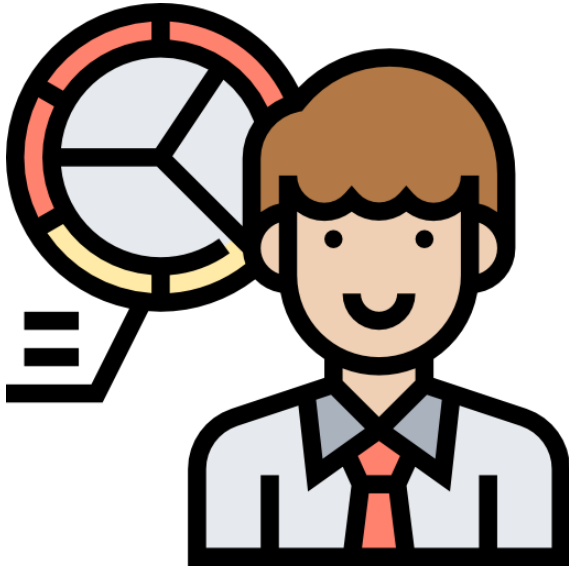
Is it easy to understand..?

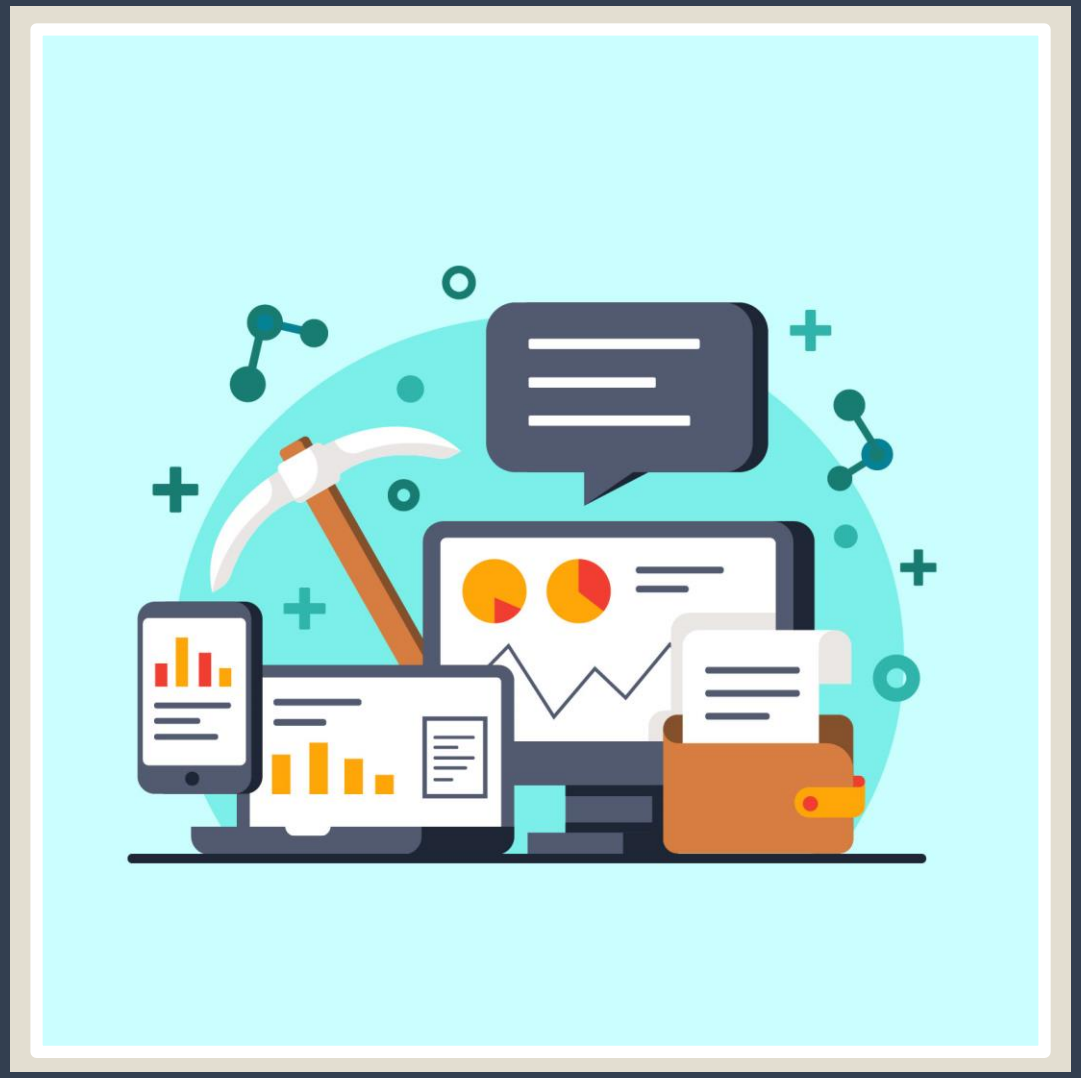


DATA VISUALIZATION

Mohamad Irwan Afandi

Outline

1. What is data visualization
2. Why do we need data visualization
3. The benefit of visualization
4. How do you pick the right chat
5. Keys to data storytelling
