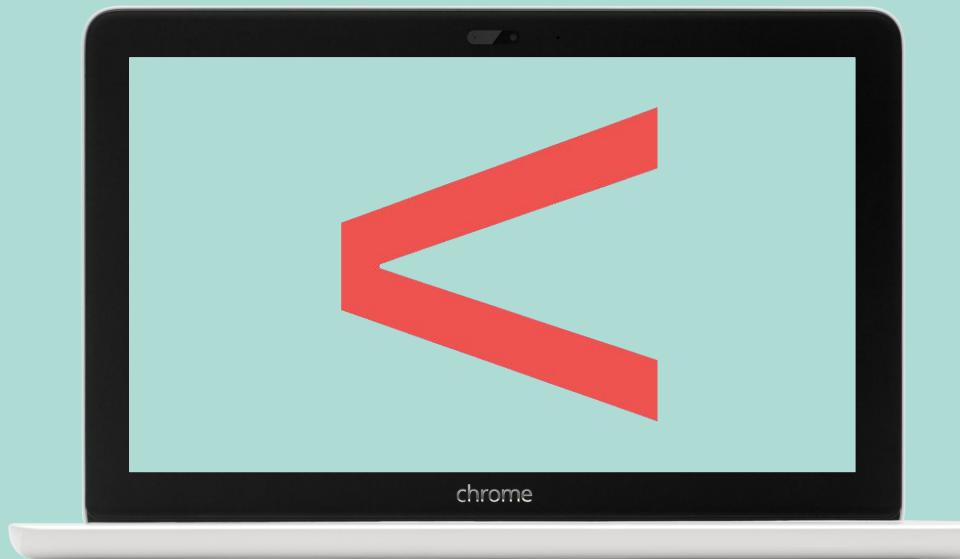
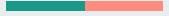




Tableau 101





Tableau

What is it?

Tableau is a **data visualization tool** which allows to create visualization of data, mostly used by BI analysts.

Other similar visualization tools are Looker and Power BI.

Tableau is part of Salesforce, which is why many companies have adopted it.

Interface and terminology

The screenshot shows the Tableau Public interface. At the top, there's a toolbar with icons for file operations, search, and system status. Below it is a header bar with the title "Tableau Public - Book1". On the left, the sidebar has sections for "Connections" (with "movies_2" selected), "Files" (containing "movies_2.csv"), and "Data Sources" (with "New Union" and "New Table Extension" options). The main workspace shows a connection to "movies_2.csv" with a small icon of two adjacent tables. A message says "Need more data? Drag tables here to relate them." Below this is a preview of the data in "movies_2.csv", which contains 11 fields and 616 rows. The preview table includes columns for "Name", "Type", "Field Name", "Physical Table", and "Remote Field ...". The data itself lists various movies like "Look Who's Talking", "Driving Miss Daisy", etc., with their respective details.

#	When MovieID	Title	MPAA Rating	#	#	Release D...
1	Look Who's Talking	PG-13	7,500,000.00	296,000,000.00	12.10.198...	
2	Driving Miss Daisy	PG	7,500,000.00	145,793,296.00	13.12.198...	
3	Turner & Hooch	PG	13,000,000.00	71,079,915.00	28.07.198...	
4	Born on the Fourth of July	R	14,000,000.00	161,001,698.00	20.12.198...	
5	Field of Dreams	PG	15,000,000.00	84,431,625.00	21.04.198...	
6	Uncle Buck	PG	15,000,000.00	79,258,538.00	16.08.198...	
7	When Harry Met Sally...	R	16,000,000.00	92,800,000.00	21.07.198...	
8	

Tableau Public - Book1

Connections Add

movies_2 Text file

Files

Use Data Interpreter
Data Interpreter might be able to clean your Text file workbook.

movies_2.csv

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

New Union

New Table Extension

movies_2.csv 11 fields 616 rows

Name movies_2.csv

Fields

Type	Field Name	Physical Table	Remote Field ...
#	When MovieID	movies_2.csv	When MovieID
Abc	Title	movies_2.csv	Title
Abc	MPAA Rating	movies_2.csv	MPAA Rating
#	Budget	movies_2.csv	Budget

#	Abc	Abc	#	#	White
	movies_2.csv	movies_2.csv	movies_2.csv	movies_2.csv	movies_2.csv
When MovieID	Title	MPAA Rating	Budget	Gross	Release Date
1	Look Who's Talking	PG-13	7,500,000.00	296,000,000.00	12.10.1981
2	Driving Miss Daisy	PG	7,500,000.00	145,793,296.00	13.12.1989
3	Turner & Hooch	PG	13,000,000.00	71,079,915.00	28.07.1989
4	Born on the Fourth of July	R	14,000,000.00	161,001,698.00	20.12.1986
5	Field of Dreams	PG	15,000,000.00	84,431,625.00	21.04.1989
6	Uncle Buck	PG	15,000,000.00	79,258,538.00	16.08.1989
7	When Harry Met Sally...	R	16,000,000.00	92,800,000.00	21.07.1989
8	Dual Disc Special	PG	16,400,000.00	225,800,115.00	22.01.1991

