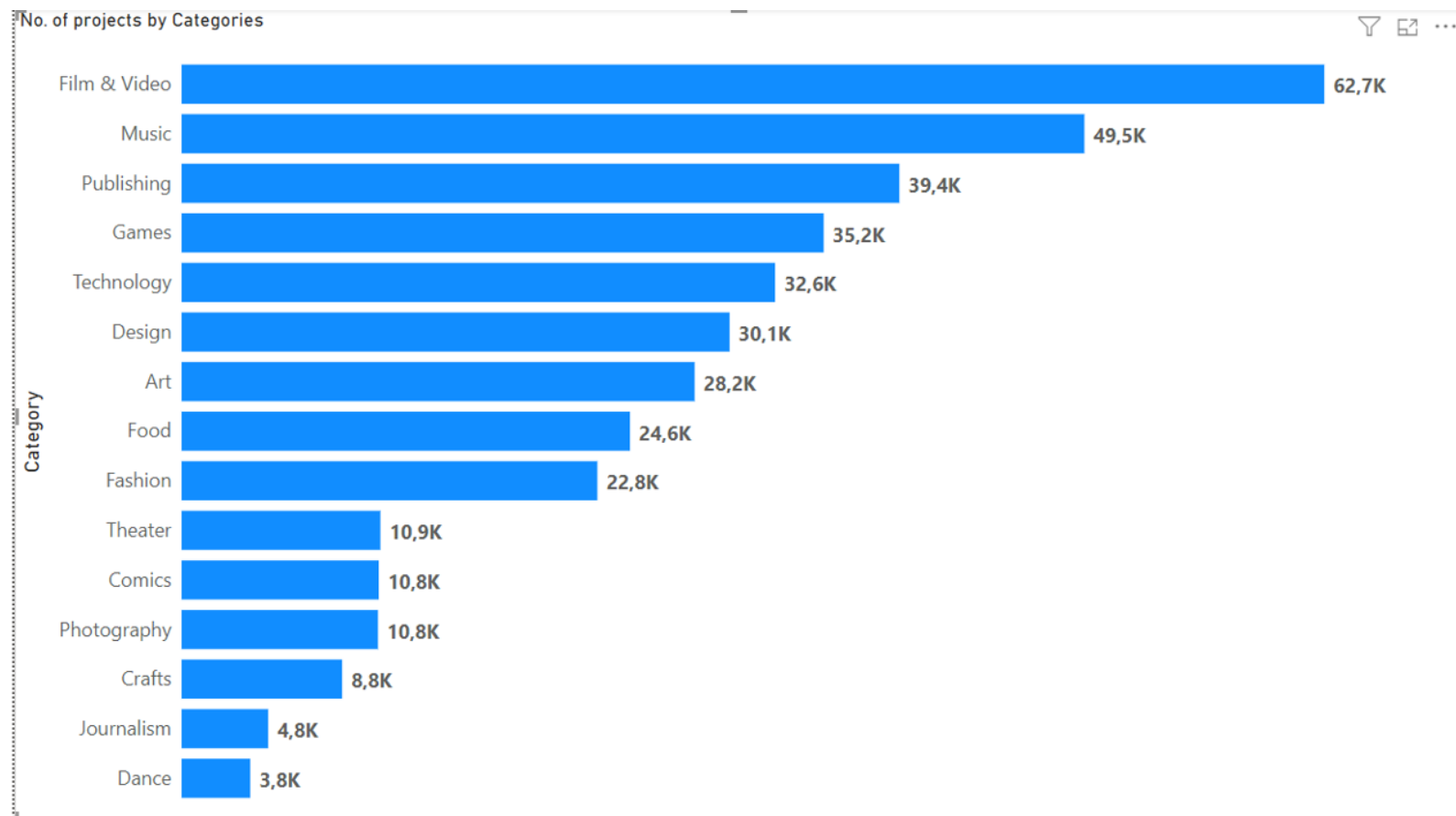**Brief summarization for visuals and x&y axes:**

