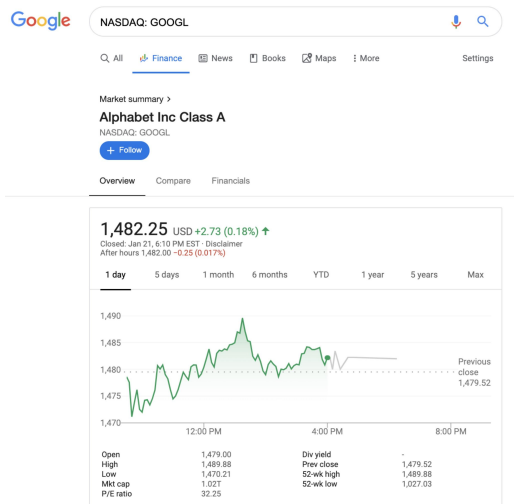
STEP 2 OF 5

Enter the company name, for example, Google's parent company, Alphabet. Below it, you'll see the exchange it trades on (NASDAQ) and its ticker symbol (GOOG).



STEP 3 OF 5

Click on the stock to see an overview, relevant news, and financials.



STEP 4 OF 5

To save stocks you're interested in, click **Follow**.

Market summary >
Alphabet Inc Class A
 NASDAQ: GOOGL
 + Follow

Overview Compare Financials

1,482.25 USD +2.73 (0.18%) ↑
 Closed: Jan 21, 6:10 PM EST · Disclaimer
 After hours 1,482.00 -0.25 (0.017%)

1 day 5 days 1 month 6 months

STEP 5 OF 5

Once you have followed a stock, it will appear in **Your watchlist**.

Q All Images Maps Shopping

Market Summary **Your Stocks** Local Markets

Your watchlist

Alphabet Inc Class A	GOOGL	1,3
----------------------	-------	-----

Recently searched

Providence Resources P.I.c.	PVR
General Motors Company	GM

You may be interested in

Research and compare companies

Google Finance makes it easy to research companies, compare performance, find relevant news, and see recent financials.

STEP 1 OF 4

To see quarterly financial information, click **Financials**. You'll see the headline details of each financial report by clicking on its date.

Market summary >

Alphabet Inc Class A

NASDAQ:GOOGL

+ Follow

Overview News Compare Financials

Alphabet Inc. is an American multinational conglomerate headquartered in Mountain View, California. It was created through a corporate restructuring of Google on October 2, 2015, and became the parent company of Google and several former Google subsidiaries. Wikipedia

CEO: Larry Page (2 Oct 2015-)

Revenue: 136.8 billion USD (2018)

Headquarters: Mountain View, California, United States

Number of employees: 103,549 (2018)

Subsidiaries: Google, Calico, X, DoubleClick, Waymo, Verily, MORE ▾

Founders: Larry Page, Sergey Brin

Quarterly financials

	SEP 2019	JUN 2019	MAR 2019	DEC 2018
(USD)			Sep 2019	Y/Y
Revenue			40.5B	20.03% ↑
Net income			7.07B	23.11% ↓

STEP 2 OF 4

To see the most recent news stories in relation to the company of interest, click **News**.

Market summary >

Alphabet Inc Class A

NASDAQ:GOOGL

+ Follow

Overview News Compare Financials

Alphabet (NASDAQ:GOOGL) Coverage Initiated by Analysts at Piper Jaffray Companies

Slater Sentinel - 1 hour ago



The FAANG Stock For Bulls this Month

Schaeffer's Research - 20 hours ago



If You Invested \$10,000 in Google's IPO, This Is How Much Money You've Have Now

The Motley Fool - 1 week ago



Alphabet Buying Fitbit Isn't the Problem, It's the Apple Watch

The Motley Fool - 1 week ago



STEP 3 OF 4

To compare the performance of any two stocks, first click **Compare**.

Market summary >

Alphabet Inc Class A

NASDAQ: GOOGL

+ Follow

Overview News **Compare** Financials

Compare custom stock or index

Related shares

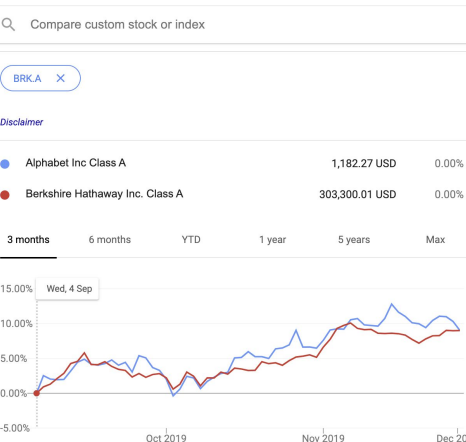
+ Berkshire Hathaway Inc. Class A NYSE: BRK.A - 10:08 GMT-5	325,180.00 USD 1.89% ↓
+ Facebook, Inc. Common Stock NASDAQ: FB - 10:09 GMT-5	196.54 USD 1.58% ↓
+ JPMorgan Chase & Co. NYSE: JPM - 10:09 GMT-5	128.94 USD 1.95% ↓
+ Tesla Inc NASDAQ: TSLA - 10:09 GMT-5	334.95 USD 0.024% ↑
+ Exxon Mobil Corporation NYSE: XOM - 10:09 GMT-5	67.64 USD 1.17% ↓

STEP 4 OF 4

Now, find the stock you want to compare and click the **+** symbol next to it. This will create an instant chart comparing the performance of the two stocks' prices.

+ Follow

Overview News **Compare** Financials



Congratulations!

You completed “Google Finance: Research company performance.”

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our [Training Center](#) website and take another lesson.

LESSON 2
5 MIN ESTIMATED TIME

Access the data in Google Sheets

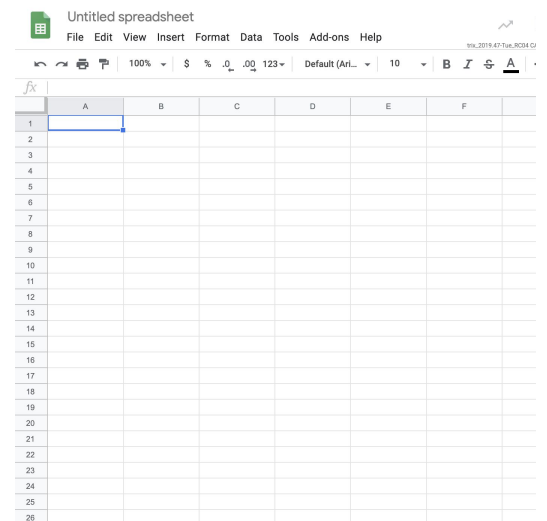
You can access all of the Google Finance data in Google Sheets. This is helpful if you want to download, analyze, and visualize the data.