Data Source Sheet 1

Tableau Public - Book1

Show Me

Data Analytics < Pages Standard

movies_2

Search

Tables

Dimensions

Measures

Drop field here

Drop field here

Drop field here

Genre
MPAA Rating
Release Date
Summary
Title
When MovieID
Measure Names
Budget
Gross
Rating
Rating Count
Runtime
movies_2.csv(Count)
Measure Values

Top grossing films

Color Size Text Detail Tooltip

Data Source Sheet 1

Dimensions and measures

Dimensions:

- In blue
- Are categorical
- Discrete

Measures:

- In green
- Typically numeric
- Continuous

Tableau Public - Book1

Show Me

Data Analytics < Pages

movies_2

Search

Tables

Genre

MPAA Rating

Release Date

Summary

Title

When MovieID

Measure Names

Budget

Gross

Rating

Rating Count

Runtime

movies_2.csv (Count)

Measure Values

Columns

Rows

Top grossing films

Drop field here

Drop field here

Drop field here

Color Size Text Detail Tooltip

Automatic

Drag and drop fields to the canvas to start building your visualization.

Data Source Sheet 1

Tableau Public - Book1

Show Me

Data Analytics < Pages Columns Rows Standard

movies_2

Search

Tables

Genre (highlighted)

MPAA Rating

Release Date

Summary

Title (highlighted)

When MovieID

Measure Names

Budget

Gross (highlighted)

Rating

Rating Count

Runtime

movies_2.csv (Count)

Measure Values

Pages

Filters

Marks

Automatic

Color

Size

Text

Detail

Tooltip

Drop field here

Drop field here

Drop field here

Top grossing films

Drop field here

For horizontal bars try

0 or more Dimensions

1 or more Measures

Horizontal bar chart icon highlighted with a red box and arrow pointing to it.

Data Source Sheet 1

Tableau Public - Book1

Show Me

Data Analytics < Pages

Pages

Columns SUM(Gross)

Rows Title

Search

Tables

- Abc: Genre
- Abc: MPAA Rating
- Release Date
- Abc: Summary
- Abc: Title
- # When MovieID
- Abc: Measure Names
- # Budget
- # Gross
- # Rating
- # Rating Count
- # Runtime
- # movies_2.csv(Count)
- # Measure Values

Marks

Automatic

Color

Size

Label

Detail

Tooltip

Top grossing films

A horizontal bar chart titled "Top grossing films" showing the gross revenue for various movies. The y-axis lists the movie titles, and the x-axis shows the gross revenue in millions of dollars (M). The bars are colored teal. A red arrow points to the "Detail" button in the Marks card.

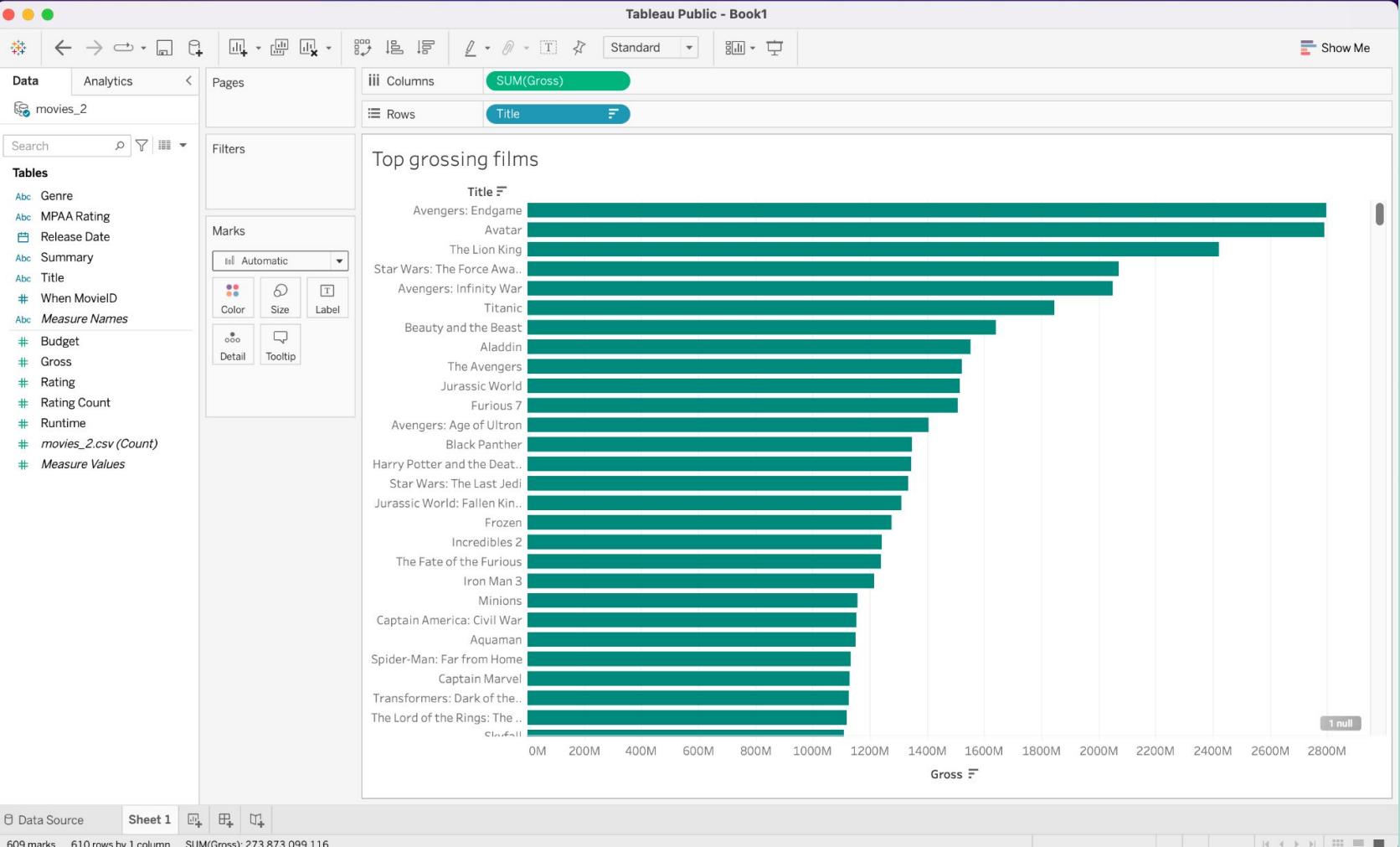
Title	Gross (M)
Null	0M
2 Fast 2 Furious	~250M
22 Jump Street	~200M
50 First Dates	~200M
101 Dalmatians	~350M
300	~450M
2012	~750M
A Beautiful Mind	~300M
A Bug's Life	~400M
A Few Good Men	~250M
A League of Their Own	~150M
A Quiet Place	~350M
A Star is Born	~450M
A Time to Kill	~150M
Ace Ventura: Pet Detective	~100M
Ace Ventura: When Natur...	~200M
Air Force One	~300M
Aladdin	1580M
Alice in Wonderland	1020M
Alvin and the Chipmunks	~350M
Alvin and the Chipmunks: ..	~350M
Alvin and the Chipmunks: ..	~450M
American Beauty	~350M
American Gangster	~250M
American Hustle	~250M
American Pie	~200M
American Pie 2	~250M
American Sniper	~150M
1 null	0M