x-axis is always the horizontal axis →

y-axis is always the vertival axis ↑

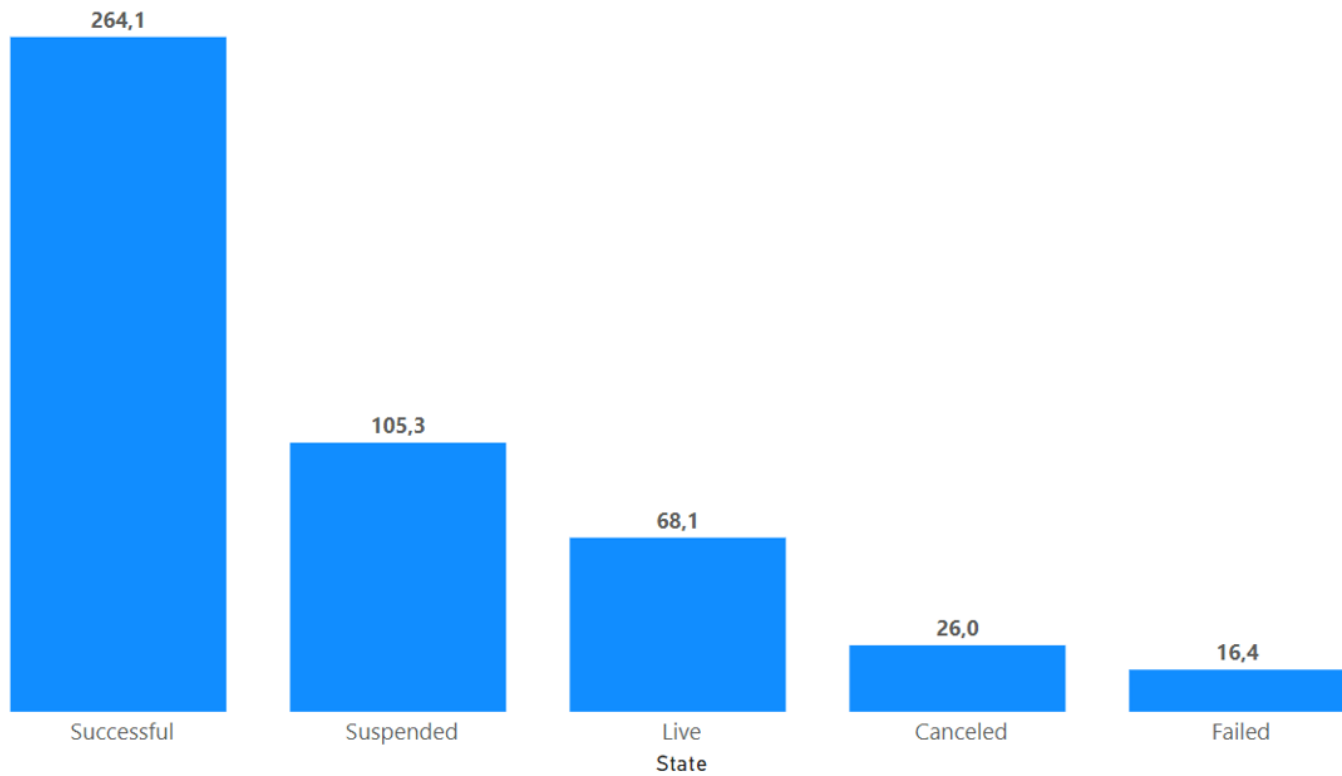**Horizontal 100% / Stacked / Clustered / Normal Bar Charts**

Based on the attached picture you can see that each bar is a distinct category and they are over each other. This is why categorical values should go for Y-Axis when we are using a Horizontal (any kind of) Bar Chart.

Besides that you can see the different values have different width so the numerical values should go for X-axis when we are using Horizontal (any kind of) Bar Chart.

Keep in mind, X-axis is always Horizontal (→) and Y-axis is always Vertical (↑).