Access the data in Google Sheets

You can access all of the Google Finance data in Google Sheets. This is helpful if you want to download, analyze, and visualize the data.

STEP 1 OF 7

Create a new sheet in Google Sheets [‘sheets.new’](https://sheets.new).



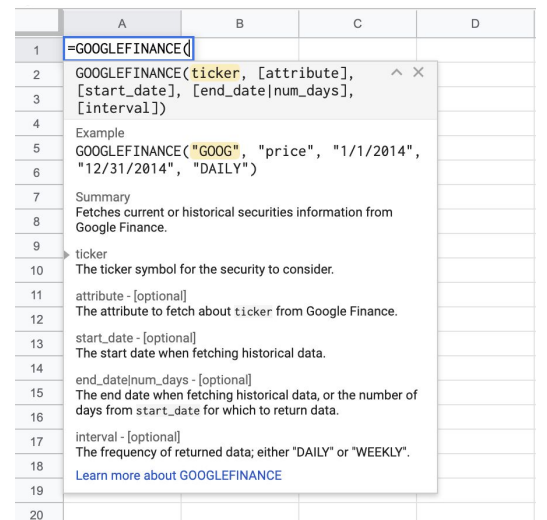
STEP 2 OF 7

To access the finance data, click on a cell and start your query by entering:

=GOOGLEFINANCE(“

The full query requires the following:

=GOOGLEFINANCE(ticker, [attribute], [start_date], [end_date|num_days], [interval])

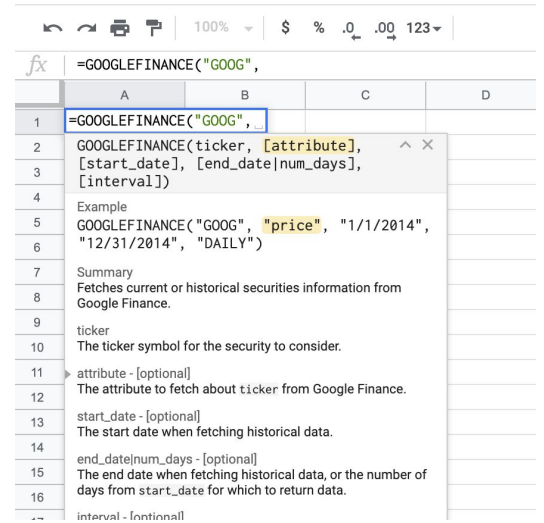


STEP 3 OF 7

Add the ticker to the query:

```
=GOOGLEFINANCE("GOOG")
```

"GOOG" is the ticker and can be replaced with any of the stock tickers from the 53 stock exchanges listed in Google Finance.

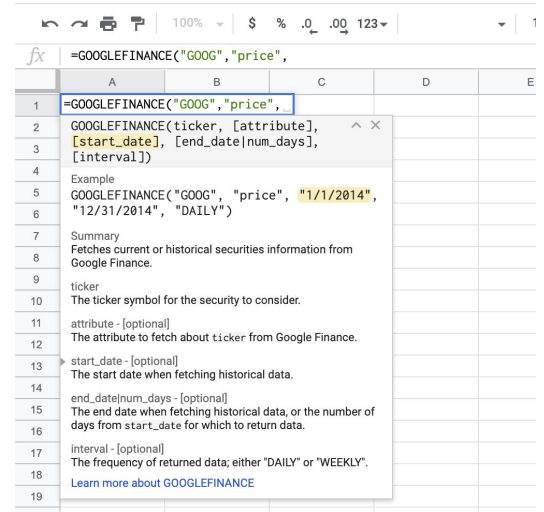


STEP 4 OF 7

Add the attribute that you want the details of:

```
=GOOGLEFINANCE("GOOG","price",
```

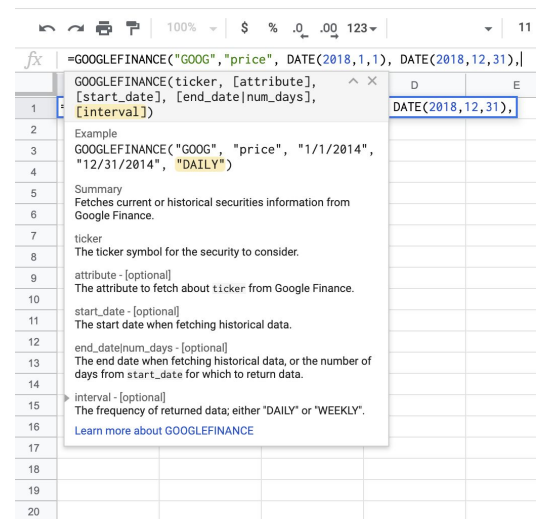
This example shows that we're interested in "price" for the stock GOOG. Other attributes you can examine are: "priceopen", "high", "low", "volume", "marketcap", "tradetime", "datadelay", "volumeavg", "pe", "eps", "high52", "low52".



STEP 5 OF 7

Add the date period that you are interested in:

```
=GOOGLEFINANCE("GOOG","price", DATE(2018,1,1),  
DATE(2018,12,31),
```



STEP 3 OF 7

Now, add the timing interval:

```
=GOOGLEFINANCE("GOOG","price", DATE(2018,1,1),  
DATE(2018,12,31),"DAILY")
```

In this example, we've chosen DAILY but you can also look at WEEKLY prices.

STEP 4 OF 7

To complete the query, click enter. The sheet will pull in the data we have requested. In this example, it will be the daily closing price for Alphabet's (GOOG) stock price every day in the year 2018.

	A	B	C	D
1	Date	Close		
2	1/2/2018 16:00:00	1065		
3	1/3/2018 16:00:00	1082.48		
4	1/4/2018 16:00:00	1086.4		
5	1/5/2018 16:00:00	1102.23		
6	1/8/2018 16:00:00	1106.94		
7	1/9/2018 16:00:00	1106.26		
8	1/10/2018 16:00:00	1102.61		
9	1/11/2018 16:00:00	1105.52		
10	1/12/2018 16:00:00	1122.26		
11	1/16/2018 16:00:00	1121.76		
12	1/17/2018 16:00:00	1131.98		
13	1/18/2018 16:00:00	1129.79		
14	1/19/2018 16:00:00	1137.51		
15	1/22/2018 16:00:00	1155.81		
16	1/23/2018 16:00:00	1169.97		
17	1/24/2018 16:00:00	1164.24		

Congratulations!

Congratulations! You completed “Access Google Finance data in Sheets”.

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our [Training Center](#) website and take another lesson.

LESSON 3
5 MIN ESTIMATED TIME

Google Sheets: Visualizing data

Learn to build visualizations that help you interpret the data and tell data-driven stories.