0M 200M 400M 600M 800M 1000M 1200M 1400M 1600M 1800M 2000M 2200M 2400M 2600M 2800M

Gross

Data Source Sheet 1

609 marks 610 rows by 1 column SUM(Gross): 273,873,099.116



What is a filter?

Filtering is the process of **removing** certain values or range of values from a result set.

You can filter by a value (i. e., a specific country) or by a condition (i. e., top 10 products or all rows with a value over 6).

For more information about Tableau filters, visit [this link](#).

Country
<input checked="" type="checkbox"/> (All)
<input checked="" type="checkbox"/> Null
<input checked="" type="checkbox"/> Australia
<input checked="" type="checkbox"/> Austria
<input checked="" type="checkbox"/> Bahrain
<input checked="" type="checkbox"/> Belgium
<input checked="" type="checkbox"/> Brazil
<input checked="" type="checkbox"/> Canada
<input checked="" type="checkbox"/> Cyprus
<input checked="" type="checkbox"/> Czech Republic
<input checked="" type="checkbox"/> Denmark
<input checked="" type="checkbox"/> European Commun...
<input checked="" type="checkbox"/> Finland
<input checked="" type="checkbox"/> France
<input checked="" type="checkbox"/> Germany
<input checked="" type="checkbox"/> Greece

