tugas\_prakData

Arya Gilang

2022-11-01

## R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

summary(cars)

## speed dist   
## Min. : 4.0 Min. : 2.00   
## 1st Qu.:12.0 1st Qu.: 26.00   
## Median :15.0 Median : 36.00   
## Mean :15.4 Mean : 42.98   
## 3rd Qu.:19.0 3rd Qu.: 56.00   
## Max. :25.0 Max. :120.00

## Including Plots

You can also embed plots, for example:

library(dslabs)  
library(tidyverse)

## ── Attaching packages ─────────────────────────────────────── tidyverse 1.3.2 ──  
## ✔ ggplot2 3.3.6 ✔ purrr 0.3.4   
## ✔ tibble 3.1.8 ✔ dplyr 1.0.10  
## ✔ tidyr 1.2.1 ✔ stringr 1.4.1   
## ✔ readr 2.1.3 ✔ forcats 0.5.2   
## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## ✖ dplyr::filter() masks stats::filter()  
## ✖ dplyr::lag() masks stats::lag()

data(murders)

murders\_tibble <- as\_tibble(murders)  
murders\_tibble

## # A tibble: 51 × 5  
## state abb region population total  
## <chr> <chr> <fct> <dbl> <dbl>  
## 1 Alabama AL South 4779736 135  
## 2 Alaska AK West 710231 19  
## 3 Arizona AZ West 6392017 232  
## 4 Arkansas AR South 2915918 93  
## 5 California CA West 37253956 1257  
## 6 Colorado CO West 5029196 65  
## 7 Connecticut CT Northeast 3574097 97  
## 8 Delaware DE South 897934 38  
## 9 District of Columbia DC South 601723 99  
## 10 Florida FL South 19687653 669  
## # … with 41 more rows

murders\_tibble %>% group\_by(region)

## # A tibble: 51 × 5  
## # Groups: region [4]  
## state abb region population total  
## <chr> <chr> <fct> <dbl> <dbl>  
## 1 Alabama AL South 4779736 135  
## 2 Alaska AK West 710231 19  
## 3 Arizona AZ West 6392017 232  
## 4 Arkansas AR South 2915918 93  
## 5 California CA West 37253956 1257  
## 6 Colorado CO West 5029196 65  
## 7 Connecticut CT Northeast 3574097 97  
## 8 Delaware DE South 897934 38  
## 9 District of Columbia DC South 601723 99  
## 10 Florida FL South 19687653 669  
## # … with 41 more rows

exp(mean(log(murders$population)))

## [1] 3675209

murders %>%  
 .$population%>%  
 log %>%  
 mean %>%  
 exp

## [1] 3675209

murders %>%  
 .$population%>%  
 log %>%  
 mean %>%  
 exp

## [1] 3675209

library(dplyr)  
library(purrr)  
df <-1:100 %>%   
map\_df(~ tibble(n =(.x), s\_n=(.x )\*(.x+1)/2, s\_n\_2=(((.x)\*(.x+1)/2)\*((.x )\*(.x+1)/2))))  
print(df[1:100,])

## # A tibble: 100 × 3  
## n s\_n s\_n\_2  
## <int> <dbl> <dbl>  
## 1 1 1 1  
## 2 2 3 9  
## 3 3 6 36  
## 4 4 10 100  
## 5 5 15 225  
## 6 6 21 441  
## 7 7 28 784  
## 8 8 36 1296  
## 9 9 45 2025  
## 10 10 55 3025  
## # … with 90 more rows

Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.