Lesson overview

Learn to build a data visualization in Google Sheets.

In the previous lesson, [Google Sheets: Cleaning data](#), we learned how to clean the table we imported from Wikipedia using importHTML. Now, we will use Google Sheets to produce visualizations that show readers what the data means.



- 1 Creating a horizontal bar chart.
- 2 Adding a title to your chart.
- 3 Resizing a chart.
- 4 Creating highlights.
- 5 Improving legibility.
- 6 Publishing your interactive data visualization.

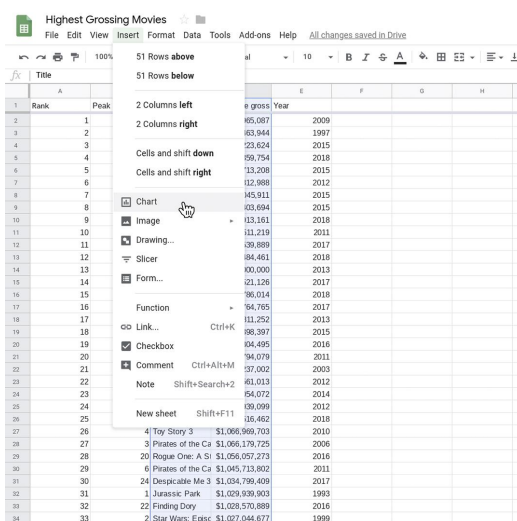
Creating a horizontal bar chart.

Bar charts are very useful for numerical comparisons. Our first visualization will be a bar chart showing which movies made more money and how far the highest grossing movies are from the lowest ones.

STEP 1 OF 2

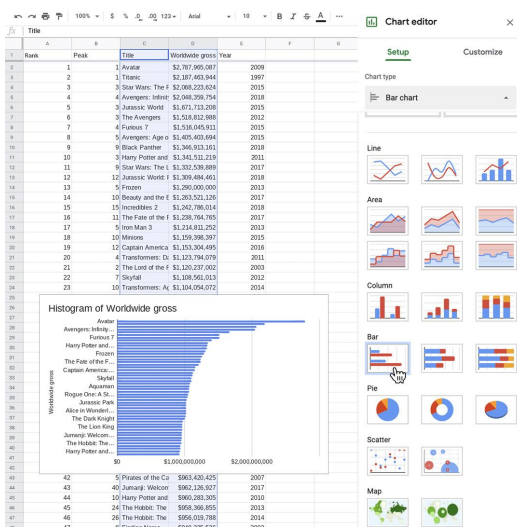
Select **C1**, hold **shift** and select **D51**, highlighting the two columns we will use for the chart.

Click **Insert > Chart**.



STEP 2 OF 2

In the **Chart editor**, select **Chart type > Bar chart**.

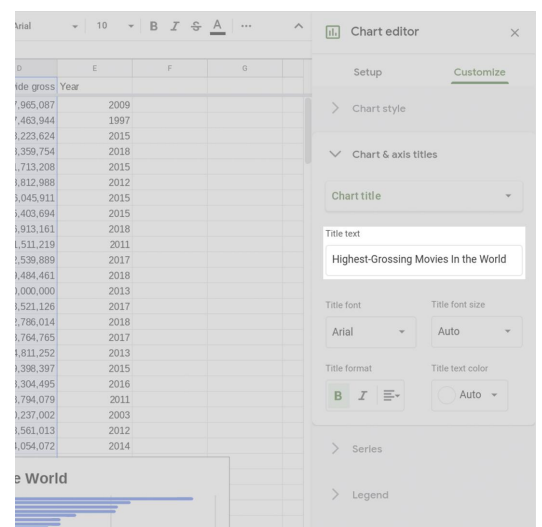


Adding a title to your chart.

Now that you've made a basic chart, let's enhance it and make it more readable.

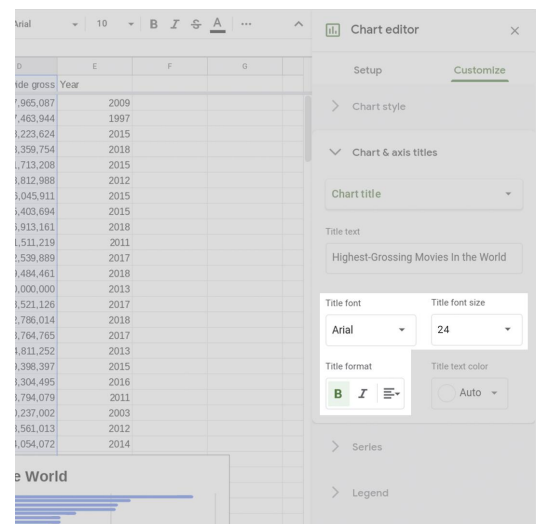
STEP 1 OF 2

First, let's change the title. In the **Chart editor**, select **Customize > Chart & axis titles**. Change the title to "Highest-grossing Movies in the World."



STEP 2 OF 2

Set **Title font** to Arial and **Font size** to 24. Make it bold.

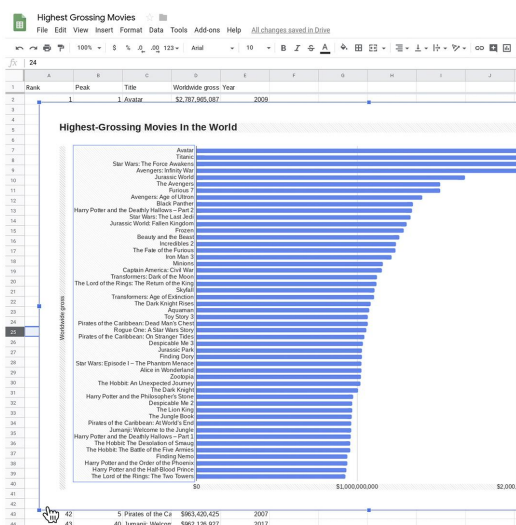


Resizing a chart.

To make the chart legible, we need to resize it.

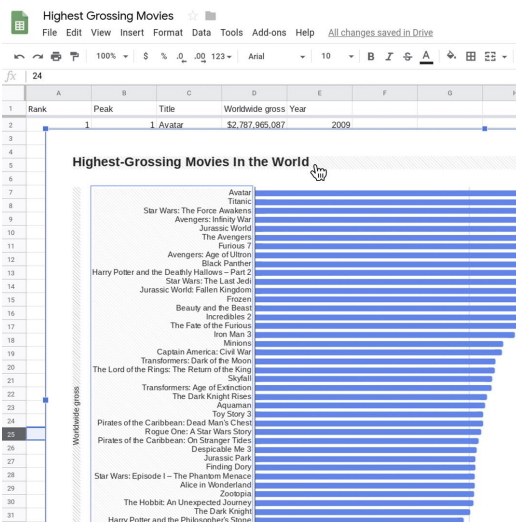
STEP 1 OF 3

Click on the chart. Drag the bounding boxes, especially horizontally.