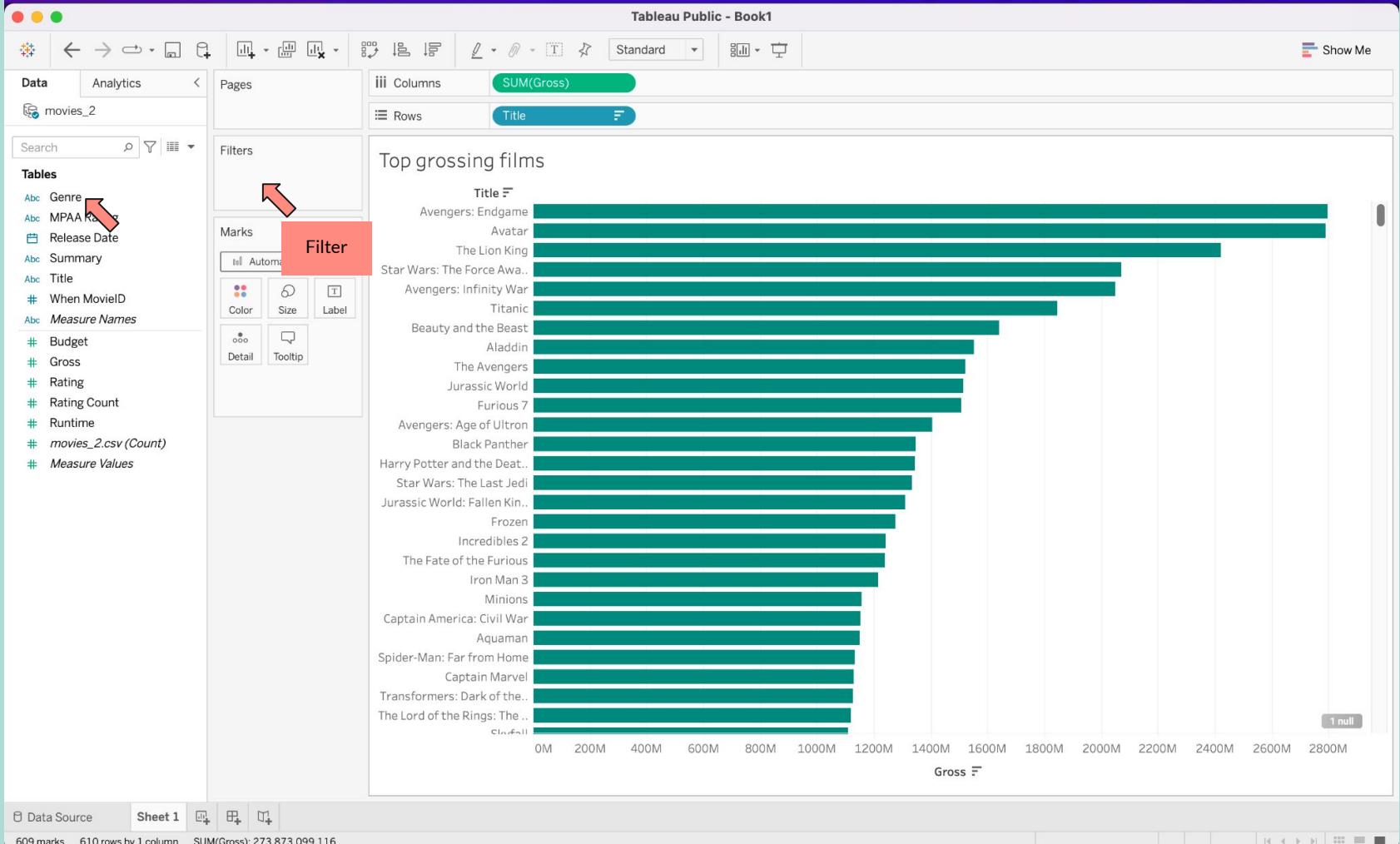


Tableau Public - Book1

Show Me

Data Analytics < Pages Columns SUM(Gross) Rows Title

Search

Tables

- Genre
- MPAA Rating
- Release Date
- Summary
- Title
- When MovieID
- Measure Names
- Budget
- Gross
- Rating
- Rating Count
- Runtime
- movies_2.csv(Count)
- Measure Values

Filters

Marks

Automatic

Color Size Label

Detail Tooltip

Top grossing films

The chart displays the top-grossing movies from the dataset. The y-axis lists the movie titles, and the x-axis shows the gross amount in millions of dollars. The bars are colored teal. A red arrow points to the genre filter on the right side of the screen.

Title	Gross (M)
Avengers: Endgame	273873.099116
Avatar	273873.099116
The Lion King	248500.0
Star Wars: The Force Awakens	213500.0
Avengers: Infinity War	208500.0
Titanic	188500.0
Beauty and the Beast	168500.0
Aladdin	163500.0
The Avengers	163500.0
Jurassic World	163500.0
Furious 7	163500.0
Avengers: Age of Ultron	143500.0
Black Panther	138500.0
Harry Potter and the Deathly Hallows – Part 2	138500.0
Star Wars: The Last Jedi	138500.0
Jurassic World: Fallen Kingdom	138500.0
Frozen	133500.0
Incredibles 2	133500.0
The Fate of the Furious	133500.0
Iron Man 3	128500.0
Minions	123500.0
Captain America: Civil War	123500.0
Aquaman	123500.0
Spider-Man: Far from Home	123500.0
Captain Marvel	123500.0
Transformers: Dark of the Moon	123500.0
The Lord of the Rings: The Return of the King	123500.0