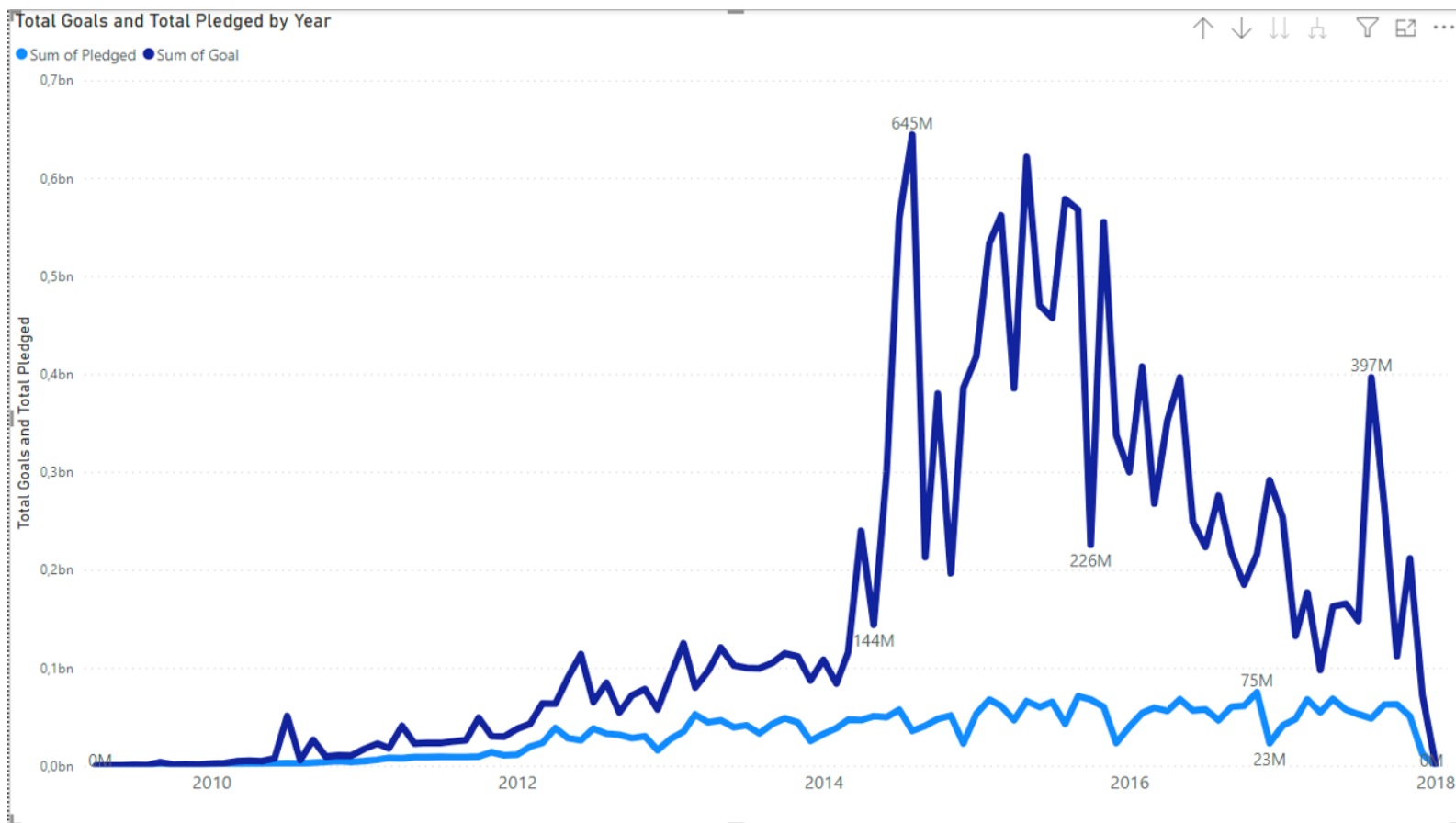**Vertical 100% / Stacked / Clustered / Normal Bar Charts**

Based on the attached picture you can see that each bar is a distinct category and they are next to each other. This is why categorical values should go for X-Axis when we are using a Vertical (any kind of) Bar Chart.

Besides that you can see the different values have different heights so the numerical values should go for Y-axis when we are using Vertical (any kind of) Bar Chart.

Keep in mind, X-axis is always Horizontal (→) and Y-axis is always Vertical (↑).