6. Data visualization tools



DATA VISUALIZATION

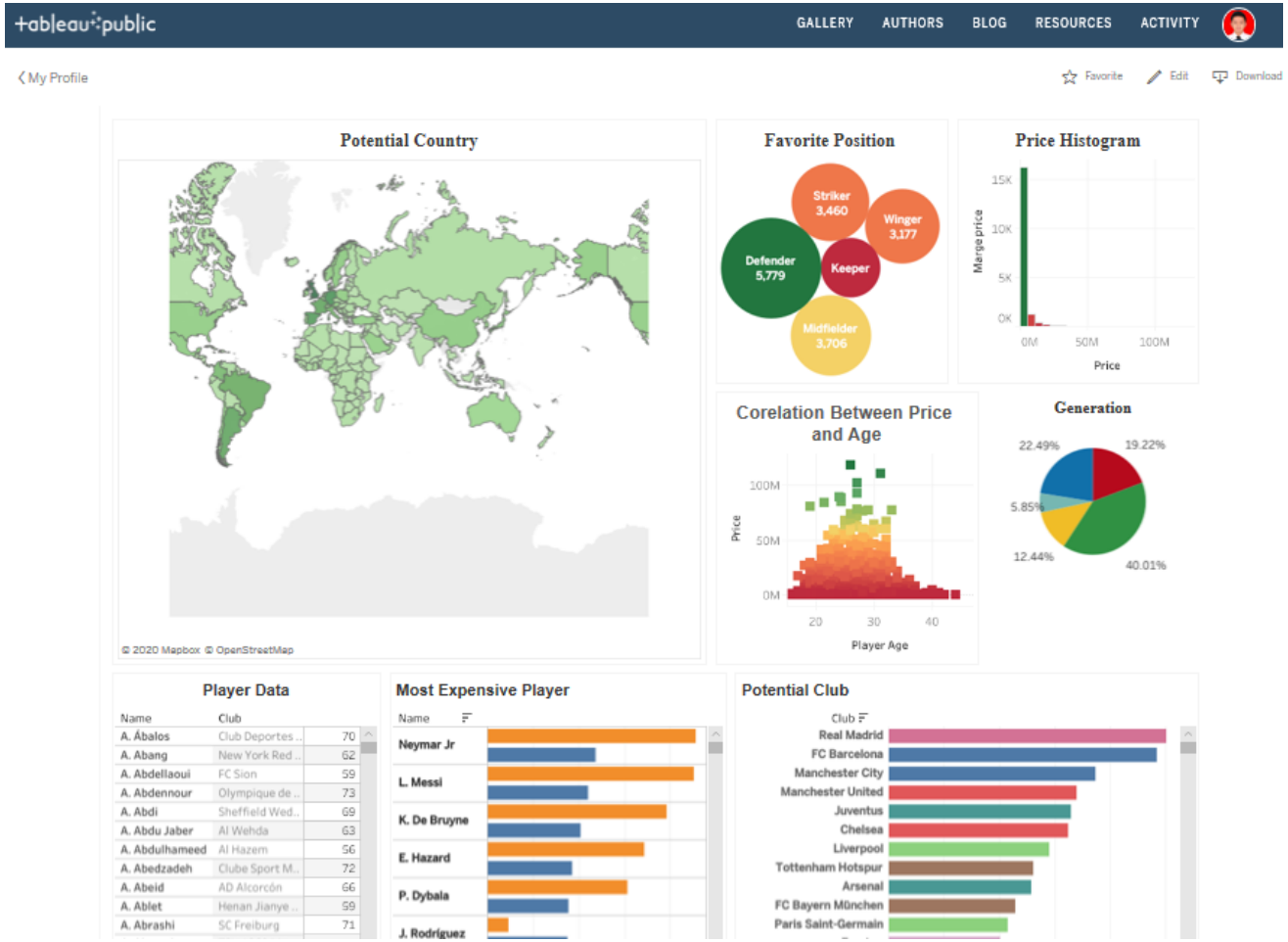
Data visualization is the **graphical representation of information and data**. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and **understand trends, outliers, and patterns in data as quick as we can.**