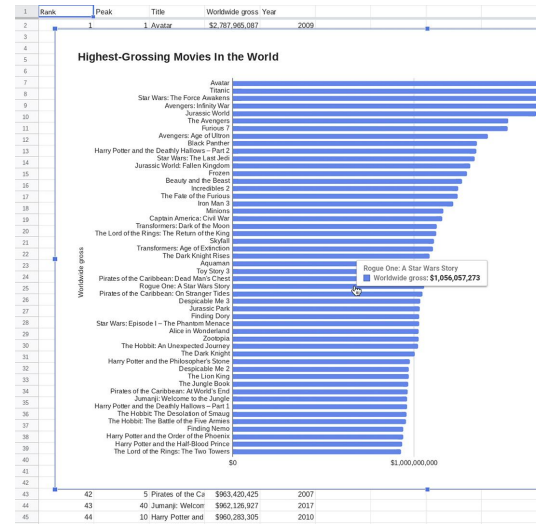
STEP 2 OF 3

Click anywhere on top of the movie titles and hover the mouse around the vertical edges until bounding boxes fade in. Drag the box until there's enough space for the longest title to be read in full.



STEP 3 OF 3

Notice that there are 50 bars in the chart, but not 50 film titles. That's because Google Sheets automatically distributes the names in the list, omitting some of them, to improve legibility. Hover the cursor on top of any bar and a tooltip box will appear showing the name and value of that bar.

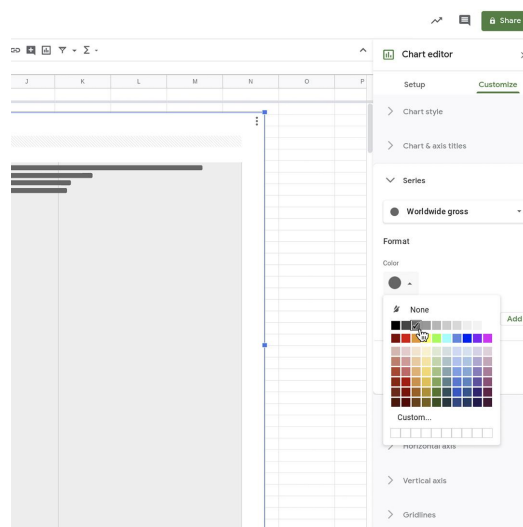


Creating highlights.

Let's make highlights in the chart to draw attention to specific elements for our users.

STEP 1 OF 3

Change the color of all the bars to gray. In the **Chart editor**, select **Customize > Series** and select a dark gray shade for Worldwide Gross.

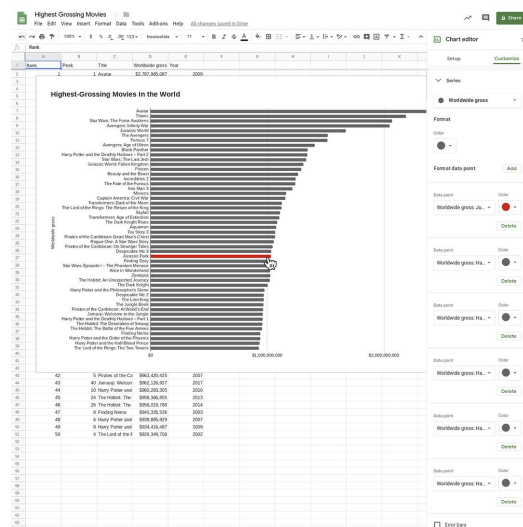


STEP 2 OF 3

Let's highlight the movie Jurassic Park, the oldest movie in the list (1993).

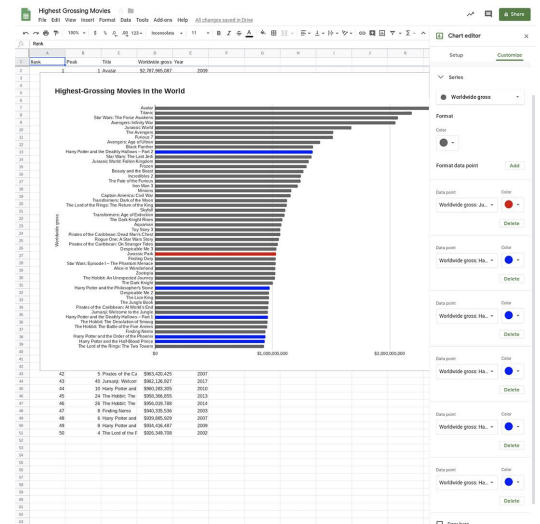
Go to **Format data point** and click **Add**.

Select **Worldwide gross: Jurassic Park** and click **OK**. Choose the color red.



STEP 3 OF 3

Let's do the same thing to highlight all five Harry Potter movies in blue.



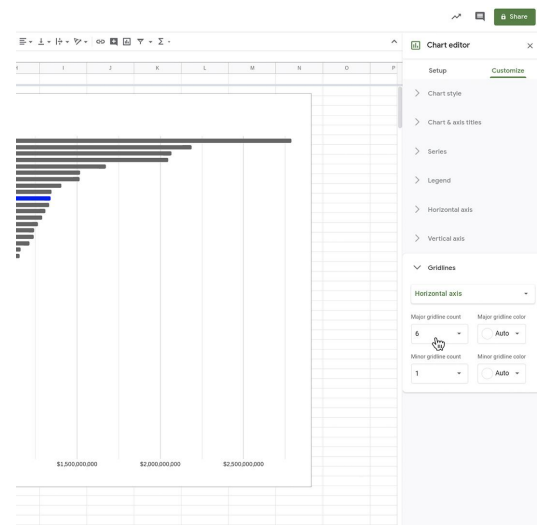
Improving legibility.

We can further improve the design of our chart by adding gridlines.

STEP 1 OF 2

In the **Chart editor**, select **Customize > Gridlines**.

In the **Horizontal axis**, increase the **Major gridline count** to 6 and **Minor gridline count** to 1.

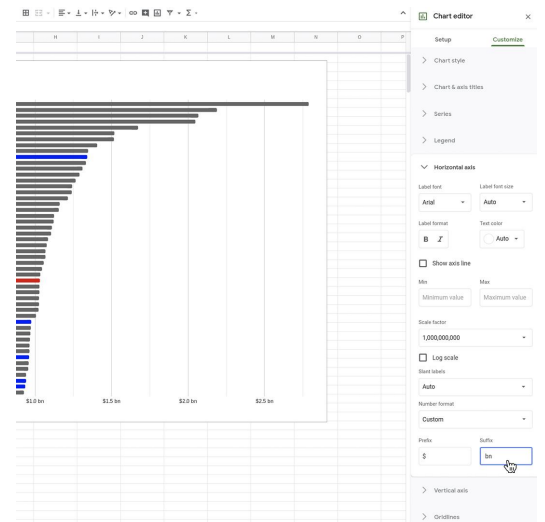


STEP 2 OF 2

Go back to **Customize > Horizontal axis**.

