# R Practice 4: dplyr

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# Intro to dplyr syntax

1. Load the gapminder and tidyverse packages.

# select()

- 1. Make a data frame containing the columns year, lifeExp, country from the gapminder data, in that order.
- 2. Select all variables, from country to lifeExp.
- 3. Select all variables, except lifeExp.
- 4. Rename continent to cont.

## arrange()

- 1. Order by year.
- 2. Order by year, in descending order.
- 3. Order by year, then by life expectancy.

## Piping, %>%

Note: think of %>% as the word "then"!

1. Combine select() Task 1 with arrange() Task 3.

#### filter()

- 1. Only take data with population greater than 100 million.
- 2. Of those, only take data from Asia.

#### mutate()

- 1. Make a new variable that is GDP instead of gdp per capita.
- 2. Make a new variable for GDP that is in millions
- 3. Make a new population variable that is the population in millions.

#### summarize()

- 1. Get the average GDP per capita
- 2. Get the average, minimum, maximum, and standard deviation for GDP per capita.
- 3. Get the average for GDP per capita, Life expectancy, and population

## group\_by()

- 1. Track the change in average GDP per capita over time. Hint, first group by year.
- 2. Get the average GDP per capita by continent.