In the world of Big Data, data visualization tools and technologies are essential to **analyze massive amounts of information and make data-driven decisions.**

https://www.tableau.com/learn/articles/data-visualization

WHY DO WE NEED
DATA VISUALIZATION

ID	Name	Age	Photo	Nationality	Flag	Overall	Potential	Club	Club Logo	Value	Wage	Special	Preferred Foot	International Reputation	Weak Foot	Skill Moves	Work Rate
158023	L. Messi	31	https://cd	Argentina	https://cd	94	94	FC Barcelo	https://cd	€110.5M	€565K	2202	Left	5	4	4	Medium/
20801	Cristiano R	33	https://cd	Portugal	https://cd	94	94	Juventus	https://cd	€77M	€405K	2228	Right	5	4	5	High/ Low
190871	N							Paris Saint	https://cd	€118.5M	€290K	2143	Right	5	5	5	High/ Me
193080	D							Manchest	https://cd	€72M	€260K	1471	Right	4	3	1	Medium/
192985	K							Manchest	https://cd	€102M	€355K	2281	Right	4	5	4	High/ Hig
183277	E							Chelsea	https://cd	€93M	€340K	2142	Right	4	4	4	High/ Me
177003	L							Real Madr	https://cd	€67M	€420K	2280	Right	4	4	4	High/ Hig
176580	L							FC Barcelo	https://cd	€80M	€455K	2346	Right	5	4	3	High/ Me
155862	S							Real Madr	https://cd	€51M	€380K	2201	Right	4	3	3	High/ Me
200389	J							Atlético M	https://cd	€68M	€94K	1331	Right	3	3	1	Medium/
188545	R							FC Bayern	https://cd	€77M	€205K	2152	Right	4	4	4	High/ Me
182521	T							Real Madr	https://cd	€76.5M	€355K	2190	Right	4	5	3	Medium/
182493	D							Atlético M	https://cd	€44M	€125K	1946	Right	3	3	2	Medium/
168542	D							Manchest	https://cd	€60M	€285K	2115	Left	4	2	4	High/ Me
215914	N							Chelsea	https://cd	€63M	€225K	2189	Right	3	3	2	Medium/
								Juventus	https://cd	€89M	€205K	2092	Left	3	3	4	High/ Me
								Tottenhar	https://cd	€83.5M	€205K	2165	Right	3	4	3	High/ Hig
								Atlético M	https://cd	€78M	€145K	2246	Left	4	3	4	High/ Hig
								FC Barcelo	https://cd	€58M	€240K	1328	Right	3	4	1	Medium/
								Real Madr	https://cd	€53.5M	€240K	1311	Left	4	2	1	Medium/
								FC Barcelo	https://cd	€51.5M	€315K	2065	Right	4	3	3	Medium/



Which one do you choose?
Left or right ? **RIGHT**

Humans are visual creatures.

Visualization will help them understand the data as quick as they can.