In **Scale factor**, select **1,000,000,000**.

In **Number format**, select **Custom**. For **Prefix**, type **\$**. For **Suffix**, type **bn** without quotes, and including the leading space.



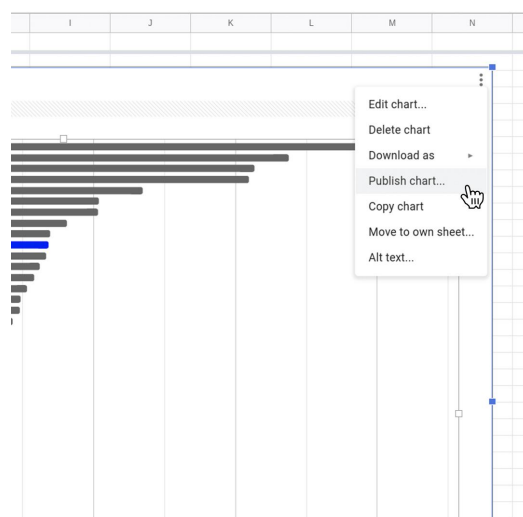
Publishing your interactive data visualization.

When you are satisfied with the accuracy, legibility and design of your chart, it's time to publish it.

STEP 1 OF 2

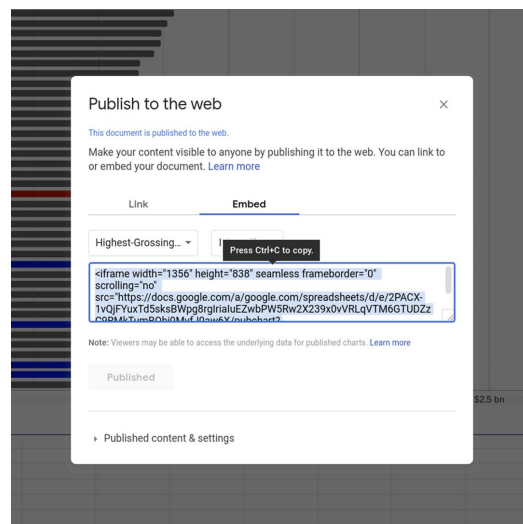
Hover your mouse in the top left corner of the chart and click on the three-dotted icon.

Select **Publish chart** > **Publish**.



STEP 2 OF 2

You should now have an embed code that you can use on your publication. Any changes will be automatically republished when made.



Congratulations!

You completed “Google Sheets: Visualizing data.”

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our [Training Center](#) website and take another lesson:

LESSON 4
7 MIN ESTIMATED TIME

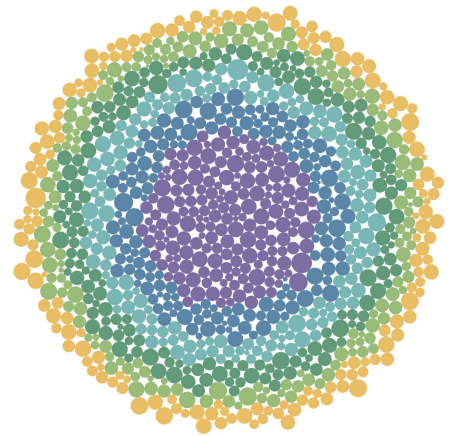
Flourish: Data Visualization Templates

A simple tool to help newsrooms create beautiful graphics.

Lesson overview

Free data visualization templates for newsrooms.

With its journalism roots, Flourish is designed to help newsrooms increase the quality and quantity of their data stories. Built by London data studio Kiln, Flourish offers beautifully designed data visualization templates. Google News Initiative partners with Flourish to offer the tool for free editorial use in newsrooms. You can customize many aspects of the templates with no coding experience. Or, your developers can use Flourish tools to create and share templates with other publications.

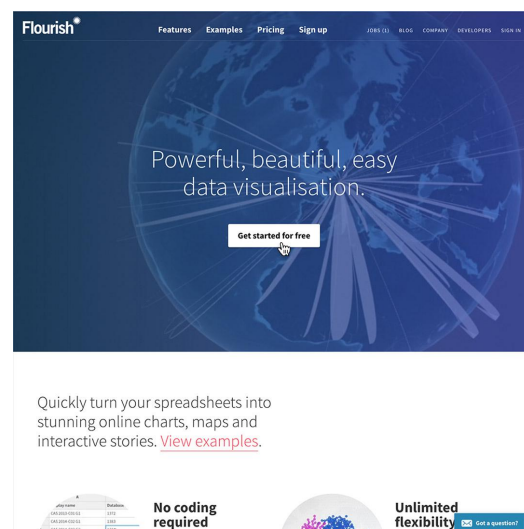


- 1 Sign up for a free account.
- 2 Get acquainted with Flourish.
- 3 Prepare your data set.
- 4 Starting your project.
- 5 Customize your visualization.
- 6 Preview your project on multiple screens.
- 7 Publish your visualization.

Sign up for a free account.

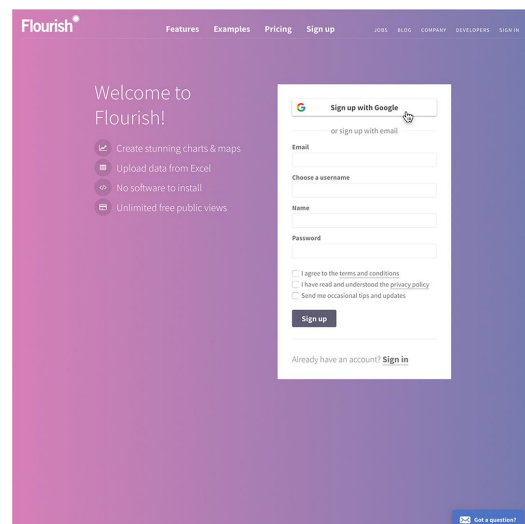
STEP 1 OF 3

To begin, click **Get started for free**.



