

Gapminder Analysis

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Introduction

Here is my first document

Let's embed some R code

We'll write an R chunk that loads the tidyverse library and then reads in the GapMinder dataset from the Data subdirectory

```
library(tidyverse)

## -- Attaching packages ----- tidyverse 1.2.1 --
## v ggplot2 3.1.0      v purrr   0.3.1
## v tibble  2.0.1      v dplyr  0.8.0.1
## v tidyr   0.8.3      v stringr 1.4.0
## v readr   1.1.1      v forcats 0.3.0

## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()

gm <- read_csv("Data/gapminder.csv")

## Parsed with column specification:
## cols(
##   country = col_character(),
##   continent = col_character(),
##   year = col_integer(),
##   lifeExp = col_double(),
##   pop = col_integer(),
##   gdpPercap = col_double()
## )
```

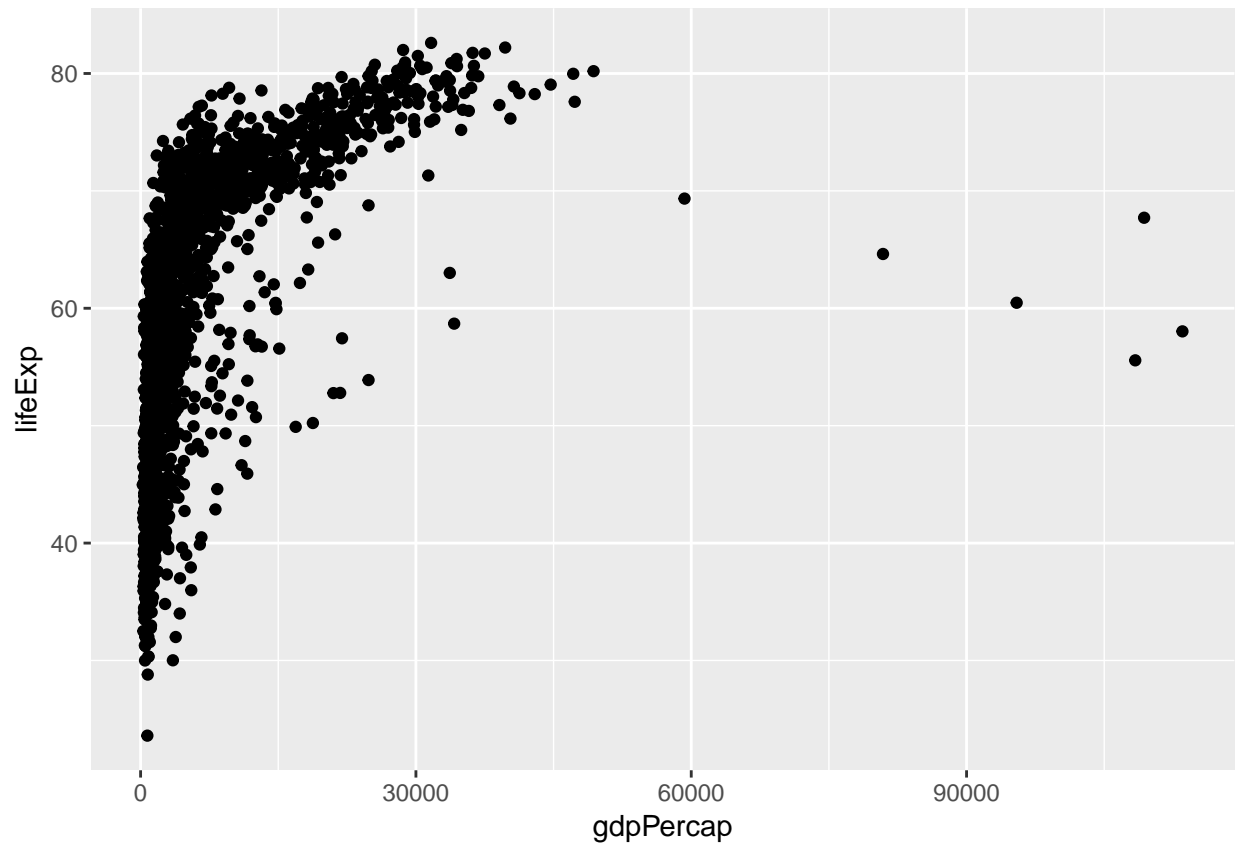


Figure 1: Life Exp vs GDP

Investigate gm

Let's look at the gm dataset

```
head(gm)
```

```
## # A tibble: 6 x 6
##   country    continent  year lifeExp      pop gdpPercap
##   <chr>      <chr>    <int> <dbl>    <int>    <dbl>
## 1 Afghanistan Asia      1952   28.8  8425333    779.
## 2 Afghanistan Asia      1957   30.3  9240934    821.
## 3 Afghanistan Asia      1962   32.0 10267083    853.
## 4 Afghanistan Asia      1967   34.0 11537966    836.
## 5 Afghanistan Asia      1972   36.1 13079460    740.
## 6 Afghanistan Asia      1977   38.4 14880372    786.
```

