Assignment_2 (revised 10/7)

Gapminder has a wealth of country-level statistics. This assignment is about exploring that data, and then presenting <u>what</u> you have noticed. Additionally, we are going to ask you to explain how you went about the coding of your presentation. fully document your source code (the <u>how</u> of this assignment).

Wrangling

From the Gapminder website (https://www.gapminder.org/data/) pick two individual indicators and download each of their data sets into .cvs (or .xlsx) data files. Wrangle these two data files into one tibble that is "tidy." (what's "tidy"? See section 2.3 of Tidy Data - Wickham.pdf).

The code to wrangle your data should be saved in an .R script named something like, "wrangling_code.R"

Visualizing

Create a ggplot visualization of this data. What you display and how you choose to do so is up to you. But you should be thinking about telling a story that you see in your data. Your visualization code should be written as a function (that takes a tibble as an input and returns the ggplot visualization). This should be saved in an .R script named something like, "visualization_function.R"

Presenting

Now - using your wrangling code and your visualization code, you are going to build two a single .Rmd file.

The .Rmd file will create an "outward-facing" document that is knit as an .html file, where you describe an interesting (to you, to us, to someone?) observation you have seen within two <u>subgroups</u> of your data (think *dplyr:filter()* or maybe *dplyr::group_by()* and *dplyr::summarise()*). The subgroups could be different time eras or different country groupings. In your "outward-facing" .html document you will describe your interesting observation and present your two comparative visualizations. This document will source the "wrangling_code.R" and the

"visualization_function.R", but will not display any visible code. This document is all about presenting WHAT you have noticed. Do not get caught up in trying to be profound or groundbreaking, and remember this is an assignment about programming not about publishing a result.

The **second** .Rmd file will be "inward facing" and knit as a .pdf file. In this document, you will explain to a classmate (or to "future you") what your code is doing. The markdown text within your .Rmd file, should give an overview of the code chunks. Within your code you should be commenting your code. This document is all about presenting HOW you created your visualization. NOTE: When you knit this .Rmd, you will need to make sure the code chunks from the sourced files are visible (use *echo=TRUE* in your *source()* call).

In addition to the .Rmd file, you should make sure that your two source files ("wrangling_code.R" and "visualization_function.R") are "inward facing." By that, we mean that you should include code comments that will help future-you or someone else understand the logic of your code.

Explaining

Finally, go to FlipGrid and:

- (1) do the "Hello, I am..." activity (https://flipgrid.com/96a9650b),
- (2) do the "How did I use git and GitHub" activity (https://flipgrid.com/85cbbe6d).