## Introduction to ggplot

## Setup

The following discussion assumes you have donwloaded R and RStudio. Additionally, the package suite tidyverse() which includes the package ggplot2() needs to be included.

- 1. For downloading R, visit <a href="https://cran.r-project.org/">https://cran.r-project.org/</a>
- 2. For downloading RStudio visit https://www.rstudio.com/
- 3. For downloading ggplot2(), type install.packages("ggplot2") or equivalently for tidyverse() type install.packages("tidyverse")

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ggplot() stands for "grammar of graphics" (Wilkinson 2005), (Wickham 2010).

This idea will be further explored by the means of data from the package gapminder(). To install, type install.packages("gapminder").

```
temp_data <- gapminder::gapminder</pre>
```

## References

Wickham, Hadley. 2010. "A Layered Grammar of Graphics." Journal of Computational and Graphical Statistics 19 (1): 3–28.

Wilkinson, Leland. 2005. The Grammar of Graphics (Statistics and Computing). Berlin, Heidelberg: Springer-Verlag.