The Benefit of VISUALIZATION

It Makes Better Analysis

Taking Quick Action

Understanding the story

Grasping the latest trends

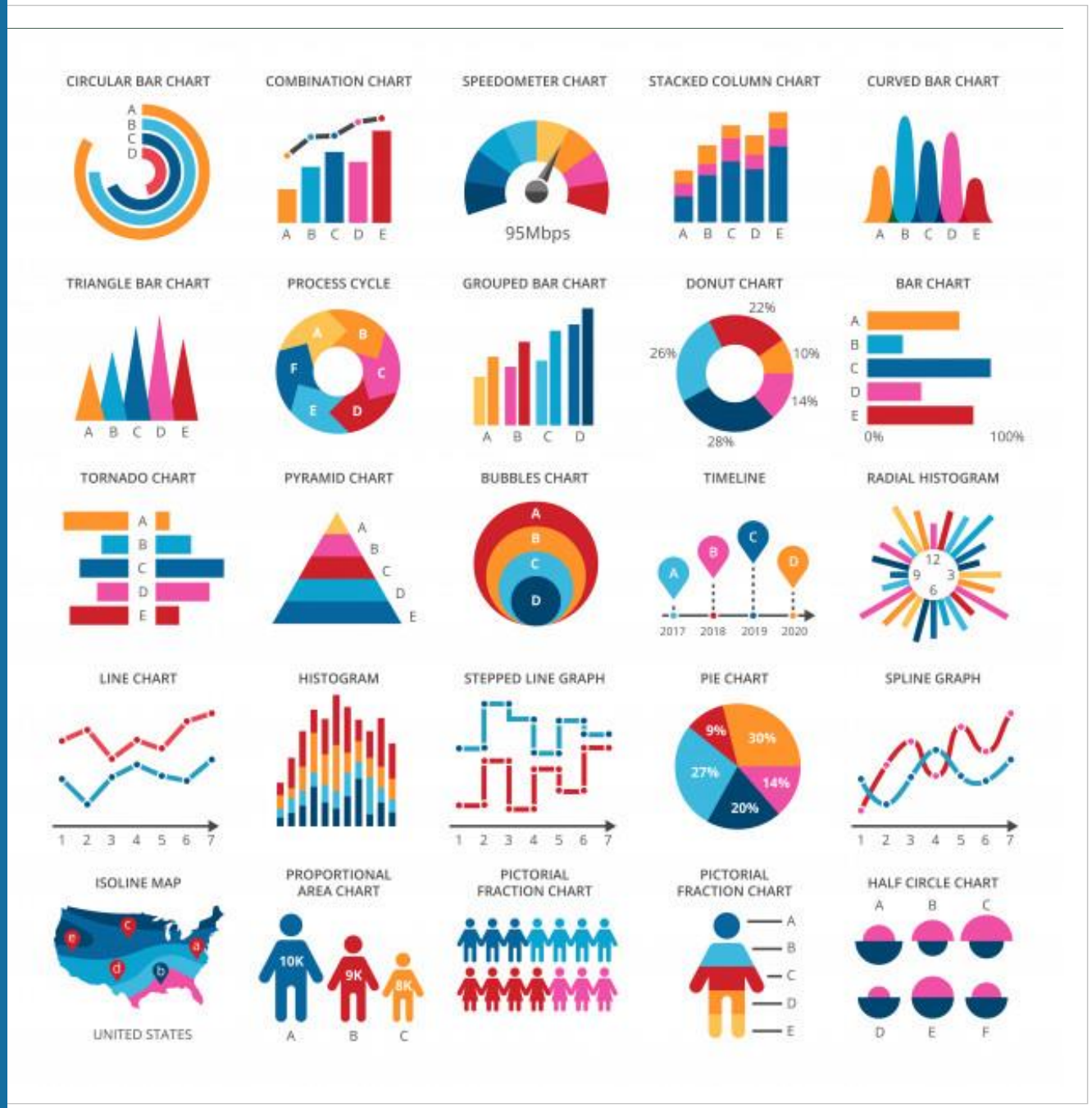
https://www.boldbi.com/blog/data-visualization-importance-and-benefits

How do you pick the right chart?

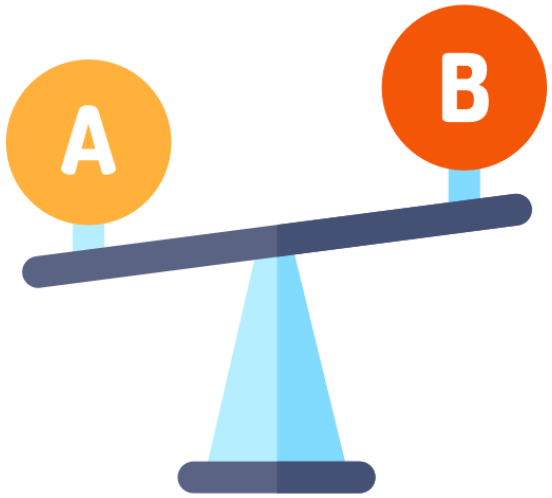
- Before making a chart it's important to understand why you need one.
- What is the data that you have.
- Think about the message you want to share with your audience.