Our first plot

Showing gdp per capita on the x axis and life expectancy on the y

```
ggplot(gm, aes(gdpPercap, lifeExp)) + geom_point()
```

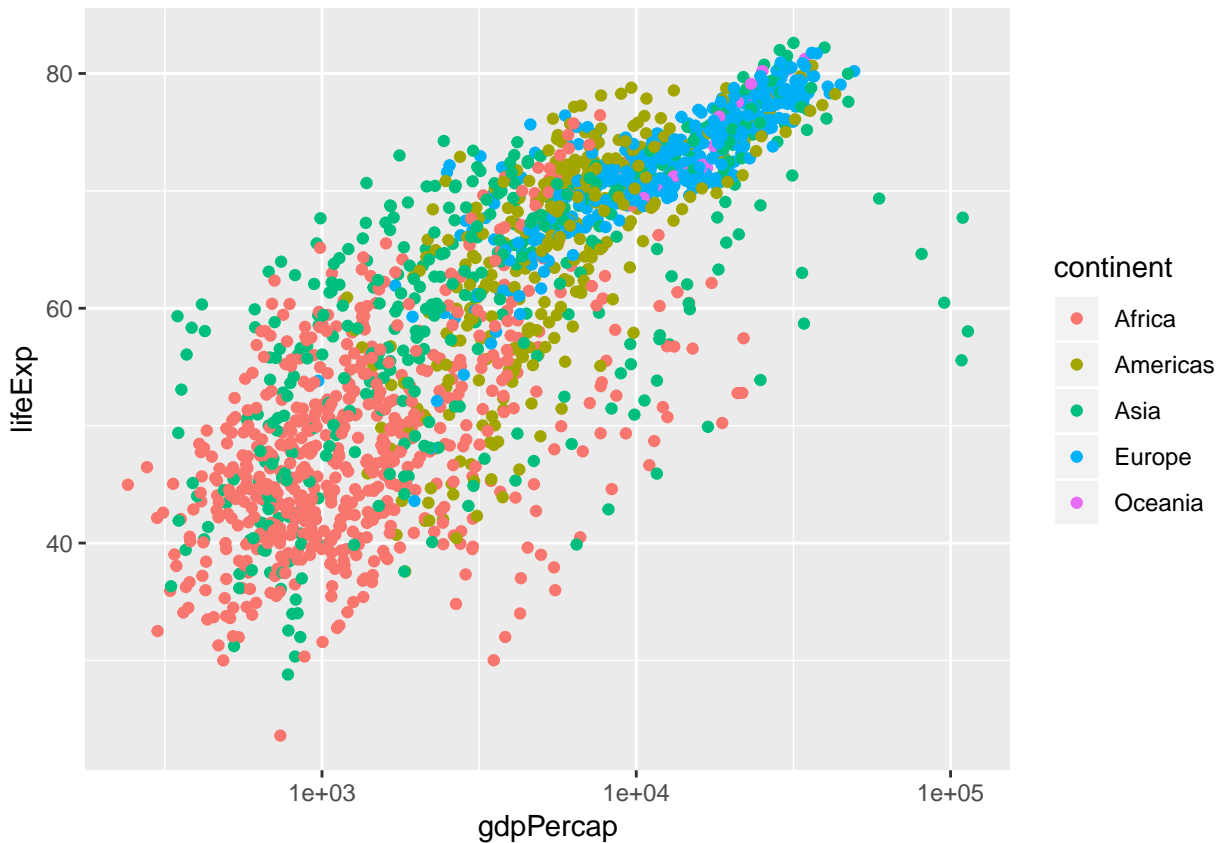


Figure 2: Life Exp vs GDP

A better plot

Adding color by continent and a log scaled x axis

```
ggplot(gm, aes(gdpPercap, lifeExp)) +
  scale_x_log10() +
  geom_point(aes(col=continent))
```

Trying out a table using kable

See some data using head

```
head(gm)
```

```
## # A tibble: 6 x 6
##   country    continent  year lifeExp      pop gdpPercap
##   <chr>      <chr>    <int> <dbl>    <int>    <dbl>
## 1 Afghanistan Asia      1952   28.8  8425333    779.
## 2 Afghanistan Asia      1957   30.3  9240934    821.
## 3 Afghanistan Asia      1962   32.0 10267083    853.
## 4 Afghanistan Asia      1967   34.0 11537966    836.
## 5 Afghanistan Asia      1972   36.1 13079460    740.
## 6 Afghanistan Asia      1977   38.4 14880372    786.
```

head as a table

country	continent	year	lifeExp	pop	gdpPercap
Afghanistan	Asia	1952	28.801	8425333	779.4453
Afghanistan	Asia	1957	30.332	9240934	820.8530
Afghanistan	Asia	1962	31.997	10267083	853.1007
Afghanistan	Asia	1967	34.020	11537966	836.1971
Afghanistan	Asia	1972	36.088	13079460	739.9811
Afghanistan	Asia	1977	38.438	14880372	786.1134