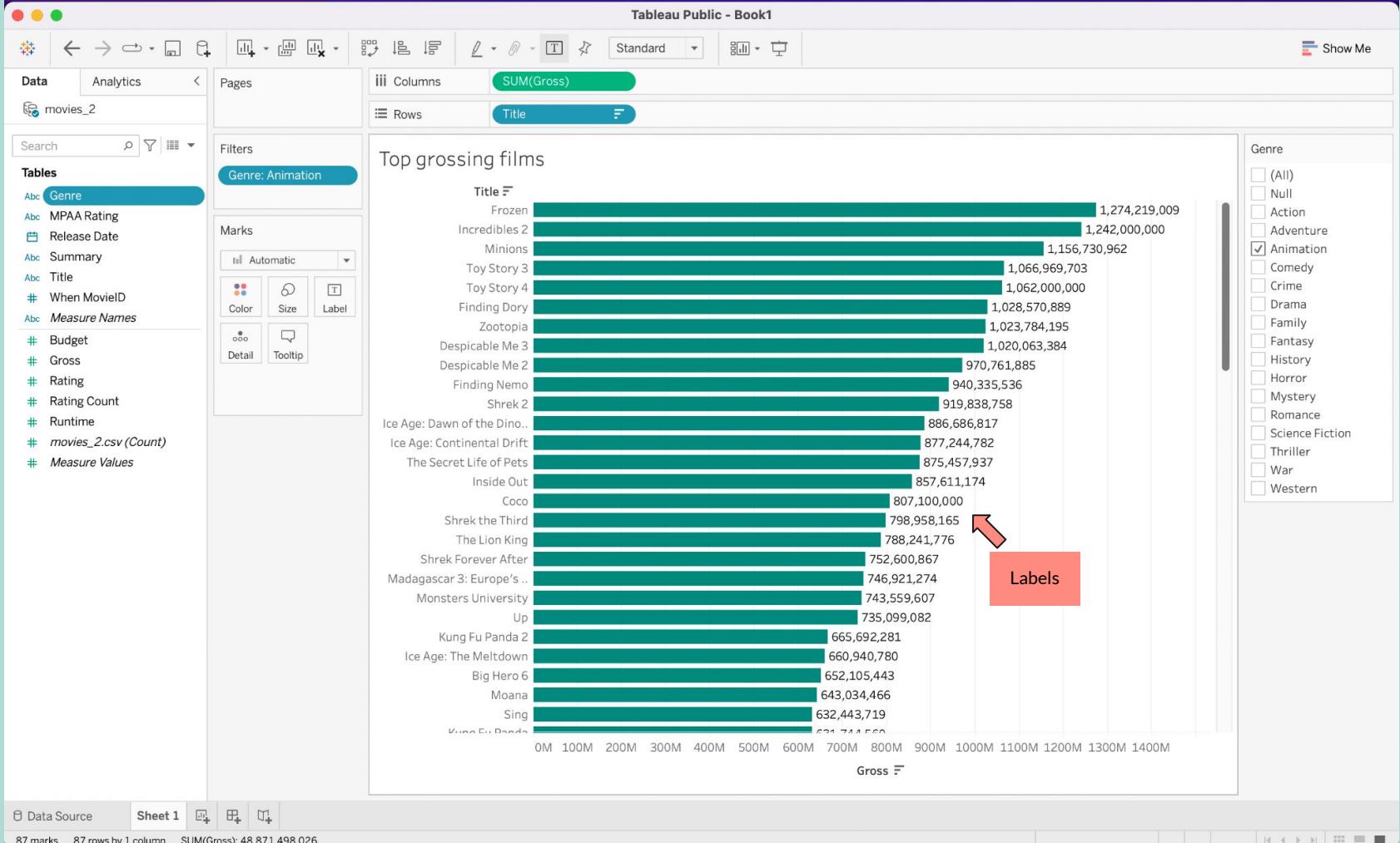
Genre

- (All)
- Null
- Action
- Adventure
- Animation
- Comedy
- Crime
- Drama
- Family
- Fantasy
- History
- Horror
- Mystery
- Romance
- Science Fiction
- Thriller
- War
- Western