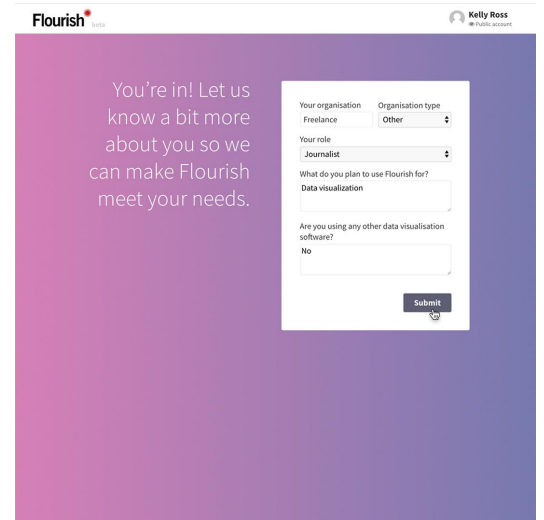
STEP 2 OF 3

Sign in with Google or enter your name and email to create an account.



STEP 3 OF 3

Answer a few simple questions and click **Submit**.



The screenshot shows the Flourish website registration form. The background is a purple-to-pink gradient. On the left, there is a text message: "You're in! Let us know a bit more about you so we can make Flourish meet your needs." On the right, there is a white registration form with the following fields:

- Your organisation:** A dropdown menu with "Freelance" selected.
- Organization type:** A dropdown menu with "Other" selected.
- Your role:** A dropdown menu with "Journalist" selected.
- What do you plan to use Flourish for?:** A dropdown menu with "Data visualization" selected.
- Are you using any other data visualisation software?:** A dropdown menu with "No" selected.
- Submit:** A dark button with a white mouse cursor icon.

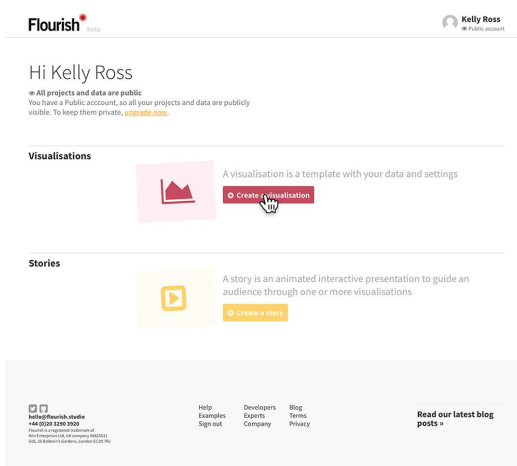
The Flourish logo is in the top left corner, and the name "Kelly Ross" is in the top right corner.

Get acquainted with Flourish.

There are several different types of templates currently available, with more being added all the time. From “horse race” visuals that compare multiple data points over time to renderings of the globe that show relational data, you can choose the right type of visual to tell your story.

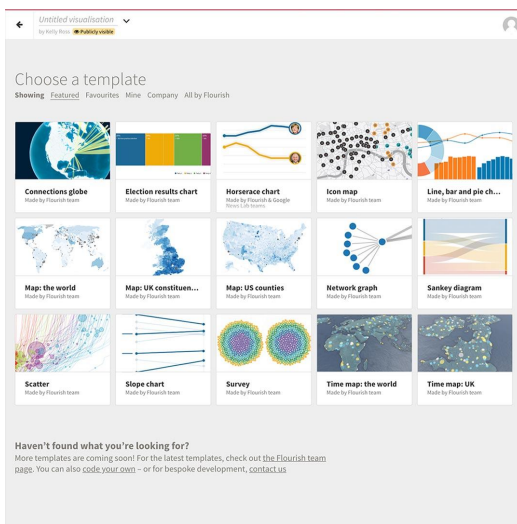
STEP 1 OF 2

To get started, click **Create a visualization**.



STEP 2 OF 2

Find the best template for your story in a growing collection.

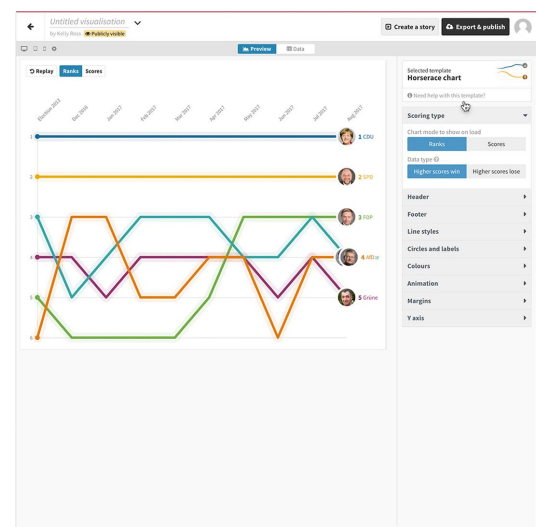


Prepare your data set.

Flourish works with Excel spreadsheets and Comma Separated Value (CSV) files. To save time in the long-term, make sure your data set is organized and free of errors.

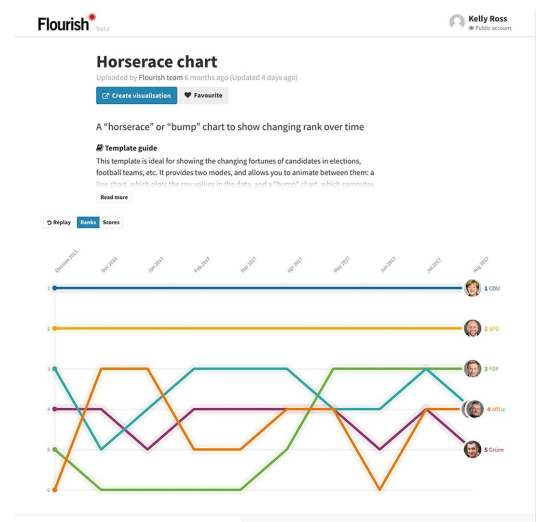
STEP 1 OF 4

To learn more about a template and whether it's right for the type of data you want to visualize, click **Need help with this template?**



STEP 2 OF 4

The Template Guide is filled with details about best uses, data requirements, and tips.



STEP 3 OF 4

Once you choose a template, click on **Create Visualization**.

Horserace chart

Uploaded by Flourish team 6 months ago (Updated 4 days ago)

[Create visualisation](#) [Favourite](#)

Start a project with this template
A horserace or "bump" chart to show changing rank c

Template guide
This template is ideal for showing the changing fortunes of candidates in football teams, etc. It provides two modes, and allows you to animate between a line chart, which plots the raw values in the data, and a "bump" chart, which



STEP 4 OF 4

Click **Data** to see how to format your CSV properly.

