

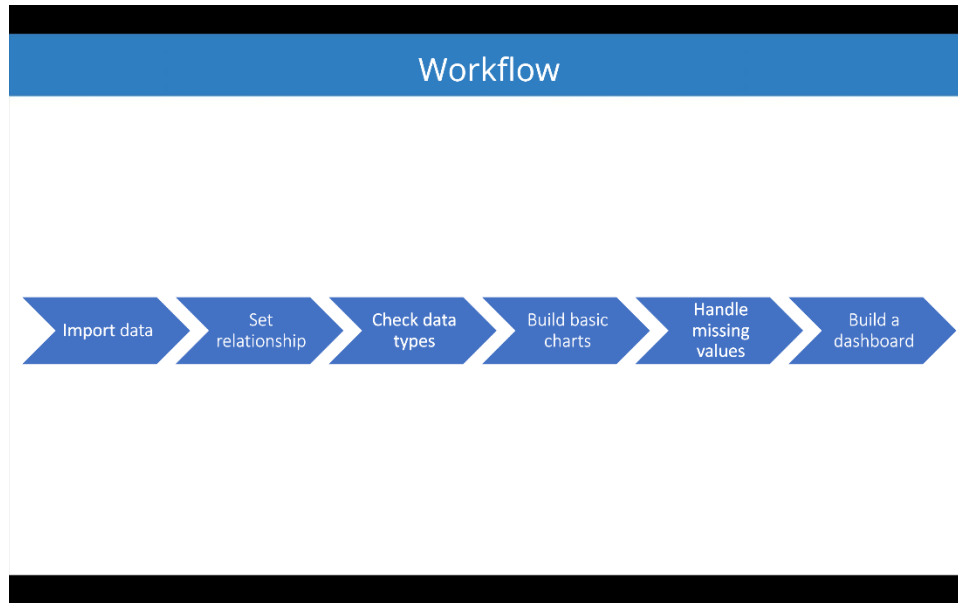
Assignment 1 Data Visualization

Third Task

Continuing with the Excel table 'The Wealth of nations'

Tableau

Remember to follow the workflow that we used in the workshop,as seen below:



- 1) Import data
- 2) Set relationships:

You have three sheets and the common column for all of them is country, so the visual arrangement of the sheets does not matter. Only the columns that you use to create the relationship matters. You can arrange the sheets in a straight line as seen below:

Life Expectancy+ (The Wealth of nations2)

Connections: The Wealth of nations2 (Microsoft Excel)

Sheets: GDP (Gross d...stic product), Life Expectancy, Smartphones, New Union

Life Expectancy — Smartphones — GDP (Gross domestic prod...)

Smartphones — GDP (Gros... 74 rows

How do relationships differ from joins? Learn more

Smartphones Operator GDP (Gross domesti...
 All Country (Smartp... = All Country (GDP (G...)

> Performance Options

Rank (Smartphones)	Country (Smartphones)	Smartphone Users	Date of Information (S...
1	China	1,598,360,000	2,020
2	India	1,281,971,713	2,020
3	Indonesia	385,573,398	2,020
4	United States	327,577,529	2,020
5	Brazil	284,200,000	2,020
6	Russia	256,116,000	2,020
7	Nigeria	167,371,945	2,020
8	Bangladesh	165,615,000	2,020
9	Bolivia	162,406,847	2,020

Or you can arrange it like this:

Life Expectancy+ (The Wealth of nations2)

Connections: The Wealth of nations2 (Microsoft Excel)

Sheets: GDP (Gross d...stic product), Life Expectancy, Smartphones, New Union

Life Expectancy — GDP (Gross domestic prod... — Smartphones

Smartphones 4 fields: 74 rows

Name: Smartphones

Fields:

Type	Field Name	Phys...	Rem...
Rank (Smartphones)	Rank (Smartphones)	Smart...	Rank (...)
Country (Smartphones)	Country (Smartphones)	Smart...	Coun...
Smartphone Users	Smartphone Users	Smart...	Smart...
Date of Information (Smartph...	Date of Information (Smartph...	Smart...	Date o...

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3) Check data types.

4) Build charts

You are now ready to create charts. Please make sure to create at least 4 visuals. There is no upper limit.

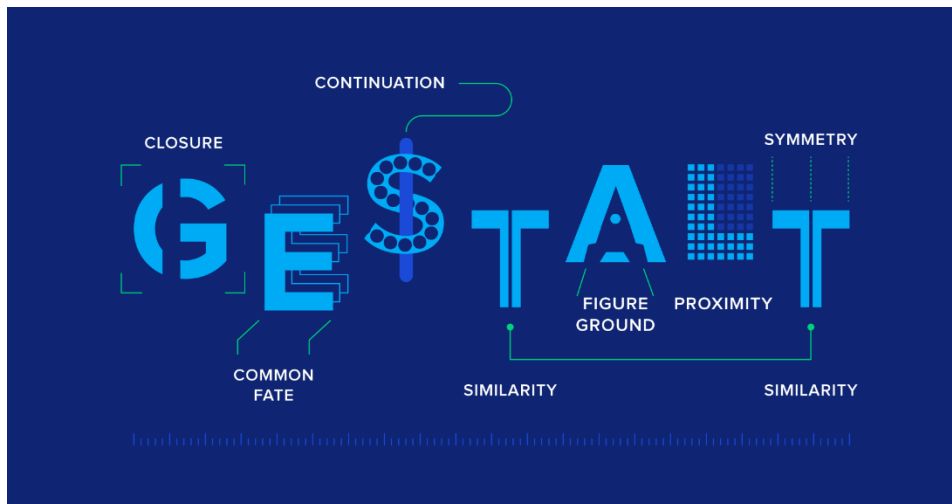
Client Requirements

The client is colour blind and requested you to bear this in mind when building your dashboard. The client is only interested in the top 20 highest ranking countries. All your visuals should be for the top 20 highest ranking countries.

- 5) As you create your charts, if you see a little gray box containing a count of null values, select the filter option.
- 6) Build your dashboard.

Best practices:

- Always add a title to the dashboard.
- Titles for graphs should be short but informative.
- Remember the Gestalt principles and apply them where appropriate:



Source: <https://www.toptal.com/designers/ui/gestalt-principles-of-design>

- Use sensible fields to create your chart.
- Great resources for colour blind friendly palettes in Tableau:

[5 Tips on Designing Colorblind-Friendly Visualizations \(tableau.com\)](https://tableau.com/learn/articles/5-tips-on-designing-colorblind-friendly-visualizations)

Best Practices for Designing Accessible Views - Tableau

- For aggregations such as averages, use a card.
- Use calculated fields to save space and keep only the highest/lowest values.
- If you are creating a map, remember to manually set locations for your map using map settings.
- Do not ignore or drop negative values.
- Do not convert negative values to absolute values.

- The year of information column can be a whole number. It does not necessarily need to be of type date/time.

Lastly

Now that you have completed your first assignment you will need to SAVE all your work into a folder named 'Assignment 1 Data Visualisation'. And keep this secure. Secondly email all your pieces of work to whoever is your trainer is.