1 null

Data Source Sheet 1

609 marks 610 rows by 1 column SUM(Gross): 273,873,099.116



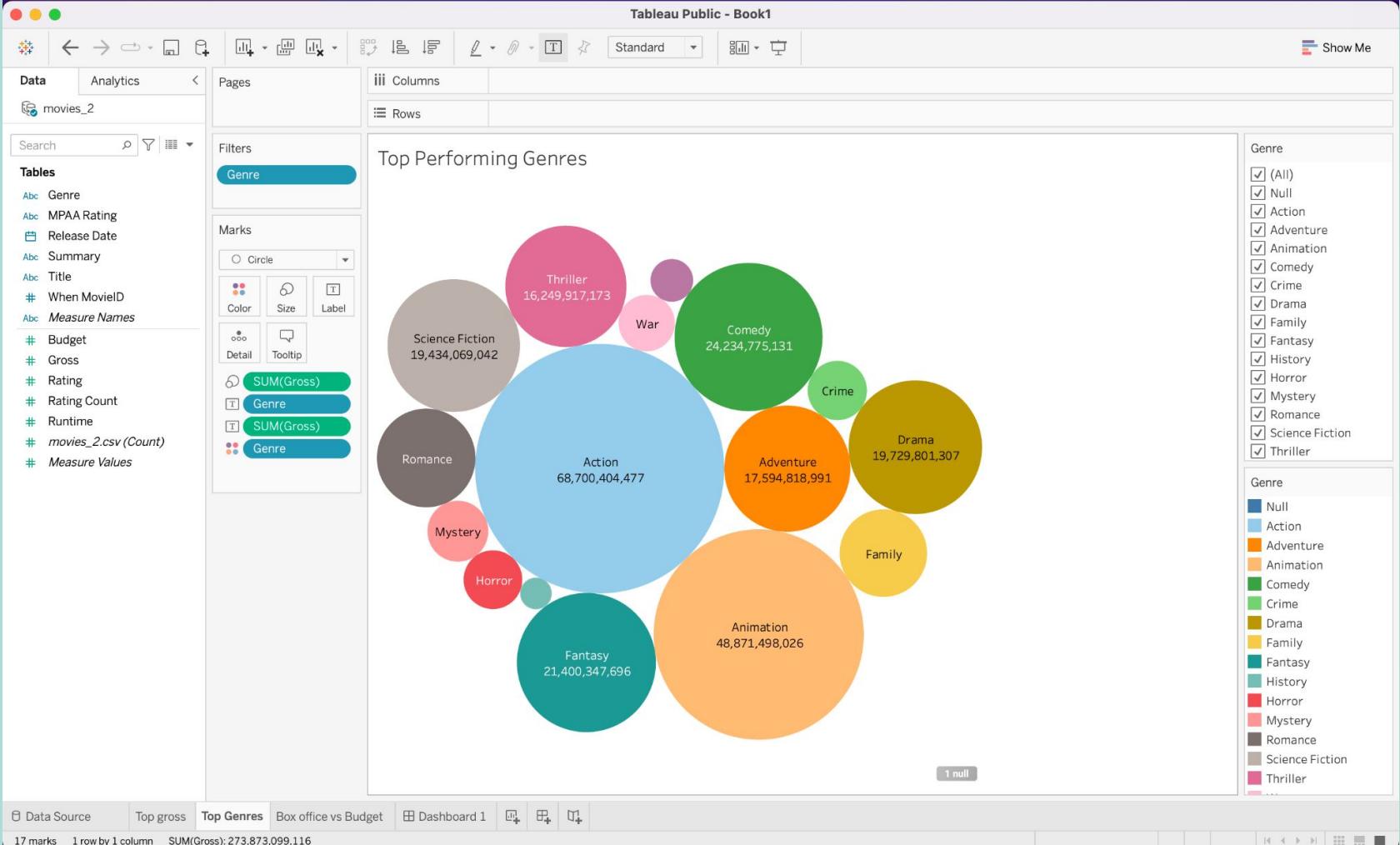


Tableau Public - Book1

Show Me

Data Analytics < Pages Columns: Genre Rows: Measure Values

Search movies_2

Tables

- Genre
- MPAA Rating
- Release Date
- Summary
- Title
- When MovieID
- Measure Names

Marks

- Automatic
- Color
- Size
- Label
- Detail
- Tooltip

Measure Names

- Gross
- Budget

Measure Values

- SUM(Gross)
- SUM(Budget)

Box office VS Budget

Genre

Value

Genre: Animation
Budget: 10,081,500,000

Genre	Budget	Gross	Total
Action	~15B	~70B	~85B
Adventure	~5B	~18B	~23B
Animation	~12B	~48B	~60B
Comedy	~2B	~2B	~4B
Drama	~5B	~18B	~23B
Fantasy	~5B	~20B	~25B
History	~1B	~1B	~2B
Horror	~1B	~5B	~6B
Mystery	~1B	~5B	~6B
Romance	~2B	~10B	~12B
Science Fiction	~5B	~18B	~23B
Thriller	~3B	~15B	~18B
War	~1B	~2B	~3B
Western	~1B	~1B	~2B

32 marks 1 row by 17 columns SUM of Measure Values: 332,247,114,654

Interface and terminology

For definitions of the different terms, visit [this link](#).

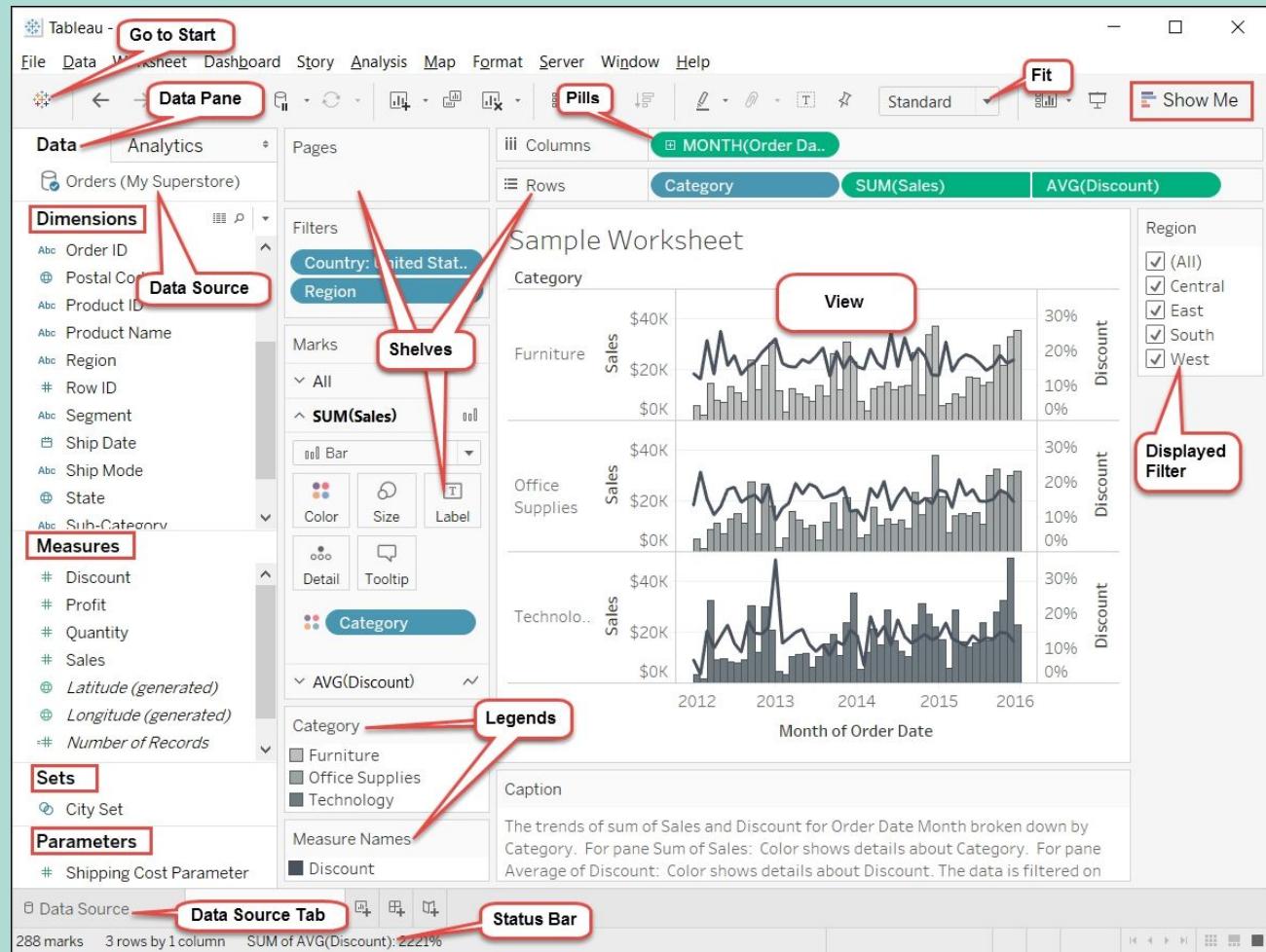
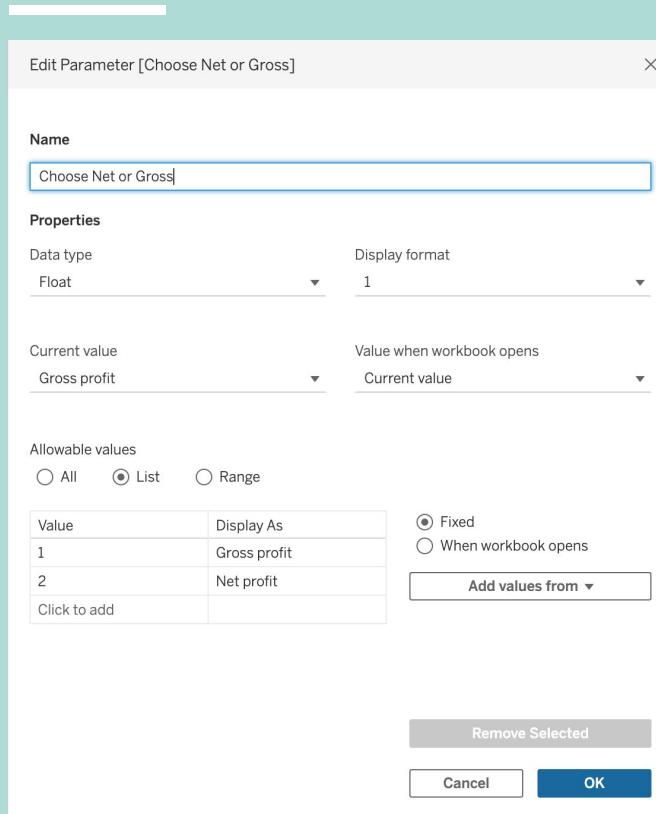