Line / Area Charts

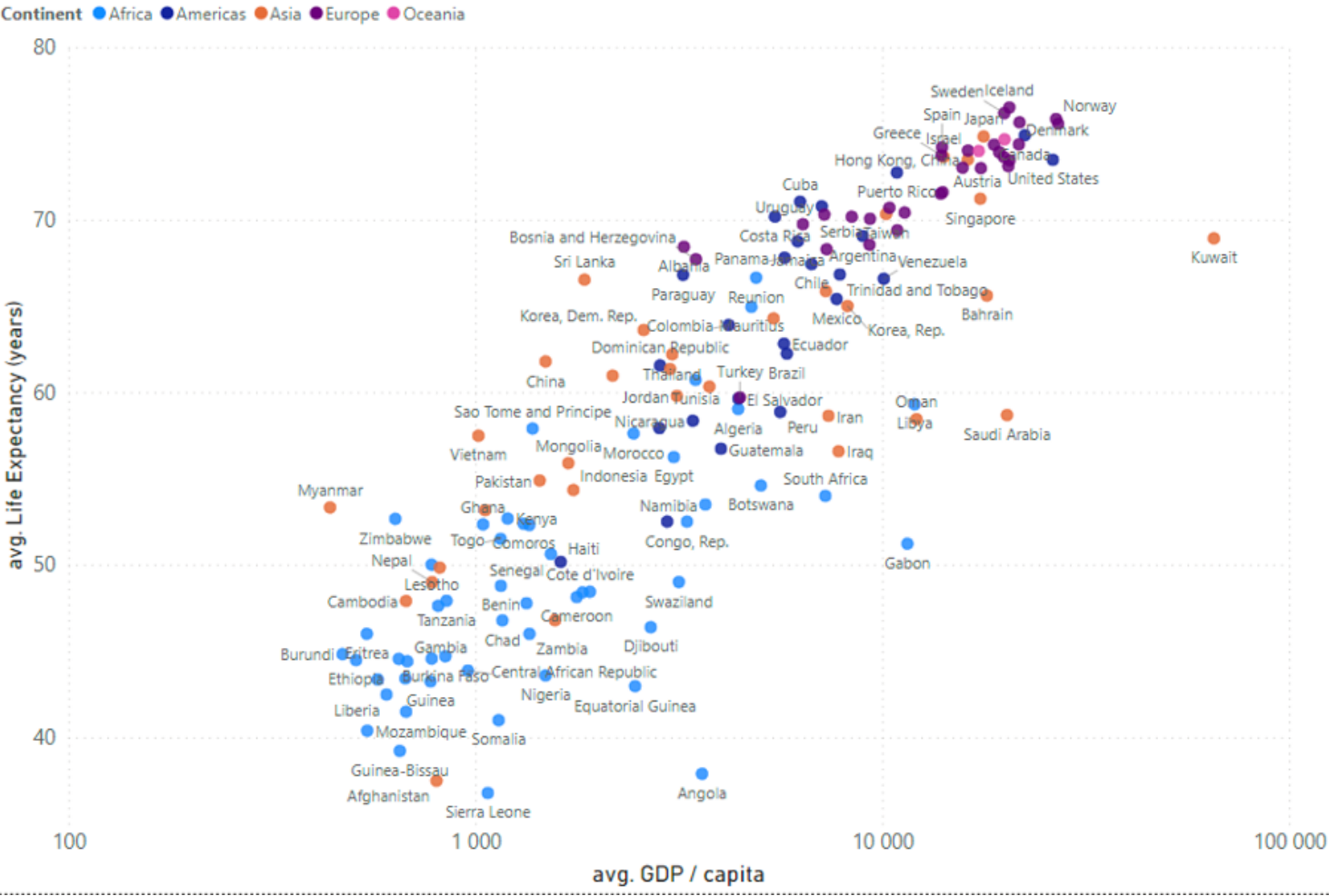As we did on class as well the X-axis of a Line / Area chart is usually the Date/Time value, so one out of the two fileds is kind of fixed.

This means that the numerical value should go for Y-axis, because that is the one that determines the distance from the 0 line (basically the height of the connected dots).

Keep in mind, X-axis is always Horizontal (→) and Y-axis is always Vertical (↑).

Scatter Plots

Avg. GDP / capita and Avg. Life Expectancy by Countries for the whole intervall

This is the only learnt visual type where we are using two numerical values for both of the axes. As Statistics says X-axis should be the independent variable and Y-axis should be the dependent variable.

Keep in mind, if you are using data from multiple years, you should use AVG aggregation and/or filter them to one distinct year.

Keep in mind, X-axis is always Horizontal (→) and Y-axis is always Vertical (↑).