https://material.io/design/communication/data-visualization.html#types

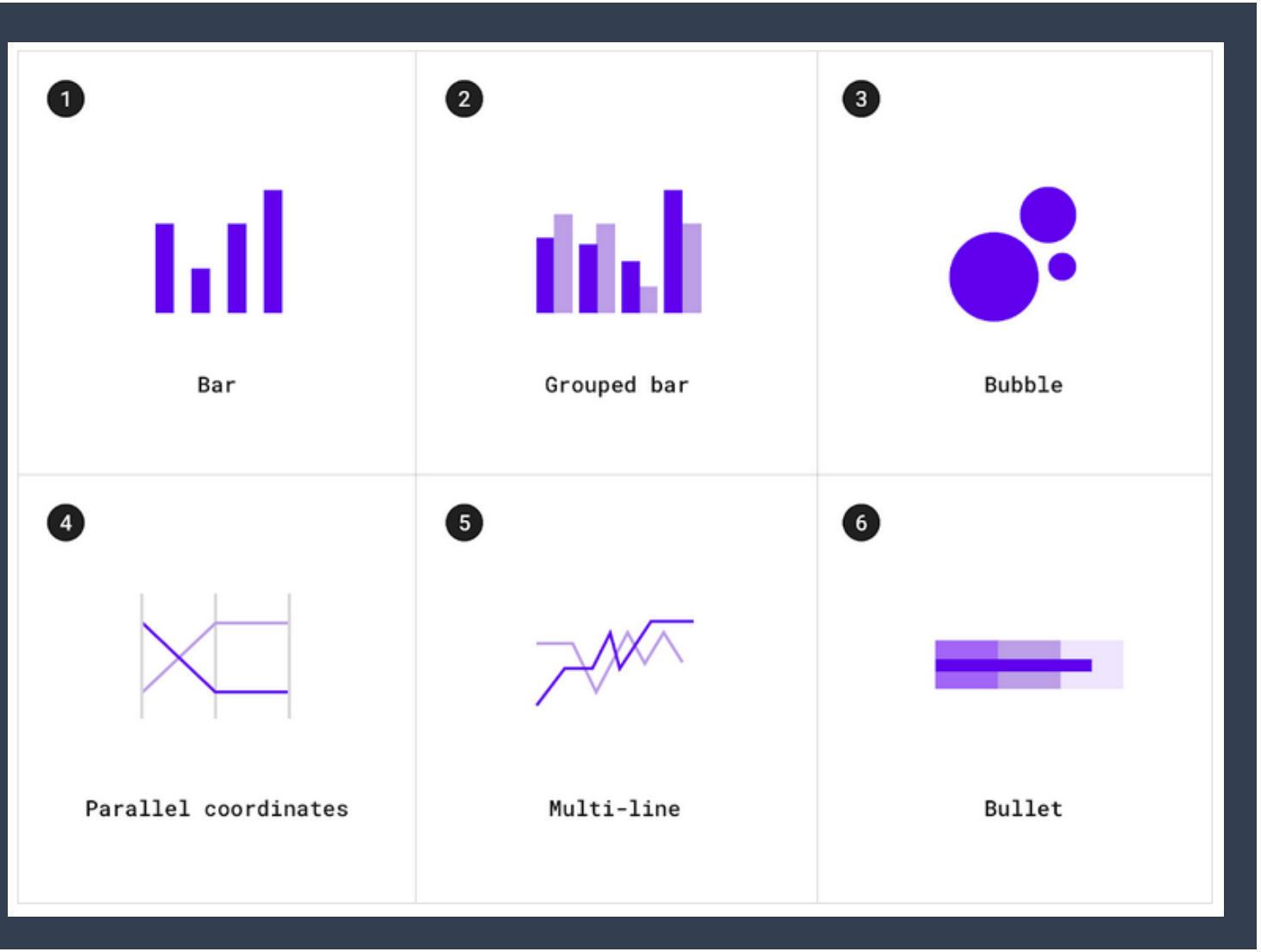
https://infogram.com/page/choose-the-right-chart-data-visualization



01 COMPARISON



Category comparison charts compare data between multiple distinct categories.