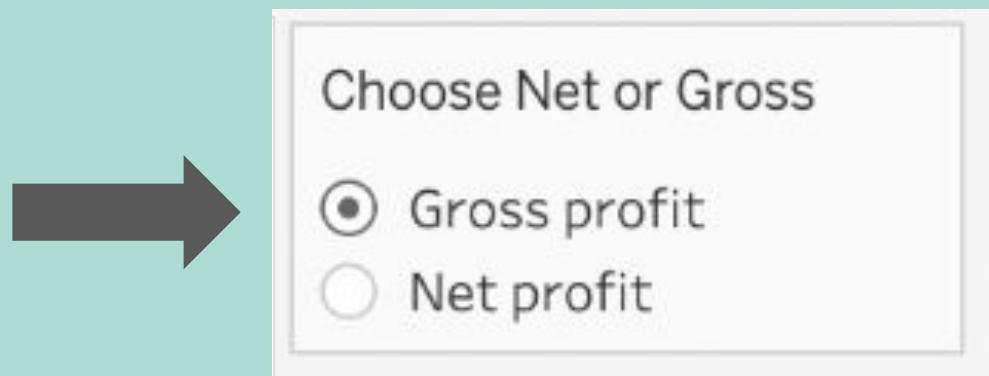
Image source: paktpub.com

What is a parameter?



A parameter is a variable in an equation whose value can be controlled by the end user. They're different from Filters, as they do not exclude data.

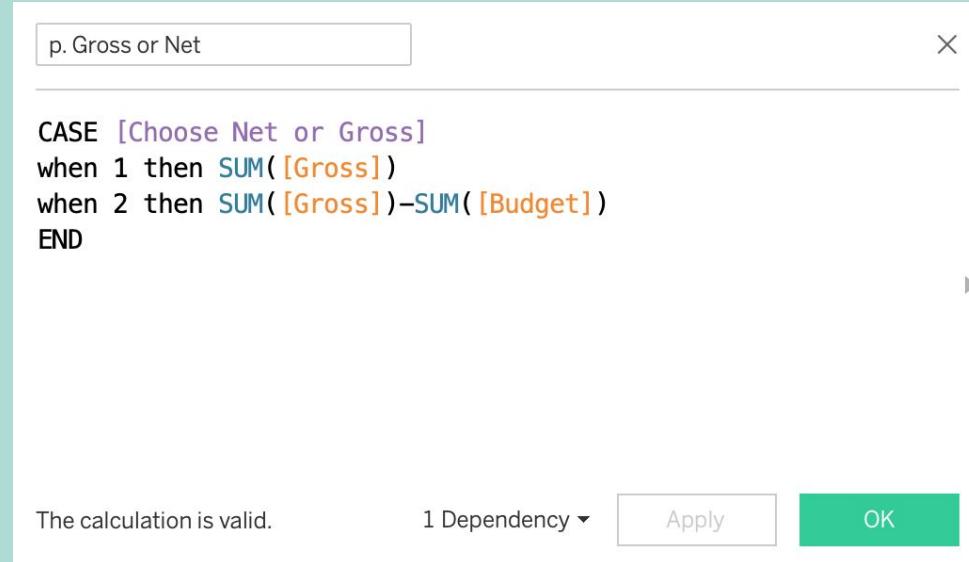
For more information about Tableau parameters, visit [this link](#) or [this one](#).