Top Five Girl Names in the U.S. 7 rows [Export & publish](#)

[Previous](#) [Data](#)

	A	B	
1	name	pic	elec
2	CDU/CSU	https://tempfiles201706.flourish.studio/merkel_head.150454263939.151267003365.jpeg	41.5
3	SPD	https://tempfiles201706.flourish.studio/scholz_head.150454880594.151267003912.jpeg	25.7
4	FDP	https://tempfiles201706.flourish.studio/lindner_head.150454303696.151267000567.jpeg	4.8
5	Grüne	https://tempfiles201706.flourish.studio/com_head.150454324789.1512669981318.jpeg	8.4
6	Linke	https://tempfiles201706.flourish.studio/kipking_head.150454376751.151266988951.jpeg	8.6
7	AfD	https://tempfiles201706.flourish.studio/mueather_head.1504543612466.151266998390.jpeg	6.7
8			
9			
10			

Select columns to visualise
Fill in the columns if you want to visualise. Add multiple columns with a comma or hyphen (eg. A,B or A-C)

Data Data ↓
The name of each entrant **A**

Image column The URL of the image to use **B**

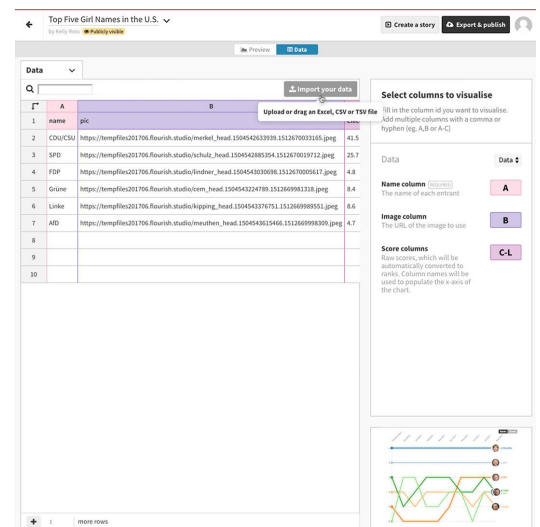
Score columns Raw scores, which will be automatically converted to ranks. Column names will be used to populate the x-axis of the chart. **C-L**

Starting your project.

Let's say you're writing a trend piece analyzing U.S. baby girls' names over time and you want to use a "horse race" template.

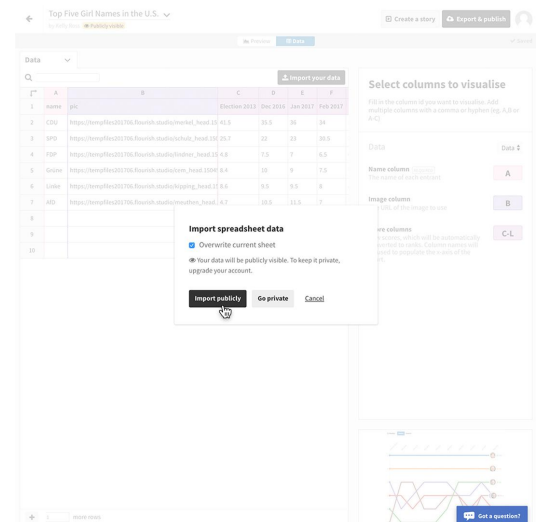
STEP 1 OF 5

Select **Import your data** and be sure to name your data sheet.



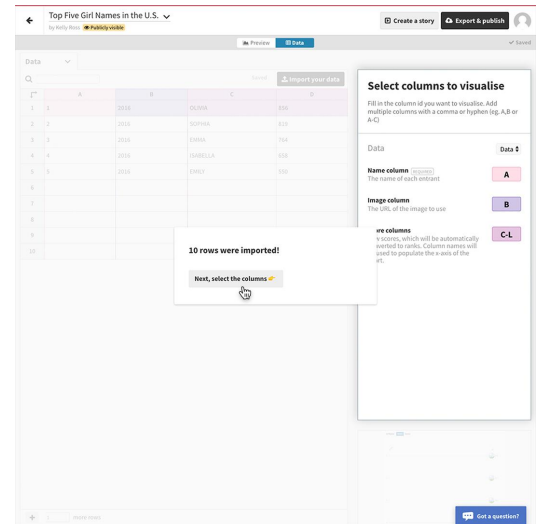
STEP 2 OF 5

Make sure that **Overwrite current sheet** is selected, then click **Import**.



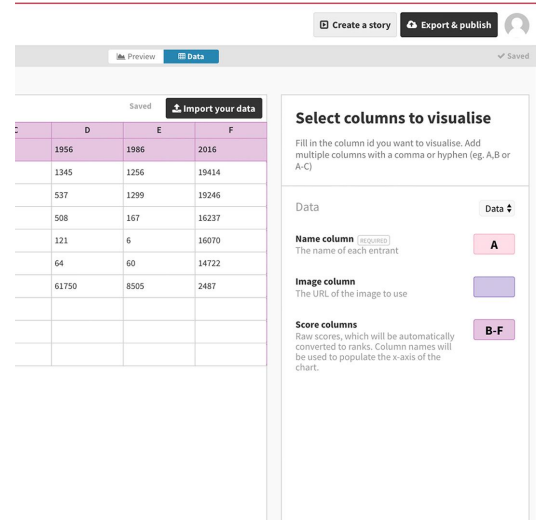
STEP 3 OF 5

Click **Next**, select the columns.



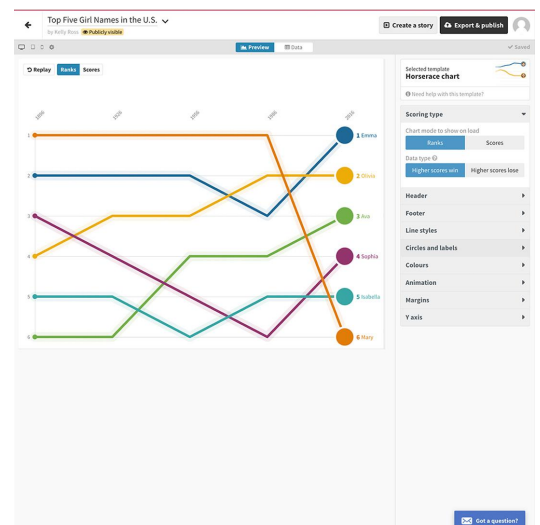
STEP 4 OF 5

Then label the columns you want to visualize. If there is an image you want to associate with the data and the template you chose allows it, click on the **Image column** field and enter the header letter of the column that contains your image URLs. If there's no image, leave the Image column field blank.



STEP 5 OF 5

Click **Preview** to see your data visualized.

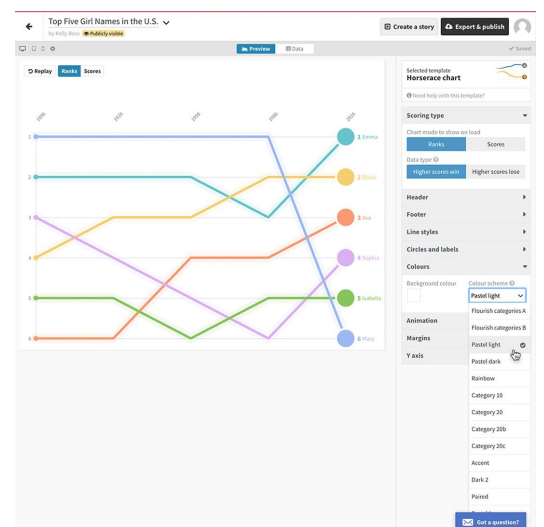


Customize your visualization.