02 CORRELATION

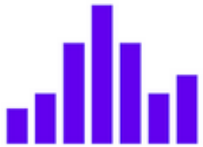
Correlation charts show correlation between two or more variables.

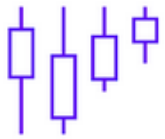
1.
Scatterplot

2.
Bubble

3.
Column / Line

4.
Heatmap

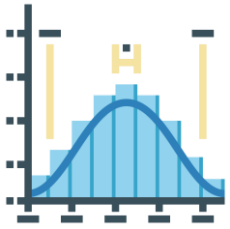
1. 
Histogram

2. 
Box plot

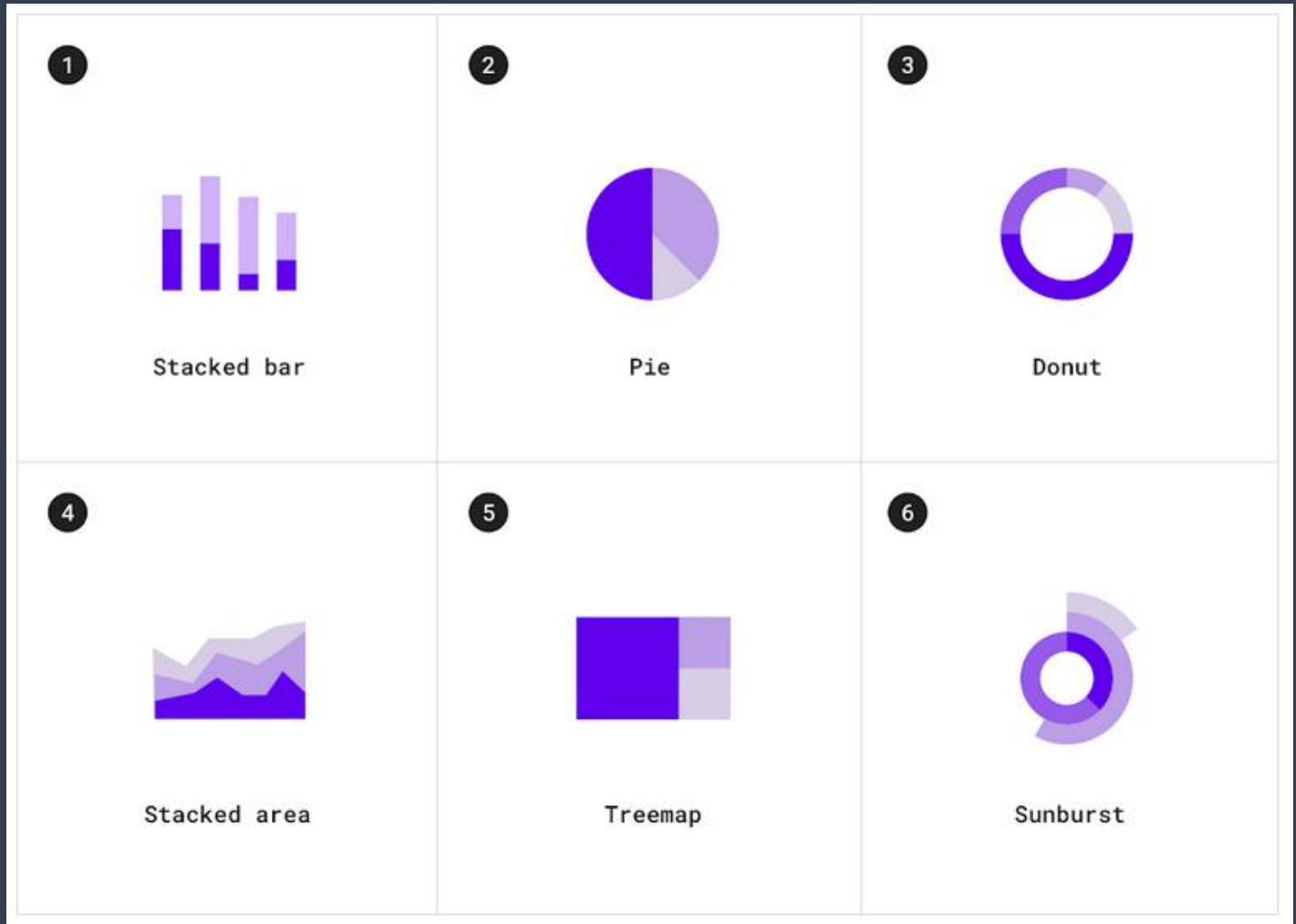
3.
Violin

4.
Density

Distribution charts show how often each values occur in a dataset



DISTRIBUTION 03

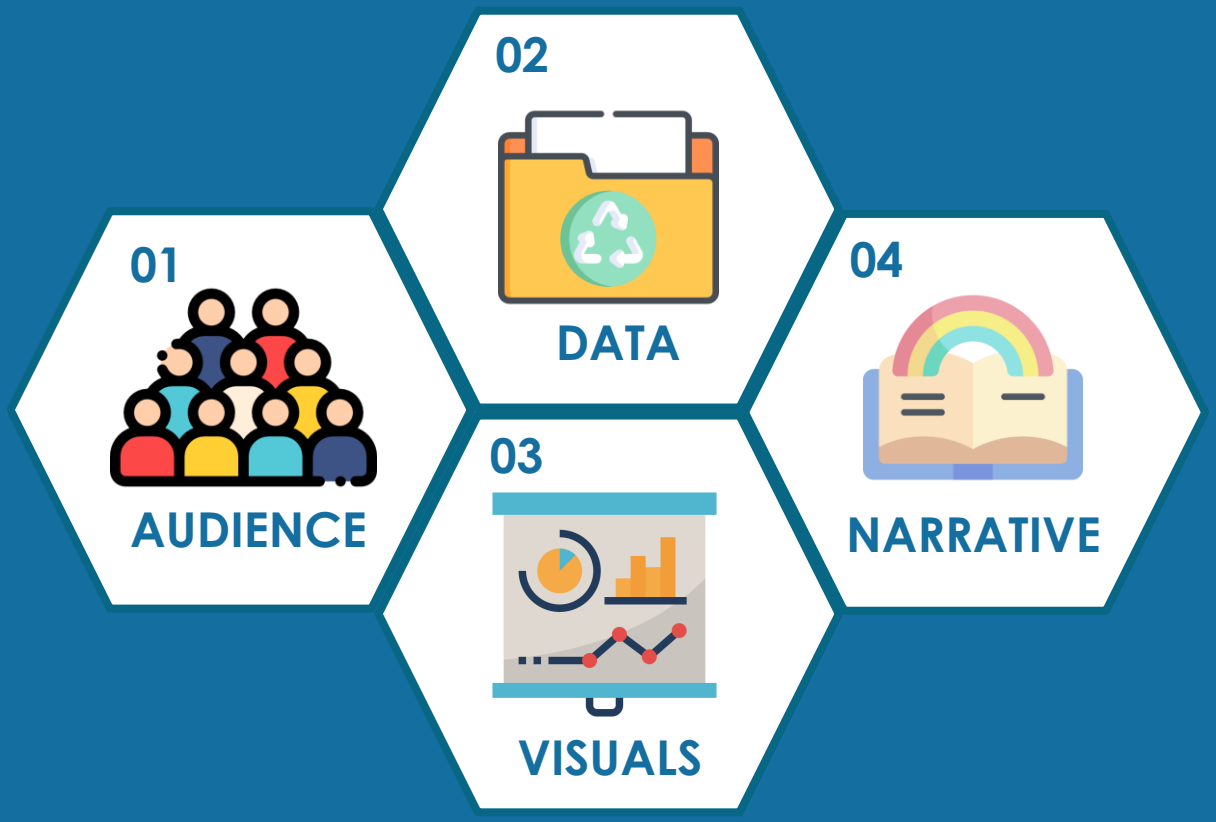


Composition charts show how partial elements add up to a total.

COMPOSITION 04

KEYS TO DATA STORYTELLING

by Isaac Reyes



1. Who is our audience? They will determine what data, chart, and design choice.
2. Use the right data.
3. Choose the right chart with solid grounding.
4. Make a story for your chart.

https://medium.com/@ODSC/isaac-reyes-on-the-key-principles-of-data-storytelling-at-odsc-east-2018-6bfcdcf581b2

Data VISUALIZATION TOOLS

tableau

Power BI

SAP Lumira

Thank you …