Table Visuals

ID	State	Subcategory	Category	Name	Sum of Backers	Sum of Goal	Sum of Pledged
1002629894	Live	Illustration	Art	Art Calendar 2018	0	52	0
1014982951	Live	Illustration	Art	Freedom Through Art | Drawings That Inspire	4	300	65
1025450545	Live	Performance Art	Art	Mazie Meadows Morning Show Podcast, Season 2	1	500	500
1041281036	Live	Art	Art	Happiness with colors	0	3000	0
1045597033	Live	Performance Art	Art	The Mona Lisa Project	5	10279	75
104865359	Live	Art	Art	Fantasy Guyisland	0	25000	0
1051434275	Live	Art	Art	John Avon's Unstable!	1835	13640	113482
1052186553	Live	Art	Art	Ice Cream Clouds Enamel Pins - Make ice cream dreams reality	6	250	157
1077206743	Live	Mixed Media	Art	Make 100 Abstract CitraSolv Creations for Healing.	1	3500	50
1077399482	Live	Digital Art	Art	Charivari	0	40000	0
1087556685	Live	Art	Art	Please help me start my martial arts school.	3	50000	250
1097091400	Live	Art	Art	Juneteenth Reading Conference	1	6000	5
1128104074	Live	Mixed Media	Art	Blackwork Portraiture	19	399	1034
1133428390	Live	Art	Art	BiCamp UK 2018	15	678	785
1164987667	Live	Mixed Media	Art	Kawaii Chubby chub Totoro Pin	16	500	778
1169916148	Live	Painting	Art	my first ever art exhibition	0	7994	0
1222163022	Live	Art	Art	Studio 25: Creative Co-working	5	6600	340
1224935546	Live	Art	Art	Scenes of Springfield Simpsons pin badges	19	610	375
1230207771	Live	Illustration	Art	Art of sakimichan Vol1	1048	25561	146649
1251249596	Live	Illustration	Art	Inktober Inspired Enamel Pins	2	600	20
1258236499	Live	Art	Art	Ethnicitees, LLC "Cultural Wearables" Brand	1	1200	20
126034566	Live	Conceptual Art	Art	World War Occult - An Artbook	62	500	2010
1270889479	Live	Art	Art	Funding the best book of my life	1	13640	14
1276561136	Live	Conceptual Art	Art	Fantazia - the coffee table book with decoupages	5	13035	464
1283910395	Live	Art	Art	Vathek: Sensorial experience	0	1831	0
1293620457	Live	Painting	Art	Painting the Jazz Greats-Duke Ellington	5	10000	186
1300225692	Live	Mixed Media	Art	Hamilton Inspired Pony Enamel Pin	11	150	180
1304150055	Live	Art	Art	I will draw you, normal edit or grime edit	2	50	4
Total					**190611**	**175011262**	**16427784**

This is an easy job because you can put values only to the Columns part :)

Keep in mind if you are working with Sparklines you should apply the same logic as we did with a Vertical Bar Chart or with a Line Chart.

Matrix Visuals

Category	Canceled	Failed	Live	Successful	Suspended	Total
Art	1,19%	3,38%	2,82%	2,65%	0,32%	**2,65%**
Comics	0,80%	1,56%	1,10%	2,19%	0,05%	**2,09%**
Crafts	0,38%	0,78%	0,36%	0,39%	0,13%	**0,42%**
Dance	0,09%	0,29%	0,08%	0,40%	0,02%	**0,38%**
Design	21,26%	16,12%	34,15%	21,86%	23,77%	**21,47%**
Fashion	3,90%	4,68%	3,32%	3,74%	3,23%	**3,81%**
Film & Video	10,57%	19,14%	2,81%	10,86%	1,68%	**11,40%**
Food	2,15%	6,59%	3,92%	3,48%	2,53%	**3,68%**
Games	26,56%	13,88%	8,89%	22,38%	3,75%	**21,68%**
Journalism	0,16%	0,66%	0,57%	0,35%	0,02%	**0,36%**
Music	2,26%	5,22%	5,21%	5,84%	0,31%	**5,67%**
Photography	0,61%	1,64%	1,37%	1,10%	0,06%	**1,13%**
Publishing	2,13%	5,63%	4,59%	3,83%	0,43%	**3,91%**
Technology	26,91%	19,02%	30,03%	19,65%	63,69%	**20,07%**
Theater	1,02%	1,39%	0,79%	1,29%	0,01%	**1,28%**
Total	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**

This is one step harder. You have the Rows and Columns as speaking about the axes only. Rows are under each other so they are creating a Vertical direction this is why they are kind of a "Y-axis".

Besides that you can see the Columns are next to each other that way they are creating a sideways wide direction which is the Horizontal way, also called "X-axis".

Hopefully this short description of the Axes is going to be helpful for you when you are building the charts by yourselves. With any further questions feel free to ask Us preferably via the dataviz slack channel so others will have the opportunity to benefit from your questions as well.

Last modified: Thursday, 28 September 2023, 9:33 AM