Each Flourish template has multiple design elements you can customize to make your project unique. From colors and shading to font sizes and curve shapes, there are dozens of choices, all created by skilled designers, so no matter what you choose, your visualization will look attractive and professional.

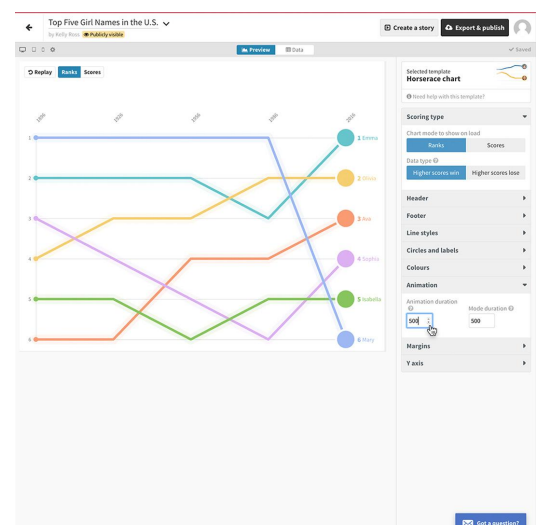
STEP 1 OF 3

Let's say you like the shape of your graphic but you want to change the colors. Click **Colours** to see a designer selection of color palettes. We'll select **Pastel light**.



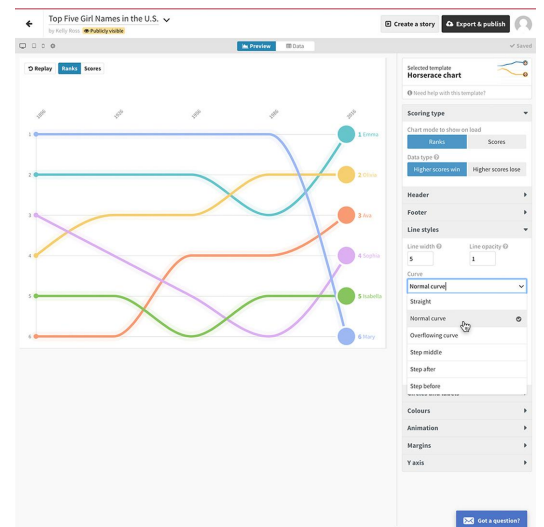
STEP 2 OF 3

To change the speed that the graphic populates, click **Animation**. Then click **Replay** to preview the motion.



STEP 3 OF 3

Altering the shape of the lines is also easy. Simply click on **Curve** under the **Line Styles** menu item and scroll through until you see one you like.

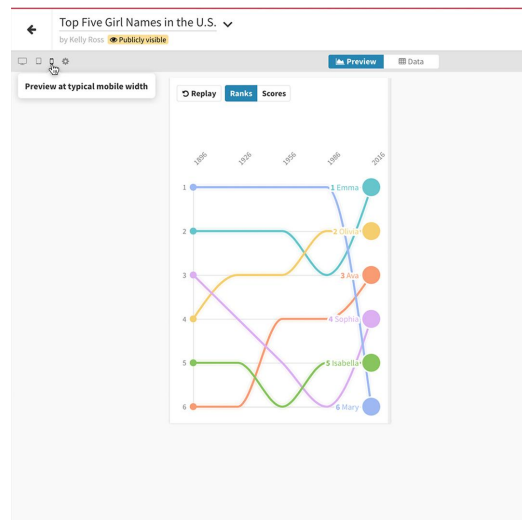


Preview your project on multiple screens.

SINGLE STEP

With more and more readers using mobile devices today, it's very important to preview your data visualization on different screen sizes. A font size that looks great on a desktop may be unreadable on a mobile phone. A graphic that looks beautiful on a phone may look sparse on a full-size screen. Flourish makes it easy to see just how your visualization will appear.

To preview your project on each screen size, click the icons in the upper left corner.



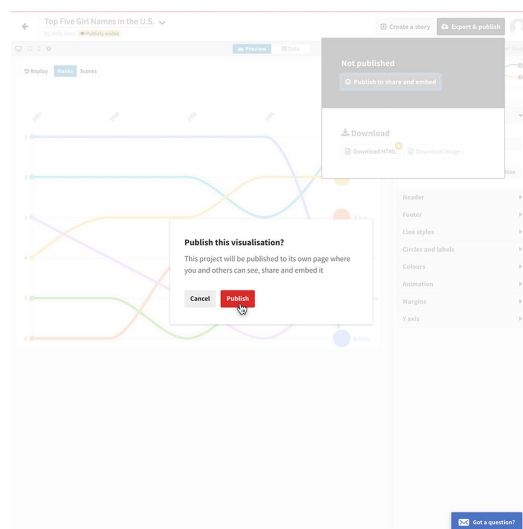
Publish your visualization.

When you're satisfied with your creation, click **Publish** to save it and embed it to your site. Flourish outputs can be published from your own server and will work forever.

If you're using the free version of this program, your visualization will appear with Flourish branding. Publishers using the full, paid version can download the HTML file and embed it without Flourish branding.

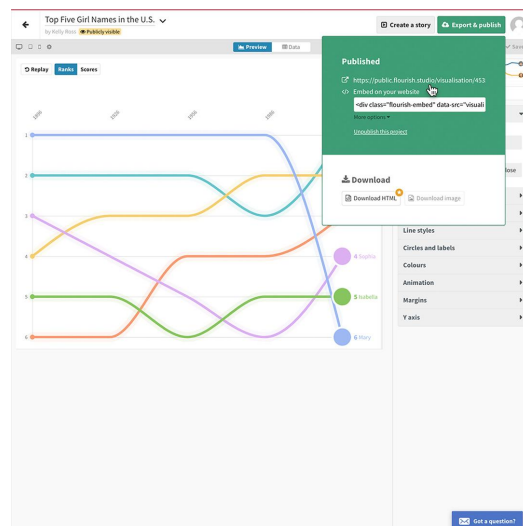
STEP 1 OF 2

Click **Export & publish > Publish to share and embed** and then confirm by selecting **Publish**.



STEP 2 OF 2

Click on the URL to view your published animation.



Congratulations!

You completed “Flourish: Data Visualization Templates.”

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our [Training Center](#) website and take another lesson: