

## Exercise 2: R Markdown for Gapminder Exploration

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```
## -- Attaching packages -----
```

```
## v ggplot2 3.2.1      v purrr  0.3.2
```

```
## v tidyr  1.0.0      v dplyr  0.8.3
```

```
## v readr  1.3.1      v stringr 1.4.0
```

```
## v ggplot2 3.2.1      v forcats 0.4.0
```

```
## -- Conflicts -----
```

```
## x dplyr::filter() masks stats::filter()
```

```
## x dplyr::lag()     masks stats::lag()
```

#Data on Gapminder ## Population of Countries Here we show that gapminder has information on life expectancy, population, and GDP per capita of 142 countries from 1952

```
str(gapminder)
```

```
## Classes 'tbl_df', 'tbl' and 'data.frame':    1704 obs. of 4
```

```
## $ country   : Factor w/ 142 levels "Afghanistan",...: 1 1
```

```
## $ continent : Factor w/ 5 levels "Africa","Americas",...: 1 1
```

```
## $ year      : int  1952 1957 1962 1967 1972 1977 1982 19
```

## Summary of Gapminder Data

We summarize the gapminder data and show that life expectancy, populations and GDP per capita were collected between 1952 and 2007 in 5 continents.

```
summary(gapminder)
```

```
##           country      continent      year      life
## Afghanistan: 12 Africa :624 Min. :1952 Min.
## Albania : 12 Americas:300 1st Qu.:1966 1st Qu
## Algeria : 12 Asia :396 Median :1980 Median
## Angola : 12 Europe :360 Mean :1980 Mean
## Argentina : 12 Oceania : 24 3rd Qu.:1993 3rd Qu
## Australia : 12 Max. :2007 Max.
## (Other) :1632
##           pop      gdpPercap
## Min. :6.001e+04 Min. : 241.2
## 1st Qu.:2.794e+06 1st Qu.: 1202.1
## Median :7.024e+06 Median : 3531.8
## Mean :2.060e+07 Mean : 7215.2
```

## Number of data collected per continent

```
#{r} <<<<<< HEAD ===== #<<<<<< HEAD
#group_by(gapminder$continent) @
n_distinct(gapminder$country) ===== >>>>>>
8d0d2153fc09f15e9d6f7f76d387924fbe9a2b5b gapminder
%>% group_by(gapminder$continent)
counts<-n_distinct(gapminder$country)
plot(gapminder$continent,counts) #ggplots today
>>>>>> 8f88bcf05c1073c579a702624062a6846bf3deb8

#try to use gg plot #use a unique fnc instead of making a vector
for datapt (no penalty but good practice)

#use n_distinct to give the # of countries
```