What is a calculated field?

When you create a calculated field, you are essentially creating a new field (or column) from data that already exists in your data source.

For more information about Tableau calculated fields, visit [this link](#).



What are Level of Detail (LOD) expressions?

LOD Expressions allow to answer questions involving **multiple levels of granularity** in a single visualization. There are three types of LODs:

1. **Exclude:** used to exclude a specified dimension from the view.
2. **Include:** used to include a specified dimension along with other dimensions within the view.
3. **Fixed:** unlike exclude and include, fixed doesn't depend on what is on the view rather focuses more on calculations. Thus it produces a fixed value for the specified dimensions.

For more information about Tableau's LODs expressions, visit [this link](#), and [this other link](#).

And here you'll be able to see the [Top 15 LOD expressions](#) and tutorials to learn how to do them.

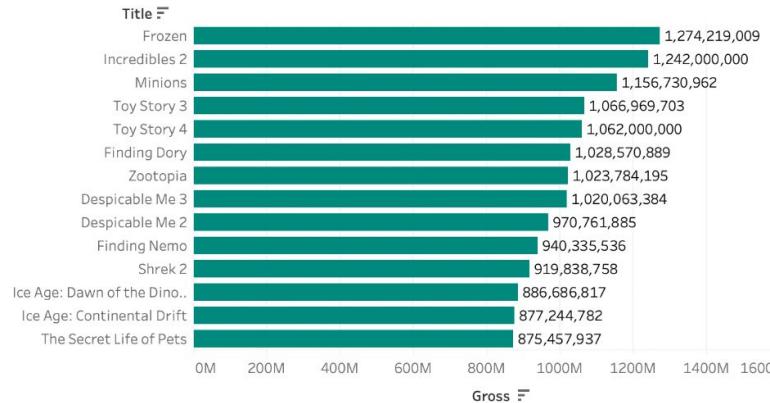
Tableau Dashboard of movies.csv

Top Performing Genres



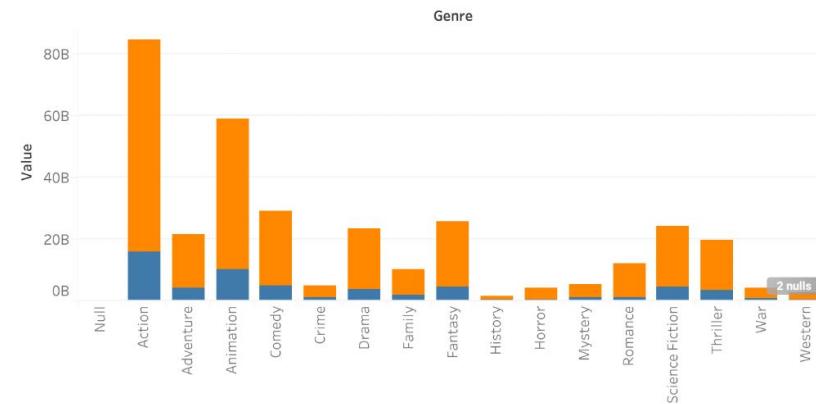
Measure Names
Gross
Budget

Top grossing films

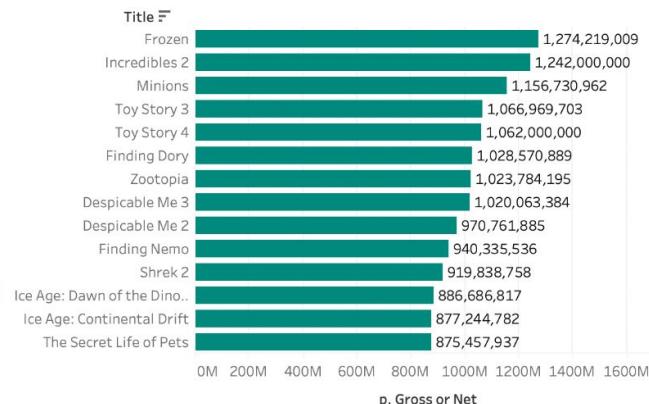


Genre
 (All)
 Null
 Action
 Adventure
 Animation
 Comedy
 Crime
 Drama
 Family
 Fantasy
 History
 Horror
 Mystery
 Romance
 Science Fiction
 Thriller
 War
 Western

Box office VS Budget



Top grossing films



Choose Net or Gross
 Gross profit
 Net profit

Tableau 101

For more information about how to use Tableau,
visit their Help Center in [this link](#).

Here's an example of what we can do with
[a dashboard](#).

Tableau 101

Live coding